Colleton County MS Mechanical Replacement

1379 Tuskegeee Airmen Drive
Walterboro, SC 29488

CONSTRUCTION DOCUMENTS
04-30-2024
1201-230265

Colleton County School District

205 1/2 KING STREET
CHARLESTON, SOUTH CAROLINA 29401
TEL. 843.577.4444 FAX. 843.722.4789
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ARCHITECTURE
LS3P

205 1/2 KING STREET
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MEP/FP
DULOHERY WEEKS

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SUITE 200
SAVANNAH, GA 31405
(912) 341-6831
ROBERT LAFOND
RLAFOND@DULOHERY.COM

STRUCTURAL
MMSA, INC.

30 PATEWOOD DRIVE
SUITE 100
GREENVILLE, SC 29615
(864) 331-1201
TONY LAND
TLAND@MMSAINC.COM

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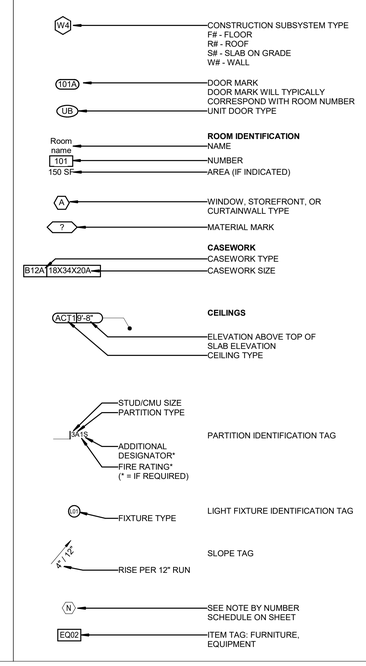
PROJECT ABBREVIATIONS

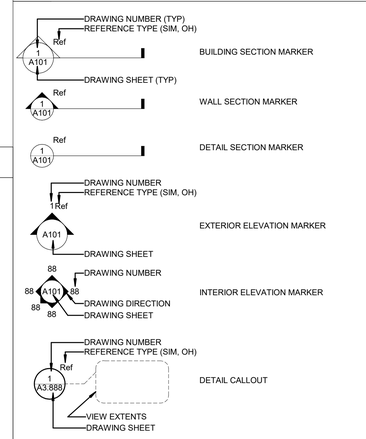
A/C	AIR CONDITION(ING)	INSUL	INSULATION	TOW	TOP OF WALL
ADMIN	ADMINISTRATION	INT	INTERIOR	TRTD	TREATED
AFF	ABOVE FINISHED FLOOR	JAN CLO	JANITOR CLOSET	TV	TELEVISION
ALT	ALTERNATE	KIT	KITCHEN	TYP	TYPICAL
ALUM	ALUMINUM	KO	KNOCKOUT	UL	UNDERWRITERS LABORATORIES
APPROX	APPROXIMATE(LY)	LAB	LABORATORY		
ARCH	ARCHITECT(URAL)	LAM	LAMINATE	UNO	UNLESS NOTED OTHERWISE
AUTO	AUTOMATIC	LAU	LAUNDRY	VERT	VERTICAL
AUX	AUXILIARY	LAV	LAVATORY	VEST	VESTIBULE
AV	AUDIOVISUAL	LF	LINEAR FEET	VIF	VERIFY IN FIELD
BITUM	BITUMINOUS	LVR	LOUVER	W	WEST, WIDE
BL	BUILDING LINE	MAINT	MAINTENANCE	W/	WITH
BLDG	BUILDING	MATL	MATERIAL	W/O	WITHOUT
BN	BULL NOSE	MAX	MAXIMUM	W/W	WALL TO WALL
BOS	BOTTOM OF STEEL	MECH	MECHANICAL	WC	WATER CLOSET
BOT	BOTTOM	MEZZ	MEZZANINE	WD	WOOD
CAB	CABINET	MFG	MANUFACTURING	WP	WORKING POINT, WATERPROOFING
CJ	CONTROL JOINT	MFR	MANUFACTURER		
CL	CENTER LINE	MIN	MINIMUM	WR	WATER REPELLENT
CLG	CEILING	MISC	MISCELLANEOUS	WT	WEIGHT
CLG HT	CEILING HEIGHT	MO	MASONRY OPENING	WWF	WELDED WIRE FABRIC
CLO	CLOSET	MR	MOISTURE RESISTANT	YD	YARD
CLR	CLEAR(ANCE)	MTD	MOUNTED		
CMU	CONCRETE MASONRY UNIT	MTG	MOUNTING		
COL	COLUMN	MTL	METAL		
CONC	CONCRETE	N	NORTH		
CONF	CONFERENCE	NIC	NOT IN CONTRACT		
CONT	CONTINUE. CONTINUOUS	NOM	NOMINAL		
CORR	CORRIDOR	NON COMB	NON-COMBUSTIBLE		
CU FT	CUBIC FOOT				
CU YD	CUBIC YARD	NTS	NOT TO SCALE		
DEMO	DEMOLISH	OC	ON CENTER		
DEPT	DEPARTMENT	OD	OUTSIDE DIAMETER		
DET	DETAIL	OPP	OPPOSITE		
DF	DRINKING FOUNTAIN	OPT	OPTION(AL)		
DIA	DIAMETER	PCF	POUNDS PER CUBIC FEET		
DIAG	DIAGONAL	PLAM	PLASTIC LAMINATE		
DIM	DIMENSION	PLF	POUNDS PER LINEAR FEET		
DIV	DIVISION	PLYWD	PLYWOOD		
DS	DOWNSPOUT	PNL	PANEL		
E	EAST	PR	PAIR		
EA	EACH	PREFAB	PREFABRICATED		
EIFS	EXTERIOR INSULATION & FINISH SYSTEM	PREFIN	PREFINISH		
		PRKG	PARKING		
EJ	EXPANSION JOINT	PSF	POUNDS PER SQUARE FOOT		
EL	ELEVATION	PSI	POUNDS PER SQUARE INCH		
ELEC	ELECTRIC(AL)	PT	PAINT, POST-TENSIONED, PRE-TREATED		
ELEV	ELEVATOR				
ENCL	ENCLOSE(D)	PVC	POLYVINYL CHLORIDE (PLASTIC)		
EOS	EDGE OF SLAB				
EQ	EQUAL	QTR	QUARTER		
EQUIP	EQUIPMENT	QTY	QUANTITY		
EWC	ELECTRIC WATER COOLER	R	RADIUS, RISER		
EXIST	EXISTING	RCP	REFLECTED CEILING PLAN		
EXP JT	EXPANSION JOINT	RD	ROOF DRAIN		
EXT	EXTERIOR	REF	REFRIGERATOR, REFERENCE		
F/F	FACE TO FACE	REQD	REQUIRED		
FD	FLOOR DRAIN	RL	ROOF LEADER		
FE	FIRE EXTINGUISHER	RM	ROOM		
FEC	FIRE EXTINGUISHER CABINET	RO	ROUGH OPENING		
FF EL	FINISH FLOOR ELEVATION	ROW	RIGHT OF WAY		
FHC	FIRE HOSE CABINET	S	SOUTH		
FIN FLR	FINISHED FLOOR	SC	SOLID CORE		
FLR	FLOOR, FILLER	SD	STORM DRAIN		
FOC	FACE OF CURB	SECT	SECTION		
FOF	FACE OF FINISH	SF	SQUARE FEET		
FOM	FACE OF MASONRY	SIM	SIMILAR		
FOS	FACE OF SLAB	SPEC	SPECIFICATION		
FOW	FACE OF WALL	SPKR	SPEAKER		
FT	FOOT, FEET	SQ	SQUARE		
FTG	FOOTING	SS	STAINLESS STEEL		
FURN	FURNISH, FURNITURE	STD	STANDARD		
GA	GAGE	STOR	STORAGE		
GALV	GALVANIZED	SUSP	SUSPENDED		
GC	GENERAL CONTRACTOR	SYS	SYSTEM		
GYP BD	GYPSUM BOARD	T	TREAD		
GYP PLAS	GYPSUM PLASTER	TEL	TELEPHONE		
HC	HANDICAP	TEMP	TEMPORARY		
HD	HEAVY DUTY	TFF	TOP OF FINISH FLOOR		
HDWD	HARDWOOD	THK	THICKNESS		
HDWR	HARDWARE	THRU	THROUGH		
HM	HOLLOW METAL	TO	TOP OF		
HORIZ	HORIZONTAL	TOB	TOP OF BEAM		
HT	HEIGHT	TOC	TOP OF CONCRETE, CURB		
HVAC	HEATING, VENTILATION & AIR CONDITIONING	TOF	TOP OF FOOTING		
		TOJ	TOP OF JOIST		
ID	INSIDE DIAMETER	TOM	TOP OF MASONRY		
INCL	INCLUDE(D), (ING)	TOP	TOP OF PARAPET		
INFO	INFORMATION	TOS	TOP OF SLAB		

ITEM TAGS

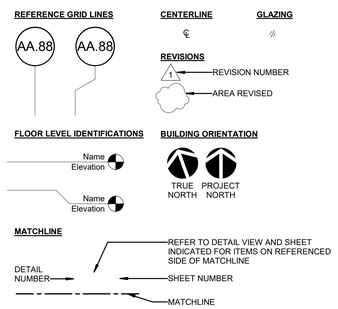


DRAWING TITLES

VIEW MARKERS



DRAWING SYMBOLS



STATE OF SOUTH CAROLINA
LS3P ASSOCIATES LTD.
Charleston, SC
B 74003
REGISTERED ARCHITECTS

STATE OF SOUTH CAROLINA
KAMERON K. QUICK
Charleston, SC
No. 9891
REGISTERED ARCHITECT
05/09/2024

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Colleton County MS Mechanical Replacement
1379 Tuskegeee Airmen Drive Walterboro, SC 29488
LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION
1	05/09/2024	REV. 001 - OSF COMMENTS

SHEET NAME:
COVER SHEET

ORIG SUBMISSION: 04-30-2024

SHEET:
G-000C

CONSTRUCTION DOCUMENTS

THE LINE SHOWN ABOVE IS EXACTLY ONE INCH ON ORIGINAL PLOT SHEETS

PROJECT ABBREVIATIONS

A/C	AIR CONDITION(ING)
ADMIN	ADMINISTRATION
AFF	ABOVE FINISHED FLOOR
ALT	ALTERNATE
ALUM	ALUMINUM
APPROX	APPROXIMATE(LY)
ARCH	ARCHITECT(URAL)
AUTO	AUTOMATIC
AUX	AUXILIARY
AV	AUDIOVISUAL
BITUM	BITUMINOUS
BL	BUILDING LINE
BLDG	BUILDING
BN	BULL NOSE
BOS	BOTTOM OF STEEL
BOT	BOTTOM
CAB	CABINET
CJ	CONTROL JOINT
CL	CENTER LINE
CLG	CEILING
CLG HT	CEILING HEIGHT
CLO	CLOSET
CLR	CLEAR(ANCE)
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONF	CONFERENCE
CONT	CONTINUE, CONTINUOUS
CORR	CORRIDOR
CU FT	CUBIC FOOT
CU YD	CUBIC YARD
DEMO	DEMOLISH
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIV	DIVISION
DS	DOWNSPOUT
E	EAST
EA	EACH
EIFS	EXTERIOR INSULATION & FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRIC(AL)
ELEV	ELEVATOR
ENCL	ENCLOSE(D)
EOS	EDGE OF SLAB
EQ	EQUAL
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EXIST	EXISTING
EXP JT	EXPANSION JOINT
EXT	EXTERIOR
F/F	FACE TO FACE
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF EL	FINISH FLOOR ELEVATION
FHC	FIRE HOSE CABINET
FIN FLR	FINISHED FLOOR
FLR	FLOOR, FILLER
FOC	FACE OF CURB
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF SLAB
FOW	FACE OF WALL
FT	FOOT, FEET
FTG	FOOTING
FURN	FURNISH, FURNITURE
GA	GAGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GYP BD	GYPSUM BOARD
GYP PLAS	GYPSUM PLASTER
HC	HANDICAP
HD	HEAVY DUTY
HDWD	HARDWOOD
HDWR	HARDWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HT	HEIGHT
HVAC	HEATING, VENTILATION & AIR CONDITIONING
ID	INSIDE DIAMETER
INCL	INCLUDE(D), (ING)
INFO	INFORMATION
INSUL	INSULATION
INT	INTERIOR
JAN CLO	JANITOR CLOSET
KIT	KITCHEN
KO	KNOCKOUT
LAB	LABORATORY
LAM	LAMINATE
LAU	LAUNDRY
LAV	LAVATORY
LF	LINEAR FEET
LVR	LOUVER
MAINT	MAINTENANCE
MATL	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MEZZ	MEZZANINE
MFG	MANUFACTURING
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MR	MOISTURE RESISTANT
MTD	MOUNTED
MTG	MOUNTING
MTL	METAL
N	NORTH
NIC	NOT IN CONTRACT
NOM	NOMINAL
NON COMB	NON-COMBUSTIBLE
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPP	OPPOSITE
OPT	OPTION(AL)
PCF	POUNDS PER CUBIC FEET
PLAM	PLASTIC LAMINATE
PLF	POUNDS PER LINEAR FEET
PLYWD	PLYWOOD
PNL	PANEL
PR	PAIR
PREFAB	PREFABRICATED
PREFIN	PREFINISH
PRKG	PARKING
PSF	POUNDS PER SQUARE FOOT
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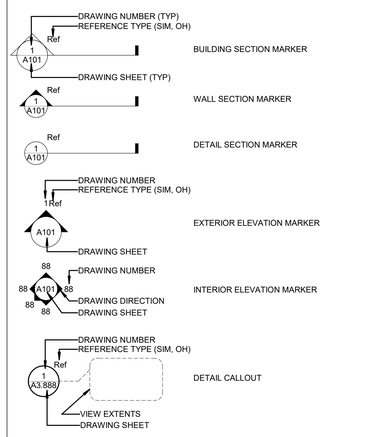
QTY	QUANTITY
R	RADIUS, RISER
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REF	REFRIGERATOR, REFERENCE
REQD	REQUIRED
RL	ROOF LEADER
RM	ROOM
RO	ROUGH OPENING
ROW	RIGHT OF WAY
S	SOUTH
SC	SOLID CORE
SD	STORM DRAIN
SECT	SECTION
SF	SQUARE FEET
SIM	SIMILAR
SPEC	SPECIFICATION
SPKR	SPEAKER
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STOR	STORAGE
SUSP	SUSPENDED
SYS	SYSTEM
T	TREAD
TEL	TELEPHONE
TEMP	TEMPORARY
TFF	TOP OF FINISH FLOOR
THK	THICKNESS
THRU	THROUGH
TO	TOP OF
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE, CURB
TOF	TOP OF FOOTING
TOJ	TOP OF JOIST
TOM	TOP OF MASONRY
TOP	TOP OF PARAPET
TOS	TOP OF SLAB
TOW	TOP OF WALL
TRTD	TREATED
TV	TELEVISION
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
W	WEST, WIDE
W/	WITH
W/O	WITHOUT
WW	WALL TO WALL
WC	WATER CLOSET
WD	WOOD
WP	WORKING POINT, WATERPROOFING
WR	WATER REPELLENT
WT	WEIGHT
WWF	WELDED WIRE FABRIC
YD	YARD

DRAWING TITLES

VIEW MARKERS



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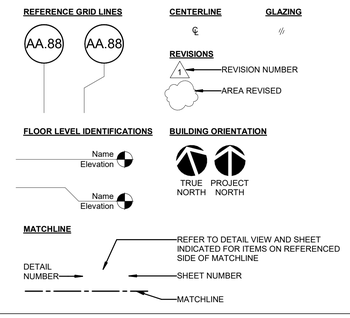

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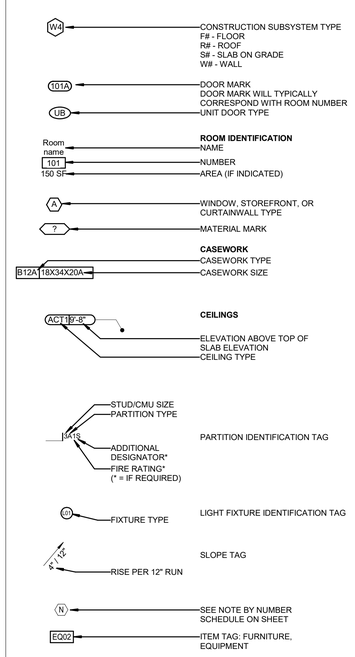

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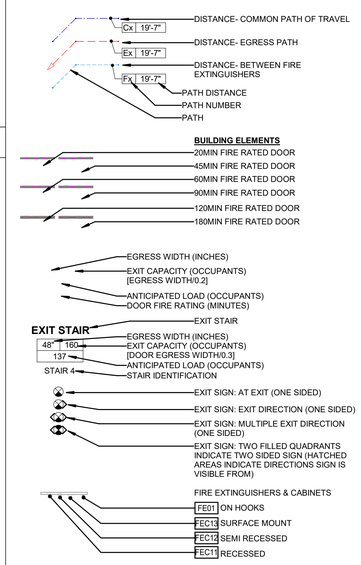
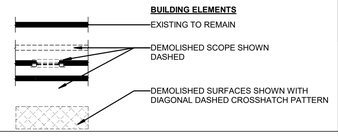
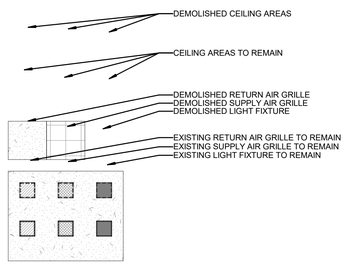


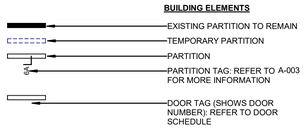
DEMOLITION GRAPHICS



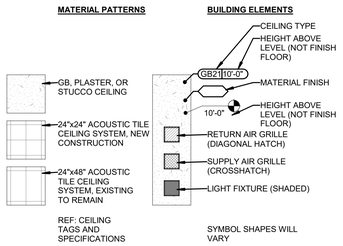
DEMOLITION RCP LEGEND



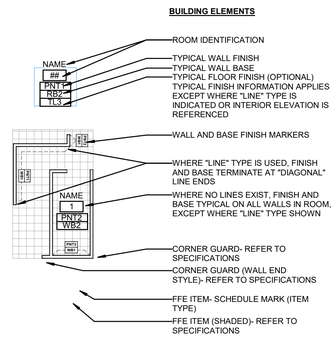
FLOOR PLAN LEGEND



RCP LEGEND



FINISH PLAN LEGEND



PARTITION GRAPHICS

GRAPHIC SAMPLE: 1 HOUR RATED CMU FIRE/SMOKE BARRIER:

