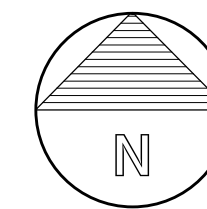
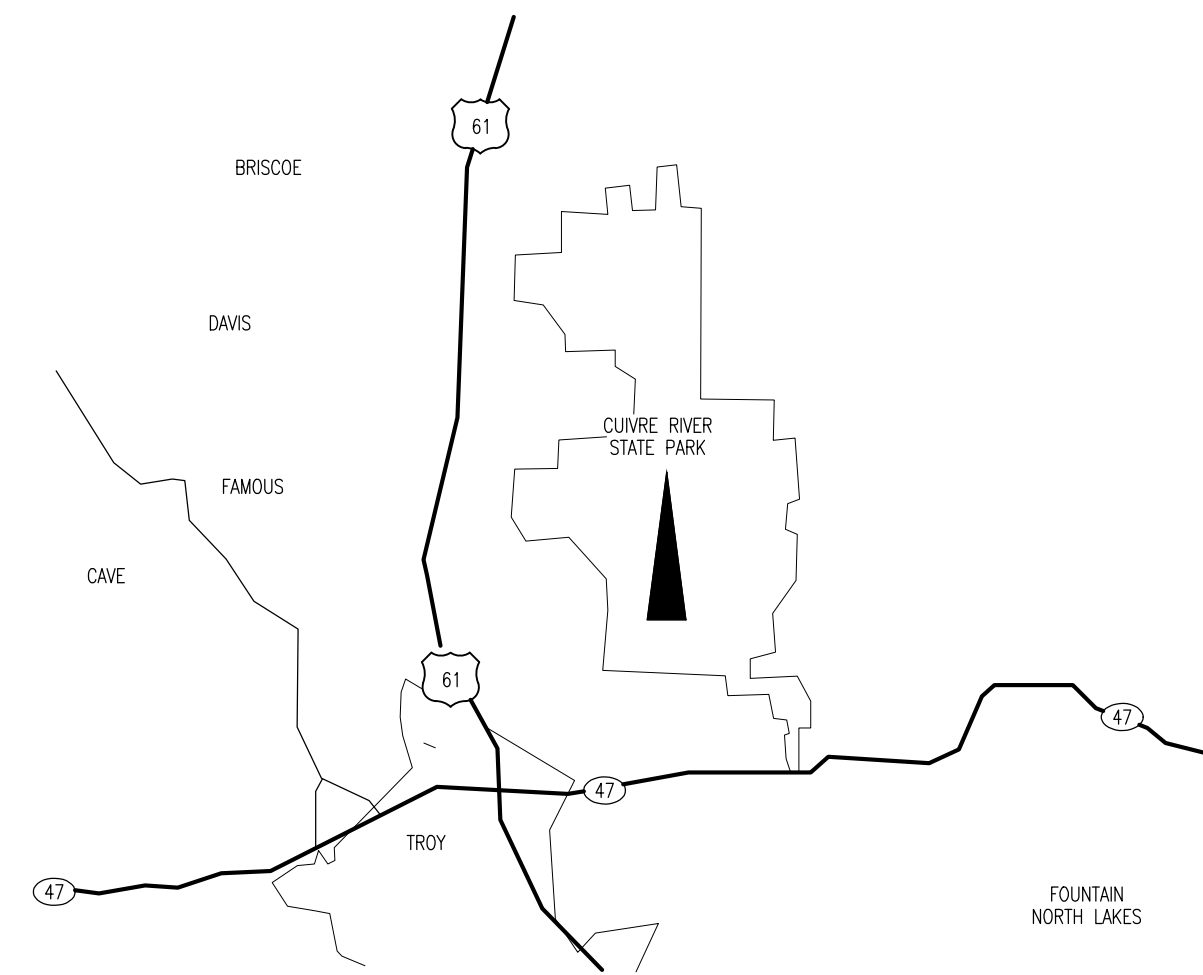


CHANGE OF SCOPE REBID REPLACE HVAC BARRACKS CAMP DERRICOTTE CUIVRE RIVER STATE PARK TROY, MISSOURI



LOCATION MAP

OWNER:

STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MISSOURI STATE PARKS

**PROJECT
MANAGEMENT:**

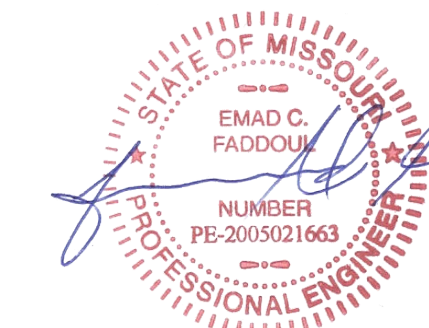
OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT
DESIGN AND CONSTRUCTION

DESIGNER:

PROJECT NUMBER: X2115-01

SITE NUMBER: 5206 - CUIVRE RIVER STATE PARK

ASSET NUMBER: 7815206033-BARRACKS #4 - CAMP DERRICOTTE
7815206034-BARRACKS #3 - CAMP DERRICOTTE
7815206035-BARRACKS #5 - CAMP DERRICOTTE
7815206036-BARRACKS #6 - CAMP DERRICOTTE
7815206037-BARRACKS #1 - CAMP DERRICOTTE
7815206038-BARRACKS #2 - CAMP DERRICOTTE
7815206039-BARRACKS #7 - CAMP DERRICOTTE
7815206041-BARRACKS #8 - CAMP DERRICOTTE
7815206040-BARRACKS #9 - CAMP DERRICOTTE



