SHEET INDEX:

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S-2	ANCHOR BOLT PLAN
LS-1	BUILDING LIFE SAFETY – EGRESS PLAN
LS-2	LIFE SAFETY & EGRESS PLAN-BLDG 2
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G2	INTERIOR RENOVATIONS, CALLOUTS & DIMS.
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G4	ADA ACCESSORIES/RESTROOM DETAIL
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P3	PLUMBING –NEW BLDG 1 WATER/WASTE PLAN
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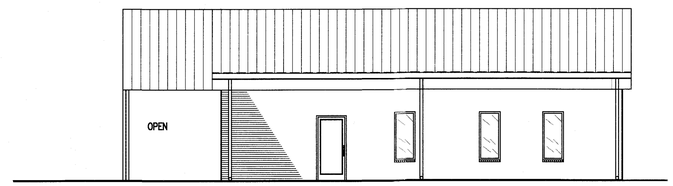
PROJECT:

BUILDING PLANS for:

FLAT BRANCH VFD

INTERIOR RENOVATIONS & ADMINISTRATION BUILDING



2098 ELLIOTT BRIDGE RD
BUNNLEVEL, NORTH CAROLINA, 28323

Reviewed for Fire Code Compliance
Harnett COUNTY NORTH CAROLINA
Leslie Jackson
02/21/2024 1:17:38 PM

NOTICE TO CONTRACTOR
All construction must comply with current NC Building Codes and is subject to field inspection and verification.
Reviewed for Code Compliance
02/27/2024
Harnett COUNTY NORTH CAROLINA

PROJECT TEAM:

BUILDING DEPARTMENT:

HARNETT COUNTY PLANNING & ZONING DEPARTMENT
420 MCKINNEY PKWY
LILLINGTON, NC 27546
910-893-7525

PROJECT DESIGNER:

JENKINS CONSULTING ENGINEERS, PA
OFFICE in EUREKA SPRINGS, NC
BUDDY JENKINS, PE KELLY DODSON, PE
1606 MCARTHUR ROAD
FAYETTEVILLE, NC 28311-1002
910-822-1724

CODE REVIEW:

APPLICABLE CODES INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

NORTH CAROLINA STATE BUILDING CODE: BUILDING CODE 2018

NORTH CAROLINA STATE BUILDING CODE: PLUMBING CODE 2018

NORTH CAROLINA STATE BUILDING CODE: MECHANICAL CODE 2018

2017 NATIONAL ELECTRICAL CODE

2009 STANDARD & COMMENTARY ICC/ANSI A117.1-2009 on ACCESSIBILITY

NORTH CAROLINA STATE BUILDING CODE: ENERGY CONSERVATION CODE 2018

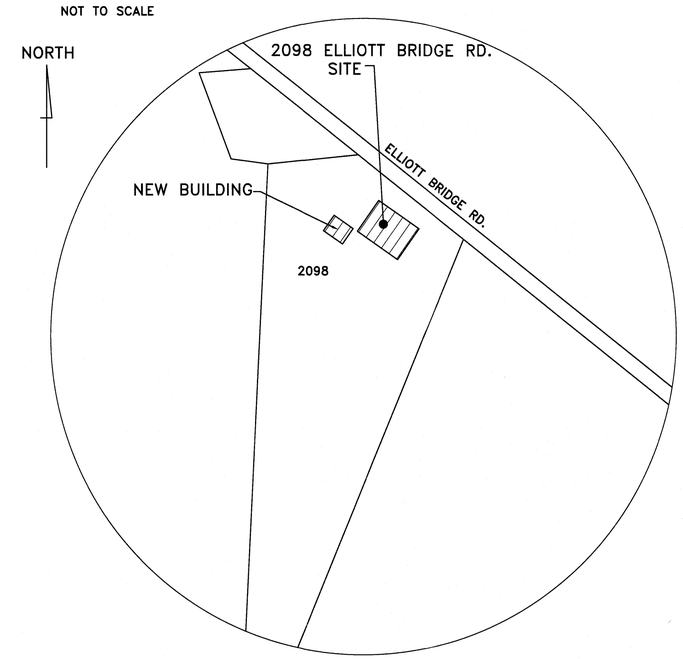
NORTH CAROLINA STATE BUILDING CODE: FIRE PREVENTION CODE 2018

THE 2018 EDITION OF THE LIFE SAFETY CODE NFPA 101

NORTH CAROLINA STATE BUILDING CODE: EXISTING BUILDING CODE 2018

VICINITY PLAN

NOT TO SCALE



BUILDING DATA:
THE PROJECT IS TO CONSTRUCT A NEW BUILDING FOR USE AS AN ADMINISTRATIVE OFFICE FOR THE VOLUNTEER FIRE DEPARTMENT AND TO RENOVATE INTERIOR SPACES OF THE EXISTING FIRE STATION

NORTH CAROLINA PROFESSIONAL SEAL C-3070 CORPORATION JENKINS CONSULTING ENGINEERS PA
JENKINS CONSULTING ENGINEERS, PA
OFFICE in: EUREKA SPRINGS, NORTH CAROLINA
WORK WITHIN: NORTH CAROLINA, VIRGINIA, WEST VIRGINIA
CORPORATION NUMBER C-3070 Buddy@jenkinscse.pro
910.822.1724 FAX 910.835.5907

NORTH CAROLINA PROFESSIONAL SEAL 42009 ENGINEER KELLY J. DODSON
8 JANUARY 2024

DESIGNED BY: K. DODSON
DRAWN BY: JDL, MJ
PROJECT #: 2023-05-19
DATE: 8 JAN 2024

FINAL DRAWING ☐ FOR REVIEW PURPOSES ONLY
PRELIMINARY ☐ FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING ☑ FOR CONSTRUCTION

OWNER/TENANT:
FLAT BRANCH FIRE DEPT.
2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323

CONTRACTOR/BUILDER:

PROJECT:
NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET:
COVER SHEET & INDEX TO DRAWINGS

CS

SCALE: 1/8" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 3/16" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 1" = 1'-0" SCALE: 1-1/2" = 1'-0"

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 6dec23-MD.dwg
Plotted by: Michael
Plotted Date: Feb 02, 2024 - 4:47pm

2018 NORTH CAROLINA BUILDING CODE SUMMARY: APPENDIX B

Name of Project: NEW ADMINISTRATION BUILDING & INTERIOR RENOVATION ParID / PIN: 0536-48-7346.000
Address: FLAT BRANCH VOLUNTEER FIRE DEPARTMENT 2098 ELLIOTT BRIDGE RD Zip Code: 28323
Proposed Use: –
Owner or Authorized Agent: MIKE BROWN Phone – E-Mail mbrownfirechief@gmail.com
Owned By: ☐City/County ☑Private ☐State
Code Enforcement Jurisdiction: ☐City BUNNLEVEL ☑County HARNETT ☐State NORTH CAROLINA

CONTACT: KELLY J. DODSON

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	N/A	N/A	N/A	N/A	N/A
Civil	N/A	N/A	N/A	N/A	N/A
Electrical	JCE	DOUGLAS L. JENKINS	NC PE 28803	(910) 822-1724	buddyj@jenkinsce.pro
Fire Alarm	N/A	N/A	N/A	N/A	N/A
Plumbing	JCE	DOUGLAS L. JENKINS	NC PE 28803	(910) 822-1724	buddyj@jenkinsce.pro
Mechanical	JCE	DOUGLAS L. JENKINS	NC PE 28803	(910) 822-1724	buddyj@jenkinsce.pro
Sprinkler-Standpipe	N/A	N/A	N/A	N/A	N/A
Structural :	N/A	N/A	N/A	N/A	N/A
INTERIOR WALLS	N/A	N/A	N/A	N/A	N/A
Retaining Walls >5' High	N/A	N/A	N/A	N/A	N/A
Building	JCE	KELLY J. DODSON	NC PE 42009	(910) 822-1724	kellyd@jenkinsce.pro

2018 NORTH CAROLINA BUILDING CODE: ☑New Building ☐Addition ☐Shell / Core ☐Phased Construction – Shell Core ☐First Time Interior Completions

2018 NORTH CAROLINA EXISTING BUILDING CODE: (check all that apply)
☐Prescriptive ☐Repair ☐Chapter 14
☐Alteration Level I ☑Alteration Level II ☐Alteration Level III
☐Historic Property ☐Change of Use

CONSTRUCTED: (date) 1999 CURRENT USE (S) (Ch. 3): BUSINESS
RENOVATED: (date) N/A PROPOSED USE (S) (Ch. 3): BUSINESS
OCCUPANCY RISK CATEGORY (Table 1604.5): Current: IV Proposed: IV

BASIC BUILDING DATA
Construction Type: (check all that apply) ☐I-A ☐I-B ☐II-A ☐II-B ☐III-A ☑III-B ☐IV ☐ ☐V-A ☐V-B
Sprinklers: ☑No ☐Partial ☐NFPA 13 ☐NFPA 13R ☐NFPA 13D
Standpipes: ☑No Class ☐I ☐II ☐III ☐Wet ☐Dry
Primary Fire District: ☑No ☐Yes (APPENDIX D) Flood Hazard Area: ☑No ☐Yes
Special Inspections Required: ☑No ☐Yes

GROSS BUILDING AREA TABLE

FLOOR	EXISTING (sq ft)	NEW (sq ft)	SUBTOTAL
BLDG-1	7,654		
BLDG-2		1,857	
TOTAL BUILDING AREA	7,654	1,857	9,511

ALLOWABLE AREA

Primary Occupancy Classification(s):
Assembly ☐A-1 ☐A-2 ☐A-3 ☐A-4 ☐A-5
Business ☑
Educational ☐
Factory ☐F-1 Moderate ☐F-2 Low
Hazardous ☐H-1 Detonate ☐H-2 Deflagrate ☐H-3 Combust ☐H-4 Health ☐H-5 HPM
Institutional ☐I-1 ☐I-2 ☐I-3 ☐I-4
I-1 Condition ☐1 ☐2
I-2 Condition ☐1 ☐2
I-3 Condition ☐1 ☐2 ☐3 ☐4 ☐5
Mercantile ☐
Residential ☐R-1 ☐R-2 ☐R-3 ☐R-4
Storage ☐S-1 Moderate ☐S-2 Low ☐High-piled ☐Parking Garage ☐Open ☐Enclosed ☐Repair Garage
Utility and Miscellaneous ☐

Accessory Occupancy Classification(s):
Incidental Uses (Table 509): NONE
This separation is not exempt as a Non-separated Use (see exceptions).
Special Uses (Chapter 4): ☐402 ☐403 ☐404 ☐405 ☐406 ☐407 ☐408 ☐409 ☐410 ☐411 ☐412 ☐413 ☐414 ☐415 ☐416 ☐417 ☐418 ☐419 ☐420 ☐421 ☐422 ☐423 ☐424 ☐425 ☐426 ☐427 ☐428 ☐429 ☐430
Special Provisions (Chapter 5): ☐510.2 ☐510.3 ☐510.4 ☐510.5 ☐510.6 ☐510.7 ☐510.8 ☐510.9
Mixed Occupancy: ☐No ☑Yes Separation: ___ Hr. Exception: ___
☑Non-separated Use (508.3)
☐Separated Use (508.4) --See below for area calculations for each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area of each use shall not exceed 1.

Separated Use Formula 508.4.2: $\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1$

_____ + _____ = ___ ≤ 1.00

STORY NUMBER	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2[4] AREA	(C) AREA FOR FRONTAGE INCREASE[1, 5]	(D) ALLOWABLE AREA PER STORY OR UNLIMITED[2, 3]
1	BUSINESS	1,857	19,000	N/A	19,000

1 Frontage area increases from Section 506.3 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = _____ (F)
b. Total Building Perimeter = _____ (P)
c. Ratio (F/P) = _____ (F/P)
d. W = Minimum width (weighted average) of public way = ___ (W) where $W=(L_1 \times w_1 + L_2 \times w_2)/F$ (Equation 5-4)
e. Percent of frontage increase = $I_f = 100\,[F/P - 0.25] \times W/30$ = _____ (%) (Equation 5-5)

FRONTAGE INCREASE WORKSHEET for CALCULATIONS:

EXTERIOR WALL	(F) OPEN LENGTH (feet)	(P) TOTAL LENGTH (feet)	(W) (weighted average) WIDTH OF PUBLIC WAY OR OPEN SPACE (feet)	(%) FROM CALC. ABOVE	(B) FROM TABLE ABOVE	AREA INCREASE FOR COLUMN (C) ABOVE (% * TABLE AREA)
North						
South						
East						
West						
TOTAL						
EXAMPLE	75	100	25	42	23,500	(.42*23,500 = 9,870)

2 Unlimited area applicable under conditions of Sections 507
3 Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (Section 506.2).
4 The maximum area of open parking garages must comply with Table 406.5.4. The maximum area of air traffic control towers must comply with Table 412.3.1
5 Frontage increase is based on the unsprinklered area value in Table 506.2.

BUILDING CODE SUMMARY (continued)

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)	–	–	–
Building Height in Stories (Table 504.4)	–	–	–

1. Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (feet)	RATING ** (TABLE 601) REQ'D II-B	RATING ** (TABLE 601) PROVIDED (w/ ___ * REDUCTION	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
Structural Frame, including columns, girders, trusses		0					
Bearing Walls Exterior		2					
North							
East							
West							
South							
Interior		0					
Nonbearing walls and partitions Exterior walls							
North							
East							
West							
South							
Interior Non-Bearing Walls		0					
Floor construction including supporting beams and joists		0					
Floor Ceiling Assembly							
Columns Supporting Floors							
Roof construction including supporting beams and joists		0					
Roof Ceiling Assembly							
Columns Supporting Roof							
Shaft Enclosures – Exit							
Shaft Enclosures – Other							
Corridor Separation							
Occupancy / Fire Barrier Separation							
Party/Fire Wall Separation							
Smoke Barrier Separation							
Smoke Partition							
OWNER/Dwelling Unit/ Sleeping Unit Separation							
Incidental Use Separation							

* Indicate section number permitting reduction

PERCENTAGE OF WALL OPENING CALCULATIONS

EXTERIOR WALL	FIRE SEPARATION DISTANCE (feet) FROM PROPERTY LINE	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
North	–	–	–	–
South	–	–	–	–
East	–	–	–	–
West	–	–	–	–

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: ☑Yes ☐No
Exit Signs: ☑Yes ☐No
Fire Alarm: ☐Yes ☑No
Smoke Detection Systems: ☐Yes ☑No ☑Bunk Rooms existing to remain
Carbon Monoxide Detection: ☐Yes ☑No
Life Safety Systems Generator: ☑Yes ☐No

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: LS-1 & LS-2

- ☐ Fire and/or smoke rated wall locations (Chapter 7)
- ☐ Assumed and real property line locations (if not on the site plan)
- ☐ Exterior wall opening area with respect to distance to assumed property lines (705.8)
- ☑ Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)
- ☑ Occupant loads for each area
- ☑ Exit access travel distances (1017)
- ☐ Common path of travel distances [1006.2.1 & 1006.3.2(1)]
- ☐ Dead end lengths (1020.4)
- ☑ Clear exit widths for each exit door
- ☑ Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
- ☑ Actual occupant load for each exit door
- ☐ A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation
- ☐ Location of doors with panic hardware (1010.1.10)
- ☐ Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
- ☐ Location of doors with electromagnetic egress locks (1010.1.9.9)
- ☐ Location of doors equipped with hold-open devices
- ☐ Location of emergency escape windows (1030)
- ☐ The square footage of each fire area (903)
- ☐ The square footage of each smoke compartment for Occupancy Classification I-II (407.5)
- ☐ Note any code exceptions or table notes that may have been utilized regarding the items above

ACCESSIBLE DWELLING UNITS (SECTION 1107)

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED
NONE REQUIRED							

ACCESSIBLE PARKING (SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	TOTAL # OF PARKING SPACES PROVIDED	# OF ACCESSIBLE SPACES PROVIDED: REGULAR WITH 5' ACCESS AISLE	VAN SPACES WITH 132" ACCESS AISLE	VAN SPACES WITH 96" ACCESS AISLE	TOTAL # ACCESSIBLE PROVIDED
	EXISTING PARKING TO REMAIN					
BUSINESS		15	1			16
TOTAL		–	–			16

BUILDING CODE SUMMARY (continued)

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

USE	WATER CLOSETS MALE	WATER CLOSETS FEMALE	WATER CLOSETS UNISEX	URINALS	LAVATORIES MALE	LAVATORIES FEMALE	LAVATORIES UNISEX	SHOWERS/ TUBS	DRINKING FOUNTAINS REGULAR	DRINKING FOUNTAINS ACCESSIBLE	SERVICE SINK
BUSINESS EXISTING	1	2	2	1	1	1	2	2	1		1*
NEW FIXTURES	1	1	–	–	1	1	0	–	1	1	
TOTAL	2	3	2	1	2	2	2	2	2	1	1

*BOTH BUILDINGS 1 & 2 WILL SHARE SERVICE SINK LOCATED IN BUILDING 1

SPECIAL APPROVALS:

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, ICC, etc., describe below)

ENERGY SUMMARY

ENERGY REQUIREMENTS:
The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. *Each Designer shall furnish the required portions of the project information for the plan data sheet. If* performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Existing building envelope complies with code: ☐ (If checked, the remainder of this section is not applicable.)

Exempt Building: ☐ Provide code or statutory reference: ___

Climate Zone: ☐ 3A ☑ 4A ☐ 5A HARNETT COUNTY

Method of Compliance:
Energy Code: ☐Performance ☑Prescriptive
ASHRAE 90.1: ☐Performance ☐Prescriptive
Other: ☐Performance (specify source)

Value of total assembly:

THERMAL ENVELOPE: (Prescriptive method only)
Roof/ceiling Assembly (each assembly)
Description of assembly: METAL ROOF PANEL
U-Value of total assembly: ___
R-Value of insulation: R-19+R11 LS
Skylights in each assembly: NONE
U-Value of skylight: ___
Total square footage of skylights in each assembly: ___

Exterior Walls (each assembly)
Description of assembly: METAL WALL PANEL
U-Value of total assembly: ___
R-Value of insulation: R0+R-19 CI
Openings (windows or doors with glazing)
U-Value of assembly: ___
Solar heat gain coefficient: ___
Projection factor: ___
Door *R*-Values: ___

Walls below grade (each assembly)
Description of assembly: NONE
U-Value of total assembly: ___
R-Value of insulation: ___

Floors over unconditioned space (each assembly)
Description of assembly: ___
U-Value of total assembly: ___
R-Value of insulation: ___

Floors slab on grade
Description of assembly: 4" CONCRETE SLAB
U-Value of total assembly: ___
R-Value of insulation: ___
Horizontal/vertical requirement: ___
slab heated: ___

MECHANICAL SUMMARY (SEE DRAWING SHEET M1)

ELECTRICAL SUMMARY (SEE DRAWING SHEET E1)

SITE CLASSIFICATION: B
WIND SPEED: 130MPH

HARNETT COUNTY
BUILDING CODE SUMMARY
for:

NEW ADMINISTRATION BUILDING & INTERIOR RENOVATION

for

FLAT BRANCH VOLUNTEER FIRE DEPT.

2098 ELLIOTT BRIDGE RD
BUNNLEVEL, NC 28323

NORTH CAROLINA PROFESSIONAL SEAL C-3070 CORPORATION JENKINS CONSULTING ENGINEERS, PA
JENKINS CONSULTING ENGINEERS, PA
OFFICE in EUREKA SPRINGS, NORTH CAROLINA
1606 McARTHUR RD. FAYETTEVILLE, NC 28311-1002
CORPORATION NUMBER C-3070 BuddyJ@jenkinsce.pro
910.822.1724 FAX 910.835.5907
NORTH CAROLINA PROFESSIONAL SEAL 42009 ENGINEER KELLY J. DODSON
15 NOVEMBER 2023

DESIGNED BY: K. DODSON
DRAWN BY: JDL
PROJECT #: 2023-05-19
DATE: 15 NOVEMBER 2023

FINAL DRAWING ☐ FOR REVIEW PURPOSES ONLY
PRELIMINARY ☐ FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING ☑ FOR CONSTRUCTION

OWNER/TENANT: FLAT BRANCH FIRE DEPT. 2098 ELLIOTT BRIDGE RD, BUNNLEVEL, NC 28323

CONTRACTOR/BUILDER:

PROJECT: *NEW ADMIN BUILDING & INTERIOR RENOVATION*
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET: BUILDING CODE SUMMARY

BCS

SCALE: 1-1/2" = 1'-0" SCALE: 1" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 3/16" = 1'-0" SCALE: 1/8" = 1'-0"

REINFORCING STEEL
ALL REINFORCING STEEL SHALL BE DEFORMED STEEL BARS CONFORMING TO A.S.T.M. A615, GRADE 60.
ALL REINFORCING STEEL SHALL BE MANUFACTURED, DETAILED, FABRICATED AND PLACED IN ACCORDANCE
WITH A.C.I. 315R, 318R AND A.C.I. SP 66.
WELDED WIRE FABRIC SHALL CONFORM TO A.S.T.M. A185, IN AS LONG A LENGTH AS IS PRACTICAL. WELDED
WIRE FABRIC SHALL BE LAPPED AT LEAST ONE GRID WIDTH PLUS 2".
REINFORCEMENT SHALL BE BENT COLD AND SHALL NOT BE WELDED.

SPLICES:
REINFORCEMENT IN CONCRETE AND MASONRY SHALL HAVE LAP LENGTHS AS FOLLOWS, UNLESS OTHERWISE
SPECIFIED ON DRAWINGS:

BAR SIZE:	IN CONCRETE:	IN MASONRY:
#3	1'-6"	2'-0"
#4	2'-0"	2'-6"
#5	2'-6"	3'-0"

PLACEMENT:
REINFORCEMENT SHALL BE ACCURATELY PLACED AND SUPPORTED BY CONCRETE, METAL, OR OTHER APPROVED
CHAIRS, SPACERS OR TIES, AND SECURED AGAINST DISPLACEMENT DURING CONCRETE OR GROUT PLACEMENT.

EXCEPT WHERE OTHERWISE NOTED, REINFORCEMENT SHALL HAVE CONCRETE COVER AS FOLLOWS:

CONCRETE DEPOSITED AGAINST EARTH	3"
FORMED CONCRETE AGAINST EARTH	2"
EXTERIOR FACES OF WALLS	1"
TO TOP OF SLABS-ON-GRADE	3/4"

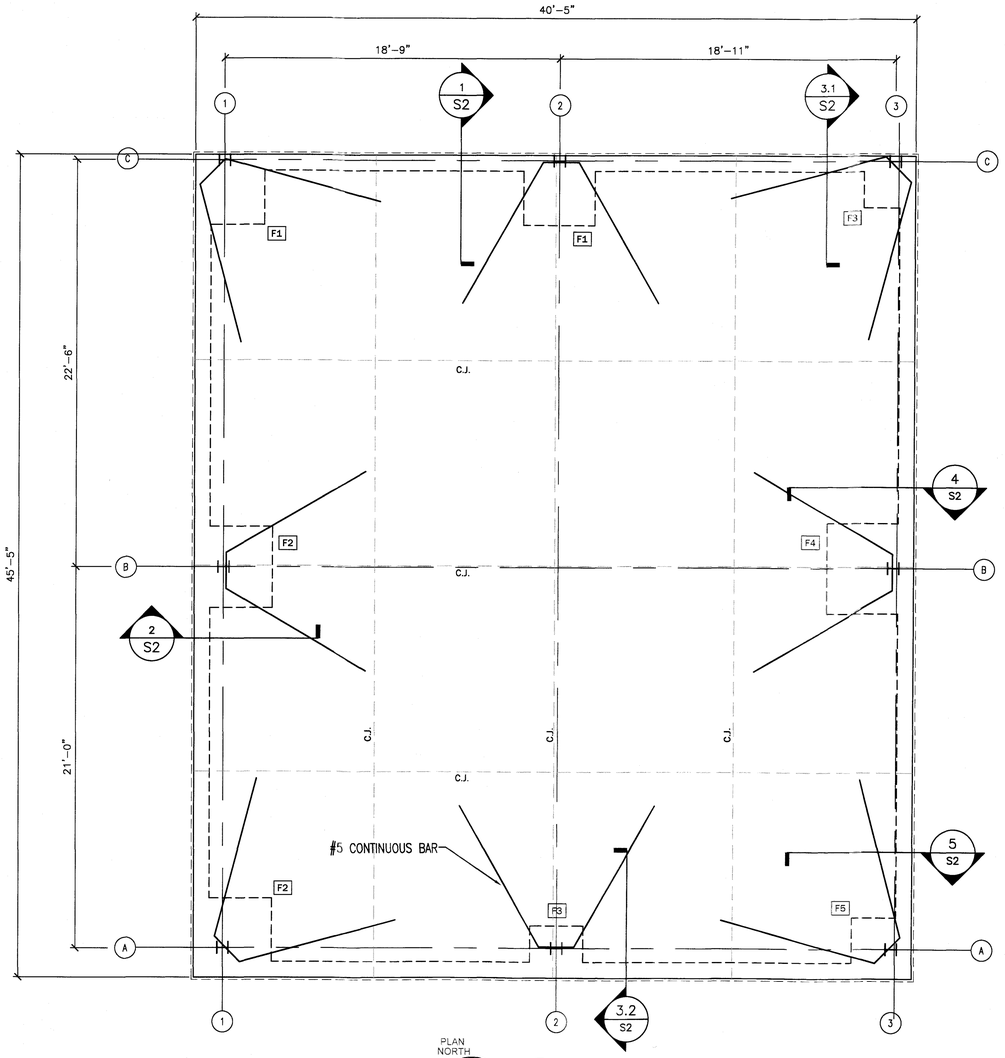
ALL SCALES, LOOSE RUST, GREASE OR DIRT SHALL BE REMOVED FROM THE REINFORCING BEFORE IT IS PLACED.
PROVIDE #5 "HAIRPIN" X 20' LONG AT EXTERIOR COLUMN LINES.
ANCHOR BOLTS SHALL BE (A-3077) HIGH STRENGTH.

SOIL TREATMENT:
ADMINISTRATION AS ACCEPTABLE

GENERAL CONDITIONS
THE GENERAL CONTRACTOR SHALL MAKE ADEQUATE SANITARY PROVISIONS.
THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR JOB SAFETY AND COMPLIANCE WITH THE REQUIREMENTS
OF THE OCCUPATIONAL SAFETY AND HEALTH ACT AS IT MAY REGARD ANY PHASE OF THE WORK ON THIS PROJECT.

SOIL COMPACTION AND TESTING
THE GENERAL CONTRACTOR SHALL OBTAIN THE SERVICES OF A TESTING LABORATORY, SUCH AS S&ME OR LAW
ENGINEERING FOR THE PURPOSE OF DETERMINING THE SUITABILITY OF THE SUBSURFACE CONDITIONS AND THE
BEARING CAPACITIES OF ALL AREAS BELOW CONCRETE (2000psf ASSUMED)..
THE SOIL AND BEARING REPORT SHALL BE SUBMITTED PRIOR TO EXCAVATING, WHERE POSSIBLE, BUT PRIOR TO
PLACEMENT OF ANY REINFORCING AND CONCRETE.

CONCRETE WORK
1. ALL CONCRETE FOR THE PROJECT SHALL BE "READY MIX" AND SHALL COMPLY WITH ASTM C-94. ALL SECTIONS OF THE CONCRETE WORK SHALL COMPLY WITH ALL A.S.T.M. AND A.C.I. REQUIREMENTS.
2. FORM WORK – ALL FORMS TO BE CAREFULLY BUILT AND SECURED IN PLACE IN SUCH A MANNER AS TO HAVE SUFFICIENT STRENGTH TO CARRY THE DEAD WEIGHT OF THE CONSTRUCTION AS A LIQUID, WITHOUT DEFLECTION OR VIBRATION. FORMS TO BE BUILT TIGHT, TRUE TO POSITION AND DIRECTION, THOROUGHLY BRACED, WIRED AND SPIKED OR OTHERWISE FASTENED TOGETHER.
3. CONCRETE – MINIMUM OF 3,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS, MINIMUM OF FIVE SACKS OF CEMENT PER CUBIC YARD OF CONCRETE, MAXIMUM OF 4" SLUMP.
4. FINISHING – IN ACCORDANCE WITH THE LATEST A.C.I. CODE, PLUMB, LEVEL, TRUE IN LINE, FREE OF HONEYCOMB. BUILDING SLAB SHALL HAVE A HARD STEEL TROWEL FINISH. WALKS SHALL HAVE BROOMED FINISH AND EXPANSION JOINTS AT APPROXIMATELY 50'-0" O.C. AND DUMMY JOINTS AS SHOWN ON THE SITE PLAN.
5. REMOVAL OF FORMS – FORMS SHALL BE CAREFULLY REMOVED SO AS NOT TO IMPAIR THE FACE OF THE
CONCRETE. IMMEDIATELY AFTER THE FORMS ARE REMOVED ALL DAMAGE OF IMPERFECT WORK SHALL BE
PATCHED IN A NEAT AND WORKMANLIKE MANNER OR IF BADLY DAMAGED, IN THE OPINION OF THE OWNER,
THE WORK SHALL BE REBUILT. THE MINIMUM TIME BEFORE ANY FORMS CAN BE REMOVED IS SEVEN (7) DAYS FOR SUCH MEMBERS AS ARE SUBJECT TO BENDING STRESSES, SUCH AS SLABS.
6. CURING – USE MEMBRANE CURING METHOD. USE MFG. RATE, SPRAY IMMEDIATELY FOLLOWING FINISHING.
PROTECT FROM FREEZING WEATHER, CURE A TOTAL OF 28 DAYS USING A.C.I. METHODS.



2 S1 FOUNDATION PLAN
1/4" = 1'-0"

STRUCTURAL DESIGN

DESIGN LOADS:

Importance Factors: Snow (Is) 1.20
Seismic (Ie) 1.50

Live Loads: Roof 20 psf
Mezzanine (Equipment Platform) N/A psf
Floor 100 psf

Ground Snow Load: 10 psf

Wind Load: Ultimate Wind Speed 132 mph (ASCE-7)
Exposure Category B

SEISMIC DESIGN CATEGORY: ☐ A ☐ B ☑ C ☐ D
Provide the following Seismic Design Parameters:
Risk Category (Table 1604.5) ☐ I ☐ II ☐ III ☑ IV
Spectral Response Acceleration SS 14 %g S1 6.70 %g
Site Classification (ASCE 7) ☐ A ☐ B ☐ C ☑ D ☐ E ☐ F
Data Source: ☐ Field Test ☑ Presumptive ☐ Historical Data
Basic structural system ☐ Bearing Wall ☐ Dual w/Special Moment Frame
☑ Building Frame ☐ Dual w/Intermediate R/C or Special Steel
☐ Moment Frame ☐ Inverted Pendulum
Analysis Procedure: ☑ Simplified ☐ Equivalent Lateral Force ☐ Dynamic
Architectural, Mechanical, Components anchored? ☑ Yes ☐ No

LATERAL DESIGN CONTROL: Earthquake ☐ Wind ☑

SOIL BEARING CAPACITIES:
Field Test (provide copy of test report) N/A psf
Presumptive Bearing capacity 2,000 psf
Pile size, type, and capacity N/A

PRE-ENGINEERED BUILDING:

1. MATERIALS

	ASTM DESIGNATION	
STRUCTURAL STEEL PLATE	A529 OR A572 OR A570 OR A607	GRADE 50
COLD FORMED LIGHT GA. SHAPES	A570 OR A607	GRADE 55
BRACE RODS	A572	GRADE 65,U.O.N.
HOT ROLLED MILL SHAPES	A36 OR A572	Fy=36KSI OR GRADE 50
ROOF AND WALL SHEETS	A653 OR A792	GRADE 50
BOLTS	A307 AND A325	A307,U.O.N.

2. A325 BOLT TIGHTENING REQUIREMENTS:

ALL HIGH STRENGTH BOLTS ARE A325-N UNLESS SPECIFICALLY NOTED OTHERHISE.
STRUCTURAL BOLTS SHALL BE TIGHTENED TO THE TURN-OF-THE-NUT METHOD IN ACCORDANCE WITH THE NINTH EDITION, AISC USPECIFICATION FOR STRUCTURAL UINTS USIN6 ASTM A325 OR A4QO BOLTS". PER SECTION &D.I, A325 BOLTS MAY BE INSTALLED HILTHOUT HASHERS INHEN TIGHTENED BY THE TURN-OF-THE-NUT METHOD. ALL HIGH STRENGTH BOLTS, EXCEPT AS NOTED OTHERHISE, ARE SUBJECT TO DIRECT TENSION AND MAY REQUIRE INSPECTION AS DEFINED BY THE APPLICABLE BUILDING CODE OR STANDARD. IT IS THE RESPONSIBILITY OF THE ERECTOR TO ASSURE PROPER TIGHTNESS.

3. FOUNDATION DESIGN AND CONSTRUCTION ARE NOT THE RESPONSIBILITY OF THE METAL BUILDING MANUFACTURER

4. THE BUILDING REACTION DATA REPORTS THE LOADS WHICH THIS BUILDING PLACES ON THE FOUNDATION.

5. ANCHOR BOLTS SHALL BE ACCURATELY SET TO A TOLERANCE OF ±1/8" IN BOTH ELEVATION AND LOCATION.

6. COLUMN BASE PLATES ARE DESIGNED NOT TO EXCEED A BEARING PRESSURE OF 1125 POUNDS PER SQUARE INCH.

7. ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE DESIGN ENGINEER AT JENKINS CONSULTING ENGINEERS. THIS REVIEW IS FOR DESIGN CONTENT ONLY AND DOES NOT REMOVE RESPONSIBILITY FOR THE FABRICATOR OR THE ERECTOR TO PROVIDE MATERIAL IN ACCORDANCE WITH THESE PLANS.