8M1C

- SEE FILL PATTERN LEGEND FOR FIRE-RESISTANCE RATING
- SEE COLOR LEGEND FOR HEIGHT CONDITION AND FIRE/SMOKE PROTECTION TYPE
- SEE PARTITION TAG AND SCHEDULE FOR COMPLETE PARTITION INFORMATION

FILL PATTERN LEGEND

- 30 MIN-RATED PARTITION
- 1 HOUR-RATED PARTITION
- 2 HOUR-RATED PARTITION
- 3 HOUR-RATED PARTITION
- 4 HOUR-RATED PARTITION

COLOR LEGEND

- NON-RATED PARTITION TO 6" ABOVE CEILING, U.N.O.
- NON-RATED PARTITION TO DECK
- NON-RATED **SMOKE PARTITION** TO DECK
- RATED **SMOKE BARRIER** TO DECK
- RATED **FIRE PARTITION** TO DECK
- RATED **FIRE/SMOKE BARRIER** TO DECK
- RATED **FIRE BARRIER** TO DECK
- RATED **FIRE WALL** TO DECK

Colleton County School District

PREPARING EVERY CHILD TODAY FOR TOMORROW

Colleton County School District

LS3P
205 1/2 KING STREET
CHARLESTON, SOUTH CAROLINA 29401
TEL. 843.577.4444 FAX. 843.722.4789
WWW.LS3P.COM

STATE OF SOUTH CAROLINA — LS3P ASSOCIATES LTD. Charleston, SC B 74003 — REGISTERED ARCHITECTS

STATE OF SOUTH CAROLINA — KAMERON K. SHARPE — Charleston, SC — No. 9897 — REGISTERED ARCHITECT

04/30/2024

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Colleton County MS Mechanical Replacement

1379 Tuskegeee Airmen Drive Walterboro, SC 29488

LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION

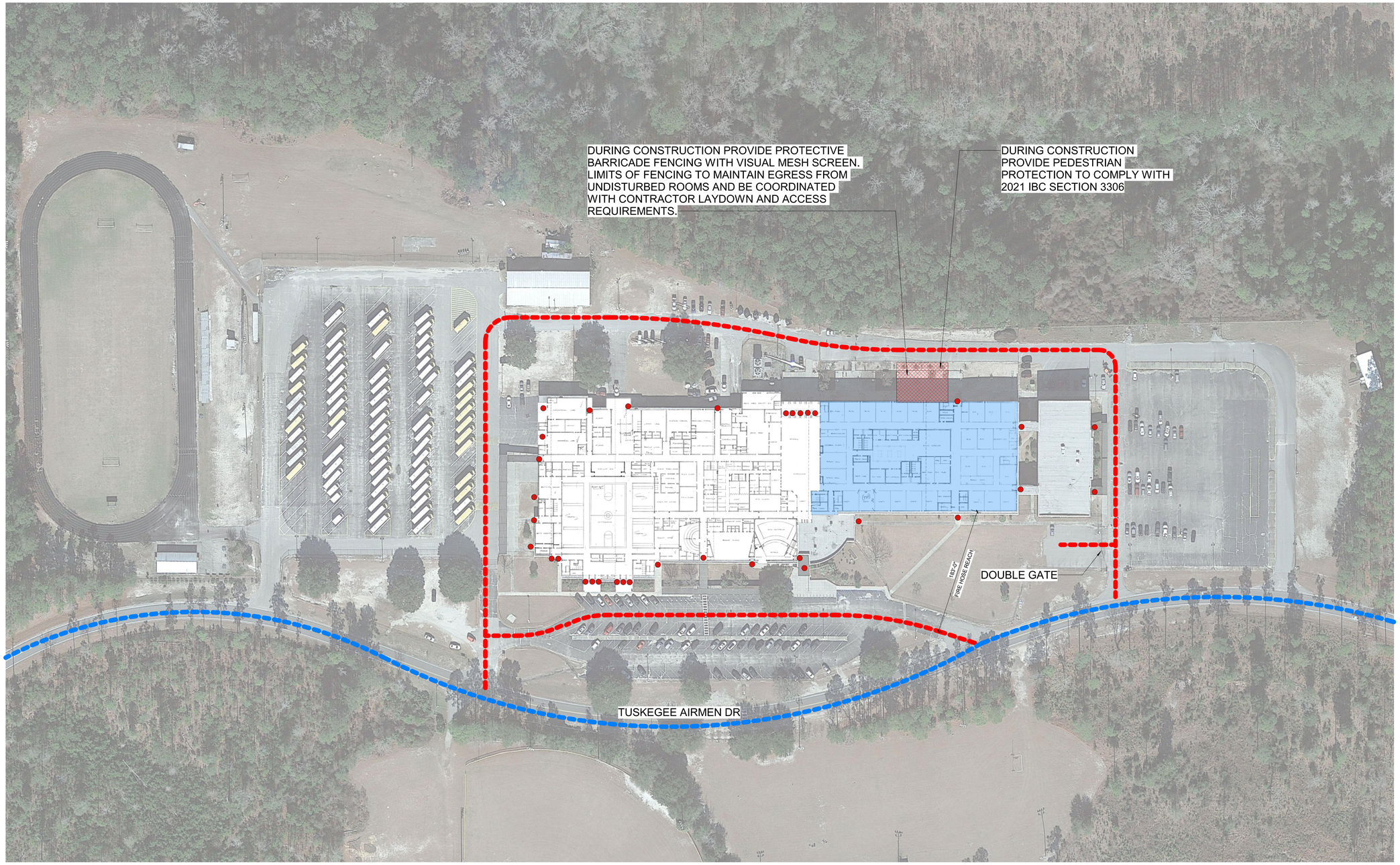
SHEET NAME: PROJECT INFORMATION - DRAWING INDEX

ORIG SUBMISSION: 04-30-2024

SHEET: G-001

CONSTRUCTION DOCUMENTS

5/1/2024 2:48:46 PM



A1 SITE LIFE SAFETY PLAN

1" = 60'-0"

NOTE: THE INTENT IS FOR THE WORK TO BE COMPLETED OVER THE SUMMER BREAK TO MINIMIZE DISRUPTIONS TO THE SCHOOL DAY. IF WORK IS NOT COMPLETE BY THE START OF THE SCHOOL YEAR, THEN INTERIOR WORK WILL BE DONE AFTER HOURS AND ON WEEKENDS.

SITE LIFE SAFETY LEGEND

- EGRESS POINTS, TYP.
- AREA OF WORK AREA, TYP.
- FIRE TRUCK ACCESS
- CONSTRUCTION LAYDOWN AREA

Colleton County School District

LS3P
205 1/2 KING STREET
CHARLESTON, SOUTH CAROLINA 29401
TEL. 843.577.4444 FAX. 843.722.4789
WWW.LS3P.COM

STATE OF SOUTH CAROLINA — LS3P ASSOCIATES LTD. Charleston, SC B 74003 — REGISTERED ARCHITECTS

STATE OF SOUTH CAROLINA — KAMERON K. SMITH Charleston, SC No. 9897 — REGISTERED ARCHITECT

05/09/2024

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Colleton County MS Mechanical Replacement

1379 Tuskegeee Airmen Drive Walterboro, SC 29488

LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION
1	05/09/2024	REV. 001 - OSF COMMENTS

SHEET NAME: DURING CONSTRUCTION SITE LIFE SAFETY PLAN

ORIG SUBMISSION: 05/09/2024

SHEET: G-050

CONSTRUCTION DOCUMENTS

THE LINE SHOWN ABOVE IS EXACTLY ONE INCH ON ANSI E SHEETS. DIGITAL PLOT SIZE

5/9/2024 4:31:51 PM

THE LINE SHOWN ABOVE IS EXACTLY ONE INCH ON ORIGINAL PAPER SIZE

SOUTH CAROLINA STATE DEPARTMENT OF EDUCATION

Form F3 – Building Code Analysis

Date: April 30, 2024

SUBMITTAL:	☐ Schematic	☐ Design Development	☒ Construction Document

SC CODE EDITION:	2021	ICC CODE EDITION:	2021	ICC A117.1 EDITION:	2021	OSF GUIDE EDITION:	2021

OTHER CODES/STANDARDS & EDITIONS: 2021 IEBC

PROJECT DESCRIPTION: *[Brief Scope of Work & Include project delivery method (i.e. CMR, etc.)]*
Mechanical unit replacement at Colleton County Middle School in Walterboro, SC. Minor alterations regarding ceiling demolition and construction required. West wing, cafeteria, and 6th grade wing are not in scope.

BASIC BUILDING CODE INFORMATION

DESIGNATED AREAS OF BUILDING	Building Code	Area 1	Area 2	Area 3	Area 4	Area 5
	-	☐ SCBC ☒ SCEBC	☐ SCBC ☐ SCEBC	☐ SCBC ☐ SCEBC	☐ SCBC ☐ SCEBC	☐ SCBC ☐ SCEBC
CONSTRUCTION CLASSIFICATION TYPE	Section 602	IIB				
OCCUPANCY GROUP (indicate all)	Section 302	Education, Business, Storage				
MOST RESTRICTIVE OCCUPANCY GROUP	Tables 504.3, 504.4 & 506.2	Education				
Does building require Incidental Use Area Separation?	Table 509	☐ YES ☒ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
Does building have Accessory Occupancy (ies)?	Section 508.2	☒ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
What is the aggregate square footage of the accessory occupancy (ies)?	Section 508.2	*Existing to Remain	SF	SF	SF	SF
What percent of the story is the aggregate of the accessory occupancy (ies)?	Section 508.2	*Existing to Remain	%	%	%	%
	Section 508	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO

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Form F3 – Building Code Analysis

Mixed Occupancy		*No change to existing building.	☐ Nonseparated ☐ Separated	☐ Nonseparated ☐ Separated	☐ Nonseparated ☐ Separated	☐ Nonseparated ☐ Separated

EXISTING BUILDING CODE INFORMATION [SCEBC]

DESIGNATED AREAS OF BUILDING:	Area 1	Area 2	Area 3
Method of Compliance: (*Check only one Option and all items that apply under that Option.*)	☐ Option 1: Prescriptive Compliance Method **(Ch. 3, 5)** ☐ Alteration ☐ Addition ☐ Change of Occupancy ☐ Historic Building	☐ Option 1: Prescriptive Compliance Method **(Ch. 3, 5)** ☐ Alteration ☐ Addition ☐ Change of Occupancy ☐ Historic Building	☐ Option 1: Prescriptive Compliance Method **(Ch. 3, 5)** ☐ Alteration ☐ Addition ☐ Change of Occupancy ☐ Historic Building
	☒ Option 2: Work Area Compliance Method **(Ch. 3, 6-12)** ☒ Alteration Level 1 ☐ Alteration Level 2 ☐ Alteration Level 3 ☐ Change of Occupancy ☐ Additions ☐ Historic Building Aggregate area of building: 169,118 SF Work area: 7,300 SF	☐ Option 2: Work Area Compliance Method **(Ch. 3, 6-12)** ☐ Alteration Level 1 ☐ Alteration Level 2 ☐ Alteration Level 3 ☐ Change of Occupancy ☐ Additions ☐ Historic Building Aggregate area of building: SF Work area: SF	☐ Option 2: Work Area Compliance Method **(Ch. 3, 6-12)** ☐ Alteration Level 1 ☐ Alteration Level 2 ☐ Alteration Level 3 ☐ Change of Occupancy ☐ Additions ☐ Historic Building Aggregate area of building: SF Work area: SF
	☐ Option 3: Performance Compliance Method **(Ch. 3, 13)**	☐ Option 3: Performance Compliance Method **(Ch. 3, 13)**	☐ Option 3: Performance Compliance Method **(Ch. 3, 13)**
Original Building Code and Edition Applicable at the time of Construction:	Unknown; Original drawings from 1979, with a later classroom wing addition (date unknown at this time).		
Existing Sprinkler System?	☒ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
Existing Fire Alarm System?	☒ Manual ☐ Auto	☐ Manual ☐ Auto	☐ Manual ☐ Auto

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Form F3 – Building Code Analysis

Seismic Evaluation Required?	☐ YES ☒ NO	☐ YES ☐ NO	☐ YES ☐ NO
Change of Occupancy:	☐ YES ☒ NO Existing Occupancy Class(s):E New Occupancy Classification(s):	☐ YES ☒ NO Existing Occupancy Class(s): New Occupancy Classification(s):	☐ YES ☒ NO Existing Occupancy Class(s): New Occupancy Classification(s):
Historic Building:	☐ YES ☒ NO ☐ Preservation ☐ Rehabilitation ☐ Restoration ☐ Reconstruction	☐ YES ☒ NO ☐ Preservation ☐ Rehabilitation ☐ Restoration ☐ Reconstruction	☐ YES ☒ NO ☐ Preservation ☐ Rehabilitation ☐ Restoration ☐ Reconstruction

EXISTING BUILDING CODE INFORMATION [SCEBC]

DESIGNATED AREAS OF BUILDING	Area 4	Area 5
Method of Compliance: (*Check only one Option and all items that apply under that Option.*)	☐ Option 1: Prescriptive Compliance Method **(Ch. 3, 5)** ☐ Alteration ☐ Addition ☐ Change of Occupancy ☐ Historic Building	☐ Option 1: Prescriptive Compliance Method **(Ch. 3, 5)** ☐ Alteration ☐ Addition ☐ Change of Occupancy ☐ Historic Building
	☒ Option 2: Work Area Compliance Method **(Ch. 3, 6-12)** ☒ Alteration Level 1 ☐ Alteration Level 2 ☐ Alteration Level 3 ☐ Change of Occupancy ☐ Additions ☐ Historic Building	☐ Option 2: Work Area Compliance Method **(Ch. 3, 6-12)** ☐ Alteration Level 1 ☐ Alteration Level 2 ☐ Alteration Level 3 ☐ Change of Occupancy ☐ Additions ☐ Historic Building

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	Aggregate area of building: 169,118 SF Work area: 7,300 SF	Aggregate area of building: SF Work area: SF
	☐ Option 3: Performance Compliance Method **(Ch. 3, 13)**	☐ Option 3: Performance Compliance Method **(Ch. 3, 13)**
Original Building Code and Edition Applicable at the time of Construction:	Unknown; Original drawings from 1979, with a later classroom wing addition (date unknown at this time).	
Existing Sprinkler System?	☒ YES ☐ NO	☐ YES ☐ NO
Existing Fire Alarm System?	☒ Manual ☐ Auto	☐ Manual ☐ Auto
Seismic Evaluation Required?	☐ YES ☒ NO	☐ YES ☐ NO
Change of Occupancy:	☐ YES ☒ NO Existing Occupancy Classification(s):E New Occupancy Classification(s):	☐ YES ☐ NO Existing Occupancy Classification(s): New Occupancy Classification(s):
Historic Building:	☐ YES ☒ NO ☐ Preservation ☐ Rehabilitation ☐ Restoration ☐ Reconstruction	☐ YES ☐ NO ☐ Preservation ☐ Rehabilitation ☐ Restoration ☐ Reconstruction

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Form F3 – Building Code Analysis

SUMMARY - BUILDING DESIGN OCCUPANT LOAD

DESIGNATED AREAS OF BUILDING	Area 1	Area 2	Area 3	Area
1st FLOOR				
2nd FLOOR				
3rd FLOOR				
4th FLOOR				
TOTAL:	0	0	0	

Note: Per SC Building Code Chapter 10, list individual spaces per occupant load on life safety plan. ***Double Click to Edit Table.***

ALLOWABLE BUILDING AREA

DESIGNATED AREAS OF BUILDING	Area 1	Area 2	Area 3	Area 4	Area 5

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A_t Tabular allowable area factor (NS, S1, S13R or SM as applicable) in accordance with IBC Table 506.2	A_t = SF	A_t = SF	A_t = SF	A_t = SF	A_t = SF
Allowable Area Increase (Equations 5-1 through 5-5, as applicable:)	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
IBC Section 506.3.2 Equation 5-4 where:	L_{an} =	L_{an} =	L_{an} =	L_{an} =	L_{an} =
$W = (L_1 \times w_1 + L_2 \times w_2 + L_3 \times w_3 + \ldots) / F$	w_n =	w_n =	w_n =	w_n =	w_n =
W = Width of public way or open space	**W =**	**W =**	**W =**	**W =**	**W =**
L_{an} Length of a portion of the exterior perimeter wall.	F =	F =	F =	F =	F =
w_n Width (>= 20 feet) of public way or open space associated with that portion of the exterior perimeter wall.	P =	P =	P =	P =	P =
F Building perimeter that fronts on a public way or open space having a width of 20 feet or more	I_F =	I_F =	I_F =	I_F =	I_F =
IBC Section 506.3.3 Equation 5-5 where:					
$I_F = [F/P - 0.25] W/30$					
I_F = Area factor increase factor due to frontage					
F Building perimeter that fronts on a public way or open space having a width of 20 feet or more.					
P Perimeter of entire building (feet).					
W Width of public way or open space in accordance with Equation 5-4					

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Allowable building area per story in square feet as calculated by Equations 5-1 through 5-3. (Indicated equations used.)	N_f =	N_f =	N_f =	N_f =	N_f =
☐ IBC Section 506.2.1 Equation 5-1 **$A_a = A_t + (N_f \times I_F)$**					
☐ IBC Section 506.2.3 Equation 5-2 **$A_a = [A_t + (N_f \times I_F)] \times S_a$**	S_a =	S_a =	S_a =	S_a =	S_a =
☐ IBC Section 506.2.4 Equation 5-3 **$A_a = [A_t + (N_f \times I_F)]$**					
N_f Tabular allowable area factor in accordance with Table 506.2 for a non-sprinklered building *(regardless of whether the building is sprinklered)*	A_a = SF	A_a = SF	A_a = SF	A_a = SF	A_a = SF
S_a Actual number of building stories above grade plane not to exceed three (3). For buildings equipped throughout with automatic sprinkler system installed in accordance with SC IBC Section 903.3.1.2, use the actual number of building stories above grade plane, not to exceed four **(4)**.					
MAXIMUM AREA PER STORY	SF	SF	SF	SF	SF
AREA AS DESIGNED PER STORY (Report for each story)	SF	SF	SF	SF	SF

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Form F3 – Building Code Analysis

BUILDING HEIGHT

DESIGNATED AREAS OF BUILDING	Building Code	Area 1		Area 2		Area 3	
HEIGHT	-	DESIGNED	ALLOWED	DESIGNED	ALLOWED	DESIGNED	ALLOWED
In Feet	Table 504.3						
In Stories	Table 504.4						

Note: Allowable Building Height & Number of Stories Above Grade Plane

BUILDING HEIGHT

DESIGNATED AREAS OF BUILDING	Building Code	Area 4		Area 5	
HEIGHT	-	DESIGNED	ALLOWED	DESIGNED	ALLOWED
In Feet	Table 504.3				
In Stories	Table 504.4				