SHEET NUMBER:
G-1
DATE: 2-16-22
SHEET 1 OF 5

2/16/2022

INDEX OF DRAWINGS

G-1 COVER SHEET

G-2 INDEX SHEET

A-1 BARRACKS SECTION

M1 BARRACKS MECHANICAL PLAN

E1 BARRACKS ELECTRICAL PLAN

CODE REQUIREMENTS

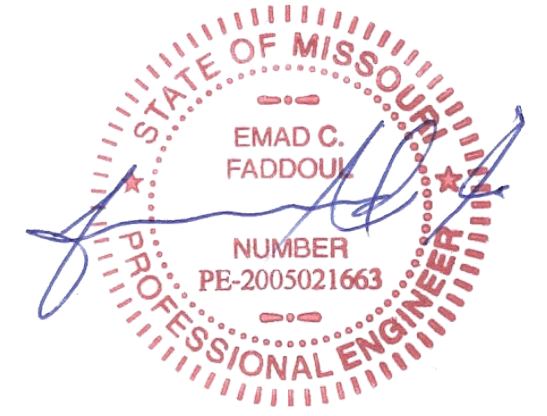
BUILDING CODE – 2015 IBC

PLUMBING CODE – CURRENT IBC

MECHANICAL CODE – CURRENT IBC

ELECTRICAL CODE – CURRENT N.E.C.

STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR



2/16/2022

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DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MISSOURI STATE PARKS

REPLACE HVAC
CAMP DERRICOTTE DINING
HALL & BARRACKS BUILDING
CUIVRE RIVER STATE PARK
678 MO-147
TROY, MO

PROJECT # X2115-01
SITE # 5206
ASSET # 7815206013

REVISION: _____
DATE: _____

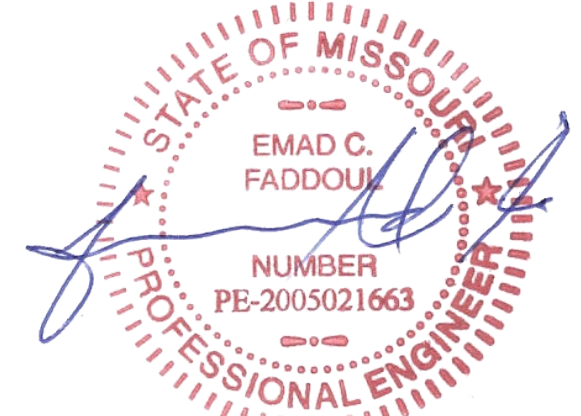
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DRAWN BY: LC
CHECKED BY: ECF
DESIGNED BY: ECF

SHEET TITLE:
**INDEX
AT SHEET**

SHEET NUMBER:

G-2

DATE 2-16-22
SHEET 2 OF 5



2/16/2022

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DIVISION OF FACILITIES MANAGEMENT
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DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MISSOURI STATE PARKS

REPLACE HVAC
BARRACKS BUILDING CUIVRE
RIVER STATE PARK 678
MO-147
TROY, MO

PROJECT # X2115-01
SITE # 5206
ASSET # 7815206013

REVISION: _____
DATE: _____

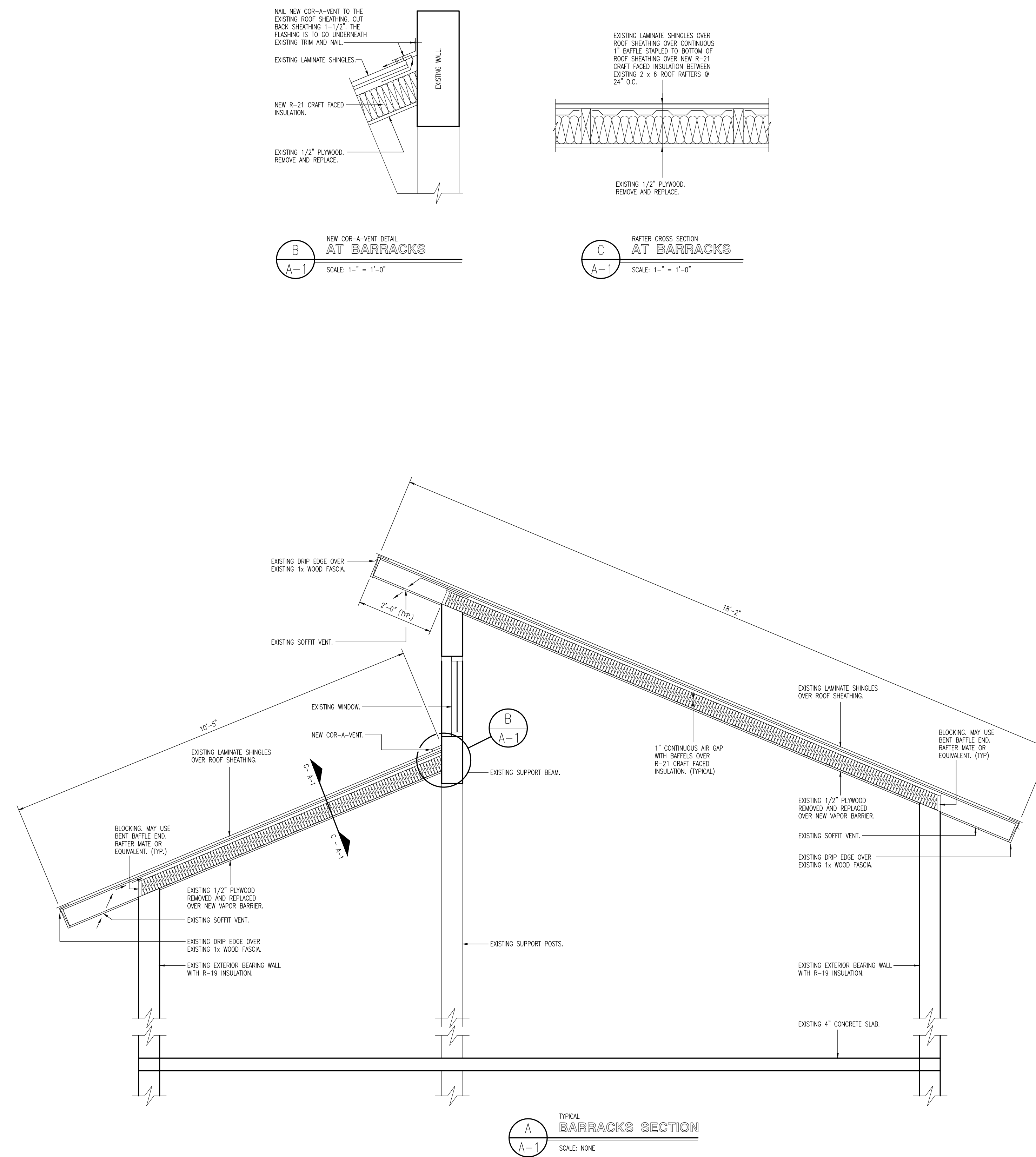
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DRAWN BY: LC
CHECKED BY: _____
DESIGNED BY: ECF