!!! IMPORTANT !!!

THIS FOUNDATION PLAN IS FOR BIDDING AND ESTIMATING PURPOSE ONLY. SUCCESSFUL BIDDER SHALL SUBMIT METAL BUILDING SHOP DRAWINGS WITH REACTIONS FOR JENKINS CONSULTING ENGINEERS FOR FINAL FOUNDATION DESIGN PRIOR TO CONSTRUCTION.

ANCHOR BOLT EMBEDMENT SCHEDULE

FOOTING TAG	ANCHOR BOLT ø"	MIN. EMBEDMENT DEPTH
F1	5/8"	10"
F2	3/4"	12"
F3	5/8"	10"
F4	3/4"	12"
F5	3/4"	12"

NORTH CAROLINA PROFESSIONAL SEAL C-3070 ENGINEERS PA
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910.822.1724 FAX 910.833.5907

NORTH CAROLINA PROFESSIONAL SEAL 42009 ENGINEER KELLY J. DODSON
8 JANUARY 2024

DESIGNED BY: K. DODSON
DRAWN BY: JDL, MJ
PROJECT #: 2023-05-19
DATE: 8 JAN 2024

FINAL DRAWING ☐ FOR REVIEW PURPOSES ONLY
PRELIMINARY ☐ FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING ☑ FOR CONSTRUCTION

OWNER/TENANT:
FLAT BRANCH FIRE DEPT.
2098 ELLIOTT BRIDGE RD, BUNNLEVEL, NC 28323

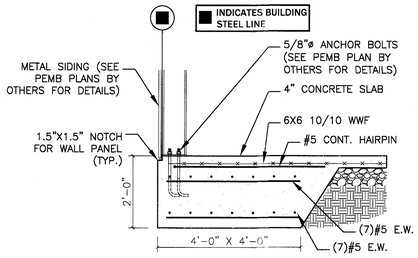
CONTRACTOR/BUILDER:

PROJECT:
NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET:
PRELIMINARY FOUNDATION PLAN

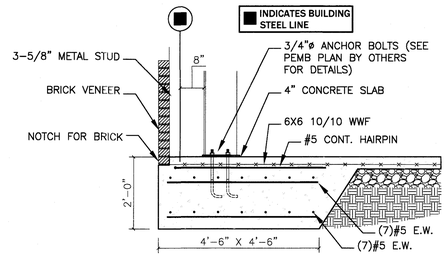
S1

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 6dec23-1D.dwg
Plotted by: Michael
Plotted Date: Jan 08, 2024 - 9:23am



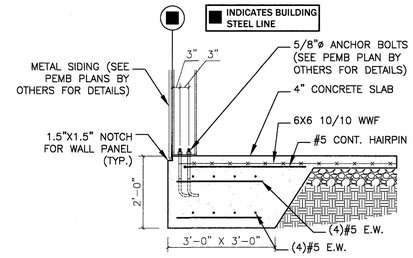
1 / S2 FOOTING DETAIL – F1

1/2" = 1'-0"



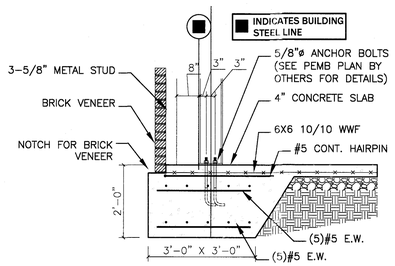
2 / S2 FOOTING DETAIL – F2

1/2" = 1'-0"



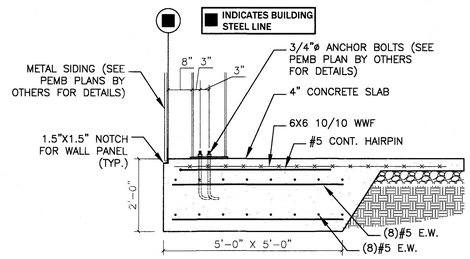
3.1 / S2 FOOTING DETAIL – F3

FLUSH GIRT



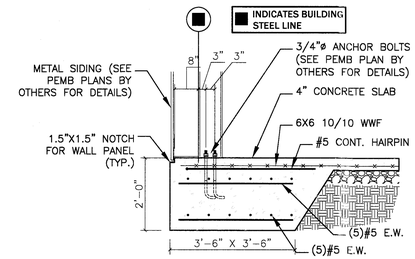
3.2 / S2 FOOTING DETAIL – F3

BYPASS GIRT



4 / S2 FOOTING DETAIL – F4

1/2" = 1'-0"



5 / S2 FOOTING DETAIL – F5

1/2" = 1'-0"

!!! IMPORTANT !!!

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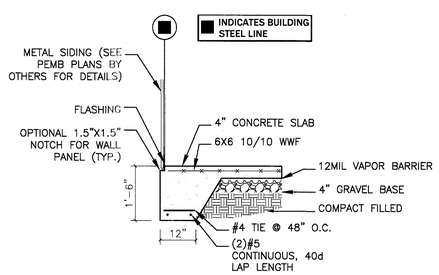
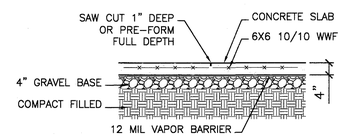


6 / S2 FOOTING DETAIL–PERIMETER

1/2" = 1'-0"

ANCHOR BOLT EMBEDMENT SCHEDULE		
FOOTING TAG	ANCHOR BOLT ø"	MIN. EMBEDMENT DEPTH
F1	5/8"	10"
F2	3/4"	12"
F3	5/8"	10"
F4	3/4"	12"
F5	3/4"	12"



7 / S2 CONTROL JOINT DETAIL

1/2" = 1'-0"

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NORTH CAROLINA PROFESSIONAL SEAL C-3070 CORPORATION JENKINS CONSULTING ENGINEERS, PA
NORTH CAROLINA PROFESSIONAL SEAL 42009 ENGINEER KELLY J. DODSON
8 JANUARY 2024

DESIGNED BY: K. DODSON
DRAWN BY: JDL, MJ
PROJECT #: 2023-05-19
DATE: 8 JAN 2024

FINAL DRAWING ☐ FOR REVIEW PURPOSES ONLY
PRELIMINARY ☐ FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING ☒ FOR CONSTRUCTION

OWNER/TENANT: FLAT BRANCH FIRE DEPT.
2098 ELLIOTT BRIDGE RD, BUNNLEVEL, NC 28323
CONTRACTOR/BUILDER:

PROJECT: NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET: PRELIMINARY FOUNDATION DETAILS

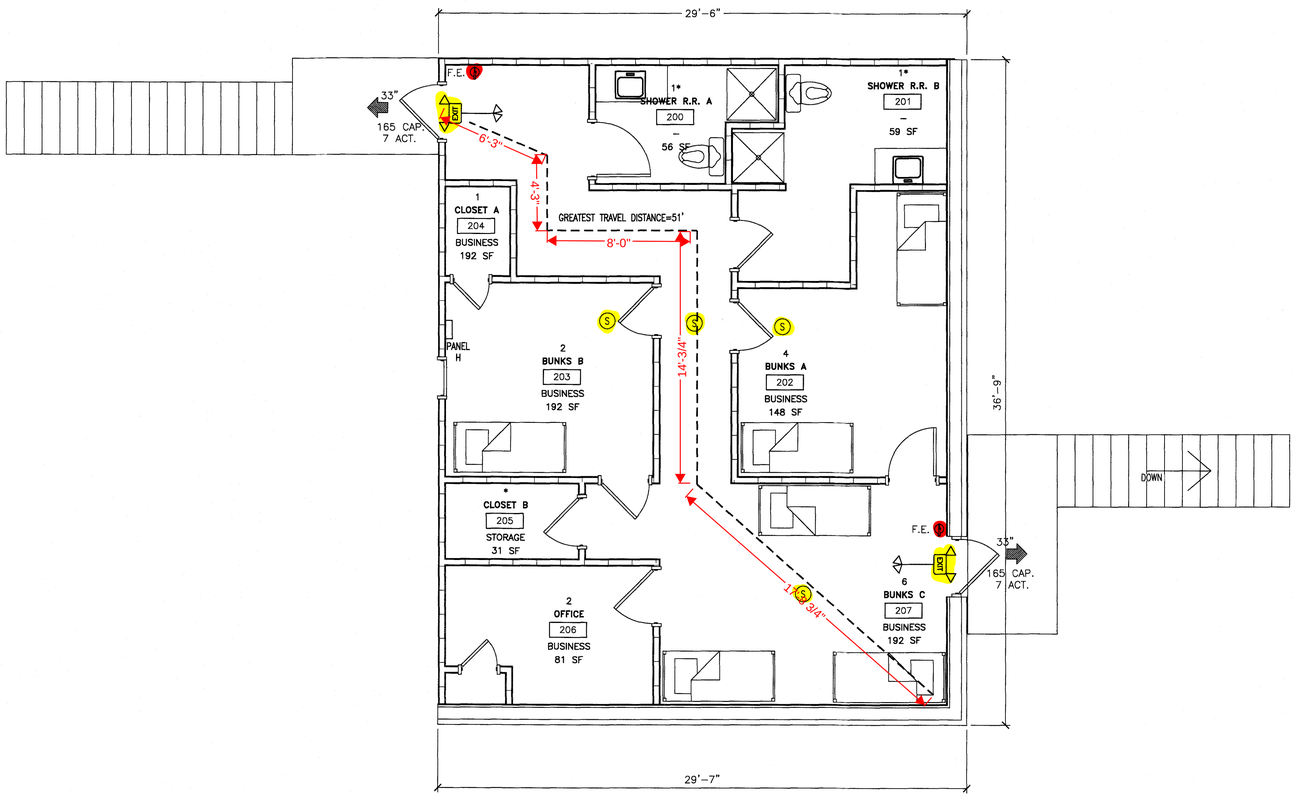
S2

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 6dec23-MD.dwg
Plotted by: MichaelJ
Plotted Date: Jan 08, 2024 - 9:23am

OCCUPANCY CLASSIFICATION per TABLE 1004.1.2

SPACE NUMBER	CURRENT SPACE USE	FUNCTION OF SPACE	OCCUPANT LOAD FACTOR	ROOM AREA (NET SF)	A CALCULATED EGRESS OCCUPANCY TOTAL (BY AREA)	B ACTUAL BUILDING OCCUPANT TOTAL (ANTICIPATED USE)
200	SHOWER R.R. A	–	–	56	1*	1*
201	SHOWER R.R. B	–	–	59	1*	1*
202	BUNKS A	SLEEPING AREA	120 GROSS	148	2	4
203	BUNKS B	SLEEPING AREA	120 GROSS	124	2	2
204	CLOSET A	STORAGE	100 GROSS	18	1*	1*
205	CLOSET B	STORAGE	100 GROSS	31	1*	1*
206	OFFICE	BUSINESS	100 GROSS	81	2	2
207	BUNKS C	SLEEPING AREA	120 GROSS	195	2	6
THE OCCUPANT COUNT FOR SPACE & EGRESS CAPACITY				712	8	14

THE EGRESS CAPACITY SHALL BE BASED UPON OCCUPANT LOAD OF 14 PERSONS
(*) DENOTES OCCUPANT NUMBER ACCOUNTED FOR IN OCCUPANT TOTAL



PLAN NORTH
TRUE NORTH

1 / LS-1 LIFE SAFETY – BUILDING NO. 1 2ND FLOOR EGRESS PLAN
1/4"=1'-0"

BUSINESS OCCUPANCY:

GROSS SQUARE FOOTAGE OF SPACE 1087 SQ. FT.
TYPE OF CONSTRUCTION: III–B
SPACE IS TO BE USED AS A LOUNGE AREA FOR VOLUNTEER FIRE DEPARTMENT

OCCUPANT LOAD FOR CALCULATING EGRESS CAPACITY (USE WORST CASE):
SPACE OCCUPANCY BY FUNCTION OF SPACE
BUSINESS : 1087 GSF / 100 = 11
TOTAL OCCUPANCY BY FUNCTION= 8
TOTAL OCCUPANCY BY AREA(COLUMN A)= 8
TOTAL OCCUPANCY BY ANTICIPATED USE(COLUMN B)= 14
(SEE TABLE ON THIS SHEET FOR INDIVIDUAL SPACE TOTALS)
CALCULATED EGRESS OCCUPANCY AREA TOTAL = 8 PERSONS
ACTUAL OCCUPANT LOAD BY AREAS = 14 PERSONS

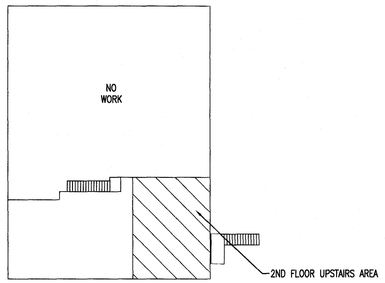
GREATEST TRAVEL DISTANCE SHOWN: 51 FEET. (PER 1017)
MAXIMUM ALLOWABLE TRAVEL DISTANCE: 200 FEET (PER TABLE 1017.2)
THE COMMON PATH OF TRAVEL IS LESS THAN 75 FEET. (PER 1029.8)
THERE ARE NO DEAD END CORRIDORS OVER 20 FEET. (PER 1020.4)

BUILDING EXIT WIDTH CALCULATIONS:
14 PERSONS * 0.2"/OCCUPANT = 2.8" REQUIRED, 66 INCHES TOTAL PROVIDED. (PER 1005.1)
MIN. NO. OF EXITS REQUIRED: ONE (1) (PER TABLES 1006.1 AND 1006.3.2)
NUMBER OF EXITS PROVIDED: TWO (2)
EGRESS DOORS DO NOT REQUIRE PANIC HARDWARE. (PER 1010.1.10)
DOORS DO NOT HAVE DELAYED EGRESS LOCKS (PER 1010.1.9.7)
DOORS DO NOT HAVE ELECTROMAGNETIC EGRESS LOCKS (PER 1010.1.9.9)
DOORS DO NOT HAVE HOLD OPEN DEVICES.
THERE ARE NO EMERGENCY ESCAPE WINDOWS (PER 1030)
THE FIRE AREA SQUARE FOOTAGE IS: 712 SQUARE FEET (PER 902)
THERE ARE BUNK/LOUNGE ROOMS (SMOKE COMPARTMENTS) (PER 408.6.1)
THIS BUILDING IS NOT PROTECTED BY FIRE SPRINKLERS
THERE IS NO FIRE ALARM SYSTEM.
LOCK BOX FOR KEY IS INSTALLED AT FRONT ENTRANCE. (AS REQ'D.)
DUCT DETECTORS ARE INSTALLED IN AHU. AN AUDIBLE AND
VISIBLE DEVICE IS PROVIDED FOR UNIT. (AS REQ'D)
NO. OF FIRE EXTINGUISHERS PROVIDED: TWO (2) FIRE EXTINGUISHER:
TWO (2) ABC FIRE EXTINGUISHERS
FIRE EXTINGUISHER FOR CLASS A FIRE HAZARDS REQUIRE NO GREATER THAN 75 FT
OF MAXIMUM TRAVEL DISTANCE IN LOW, ORDINARY AND EXTRA HAZARD OCCUPANCY.
SMOKE DETECTORS ARE INSTALLED IN EACH BUNK/LOUNGE ROOM.

LEGEND

SYMBOL	DESCRIPTION
F.E.	ABC FIRE EXTINGUISHER SUGGESTED LOCATION
	GREATEST TRAVEL DISTANCE
33"	EXIT WIDTH, 36" – 3 = 33" CLEAR WIDTH.
165 CAP. 22 ACT.	EXIT CAPACITY (NUMBER OF PERSONS) ACTUAL OCCUPANT LOAD FOR EXIT DOOR
EXIT	EXIT SIGN
S	SMOKE DETECTOR
36"	AISLE WIDTH WHERE SHOWN
EXIT	EXIT SIGN WITH EMERGENCY LIGHTING

ROOM LABEL	DESCRIPTION
10	OCCUPANT TOTAL
RETAIL	ROOM NAME
1	ROOM NUMBER
MERCANTILE	FUNCTION TYPE
100 SF	SPACE AREA



EXISTING BUILDING AREA OF WORK–2ND FLOOR
N.T.S.

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NORTH CAROLINA PROFESSIONAL SEAL C-3070 CORPORATION JENKINS CONSULTING ENGINEERS, PA
NORTH CAROLINA PROFESSIONAL SEAL 42009 ENGINEER KELLY J. DODSON
15 NOVEMBER 2023

DESIGNED BY: K. DODSON
DRAWN BY: JDL
PROJECT #: 2023–05–19
DATE: 15 NOVEMBER 2023

FINAL DRAWING ☐ FOR REVIEW PURPOSES ONLY
PRELIMINARY ☐ FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING ☑ FOR CONSTRUCTION

OWNER/TENANT: FLAT BRANCH FIRE DEPT.
2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323
CONTRACTOR/BUILDER:

PROJECT: *NEW ADMIN BUILDING & INTERIOR RENOVATION*
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323
SHEET: LIFE SAFETY & EGRESS PLAN–BLDG 1

LS–1

SCALE: 1/8" = 1'–0" SCALE: 1/4" = 1'–0" SCALE: 1/2" = 1'–0" SCALE: 3/4" = 1'–0" SCALE: 3/16" = 1'–0" SCALE: 1" = 1'–0" SCALE: 1–1/2" = 1'–0"

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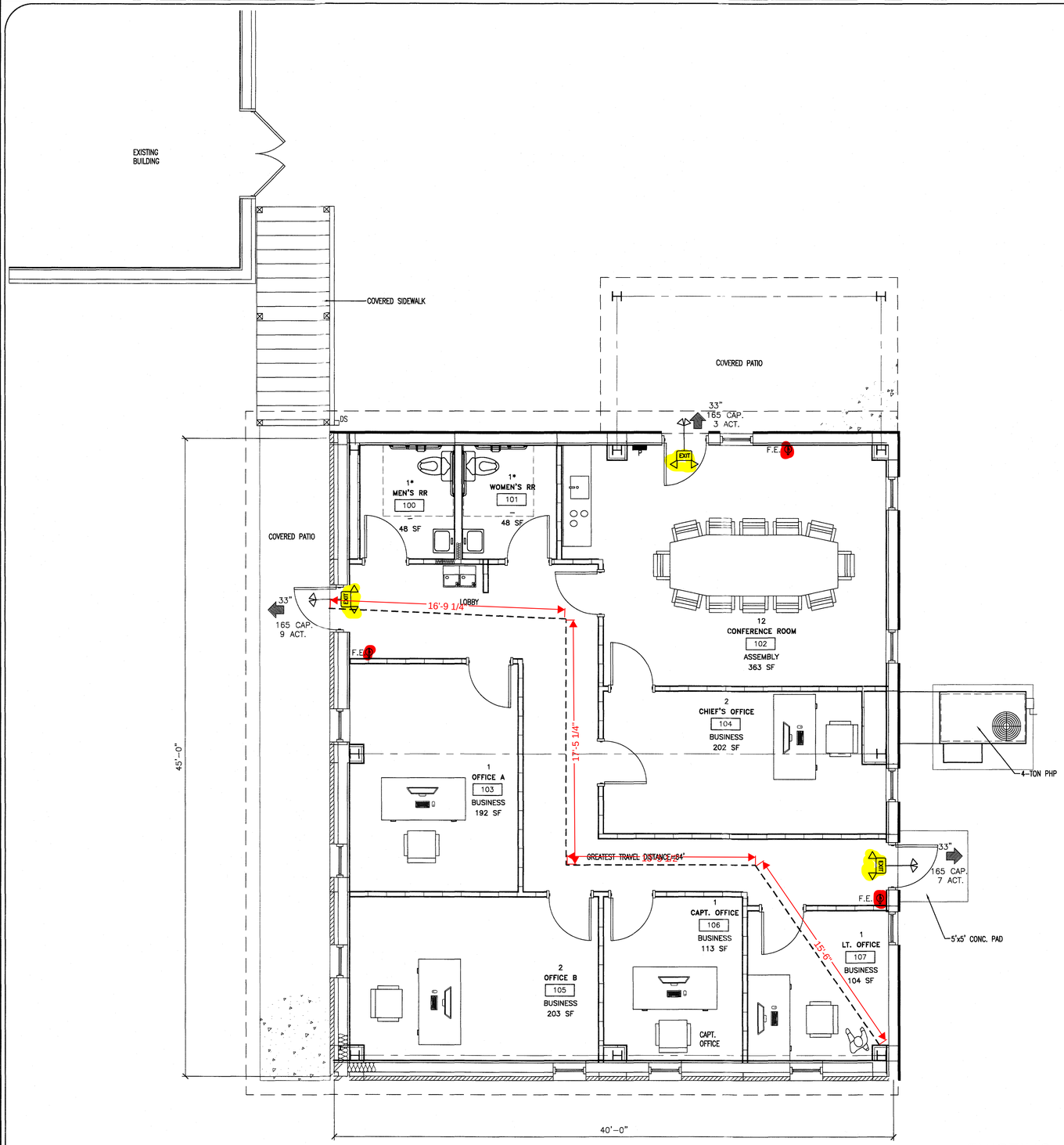
Plotted by: Josh
Plotted Date: Nov 15, 2023 – 3:45pm



NOTE: FURNITURE IS SHOWN FOR ILLUSTRATION PURPOSES ONLY & PROVIDED BY OWNER

OCCUPANCY CLASSIFICATION per TABLE 1004.1.2

SPACE NUMBER	CURRENT SPACE USE	FUNCTION OF SPACE	OCCUPANT LOAD FACTOR	ROOM AREA (GROSS SF)	A CALCULATED EGRESS OCCUPANCY TOTAL (BY AREA)	B ACTUAL BUILDING OCCUPANT TOTAL (ANTICIPATED USE)
100	MEN'S RR	–	–	48	1*	1*
101	WOMEN'S RR	–	–	48	1*	1*
102	CONFERENCE ROOM	BUSINESS	100 GROSS	363	4	12
103	OFFICE A	BUSINESS	100 GROSS	192	2	1
104	CHIEF'S OFFICE	BUSINESS	100 GROSS	202	3	1
105	OFFICE B	BUSINESS	100 GROSS	203	3	1
106	CAPT. OFFICE	BUSINESS	100 GROSS	113	2	1
107	LT. OFFICE	BUSINESS	100 GROSS	104	2	1
THE OCCUPANT COUNT FOR TENANT SPACE & EGRESS CAPACITY				1273	16	17

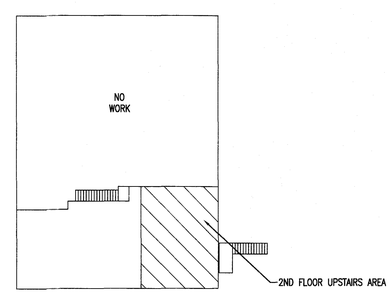
THE EGRESS CAPACITY SHALL BE BASED UPON OCCUPANT LOAD OF 19 PERSONS
(*) DENOTES OCCUPANT NUMBER ACCOUNTED FOR IN OCCUPANT TOTAL

BUSINESS OCCUPANCY:

GROSS SQUARE FOOTAGE OF SPACE 1,857 SQ. FT.
TYPE OF CONSTRUCTION: III–B
SPACE IS TO BE USED AS A BUSINESS OFFICE FOR VOLUNTEER FIRE DEPARTMENT

OCCUPANT LOAD FOR CALCULATING EGRESS CAPACITY:
SPACE OCCUPANCY BY FUNCTION OF SPACE
BUSINESS : 1,857 GSF / 100 = 19
TOTAL OCCUPANCY BY FUNCTION= 19
TOTAL OCCUPANCY BY AREA(COLUMN A)= 16
TOTAL OCCUPANCY BY ANTICIPATED USE(COLUMN B)= 17
(SEE TABLE ON THIS SHEET FOR INDIVIDUAL SPACE TOTALS)
GREATEST TRAVEL DISTANCE SHOWN: 84 FEET. (PER 1017)
MAXIMUM ALLOWABLE TRAVEL DISTANCE: 200 FEET (PER TABLE 1017.2)
THE COMMON PATH OF TRAVEL IS LESS THAN 75 FEET. (PER 1029.8)
THERE ARE NO DEAD END CORRIDORS OVER 20 FEET. (PER 1020.4)

BUILDING EXIT WIDTH CALCULATIONS:
19 PERSONS * 0.2"/OCCUPANT = 3.8" REQUIRED, 99 INCHES TOTAL PROVIDED. (PER 1005.1)
MIN. NO. OF EXITS REQUIRED: ONE (1) (PER TABLES 1006.1 AND 1006.3.2)
NUMBER OF EXITS PROVIDED: THREE (3) ACCESSIBLE
EGRESS DOORS DO NOT REQUIRE PANIC HARDWARE. (PER 1010.1.10)
DOORS DO NOT HAVE DELAYED EGRESS LOCKS (PER 1010.1.9.7)
DOORS DO NOT HAVE ELECTROMAGNETIC EGRESS LOCKS (PER 1010.1.9.9)
DOORS DO NOT HAVE HOLD OPEN DEVICES.
THERE ARE NO EMERGENCY ESCAPE WINDOWS (PER 1030)
THE FIRE AREA SQUARE FOOTAGE IS: 1,800 SQUARE FEET (PER 902)
THERE ARE NO SLEEPING AREAS (SMOKE COMPARTMENTS) (PER 407.2)
THIS BUILDING IS NOT PROTECTED BY FIRE SPRINKLERS
THERE IS NO FIRE ALARM SYSTEM.
LOCK BOX FOR KEY IS INSTALLED AT FRONT ENTRANCE. (AS REQ'D.)
DUCT DETECTORS ARE INSTALLED IN AHU. AN AUDIBLE AND
VISIBLE DEVICE IS PROVIDED FOR UNIT. (AS REQ'D)
NO. OF FIRE EXTINGUISHERS PROVIDED: THREE (3) FIRE EXTINGUISHER:
THREE (3) ABC FIRE EXTINGUISHERS
FIRE EXTINGUISHER FOR CLASS A FIRE HAZARDS REQUIRE NO GREATER THAN 75 FT
OF MAXIMUM TRAVEL DISTANCE IN LOW, ORDINARY AND EXTRA HAZARD OCCUPANCY.



EXISTING BUILDING AREA OF WORK–2ND FLOOR

N.T.S.

LEGEND

SYMBOL	DESCRIPTION
F.E.	ABC FIRE EXTINGUISHER SUGGESTED LOCATION
	GREATEST TRAVEL DISTANCE
33"	EXIT WIDTH, 36" – 3 = 33" CLEAR WIDTH.
165 CAP. 22 ACT.	EXIT CAPACITY (NUMBER OF PERSONS) ACTUAL OCCUPANT LOAD FOR EXIT DOOR
EXIT	EXIT SIGN
S	SMOKE DETECTOR
36"	AISLE WIDTH WHERE SHOWN
EXIT	EXIT SIGN WITH EMERGENCY LIGHTING
ROOM LABEL	**DESCRIPTION**
10	OCCUPANT TOTAL
RETAIL	ROOM NAME
1	ROOM NUMBER
MERCANTILE	FUNCTION TYPE
100 SF	SPACE AREA

PLAN NORTH
TRUE NORTH

1 / LS–2 LIFE SAFETY – BUILDING 2 EGRESS PLAN
1/4"=1'-0"

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CONTRACTOR/BUILDER:

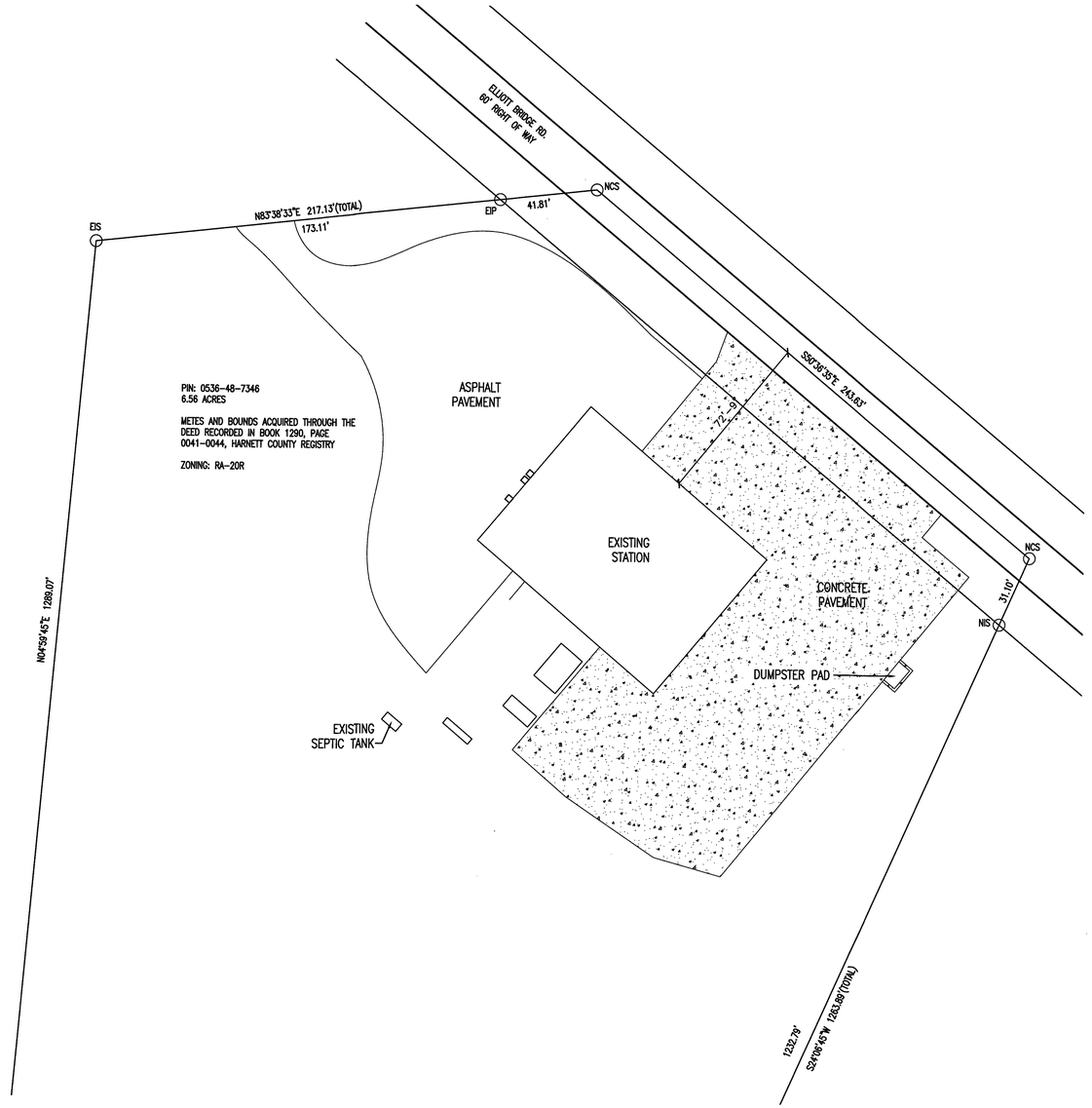
PROJECT: NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET: LIFE SAFETY & EGRESS PLAN–BLDG 2

LS–2

SCALE: 1/2" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 3/16" = 1'-0" SCALE: 1/8" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 1" = 1'-0" SCALE: 1-1/2" = 1'-0"

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 15NOV23.dwg
Plotted By: Josh
Plotted Date: Nov 15, 2023 – 3:46pm



1 / SP1 EXISTING SITE PLAN
1"=30'

SCALE: 1/8" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 1" = 1'-0" SCALE: 1-1/2" = 1'-0"

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Plotted by: Josh L.
Plotted Date: Nov 17, 2023 - 1:27pm

JENKINS CONSULTING ENGINEERS, PA
OFFICE In EUREKA SPRINGS, NORTH CAROLINA
1606 McARTHUR RD. FAYETTEVILLE, NC 28311-1002
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NORTH CAROLINA PROFESSIONAL SEAL 42009 ENGINEER KEELY L. DODSON

15 NOVEMBER 2023

DESIGNED BY:	K. DODSON
DRAWN BY:	JDL
PROJECT #:	2023-05-19
DATE:	15 NOVEMBER 2023

FINAL DRAWING ☐ FOR REVIEW PURPOSES ONLY
PRELIMINARY ☐ FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING ☑ FOR CONSTRUCTION