Note: Allowable Building Height & Number of Stories Above Grade Plane

SOUTH CAROLINA STATE DEPARTMENT OF EDUCATION

Form F3 – Building Code Analysis

GENERAL FIRE PROTECTION REQUIREMENTS

DESIGNATED AREAS OF BUILDING	Building Code	Area 1	Area 2	Area 3	Area 4	Area 5
SEPARATIONS						
Fire Wall Required	Section 706	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
Fire Barrier Required	Section 707	☐ YES ☐ NO	☐ YES ☐ NO	☐ NO ☐ YES	☐ YES ☐ NO	☐ YES ☐ NO
Fire Partition Required	Section 708	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
Smoke Barriers Required	Section 709	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
Smoke Partitions Required	Section 710	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
Fireblocking	Section 718.2	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
Draftstopping	Sections 718.3 & 718.4	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
Incidental Use Area One hour fire barrier Sprinkler system plus smoke resistance	Section 509.4	☐ YES ☐ NO ☐ YES ☐ NO	☐ YES ☐ NO ☐ YES ☐ NO	☐ YES ☐ NO ☐ YES ☐ NO	☐ YES ☐ NO ☐ YES ☐ NO	☐ YES ☐ NO ☐ YES ☐ NO
ALARM & DETECTION						
Fire Alarm and Detection System Fire Alarm Mass Notification Emergency voice/alarm comm.	SCFC Section 907	☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO	☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO	☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO	☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO	☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO
Emergency Alarm System Required	SCFC Section 908	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
SUPPRESSION						
Automatic Sprinkler System Provided Required	SCFC Section 903	☐ YES ☐ NO ☐ YES ☐ NO	☐ YES ☐ NO ☐ YES ☐ NO	☐ YES ☐ NO ☐ YES ☐ NO	☐ YES ☐ NO ☐ YES ☐ NO	☐ YES ☐ NO ☐ YES ☐ NO

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Form F3 – Building Code Analysis

Alternative Automatic Fire Extinguishing Kitchen Hoods Other	SCFC Section 904	☐ YES ☐ NO ☐ YES ☐ NO	☐ YES ☐ NO ☐ YES ☐ NO	☐ YES ☐ NO ☐ YES ☐ NO	☐ YES ☐ NO ☐ YES ☐ NO	☐ YES ☐ NO ☐ YES ☐ NO
Standpipes Required	SCFC Section 905	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
Portable extinguishers required General Building Kitchen Labs	SCFC Section 906	☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO	☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO	☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO	☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO	☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO

OTHER FIRE AND LIFE SAFETY FEATURES

DESIGNATED AREAS OF BUILDING	Building Code	Area 1	Area 2	Area 3	Area 4	Area 5
Smoke Control System	Section 909	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
Smoke & Heat Removal Required	SCFC 910	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
Fire Department Connections	Section 912	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
Carbon Monoxide Detection	Section 915	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
Gas Detection Systems	Section 916	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
Emergency Responder Radio Coverage	Section 918	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
Fire Apparatus Access and Water Line	SCFC 503 & 507	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
2-way Communication Required	Section 1009.8	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
Area of Refuge *(e.g. Separation, Two-Way Communication, and Instruction)*	Sections 1009.6, 1009.9, 1009.10 & 1009.11	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
Exterior Area for Assisted Rescue *(e.g. Separation, Openings, and Instruction)*	Sections 1009.7, 1009.9, 1009.10 & 1009.11	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
Safe Dispersal Area	Section 1028.5	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
(Add others as needed)		☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO
(Add others as needed)		☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO

SOUTH CAROLINA STATE DEPARTMENT OF EDUCATION

Form F3 – Building Code Analysis

FIRE RESISTANCE RATING OF BUILDING ELEMENTS

DESIGNATED AREAS OF BUILDING		Building Code	Area 1	Area 2	Area 3	Area 4	Area 5
Primary Structural Frame	As Required, Hrs	Table 601					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Bearing Walls, Exterior	As Required, Hrs	Table 601					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Bearing Walls, Interior	As Required, Hrs	Table 601					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Nonbearing Walls and Partitions, Interior	As Required, Hrs	Table 601					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						

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Form F3 – Building Code Analysis

FIRE RESISTANCE RATING OF BUILDING ELEMENTS

DESIGNATED AREAS OF BUILDING		Building Code	Area 1	Area 2	Area 3	Area 4	Area 5
Nonbearing Walls and Partitions, Exterior	As Required, Hrs	Table 602					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Floor Construction and associated secondary members	As Required, Hrs	Table 601					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Roof Construction and associated secondary members	As Required, Hrs	Table 601					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Fire Walls	As Required, Hrs	Section 706					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						

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Form F3 – Building Code Analysis

FIRE RESISTANCE RATING OF BUILDING ELEMENTS

DESIGNATED AREAS OF BUILDING		Building Code	Area 1	Area 2	Area 3	Area 4	Area 5
Fire Barriers	As Required, Hrs	Section 707					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Fire Partitions	As Required, Hrs	Section 708					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Smoke Barriers	As Required, Hrs	Section 709					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Smoke Partitions	As Required, Hrs	Section 710					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						

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Colleton County School District

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REGISTERED ARCHITECTS

STATE OF SOUTH CAROLINA
KAMERON K. OWEN
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No. 9097
REGISTERED ARCHITECT
04/30/2024

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Colleton County MS Mechanical Replacement

1379 Tuskegeee Airmen Drive Walterboro, SC 29488

LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION

SHEET NAME: F3 FORM

ORIG SUBMISSION: 04-30-2024

SHEET: G-101

CONSTRUCTION DOCUMENTS

5/1/2024 2:48:47 PM

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Form F3 – Building Code Analysis

FIRE RESISTANCE RATING OF BUILDING ELEMENTS

DESIGNATED AREAS OF BUILDING		Building Code	Area 1	Area 2	Area 3	Area 4	Area 5
Horizontal Assemblies	As Required, Hrs	Section 711					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Shaft Enclosures	As Required, Hrs	Sections 712 & 713					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Opening & Protective Listing by Category (fire shutters, doors, etc.)	As Required, Hrs	Section 716					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Others (as required by Designer)	As Required, Hrs						
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						

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Form F3 – Building Code Analysis

FLOOD HAZARD INFORMATION and FLOOD LOADS	
FLOOD HAZARD AREA	
Base Flood Elevation **(NGVD or FIRM)**	MSL
Design Flood Elevation **SCBC 1612.3 and ASCE 24**	MSL
NON HIGH-VELOCITY WAVE ACTION	
Elevation of Lowest Proposed Floor **(Mod ASCE 24 Section 2.6.2.1)**	MSL
Dry flood proofing **ASCE 24**	☐ no ☐ yes
HIGH-VELOCITY WAVE ACTION	
Elevation of bottom of Lowest Horizontal Structural Member of lowest floor	MSL
Flotation resistant **(ASCE 24)**	☐ no ☐ yes
Breakaway wallper **(ASCE 24)**	☐ no ☐ yes

FIRE SERVICE INFORMATION		
Service Line Size		Inches
Fire Department Connection	Location	
Backflow	Location	
	Type	
Fire Hydrant Flow Test	Date	
	Flow	GPM
	Residual	PSI
	Static	PSI

ENERGY INFORMATION		
INSULATION		
Roof	Cavity	R
	Continuous	R
Walls	Cavity	R
	Continuous	R
Underslab		R
GLAZING (each type)		
Window to wall ratio	North	%
	East	%
	South	%
	West	%
Glass Type	U Factor	
	SHG	

Summary of data from approved ASHRAE 90.1 compliance sheets.

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Form F3 – Building Code Analysis

Per IBC Chapter 16 and ASCE 7 – Structural tables may be shown on initial Structural Sheet of the drawings or on Sheet with other code information. List floor design loads on structural plans.

STRUCTURAL DESIGN INFORMATION, AREA

		Building Code	Area 1	Area 2	Area 3	Area 4	Area 5
OCCUPANCY CATEGORY		**Table 1604.5**	-	-	-	-	-
LIVE LOAD FOR EACH CCUPANCY TYPE	Floor Live Load, F_H	**Figure 1608.2 or ASCE 7**	PSF	PSF	PSF	PSF	PSF
	Roof Live Load, R_H		PSF	PSF	PSF	PSF	PSF
	Ground Snow Load, p_g		PSF	PSF	PSF	PSF	PSF
MISCELLANEOUS LOADS BY SPECIAL USE AREA *(ARCHITECTURAL, MECHANICAL, DATA CENTER, ETC.)*		**ASCE 7**	PSF	PSF	PSF	PSF	PSF

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Form F3 – Building Code Analysis

SOILS & SITE	
SOILS INVESTIGATION REQUIRED? **(IBC 1803.2)**	☐ no ☐ yes
SOILS CLASSIFICATION	
Seismic Site Class **(SCBC Section 1613.3.2)**	
Classes Soil of Materials (UCS System) **(SCBC 1803.5.1)**	
Allowable Footing Bearing Pressure	psf
MINIMUM DESIGN SOIL BEARING LOAD **(SCBC Table 1806.2)**	psf
COMPACTION	
Subgrade **(ASTM D698, ASTM D1557)** or **(AASHTO only for paving & roads)**	%
Base **(ASTM D698, ASTM D1557)** or **(AASHTO only for paving & roads)**	%
Other **(ASTM D698, ASTM D1557)** or **(AASHTO only for paving & roads)**	%
MINIMUM DESIGN SOIL LATERAL LOAD **(SCBC 1610.1)**	psf
FOOTINGS	
Undisturbed footings	☐ no ☐ yes
Compacted Fill Material **(SCBC Section 1804.6)**	☐ no ☐ yes
ELEVATIONS	
Elevation of Water Table	MSL
Elevation of lowest footing	MSL
Elevation of lowest floor or basement	MSL

STRUCTURAL DESIGN INFORMATION, BUILDING		
WIND LOADS	Analysis Procedure **(ASCE 7 or SCBC 1609.6)**	
	Basic design Wind Speed, MPH **(3 sec gust IBC Fig 1609.3)**	= V
	Exposure Category	
	Wind Importance Factor **(ASCE 7 Table 1.5-2)**	= I_w
	Internal Pressure Coefficient **(ASCE 7)**	= GC_{pi}
	External Pressure Coefficient **(ASCE 7)**	= GC_p
SEISMIC LOADS/E arthquake	Seismic Importance Factor **(ASCE 7)**	= I
	Site Class **(SCBC Section 1613.3.2)**	
	Mapped Spectral Response Accelerations	= S_s = S_1
	Design Spectral Response Acceleration Parameters	= S_{DS} = S_{D1}
	Seismic Use Group **(ASCE 7 and Seismic Occupancy Category IBC)**	
	Seismic Design Category **SCBC Tables 1613.3.5(1) & 1613.3.5(2)**	
	Basic Seismic Force Resisting System	
	Design Base Shear	KIPS
	Seismic Response Coefficient(s) **ASCE 7**	= C_s
	Response Modification Factor(s) **ASCE 7**	= R
	Analysis Procedure	

SOUTH CAROLINA STATE DEPARTMENT OF EDUCATION

Form F3 – Building Code Analysis

The Designer(s) of Record shall determine the material and/or work on the project requiring Special Inspections. The Special Inspection requirements shall be based on Section 1704 & Section 1705 of the 2018 South Carolina Building Code. Any deviations from the requirements of Section 1704 and/or Section 1705 must be approved by OSF. Per SCBC Chapter 16 and ASCE 7 – This information may be shown on initial Structural Sheet of the drawings or on Sheet with other code information. List floor design loads on structural plans.

STATEMENT OF SPECIAL INSPECTIONS

MATERIAL	TYPE OF INSPECTION	FREQUENCY	SPECIFICATION REFERENCE	INSPECTION BY

SOUTH CAROLINA STATE DEPARTMENT OF EDUCATION

Form F3 – Building Code Analysis

Provide a table for each structure.

PLUMBING INFORMATION		
WATER SYSTEM		
Service Line Size	Inches	
Distribution Design Criteria **(SCPC Table 604.3)**	Fixture Units	
Maximum Flow Rate **(SCPC Table 604.4)**	GPM	
Backflow	Location	
	Type	
Test Pressure	psi	
SANITARY SEWER SYSTEM		
Service Line Size	Inches	
Drainage Design Criteria **(SCPC Tables 709.1 and 709.2)**	Fixture Units	
Maximum Flow Rate	GPD	
Slope (SCPC Table 704.1)	Inches/Ft	

SUMMARY OF FIXTURES (SCPC Section 403 & Table 403.1)		
Water Closets	Male-Required	
	Male WC -Provided	
	Male Urinal -Provided	
	Female-Required	
	Female-Provided	
Lavatories	Male-Required	
	Male-Provided	
	Female-Required	
	Female-Provided	
Showers	Male-Provided	
	Female-Provided	
Drinking Fountains	Required	
	Provided	
Family or Assisted-Use Toilet	Required	
	Provided	
Service Sink	Required	
	Provided	
Others (list)	Required	
	Provided	

NOTE: NO CHANGE IN OCCUPANCY, THEREFORE NO CHANGE IN PLUMBING FIXTURE COUNTS

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Form F3 – Building Code Analysis

Summary of data from approved ASHRAE 90.1 compliance sheets.

MECHANICAL INFORMATION		
GENERAL INFORMATION		
Building Location	Walterboro, SC	
Climate Zone	3a	
Outdoor Design Temperature	Summer	93.5 deg F DB
		75.9 deg F WB
	Winter	27.3 deg F DB
		21.7 deg F WB
Indoor Design Temperature	Summer	74 deg F DB
		50 % RH
	Winter	72 deg F DB
		50 % RH
OUTSIDE AIR 27,339		
Occupied Minimum Outside Air	15 cfm per person	
CO2 Demand Management	☒ no ☐ yes	
Supervised Control System	☐ no ☒ yes	

MECHANCIAL SYSTEMS, SERVICE SYSTEMS & EQUIPMENT

Briefly describe mechanical system:

The existing portion of the school is served by horizontal water source heat pumps. The existing building outside system is not in operation. The existing building exhaust is through localized roof and inline exhaust fans. The scope of the project is to provide a new dedicated outside air system with cooling, gas heating, and total energy recovery. Needlepoint bi-polar ionization will be used to decrease the required outside air needed. The section of the building will be balanced to be positive to the exterior and other portions of the building.

ELECTRICAL INFORMATION		
SERVICE TRANSFORMER	☐ By Utility	
	☐ By District	KVA Primary
		Voltage/Phase
ELECTRICALSERVICE INFORMATION		
Service Voltage/Phase		Amperes
Service Entrance Conductors Size		Qty per Phase
Total Connected Load		KVA
Estimated Maximum Demand		KVA
Available Fault Current in Symmetrical Amperes		
Interrupting Capacity of Service Overcurrent Device		
Grounding electrode system components (NEC 250)		
EMERGENCY SERVICE INFORMATION		
Emergency Generator	☐ no ☐ yes	KVA
		Voltage/Phase
	Fuel	
Exit/Emergency Lights Backup Power		☐ Integral Battery

SOUTH CAROLINA STATE DEPARTMENT OF EDUCATION

Form F3 – Building Code Analysis

		☐ Generator
Fire Alarm System	☐ Manual ☐ Automatic	☐ Addressable ☐ Class A ☐ Class B
LIGHTNING PROTECTION PROVIDED		☐ no ☐ yes

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04/30/2024

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Colleton County MS Mechanical Replacement

1379 Tuskegeee Airmen Drive Walterboro, SC 29488

LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION

SHEET NAME: F3 FORM

ORIG SUBMISSION: 04-30-2024

SHEET: G-102

CONSTRUCTION DOCUMENTS

TRUE NORTH PROJECT NORTH

THE LINE SHOWN ABOVE IS EXACTLY ONE INCH ON ORIGINAL PAPER SIZE

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THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THIS SHEETS ORIGINAL PRINTED SIZE

GENERAL NOTES:

1.1 THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL OSHA REGULATIONS ON THE PROJECT SITE. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND DIMENSIONS SHOWN AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO FABRICATION AND CONSTRUCTION.

1.2 CONTRACTOR TO PROVIDE ADEQUATE BRACING FOR THE STRUCTURE SO THAT IT WILL BE STABLE DURING ALL STAGES OF CONSTRUCTION. THE STRUCTURE IS DESIGNED FOR A COMPLETED CONDITION ONLY AND THERE-FORE REQUIRES ADDITIONAL SUPPORT TO MAINTAIN STABILITY DURING CONSTRUCTION.

1.3 THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION SELECTED BY THE CONTRACTOR OR THE SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL TO THE WORK OF THE CONTRACTOR. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE FAILURE OF THE CONTRACTOR TO PERFORM THE CONSTRUCTION WORK IN ACCORDANCE WITH DRAWINGS. THE COST OF ANY TESTS OR WORK REQUIRED BECAUSE OF CONTRACTOR'S FAILURE TO PERFORM IN ACCORDANCE WITH THE DRAWINGS SHALL BE BORNE BY THE CONTRACTOR.

1.4 COORDINATE THESE DRAWINGS WITH ARCHITECTURAL, ELECTRICAL, MECHANICAL, AND PLUMBING DRAWINGS.

2.0 CONCRETE

2.1 CONCRETE SHALL HAVE THE UNIT WEIGHT AND THE MINIMUM COMPRESSIVE STRENGTHS (f'c) AT 28 DAYS AS SHOWN ON THE CONCRETE MATERIALS SCHEDULE, THIS DRAWING.

2.2 GROUT FOR BASE PLATES SHALL BE NON-SHRINKABLE GROUT AND SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH AT 28 DAYS OF 5000 PSI, U.N.O.

2.3 NO CALCIUM CHLORIDE SHALL BE USED IN ANY CONCRETE.

2.4 MIXING, TRANSPORTING AND PLACING OF CONCRETE SHALL CONFORM TO ACI-301.

2.5 ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI-318, "BUILDING CODE REQUIRMENTS FOR REINFORCED CONCRETE".

2.6 CHAMFER ALL EXPOSED EXTERNAL CORNERS OF CONCRETE WITH 3/4" X 45 DEGREE CHAMFER U.N.O.

2.7 CONCRETE REINFORCEMENT BARS SHALL CONFORM TO ASTM A615, GRADE 60. REINFORCING BARS SHALL NOT BE TACK WELDED, WELDED, HEATED OR CUT, UNLESS INDICATED ON THE CONTRACT DOCUMENTS. ALL LAP SPLICES SHALL BE CLASS "B" U.N.O.

2.8 SLAB-ON-GRADE SHALL HAVE CONSTRUCTION JOINTS OR CRACK CONTROL JOINTS AS SHOWN ON THE DRAWINGS. CONSTRUCTION JOINTS CAN BE USED AT CONTROL JOINT LOCATIONS AT CONTRACTORS OPTION. SEE SLAB PLANS & JOINT DETAILS FOR ADDITIONAL INFORMATION.

2.9 ALL CONCRETE REINFORCEMENT SHALL BE DETAILED, FABRICATED, LABELED, SUPPORTED, AND SPACED IN FORMS AND SECURED IN PLACE IN ACCORDANCE WITH THE PROCEDURES AND REQUIREMENTS OUTLINED IN THE LATEST EDITION OF THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 318, AND THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", ACI 315, LATEST EDITION.