SHEET TITLE:
BARRACKS SECTION

SHEET NUMBER:

A-1

DATE 2-16-22
SHEET 3 OF 5



Base Bid: Add roof insulation
and HVAC system to barracks 1-3

Alternate 1: Add roof insulation
and HVAC system to barracks 4-6

Alternate 2: Add roof insulation
and HVAC system to barracks 7-9

GENERAL NOTES:

- COORDINATE INSTALLATION OF EQUIPMENT WITH MANUFACTURERS' INSTALLATION INSTRUCTIONS PRIOR TO ROUGH-IN.
- CONTRACTOR SHALL MAINTAIN FIRE RATING OF ANY PENETRATION AND SHALL SEAL ANY PENETRATION IN A FLOOR, CEILING, OR EXTERIOR WALL.
- VERIFY RECEPTACLE MOUNTING HEIGHTS AND LOCATIONS WITH OWNER AND ARCHITECTURAL ELEVATIONS PRIOR TO ROUGH-IN.
- RECEPTACLES SHALL BE MOUNTED AT 18" TO CENTER ABOVE FINISHED FLOOR, UNLESS NOTED OTHERWISE ON PLANS.

KEYED NOTES:

- INSTALL FLEX DUCT CONNECTORS ON SUPPLY AND RETURN AIR CONNECTIONS TO RTU.
- N/A
- N/A
- N/A
- COORDINATE NEW HVAC GRILLES, REGISTERS, AND DUCT LOCATIONS WITH EXISTING LIGHTS, BEAMS, JOIST, AND SUPPORTS.
- N/A
- ON CONCRETE PAD

HVAC EQUIPMENT SCHEDULE

HEAT PUMP ROOF TOP UNITS (YORK, LENNOX, DAIKIN)											
MARK	HTG BTU IN	HTG BTU OUT	TOTAL CLG	SENS CLG	CFM @ 0.5"	O.A. CFM	V / #	FLA	MOCP	MODEL	REMARKS
RTU1	-	34000	35,000	26,250	1,167	233	240 / 1	58.2	70		1,2,3

COOK EXHAUST FANS (JENCO, GREENHECK)											
MARK	CFM	ESP	DRIVE	RPM	SONES	HP	V / #	WATTS	MOCP	MODEL	REMARKS
EF1	300	0.250"	BELT	1,140	5.3	-	120 / 1	528	20	100 ACWB 100W2B	1

1. OR APPROVED EQUAL.
 2. WITH PROGRAMMABLE STAT, LO AMBIENT KIT FOR 0° OPERATION.
 3. INSTALLED WITH 8.7KW BACK UP ELECTRIC STRIP HEAT. UNIT SHALL HAVE ELECTRIC HEAT LOCKOUT WHEN UNIT IS IN THE DEFROST CYCLE.