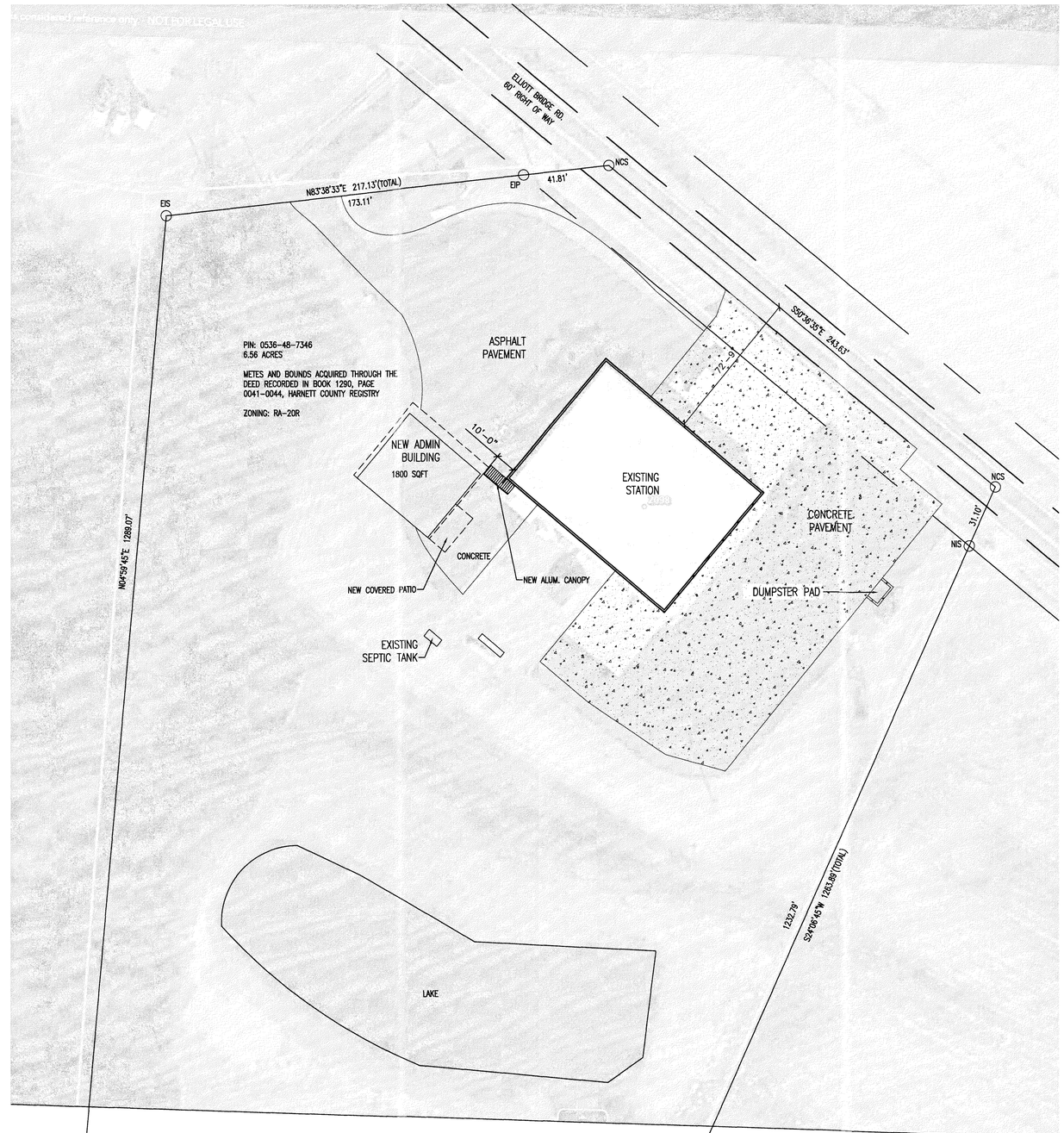
OWNER/TENANT:
FLAT BRANCH FIRE DEPT.
2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323

CONTRACTOR/BUILDER:
-
-

PROJECT:
NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET:
EXISTING SITE PLAN

SP1



1 / SP2 ADDITION SITE PLAN
1"=30'

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Plotted By: JoshL
Plotted Date: Nov 17, 2023 - 1:29pm

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JENKINS CONSULTING ENGINEERS, PA
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919.321.1704 JOB NO. 19-242.2007
NORTH CAROLINA PROFESSIONAL SEAL C-3070 CORPORATION JENKINS CONSULTING ENGINEERS PA
NORTH CAROLINA PROFESSIONAL SEAL 42009 ENGINEER KELLY J. DODSON
15 NOVEMBER 2023

DESIGNED BY: K. DODSON
DRAWN BY: JDL
PROJECT #: 2023-05-19
DATE: 15 NOVEMBER 2023

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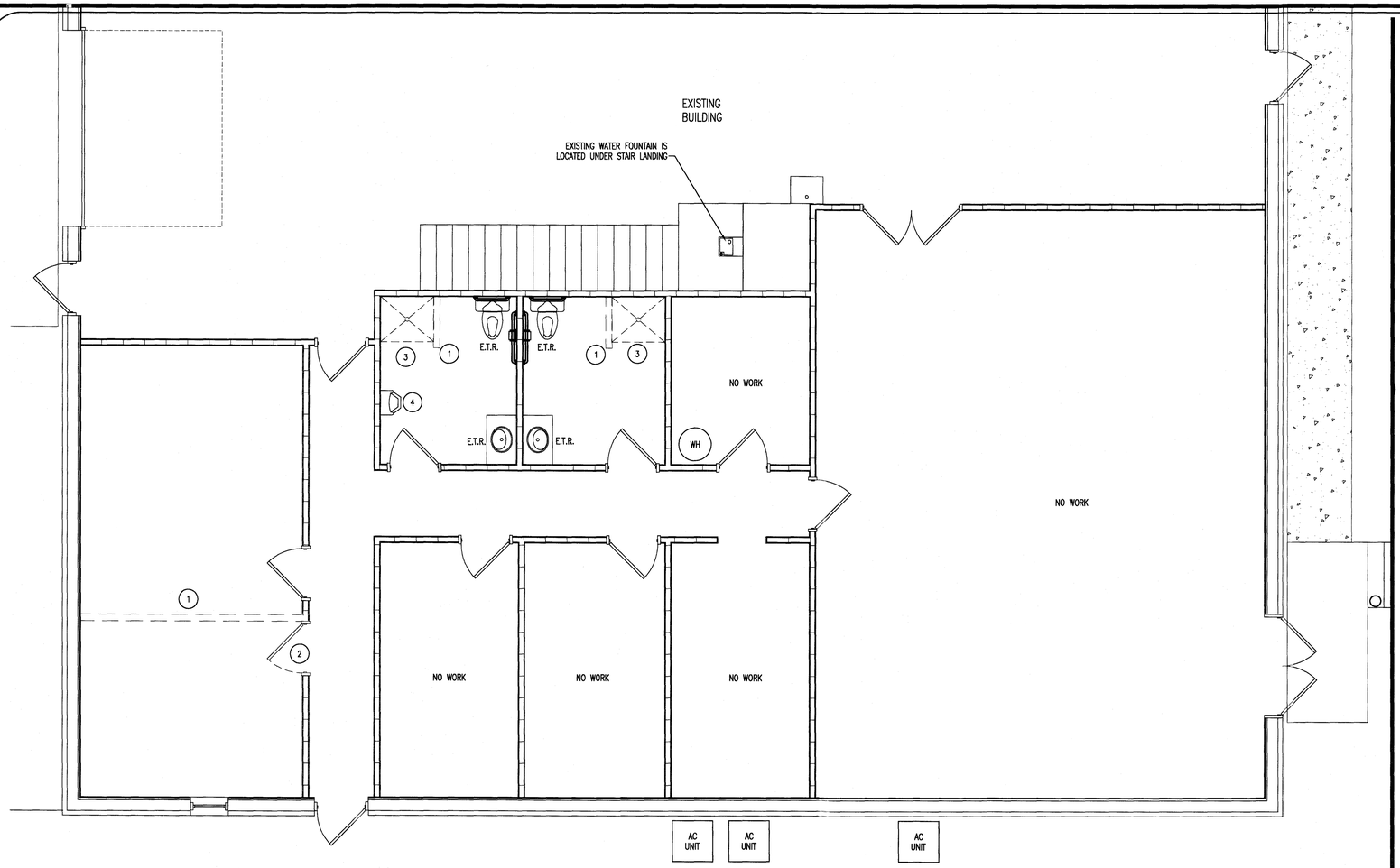
2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323

CONTRACTOR/BUILDER:
-
-

PROJECT:
NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

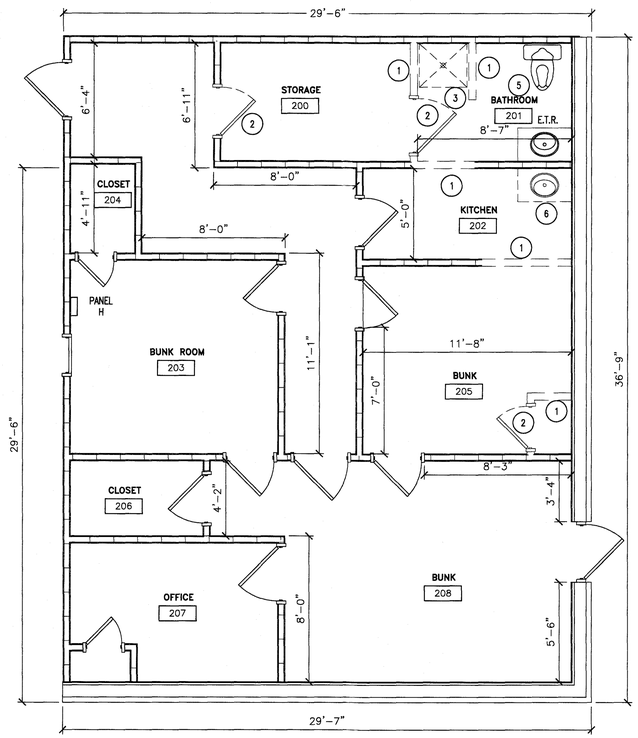
SHEET:
NEW SITE PLAN

SP2



PLAN NORTH
TRUE NORTH

1 / G1 EXISTING BUILDING 1ST FLOOR
1/4"=1'

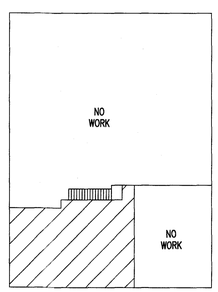


PLAN NORTH
TRUE NORTH

2 / G1 EXISTING BUILDING 2ND FLOOR
1/4" = 1'-0"

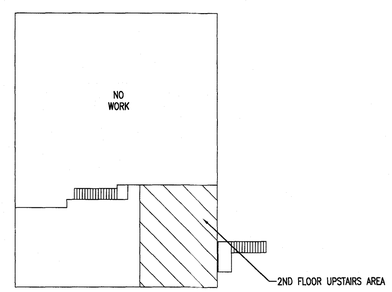
EXISTING FLOOR DEMOLITION KEYED NOTES:

1. REMOVE EXISTING WALL
2. REMOVE EXISTING DOOR
3. REMOVE EXISTING SHOWER
4. RELOCATE EXISTING URINAL
5. RELOCATE EXISTING TOILET
6. REMOVE EXISTING SINK/VANITY



EXISTING BUILDING AREA OF WORK–1ST FLOOR

N.T.S.



EXISTING BUILDING AREA OF WORK–2ND FLOOR

N.T.S.

NORTH CAROLINA PROFESSIONAL SEAL C-3070 CORPORATE JENKINS CONSULTING ENGINEERS, PA

JENKINS CONSULTING ENGINEERS, PA
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NORTH CAROLINA PROFESSIONAL SEAL 42009 ENGINEER KELLY J. DODSON

15 NOVEMBER 2023

DESIGNED BY:	K. DODSON
DRAWN BY:	JDL
PROJECT #:	2023-05-19
DATE:	15 NOVEMBER 2023

FINAL DRAWING ☐ FOR REVIEW PURPOSES ONLY
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OWNER/TENANT:
FLAT BRANCH FIRE DEPT.
2098 ELLIOTT BRIDGE RD, BUNNLEVEL, NC 28323

CONTRACTOR/BUILDER:

PROJECT:
NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET:
EXISTING FLOOR PLAN AND DEMOLITION NOTES

G1

SCALE: 1/8" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 1" = 1'-0" SCALE: 1-1/2" = 1'-0" SCALE: 3/16" = 1'-0"

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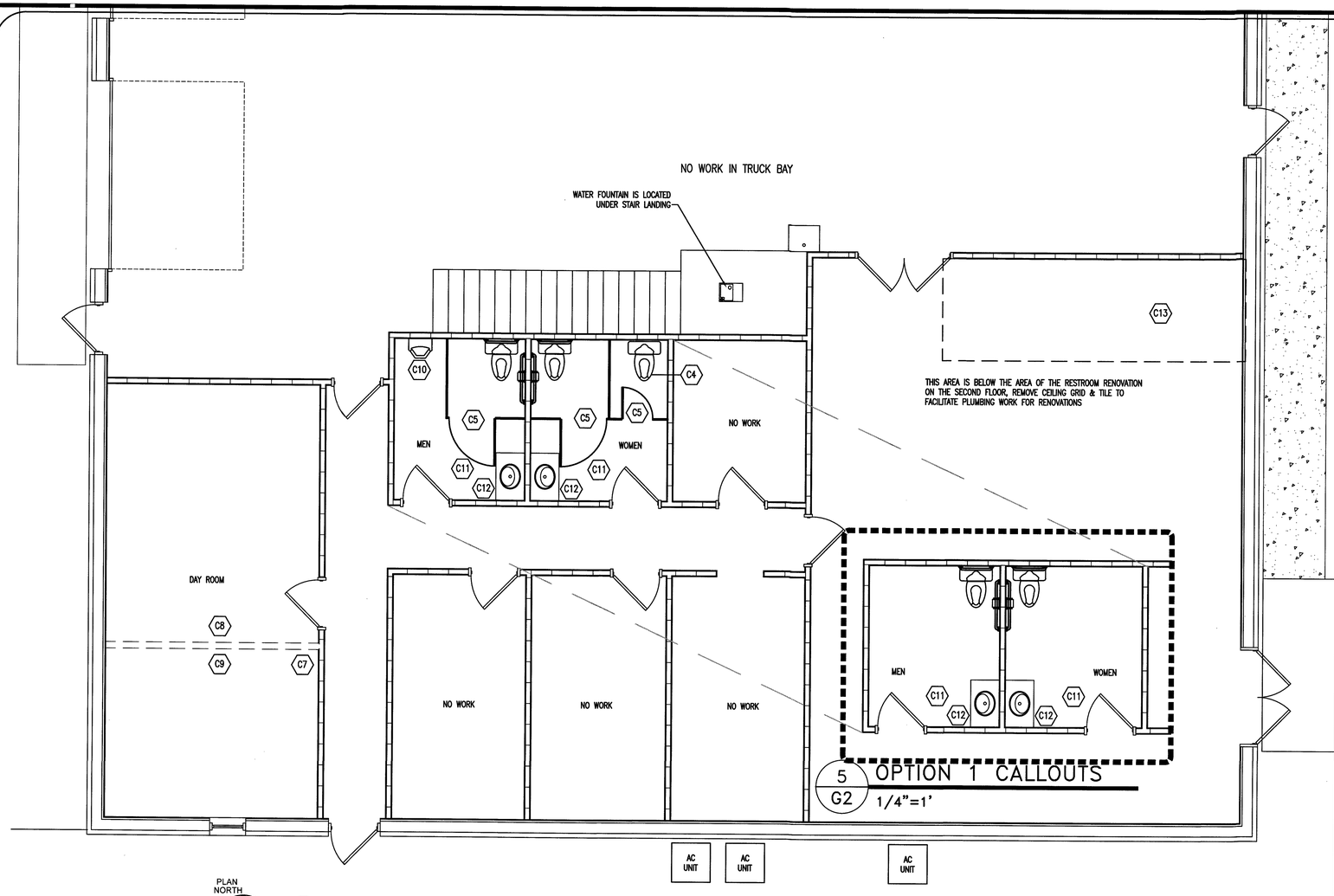
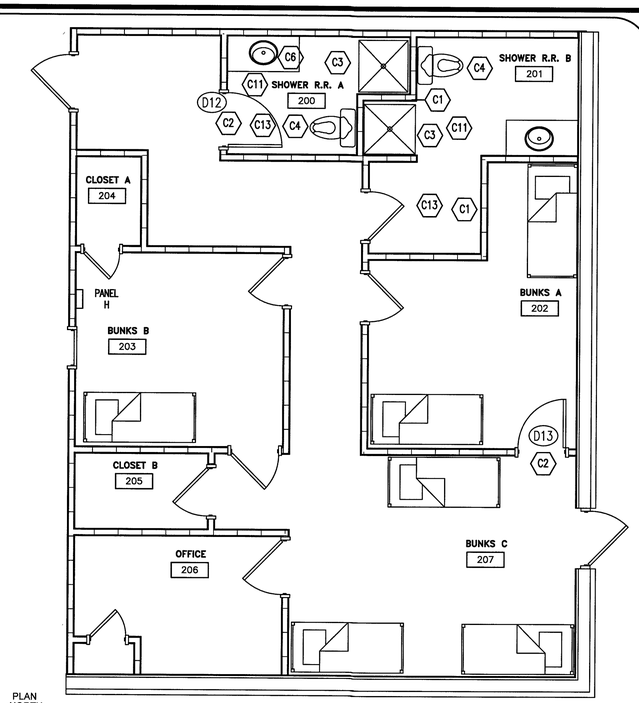
Plotted By: Joshua
Plotted Date: Nov 15, 2023 - 3:46pm



PLAN NORTH — TRUE NORTH

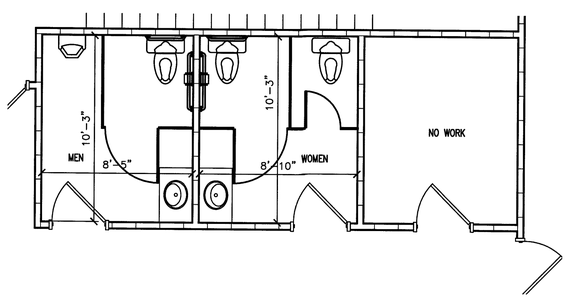
1 / G2 GROUND FLOOR CALLOUTS (OPT. 2)
1/4"=1'



PLAN NORTH — TRUE NORTH

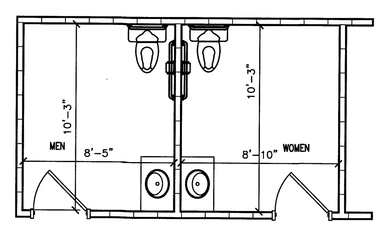
2 / G2 SECOND FLOOR CALLOUTS
1/4" = 1'-0"

5 / G2 OPTION 1 CALLOUTS
1/4"=1'



PLAN NORTH — TRUE NORTH

3 / G2 PARTIAL GROUND FLOOR DIMENSIONS (OPT. 2)
1/4"=1'

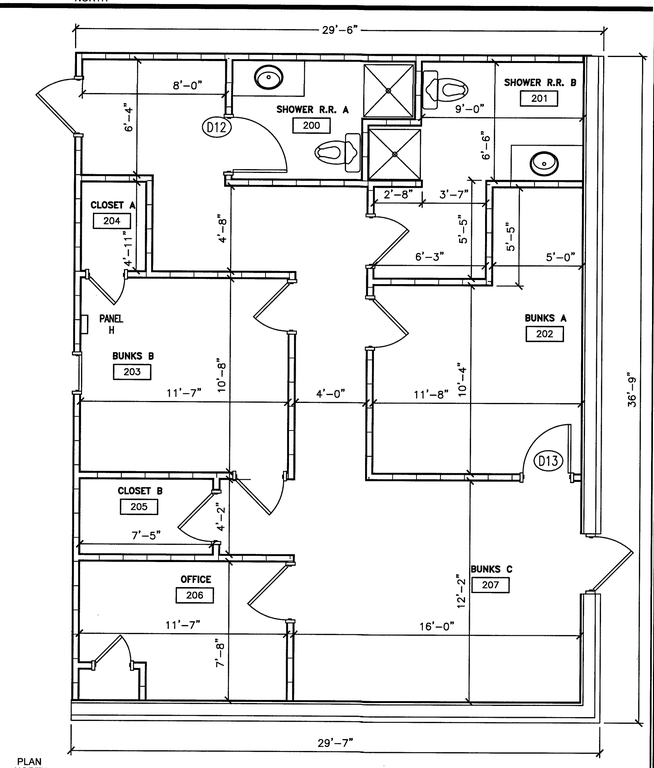


6 / G2 OPTION 1 DIMENSIONS
1/4"=1'

NEW FLOOR PLAN CONSTRUCTION KEYED NOTES:

- C1 CONSTRUCT NEW WALL, FINISHED TO MATCH EXISTING
- C2 INSTALL NEW INTERIOR DOOR, MATCH EXISTING
- C3 INSTALL NEW SHOWER FIXTURE, COMPLETE WITH MIXING VALVE
- C4 INSTALL NEW TOILET FIXTURE, COMPLETE WITH ACCESSORIES
- C5 INSTALL NEW BATHROOM TOILET PARTITIONS
- C6 INSTALL NEW SINK & VANITY BASE, COMPLETE WITH FAUCET
- C7 INFILL WALL, FLUSH WITH EXISTING
- C8 PATCH FLOOR FINISH
- C9 PATCH CEILING GRID & TILE
- C10 REINSTALL URINAL & FLUSH VALVE
- C11 INSTALL NEW FLOOR TILE
- C12 EXISTING VANITY BASE TO REMAIN
- C13 REINSTALL CEILING GRID & TILE AFTER RENOVATION IS COMPLETE

***NOTE: FOR PLUMBING , MECHANICAL, AND ELECTRICAL CONSTRUCTION, CONTRACTORS SHALL SEE KEYED NOTES ON M, E, P SHEETS.



PLAN NORTH — TRUE NORTH

4 / G2 SECOND FLOOR DIMENSIONS
1/4" = 1'-0"

SCALE: 1/4" = 1'-0" | SCALE: 1/2" = 1'-0" | SCALE: 3/4" = 1'-0" | SCALE: 1" = 1'-0" | SCALE: 1-1/2" = 1'-0" | SCALE: 3/16" = 1'-0" | SCALE: 1/8" = 1'-0"

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 16NOV23.dwg
Plotted by: JoshL
Plotted Date: Nov 16, 2023 - 6:50pm

NORTH CAROLINA PROFESSIONAL SEAL C-3070 CORPORATION JENKINS CONSULTING ENGINEERS, PA
JENKINS CONSULTING ENGINEERS, PA
OFFICE In EUREKA SPRINGS, NORTH CAROLINA
1609 MACARTHUR RD.
FAYETTEVILLE, NC 28311-1002
CORPORATION NUMBER C-3070 BARRY@JCEPA.COM
910.822.1724 FAX 910.835.5907
NORTH CAROLINA PROFESSIONAL SEAL 42009 ENGINEER KEITH K. DODSON
15 NOVEMBER 2023

DESIGNED BY: K. DODSON
DRAWN BY: JDL
PROJECT #: 2023-05-19
DATE: 15 NOVEMBER 2023

FINAL DRAWING ☐ FOR REVIEW PURPOSES ONLY
PRELIMINARY ☐ FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING ☒ FOR CONSTRUCTION

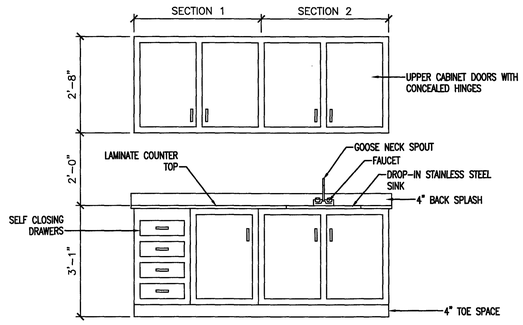
OWNER/TENANT: FLAT BRANCH FIRE DEPT.
2098 ELLIOTT BRIDGE RD, BUNNLEVEL, NC 28323

CONTRACTOR/BUILDER:

PROJECT: NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET: INTERIOR RENOVATIONS, CALLOUTS AND DIMENSIONS

G2



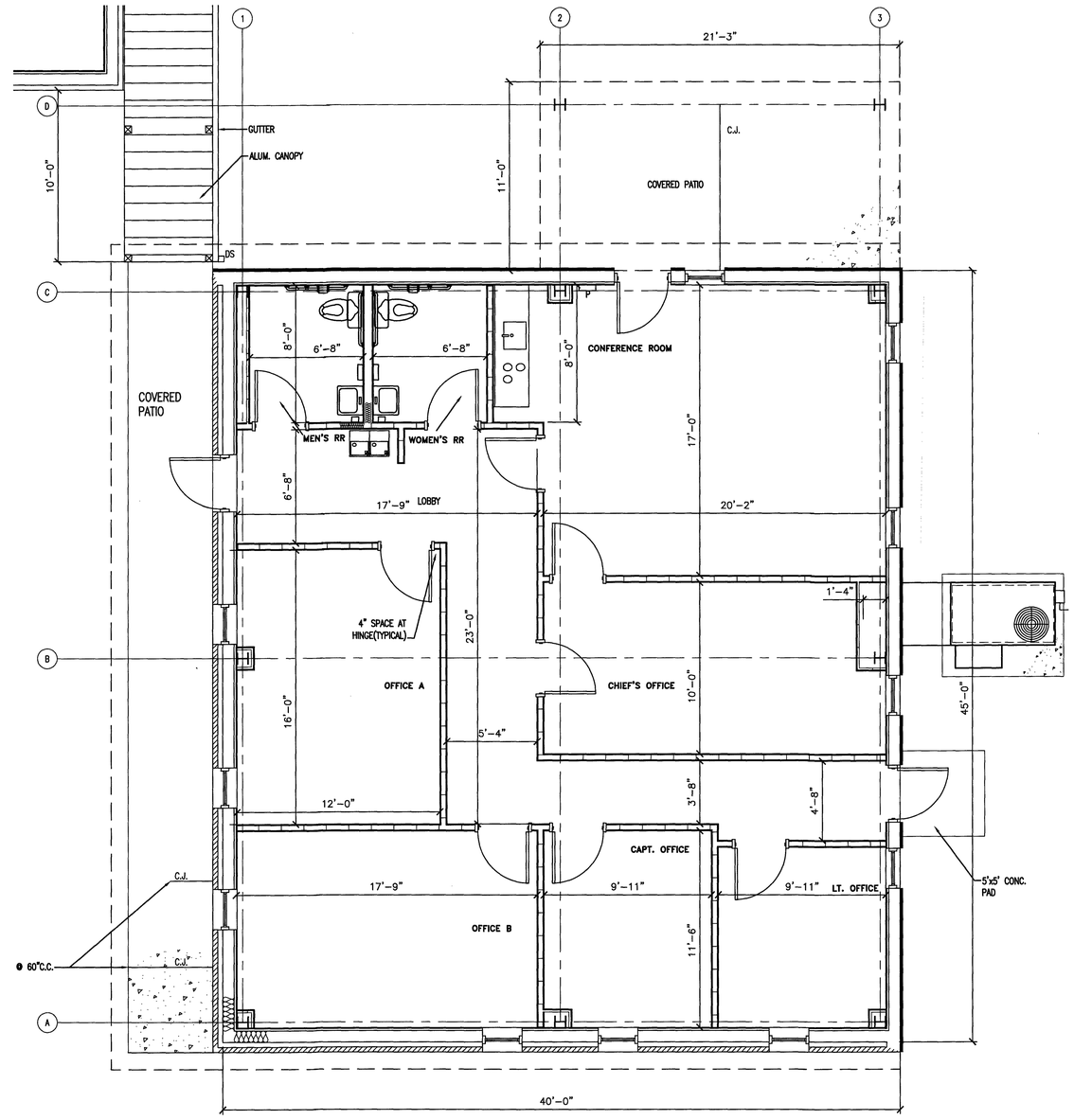
NOTE: CONTRACTOR SHOULD SUBMIT CABINET DETAILS PRIOR TO FABRICATION FOR APPROVAL

NOTE: CABINETS SHALL BE COMMERCIAL GRADE WITH LAMINATED INTERIOR & EXTERIOR FACES & LAMINATED COUNTERTOP & DOORS WITH CONCEALED HINGES.

PLAN NORTH / TRUE NORTH

1 / G3 CABINET ELEVATION

SCALE: 1/2" = 1'-0"



PLAN NORTH / TRUE NORTH

2 / G3 BUILDING-2 DIMENSIONED PLAN

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

SEE SHEETS G5 FOR CALLOUTS

NOTE: COORDINATE WITH METAL BUILDING PLANS FOR LOCATIONS OF X-BRACING AND WALL GIRTS

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CORPORATION NUMBER C-3070 / Buddy@jenkinsce.pro
910.822.1724 / FAX 910.835.5807

NORTH CAROLINA PROFESSIONAL SEAL 42009 ENGINEER TERRY L. DODSON

15 NOVEMBER 2023

DESIGNED BY: K. DODSON
DRAWN BY: JDL
PROJECT #: 2023-05-19
DATE: 15 NOVEMBER 2023

FINAL DRAWING ☐ FOR REVIEW PURPOSES ONLY
PRELIMINARY ☐ FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING ☑ FOR CONSTRUCTION

OWNER/TENANT: FLAT BRANCH FIRE DEPT.
2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323

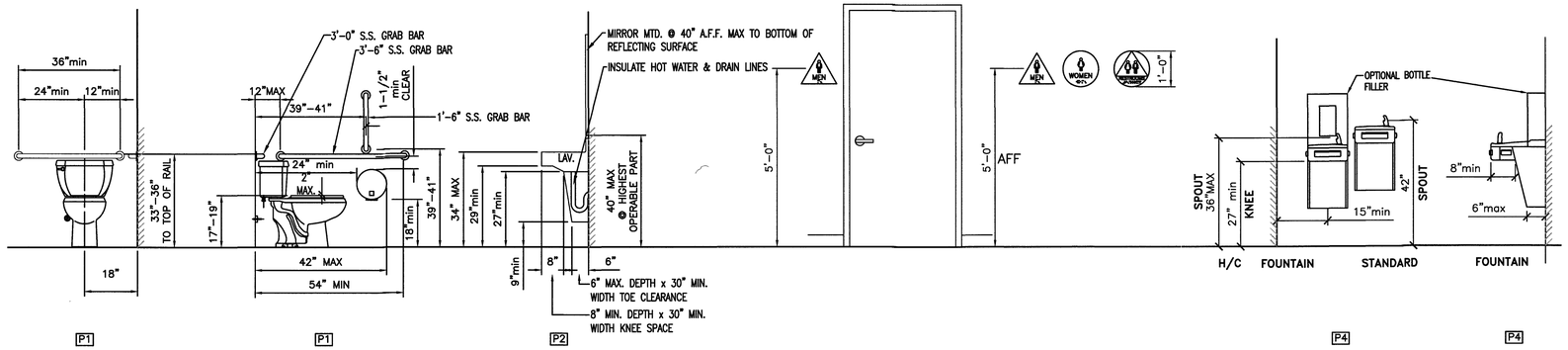
CONTRACTOR/BUILDER:

PROJECT: *NEW ADMIN BUILDING & INTERIOR RENOVATION*
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET: BUILDING-2 DIMENSIONED PLAN

G3

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 16NOV23.dwg
Plotted by: Josh
Plotted Date: Nov 16, 2023 - 1:54pm



ACCESSORY LEGEND

NO.	QTY	G.C.INST.	ITEM DESCRIPTION	MODEL #	MANUFACTURER
RR-100	2	X	SOAP DISPENSER (WALL MOUNT)	B-2111	BOBRICK
RR-101	2	X	MIRROR, 18" X 36"	B-165 1836	BOBRICK
RR-102	2	X	TOILET PAPER DISPENSER	B-273	BOBRICK
RR-103	2	X	PAPER TOWEL DISPENSER	B-2620	BOBRICK
RR-104	2	X	GRAB BAR 1-1/2"DIA X 36" S.S. FIN.	B-5806 X 36	BOBRICK
RR-105	2	X	GRAB BAR 1-1/2"DIA X 42" S.S. FIN.	B-5806 X 42	BOBRICK
RR-106	2	X	GRAB BAR 1-1/2"DIA X 18" S.S. FIN.	B-5806 X 18	BOBRICK
RR-107	–	X	RESTROOM SIGNAGE	RR-120-DCTS	COMPLIANCE SIGNS

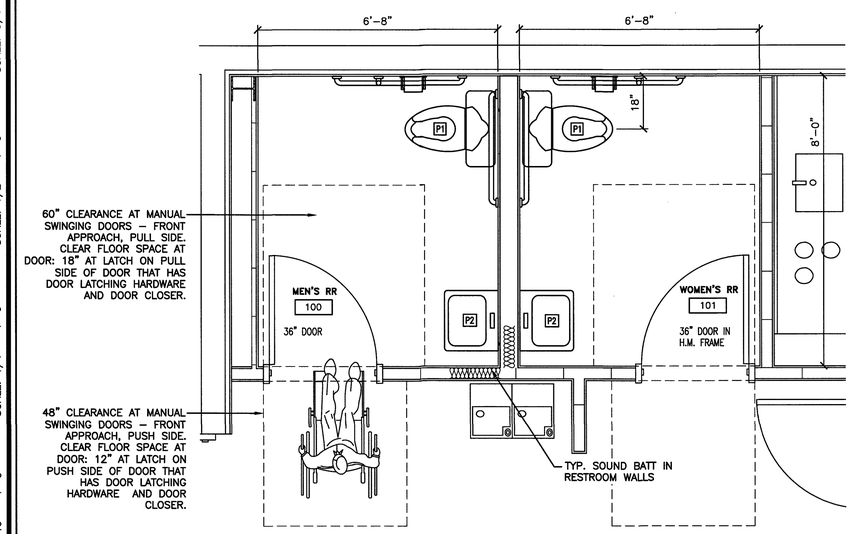
ACCESSORY NOTES:

1. PROVIDE BLOCKING AT ALL WALL MOUNTED ACCESSORIES.
2. GRAB BARS, FASTENERS AND MOUNTING DEVICES SHALL BE INSTALLED PER ADA REQUIREMENTS.
3. INSTALL AT LOCATIONS REQUIRED AND AS SHOWN ON DRAWINGS.
4. ALL TOILET ACCESSORIES TO BE SELECTED BY OWNER
5. ALL TOILET ACCESSORIES TO BE INSTALLED BY CONTRACTOR
6. ALL LAVATORIES & SINKS SHALL HAVE PROTECTIVE COVERING ATTACHED TO THE SUPPLY & DRAIN LINES BELOW THE FIXTURES.