2.10 CONCRETE MIX - MAXIMUM W/C RATIO: 0.50.

3.0 STRUCTURAL STEEL

3.1 STRUCTURAL STEEL ROLLED SHAPES AND PLATES SHALL CONFORM TO THE MATERIAL INFORMATION SCHEDULE BELOW. DIMENSIONS AND PROPERTIES SHALL BE IN ACCORDANCE TO ASTM A6.

STEEL MATERIALS SCHEDULE

STRUCTURAL ELEMENT	FY YIELD STRENGTH (KSI)	REMARKS
BEAMS	50	ASTM A992
CONNECTIONS, PLATES, & ALL OTHERS	36	ASTM A36
TUBING	46	ASTM A500 GRADE B

3.2 STRUCTURAL STEEL DETAILING, FABRICATION AND ERECTION SHALL CONFORM TO THE AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS - ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN" (LATEST EDITION), AND THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" (LATEST EDITION)

3.3 CONNECTION BOLTS FOR STRUCTURAL STEEL MEMBERS SHALL BE 3/4" DIA A325-N, UNO, AND SHALL CONFORM TO ASTM A325; NUTS SHALL CONFORM TO ASTM A563; WASHERS SHALL CONFORM TO ASTM F436. CONNECTION BOLTS SHALL HAVE A HARDENED WASHER PLACED UNDER THE ELEMENT TO BE TIGHTENED.

3.4 DETAILING OF STRUCTURAL STEEL CONNECTIONS MUST BE CONSISTENT WITH RECOGNIZED, PUBLISHED METHODS SUCH AS IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 15th EDITION; "ENGINEERING FOR STEEL CONSTRUCTION", OR "VOLUME II CONNECTIONS MANUAL OF STEEL CONSTRUCTION".

3.5 WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE AWS D1.1. ELECTRODES FOR SHOP AND FIELD WELDS SHALL BE CLASS E70XX. ALL WELDING SHALL BE DONE BY QUALIFIED, CERTIFIED WELDERS PER THE ABOVE STANDARD.

3.6 ALL WELDS NOT INDICATED SHALL BE A MINIMUM OF 3/16" ALL AROUND UNLESS NOTED OTHERWISE.

3.7 THERE SHALL BE NO FIELD CUTTING OF STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER.

3.8 ALL STEEL TO BE PRIMED PER THE SPECIFICATIONS..

3.9 FOR FLOOR AND ROOF OPENINGS, THE FABRICATOR SHALL VERIFY OPENING LOCATIONS WITH EQUIPMENT SELECTED AND MAKE ANY NECESSARY MODIFICATIONS AT NO ADDITIONAL COST. THE CONTRACTOR SHALL COORDINATE MECHANICAL UNITS AND OPENINGS & ARCHITECTURAL ITEMS REQUIRED FOR COMPLETE INSTALLATION OF WORK. IT IS THE RESPONSIBILITY OF FABRICATOR TO RECEIVE ALL NECESSARY INFORMATION PRIOR TO FABRICATION OF THE STEEL.

3.10 SEE MECHANICAL DRAWINGS FOR ADDITIONAL OPENINGS NOT SHOWN.

4.0 STEEL DECK

4.1 STEEL DECK SHALL BE ASTM A446 HAVING A MINIMUM YIELD STRENGTH OF 33,000 PSI AS PER THE STEEL DECK INSTITUTE DESIGN MANUAL.

4.2 STEEL DECK SHALL BE ERECTED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND ERECTION LAYOUTS AND CONNECTED TO SUPPORTING MEMBERS AS INDICATED BELOW.

4.3 ROOF DECK

4.3.1 STEEL ROOF DECK SHALL BE 1 1/2", 18 GAGE GALVANIZED WIDE RIB (S.D.I. TYPE WR) UNO.

4.3.2 ROOF DECK SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:

	18 GAGE 1 1/2" DECK
MOMENT OF INERTIA, In	0.295 IN/FT^4 WIDTH
MOMENT OF INERTIA, Ip	0.289 IN/FT^4 WIDTH
SECTION MODULUS (TOP OF DECK), Sn	0.327 IN/FT^3 WIDTH
SECTION MODULUS (BOT. OF DECK) Sp	0.318 IN/FT^3 WIDTH

IN ADDITION TO MEETING THE MINIMUM REQUIREMENTS ABOVE, THE DECK MANUFACTURER SHALL DESIGN THE ROOF DECK AND ATTACHMENTS TO STEEL FOR THE ROOF LOADS, INCLUDING DECK UPLIFT. ALL ROOF DECK SHALL HAVE A MINIMUM 1-SPAN CONDITION.

4.3.3 1 1/2" ROOF DECK SHALL BE CONNECTED TO SUPPORTS WITH #12 TEK SCREWS IN THE BOTTOM OF THE FLUTES USING A S.D.I. 36/5 PATTERN (UNO). DECK SIDELAPS SHALL BE FASTENED USING #10 SCREWS WITH MINIMUM 5-SIDE LAPS CONNECTIONS PER SPAN. ALL ENDLAPS SHALL BE A MINIMUM OF 2" AND SHALL OCCUR OVER SUPPORTS. MINIMUM DIAPHRAGM SHEAR STRENGTH Q = 396 PLF (WORKING, UNO).

4.3.4 DO NOT SUSPEND PIPES, DUCTS, OR CEILING FROM ROOF DECK.

CONCRETE MATERIALS SCHEDULE

STRUCTURAL ELEMENT	f'c CONCRETE COMPRESSIVE STRENGTH @ 28 DAYS (PSI)	REMARKS
SLAB-ON-GRADE	3500	

NOTES:
1. ALL CONCRETE SHALL BE NORMAL WEIGHT CONCRETE. (150 PCF)

STRUCTURAL DESIGN CRITERIA (NEW ROOF TOP UNIT ONLY)

ALL NEW DESIGNS SHALL CONFORM TO THE PROVISIONS OF THE INTERNATIONAL BUILDING CODE 2021

1.0 DESIGN LOADS

1.1 DEAD LOADS:

SUPPORT STRUCTURE: SELF WEIGHT

1.2 LIVE LOADS:

20 PSF

1.3 WIND LOAD: (PER IBC 2021 / ASCE 7-16)

BASIC WIND SPEED = 146 MPH (ult)

EXPOSURE C; RISK CATEGORY III

1.4 SEISMIC LOAD (PER IBC 2021)

BASIC SEISMIC RESISTING SYSTEM (TABLE 12.2-1) — AS-BUILT ORDINARY REINFORCED MASONRY SHEAR WALLS

1.4.1 RISK CATEGORY: III (TABLE 1604.5)

1.4.2 SEISMIC IMPORTANCE FACTOR: Ip = 1.25

1.4.3 SPECTRAL ACCELERATION COEFFICIENTS: Ss = 0.84g S1 = 0.251g

1.4.4 SPECTRAL RESPONSE COEFFICIENTS S_{DS} = 0.652g S_{D1} = 0.318g

1.4.6 COMPONENT TYPE .... AIR HANDLING UNIT

1.4.7 DESIGN BASE SHEAR ..... V = 0.125W
ANALYSIS PROCEDURE ..... EQUIVALENT LATERAL FORCE PROCEDURE

1.4.8 SEISMIC DESIGN CATEGORY ..... D (TABLE 1613.2.5 (1) & 1613.2.5 (2)

1.4.9 RESPONSE MODIFICATION FACTOR, R ..... R = 2

1.5 DESIGN WIND PRESSURE - UPLIFT PRESSURE

TRIBUTARY AREA	UPLIFT PRESSURE psf		
	ALL ZONES (+) (PSF)	ALL ZONES (-) (PSF)	
A $\leq$ 10ft ^{2}	20.5	105	
A = 50ft ^{2}	17.5	89.5	
A $\geq$ 100ft ^{2}	16.5	83	
"+" = PRESSURES ACTING TOWARD SURFACES "-" = PRESSURES ACTING AWAY FROM SURFACES			

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SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER NO. 16715 4/30/24 MICHAEL M. SIMPSON

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Colleton County MS Mechanical Replacement

1379 Tuskegee Airmen Drive Walterboro, SC 29488

LS3P PROJECT: 1201-230265

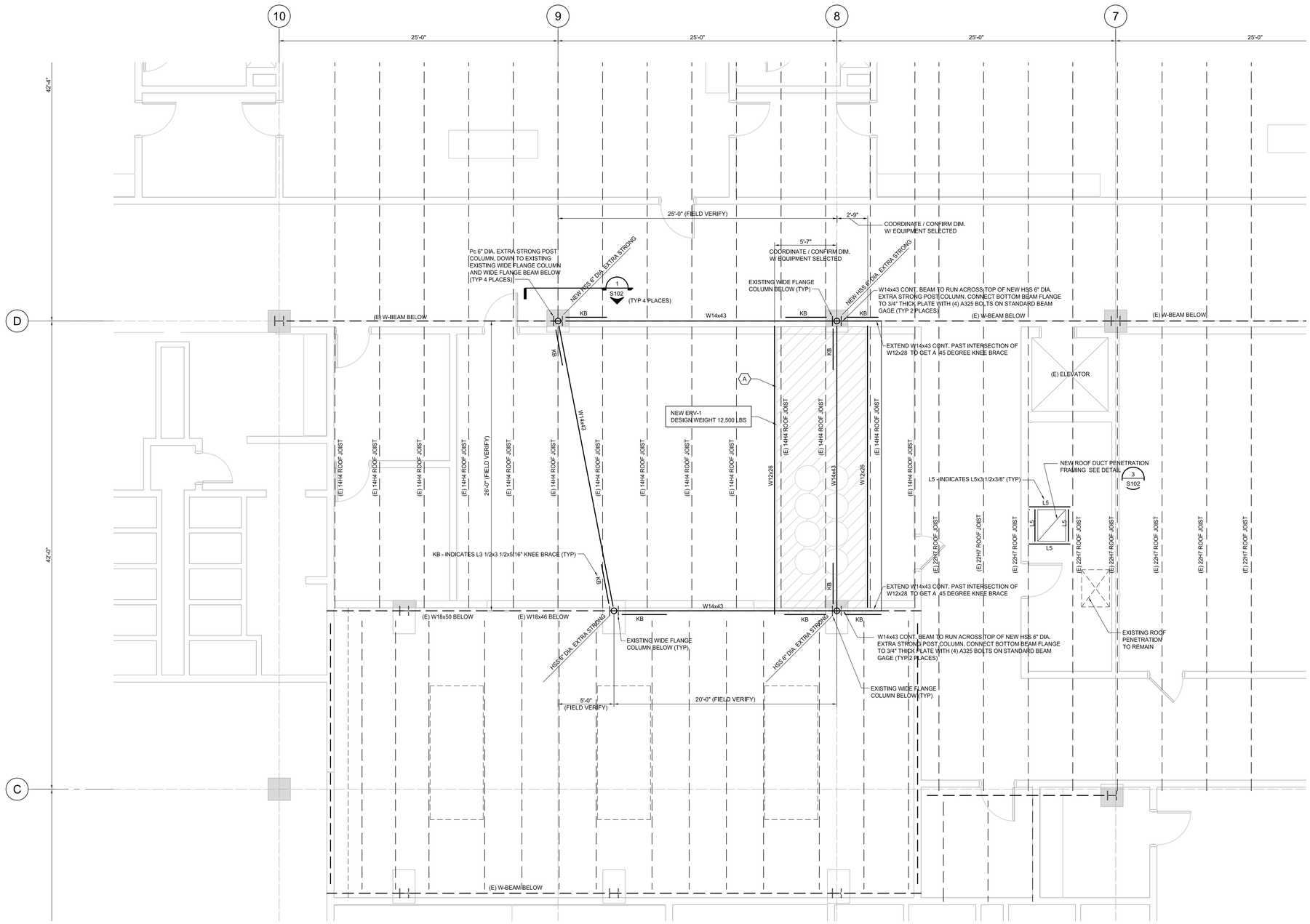
Δ	DATE	DESCRIPTION

SHEET NAME:
GENERAL NOTES AND BASIS OF DESIGN

ORIG SUBMISSION: 04-30-2024

SHEET: **S-001**

CONSTRUCTION DOCUMENTS



EXISTING PARTIAL ROOF FRAMING PLAN

1
S-101

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

NOTE:
ALL WALLS SHOWN ARE SECOND FLOOR WALLS BELOW (TYP)

KEY NOTES

(A) INDICATES NEW ROOF TOP EQUIPMENT. SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
NOTE: SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN, INCLUDING EXISTING ROOF PENETRATIONS THAT ARE TO BE INFILLED. SEE DETAIL 4/S102 FOR ADDITIONAL FRAMING INFORMATION.

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Colleton County MS Mechanical Replacement

1379 Tuskegee Airmen Drive Walterboro, SC 29488

LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION

SHEET NAME:
EXISTING PARTIAL ROOF FRAMING PLAN

ORIG SUBMISSION: 04-30-2024

SHEET: S-101

CONSTRUCTION DOCUMENTS

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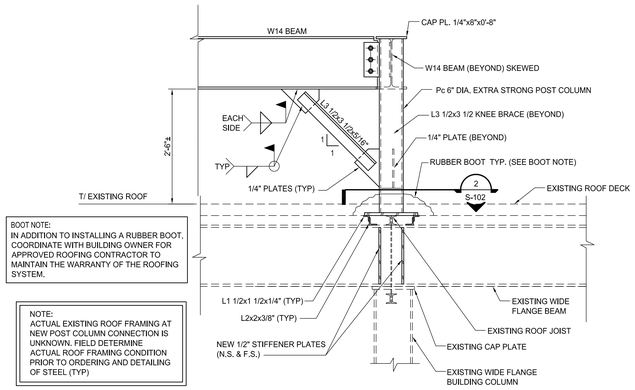
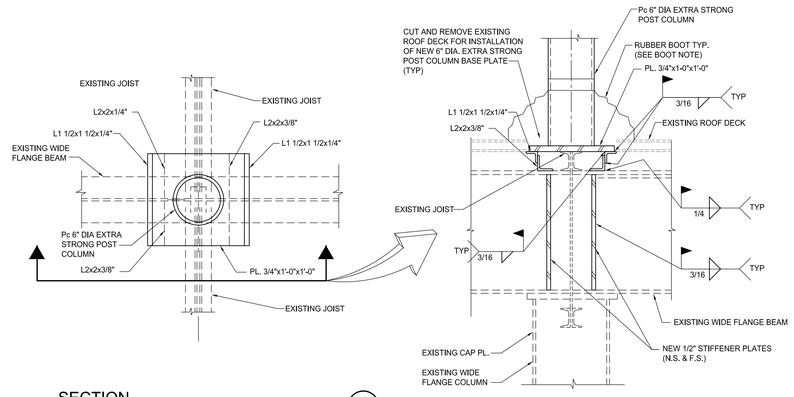


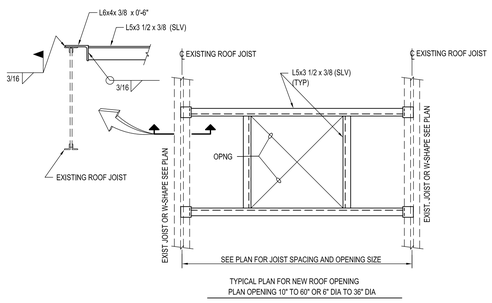
BOOT NOTE:
IN ADDITION TO INSTALLING A RUBBER BOOT, COORDINATE WITH BUILDING OWNER FOR APPROVED ROOFING CONTRACTOR TO MAINTAIN THE WARRANTY OF THE ROOFING SYSTEM.

NOTE:
ACTUAL EXISTING ROOF FRAMING AT NEW POST COLUMN CONNECTION IS UNKNOWN. FIELD DETERMINE ACTUAL ROOF FRAMING CONDITION PRIOR TO ORDERING AND DETAILING OF STEEL (TYP)

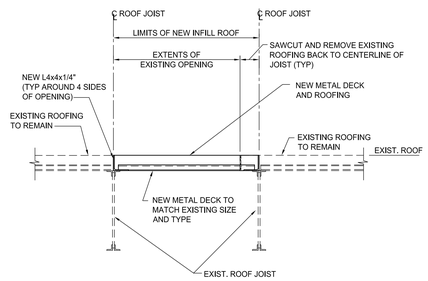
SECTION 1/S-102
SCALE: 3/4"=1'-0"



SECTION 2/S-102
SCALE: 1 1/2"=1'-0"



DETAIL AT NEW ROOF PENETRATION 3/S-102
SCALE: NONE



DETAIL AT ROOF OPENING INFILL 4/S-102
SCALE: NONE

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REGISTERED PROFESSIONAL ENGINEER STATE OF SOUTH CAROLINA NO. 16718 4/30/24

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Colleton County MS Mechanical Replacement