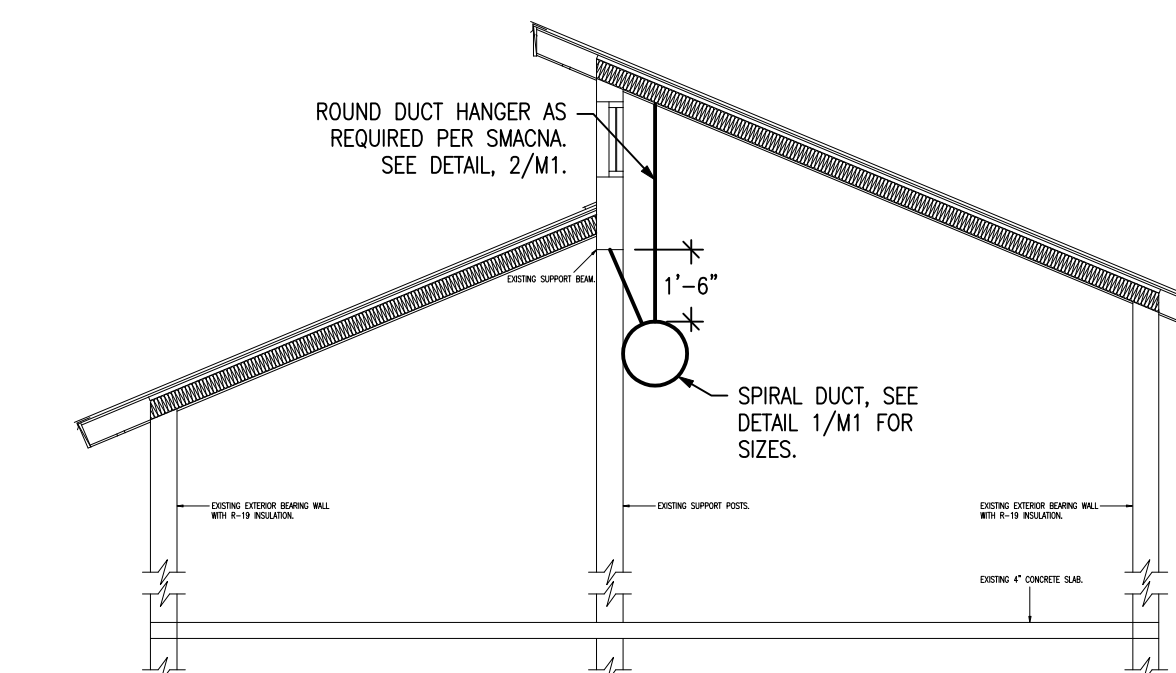
GRILLE AND REGISTER SCHEDULE

MARK	MFG / MODEL	DAMPER	COLOR	DESCRIPTION
A	PRICE / SDGE	YES	WHITE	SPIRAL DUCT REGISTER, DOUBLE DEFLECTION CORE.
B	PRICE / AMCD	YES	WHITE	SURFACE MOUNT ALL ALUMINUM MODULAR CORE LOUVERED FACE DIFFUSER, 4-WAY BLOW PATTERN
C	PRICE / 620	NO	WHITE	WALL MOUNT ALL ALUMINUM RETURN AIR GRILLE.
D	PRICE / 80	NO	WHITE	SURFACE MOUNT ALL ALUMINUM EGGRATE RETURN AIR GRILLE.

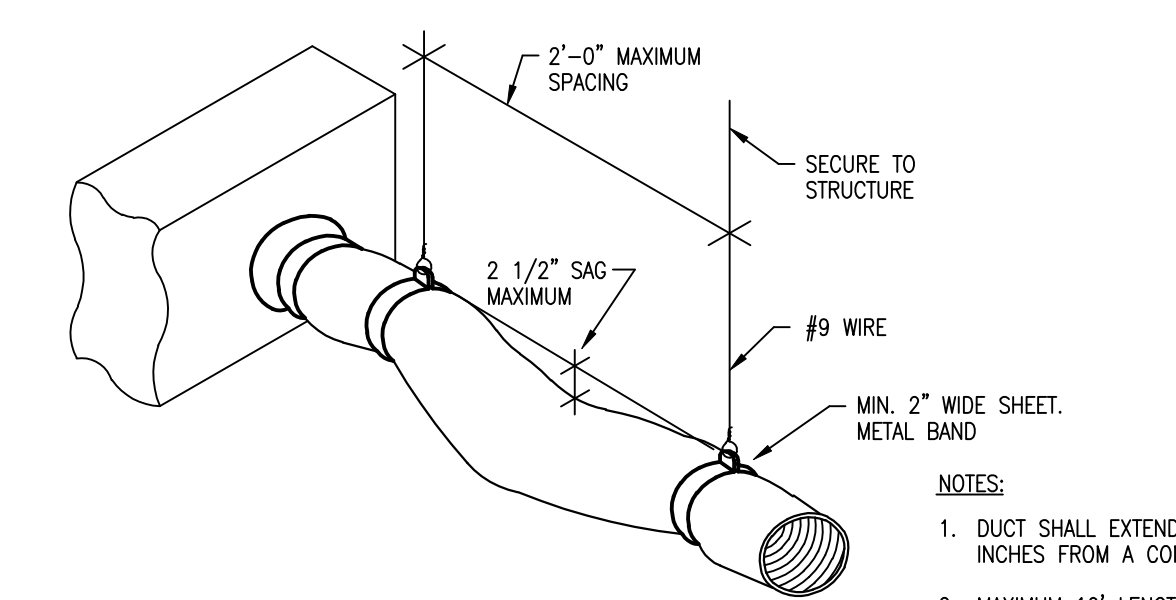
NOTE: ALL GRILLES, REGISTERS, AND DIFFUSERS TO BE ALL ALUMINUM UNLESS NOTED OTHERWISE. STEEL CAN BE USED IF POWDER COATED PAINT IS APPLIED. QUANTITIES, SIZES, FRAMES AND ACCESSORIES TO BE CONFIRMED BY CONTRACTOR. ALTERNATE MANUFACTURERS: HART AND COOLEY, TITUS.