SEE SHEET P1 FOR PLUMBING FIXTURE SCHEDULE.

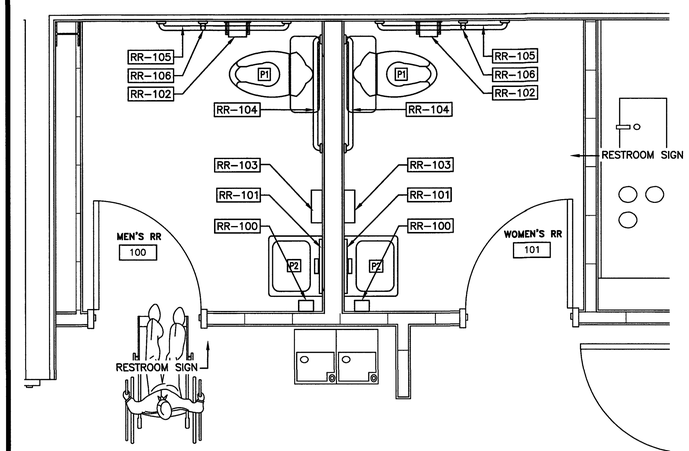
GYPSUM WALL BOARD SHALL BE MOISTURE RESISTANT IN RESTROOM

INSTALL CONCRETE BACKER BOARD IF CERAMIC WALL TILE OPTION IS INCLUDED



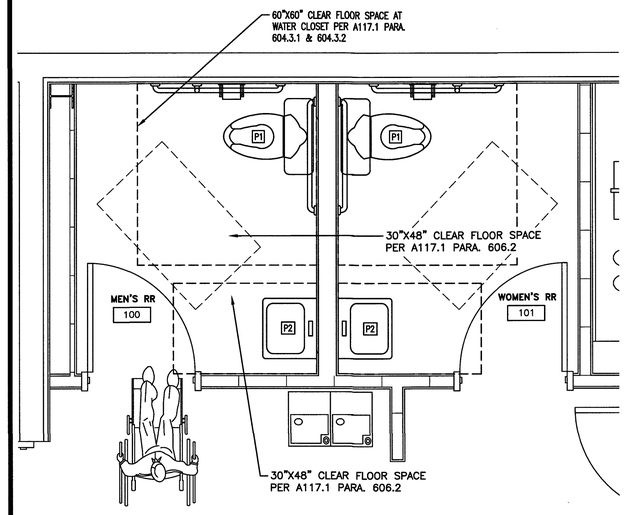
1 G4 ENLARGED RR PLAN

SCALE: 1/2" = 1'-0"



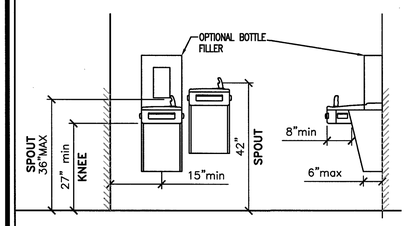
2 G4 ACCESSORY RR PLAN

SCALE: 1/2" = 1'-0"



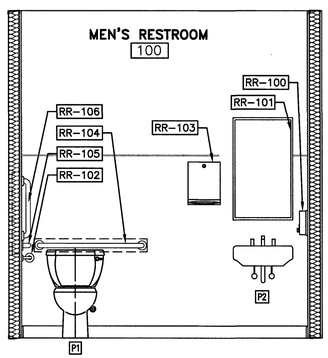
3 G4 ADA CLEARANCES

SCALE: 1/2" = 1'-0"



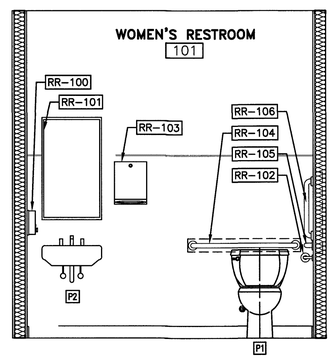
8 G4 DRINKING FOUNTAIN

SCALE: 1/2" = 1'-0"



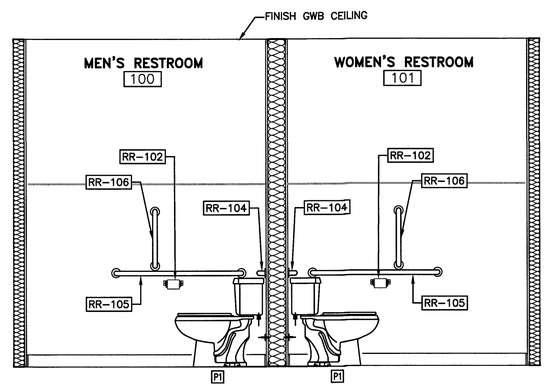
4 G4 RESTROOM ELEVATION

SCALE: 1/2" = 1'-0"



5 G4 RESTROOM ELEVATION

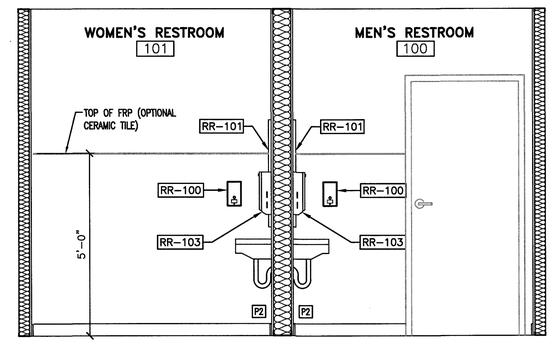
SCALE: 1/2" = 1'-0"



6 G4 RESTROOM ELEVATION

NORTH VIEW OF PLAN

SCALE: 1/2" = 1'-0"



7 G4 RESTROOM ELEVATION

SOUTH VIEW OF PLAN

SCALE: 1/2" = 1'-0"

JENKINS CONSULTING ENGINEERS, PA
OFFICE in EUREKA SPRINGS, NORTH CAROLINA
1008 MacARTHUR RD. FAYETTEVILLE, NC 28311-1002
CORPORATION NUMBER C-0070 LICENSE NUMBER C-0070
910.822.1724 FAX 910.835.5907
NORTH CAROLINA PROFESSIONAL SEAL C-0070 CORPORATION JENKINS CONSULTING ENGINEERS, PA
NORTH CAROLINA PROFESSIONAL SEAL 42009 ENGINEER KELLY A. DODSON

15 NOVEMBER 2023

DESIGNED BY: K. DODSON
DRAWN BY: JDL
PROJECT #: 2023-05-19
DATE: 15 NOVEMBER 2023

FINAL DRAWING [ ] FOR REVIEW PURPOSES ONLY
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OWNER/TENANT:
FLAT BRANCH FIRE DEPT.
2098 ELLIOTT BRIDGE RD, BUNNLEVEL, NC 28323

CONTRACTOR/BUILDER:
- -

PROJECT:
NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

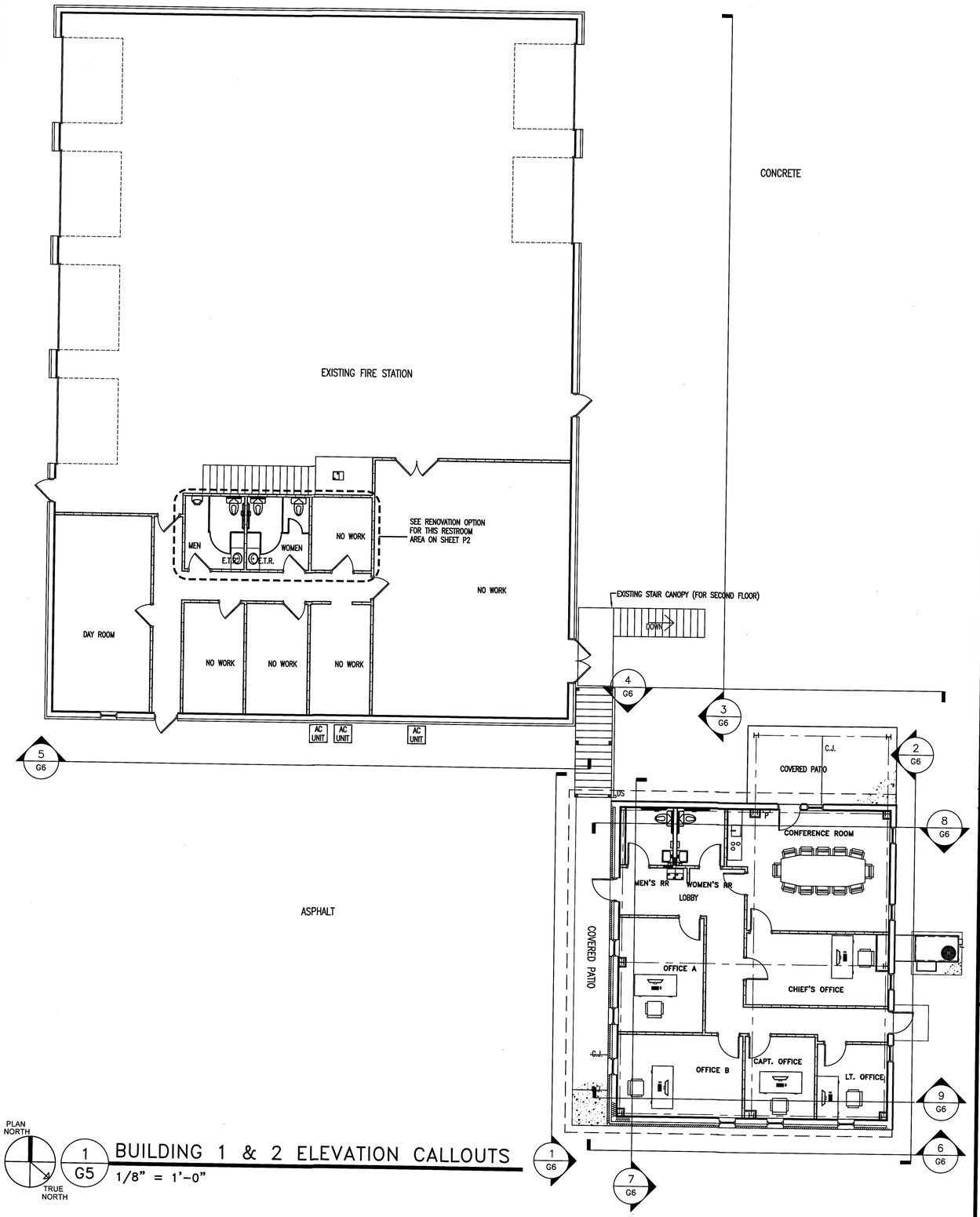
SHEET:
ADA ACCESSORIES/RESTROOM DETAIL

G4

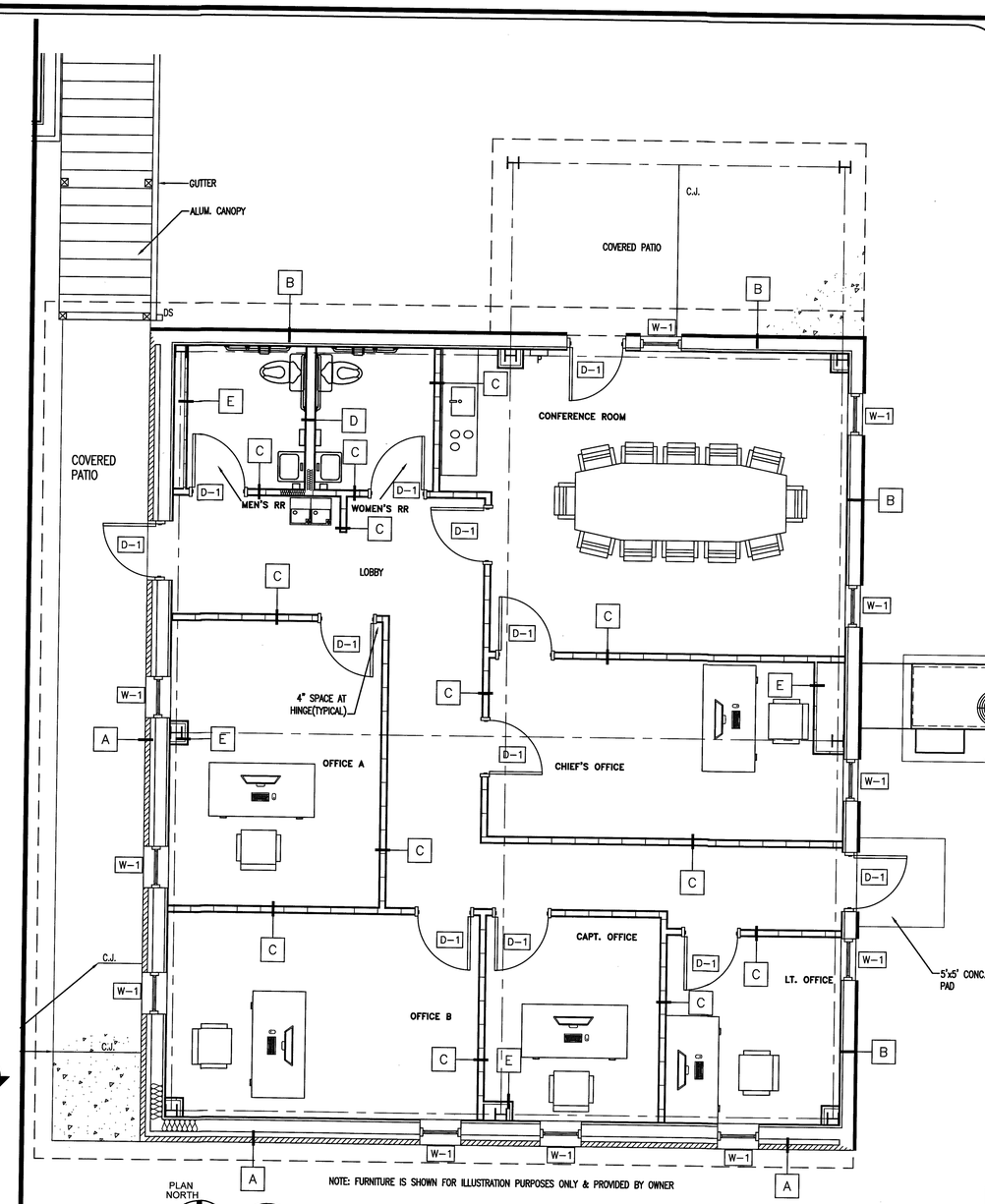
SCALE: 1/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 1" = 1'-0" SCALE: 1-1/2" = 1'-0" SCALE: 3/16" = 1'-0" SCALE: 1/8" = 1'-0"

Drawing File: H:\2023\Flat Branch VFD
Plotted By: JDL
Plotted Date: Nov 15, 2023 - 3:49pm

#2023-05-19\DWG\Flat Branch VFD 15NOV23.dwg



1 G5 BUILDING 1 & 2 ELEVATION CALLOUTS
1/8" = 1'-0"



NOTE: FURNITURE IS SHOWN FOR ILLUSTRATION PURPOSES ONLY & PROVIDED BY OWNER

2 G5 BUILDING 2 TAG CALLOUT PLAN
1/4" = 1'-0"

KEYED NOTES – NEW WORK	
KEY	DESCRIPTION
D-1	36"W x 84"H SINGLE HINGED DOOR
W-1	28"W x 64"H WINDOW

CALLOUT LEGEND:

– WALL TAG

NOTE: SEE SHEET G7 FOR REFLECTIVE CEILING PLAN

WALL TAG LEGEND:

- A — BRICK VENEER EXTERIOR WALL
- B — 8" METAL GIRT & WALL PANEL
- C — STUD-3.625" GWB-0.625" ON EACH SIDE
- D — STUD-6" GWB-0.625" ON EACH SIDE
- E — STUD- 1-1/2" GWB-0.625" ON ONE SIDE

NORTH CAROLINA PROFESSIONAL SEAL C-3070 JENKINS CONSULTING ENGINEERS, PA CORPORATE SEAL

JENKINS CONSULTING ENGINEERS, PA
OFFICE in EUREKA SPRINGS, NORTH CAROLINA
1506 MacARTHUR RD. FAYETTEVILLE, NC 28311-1022
CORPORATION NUMBER C-3070 Business@JCE.pro
910.822.1724 FAX 910.835.0507

NORTH CAROLINA PROFESSIONAL SEAL 42009 ENGINEER KEELY K. DODSON
15 NOVEMBER 2023

DESIGNED BY: K. DODSON
DRAWN BY: JDL
PROJECT #: 2023-05-19
DATE: 15 NOVEMBER 2023

FINAL DRAWING ☐ FOR REVIEW PURPOSES ONLY
PRELIMINARY ☐ FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING ☒ FOR CONSTRUCTION

OWNER/TENANT:
FLAT BRANCH FIRE DEPT.
2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323

CONTRACTOR/BUILDER:

PROJECT:
NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET:
BUILDING 1 & 2 CALLOUT PLAN

G5

SCALE: 1/8" = 1'-0" SCALE: 3/16" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 1" = 1'-0" SCALE: 1-1/2" = 1'-0"

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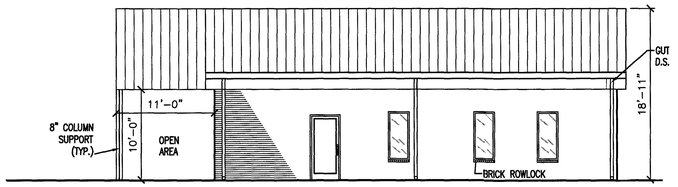
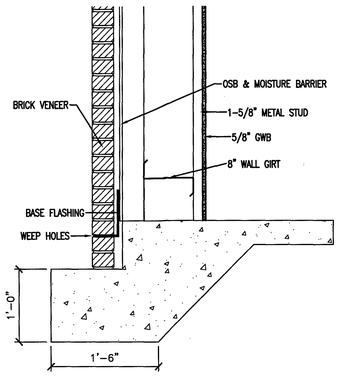
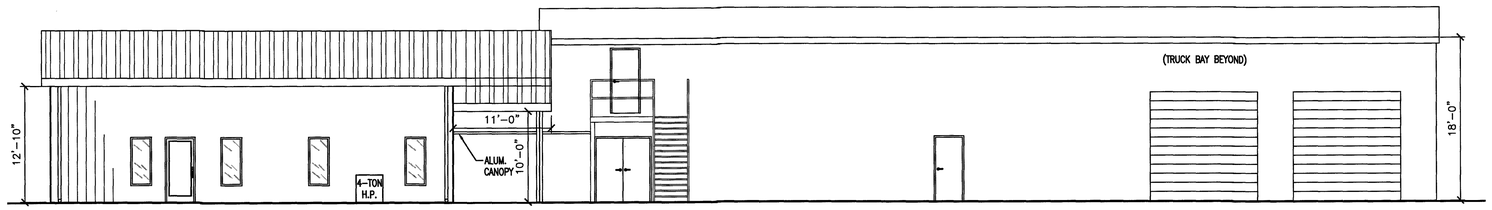
Plotted by: JDL
Plotted Date: Nov 16, 2023 – 1:54pm



1 / G6 NEW BUILDING FRONT ELEVATION
1/8"=1'

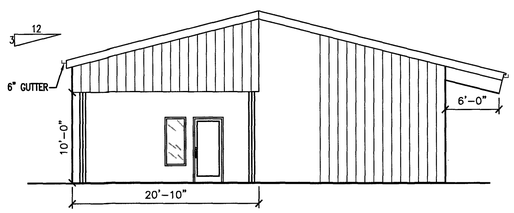


10 / G6 WALL SECTION
1"=1'

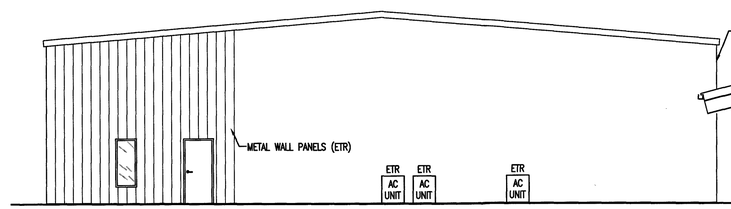


2 / G6 NEW BUILDING REAR ELEVATION
1/8"=1'

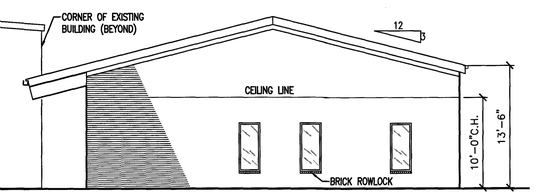
3 / G6 EXISTING BUILDING REAR ELEVATION
1/8"=1'



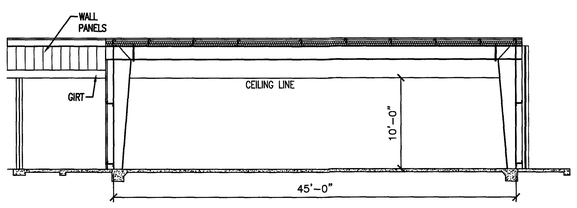
4 / G6 NEW BUILDING LEFT SIDE ELEVATION
1/8"=1'



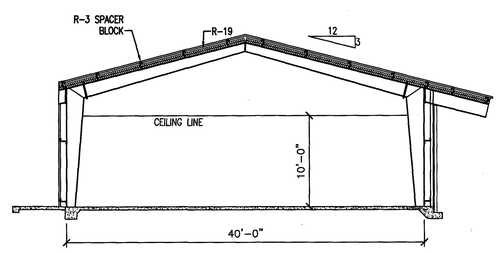
5 / G6 EXISTING BUILDING SIDE ELEVATION
1/8"=1'



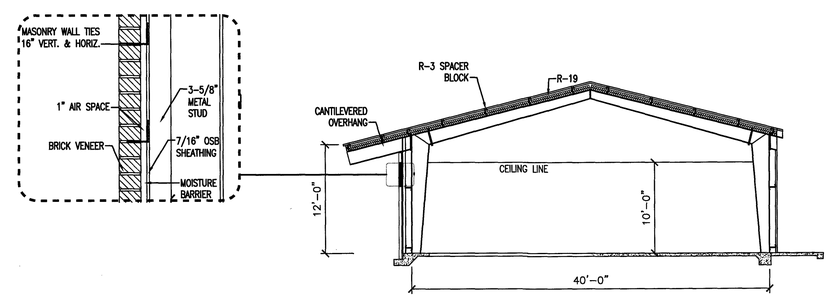
6 / G6 NEW BUILDING RIGHT SIDE ELEVATION
1/8"=1'



7 / G6 NEW BUILDING FRONT SECTION DETAIL
1/8"=1'



8 / G6 NEW BUILDING LEFT SIDE SECTION DETAIL
1/8"=1'



9 / G6 NEW BUILDING RIGHT SIDE SECTION DETAIL
1/8"=1'

SCALE: 1/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 1" = 1'-0" SCALE: 1-1/2" = 1'-0" SCALE: 3/16" = 1'-0" SCALE: 1/8" = 1'-0"

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 15NOV23.dwg
Drawn by: JDL
Plotted Date: Nov 15, 2023 - 3:51pm

JENKINS CONSULTING ENGINEERS, PA
OFFICE in EUREKA SPRINGS, NORTH CAROLINA
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910.822.1724 FAX 910.835.5607

NORTH CAROLINA PROFESSIONAL SEAL C-3070 CORPORATION JENKINS CONSULTING ENGINEERS PA

NORTH CAROLINA PROFESSIONAL SEAL 42009 ENGINEER KELLY L. DODSON

15 NOVEMBER 2023

DESIGNED BY: K. DODSON
DRAWN BY: JDL
PROJECT #: 2023-05-19
DATE: 15 NOVEMBER 2023

FINAL DRAWING ☐ FOR REVIEW PURPOSES ONLY
PRELIMINARY ☐ FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING ☑ FOR CONSTRUCTION

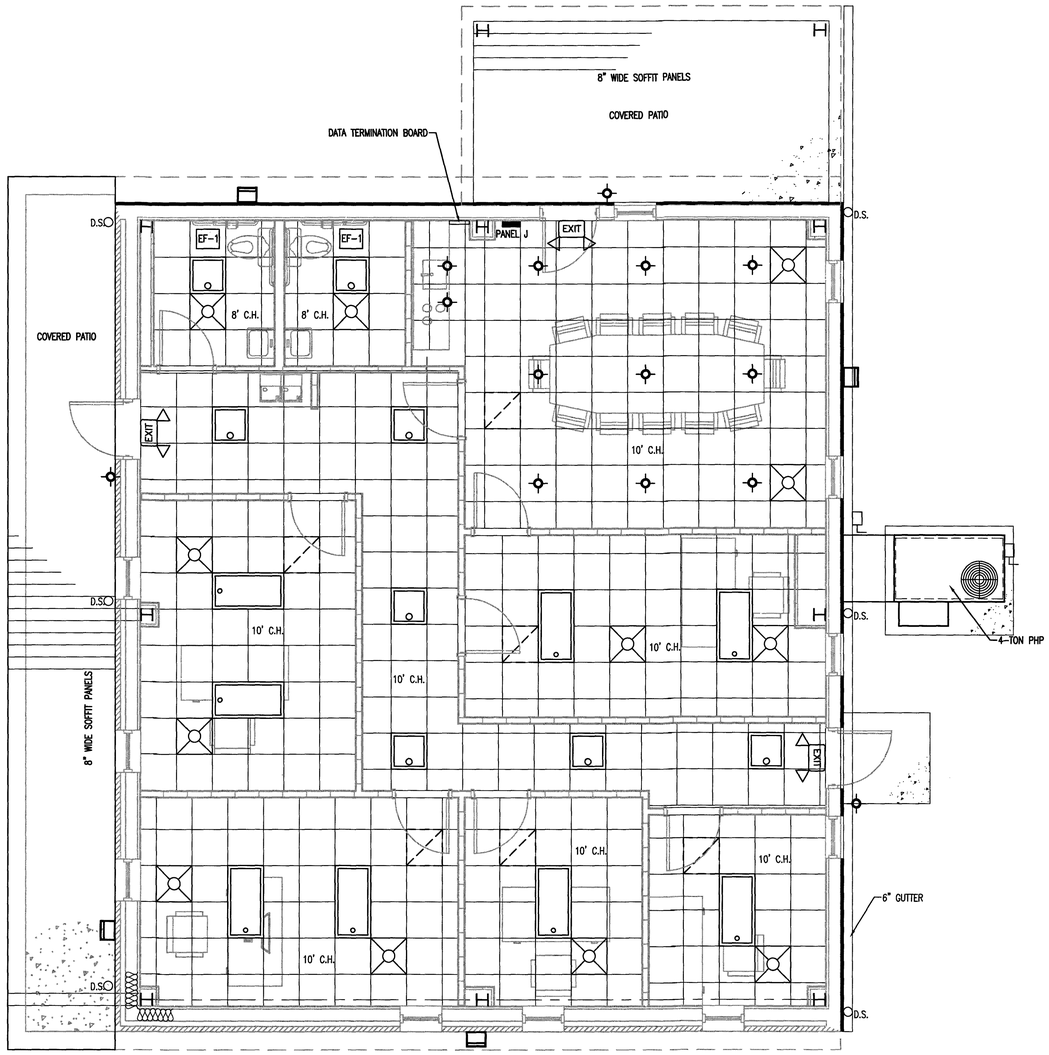
OWNER/TENANT:
FLAT BRANCH FIRE DEPT.
2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323

CONTRACTOR/BUILDER:

PROJECT:
NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET:
EXISTING/ADDITION ELEVATIONS PLAN

G6



PLAN NORTH

TRUE NORTH

1 / G7 BUILDING-2 REFLECTED CEILNG PLAN

1/4"=1'0"

REFLECTED CEILING PLAN LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	24 X 24 LAY-IN CEILING		EXTERIOR WALL PACK
	2X4 LAY-IN LIGHT FIXTURE 2X2 LAY-IN LIGHT FIXTURE		RECESSED CAN LIGHT
	SUPPLY AIR DIFFUSER	EXIT	EGRESS LIGHT
	RETURN AIR GRILLE		8" SMOOTH CEILING PANELS

JENKINS CONSULTING ENGINEERS, PA
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NORTH CAROLINA PROFESSIONAL SEAL C-3070 CORPORATION JENKINS CONSULTING ENGINEERS PA

NORTH CAROLINA PROFESSIONAL SEAL 42009 ENGINEER KELLY A. DODSON

15 NOVEMBER 2023

DESIGNED BY: K. DODSON
DRAWN BY: JDL
PROJECT #: 2023-05-19
DATE: 15 NOVEMBER 2023

FINAL DRAWING ☐ FOR REVIEW PURPOSES ONLY
PRELIMINARY ☐ FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING ☒ FOR CONSTRUCTION

OWNER/TENANT: FLAT BRANCH FIRE DEPT.
2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323

CONTRACTOR/BUILDER: - -

PROJECT: *NEW ADMIN BUILDING & INTERIOR RENOVATION*
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET: REFLECTED CEILING PLAN

G7

SCALE: 1/8" = 1'-0" SCALE: 3/16" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 1" = 1'-0" SCALE: 1-1/2" = 1'-0"

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 15NOV23.dwg
Plotted By: Josh
Plotted Date: Nov 15, 2023 - 3:52pm

DOOR SCHEDULE

DOOR NO	DOOR SIZE			DOOR			FRAME				HARDWARE													
D#	WIDTH	HEIGHT	THICKNESS	STYLE	MATERIAL	FINISH	TYPE	MATERIAL	FINISH	FIRE RATING	ENTRANCE LOCK	PASSAGE SET	PRIVACY SET	ADA TURNKNOB MORTISE CYLINDER	PUSH/PULL	STOREROOM LOCK	OFFICE LOCK	PANIC SET	CLOSER	STOP	THRESHOLD	KICK PLATES	WEATHERSTRIPPING	CARD READER	REMARKS
D1	3'-0"	X 7'-0"	X 1-3/4"	B	ALUM	P	1	ALUM	P	–	X	–	–	–	–	–	–	–	X	X	X	–	X	–	
D2	3'-0"	X 7'-0"	X 1-3/4"	A	WD	S	1	HM	P	–	–	–	X	–	–	–	–	–	X	X	X	–	–	–	
D3	3'-0"	X 6'-8"	X 1-3/4"	A	WD	P	1	HM	P	–	–	–	X	–	–	–	–	–	X	X	X	–	–	–	
D4	3'-0"	X 6'-8"	X 1-3/4"	A	WD	P	1	HM	P	–	–	–	–	–	–	–	X	–	–	X	–	–	–	–	
D5	3'-0"	X 6'-8"	X 1-3/4"	A	WD	P	1	HM	P	–	–	–	–	–	–	–	–	–	–	X		–	–	–	
D6	3'-0"	X 6'-8"	X 1-3/4"	A	WD	P	1	HM	P	–	–	–	–	–	–	–	X	–	–	X	–	–	–	–	
D7	3'-0"	X 6'-8"	X 1-3/4"	A	WD	P	1	HM	P	–	–	–	–	–	–	–	X	–	–	X	–	–	–	–	
D8	3'-0"	X 6'-8"	X 1-3/4"	A	WD	P	1	HM	P	–	–	–	–	–	–	–	X	–	–	X	–	–	–	–	
D9	3'-0"	X 6'-8"	X 1-3/4"	A	WD	P	1	HM	P	–	–	–	–	–	–	–	X	–	–	X	–	–	–	–	
D10	3'-0"	X 7'-0"	X 1-3/4"	B	ALUM	P	1	ALUM	P	–	X	–	–	–	–	–	–	–	X	X	X	–	X	–	
D11	3'-0"	X 7'-0"	X 1-3/4"	B	ALUM	P	1	ALUM	P	–	X	–	–	–	–	–	–	–	X	X	X	–	X	–	
D12	3'-0"	X 6'-8"	X 1-3/4"	C	WD	P	1	HM	P	–	–	–	–	–	–	–	X	–	X	X	X	–	–	–	ON SECOND FLOOR
D13	3'-0"	X 6'-8"	X 1-3/4"	C	WD	P	1	HM	P	–	–	–	–	–	–	–	X	–	X	X	X	–	–	–	ON SECOND FLOOR

REMARKS
NOTE:
G.C. TO REVIEW ALL HARDWARE SETS WITH OWNER BEFORE INSTALLATION

NOTE: NEW REGULAR HARDWARE TO BE LEVER ADA ACCEPTABLE
ALL THRESHOLDS TO MEET ADA SPECIFICATIONS

NOTES:

1. APPLY 2 COATS OF SEMI-GLOSS TO ALL WOOD DOORS.
2. ALL EXIT DOORS TO BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF A KEY, TOOL, SPECIAL KNOWLEDGE OF EFFORT. ALL HARDWARE MUST BE DIRECT ACTING REQUIRING NOT MORE THAN ONE OPERATION.
3. DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERABLE PARTS ON ACCESSIBLE DOORS SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND DOES NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST TO OPERATE. OPERABLE PARTS OF SUCH HARDWARE SHALL BE 34" MINIMUM AND 48" MAXIMUM ABOVE THE FLOOR PER ICC/ANSI A117.1-2009 SECTIONS 404.2.6& 404.2.7
4. G.C. TO REVIEW ALL HARDWARE SETS WITH OWNER BEFORE INSTALLATION
5. PROVIDE TRANSITION STRIPS AT ALL FLOORING MATERIAL CHANGES
6. REFRIGERATION DOORS ARE PRE-FINISHED

ABBREVIATIONS:
ALUM – ALUMINUM
WD – WOOD
S – STAIN
P – PAINT

PASSAGE SET: (CLOSET & HALL) PASSAGE LOCKSETS KEEP DOORS FIRMLY CLOSED, BUT DO NOT ACTUALLY LOCK. BOTH LEVERS ALWAYS TURN FREE WITH NO LOCK CYLINDER OR PROVISION FOR A KEY.