1379 Tuskegee Airmen Drive Walterboro, SC 29488

LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION

SHEET NAME:
SECTIONS AND DETAILS

ORIG SUBMISSION: 04-30-2024

SHEET: S-102

CONSTRUCTION DOCUMENTS

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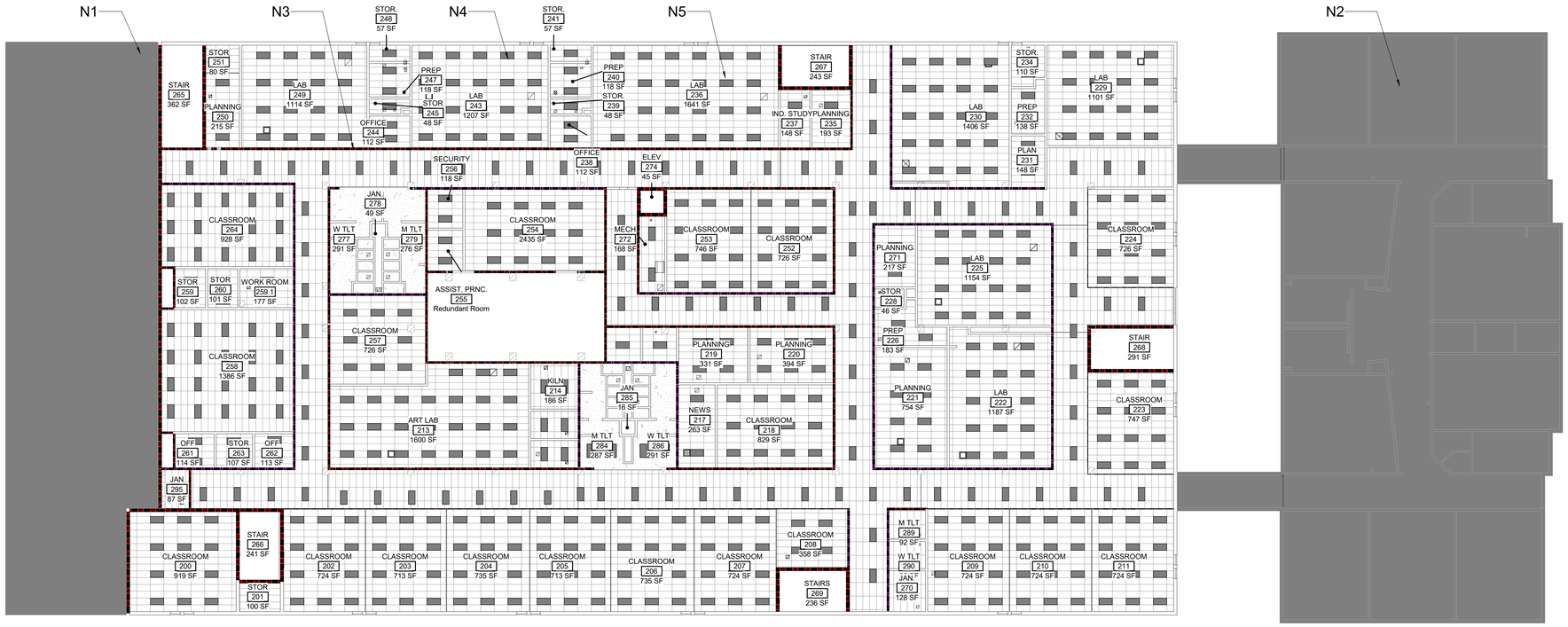
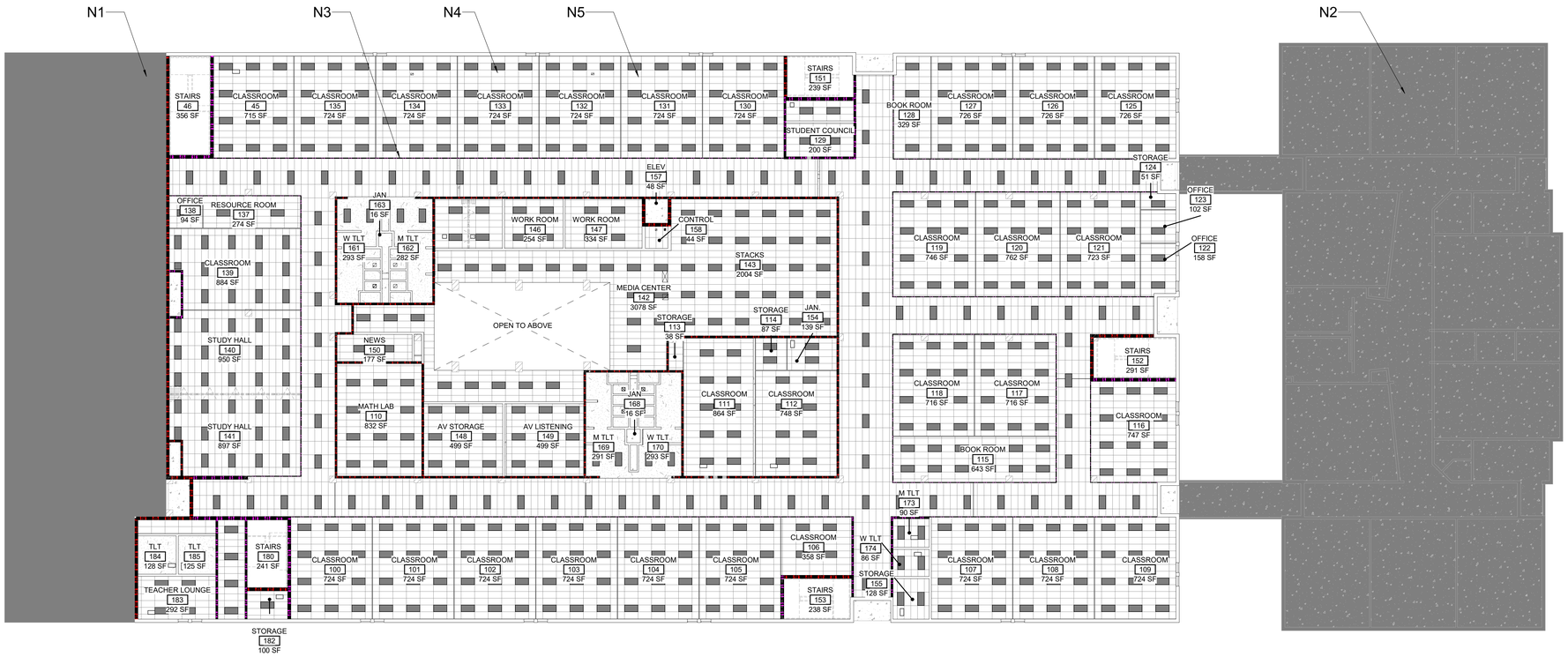


C1 EXISTING OVERALL RCP-LEVEL 2

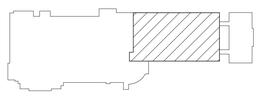
1/16" = 1'-0"



A1 OVERALL EXISTING RCP-LEVEL 1

1/16" = 1'-0"

KEY PLAN



EXISTING PLAN SHEET NOTES

N1. EXISTING CAFETERIA TO REMAIN. NO WORK IN THIS SCOPE.
N2. EXISTING 6TH GRADE WING TO REMAIN. NO WORK.
N3. CORRIDOR WALL CONSTRUCTION IS ONE HOUR RATED TYP.
N4. EXISTING CEILING GRID AND TILES ARE 2X4 TYP.
N5. EXISTING LIGHT FIXTURES ARE 2X4 FLUORESCENT TYP.

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STATE OF SOUTH CAROLINA — KAMERON K. SHACK — Charleston, SC — No. 9897 — REGISTERED ARCHITECT

04/30/2024

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Colleton County MS Mechanical Replacement

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LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION

SHEET NAME:
1ST AND 2ND EXISTING REFLECTED CEILING PLANS

ORIG SUBMISSION: 04-30-2024

SHEET:
AE-121

CONSTRUCTION DOCUMENTS

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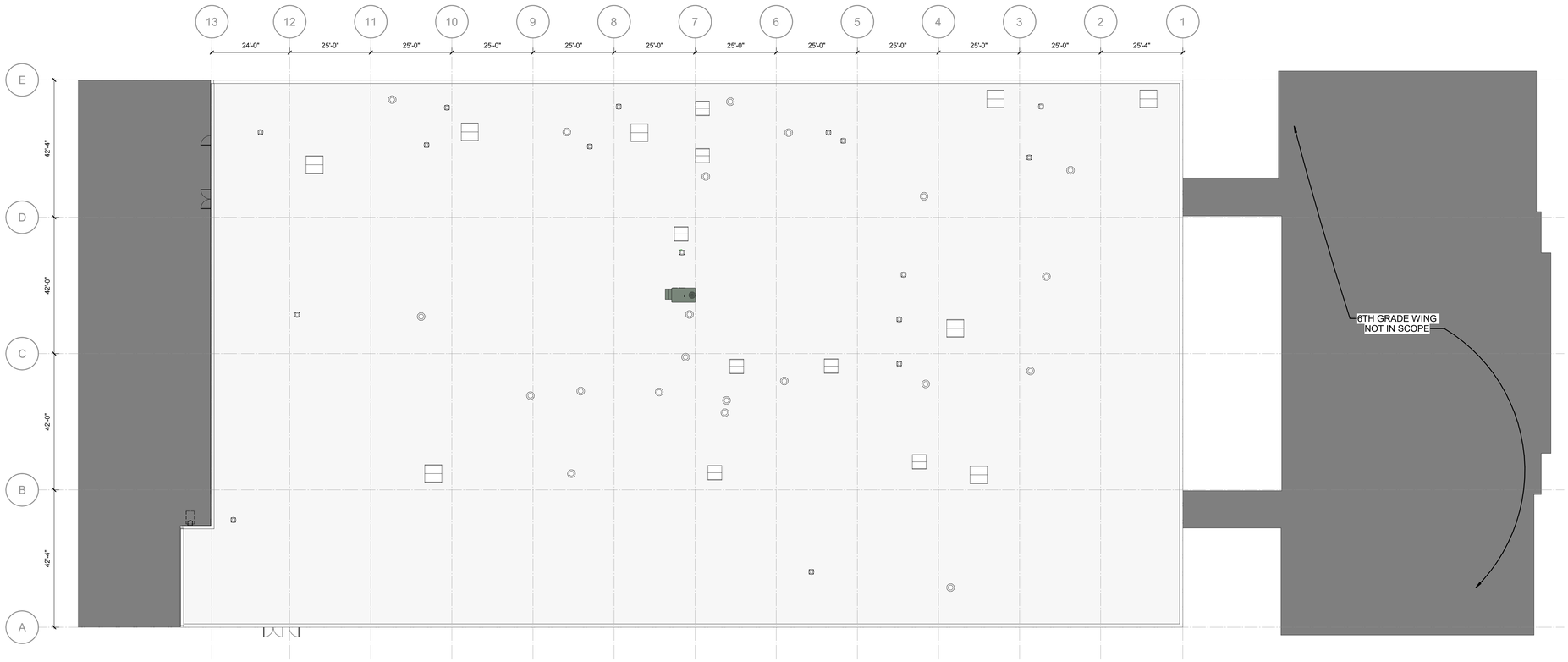
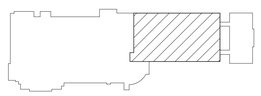


B1 EXISTING ROOF PLAN

1/16" = 1'-0"

KEY PLAN



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REGISTERED ARCHITECTS

STATE OF SOUTH CAROLINA
KAMERON K. SHACK
Charleston, SC
No. 9897
REGISTERED ARCHITECT

04/30/2024

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Colleton County MS Mechanical Replacement

1379 Tuskegeee Airmen Drive Walterboro, SC 29488

LS3P PROJECT: 1201-230265

△	DATE	DESCRIPTION

SHEET NAME:
EXISTING ROOF PLAN

ORIG SUBMISSION: 04-30-2024

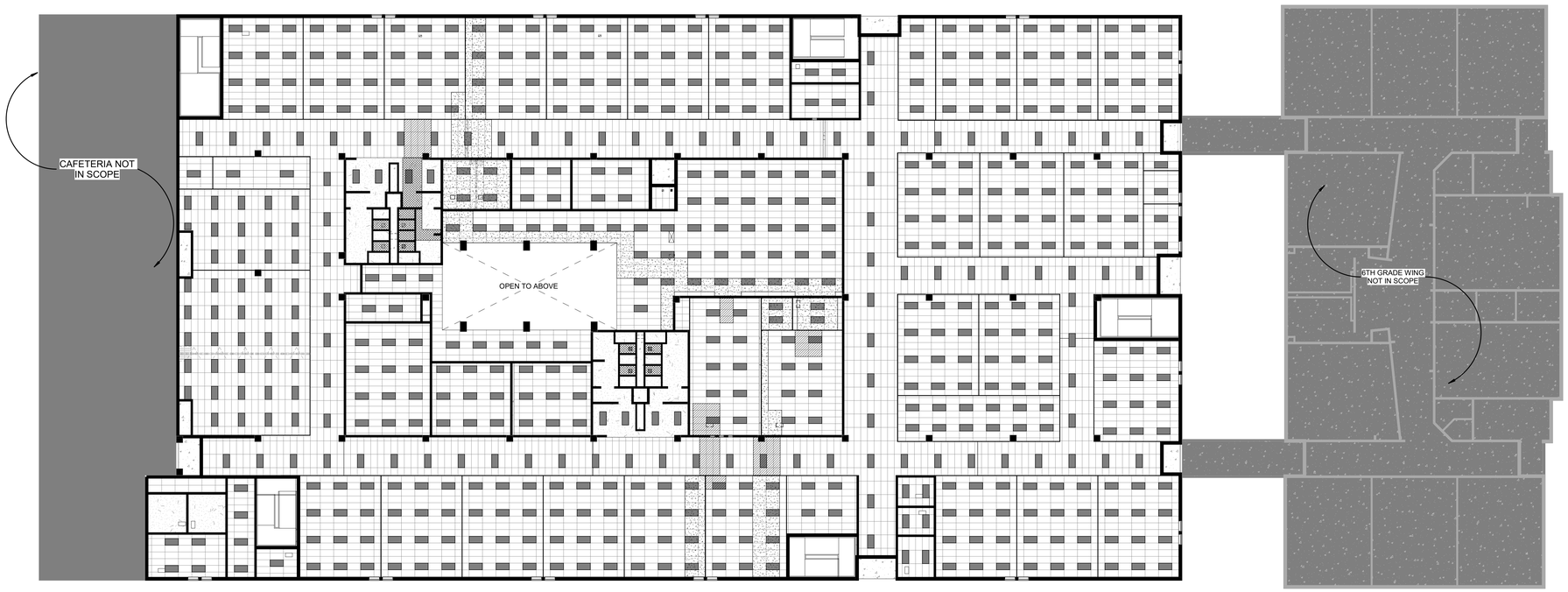
SHEET:
AE-151

CONSTRUCTION DOCUMENTS

5/1/2024 2:48:46 PM

C1 DEMOLITION-RCP-OVERALL- LEVEL 2

1/16" = 1'-0"



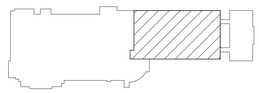
A1 DEMOLITION-RCP-OVERALL- LEVEL 1

1/16" = 1'-0"

NOTE: GC IS RESPONSIBILE FOR DETERMINING THE EXTENT OF TILES AND DEVICES REMOVED TO COMPLETE THE WORK. AREAS SHOWN ARE DIAGRAMMATIC AND CONVEY THE GENERAL EXTENTS OF THE WORK AREA.

NOTE: ALL EXISTING WATER SOURCE HEAT PUMPS TO RECEIVE NEW BIPOLAR IONIZATION. SEE MECHANICAL FOR ADDITIONAL INFORMATION.

KEY PLAN



DEMOLITION RCP SHEET NOTES

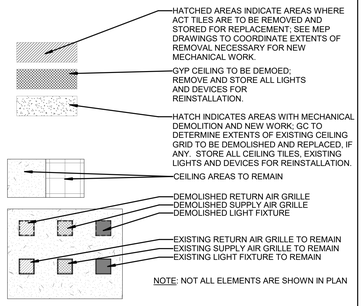
D1 DEMOLISH EXISTING WSHP AND ALL EXISTING DUCTWORK FOR INSTALLATION OF NEW WSHP. SEE MEP FOR MORE INFORMATION.

D2 REMOVE AND STORE EXISTING LIGHTING IN ALL CEILINGS TO BE DEMOLISHED. REINSTALL LIGHT FIXTURES IN NEW CEILINGS.

DEMOLITION RCP SHEET NOTES

A. NUMBERED KEY NOTES DO NOT IMPLY SEQUENCE. CONTRACTOR TO PERFORM DEMOLITION WORK AS REQUIRED PER WORK SEQUENCE.
B. DEMOLITION DRAWINGS ARE INTENDED TO SHOW GENERAL AREAS OF DEMOLITION AS WELL AS GENERAL EXISTING CONDITIONS. THEY DO NOT SHOW ALL WORK WHICH MAY BE NECESSARY. COMPARE WITH DRAWINGS INDICATING NEW CONSTRUCTION.
C. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING NARRATIVE FOR ADDITIONAL INFORMATION.
D. EXISTING WORK TO REMAIN SHALL BE TEMPORARILY SECURED, BRACED, STABILIZED AND PROTECTED UNTIL PERMANENT CONSTRUCTION IS IN PLACE.
E. THE CONTRACTOR MUST MAINTAIN ADEQUATE SUPPORT FOR INSULATION, WATERPROOFING, EMERGENCY LIGHTING, SECURITY, ALARMS, ETC. FOR ALL OR PART OF ITEMS WHICH ARE TO REMAIN.
F. VERIFY FIELD CONDITIONS PRIOR TO START OF DEMOLITION/CONSTRUCTION AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
G. VERIFY THAT CONSTRUCTION INDICATED FOR REMOVAL IS NOT LOAD BEARING OR IS ADEQUATELY SHORED PRIOR TO STARTING ANY WORK.
H. ERECT BARRICADES, FENCES OR OTHER SECURABLE MEANS TO PREVENT UNAUTHORIZED ACCESS INTO CONSTRUCTION ZONES.
I. DO NOT ALLOW MATERIAL AND DEBRIS GENERATED BY DEMOLITION ACTIVITIES TO ACCUMULATE ON THE JOB SITE. REMOVE DAILY AND DISPOSE OF IN A LEGAL MANNER. NO ON-SITE SALE OR BURNING OF REMOVED ITEMS IS PERMITTED.
J. TERMINATE AND CAP UTILITIES IN WALLS, CEILINGS, AND FLOORS, NOTED TO BE REMOVED AND NOT INTENDED FOR REUSE.
K. PREPARE AND PATCH SURFACES THAT ARE TO RECEIVE NEW FINISHES REQUIRED AFTER REMOVING OR RELOCATING DEVICES, WIRING OR OTHER APPURTENANCES, REFER TO FINISH SCHEDULE FOR NEW FINISHES.
L. MAINTAIN EXISTING FINISHES, OPERATIONAL CHARACTERISTICS, AND APPEARANCE OF ITEMS SCHEDULED TO REMAIN OR BE REUSED.
M. IN THE EVENT THAT ANY PARTY ENCOUNTERS SUSPECTED ASBESTOS, HAZARDOUS OR OTHER TOXIC MATERIAL AT THE JOB SITE, OR SHOULD IT BECOME KNOWN THAT SUCH MATERIAL MAY BE PRESENT AT THE JOB SITE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ARCHITECT IMMEDIATELY IN WRITING.