MECHANICAL SYMBOL SCHEDULE

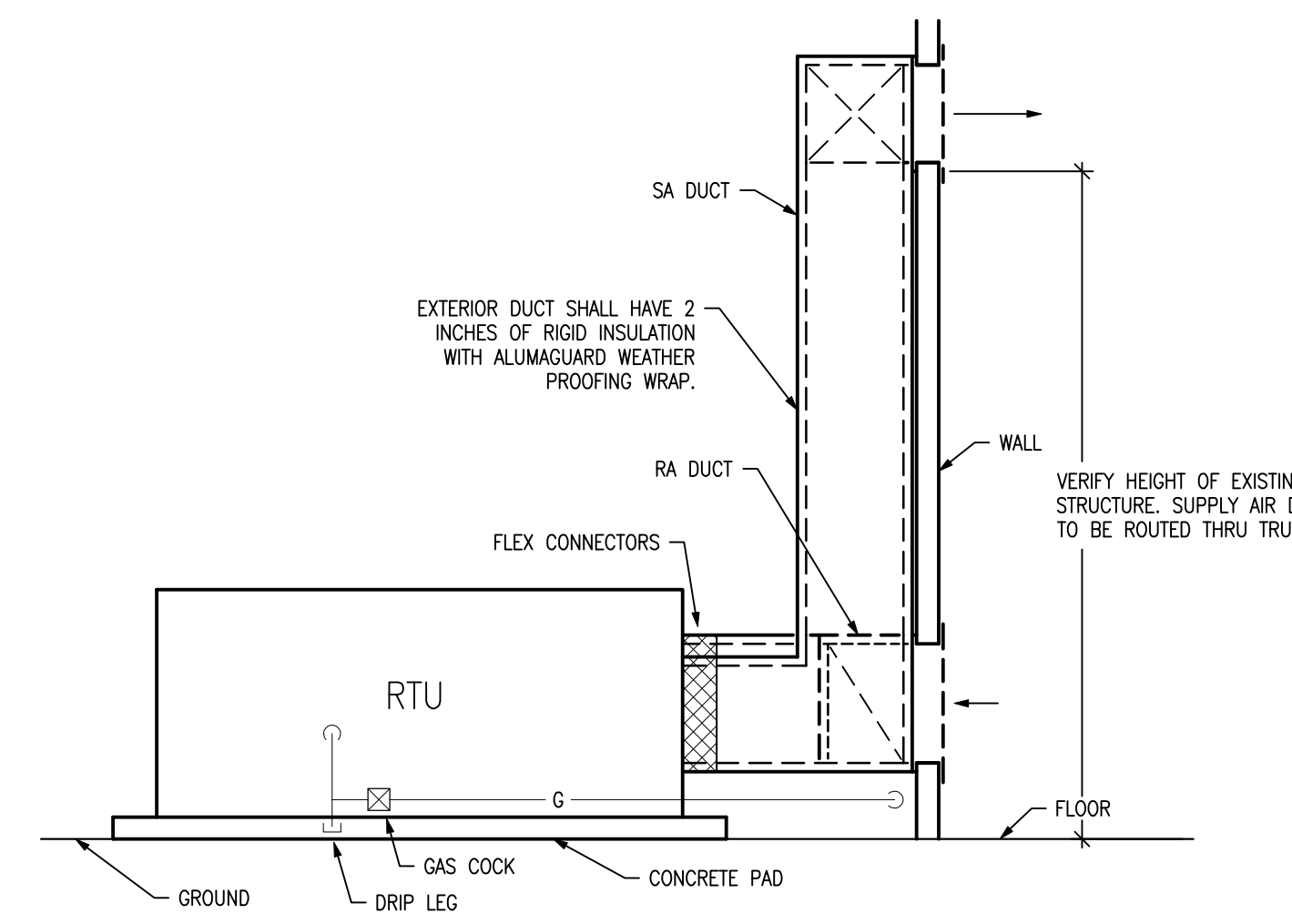
	AIR TERMINAL TAG. "A" INDICATES MARK ON GRILLE AND REGISTER SCHEDULE.			
	"200" INDICATES AIR VOLUME IN CFM. "12x12" INDICATES FACE SIZE.			
	FIRE DAMPER			
	SMOKE DAMPER			
	MANUAL DAMPER			
	MOTORIZED DAMPER			
	THERMOSTAT - HUMIDISTAT (ZONE SUBSCRIPT)			
SA	RA	SUPPLY AIR	-	RETURN AIR
FA	EA	FRESH AIR	-	EXHAUST AIR
N/E	E/R	NEW CONNECTS TO EXISTING	-	EXISTING TO REMAIN



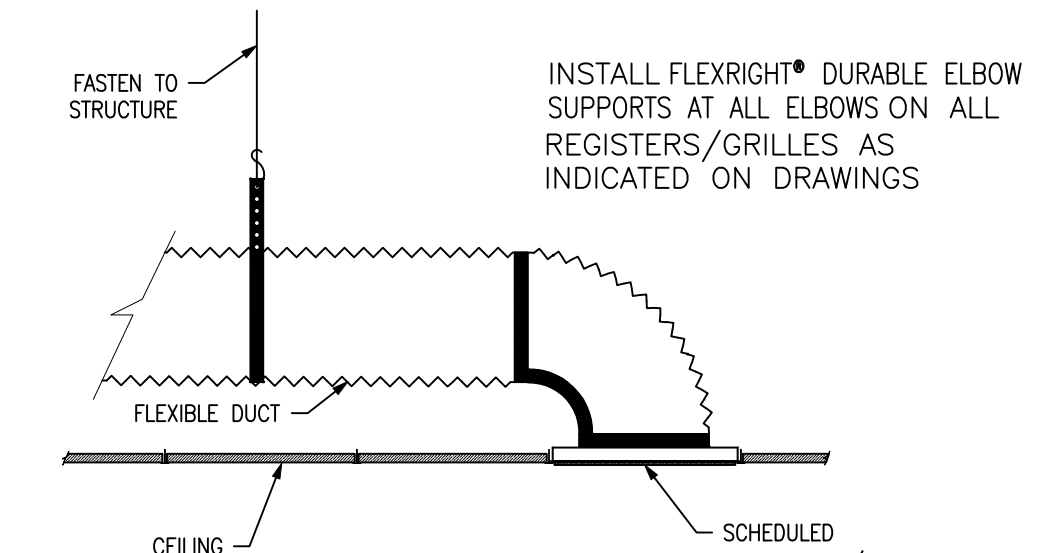
6 DUCTWORK SECTION
 M1 SCALE: 1/4" = 1'-0" BARRACKS 1-6