PRIVACY SET: (RESTROOM) PRIVACY LOCKSETS ARE LOCKED WITH AN INSIDE PUSH-BUTTON. TURNING THE INSIDE KNOB OR LEVER RELEASES THE LOCK. A SMALL SCREWDRIVER CAN BE USED AS AN EMERGENCY KEY, FROM THE OUTSIDE, IF NECESSARY.

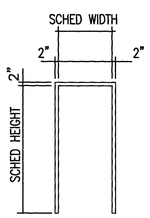
TURNKNOB MORTISE CYLINDER LOCK: LOCKSETS ARE LOCKED WITH AN INSIDE PUSH-BUTTON OR LATCH. THE OUTSIDE LEVER REMAINS LOCKED UNTIL UNLOCKED WITH A KEY FROM THE OUTSIDE OR BY ROTATING THE INSIDE LEVER TRIM. THE INSIDE KNOB OR LEVER IS ALWAYS FREE IMMEDIATE EXIT.

ENTRANCE LOCK: (ENTRY) ENTRANCE LOCKED BY PUSHING AND TURNING A BUTTON AND UNLOCKED BY THE KEY UNTIL THE INSIDE BUTTON IS MANUALLY UNLOCKED. THEY ARE ALSO AVAILABLE WITH PUSHBUTTON LOCKING, IN WHICH PUSHING THE BUTTON LOCKS THE OUTSIDE KNOB OR LEVER UNTIL IT IS UNLOCKED BY KEY OR BY TURNING THE INSIDE KNOB OR LEVER. THE INSIDE KNOB OR LEVER IS ALWAYS FREE FOR IMMEDIATE EXIT.

OFFICE LOCK: OFFICE LOCKSETS ALWAYS HAVE THE INSIDE KNOB OR LEVER UNLOCKED. THE OUTSIDE KNOB OR LEVER IS LOCKED AND UNLOCKED BY KEY.

STOREROOM LOCK: STOREROOM LOCKSETS ALWAYS HAVE THE INSIDE KNOB OR LEVER UNLOCKED. THE OUTSIDE KNOB OR LEVER IS FIXED: THE LATCH IS RETRACTED BY THE KEY FROM OUTSIDE.

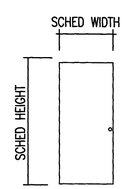
COOLER DOOR: MANUFACTURER'S STANDARD LATCH SETS



FRAME TYPE 1

DOOR FRAMES

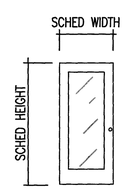
1/4" = 1'-0"



DOOR STYLE A

DOOR STYLES

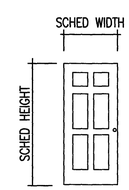
1/4" = 1'-0"



DOOR STYLE B

DOOR STYLES

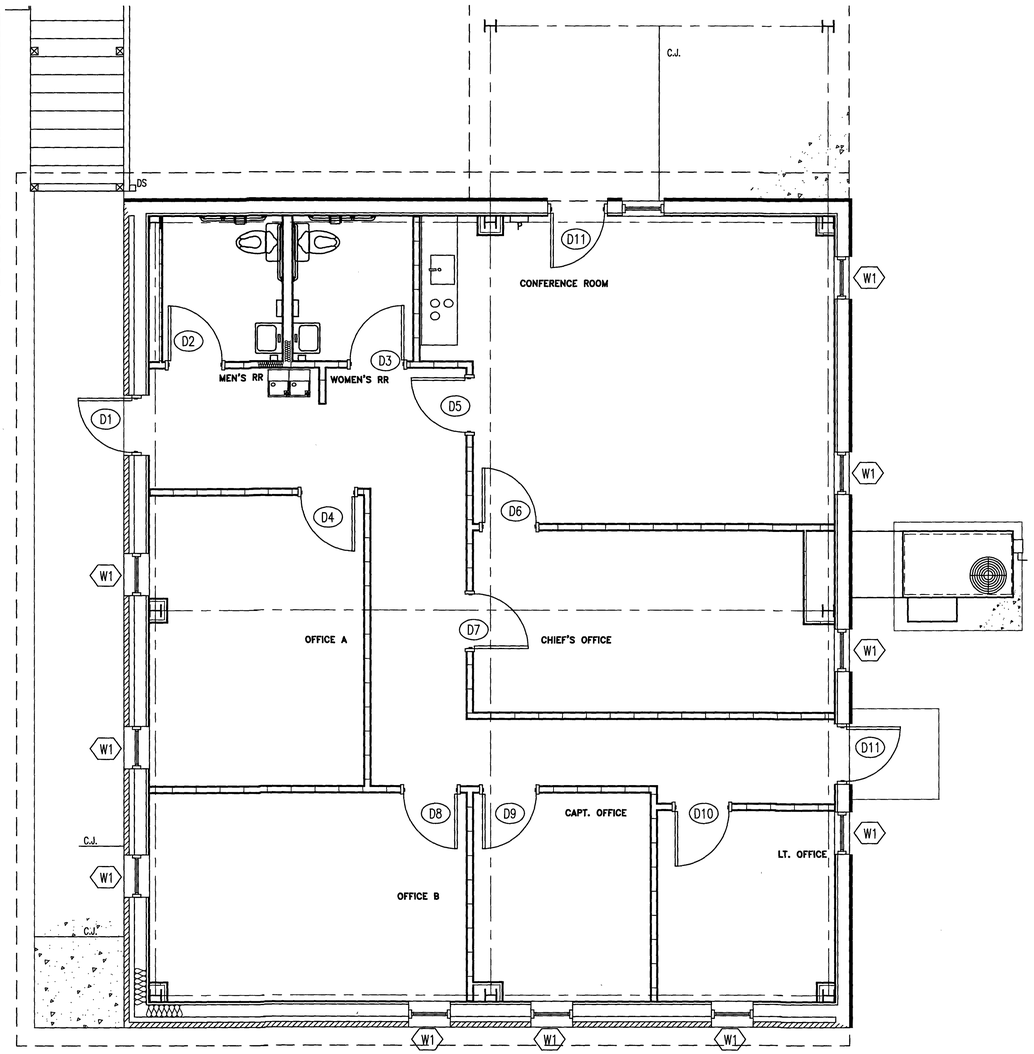
1/4" = 1'-0"



DOOR STYLE C

DOOR STYLES

1/4" = 1'-0"



PLAN NORTH
TRUE NORTH

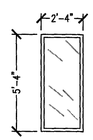
1 / G8 BUILDING-2 DOOR/WINDOW PLAN

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

SEE SHEETS G5 FOR CALLOUTS
NOTE: COORDINATE WITH METAL BUILDING PLANS FOR LOCATIONS OF X-BRACING AND WALL GIRTS

WINDOW SCHEDULE

WINDOW NO	WINDOW SIZE		FRAME				REMARKS
W#	WIDTH	HEIGHT	STYLE	MATERIAL	FINISH	FIRE RATING	NOTE: G.C. TO REVIEW WITH OWNER BEFORE INSTALLATION
W1	2'-4"	X 5'-4"	1	VINYL	–	–	FIXED



FRAME TYPE 1

WINDOW STYLES

JENKINS CONSULTING ENGINEERS, PA
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1506 MacARTHUR RD. FAYETTEVILLE, NC 28311-1002
CORPORATION NUMBER C-3070 BuddyJ@jenkinscpa.com
910.822.1724 FAX 910.830.5907

NORTH CAROLINA PROFESSIONAL SEAL 42009 ENGINEER KENDALL A. DODSON

15 NOVEMBER 2023

DESIGNED BY: K. DODSON
DRAWN BY: JDL
PROJECT #: 2023-05-19
DATE: 15 NOVEMBER 2023

FINAL DRAWING ☐ FOR REVIEW PURPOSES ONLY
PRELIMINARY ☐ FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING ☑ FOR CONSTRUCTION

OWNER/TENANT: FLAT BRANCH FIRE DEPT.
2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323
CONTRACTOR/BUILDER:

PROJECT: NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET: DOOR AND WINDOW SCHEDULE

G8

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 16NOV23.dwg
Plotted by: JoshL
Plotted Date: Nov 16, 2023 – 5:58pm

APPENDIX B MECHANICAL DESIGN
2018 BUILDING CODE SUMMARY

PROJECT NAME: FLAT BRANCH VFD ADDITION & RENOVATION

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT
METHOD OF COMPLIANCE
PRESCRIPTIVE [X] ENERGY COST BUDGET [ ]

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

THERMAL ZONE: ZONE 3 NORTH CAROLINA
WINTER DRY BULB: 17.0° F
SUMMER DRY BULB: 97.0° F

INTERIOR DESIGN CONDITIONS
WINTER DRY BULB: 68°
SUMMER DRY BULB: 78°
RELATIVE HUMIDITY: 50%

BUILDING HEATING LOAD: 45,500 BTU'S
BUILDING COOLING LOAD: 48,000 BTU'S

MECHANICAL SPACING CONDITIONING SYSTEM

UNITARY
DESCRIPTION OF UNIT: PACKAGE HEAT PUMP (1) 4 TON
HEATING EFFICIENCY: 9.0 HSPF (8.2 HSPF MINIMUM STANDARD EFFICIENCY, TABLE C403.2.3 (2))

COOLING EFFICIENCY: 14.0 SEER (14.0 SEER MINIMUM STANDARD EFFICIENCY, TABLE C403.2.3 (2))

SIZE CATEGORY OF UNIT: (1) 1 (≤ 65,000 BTU/H)

BOILER
SIZE CATEGORY. IF OVERSIZED, STATE REASON.: _____

CHILLER
SIZE CATEGORY. IF OVERSIZED, STATE REASON.: _____

LIST EQUIPMENT EFFICIENCIES: _____

DESIGNER STATEMENT: TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT REQUIREMENTS OF THE INTERNATIONAL ENERGY CODE. THE HVAC UNIT QUALIFIES AS MORE EFFICIENT MECHANICAL EQUIPMENT DESCRIBED IN THE CODE.

SIGNED: Buddy Jenkins
NAME: BUDDY JENKINS
TITLE: ENGINEER

DESCRIPTION AND SEQUENCE OF OPERATION OF HVAC SYSTEM

THE HVAC SYSTEM CONSISTS OF:

(1) 4 TON HEATPUMP UNIT WHICH PROVIDES CONSTANT VOLUME HEATING/COOLING/VENTILATION TO ALL BUSINESS AREAS.

(1) EXISTING WASTE OIL HEATERS SHALL PROVIDE HEATING TO SERVICE BAY

OCCUPIED OPERATION

THE SUPPLY FANS SHALL RUN CONTINUOUSLY TO PROVIDE THE REQUIRED VENTILATION RATE. IN THE COOLING MODE, A RISE IN TEMPERATURE BEYOND SET POINT OF PROGRAMMABLE T-STAT WILL RESULT IN ACTIVATION OF DX COOLING CYCLE UNTIL DESIRED TEMPERATURE IS REACHED. IN HEATING MODE, A SIGNAL FROM T-STAT WILL ACTIVATE THE HEAT PUMP TO DELIVER HEATING TO SPACES. IF OUTSIDE TEMPERATURE FALLS BELOW SET POINT, HEAT STRIPS WILL ACTIVATE TO BRING TEMPERATURE TO DESIRED SET POINT AT WHICH TIME THE HEAT STRIPS WILL TURN OFF AND HEAT PUMP SHALL BE USED TO MAINTAIN DESIRED SPACE TEMPERATURE.

PROVIDE HEAT STRIP LOCKOUT CONTROLS TO PREVENT HEAT STRIP OPERATION BETWEEN 35°F AND 40°F PER ENERGY CODE PARAGRAPH 503.2.4.1.1.

UNOCCUPIED OPERATION

THE SUPPLY FAN SHALL BE INDEXED OFF AND MOTORIZED OUTSIDE AIR DAMPER SHALL BE CLOSED. PROGRAMMABLE THERMOSTATS SHALL PROVIDE CONTROL OF EACH UNIT.

EXHAUST FAN OPERATION

THE SERVICE BAYS REQUIRE MINIMUM OF 4 AIR CHANGES PER HOUR AND IS OBTAINED BY THE CONTINUOUS OPERATION OF THE WALL EXHAUST FANS (EF-3) DURING OPEN HOURS AND SERVICE USE.

THE RESTROOM EXHAUST FANS SHALL BE SWITCHED WITH LIGHTING FOR TOILET.

PACKAGED HEATPUMP SCHEDULE

EQUIPMENT INFO				COOLING CAPACITIES					HEATING CAPACITIES				INDOOR FAN SECTION						COMPRESSOR/CONDENSER SECTION				ELECTRICAL INFORMATION					MFG & MODEL
TAG	TYPE	LOCATION	UNIT WEIGHT	NOM. TONS	GROSS COOLING	MIN. SEER	MIN. EER	MIN. IEER	MIN. HSPF	NET HEATING	HEAT STRIPS	MIN. COP	SUPPLY CFM	OA CFM	ESP IN WG	FAN TYPE	FAN HP	FAN FLA	NO. OF COMPR.	COMPRESSOR AMPS RLA	CONDENSER FAN AMPS FLA	NO. OF FANS	UNIT VOLTS	UNIT PHASE	MCA	MOCP	WIRE SIZE (CU. 75 C)	
PU-1	PACKAGED HEAT PUMP	EQUIP. PAD	485	4.0	48,000	14.0	11.0	N/A	N/A	45,500	7.0 KW	3.6	1600	200	0.50	DIRECT	3/4	5.8	1	21.8	1.4	1	240	1	71	80	#4	GOODMAN / GPH1448M41A

REMARK:
1. PROVIDE ELECTRICAL HEAT AS NOTED.
2. PROVIDE C/D DRAIN PIPE.
3. PROVIDE 7 DAYS PROGRAMMABLE THERMOSTAT.
4. PROVIDE VIBRATION ISOLATORS.
5. PROVIDE EQUIPMENT PAD FOR UNITS.
6. PROVIDE INSULATED WEATHERPROOF DUCT SHROUD.
7. PROVIDE MANUFACTURER'S ACCESSORY HAIL GUARDS TO PROTECT COIL FROM HAIL DAMAGE.

OUTSIDE/EXHAUST AIR CALCULATION

UNIT	OCCUPANCY TYPE:	NET SF (Az)	CEILING HEIGHT (CIgHt)	VOLUME (CF) (Az*CIgHT)	SUPPLY AIR (CFM)	AIR CHANGES PER HOUR (ACH75)	OCCUPANT DENSITY #/1000	OCCUPANTS (Pz)	O.A. CFM PER PERSON (Rp)	O.A. CFM PER SF (Ra)	(RpPz)	(RaAz)	O.A. CFM REQUIRED (Vbz) (RpPz + RaAz)	ZONE O.A. AIR FLOW (Ez)²	ADJUSTED O.A. Voz = Vbz/Ez	EXHAUST CFM REQUIRED	
PHP-1	MEN'S RR	48	8'-0"	384	50	7.81	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.8	N/A	(1) FLUSHING X 70	70
	WOMEN'S RR	48	8'-0"	384	50	7.81	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.8	N/A	(1) FLUSHING X 70	70
	CONFERENCE ROOM	363	10'-0"	3630	300	4.96	50	12	5.0	0.06	60.0	21.78	81.78	0.8	102		
	OFFICE A	192	10'-0"	1920	300	9.38	5	1	5.0	0.06	5.0	11.52	16.52	0.8	21		
	CHIEF'S OFFICE	202	10'-0"	2020	300	8.91	5	1	5.0	0.06	5.0	12.12	17.12	0.8	21		
	OFFICE B	203	10'-0"	2030	300	8.87	5	1	5.0	0.06	5.0	12.18	17.18	0.8	21		
	CAPTAIN'S OFFICE	113	10'-0"	1130	150	7.96	5	1	5.0	0.06	5.0	6.78	11.78	0.8	15		
	LIEUTENANT OFFICE	104	10'-0"	1040	150	8.65	5	1	5.0	0.06	5.0	6.24	11.24	0.8	14		
											(MIN MAKEUP AIR) USE LARGEST (A OR B) VALUES (LOUVER)				194		B=140
	* = 1956.25 CFM x 60 =117375 CFM/HOUR, 117375/ 28080 = 4.18 AIR CHANGES PER HOUR												MIN. OUTSIDE AIR CFM REQUIRED		194	TOTAL EXHAUST CFM REQUIRED	140
													TOTAL OUTSIDE AIR CFM PROVIDED		200	TOTAL EXHAUST CFM PROVIDED (EF-1,2)	140

(SERVICE BAY REQUIRES MINIMUM 4 AIR CHANGES PER HOUR (NEC 511))

GRILLE/RETURN SCHEDULE

TAG	CFM	AIR PATTERN	FACE SIZE	NECK SIZE	SERVICE	MFG & MODEL	REMARKS
A	50-220	LOUVERED	24X24	10X6	SUPPLY	TITUS 300R OR EQUAL	SURFACE; OFF WHITE; ALUM. PAS
B	200-300	4-WAY	24X24	10X10	RETURN	TITUS 300R OR EQUAL	SURFACE; OFF WHITE; ALUM. PAR

EXHAUST FAN SCHEDULE

EQUIPMENT INFO			FAN INFORMATION					ELECTRICAL INFORMATION									MFG & MODEL
TAG	TYPE	LOCATION	EXHAUST CFM	AREA SERVED	ESP IN WG	FAN DRIVE	SONES	RPM	FAN FLA	FAN HP	FAN WATT	UNIT VOLTS	UNIT PHASE	MOCP	MCA	WIRE SIZE (DU. 75 C)	
EF-1, EF-2	EXHAUST	RECESSED	70	RESTROOMS	0.125	DIRECT	0.9	900	–	–	18.6	120	1	–	–	#12	GREENHECK / SP-B80-QD

JENKINS CONSULTING ENGINEERS, PA
NORTH CAROLINA PROFESSIONAL SEAL C-3070 CORPORATION ENGINEERS PA JENKINS CONSULTING
OFFICE in EUREKA SPRINGS, NORTH CAROLINA
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910.822.7124 FAX 910.630.0007

NORTH CAROLINA PROFESSIONAL SEAL 030786 ENGINEER BUDDY JENKINS
15 NOVEMBER 2023

DESIGNED BY: B. JENKINS
DRAWN BY: JDL
PROJECT #: 2023-05-19
DATE: 15 NOVEMBER 2023

FINAL DRAWING [ ] FOR REVIEW PURPOSES ONLY
PRELIMINARY [ ] FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING [X] FOR CONSTRUCTION

OWNER/TENANT: FLAT BRANCH FIRE DEPT.
2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323
CONTRACTOR/BUILDER:

PROJECT: NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

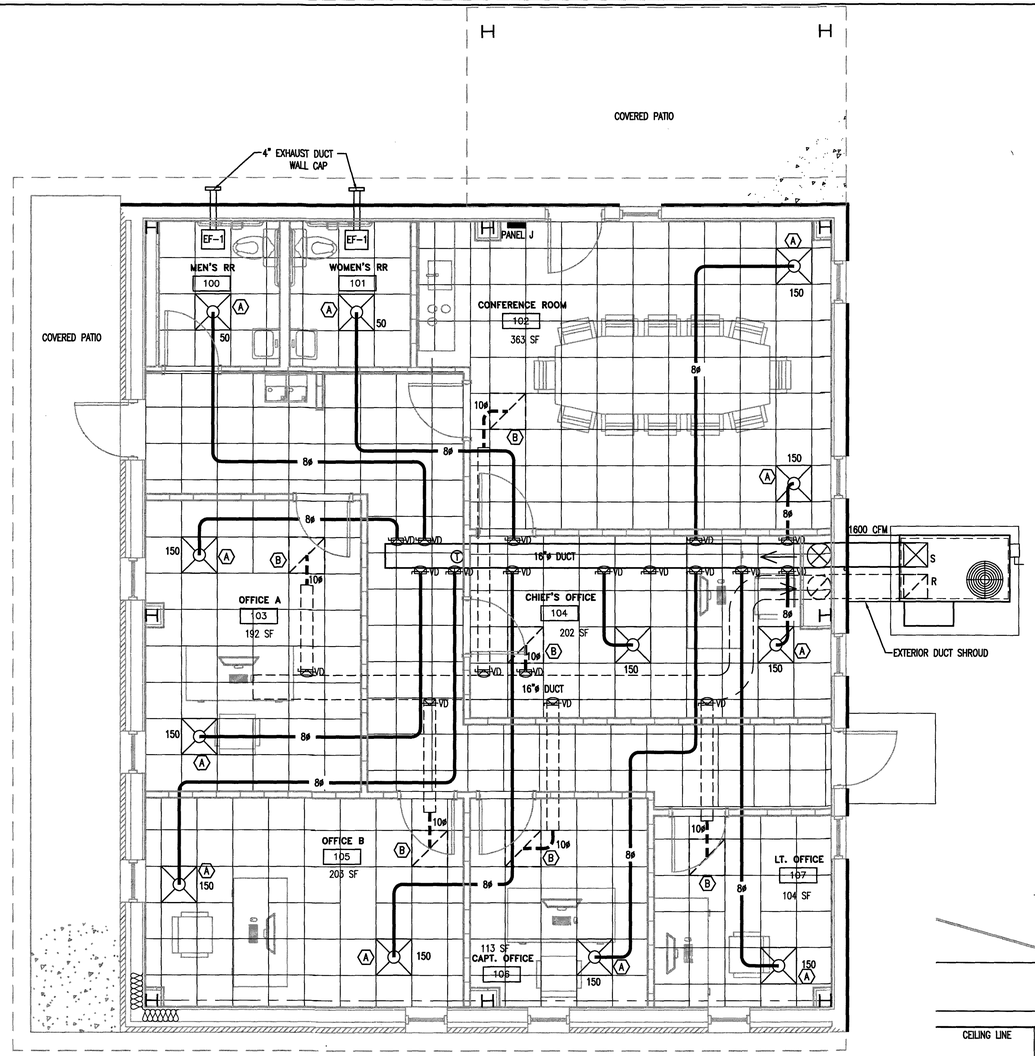
SHEET: MECHANICAL SCHEDULES AND NOTES

M1

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 16NOV23.dwg
Plotted by: Josh
Plotted Date: Nov 16, 2023 - 6:27pm

SUPPLY/RETURN

ROOM NUMBER	ROOM NAME	TOTAL CFM	CEILING HEIGHT (ClgHt)	NUMBER OF SUPPLIES	NUMBER OF RETURNS
100	MEN'S RESTROOM	50	8'-0"	1	–
101	WOMEN'S RESTROOM	50	8'-0"	1	–
102	CONFER. ROOM	300	10'-0"	2	1
103	OFFICE A	300	10'-0"	2	1
104	CHIEF'S OFFICE	300	10'-0"	2	1
105	OFFICE B	300	10'-0"	2	1
106	CAPTAIN'S OFFICE	150	10'-0"	1	1
107	LIEUTENANT OFFICE	150	10'-0"	1	1



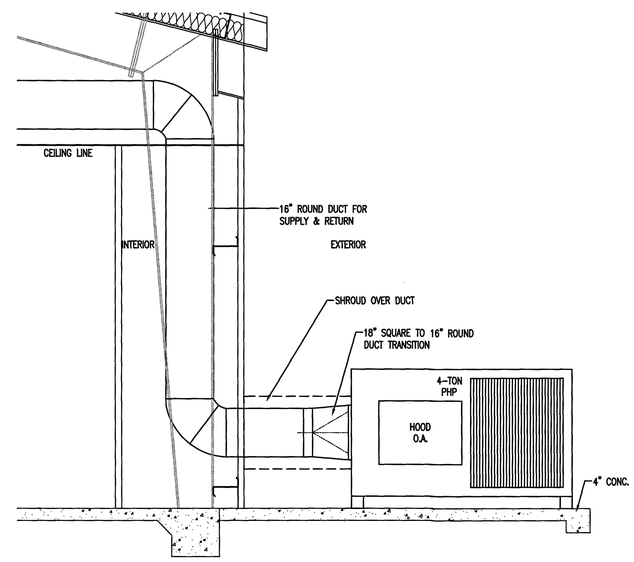
PLAN NORTH
TRUE NORTH

1 / M2 BUILDING 2 HVAC (WITH CEILING GRID)
1/4"=1'

MECHANICAL SYMBOLS:

- NEW SUPPLY DIFFUSER
- NEW RETURN GRILLE WITH FILTER FRAME & HINGED DOOR. 16"X16" FILTERS
- THERMOSTAT PROGRAMMABLE, 7 DAYS
- 8"ø FLEX-SUPPLY, SUPPORT EVERY 5 LINEAR FEET
- 10"ø FLEX-RETURN(MAXIMUM 5FT)
- VD VOLUME DAMPER
- 10"ø HARD DUCT

NOTE: PROVIDE REQUIRED OFFSETS & TRANSITIONS TO AVOID BUILDING MAIN FRAMES



2 / M2 HVAC PHP SIDE ELEVATION
1/2"=1'

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NORTH CAROLINA PROFESSIONAL SEAL C-3070 JENKINS CONSULTING ENGINEERS, PA CORPORATE

NORTH CAROLINA PROFESSIONAL SEAL ENGINEER DOUGLAS L. "BUDDY" JENKINS

15 NOVEMBER 2023

DESIGNED BY: B. JENKINS
DRAWN BY: JDL
PROJECT #: 2023-05-19
DATE: 15 NOVEMBER 2023

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2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323

CONTRACTOR/BUILDER:

PROJECT: NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET: HVAC PLAN WITH CEILING GRID

M2

SCALE: 1/8" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 1" = 1'-0" SCALE: 3/16" = 1'-0" SCALE: 1/2" = 1'-0"

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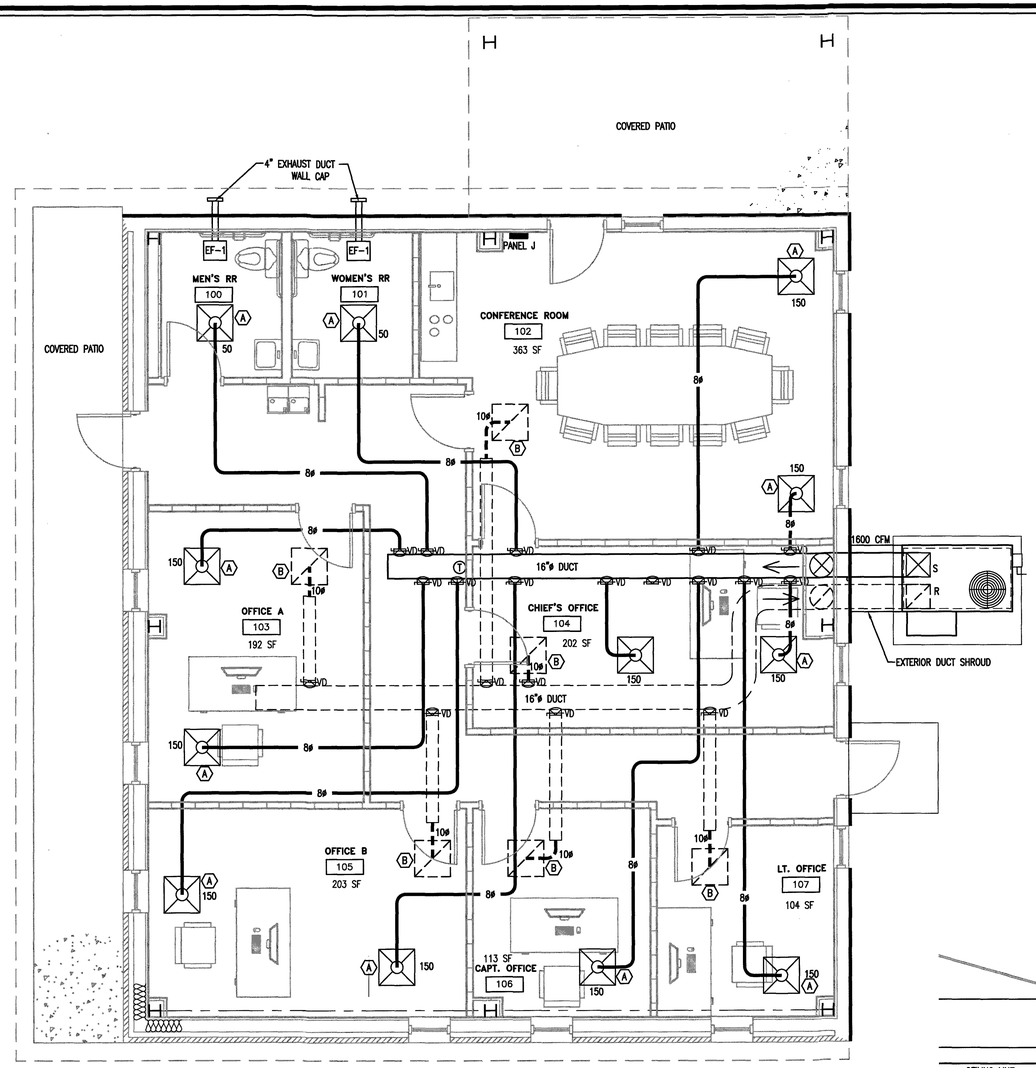
SUPPLY/RETURN

ROOM NUMBER	ROOM NAME	TOTAL CFM	CEILING HEIGHT (CIgHt)	NUMBER OF SUPPLIES	NUMBER OF RETURNS
100	MEN'S RESTROOM	50	8'-0"	1	–
101	WOMEN'S RESTROOM	50	8'-0"	1	–
102	CONFER. ROOM	300	10'-0"	2	1
103	OFFICE A	300	10'-0"	2	1
104	CHIEF'S OFFICE	300	10'-0"	2	1
105	OFFICE B	300	10'-0"	2	1
106	CAPTAIN'S OFFICE	150	10'-0"	1	1
107	LIEUTENANT OFFICE	150	10'-0"	1	1



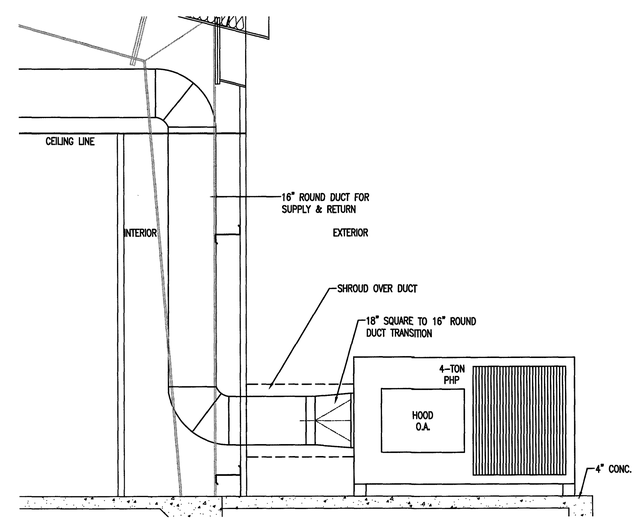
PLAN NORTH
TRUE NORTH

1 / M3 BUILDING 2 HVAC (WITHOUT CEILING GRID)
1/4"=1'

MECHANICAL SYMBOLS:

- NEW SUPPLY DIFFUSER
- NEW RETURN GRILLE WITH FILTER FRAME & HINGED DOOR. 16"X16" FILTERS
- THERMOSTAT PROGRAMMABLE, 7 DAYS
- 8"ø FLEX-SUPPLY, SUPPORT EVERY 5 LINEAR FEET
- 10"ø FLEX-RETURN(MAXIMUM 5FT)
- VOLUME DAMPER
- 10"ø HARD DUCT

NOTE: PROVIDE REQUIRED OFFSETS & TRANSITIONS TO AVOID BUILDING MAIN FRAMES



2 / M3 HVAC PHP SIDE ELEVATION
1/2"=1'

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OFFICE in: EUREKA SPRINGS, NORTH CAROLINA
NORTH CAROLINA PROFESSIONAL SEAL C-3070 CORPORATION
JENKINS CONSULTING ENGINEERS PA
NORTH CAROLINA PROFESSIONAL SEAL ENGINEER DOUGLAS L. "BUDDY" JENKINS
15 NOVEMBER 2023

DESIGNED BY: B. JENKINS
DRAWN BY: JDL
PROJECT #: 2023-05-19
DATE: 15 NOVEMBER 2023

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CONTRACTOR/BUILDER:

PROJECT: NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET: HVAC PLAN WITHOUT CEILING GRID

M3

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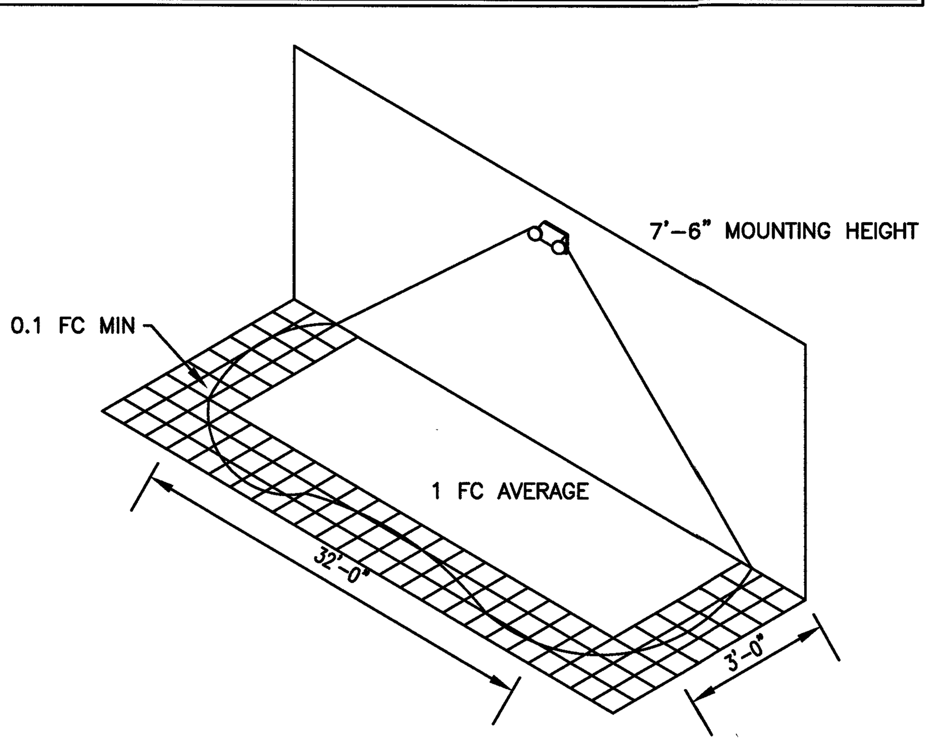
ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	DUPLEX RECEPTACLE; MOUNT AT 18" A.F.F.
TR	DUPLEX RECEPTACLE; MOUNT AT 18" A.F.F.; TAMPER RESISTANT
GFCI	DUPLEX RECEPTACLE; GROUND FAULT CIRCUIT INTERRUPTER
WP/GFCI	DUPLEX RECEPTACLE; WEATHERPROOF/GROUND FAULT CIRCUIT INTERRUPTER
	QUAD RECEPTACLE; MOUNT AT 18" A.F.F.
	2 POLE 208/240V RECEPTACLE
	CEILING MOUNTED DUPLEX RECEPTACLE
	FLOOR MOUNTED RECEPTACLE
	SINGLE POLE POWER/LIGHTING HOMERUN
	2-POLE POWER HOMERUN
	3-POLE POWER HOMERUN (3 PHASE)
	WALL MOUNTED DATA OUTLET
	WALL MOUNTED VOICE (TELEPHONE) OUTLET
	WALL MOUNTED VOICE/DATA OUTLET
TC	TIMECLOCK
TV	TELEVISION OUTLET
	DISCONNECT
J	JUNCTION BOX
	POWER PANEL
$	SWITCH
$3	3-WAY SWITCH
$4	4-WAY SWITCH
OS	OCCUPANCY SENSOR WITH MANUAL OVERRIDE
	LAY-IN/SURFACE MOUNTED LED LIGHT FIXTURE
	LAY-IN/SURFACE MOUNTED LED; NIGHT LIGHT; WITH TAG
	PENDANT LIGHT
	CAN LIGHT
	EMERGENCY LIGHT
EXIT	EXIT/EMERGENCY COMBO
EXIT	EXIT LIGHT
	REMOTE HEAD FOR EXIT LIGHTING
	EXTERIOR MOUNTED WALL PACK



ASSUMES OPEN SPACE WITH NO OBSTRUCTIONS, MOUNTING HEIGHT; 7'-6"; 9'-0" CEILING HEIGHT, AND REFLECTANCES 80/50/20

EMERGENCY LIGHT FIXTURE PERFORMANCE

3'-0" WIDE PATH OF EGRESS

CENTER TO CENTER SPACING (MULTIPLE FIXTURES) 35'-0"
SINGLE UNIT COVERAGE 32'-0"

EMERGENCY LIGHT

NOT TO SCALE

ELECTRICAL NOTES:

ALL WORK SHALL BE IN ACCORDANCE WITH 2020 NEC.