DEMOLITION RCP LEGEND



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STATE OF SOUTH CAROLINA — KAMERON K. SHAW — Charleston, SC — No. 9897 — REGISTERED ARCHITECT

04/30/2024

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Colleton County MS Mechanical Replacement

1379 Tuskegeee Airmen Drive Walterboro, SC 29488

LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION

SHEET NAME: DEMOLITION REFLECTED CEILING PLANS

ORIG SUBMISSION: 04-30-2024

SHEET: **AD-121**

CONSTRUCTION DOCUMENTS

THE LINE SHOWN ABOVE IS EXACTLY ONE INCH ON ORIGINAL PAPER SIZE

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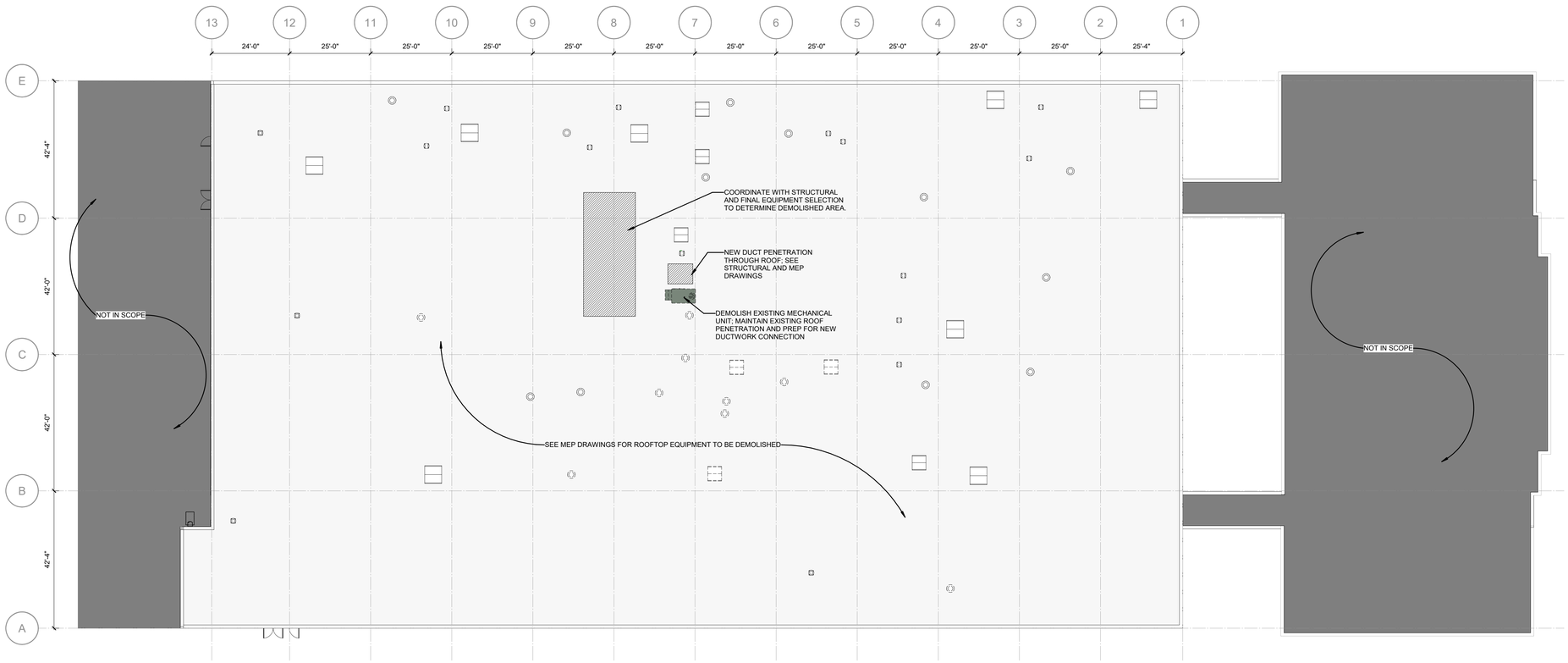
THE LINE SHOWN ABOVE IS EXACTLY ONE INCH ON ORIGINAL PAPER SIZE ANSI D



B1 **DEMO ROOF PLAN**
1/16" = 1'-0"

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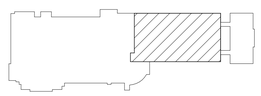
1379 Tuskegeee Airmen Drive Walterboro, SC 29488

LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION

KEY PLAN



SHEET NAME:
DEMOLITION ROOF PLAN

ORIG SUBMISSION: 04-30-2024

SHEET:
AD-151

CONSTRUCTION DOCUMENTS

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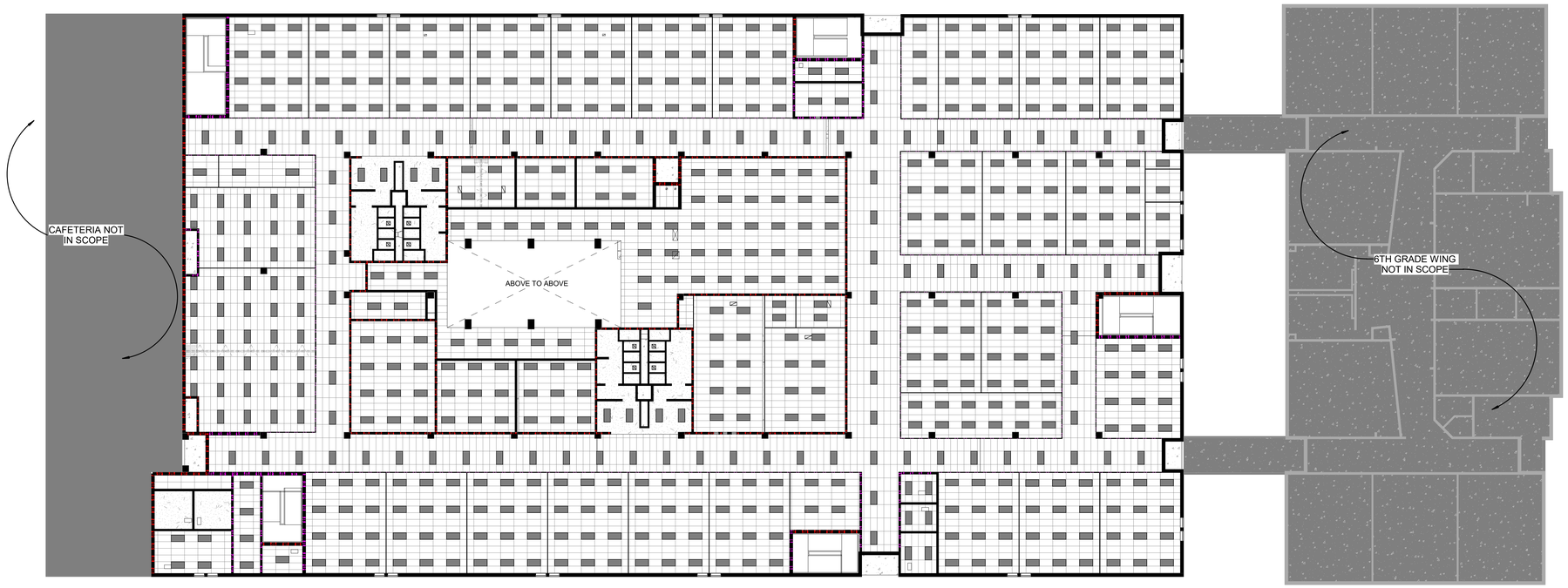
THE LINE SHOWN ABOVE IS EXACTLY ONE INCH ON ORIGINAL PAPER SIZE

C1 OVERALL RCP-LEVEL 2

1/16" = 1'-0"

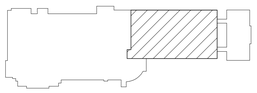


A1 OVERALL RCP-LEVEL 1

1/16" = 1'-0"

NOTE: GC TO DEMOLISH BROKEN CEILING TILES AND REPLACE WITH NEW CEILING TILES.

KEY PLAN



RCP LEGEND

MATERIAL PATTERNS

- GB, PLASTER, OR STUCCO CEILING
- 24"x24" ACOUSTIC TILE CEILING SYSTEM, NEW CONSTRUCTION
- 24"x48" ACOUSTIC TILE CEILING SYSTEM, EXISTING TO REMAIN

REF: CEILING TAGS AND SPECIFICATIONS

BUILDING ELEMENTS

- CEILING TYPE
- HEIGHT ABOVE LEVEL (NOT FINISH FLOOR)
- MATERIAL FINISH
- HEIGHT ABOVE LEVEL (NOT FINISH FLOOR)
- RETURN AIR GRILLE (DIAGONAL HATCH)
- SUPPLY AIR GRILLE (CROSSHATCH)
- LIGHT FIXTURE (SHADED)

GB21 10'-0"

10'-0"

SYMBOL SHAPES WILL VARY

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LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION

SHEET NAME: REFLECTED CEILING PLANS

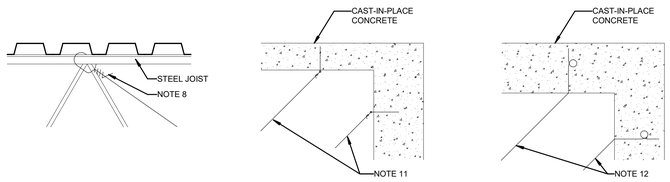
ORIG SUBMISSION: 04-30-2024

SHEET: A-121

CONSTRUCTION DOCUMENTS

5/1/2024 2:48:22 PM

THE LINE SHOWN ABOVE IS EXACTLY ONE INCH ON ORIGINAL PAPER SIZE. DIMENSIONS ADJUSTED ACCORDINGLY FOR REDUCED SIZE SHEETS



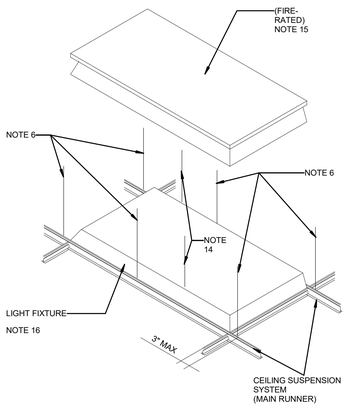
A DETAIL @ OPEN WEB STEEL JOISTS OR TRUSS JOISTS

B DETAIL @ EXISTING CONCRETE

C DETAIL @ NEW CONCRETE

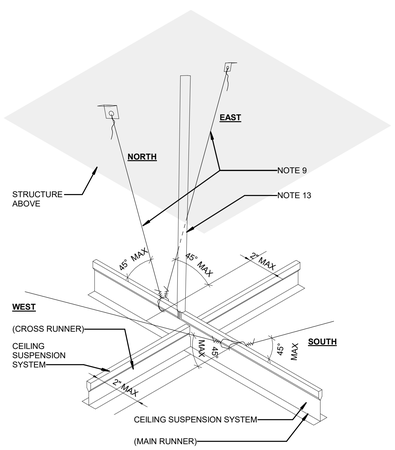
D1 BRACING WIRE CONNECTIONS

1 1/2" = 1'-0"



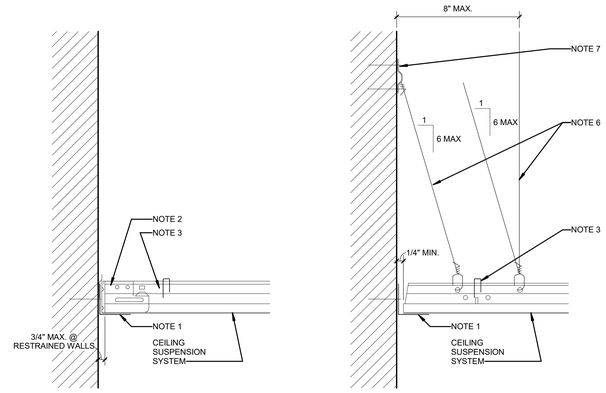
C1 LIGHT FIXTURE RESTRAINT

1" = 1"



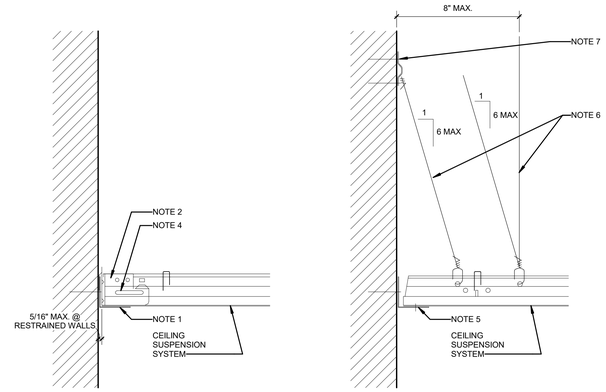
A1 SEISMIC LATERAL BRACING

1" = 1"



B DETAIL @ WALL (TERMINAL END CLIP @ MAIN BEAM)

D DETAIL @ WALL (TERMINAL END WIRE)

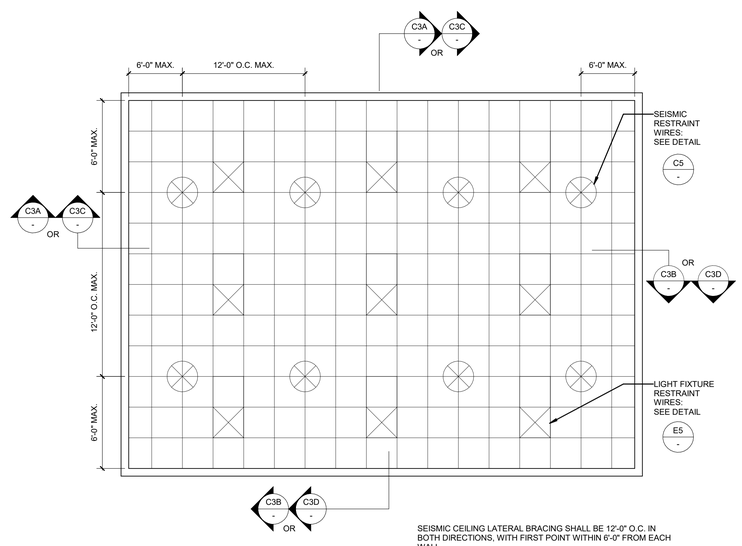


A DETAIL @ WALL (TERMINAL END CLIP @ CROSS-TEE)

C DETAIL @ WALL (TERMINAL END WIRE)

C3 CEILING GRID SEISMIC DETAILS @ WALL

3" = 1'-0"



SEISMIC CEILING LATERAL BRACING SHALL BE 12'-0" O.C. IN BOTH DIRECTIONS, WITH FIRST POINT WITHIN 6'-0" FROM EACH WALL.

USE THIS DETAIL FOR ROOM OVER 1,000 SF

A3 TYPICAL SEISMIC CEILING PLAN

1/4" = 1'-0"

CEILING SEISMIC DESIGN GENERAL NOTES

FOR DESIGN CATEGORY D, E, & F

A. CEILING SEISMIC DETAILS ARE PROVIDED TO ILLUSTRATE THE GENERAL REQUIREMENTS OF CISCA'S "GUIDELINES FOR SEISMIC RESTRAINT, SEISMIC DESIGN CATEGORY DESIGN D, E, & F" AND THE IBC, CHAPTER 16. CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE PROVISIONS OF THESE STANDARDS. IN CASE OF CONFLICT, THE MORE STRINGENT REQUIREMENT WILL BE ENFORCED.
B. CEILING SEISMIC DETAILS SHOWN FOR CEILING SYSTEMS (INCLUDING ALL DEVICES SUPPORTED BY THE SYSTEM) WITH A COMBINED AVERAGE WEIGHT OF OVER 2.5 LBS/SF PER ASTM-E580-06.
C. DETAILS SHOWN ARE GENERAL DETAILS NOT SPECIFIC TO A MANUFACTURER. PROPRIETARY SEISMIC DETAILS NOT SHOWN MUST BE SUBMITTED BY CONTRACTOR DURING CONSTRUCTION FOR ARCHITECT'S REVIEW ACCORDING TO THE LATEST APPLICABLE ESR REPORT.

CEILING SEISMIC DESIGN SHEET NOTES

FOR DESIGN CATEGORY D, E, & F

1. WALL ANGLE 2"x2". ATTACH TO WALL ONLY.
2. BEAM END RETAINING CLIP.
3. STABILIZER BAR.
4. 1/2" DIA S-12 SCREW.
5. WALL ANGLE 2"x2". ATTACH TO RUNNER/TEE & WALL.
6. 12 GA HANGER WIRE AT 48" O.C. AT MAIN GRIDS. INSTALL EITHER SLOPED OR VERTICALLY W/ MAX SLOPE TO BE 1 IN 6 (10°).
7. 18 GA x 3/4" METAL STRAP. ANCHOR TO MASONRY WALL W/ HILTI SDF 22-7/8" LONG (OR EQUAL). ANCHOR TO STUD WALL WITH 20 GA S-12 SCREWS.
8. 12 GA SEISMIC RESTRAINT WIRES. WRAP & TIE @ TOP OF WEB MEMBERS.
9. 12 GA SEISMIC RESTRAINT WIRES. TIE TO METAL STRAP.
10. NOT USED
11. 12 GA SEISMIC RESTRAINT WIRE. ANCHOR TO EXISTING STRUCTURE WITH 3/16" POWER DRIVEN EYE PIN.
12. 12 GA SEISMIC RESTRAINT WIRE. PROVIDE PIG-TAILED LOOPS IN CONCRETE.
13. PROVIDE COMPRESSION POST (BY CLG MANUF.) ANCHORED TO MAIN RUNNER & TO STRUCTURE ABOVE.
14. 12 GA HANGER WIRE. CONNECT TO LIGHT FIXTURE & STRUCTURE ABOVE. PROVIDE 2 MIN PER FIXTURE. WIRES MAY BE LEFT SLACK.
15. WIRE TO STRUCTURE ABOVE.
16. ATTACH FIXTURE TO SUSPENDED GRID SYSTEM OR INDEPENDENTLY SUPPORT FIXTURE FROM STRUCTURE ABOVE.