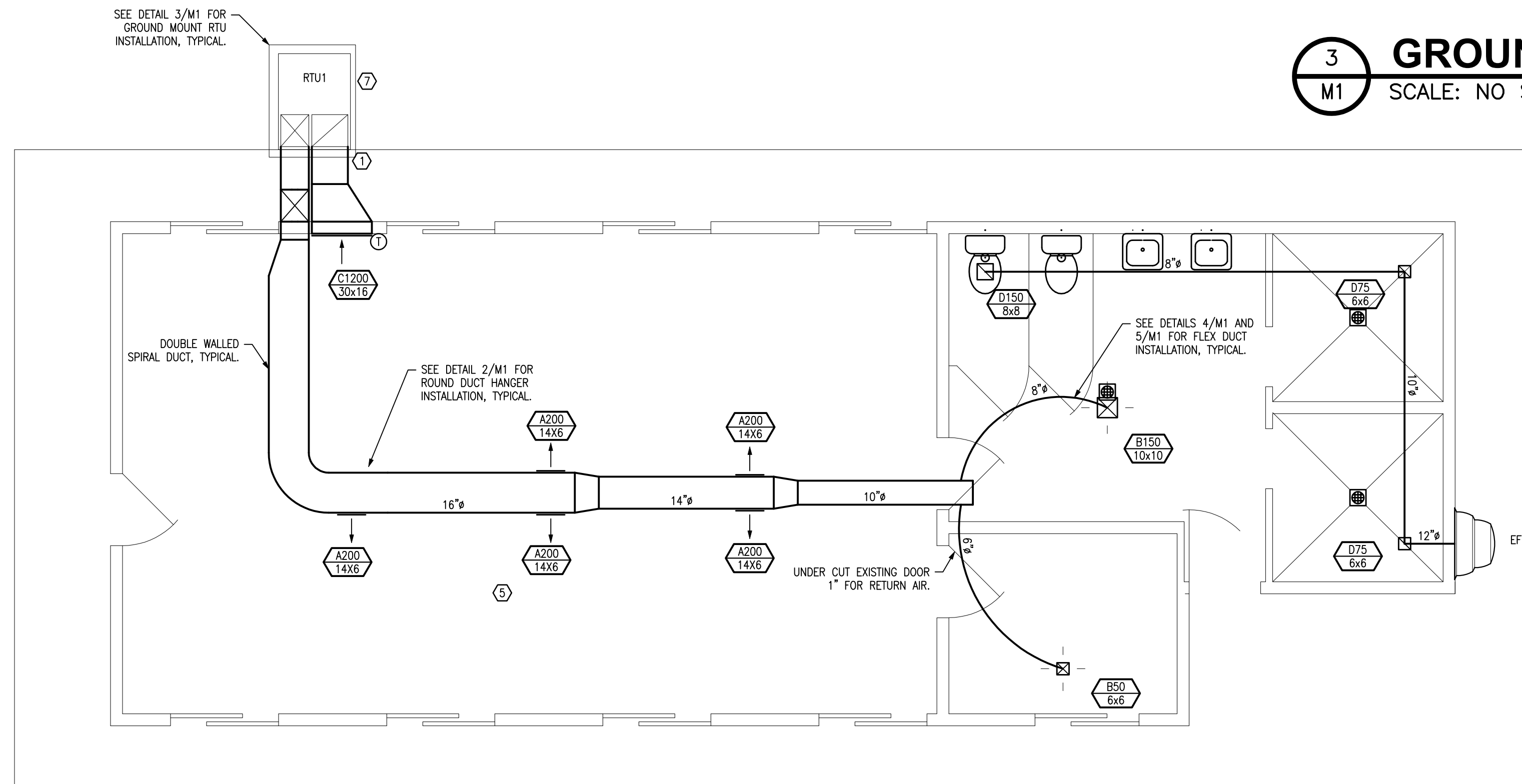
5 FLEX DUCT SUPPORT
 M1 SCALE: NO SCALE



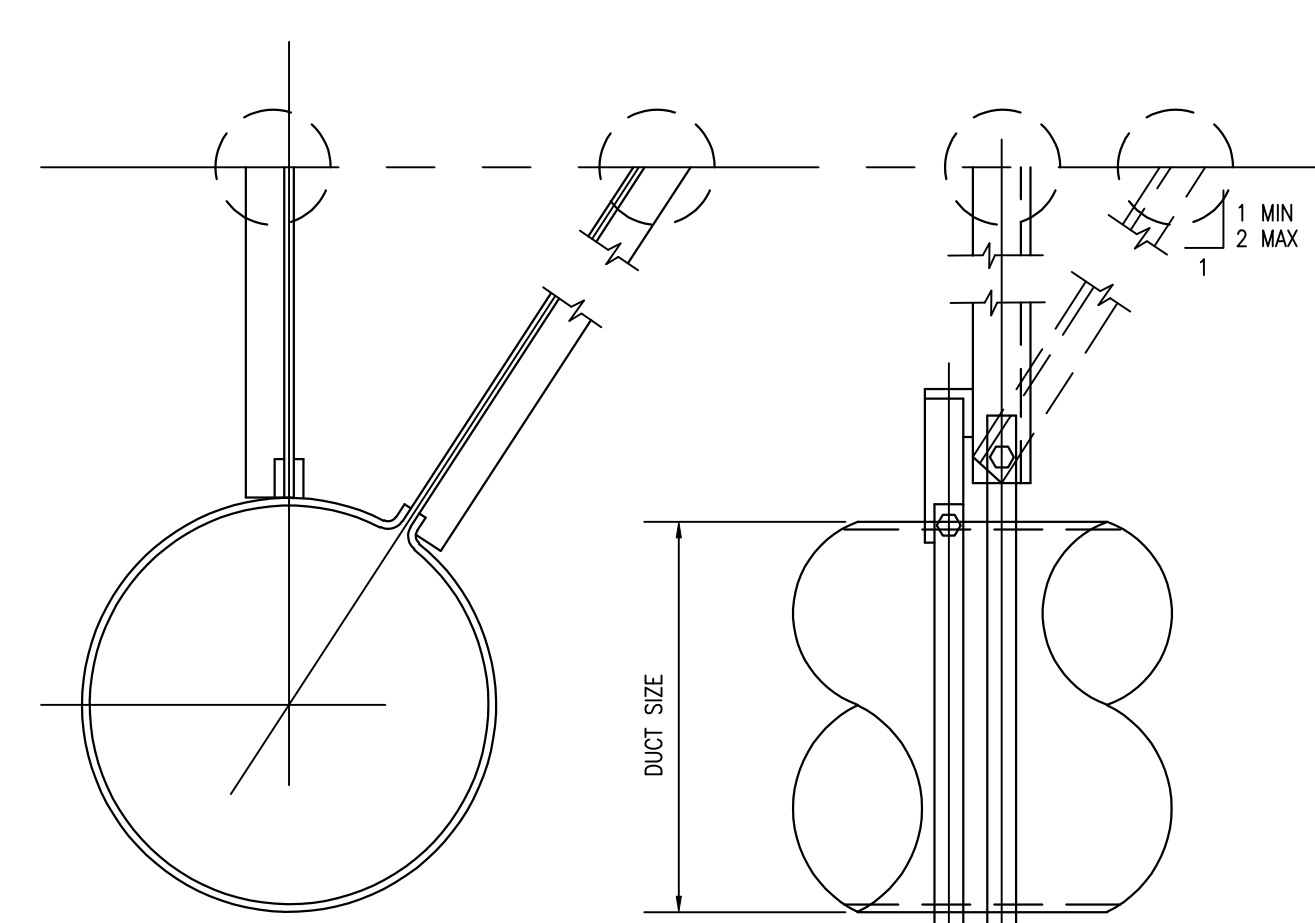
3 GROUND MOUNTED RTU
 M1 SCALE: NO SCALE