WIRE AND CABLE SHALL BE INSULATED, TYPE THHN, 600 VOLTS, WITH COPPER CONDUCTORS. CONDUCTOR SIZES NO. 8 AWG AND LARGER MAY BE STRANDED. CONDUCTOR SIZES NO. 10 AWG AND SMALLER MAY BE SOLID OR STRANDED. ROMEX CANNOT BE USED IN THIS PROJECT.

EMT SHALL BE GALVANIZED STEEL TUBING 1/2-INCH MINIMUM SIZE, EQUAL TO ELECTRUNITE BRAND OR APPROVED AND USED ONLY WITH HEXAGONAL ALL STEEL COMPRESSION FITTINGS. MC CABLE MAY BE SUBSTITUTED FOR CONDUIT RACEWAYS WHERE PERMITTED BY THE CODE, AND APPROVED BY OWNER

PLASTIC CONDUIT SHALL BE RIGID, 3/4-INCH MINIMUM, NONMETALLIC, HEAVY DUTY, POLYVINYLCHORIDE (PVC). TYPE I WILL BE USED FOR CONCRETE ENCASEMENT. FITTINGS SHALL BE THE SAME MATERIALS AND MANUFACTURER AS THE PLASTIC CONDUIT.

FLEXIBLE METAL CONDUIT SHALL BE 1/2-INCH MINIMUM SINGLE STRIP, STEEL, HOT DIPPED GALVANIZED INSIDE AND OUTSIDE. MAXIMUM LENGTH OF 72 INCHES FOR LIGHTING, AND 36 INCHES FOR MOTORS. FLEXIBLE METAL CONDUIT SHALL BE LIQUID TIGHT OR WATER TIGHT WITH PVC JACKET WHERE USED IN DAMP, WET, OR OUTSIDE AREAS, AND LIQUID TIGHT OR WATER TIGHT CONNECTORS SHALL BE USED.

NO RECEPTACLES OR TELEPHONE OUTLETS ARE TO BE MOUNTED BACK TO BACK. KEEP AT LEAST 1 1/2 INCHES BETWEEN RECEPTACLES AND TELEPHONE OUTLETS.

ALL CONDUCTORS SHALL BE COPPER WITH A MINIMUM SIZE OF #12 AWG EXCEPT FOR FIRE ALARM. THESE CONDUCTORS SHOULD COMPLY WITH NFPA REQUIREMENTS.

THE ELECTRICAL CONTRACTOR SHALL ALIGN ALL FIXTURES, SMOKE DETECTORS, CEILING DIFFUSERS, ETC. AS REQUIRED TO PROVIDE A UNIFORM PRESENTATION. FOLLOW THE REFLECTED CEILING PLAN IF PROVIDED

CIRCUIT BREAKERS AND WIRE ARE SIZED FOR SPECIFIC EQUIPMENT. BEFORE ORDERING WIRE, BREAKERS, FIXTURES, CONDUIT, AND ETC. FOR THIS PROJECT; THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE OTHER CONTRACTORS ON THE JOB AND VERIFY THE ELECTRICAL DATA FOR THE EQUIPMENT THAT WILL BE ACTUALLY INSTALLED. RECOMPUTE WIRE AND BREAKER SIZES IF REQUIRED BY THE NEC.

THE MOUNTING HEIGHTS AND LOCATIONS OF ALL WALL MOUNTED OUTLETS AND JUNCTION BOXES SHALL BE REVIEWED AND COORDINATED WITH THE GENERAL CONTRACTOR AND OWNER PRIOR TO INSTALLATION FOR USE WITH ACTUAL EQUIPMENT.

ALL LIGHT SWITCHES, RECEPTACLES, WALL PLATES, TELEPHONE/COMPUTER OUTLET BOXES, AND, CABLE OUTLET BOXES SHALL BE WHITE.

EACH CONTRACTOR WILL PROVIDE HIS OWN SUPPORT OF ALL DEVICES AND EQUIPMENT PROVIDED IN HIS CONTRACT AND SHALL SUPPORT SUCH EQUIPMENT PER APPROVED GOVERNING CODES. UNACCEPTABLE WORKMANSHIP OR MATERIALS SHALL BE REPLACED AT THE ELECTRICAL CONTRACTORS EXPENSE.

THE ELECTRICAL CONTRACTOR SHALL REFER TO THE DRAWINGS FOR FLOOR PLAN AND BUILDING ELEVATION DIMENSIONS.

THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OTHER TRADES INVOLVED IN THIS PROJECT PRIOR TO INSTALLATION OF HIS EQUIPMENT, SO AS TO AVOID CONFLICTS DURING CONSTRUCTION AND ALLOW FOR OPTIMUM WORKING SPACE AND MAINTENANCE. THINK OF OTHER CONTRACTORS AND THEIR REQUIREMENTS IN VERTICAL CHASES AND WALL MOUNT SPACE. ALL CONTRACTORS TO FOLLOW THIS ORDER OF PRIORITY:
1. STORM AND SANITARY SEWER LINES
2. DUCTWORK AND HVAC SYSTEMS
3. HOT AND COLD WATER LINES
4. RIGID CONDUIT
5. CABLE

THE ELECTRICAL CONTRACTOR TO ORGANIZE HIS CONDUIT, WIRE, AND CABLE RUNS IN ATTIC SPACES AND ABOVE CEILINGS. MAKE RUNS PARALLEL, PERPENDICULAR, AND GROUPED TOGETHER WHERE POSSIBLE. LOCATE MAJOR GROUPINGS OVER HALLWAYS AND AREAS OF PUBLIC ACCESS. FREE RUNS OF PHONE, TELEVISION, SECURITY, ALARM, AND OTHER CABLES IS NOT ACCEPTABLE.
ALL DISCONNECT SWITCHES AND BREAKER SIZES SHOWN FOR MECHANICAL EQUIPMENT, KITCHEN EQUIPMENT, AND ETC. SHALL BE VERIFIED BEFORE PURCHASE AND INSTALLATION OF SAID EQUIPMENT WITH THE EQUIPMENT SUPPLIER AND MECHANICAL CONTRACTOR.
WHERE EQUIPMENT PENETRATES EXTERIOR WALLS OR ROOF, THEY SHALL BE PROPERLY SEALED.
EXHAUST FANS ARE TO BE PROVIDED AND INSTALLED BY THE MECHANICAL CONTRACTOR, AND ELECTRICAL WIRING BY THE ELECTRICAL CONTRACTOR.
THE 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 INCH MINIMUM) ETCHED INTO THE WHITE CORE. NAME TAGS TO BE MOUNTED WITH SELF-TAPPING SHEET METAL SCREWS.
THE ELECTRICAL CONTRACTOR IS NOT TO SCALE THE DRAWINGS FOR RECEPTACLES AND LIGHT FIXTURES TO BE INSTALLED. THE DRAWINGS ARE FOR DIAGRAMMATIC PURPOSES ONLY TO SHOW GENERAL LOCATION. THE ELECTRICAL CONTRACTOR TO COORDINATE EXACT LOCATION OF RECEPTACLES AND LIGHT FIXTURES WITH THE GENERAL CONTRACTOR AND/OR CASEWORK DRAWINGS.
ALL LIGHT SWITCHES AND RECEPTACLES SHALL BE RATED FOR 20 AMP UNLESS NOTED OTHERWISE.

APPENDIX B ELECTRICAL DESIGN
2018 BUILDING CODE SUMMARY

PROJECT NAME: **FLAT BRANCH VFD ADDITION & RENOVATION**

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT
METHOD OF COMPLIANCE:
ENERGY CODE: X PRESCRIPTIVE PERFORMANCE
ASHRAE 90.1: PRESCRIPTIVE PERFORMANCE

LIGHTING SCHEDULE (EACH FIXTURE TYPE)
LAMP TYPE REQUIRED IN FIXTURE LED
NUMBER OF LAMPS IN FIXTURE (SEE FIXTURE SCHEDULE)
BALLAST TYPE USED IN THE FIXTURE LED
NUMBER OF BALLASTS IN FIXTURE 1
TOTAL WATTAGE PER FIXTURE VARIES PER FIXTURE
TOTAL INTERIOR WATTAGE SPECIFIED VERSUS ALLOWED (WHOLE BUILDING) 1,523 ALLOWED – 729 SPECIFIED
TOTAL EXTERIOR WATTAGE SPECIFIED VERSUS ALLOWED(TABLE C405.5.1(2)) 500 ALLOWED – 237 SPECIFIED

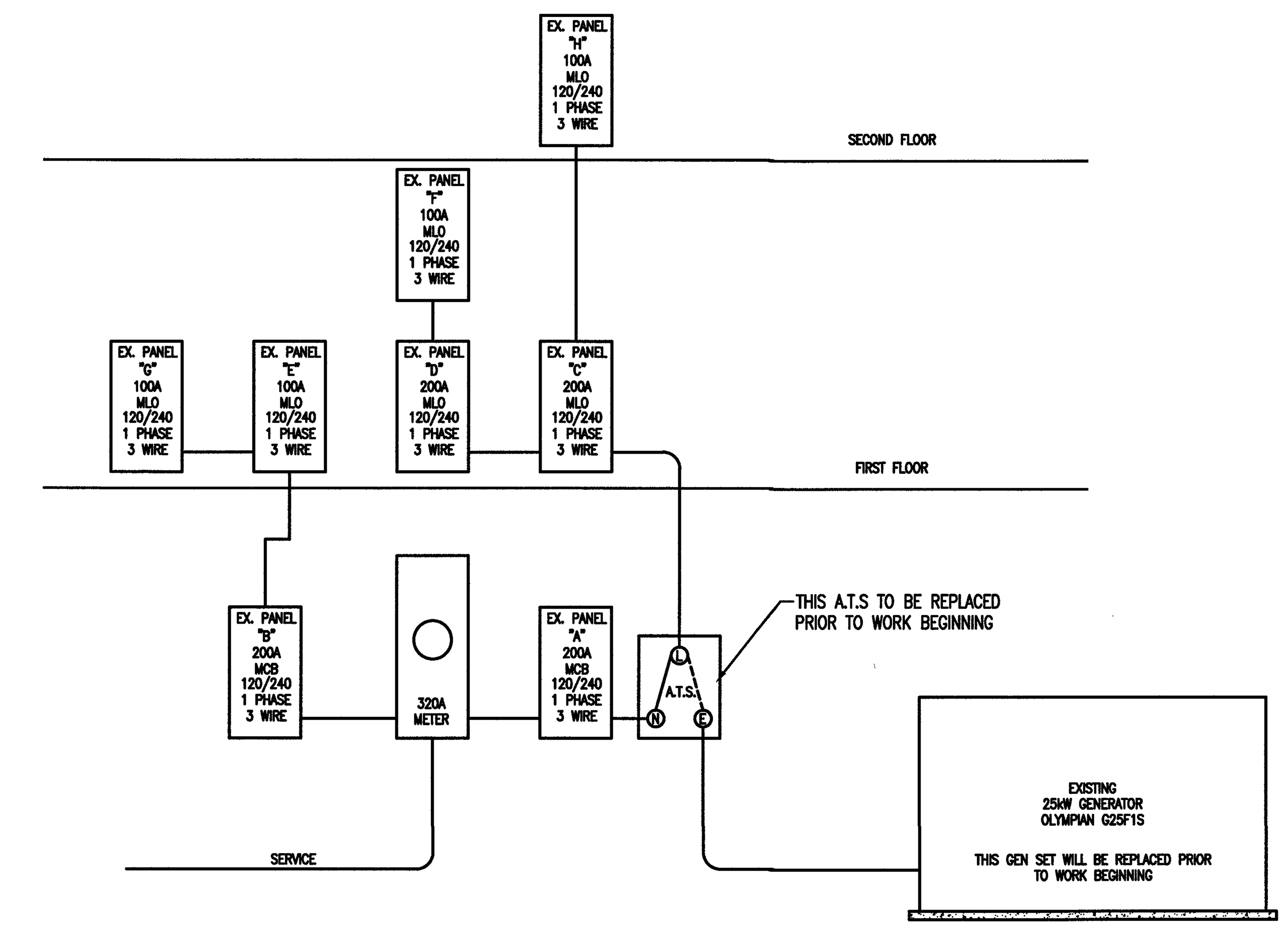
SECTION C406 ADDITIONAL EFFICIENCY PACKAGE OPTIONS

C406.1 BUILDINGS SHALL HAVE AT LEAST ONE OF THE FOLLOWING PRESCRIPTIVE COMPLIANCE (REQUIRED FOR NEW BUILDINGS, OPTIONAL FOR EXISTING BUILDINGS)

1. MORE EFFICIENT MECHANICAL EQUIPMENT PER C406.2
2. REDUCED LIGHTING POWER DENSITY PER C406.3
3. ENHANCED LIGHTING CONTROL SYSTEMS PER C406.4
4. ON-SITE SUPPLY OF RENEWABLE ENERGY PER C406.5
5. DEDICATED OUTDOOR AIR SYSTEM PER C406.6
6. HIGHER EFFICIENCY SERVICE WATER HEATING PER C406.7

DESIGNER STATEMENT:
TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE ELECTRICAL SYSTEM AND EQUIPMENT REQUIREMENTS OF THE 2018 NC ENERGY CONSERVATION CODE.

SIGNED: Buddy Jenkins
NAME: BUDDY JENKINS
TITLE: PROFESSIONAL ENGINEER

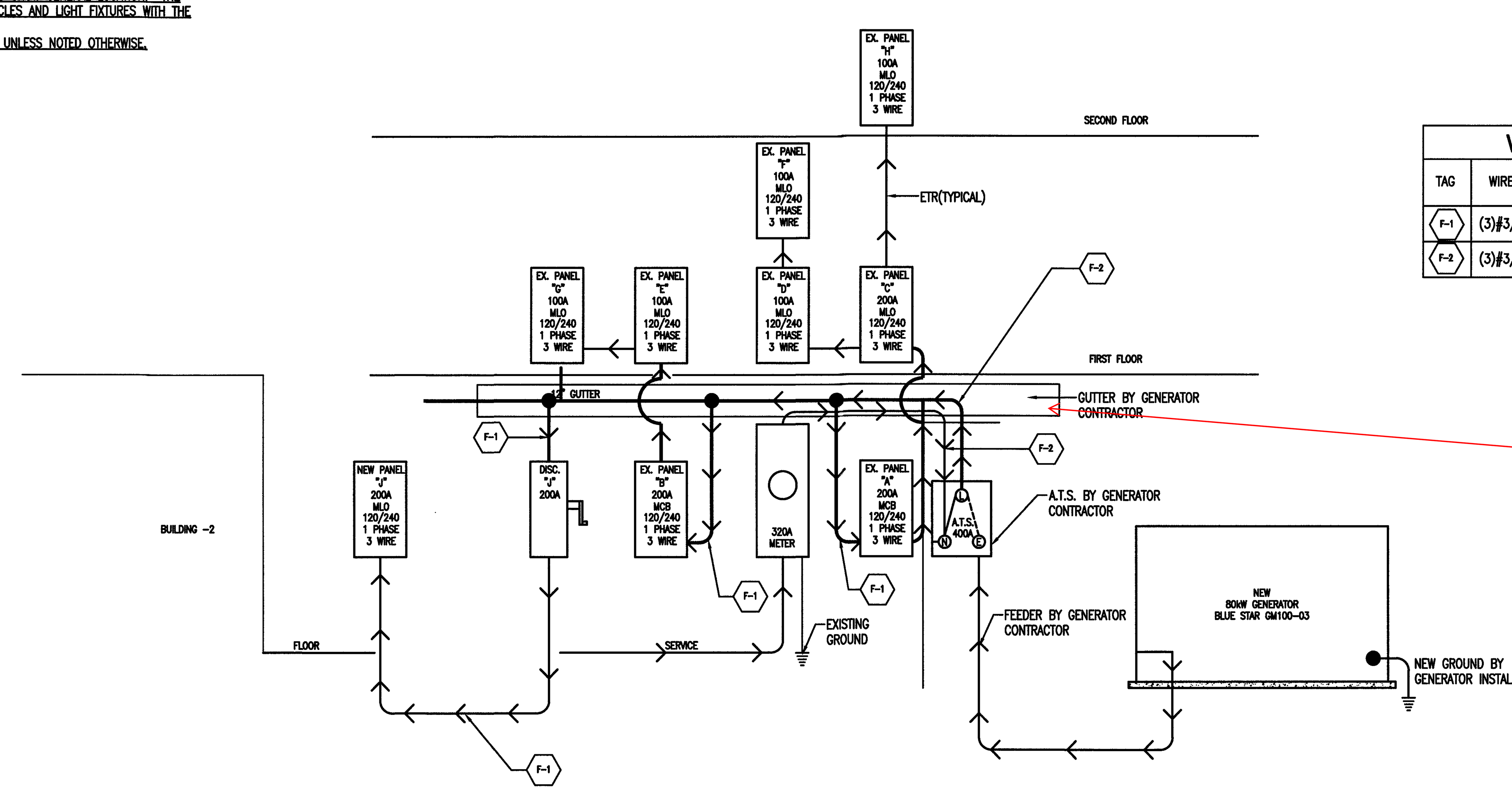


EXISTING POWER RISER DIAGRAM (BUILDING ONE)

NOT TO SCALE

WIRE FEEDER SCHEDULE

TAG	WIRE SIZE DESCRIPTION
F-1	(3)#3/0; (1)#6 GND IN 2" CONDUIT
F-2	(3)#3/0; (1)#3 GND IN EA OF (2)2" CONDUIT



Meter to change to CT type. Verify service from power co. is large enough. All CU conductors per size.

NEW POWER RISER DIAGRAM (BUILDING ONE & TWO)

NOT TO SCALE

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910.822.1724

15 NOVEMBER 2023

DESIGNED BY: B. JENKINS
DRAWN BY: JDL
PROJECT #: 2023-05-19
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CONTRACTOR/BUILDER:

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2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET: ELECTRICAL RISER & NOTES

E1

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 15NOV23.dwg
Plotted by: JoshL
Plotted Date: Nov 15, 2023 - 3:54pm

EXISTING PANEL "A"

OUTSIDE PANEL MAIN A

PHASE 1 WIRE 3 VOLTS 240/120 MAIN 200A MCB
TYPE NEMA 1 MOUNTING SURFACE ENCLOSURE TYPE 1
SHORT CKT. RATING - RMS SYM.
☒ GROUND TERMINAL BAR ☒ NEUTRAL TERMINAL BAR

PHASE LOADING A	PHASE LOADING B	DESCRIPTION	CKT. TYPE	WIRE SIZE	CKT. BKR. TRIP	CKT. NO.	CKT. NO.	CKT. BKR. TRIP	WIRE SIZE	CKT. TYPE	DESCRIPTION	PHASE LOADING A	PHASE LOADING B
1.92		RECPT.-UNDER PANEL	R	#12	20/1	1	2	20/1	#12	E	RECPT.-UNDER PANEL	1.92	
	1.44	RECPT.-UNDER PANEL	R	#12	15/1	3	4	20/1	#12	E	RECPT.-UNDER PANEL		1.92
1.92		RECPT.-UNDER PANEL	R	#12	20/1	5	6	20/1	#12	E	RECPT.-UNDER PANEL	1.92	
	-	SPACE	-	-	-	7	8	20/1	#12	E	RECPT.-UNDER PANEL		1.92
-	-	SUB-TOTAL (VA)									SUB-TOTAL (VA)	-	-

C CONTINUOUS LOAD E ESTIMATED LOAD
H HVAC LOAD
N NON-CONTINUOUS LOAD
R RECEPTACLE LOAD
K KITCHEN LOAD

TOTAL CONNECTED LOAD = - KVA AMPS = -
TOTAL OF 8 SPACES

EXISTING PANEL "B"

OUTSIDE PANEL FOR FUEL PUMP

PHASE 1 WIRE 3 VOLTS 240/120 MAIN 200A MCB
TYPE NEMA 3R MOUNTING SURFACE ENCLOSURE TYPE 1
SHORT CKT. RATING - RMS SYM.
☒ GROUND TERMINAL BAR ☒ NEUTRAL TERMINAL BAR

PHASE LOADING A	PHASE LOADING B	DESCRIPTION	CKT. TYPE	WIRE SIZE	CKT. BKR. TRIP	CKT. NO.	CKT. NO.	CKT. BKR. TRIP	WIRE SIZE	CKT. TYPE	DESCRIPTION	PHASE LOADING A	PHASE LOADING B
-		SHED FUEL PUMP	H	#10	30/2	1	2	-	-	-	SPARE	-	
	-					3	4	-	-	-	SPARE		-
-		SPARE	-	-	-	5	6	-	-	-	SPARE	-	
	-	SPARE	-	-	-	7	8	-	-	-	SPARE		-
-	-	SUB-TOTAL (VA)									SUB-TOTAL (VA)	-	-

C CONTINUOUS LOAD E ESTIMATED LOAD
H HVAC LOAD
N NON-CONTINUOUS LOAD
R RECEPTACLE LOAD
K KITCHEN LOAD

TOTAL CONNECTED LOAD = - KVA AMPS = -
TOTAL OF 8 SPACES

EXISTING PANEL "C"

DOWNSTAIRS OFFICE AREA PANEL FED FROM A.T.S

PHASE 1 WIRE 3 VOLTS 240/120 MAIN 200A MLO
TYPE NEMA 1 MOUNTING SURFACE ENCLOSURE TYPE 1
SHORT CKT. RATING - RMS SYM.
☒ GROUND TERMINAL BAR ☒ NEUTRAL TERMINAL BAR

PHASE LOADING A	PHASE LOADING B	DESCRIPTION	CKT. TYPE	WIRE SIZE	CKT. BKR. TRIP	CKT. NO.	CKT. NO.	CKT. BKR. TRIP	WIRE SIZE	CKT. TYPE	DESCRIPTION	PHASE LOADING A	PHASE LOADING B
1.92		LIGHTING - HALL & BATH AREA	C	#12	20/1	1	2	20/1	#12	C	LIGHTING-BAY AREA FRONT ROW	1.92	
	1.92	RECPT.-MEN'S RESTROOM	R	#12	20/1	3	4	20/1	#12	C	LIGHTING-BAY AREA MIDDLE/LAST		1.92
1.92		RECPT.-WOMEN'S RESTROOM	R	#12	20/1	5	6	20/1	#12	R	RECPT.-KITCHEN/PASS-THRU WIN.	1.92	
	1.92	LIGHTING - CHIEF AREA/TV/SIGN	C	#12	20/1	7	8	20/1	#12	R	RECPT.-CHIEF AREA & TV		1.92
1.92		LIGHTING-EMERGENCY & EXIT	C	#12	20/1	9	10	20/1	#12	R	RECPT.-TRAINING RM & BAY AREA	1.92	
	1.92	LIGHTING-KITCHEN/SLEEPING AREA	C	#12	20/1	11	12	20/1	#12	R	RECPT.- REFRIGERATOR		0.60
1.92		RECPT.-TV ROOM & RADIO BAY	R	#12	20/1	13	14	20/1	#12	R	RECPT.-KITCHEN	1.92	
	1.92	RECPT.-TRAINING RM/HALL/REHAB	R	#12	20/1	15	16	20/1	#12	R	RECPT.-TRAINING RM/SPOT LIGHTS		1.92
1.92		LIGHTING-SECURITY LIGHTS	C	#12	20/1	17	18	20/1	#12	C	LIGHTING-TRAINING RM LIGHTS	1.92	
	0.512	WASHER	N	#12	20/1	19	20	30/2	#10	N	WATER HEATER		1.24
1.92		RECPT.-UTILITY	R	#12	20/1	21	22					1.24	
	1.40	DRYER	N	#10	30/2	23	24	20/1	#12	R	RECPT.-SLEEPING AREA/HALL		1.92
1.40						25	26	20/1	#12	N	ICE MACHINE	0.2	
	-	PANEL "D"	C	#8	100/2	27	28	40/2	#8	N	RANGE		6.1
-						29	30					6.1	
	1.20	DISHWASHER	N	#12	20/1	31	32	30/2	#10	H	HEAT & AIR UNIT-FRONT AREA		-
-		SPACE				33	34					-	
	-	SPACE				35	36	30/2	#10	H	HEAT & AIR UNIT- TRAINING RM		-
-		SPACE				37	38					-	
	-	PANEL "H"	C	#14	100/2	39	40	-			SPACE		-
-						41	42	-			SPACE	-	
-	-	SUB-TOTAL (VA)									SUB-TOTAL (VA)	-	-

C CONTINUOUS LOAD E ESTIMATED LOAD
H HVAC LOAD
N NON-CONTINUOUS LOAD
R RECEPTACLE LOAD
K KITCHEN LOAD

TOTAL CONNECTED LOAD = - KVA AMPS = -
TOTAL OF 42 SPACES

EXISTING PANEL "D"

BAY AREA PANEL FED FROM PANEL "C"

PHASE 1 WIRE 3 VOLTS 240/120 MAIN 100A MLO
TYPE NEMA 1 MOUNTING SURFACE ENCLOSURE TYPE 1
SHORT CKT. RATING - RMS SYM.
☒ GROUND TERMINAL BAR ☒ NEUTRAL TERMINAL BAR

PHASE LOADING A	PHASE LOADING B	DESCRIPTION	CKT. TYPE	WIRE SIZE	CKT. BKR. TRIP	CKT. NO.	CKT. NO.	CKT. BKR. TRIP	WIRE SIZE	CKT. TYPE	DESCRIPTION	PHASE LOADING A	PHASE LOADING B
0.15		COKE MACHINE/EXIT LIGHT	C	#12	20/1	1	2	20/1	#12	E	TRUCK CORDS 1 & 3	-	
	-	GARAGE DOORS 1 & 3	R	#12	20/1	3	4	20/1	#12	E	TRUCK CORDS		-
-		GARAGE DOORS 2 & 4	R	#12	20/1	5	6	30/2	#10	E	AIR COMPRESSOR	-	
	-	GARAGE DOORS 5 & 6	R	#12	20/1	7	8						-
-		BAY AREA GAS HEATERS	C	#12	20/1	9	10	20/1	#12	R	RECPT.-BAY AREA	1.92	
	1.92	LIGHTING-BAY AREA ROW 2	R	#12	20/1	11	12	60/2	#10	E	PANEL "F"		-
1.92		LIGHTING-BAY AREA ROW 4	R	#12	20/1	13	14					-	
	0.60	BAY AREA FREEZER	R	#12	20/1	15	16	20/1	#12	R	AMBULANCE		-
-		RECPT.-UNDER PANEL	R	#12	20/1	17	18	-	-	-	SPACE	-	
	-	SPACE	-	-	-	19	20	-	-	-	SPACE		-
-		SPACE	-	-	-	21	22	-	-	-	SPACE	-	
	-	SPACE	-	-	-	23	24	-	-	-	SPACE		-
-	-	SUB-TOTAL (VA)									SUB-TOTAL (VA)	-	-

C CONTINUOUS LOAD E ESTIMATED LOAD
H HVAC LOAD
N NON-CONTINUOUS LOAD
R RECEPTACLE LOAD
K KITCHEN LOAD

TOTAL CONNECTED LOAD = - KVA AMPS = -
TOTAL OF 24 SPACES

EXISTING PANEL "E"

BAY AREA SUB PANEL FED FROM PANEL "B"

PHASE 1 WIRE 3 VOLTS 240/120 MAIN 200A MLO
TYPE NEMA 1 MOUNTING SURFACE ENCLOSURE TYPE 1
SHORT CKT. RATING - RMS SYM.
☒ GROUND TERMINAL BAR ☒ NEUTRAL TERMINAL BAR

PHASE LOADING A	PHASE LOADING B	DESCRIPTION	CKT. TYPE	WIRE SIZE	CKT. BKR. TRIP	CKT. NO.	CKT. NO.	CKT. BKR. TRIP	WIRE SIZE	CKT. TYPE	DESCRIPTION	PHASE LOADING A	PHASE LOADING B
1.40		PANEL "G"	N	#6	60/2	1	2	20/1	#12	E	SPARE	-	
	1.40					3	4	20/1	#12	C	FREEZER		0.60
-		SPACE	-	-	-	5	6	70/2	#4	H	OS-3 FAN	-	
	-	SPACE	-	-	-	7	8						-
-		SPACE	-	-	-	9	10	-	-	-	SPACE	-	
	-	SPACE	-	-	-	11	12	-	-	-	SPACE		-
-		SPACE	-	-	-	13	14	-	-	-	SPACE	-	
	-	SPACE	-	-	-	15	16	-	-	-	SPACE		-
-		SPACE	-	-	-	17	18	-	-	-	SPACE	-	
	-	SPACE	-	-	-	19	20	-	-	-	SPACE		-
-		SPACE	-	-	-	21	22	-	-	-	SPACE	-	
	-	SPACE	-	-	-	23	24	-	-	-	SPACE		-
-	-	SUB-TOTAL (VA)									SUB-TOTAL (VA)	-	-