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Colleton County MS Mechanical Replacement

1379 Tuskegeee Airmen Drive Walterboro, SC 29488

LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION

SHEET NAME: SEISMIC DETAILS

ORIG SUBMISSION: 04-30-2024

SHEET: A-122

CONSTRUCTION DOCUMENTS

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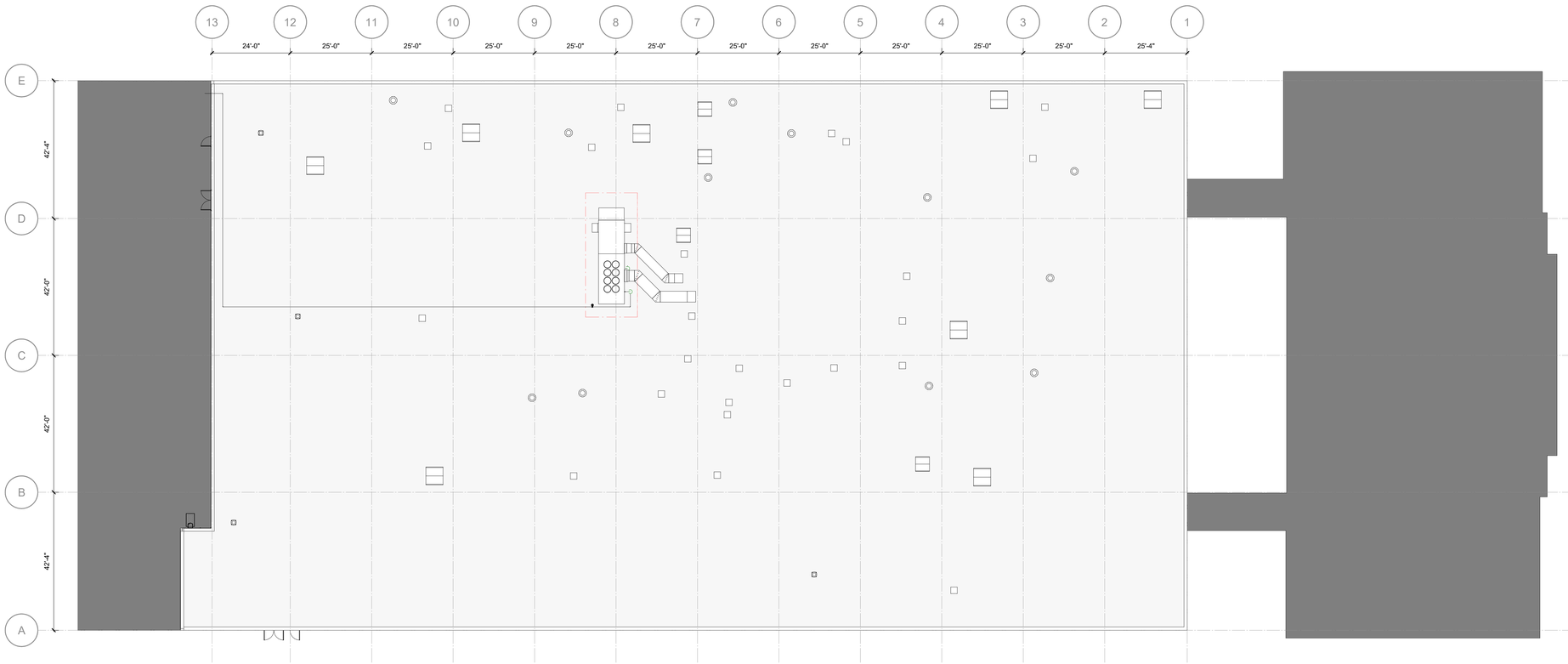
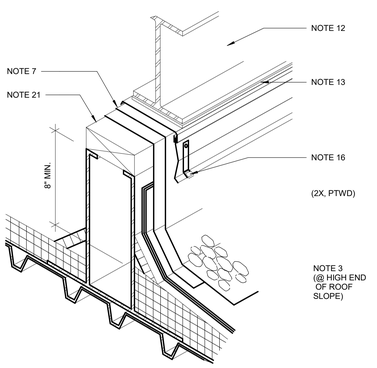
THE LINE SHOWN ABOVE IS EXACTLY ONE INCH ON ORIGINAL PAPER SIZE



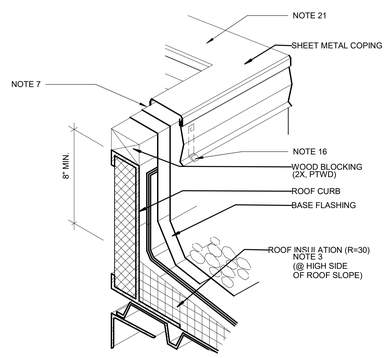
B1 OVERALL ROOF PLAN

1/16" = 1'-0"



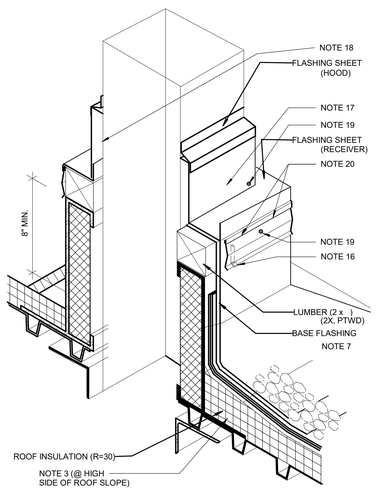
A1 EQUIPMENT SUPPORT

12" = 1'-0"



A2 EQUIPMENT CURB

12" = 1'-0"



A3 DUCT PENETRATION

12" = 1'-0"

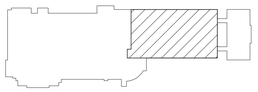
ROOF PLAN SHEET NOTES

1. PRIMARY SLOPE PROVIDED BY ROOF STRUCTURE.
2. PRIMARY SLOPE PROVIDED BY TAPERED INSULATION. FINISHED SLOPE 1/4" PER FOOT MIN.
3. TAPERED INSULATION CRICKET, SLOPE 1/4" PER FOOT MIN.
4. NOT USED
5. SET ON FELTS IN MASTIC. NAIL FLANGE TO WOOD NAILER (WHERE NAILER IS SHOWN). STRIP IN TWO PLIES.
6. 1" DRAW BAND.
7. EXTEND BASE FLASHING OVER WOOD BLOCKING OR SEAL TOP OF FLASHING & TOP OF BLOCKING WITH GLASS FIBER FABRIC & MASTIC.
8. NOT USED
9. TAPER INSULATION DOWN TO ROOF DRAIN. BEGIN 24" FROM CENTER OF ROOF DRAIN.
10. NOT USED
11. NOT USED
12. STRUCTURAL FRAMING TO BE SIZED BY CONTRACTOR, FOR EQUIPMENT MANUFACTERER'S REQUIREMENTS.
13. SET FRAMING MEMBER ON CONTINUOUS NEOPRENE STRIP.
14. NOT USED
15. NOT USED
16. 2" WIDE SUPPORT CLIP. COLOR TO MATCH FLASHING.
17. SHEET METAL OR FLEX TUBE COLLAR.
18. INSULATE INSIDE OF SHEET METAL HOOD. (NOT SHOWN FOR CLARITY).
19. FASTENERS AT APPROX. 24" O.C. WITH NEOPRENE WASHERS SET IN SEALANT.
20. SLOPE PIPES AWAY FROM HOOD. PROVIDE 4" MIN. CLEARANCE FROM PIPE TO TOP OF CURB & 2" MIN. CLEARANCE BETWEEN PIPES.
21. TOP OF CURB TO BE LEVEL.

ROOF PLAN GENERAL NOTES

A. ROOF SUBSYSTEM IS RI, UNO. SEE SHEET A-001 FOR CONSTRUCTION SUBSYSTEMS.
B. LOCATIONS AND SIZES OF MECHANICAL EQUIPMENT ARE APPROXIMATE. SEE STRUCTURAL AND MECHANICAL DRAWINGS FOR ACTUAL LOCATIONS.
C. SEE PLUMBING DRAWINGS FOR VENTS THROUGH ROOF LOCATIONS.
D. SEE SHEET A-151 FOR TYPICAL ROOF DETAILS AND NOTES.
E. SEE STRUCTURAL DRAWINGS FOR FASTENING REQUIREMENTS.
F. SLOPE ALL LOW SLOPED ROOFS TO ROOF DRAINS WITH MINIMUM SLOPE OF 1/4" PER FOOT. INSTALL ROOF DRAIN IN SQUARE RECESSED SUMP 18" SQUARE.
G. PROVIDE CRICKETS AT ALL CURBS AND EQUIPMENT RAILS SET PERPENDICULAR TO ROOF SLOPE WHICH ARE GREATER THAN 24" WIDE.
H. SLOPE ALL COPINGS BACK TO ROOF U.N.O.
I. COPING CORNERS TO BE PREFABRICATED PIECES WITH EQUAL RETURNS A MINIMUM OF 18" IN LENGTH. TOP HORIZONTAL JOINTS TO BE STANDING SEAM, VERTICAL JOINTS TO BE FLAT JOINTS.
J. WOOD BLOCKING SHOWN IN ROOF DETAILING SHALL BE PRESERVATIVE TREATED. USE SUITABLE FASTENERS WITH THE PRESERVATIVE TREATED WOOD.
K. EXTEND ALL PENETRATIONS, CURBS, AND COMPONENTS A MINIMUM OF 8" ABOVE THE ROOF SURFACE. PROVIDE 12" CLEAR DISTANCE BETWEEN PENETRATIONS AND TO ANY VERTICAL SURFACE.
L. IF NOT DETAILED, APPLY MOST STRINGENT CONDITION OF NRCA AND SMACNA (CURRENT EDITIONS) STANDARDS FOR ROOF DETAIL CONDITIONS.
M. ALL ROOF CRICKETS TO BE MINIMUM 1/2" SLOPE PER FOOT

KEY PLAN



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LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION

SHEET NAME: ROOF PLAN

ORIG SUBMISSION: 04-30-2024

SHEET: A-151

CONSTRUCTION DOCUMENTS

5/1/2024 2:46:27 PM

THE LINE SHOWN ABOVE IS EXACTLY ONE INCH ON ORIGINAL PLAN SHEETS

ENERGY RECOVERY VENTILATOR SCHEDULE

ITEM	AIRFLOW CFM		EXT. STATIC IN. WG		COIL CONDITIONS										ENTHALPY WHEEL												SUPPLY FAN MAX HP.	EXHAUST FAN MAX HP.	REMARKS
					COOLING MODE DESIGN CONDITIONS						HEATING MODE DESIGN CONDITIONS				SUMMER CONDITIONS				WINTER CONDITIONS										
	SUPPLY	EXHAUST	SUPPLY	EXHAUST	ENTERING AIR		LEAVING AIR		TOTAL MBH	SENS. MBH	ENTERING AIR		LEAVING AIR		GAS INPUT MBH	GAS OUTPUT MBH	OUTDOOR ENTERING AIR		LEAVING AIR		EXHAUST ENTERING AIR		OUTDOOR ENTERING AIR		LEAVING AIR		EXHAUST ENTERING AIR				
					DB °F	WB °F	DB °F	WB °F			DB °F	WB °F	DB °F	WB °F			DB °F	WB °F	DB °F	WB °F	DB °F	WB °F	DB °F	WB °F	DB °F	WB °F	DB °F	WB °F			
ERV-1	14000	11200	1.5	1.5	84	72	54	54	824	455	51	42	83	68	600	486	96	80	84	72	75	63	27	23	51	42	72	56	(3) 7.5	(3) 5.0	GREENHECK RVE HORIZONTAL DISCHARGE

1. REFER TO ELECTRICAL PLANS FOR POWER CONNECTIONS. REFER TO SPEC SECTION 237210 FOR FURTHER INFORMATION.
2. INSTALL AIR TREATMENT DEVICE(S) IN ALL ERV UNITS.
3. MECHANICAL EQUIPMENT IS OWNER FURNISHED AND CONTRACTOR INSTALLED.

AIR DISTRIBUTION SCHEDULE

DESIGNATION	DESCRIPTION
A	1'x2' EGGCRATE CEILING RETURN / EXHAUST GRILLE, LAY-IN
C	6"x6" EGGCRATE CEILING RETURN / EXHAUST GRILLE, LAY-IN
D	8"x8" EGGCRATE CEILING RETURN / EXHAUST GRILLE, LAY-IN
E	10"x10" EGGCRATE CEILING RETURN / EXHAUST GRILLE, LAY-IN
F	12"x12" EGGCRATE CEILING RETURN / EXHAUST GRILLE, LAY-IN
G	1'x1' EGGCRATE CEILING RETURN / EXHAUST GRILLE, SURFACE MOUNTED
U	14"x14" EGGCRATE CEILING RETURN / EXHAUST GRILLE, SURFACE MOUNTED

1. REFER TO SPEC SECTION 232210 FOR FURTHER INFORMATION.

MECHANICAL LEGEND

		SUPPLY AIR DUCT
		RETURN AIR DUCT OR EXHAUST DUCT
		DUCT TRANSITION
		EXTERIOR DUCT
		SINGLE WALL SPIRAL SEAM DUCT
		DOUBLE WALL SPIRAL SEAM DUCT
		LINED DUCT
		EXISTING DUCT
XY / Z		X = DIFFUSER TYPE / Y = THROW; Z = AIRFLOW, CFM
	MD	MANUAL DAMPER
	MD	MOTORIZED DAMPER
	VAVD	VARIABLE AIR VOLUME DAMPER
	FD	FIRE DAMPER
	SD	SMOKE DAMPER
	FSD	FIRE / SMOKE DAMPER
	CRD	CEILING RADIATION DAMPER
		SINGLE WALL TURNING VANES
		FLEXIBLE DUCT CONNECTION
	AD	ACCESS DOOR
	SDR	SUBDUCT RISER
	ABD	AUTOMATIC BALANCING DAMPER
	AHU	AIR HANDLING UNIT
	TU	TERMINAL UNIT
	FCU	FAN COIL UNIT
	CH	CHILLER
	B	BOILER
	CT	COOLING TOWER
	P	PUMP
	PHE	PLATE HEAT EXCHANGER
	HP	SPLIT SYSTEM HEAT PUMP
	AH	SPLIT SYSTEM AIR HANDLER
	DHP	DUCTLESS HEAT PUMP
	DAH	DUCTLESS AIR HANDLER
	WHP	WALL MOUNT HEAT PUMP
	THP	THRU WALL HEAT PUMP
	RHP	ROOF HEAT PUMP
	WSHP	WATER SOURCE HEAT PUMP
	HPWH	HEAT PUMP WATER HEATER
	VRF	VARIABLE REFRIGERANT FLOW
	VAH	VRF AIR HANDLER
	VHP	VRF HEAT PUMP
	HRC	MAIN HEAT RECOVERY CONTROLLER
	SUB	SUB HEAT RECOVERY CONTROLLER
	AC	SPLIT SYSTEM AIR CONDITIONER
	CC	SPLIT SYSTEM COOLING COIL
	WAC	WALL MOUNT AIR CONDITIONER
	RAC	ROOF AIR CONDITIONER
	DOAS	DEDICATED OUTDOOR AIR SYSTEM
	ERV	ENERGY RECOVERY VENTILATOR
	EF	EXHAUST FAN
T		THERMOSTAT / TEMPERATURE SENSOR
H		HUMIDISTAT / HUMIDITY SENSOR
S		DUCT SMOKE DETECTOR
Ø	DIA	DIAMETER
	OA	OUTDOOR AIR
	UG	UNDERGROUND
	W/	WITH
	AFF	ABOVE FINISH FLOOR
		CONNECT TO EXISTING
D		HVAC DRAIN PIPING

GENERAL NOTES

1. THE DRAWINGS SHOW THE GENERAL ARRANGEMENT AND LOCATIONS OF THE MECHANICAL WORK. THE CONTRACTOR SHALL COORDINATE THE MECHANICAL INSTALLATION WITH THE STRUCTURE AND ALL OTHER TRADES. PERFORM ALL WORK IN ACCORDANCE WITH 2021 INTERNATIONAL MECHANICAL CODE (IMC) WITH SC AMENDMENTS.
2. REFER TO THE ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF THE CEILING MOUNTED DEVICES.
3. DUCTWORK SHOWN ON THE PLANS IS SIZED AND ROUTED BASED ON INFORMATION AVAILABLE DURING DESIGN PHASE FOR CEILING HEIGHTS, STRUCTURAL MEMBERS, ETC. ALL DUCTS SIZES AND ROUTINGS MUST BE CONFIRMED IN THE FIELD BY THE CONTRACTOR PRIOR TO FABRICATION AND INSTALLATION. WHERE CONFLICTS ARISE. REFER TO THE ENGINEER.
4. REFER TO SENSOR MOUNTING DETAIL FOR MOUNTING HEIGHT.
5. ALL CONCEALED SUPPLY AIR AND RETURN AIR DUCTWORK SHALL HAVE ONE LAYER OF TYPE 'A' DUCT WRAP. ALL LINED DUCTWORK CALLED OUT ON PLANS SHALL HAVE ONE LAYER OF TYPE 'A' DUCT LINER. ALL EXPOSED RECTANGULAR DUCTWORK SHALL HAVE ONE LAYER OF TYPE 'A' DUCT LINER AND SHALL HAVE PAINT GRIP FINISH WITH COLOR SELECTED BY ARCHITECT. GENERAL EXHAUST AIR DUCTWORK SHALL NOT BE INSULATED. (SEE SECTION 232110).
6. ROOF MOUNTED EQUIPMENT SHALL BE LOCATED 10 FEET MINIMUM FROM ROOF EDGE.
7. DEVICES REQUIRED TO BE ACCESSIBLE SHALL NOT BE INSTALLED ABOVE DRYWALL CEILINGS. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR LOCATIONS OF HARD CEILINGS.
8. SMOKE DAMPERS SHALL BE ACTUATED BY CEILING MOUNTED SMOKE DETECTORS FURNISHED AND INSTALLED BY DIV. 26/27.
9. ALL FIRE DAMPERS AND SMOKE DAMPERS (AS APPLICABLE) SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S UL LISTED DETAILS.
10. CONNECT NEW EQUIPMENT TO THE EXISTING *INTEGRATED SOLUTIONS* CAMPUS CONTROL SYSTEM. UPDATE BUILDING GRAPHICS WITH THE NEW EQUIPMENT.

DEMOLITION NOTES

1. THE DRAWINGS SHOW THE GENERAL ARRANGEMENT AND LOCATIONS OF EXISTING MECHANICAL WORK. THE CONTRACTOR SHALL FIELD-VERIFY LOCATIONS PRIOR TO PERFORMING DEMOLITION WORK AND SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS OR DISCREPANCIES. DUCTWORK ROUTES WERE ESTIMATED FROM ORIGINAL PLANS. THIS INFORMATION WAS SUPPLEMENTED BY LIMITED FIELD OBSERVATION. DETAILED ABOVE-CEILING VERIFICATION OF DUCTWORK HAS NOT BEEN PERFORMED.
2. HATCHING INDICATES ITEMS TO BE DEMOLISHED, UNLESS NOTED OTHERWISE. DEMOLISHED ITEMS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR. DEMOLITION OF AN ITEM SHALL INCLUDE ASSOCIATED DUCTWORK, AIR DISTRIBUTION DEVICES, HANGERS, SUPPORTS, BRACKETS, ROOF CURB, PIPING, CONDUIT, WIRING, CONTROLS, ETC. UNLESS NOTED OTHERWISE. IN EXPOSED AREAS, BUILDING SURFACES AFFECTED BY DEMOLITION SHALL BE REPAIRED AND REFINISHED TO MATCH EXISTING.
3. AT LOCATIONS WHERE MECHANICAL DEMOLITION RESULTS IN WALL OPENINGS, ALL SUCH OPENINGS SHALL BE CLOSED OFF WITH WALL MATERIALS AND FINISH TO MATCH SURROUNDING WALL. IF ANY SUCH WALLS ARE FIRE-RATED, THE FIRE RATING MUST BE MAINTAINED. ENSURE THAT EXISTING WALL OPENINGS WILL NOT BE REUSED IN THE NEW WORK PLANS BEFORE SEALING WALL PENETRATIONS. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR ADDITIONAL INSTRUCTIONS/DETAILS FOR OPENING REPAIRS.
4. AT LOCATIONS WHERE MECHANICAL DEMOLITION RESULTS IN CEILING OPENINGS, ALL SUCH OPENINGS SHALL BE CLOSED OFF WITH MATERIALS AND FINISH TO MATCH SURROUNDING CEILING. REPLACE ALL DAMAGED ACOUSTICAL CEILING TILES AND REPAIR DAMAGED CEILING GRIDS FOR ALL SUCH AREAS AFFECTED BY DEMOLITION. IF ANY SUCH CEILINGS ARE RATED, THE RATING MUST BE MAINTAINED. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR ADDITIONAL INSTRUCTIONS/DETAILS FOR OPENING REPAIRS.
5. AT LOCATIONS WHERE MECHANICAL DEMOLITION RESULTS IN ROOF OPENINGS, ALL SUCH OPENINGS SHALL BE ADEQUATELY CAPPED AND SEALED. ENSURE THAT EXISTING ROOF PENETRATIONS WILL NOT BE REUSED IN THE NEW WORK PLANS BEFORE SEALING ROOF PENETRATIONS. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR ADDITIONAL INSTRUCTIONS/DETAILS FOR OPENING REPAIRS.
6. COORDINATE THE DEMOLITION OF EQUIPMENT AND ALL ASSOCIATED ITEMS WITH PHASING AS DIRECTED BY THE OWNER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT DEMOLITION OF AN ITEM DOES NOT AFFECT THE HVAC OPERATION IN A DIFFERENT PHASE. ALL DEMOLISHED ITEMS SHALL BE OFFERED BACK TO THE OWNER FOR FIRST REFUSAL. CONTRACTOR IS THEN RESPONSIBLE FOR PROPER DISPOSAL OF ALL REMOVED MATERIALS OFFSITE.
7. REFER TO ARCHITECTURAL DETAILS FOR WEATHER TIGHT AND FLASHING DETAILS.