4 FLEXIBLE DUCT
 M1 SCALE: NO SCALE

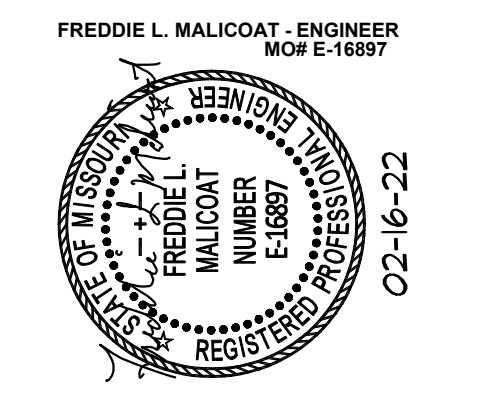


1 MECHANICAL PLAN
 M1 SCALE: 1/4" = 1'-0" BARRACKS 1-9



2 ROUND DUCT HANGER
 M1 SCALE: NO SCALE

STATE OF MISSOURI
 MICHAEL L. PARSON,
 GOVERNOR



PROFESSIONAL SEAL

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 MISSOURI STATE CERTIFICATE OF AUTHORITY #000421
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 COLUMBIA, MISSOURI 65202 FAX 573-875-1305
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OFFICE OF ADMINISTRATION
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 DIVISION OF MISSOURI STATE PARKS

REPLACE HVAC
 CAMP DERRICOTTE
 BARRACKS BUILDING
 CUIVRE RIVER STATE PARK
 678 MO-147
 TROY, MO

PROJECT # X2115-01
 SITE # 5206
 ASSET # 1-7815206037/
 2-7815206038/ 3-7815206034/
 4-7815206033/ 5-7815206035/
 6-7815206036

REVISION: _____
 DATE: _____
 REVISION: _____
 DATE: _____
 REVISION: _____
 DATE: _____

CAD DWG FILE: 21134
 DRAWN BY: ER
 CHECKED BY: FM
 DESIGNED BY: FM

SHEET TITLE:
**BARRACKS
 MECHANICAL
 PLAN**

SHEET NUMBER:
M1

DATE 2/16/22
 SHEET 4 OF 5

GENERAL NOTES:

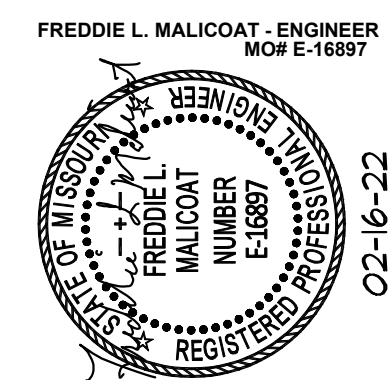
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KEYED NOTES:

- N/A
- CONNECT TO NEW 20A-1P BREAKER IN EXISTING ELECTRICAL PANEL ER.
- CONNECT TO NEW 70A-2P BREAKER IN EXISTING ELECTRICAL PANEL ER, 2#4, 1#8G.
- N/A
- N/A
- NEW ADDITIONAL ELECTRICAL LOAD 14,856 WATTS IN EXISTING PANEL ER.
- ON CONCRETE PAD

ELECTRICAL SYMBOL SCHEDULE	
	P2-22,24 HOME RUN CIRCUIT TO PANEL P2, CIRCUITS 22,24
	EACH ARROW INDICATES ONE CIRCUIT
	SHORT HATCH MARKS INDICATE # OF PHASE CONDUCTORS
	LONG HATCH MARKS INDICATE # OF NEUTRAL CONDUCTORS
	NO HATCH MARK INDICATES TWO CONDUCTORS
	E ELECTRICAL SERVICE OR FEEDER WIRING
	WIRING IN WALL OR CEILING - WIRING IN FLOOR
	RECEPTACLE OUTLET (DUPLEX - QUADRUPLX - SPECIAL POWER)
	ELECTRIC PANEL
	JUNCTION BOX - PULL BOX
	DISCONNECT (FUSED - NONFUSED)
	STARTER - CONTACTOR
	ELECTRIC MOTOR (5 HP - 208V - 3 PHASE)
	OUTLET MODIFIERS (MOUNT HEIGHT INCHES - GFI PROTECTED - WEATHER PROOF GFI)

STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR



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REPLACE HVAC
CAMP DERRICOTTE
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CUIVRE RIVER STATE PARK
678 MO-147
TROY, MO

PROJECT # X2115-01
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ASSET # 1-7815206037/
2-7815206038/ 3-7815206034/
4-7815206033/ 5-7815206035/
6-7815206036

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DATE: _____
REVISION: _____
DATE: _____
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DATE: _____