C CONTINUOUS LOAD E ESTIMATED LOAD
H HVAC LOAD
N NON-CONTINUOUS LOAD
R RECEPTACLE LOAD
K KITCHEN LOAD

TOTAL CONNECTED LOAD = - KVA AMPS = -
TOTAL OF 24 SPACES

EXISTING PANEL "F"

CASCADE PANEL FED FROM PANEL "D"

PHASE 1 WIRE 3 VOLTS 240/120 MAIN 100A MLO
TYPE NEMA 3R MOUNTING SURFACE ENCLOSURE TYPE 1
SHORT CKT. RATING - RMS SYM.
☒ GROUND TERMINAL BAR ☒ NEUTRAL TERMINAL BAR

PHASE LOADING A	PHASE LOADING B	DESCRIPTION	CKT. TYPE	WIRE SIZE	CKT. BKR. TRIP	CKT. NO.	CKT. NO.	CKT. BKR. TRIP	WIRE SIZE	CKT. TYPE	DESCRIPTION	PHASE LOADING A	PHASE LOADING B
-		SPACE	-	-	-	1	2	60/2	#6	E	CASCADE AIR COMPRESSOR	-	
	-	SPACE	-	-	-	3	4						-
-	-	SUB-TOTAL (VA)									SUB-TOTAL (VA)	-	-

C CONTINUOUS LOAD E ESTIMATED LOAD
H HVAC LOAD
N NON-CONTINUOUS LOAD
R RECEPTACLE LOAD
K KITCHEN LOAD

TOTAL CONNECTED LOAD = - KVA AMPS = -
TOTAL OF 4 SPACES

EXISTING PANEL "G"

LOAD CENTER FED FROM PANEL "E"

PHASE 1 WIRE 3 VOLTS 240/120 MAIN 100A MLO
TYPE NEMA 1 MOUNTING SURFACE ENCLOSURE TYPE 1
SHORT CKT. RATING - RMS SYM.
☒ GROUND TERMINAL BAR ☒ NEUTRAL TERMINAL BAR

PHASE LOADING A	PHASE LOADING B	DESCRIPTION	CKT. TYPE	WIRE SIZE	CKT. BKR. TRIP	CKT. NO.	CKT. NO.	CKT. BKR. TRIP	WIRE SIZE	CKT. TYPE	DESCRIPTION	PHASE LOADING A	PHASE LOADING B
-		~~SPACE~~	-	-	-	1	-	-	-	-	-	-	
	1.40	DRYER	C	#6	60/2	2	-						-
1.40						3	-	-	-	-	-	-	
	-	SPARE	C	#14	15/2	4	-	-	-	-	-		-
-						5	-	-	-	-	-	-	
	-	WASHING MACHINE	C	#12	20/1	6	-	-	-	-	-		-
-		SPACE	-	-	-	7	-	-	-	-	-	-	
	-	~~SPACE~~	-	-	-	8	-	-	-	-	-		-
-	-	SUB-TOTAL (VA)									SUB-TOTAL (VA)	-	-

C CONTINUOUS LOAD E ESTIMATED LOAD
H HVAC LOAD
N NON-CONTINUOUS LOAD
R RECEPTACLE LOAD
K KITCHEN LOAD

TOTAL CONNECTED LOAD = - KVA AMPS = -
TOTAL OF 8 SPACES

EXISTING PANEL "H"

UPSTAIRS SUBPANEL FED FROM PANEL "C"

PHASE 1 WIRE 3 VOLTS 240/120 MAIN 100A MLO
TYPE NEMA 1 MOUNTING SURFACE ENCLOSURE TYPE 1
SHORT CKT. RATING - RMS SYM.
☒ GROUND TERMINAL BAR ☒ NEUTRAL TERMINAL BAR

PHASE LOADING A	PHASE LOADING B	DESCRIPTION	CKT. TYPE	WIRE SIZE	CKT. BKR. TRIP	CKT. NO.	CKT. NO.	CKT. BKR. TRIP	WIRE SIZE	CKT. TYPE	DESCRIPTION	PHASE LOADING A	PHASE LOADING B
-		CONDENSING UNIT	H	#12	20/2	1	2	30/2	#12	H	HVAC	2.50	
	-					3	4						2.50
1.92		REC-LIGHT	C	#12	20/1	5	6	20/1	#12	R	REC	1.92	
	1.92	REC-LIGHT	C	#12	20/1	7	8	20/1	#12	R	REC		1.92
1.92		REC-LIGHT	C	#12	20/1	9	10	15/1	#14	C	DOOR HORN	0.2	
	-	SPACE	-	-	-	11	12	-	-	-	SPACE		-
-		SPACE	-	-	-	13	14	-	-	-	SPACE	-	
	-	SPACE	-	-	-	15	16	-	-	-	SPACE		-
-	-	SUB-TOTAL (VA)									SUB-TOTAL (VA)	-	-

C CONTINUOUS LOAD E ESTIMATED LOAD
H HVAC LOAD
N NON-CONTINUOUS LOAD
R RECEPTACLE LOAD
K KITCHEN LOAD

TOTAL CONNECTED LOAD = - KVA AMPS = -
TOTAL OF 16 SPACES

NEW PANEL "J"

NEW ADDITION PANEL

PHASE 1 WIRE 3 VOLTS 240/120 MAIN 200A MLO
TYPE NEMA 1 MOUNTING SURFACE ENCLOSURE TYPE 1
SHORT CKT. RATING - RMS SYM.
☒ GROUND TERMINAL BAR ☒ NEUTRAL TERMINAL BAR

PHASE LOADING A	PHASE LOADING B	DESCRIPTION	CKT. TYPE	WIRE SIZE	CKT. BKR. TRIP	CKT. NO.	CKT. NO.	CKT. BKR. TRIP	WIRE SIZE	CKT. TYPE	DESCRIPTION	PHASE LOADING A	PHASE LOADING B
0.384		LIGHTING-FRONT HALF	C	#12	20/1	1	2	20/1	#12	R	RECPT.-WATER FOUNTAIN AREA	0.36	
	0.345	LIGHTING-BACK HALF	C	#12	20/1	3	4	20/1	#12	R	RECPT.-OFFICE A		1.26
0.237		LIGHTING-EXTERIOR	C	#12	20/1	5	6	20/1	#12	R	RECPT.-OFFICE B	1.08	
	-	SPACE	-	-	-	7	8	20/1	#12	R	RECPT.-CAPT. OFFICE/LT. OFFICE		1.26
-		SPACE	-	-	-	9	10	20/1	#12	R	RECPT.-CHIEF'S OFFICE	1.08	
	-	SPACE	-	-	-	11	12	20/1	#12	R	RECPT.- CONFERENCE ROOM		1.08
-		SPACE	-	-	-	13	14	20/1	#12	R	RECPT.-BREAK AREA	0.36	
	-	SPACE	-	-	-	15	16	80/2	#8	H	4-TON HEATPUMP		8.52
-		SPACE	-	-	-	17	18					8.52	
	-	SPACE	-	-	-	19	20	20/1	#12	R	RECPT.-SIDE PATIO		0.36
-		SPACE	-	-	-	21	22	20/1	#12	N	JUNCTION BOX	-	
	-	SPACE	-	-	-	23	24	20/1	#12	R	RECPT.-FRONT PATIO		0.36
-		SPACE	-	-	-	25	26	20/1	#12	N	SPARE	-	
	-	SPACE	-	-	-	27	28	-	-	-	SPACE		-
-		SPACE	-	-	-	29	30	-	-	-	SPACE	-	
0.621	0.345	SUB-TOTAL (VA)									SUB-TOTAL (VA)	11.4	12.84

C CONTINUOUS LOAD E ESTIMATED LOAD
H HVAC LOAD
N NON-CONTINUOUS LOAD
R RECEPTACLE LOAD
K KITCHEN LOAD

TOTAL CONNECTED LOAD = 25.2 KVA AMPS = 105
TOTAL OF 30 SPACES

SCALE: 1-1/2" = 1'-0" SCALE: 1" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 3/16" = 1'-0" SCALE: 1/8" = 1'-0"

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 16NOV23.dwg
Plotted by: JoshL
Plotted Date: Nov 16, 2023 - 1:59pm

JENKINS CONSULTING ENGINEERS, PA
OFFICE in EUREKA SPRINGS, NORTH CAROLINA
1606 McARTHUR RD. FAYETTEVILLE, NC 28311-1002
CORPORATION NUMBER C-3070 BuddyJ@jenkinsce.pro
910.822.1724 FAX 910.835.5907
NORTH CAROLINA PROFESSIONAL SEAL C-3070 CORPORATION JENKINS CONSULTING ENGINEERS, PA
NORTH CAROLINA PROFESSIONAL SEAL 2803 ENGINEER DOUGLAS L. "BUDDY" JENKINS

15 NOVEMBER 2023

DESIGNED BY: B. JENKINS
DRAWN BY: JDL
PROJECT #: 2023-05-19
DATE: 15 NOVEMBER 2023

FINAL DRAWING ☐ FOR REVIEW PURPOSES ONLY
PRELIMINARY ☐ FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING ☒ FOR CONSTRUCTION

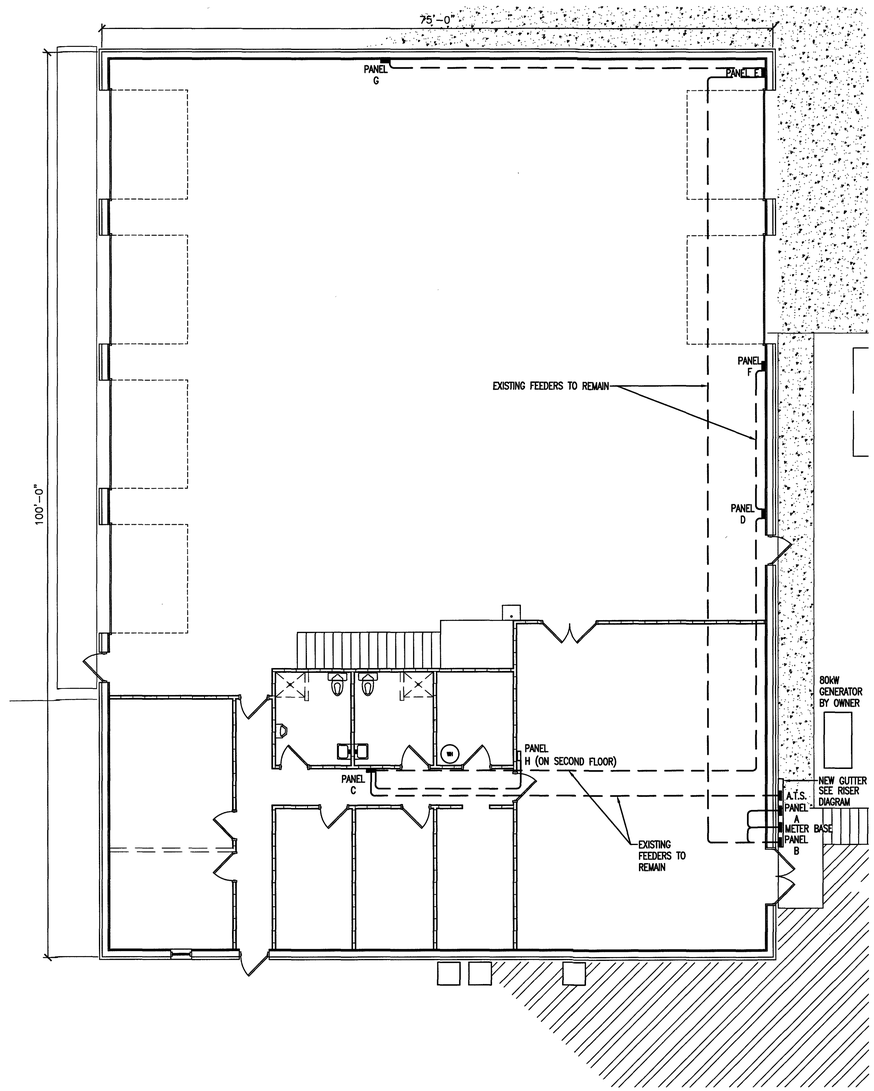
OWNER/TENANT:
FLAT BRANCH FIRE DEPT.
2098 ELLIOTT BRIDGE RD, BUNNLEVEL, NC 28323

CONTRACTOR/BUILDER:
-

PROJECT:
NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET:
ELECTRICAL PANEL SCHEDULE & NOTES

E2

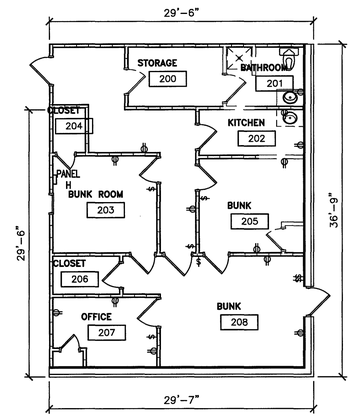


PLAN NORTH

TRUE NORTH

1 / E3 EXISTING BLDG. 1 1ST FLOOR – PARTIAL POWER PLAN

1/8"=1'0"



NOTE: EXISTING BRANCH CIRCUITS SHALL REMAIN. RELOCATE EXISTING WIRING DEVICES WHERE REQUIRED FOR NEW RENOVATIONS

PLAN NORTH

TRUE NORTH

2 / E3 EXISTING BLDG. 1 2ND FLOOR – PARTIAL POWER PLAN

1/8"=1'0"

SCALE: 1/8" = 1'-0" SCALE: 3/16" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 1" = 1'-0" SCALE: 1-1/2" = 1'-0"

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 15NOV23.dwg
Plotted By: JDL
Plotted Date: Nov 15, 2023 - 3:55pm

JENKINS CONSULTING ENGINEERS, PA
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NORTH CAROLINA PROFESSIONAL SEAL C-3070 JENKINS CONSULTING ENGINEERS PA CORPORATION
NORTH CAROLINA PROFESSIONAL SEAL ENGINEER CLAS L. "BUDDY" JENKINS III

15 NOVEMBER 2023

DESIGNED BY: B. JENKINS
DRAWN BY: JDL
PROJECT #: 2023-05-19
DATE: 15 NOVEMBER 2023

FINAL DRAWING ☐ FOR REVIEW PURPOSES ONLY
PRELIMINARY ☐ FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING ☒ FOR CONSTRUCTION

OWNER/TENANT:
FLAT BRANCH FIRE DEPT.
2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323

CONTRACTOR/BUILDER:
-

PROJECT:
NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET:
ELECTRICAL –EXISTING BLDG 1 POWER PLAN

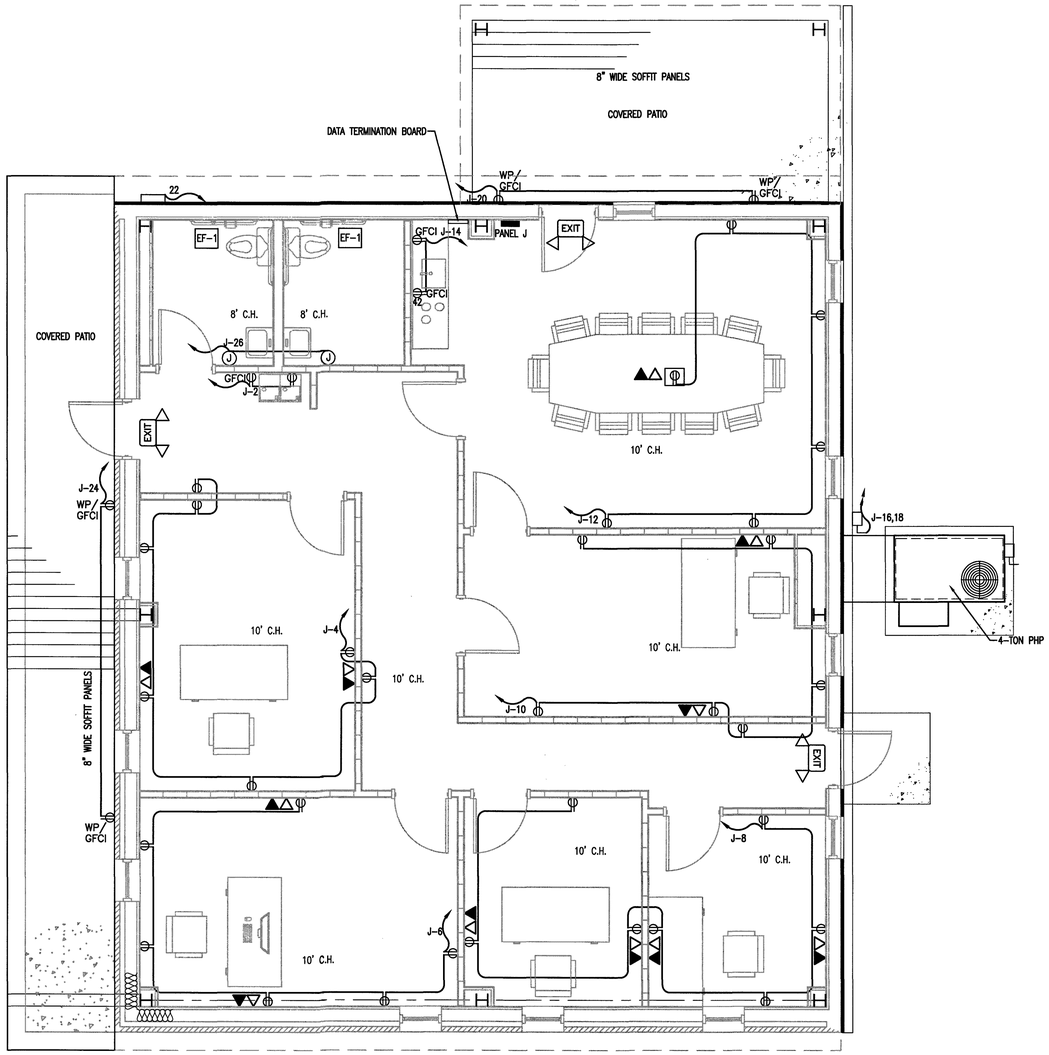
E3

ELECTRICAL POWER LEGEND

	DUPLEX RECEPTACLE; MOUNT AT 18" A.F.F.
GFCI	DUPLEX RECEPTACLE; GROUND FAULT CIRCUIT INTERRUPTER
WP/ GFCI	DUPLEX RECEPTACLE; WEATHERPROOF/GROUND FAULT CIRCUIT INTERRUPTER
	WALL MOUNTED DATA OUTLET
	WALL MOUNTED VOICE (TELEPHONE) OUTLET
	SINGLE POLE POWER HOMERUN
	2-POLE POWER HOMERUN
	DISCONNECT
J	JUNCTION BOX

LIGHT FIXTURE SCHEDULE

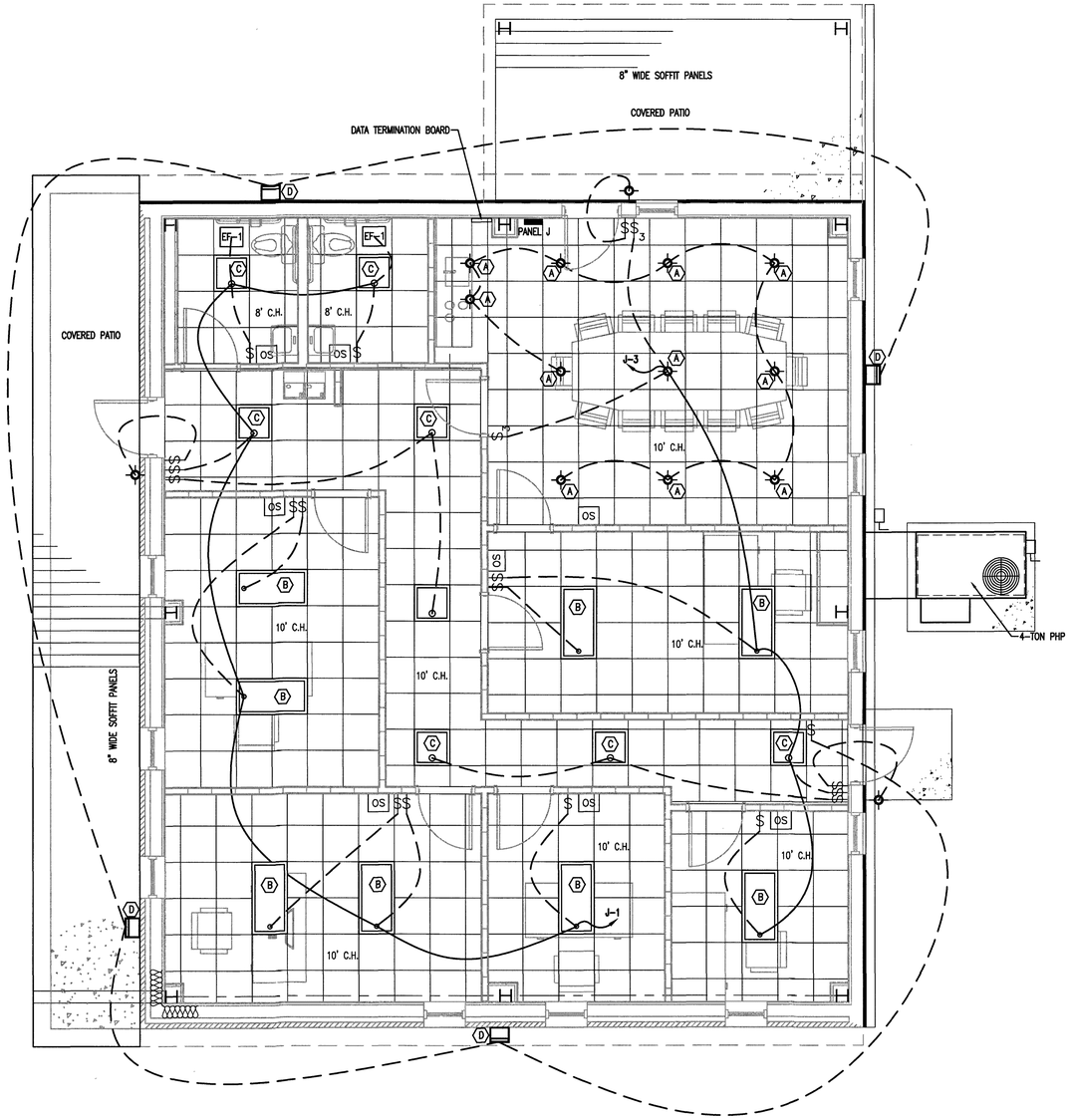
TAG	DESCRIPTION	SIZE	MOUNTING	LENS	COLOR	LUMENS	BULB	BALLAST TYPE	HOUSING	VOLTAGE	WATTAGE	MANU/MODEL NUMBER	REMARKS
A	LED RECESSED DOWNLIGHT	6"ø	RECESSED	N/A	5000 K	1200	LED	LED DRIVER	STEEL	120	15	LITHONIA NO. WF6 LED 50K OR EQUAL	
B	LED FLAT PANEL	24" X 48"	LAY-IN	N/A	5000 K	4000	LED	LED DRIVER	STEEL	120	38.9	LITHONIA NO. CPX 2X4 4000LM 50K	
C	LED FLAT PANEL	24" X 24"	LAY-IN	N/A	5000 K	3200	LED	LED DRIVER	STEEL	120	31.5	LITHONIA NO. CPX 2X2 3200LM 50K	
D	EXTERIOR LED WALL PACK	13" X 9"	SURFACE	N/A	4000 K	VARIES	LED	LED DRIVER	STEEL	120	48	LITHONIA NO. WPX2 LED 40K MVOLT OR EQUAL	
EM	EMERGENCY	N/A	WALL	N/A	N/A	N/A	(2) LAMPS	ELECTRONIC	POLYCARBONATE	120/240		LITHONIA ELM4L OR EQUAL LITHONIA EU2L OR EQUAL (FOR RESTROOMS/UTILITY ROOMS)	6 VOLT NICAD BATTERY TEST SWITCH, POWER INDICATOR
EXL	EXIT SIGN	N/A	WALL	SINGLE	N/A	N/A	LED LIGHT	LED DRIVER	POLYCARBONATE	120/240		LITHONIA LHQM S W 3 R 120/240 EL N OR EQUAL	6 VOLT NICAD BATTERY, (2) REMOTE HEADS
EX	EXIT SIGN	N/A	WALL	SINGLE	N/A	N/A	LED LIGHT	LED DRIVER	POLYCARBONATE	120/240		LITHONIA LQM 120/240 OR EQUAL	6 VOLT NICAD BATTERY



PLAN NORTH / TRUE NORTH

1 / E4 BUILDING 2 ELECTRICAL – POWER/DATA PLAN

1/4"=1'0"



PLAN NORTH / TRUE NORTH

2 / E4 BUILDING 2 ELECTRICAL – LIGHTING PLAN

1/4"=1'0"

JENKINS CONSULTING ENGINEERS, PA
OFFICE in EUREKA SPRINGS, NORTH CAROLINA
1606 McARTHUR RD. FAYETTEVILLE, NC 28311-1602
CORPORATION NUMBER C-3070 BUSINESS LICENSE 2020
910.822.1724 FAX 910.835.5807

15 NOVEMBER 2023

DESIGNED BY: B. JENKINS
DRAWN BY: JDL
PROJECT #: 2023-05-19
DATE: 15 NOVEMBER 2023

FINAL DRAWING ☐ FOR REVIEW PURPOSES ONLY
PRELIMINARY ☐ FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING ☒ FOR CONSTRUCTION

OWNER/TENANT: FLAT BRANCH FIRE DEPT.
2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323
CONTRACTOR/BUILDER: -

PROJECT: NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET: ELECTRICAL - BLDG-2 DATA/POWER/LIGHTING PLAN

E4

SCALE: 1/8" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 1" = 1'-0" SCALE: 3/16" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 1-1/2" = 1'-0"

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 15NOV23.dwg
Plotted By: Josh Jenkins
Plotted Date: Nov 15, 2023 - 3:56pm

PLUMBING FIXTURE SCHEDULE

SYMBOL	MANUFACTURER	MODEL #	FIXTURE DESCRIPTION	FIXTURE MOUNTING	ACCESSORIES	SUPPLY	WASTE	VENT	ELECTRICAL	REMARKS
P1	AMERICAN STANDARD	CADET ADA/ 215AA.104	ELONGATED BOWL; FLUSH TANK TOILET	FLOOR MOUNTED	SEAT: AMERICAN STANDARD / 5901.100	3/4" C.W.	3"	2"		SUGGESTED MODEL # OR EQUAL
P2	AMERICAN STANDARD	LUCERNE/ 0355.012	LAVATORY	WALL MOUNTED	DELTA 501-WFHGMHDF FAUCET	1/2" C.W. & H.W.	2"	2"		SUGGESTED MODEL # OR EQUAL
P3	ELKAY	EZSTL8WSLK	2 STATION WATER COOLER (REFRIGERATED)	WALL MOUNTED	BI-LEVEL WATER COOLER	1/2" C.W.	2"	2"		SUGGESTED MODEL # OR EQUAL
P4	GLACIER BAY	HDSB252264	KITCHEN SINK SINGLE COMPARTMENT	COUNTER	KITCHEN FAUCET BY DELTA #	1/2" C.W. & H.W.	2"	1-1/2"		SUGGESTED MODEL # OR EQUAL
P5	AMERICAN STANDARD	2950SWT32.011	SHOWER	FLOOR MOUNTED	MIXING VALVE	3/4" C.W. & H.W.	3"	2"		SUGGESTED MODEL # OR EQUAL
WH	RHEEM	XE10P06PU20U0	10 GALLON ELECTRICAL WATER HEATER	RESTROOM PLATFORM	EXPANSION TANK, DRAIN PAN	1" C.W. & H.W.			120V 2KW	EXTEND PRESSURE RELIEF DRAIN TO DRAIN PAN AND EXTEND DRAIN PAN DRAIN TO OUTSIDE BUILDING
	WATTS	WATT/ 909 RPZ	REDUCED PRESSURE ZONE BACKFLOW PREVENTER							SUGGESTED MODEL # OR EQUAL

WATER CALCULATIONS

QTY.	ITEM	C.W. FIXTURE UNITS	WATER SUPPLY FIXTURE UNITS EACH	WATER SUPPLY FIXTURE UNITS TOTAL
1	SINK	–	–	–
8	WATER CLOSET	5.0	5.0	40.0
6	LAVATORY	1.5	2.0	12.0
3	DRINKING FOUNTAIN	0.25	0.25	0.75
1	UTILITY SINK	0.25	0.25	0.25
2	SHOWER	–	–	–
TOTAL WATER SUPPLY FIXTURE UNITS				17.5

DRAINAGE CALCULATIONS

QTY.	ITEM	DRAINAGE FIXTURE UNITS	DRAINAGE FIXTURE UNITS TOTAL
1	SINK	–	–
2	WATER CLOSET	4.0	8.0
2	LAVATORY	1.0	2.0
2	DRINKING FOUNTAIN	0.5	1.0
TOTAL DRAINAGE FIXTURE UNITS			13.0

PLUMBING SYMBOL LEGEND

————————	HOT WATER LINE
—— - —— - ——	COLD WATER LINE
O	PIPE TURNS UP
C	PIPE TURNS DOWN
SOV	SHUT OFF VALVE
————	SANITARY WASTE
– – – – – – – –	VENT LINE

PLUMBING GENERAL NOTES:

PLUMBING WORK SHALL BE IN ACCORDANCE WITH THE NORTH CAROLINA PLUMBING CODE 2018 EDITION AND LOCAL CODES.

ALL WORK SHALL BE COORDINATED AND PERFORMED WITH PRIOR APPROVAL FROM THE GENERAL CONTRACTOR AND OWNER TO SUIT THE OWNER'S OPERATING CONDITIONS.

PLUMBING CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY THE GENERAL CONTRACTOR OF ANY DEVIANCIES FROM THE CONTRACT DRAWINGS PRIOR TO STARTING ANY WORK.

THE PLUMBING CONTRACTOR SHALL COORDINATE WITH OTHER TRADES INVOLVED IN THIS PROJECT PRIOR TO INSTALLATION OF HIS EQUIPMENT, SO AS TO AVOID CONFLICTS DURING CONSTRUCTION AND ALLOW FOR OPTIMUM WORKING SPACE AND MAINTENANCE. THINK OF OTHER CONTRACTORS AND THEIR REQUIREMENTS IN VERTICAL CHASES AND WALL MOUNT SPACE. ALL CONTRACTORS TO FOLLOW THIS ORDER OF PRIORITY:
1. STORM AND SANITARY SEWER LINES
2. DUCTWORK AND HVAC SYSTEMS
3. HOT AND COLD WATER LINES
4. RIGID CONDUIT
5. CABLE

THE PLUMBING CONTRACTOR TO ORGANIZE HIS PIPING IN ATTIC SPACES, CRAWL SPACES, AND ABOVE CEILINGS. MAKE RUNS PARALLEL, PERPENDICULAR, AND GROUPED TOGETHER WHERE POSSIBLE. LOCATE MAJOR GROUPINGS OVER HALLWAYS AND AREAS OF PUBLIC ACCESS IF POSSIBLE. FREE RUNS OF PIPING IS NOT ACCEPTABLE.

THE PLUMBING CONTRACTOR SHALL LAY OUT AND INSTALL HIS WORK IN ADVANCE OF POURING CONCRETE FLOORS OR WALLS. HE SHALL FURNISH ALL SLEEVES TO THE GENERAL CONTRACTOR FOR OPENINGS THROUGH POURED MASONRY FLOORS, OR WALLS, ABOVE GRADE REQUIRED FOR PASSAGE OF ALL PIPES TO SUPPORT HIS EQUIPMENT.

HORIZONTAL DRAINAGE AND WASTE PIPE SHALL HAVE A MINIMUM SLOPE OR FALL OF 1/8 INCH PER FOOT. ALL CHANGE OF HORIZONTAL DIRECTIONS IN SOIL WASTE PIPE SHALL BE MADE WITH LONG RADIUS FITTINGS WITH "Y" BRANCHES AND 1/8 OR 1/16 BENDS.

COLD AND HOT WATER PIPING ABOVE GRADE SHALL CAN BE CAN BE PEX PIPING (WITH OWNERS APPROVAL).

ALL HOT WATER PIPING SHALL BE INSULATED WITH 1 INCH THICK SECTIONAL INSULATION OR FIBROUS GLASS MATERIALS WITH FACTORY APPLIED COVER. COVER SHALL BE EMBOSSED VAPOR BARRIER, LAMINATED WITH PRESSURE SEALING CAP ADHESIVE.

ALL COLD WATER PIPING SHALL BE INSULATED WITH 1/2 INCH THICK SECTIONAL INSULATION OR FIBROUS GLASS MATERIALS WITH FACTORY APPLIED COVER. COVER SHALL BE EMBOSSED VAPOR BARRIER, LAMINATED WITH PRESSURE SEALING CAP ADHESIVE.

SANITARY HORIZONTAL WASTE, VENT PIPING, AND FITTINGS ABOVE GRADE SHALL BE SCHEDULE 40 PVC-DWV PIPE-CELLULAR CORE FROM CHARLOTTE PIPE AND FOUNDRY COMPANY OR APPROVED EQUAL, AND MUST MEET OR EXCEED THE REQUIREMENTS OF ASTM F-891, NSF STANDARD NO. 14, AND IAPMO UPC.

ALL WASTE STACK PIPING SHALL BE CAST IRON AND INSULATED FOR SOUND IN WALLS.

ALL WASTE AND STORM PIPING ABOVE CEILING, VERTICAL CHASES, WALLS SHALL BE INSULATED WITH 1/2 INCH THICK SECTIONAL INSULATION OR FIBROUS GLASS MATERIALS WITH FACTORY APPLIED COVER. COVER SHALL BE EMBOSSED VAPOR BARRIER, LAMINATED WITH PRESSURE SEALING CAP ADHESIVE. NO INSULATION REQUIRED IN CRAWL SPACE OR BELOW FLOOR SLAB OF ANY WASTE AND STORM PIPING.

IN LIEU OF FIBERGLASS INSULATION, THE PLUMBING CONTRACTOR IS ALLOWED TO USE CLOSED CELL INSULATION, 1/2 INCH THICK ARMSTRONG/ARMAFLEX II ON ALL COLD WATER PIPES. RIGID URETHANE FOAM INSULATION, 1 INCH THICK ARMSTRONG/ARMALOK II ON ALL HOT WATER PIPING.

ALL PLUMBING EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

ALL FIXTURES, DRAINS, TRAPS, ETC. SHALL BE SET PLUMB AND LEVEL.

ALL HANDICAPPED FIXTURES AND TRIM SHALL BE INSTALLED IN ACCORDANCE WITH THE NORTH CAROLINA PLUMBING CODE 2018 EDITION.

CHROME PLATED ESCUTCHEONS SHALL BE PROVIDED AT EACH WALL PENETRATION.

ESCUTCHEONS SHALL BE CHROME PLATED, SPRING TYPE, ON ALL PIPES PASSING THROUGH WALLS AND CEILINGS IN FINISHED AREAS. FLOOR ESCUTCHEONS SHALL BE CAST BRASS, CHROME PLATED, WITH SET SCREW.

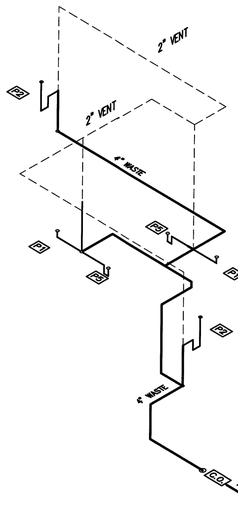
ESCUTCHEONS SHALL BE OF SUFFICIENT SIZE TO COVER OUTSIDE DIAMETER OF THE PIPE OR THE INSULATION OF THE PIPE.

FLASHING FOR VENTS THROUGH THE ROOF SHALL BE TWO-PIECE TYPE, 16 OUNCE COPPER COUNTER FLASHING AND BASE FLASHING, OR A TWO-PIECE TYPE, 4 POUND LEAD COUNTER FLASHING AND BASE FLASHING. THE BASE FLASHING SHALL BE INSTALLED BY THE GENERAL CONTRACTOR WITH THE ROOF SYSTEM.

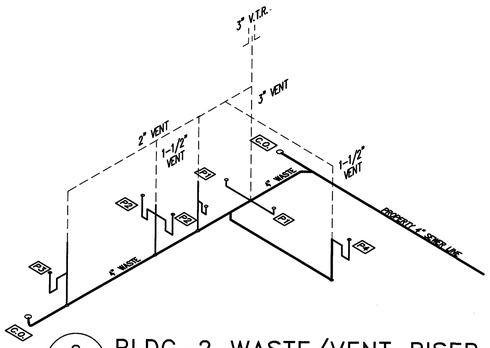
VENT FLASHING SHALL EXTEND DOWN AT LEAST 4 INCHES FROM THE TOP OF THE PIPE. FLASHING SHALL EXTEND AT LEAST 12 INCHES IN ALL DIRECTIONS FROM THE PIPE AND SHALL BE PARALLEL TO THE ROOF LINE.

ALL EQUIPMENT AND INSTALLED MATERIALS SHALL BE THOROUGHLY CLEAN AND FREE OF ALL DIRT, OIL, GRIT, GREASE, AND ETC.

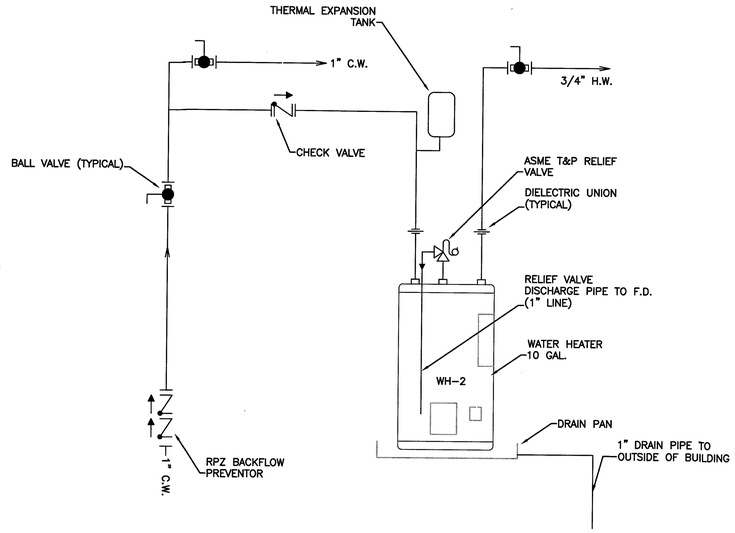
ALL PLUMBING SYSTEMS AND EQUIPMENT SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE OF THE BUILDING FROM THE OWNER.



1 / P1 BLDG-1 WASTE/VENT RISER
N.T.S.



2 / P1 BLDG-2 WASTE/VENT RISER
N.T.S.



WATER HEATER IS LOCATED NEXT TO EXISTING BATHROOMS IN STORAGE ROOM ON THE FIRST FLOOR ON BUILDING 1

3 / P1 WATER HEADER DETAIL
N.T.S.

JENKINS CONSULTING ENGINEERS, PA
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15 NOVEMBER 2023

DESIGNED BY: B. JENKINS
DRAWN BY: JDL
PROJECT #: 2023-05-19
DATE: 15 NOVEMBER 2023

FINAL DRAWING ☐ FOR REVIEW PURPOSES ONLY
PRELIMINARY ☐ FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING ☒ FOR CONSTRUCTION

OWNER/TENANT: FLAT BRANCH FIRE DEPT.
2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323
CONTRACTOR/BUILDER:

PROJECT: NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET: PLUMBING SCHEDULES AND NOTES

P1

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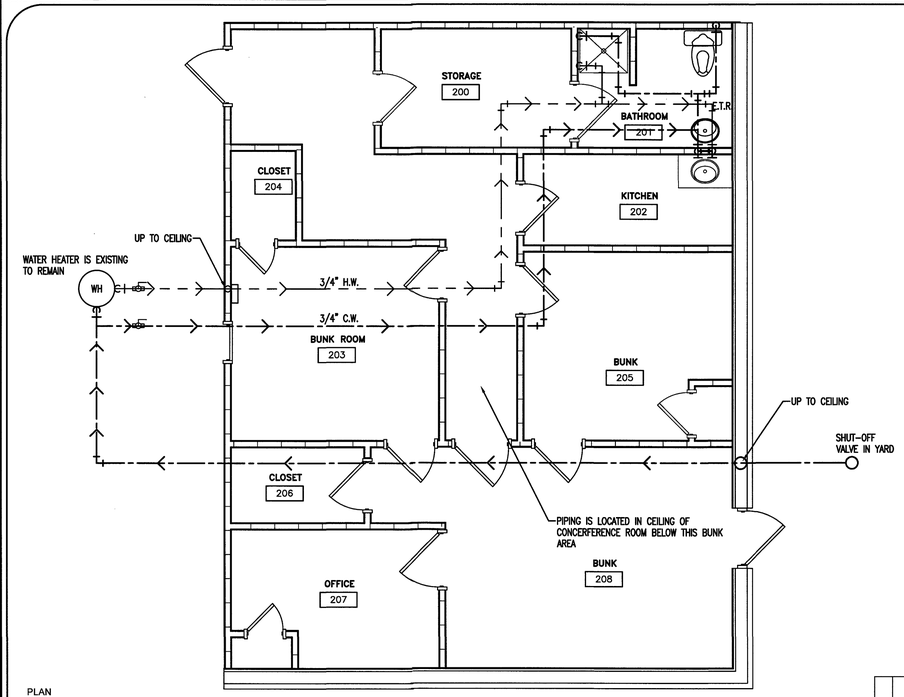
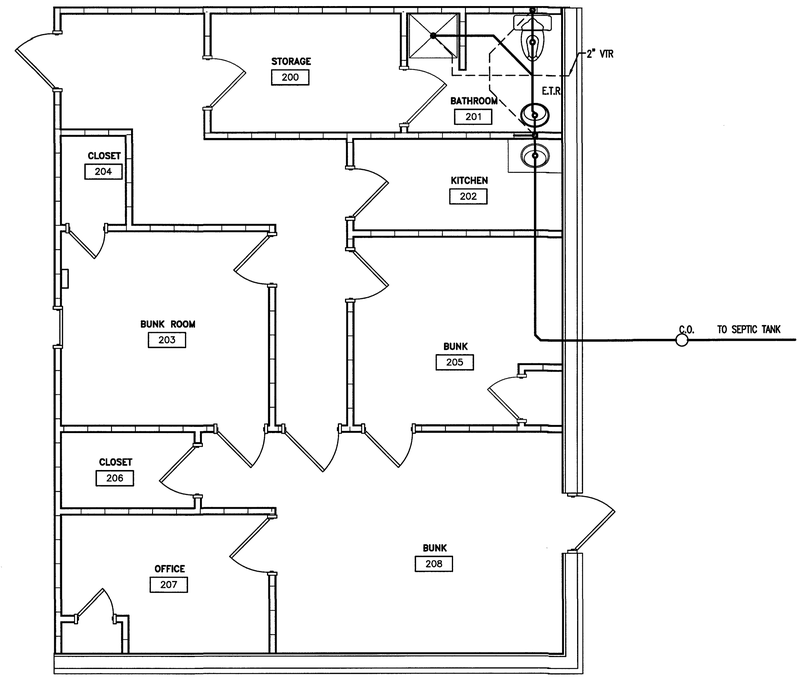
Plotted Date: Nov 15, 2023 - 3:57pm



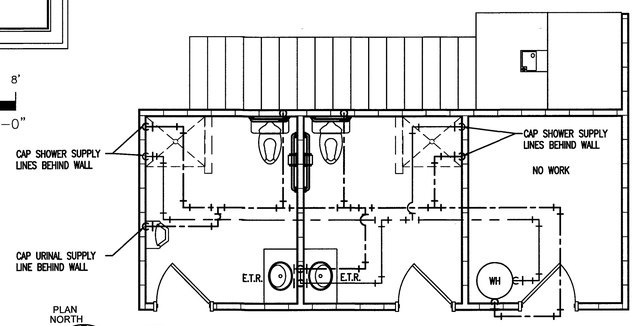
PLAN NORTH
TRUE NORTH

4 / P2 BLDG-1 PLUMBING – WATER
EXISTING SECOND FLOOR
SCALE: 1/4" = 1'-0"



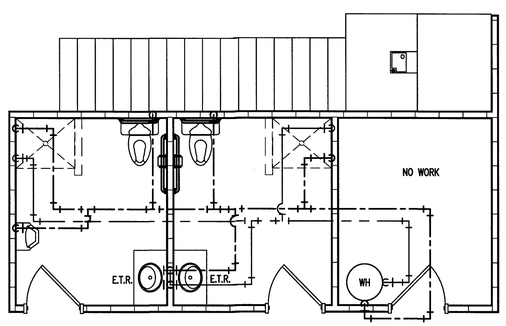
PLAN NORTH
TRUE NORTH

6 / P2 BLDG-1 PLUMBING – WASTE/VENT
EXISTING SECOND FLOOR
SCALE: 1/4" = 1'-0"



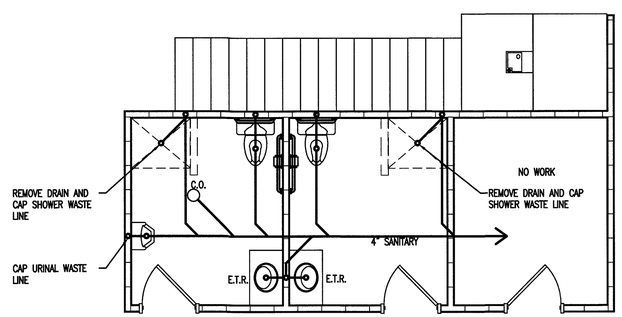
PLAN NORTH
TRUE NORTH

5 / P2 BLDG-1 DEMO – WATER
EXISTING FIRST FLOOR
SCALE: 1/4" = 1'-0"



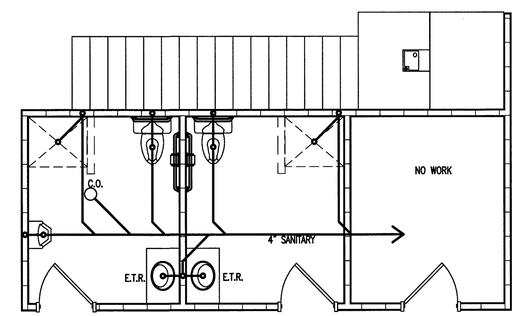
PLAN NORTH
TRUE NORTH

1 / P2 BLDG-1 PLUMBING – WATER
EXISTING FIRST FLOOR
SCALE: 1/4" = 1'-0"



PLAN NORTH
TRUE NORTH

2 / P2 BLDG-1 DEMO – WASTE
EXISTING FIRST FLOOR
SCALE: 1/4" = 1'-0"



PLAN NORTH
TRUE NORTH

3 / P2 BLDG-1 PLUMBING – WASTE/VENT
EXISTING FIRST FLOOR
SCALE: 1/4" = 1'-0"

NOTE: PLUMBING WORK IN MEN'S AND WOMEN'S RESTROOM SHALL BE BID AS ALTERATION WORK:

OPTION 1
INCLUDES DEMOLITION OF SHOWERS, URINAL, & CAPPING PIPING BEHIND FINISHED WALL SURFACES.

OPTION 2
INCLUDES DEMOLITION OF SHOWERS & RELOCATION OF URINAL & INSTALLATION OF SECOND TOILET IN WOMEN'S RESTROOM & INCLUDE INSTALLATION OF TOILET PARTITIONS.

JENKINS CONSULTING ENGINEERS, PA
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NORTH CAROLINA PROFESSIONAL SEAL C-0370 CORPORATION ENGINEERS, P.A. JENKINS CONSULTING
NORTH CAROLINA PROFESSIONAL SEAL ENGINEER BUDDY JENKINS

15 NOVEMBER 2023

DESIGNED BY: B. JENKINS
DRAWN BY: JDL
PROJECT #: 2023-05-19
DATE: 15 NOVEMBER 2023

FINAL DRAWING [ ] FOR REVIEW PURPOSES ONLY
PRELIMINARY [ ] FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING [X] FOR CONSTRUCTION

OWNER/TENANT: FLAT BRANCH FIRE DEPT.
2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323
CONTRACTOR/BUILDER: - -

PROJECT: NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET: PLUMBING –EX. BLDG 1 WATER/WASTE PLAN

P2

SCALE: 1/4" = 1'-0" 0 2' 4' 8'
SCALE: 1-1/2" = 1'-0" 0 4" 8" 1'-4"
SCALE: 1" = 1'-0" 0 6" 1'-0" 2'-0"
SCALE: 3/4" = 1'-0" 0 8" 1'-4" 2'-8"
SCALE: 1/2" = 1'-0" 0 1' 2' 4'
SCALE: 1/4" = 1'-0" 0 2' 4' 8'
SCALE: 3/16" = 1'-0" 0 2'-8" 5'-4" 10'-8"
SCALE: 1/8" = 1'-0" 0 4' 8' 16'

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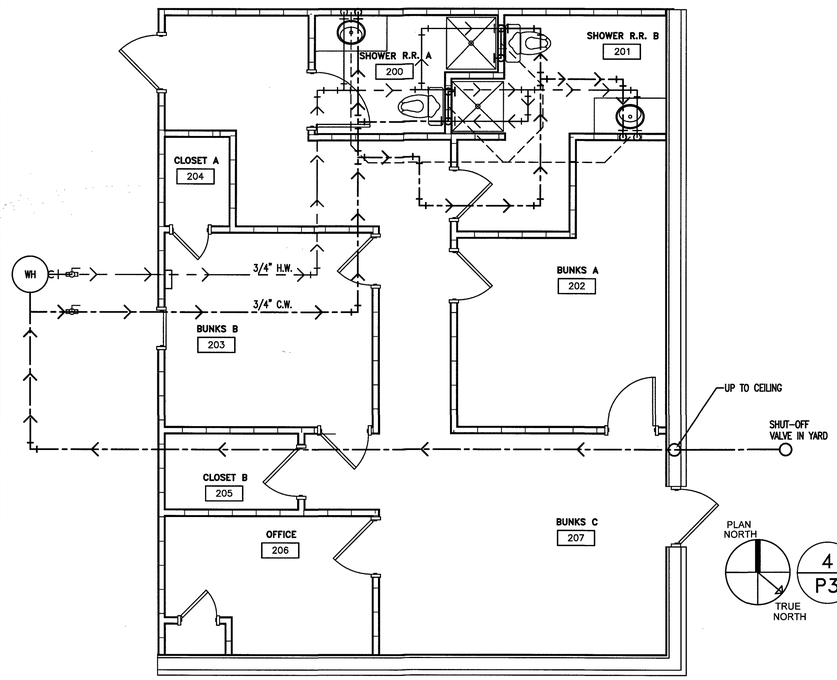
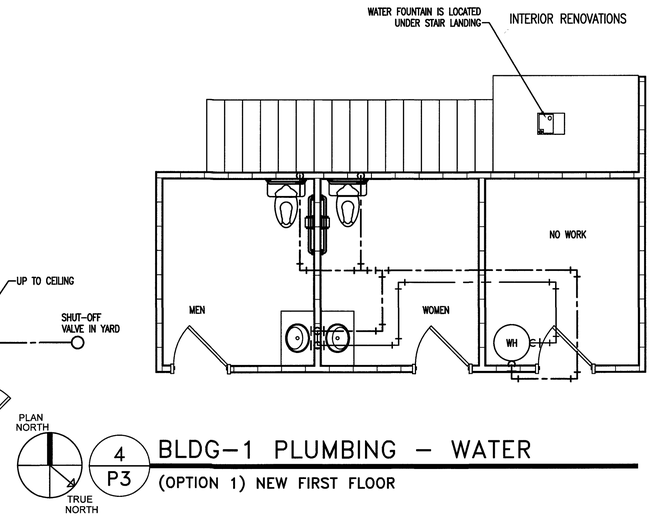
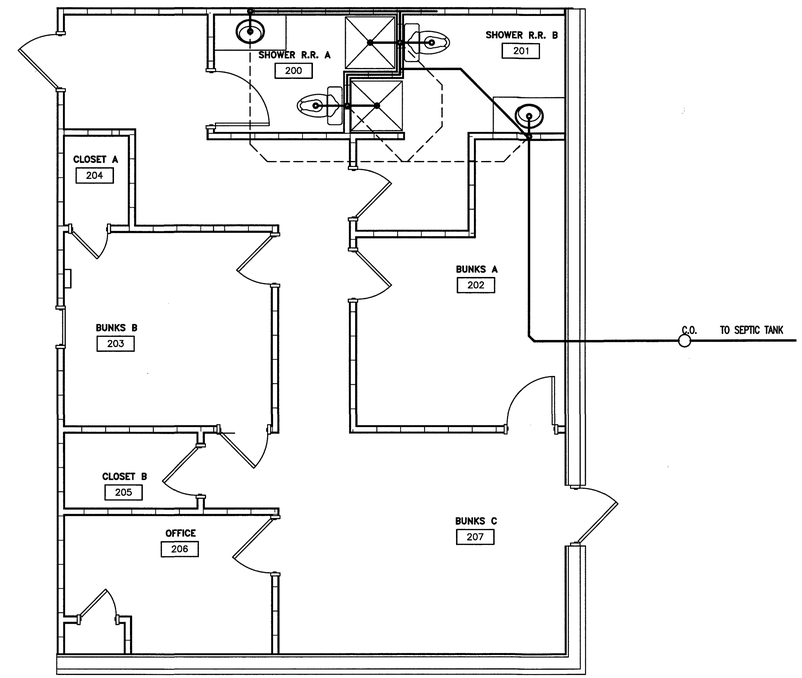


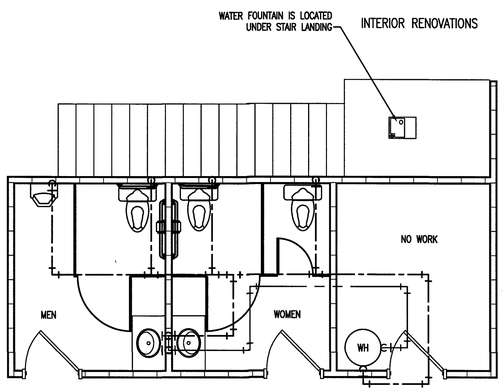


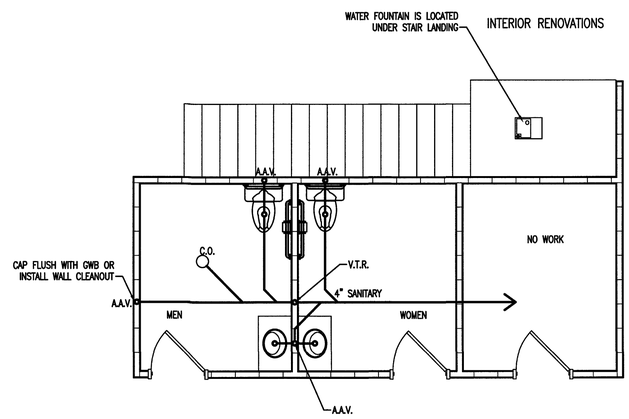
4 P3 BLDG-1 PLUMBING – WATER
(OPTION 1) NEW FIRST FLOOR

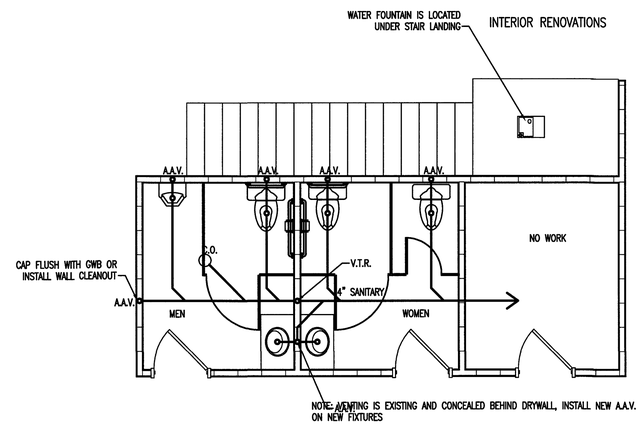


1 P3 BLDG-1 PLUMBING – WATER
NEW SECOND FLOOR
SCALE: 1/4" = 1'-0"

2 P3 BLDG-1 PLUMBING – WASTE/VENT
NEW SECOND FLOOR
SCALE: 1/4" = 1'-0"







3 P3 BLDG-1 PLUMBING – WATER
(OPTION 2) NEW FIRST FLOOR
SCALE: 1/4" = 1'-0"

5 P3 BLDG-1 PLUMBING – WASTE/VENT
(OPTION 1) NEW FIRST FLOOR

6 P3 BLDG-1 PLUMBING – WASTE/VENT
(OPTION 2) NEW FIRST FLOOR
SCALE: 1/4" = 1'-0"

JENKINS CONSULTING ENGINEERS, PA
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CORPORATE LICENSE NUMBER: C-0870 EMAIL: BJENKINS@JCE-PA.COM
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NORTH CAROLINA PROFESSIONAL SEAL C-0870 CORPORATION JENKINS CONSULTING ENGINEERS, P.A.
NORTH CAROLINA PROFESSIONAL SEAL ENGINEER BRUCE L. "BUDDY" JENKINS
15 NOVEMBER 2023

DESIGNED BY: B. JENKINS
DRAWN BY: JDL
PROJECT #: 2023-05-19
DATE: 15 NOVEMBER 2023

FINAL DRAWING ☐ FOR REVIEW PURPOSES ONLY
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FINAL DRAWING ☐ FOR CONSTRUCTION

OWNER/TENANT:
FLAT BRANCH FIRE DEPT.
2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323

CONTRACTOR/BUILDER:

PROJECT:
NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET:
PLUMBING –NEW BLDG 1 WATER/WASTE PLAN

P3

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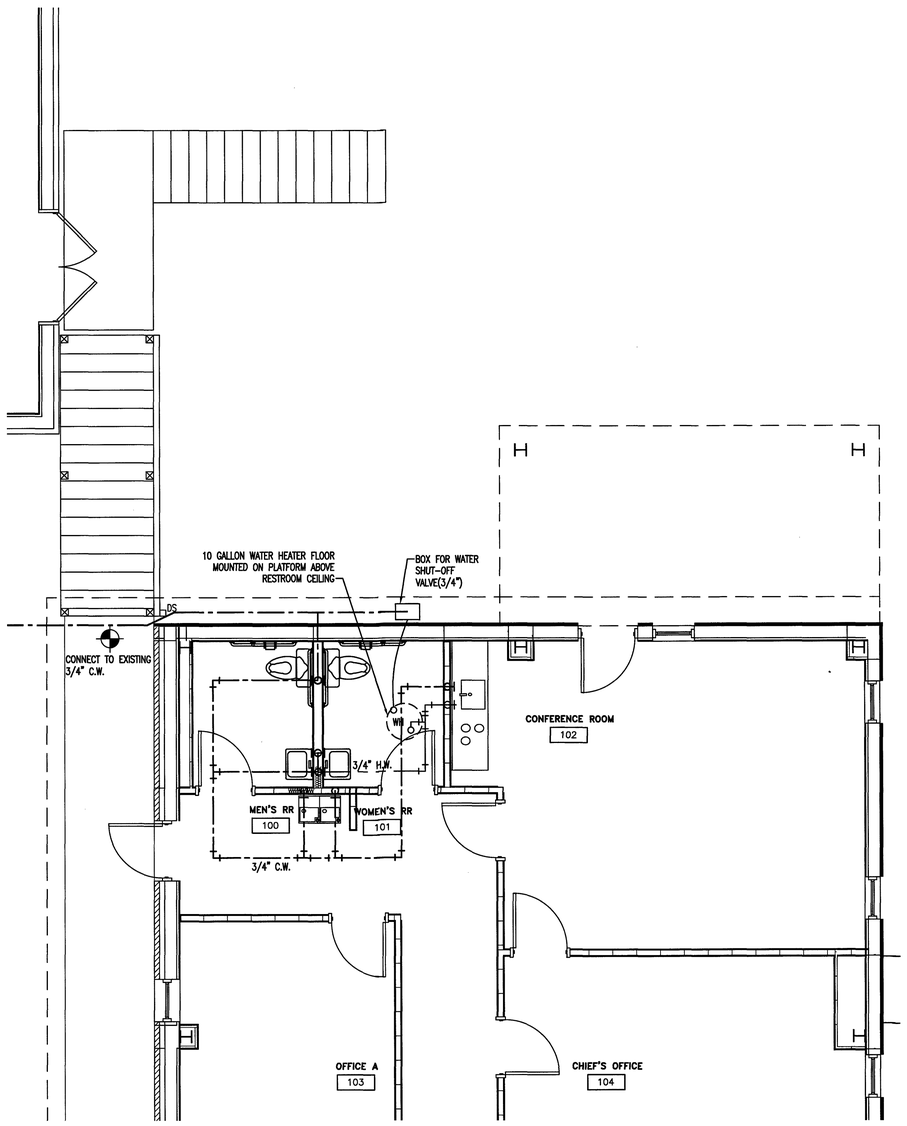
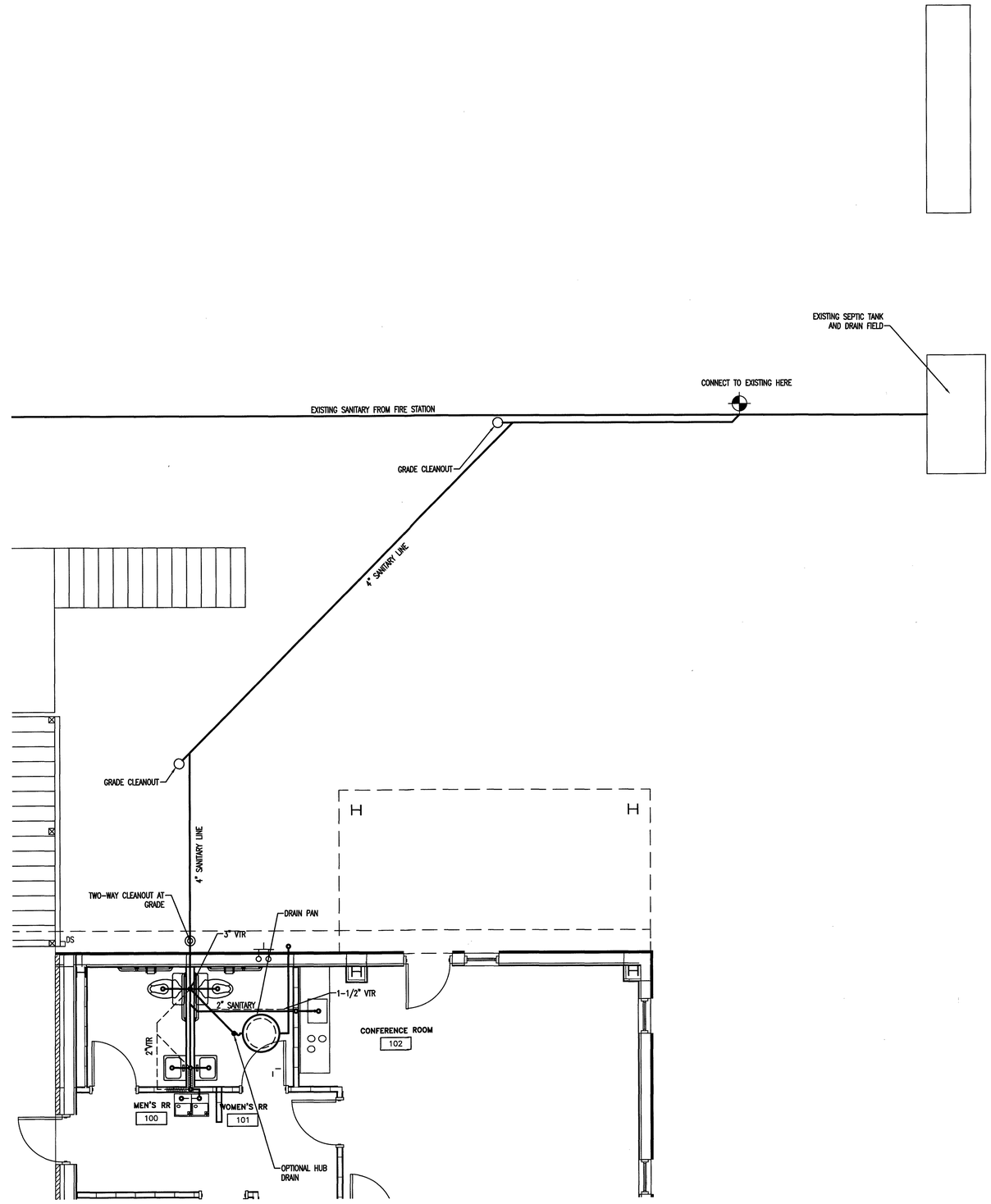
Plotted Date: Nov 16, 2023 - 6:36pm



PLAN NORTH
TRUE NORTH

1 P4 BLDG-2 PLUMBING - WATER

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



PLAN NORTH
TRUE NORTH

2 P4 BLDG-2 PLUMBING - WASTE

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

JENKINS CONSULTING ENGINEERS, PA
OFFICE in EUREKA SPRINGS, NORTH CAROLINA
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NORTH CAROLINA PROFESSIONAL SEAL C-3070 CORPORATION JENKINS CONSULTING ENGINEERS, PA
NORTH CAROLINA PROFESSIONAL SEAL ENGINEER DOUGLAS L. "BUDDY" JENKINS

15 NOVEMBER 2023

DESIGNED BY: B. JENKINS
DRAWN BY: JDL
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DATE: 15 NOVEMBER 2023

FINAL DRAWING ☐ FOR REVIEW PURPOSES ONLY
PRELIMINARY ☐ FOR DESIGN DEVELOPMENT ONLY
FINAL DRAWING ☒ FOR CONSTRUCTION

OWNER/TENANT: FLAT BRANCH FIRE DEPT.
2098 ELLIOTT BRIDGE RD. BUNNLEVEL, NC 28323

CONTRACTOR/BUILDER:

PROJECT: NEW ADMIN BUILDING & INTERIOR RENOVATION
2098 ELLIOTT BRIDGE RD BUNNLEVEL, NC 28323

SHEET: PLUMBING - BLDG 2 WATER/WASTE PLAN

P4

SCALE: 1/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 1" = 1'-0" SCALE: 1-1/2" = 1'-0" SCALE: 1/8" = 1'-0" SCALE: 3/16" = 1'-0"

Drawing File: H:\2023\Flat Branch VFD #2023-05-19\DWG\Flat Branch VFD 15NOV23.dwg
Drawn by: JDL
Plotted Date: Nov 15, 2023 - 3:59pm