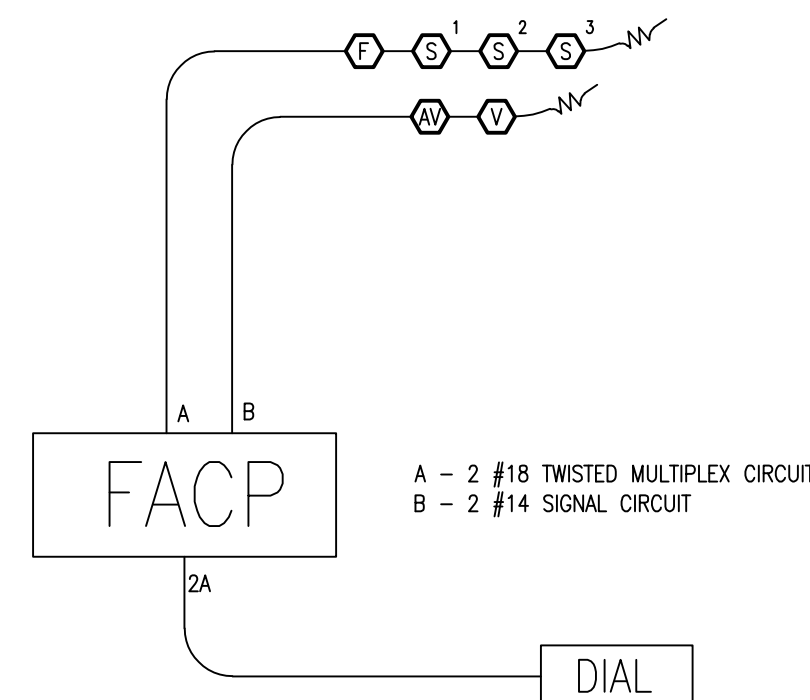
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DRAWN BY: ER
CHECKED BY: FM
DESIGNED BY: FM

SHEET TITLE:
**BARRACKS
ELECTRICAL
PLAN**

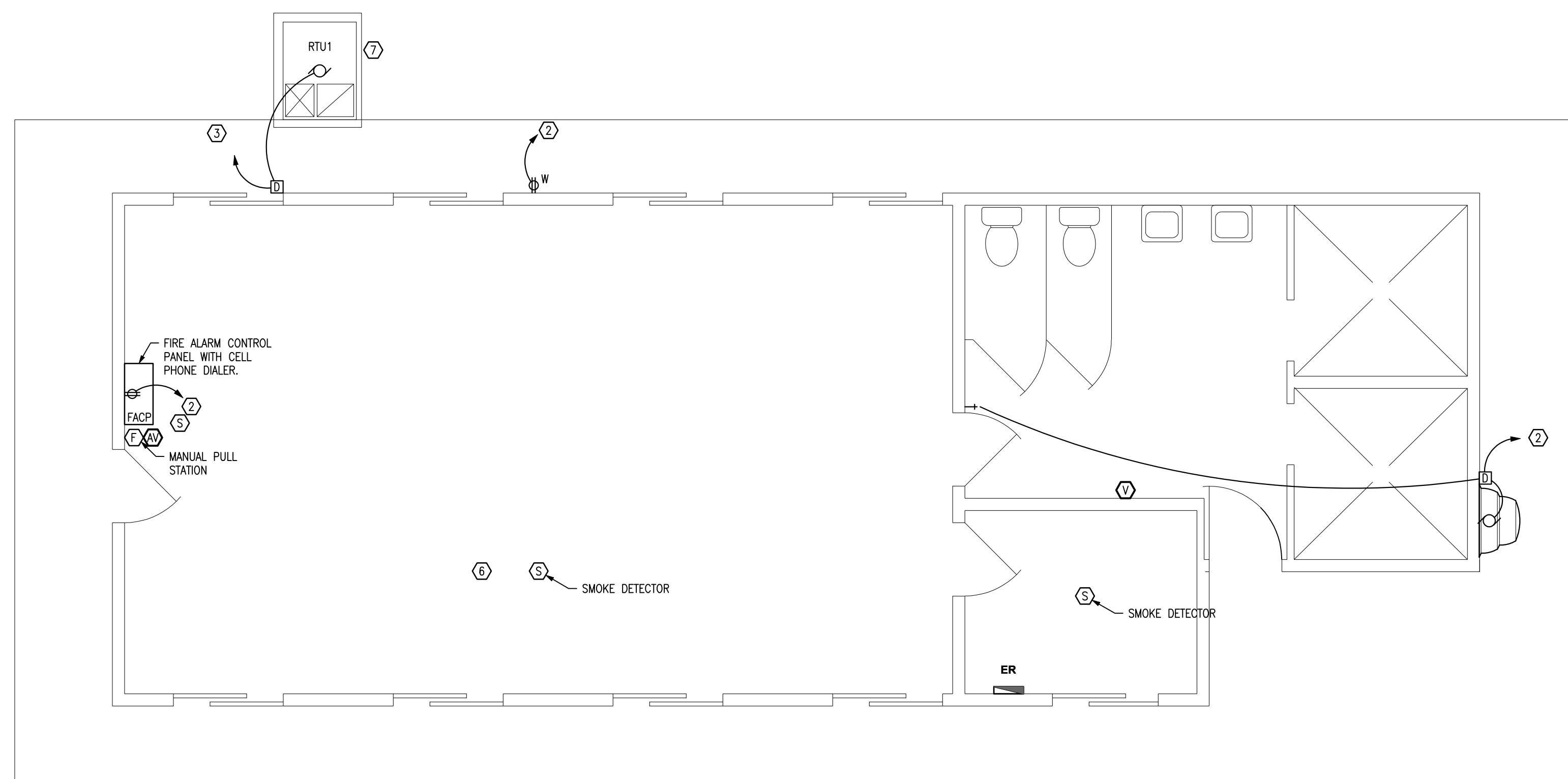
SHEET NUMBER:

E1

DATE 2/16/2022
SHEET 5 OF 5



2 FIRE ALARM RISER DIAGRAM
E1 NO SCALE



1 ELECTRICAL PLAN
E1 SCALE: 1/4" = 1'-0" BARRACKS 1-9