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SOUTH CAROLINA PROFESSIONAL ENGINEER No. 27752 04.30.2024 ROBERT E. LAPOINTE

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Colleton County MS
Mechanical Replacement
1379 Tuskegeee Airmen Drive Walterboro, SC 29488

LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION

SHEET NAME: MECHANICAL SCHEDULES & LEGENDS

ORIG SUBMISSION: 04/30/2024

SHEET: **M100**

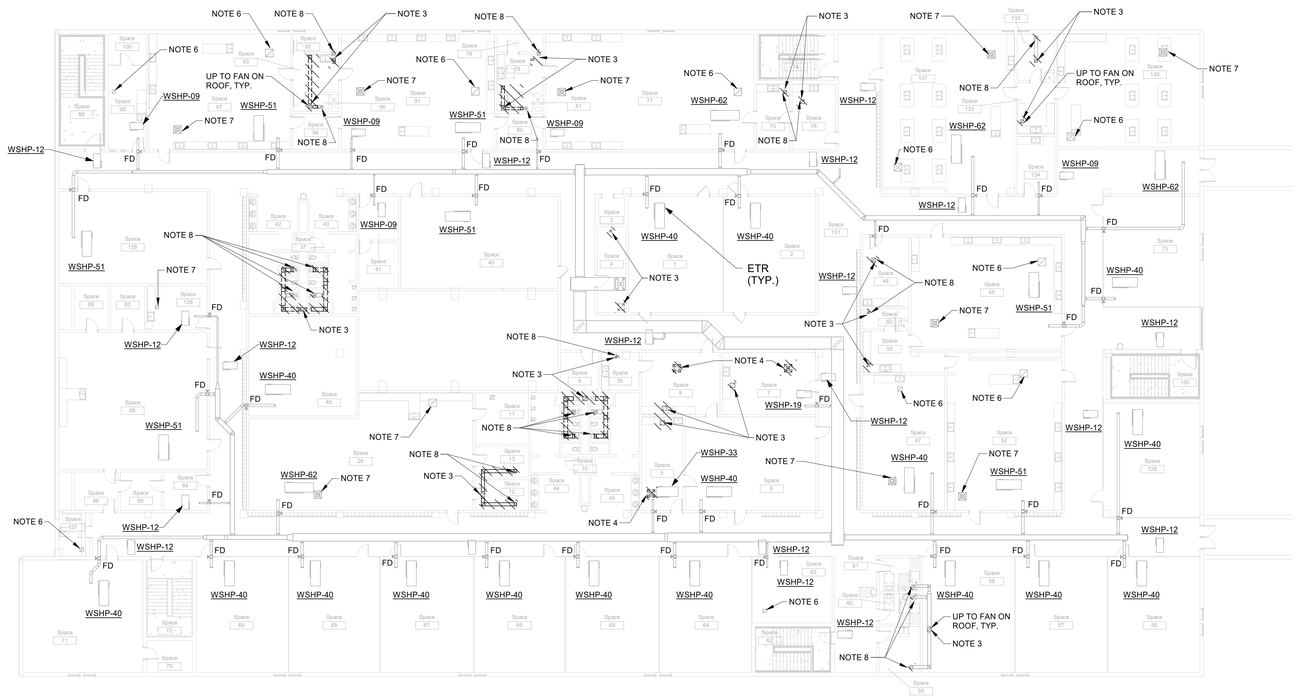
CONSTRUCTION DOCUMENTS

4/30/2024 2:51:12 PM

THE LINE SHOWN ABOVE IS EXACTLY ONE INCH ON ORIGINAL PAPER SIZE

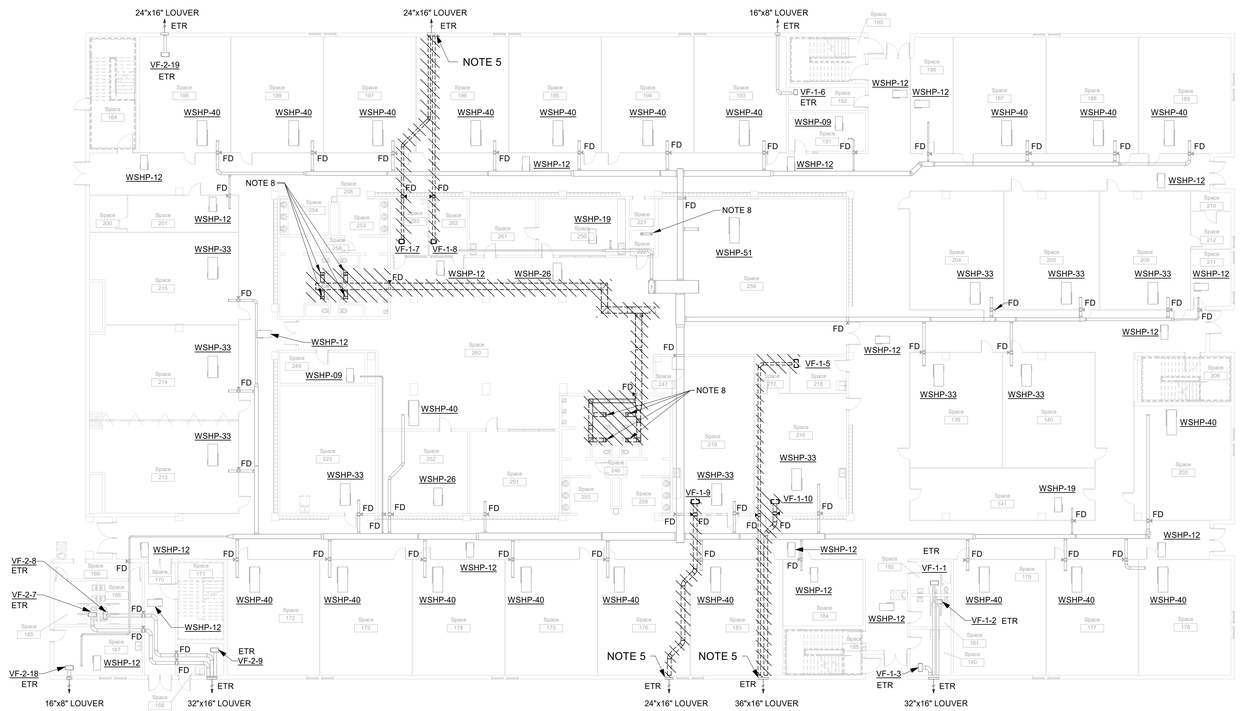
SHEET NOTES

1. REMOVE HATCHED ROOFTOP UNIT, CONTROL WIRING, AND ROOF CURB COMPLETELY. DUCTWORK TO REMAIN. SEE ARCHITECT AND ELECTRICAL DRAWINGS FOR FURTHER INFORMATION.
2. REMOVE HATCHED CEILING FAN, DUCTWORK, HANGERS, AND CONTROL WIRING COMPLETELY. SEE ARCHITECT AND ELECTRICAL DRAWINGS FOR FURTHER INFORMATION.
3. REMOVE ROOF EXHAUST FAN AND CONTROL WIRING COMPLETELY. ROOF CURB TO REMAIN AND SHALL RECEIVE AN INSULATED ROOF CAP. DUCTWORK SHALL BE REMOVED AS NEEDED TO MAKE CONNECTION TO NEW EXHAUST PATH.
4. REMOVE HATCHED AIR INTAKE HOOD, DUCTWORK, AND CEILING GRILLE COMPLETELY. ROOF CURB TO REMAIN AND SHALL RECEIVE AN INSULATED ROOF CAP.
5. REMOVE DUCTWORK FROM LOUVER THEN CAP AND INSULATE BACK OF LOUVER.
6. CEILING GRILLE, DUCTWORK, AND ROOF EXHAUST FAN TO REMAIN.
7. CEILING GRILLE, DUCTWORK, AND ROOF INTAKE HOOD TO REMAIN.
8. CEILING GRILLE IS TO BE REMOVED AND REPLACED.



2 MECHANICAL DEMOLITION PLAN - LEVEL 2

1/16" = 1'-0"



1 MECHANICAL DEMOLITION PLAN - LEVEL 1

1/16" = 1'-0"

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Colleton County MS Mechanical Replacement

1379 Tuskegeee Airmen Drive Walterboro, SC 29488

LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION

AREA A | AREA B

SHEET NAME: MECHANICAL DEMOLITION PLAN

ORIG SUBMISSION: 04/30/2024

SHEET: **MD101**

DULOHERY WEEKS ENGINEERS

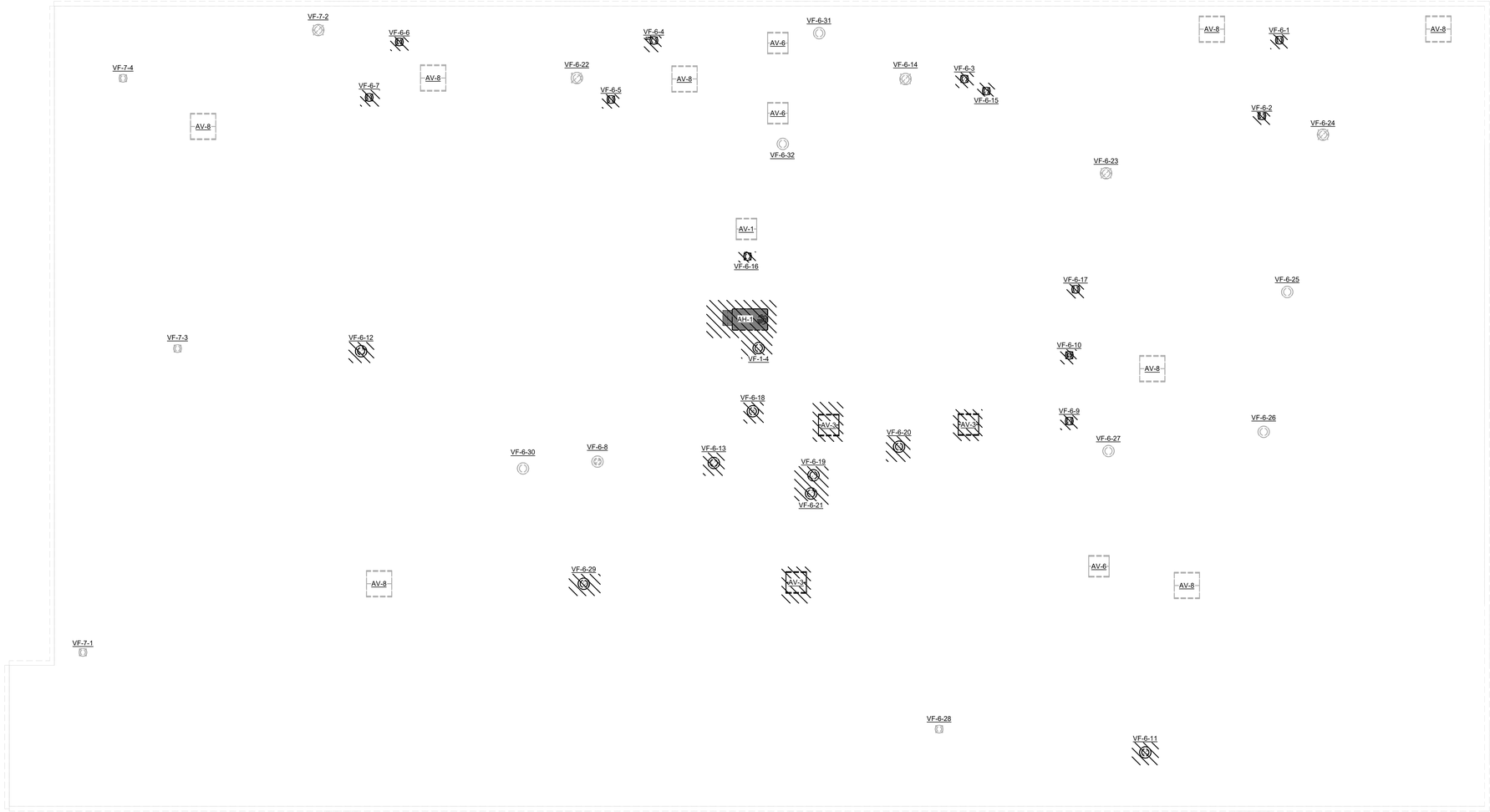
CONSTRUCTION DOCUMENTS

4/30/2024 2:51:25 PM

THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG ON THE SHEETS ORIGINAL PLOT SIZE

SHEET NOTES

1. REMOVE HATCHED ROOFTOP UNIT, CONTROL WIRING, AND ROOF CURB COMPLETELY. DUCTWORK TO REMAIN. SEE ARCHITECT AND ELECTRICAL DRAWINGS FOR FURTHER INFORMATION.
2. REMOVE HATCHED CEILING FAN, DUCTWORK, HANGERS, AND CONTROL WIRING COMPLETELY. SEE ARCHITECT AND ELECTRICAL DRAWINGS FOR FURTHER INFORMATION.
3. REMOVE ROOF EXHAUST FAN AND CONTROL WIRING COMPLETELY. ROOF CURB TO REMAIN AND SHALL RECEIVE AN INSULATED ROOF CAP. DUCTWORK SHALL BE REMOVED AS NEEDED TO MAKE CONNECTION TO NEW EXHAUST PATH.
4. REMOVE HATCHED AIR INTAKE HOOD, DUCTWORK, AND CEILING GRILLE COMPLETELY. ROOF CURB TO REMAIN AND SHALL RECEIVE AN INSULATED ROOF CAP.



1 MECHANICAL DEMOLITION PLAN - ROOF

3/32" = 1'-0"

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1379 Tuskegeee Airmen Drive Walterboro, SC 29488

LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION

AREA A | AREA B

SHEET NAME: MECHANICAL DEMOLITION PLAN - ROOF

ORIG SUBMISSION: 04/30/2024

SHEET: **MD102**

DULOHERY WEEKS ENGINEERS

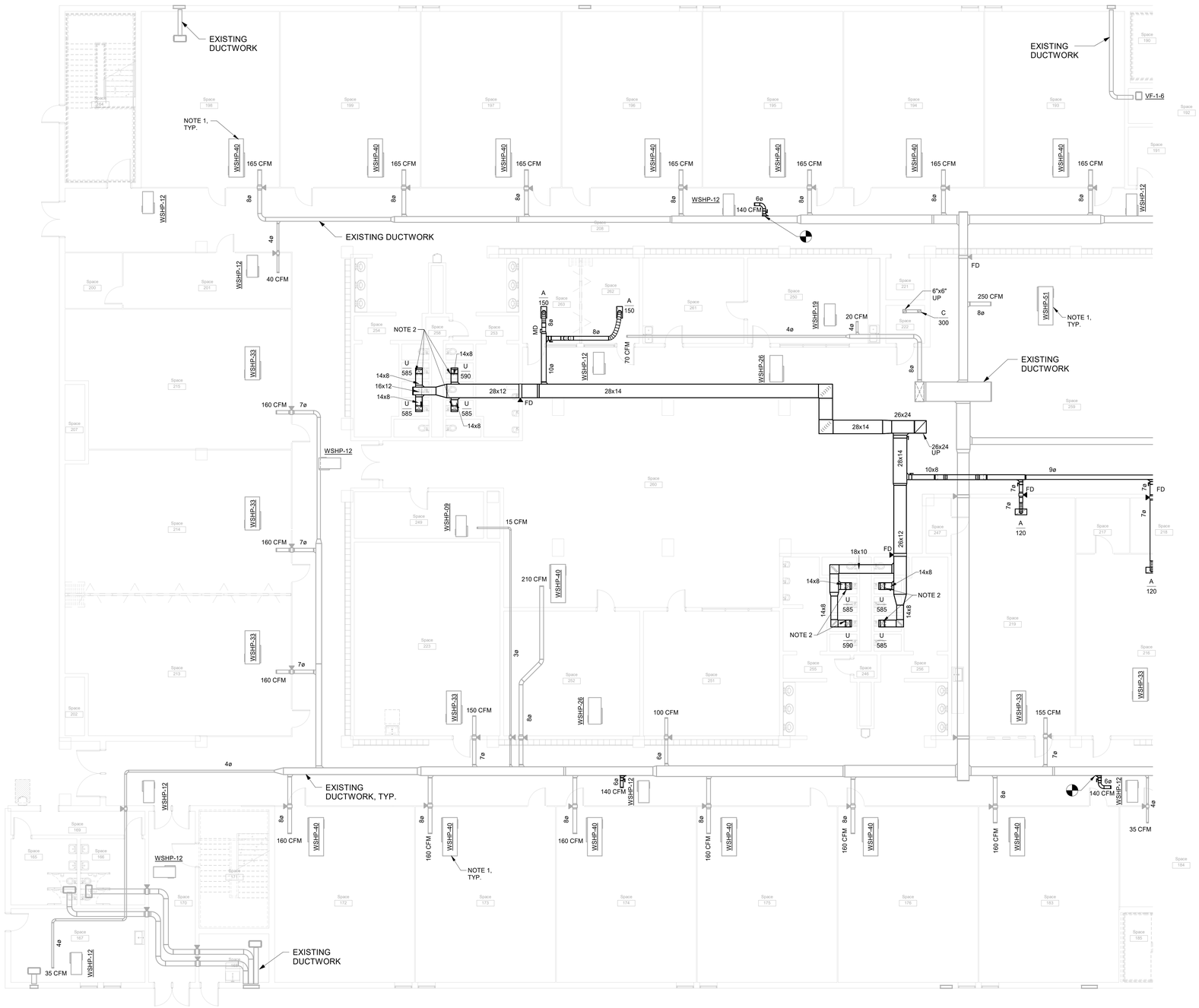
CONSTRUCTION DOCUMENTS

4/30/2024 2:51:30 PM

THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG ON THE SHEETS ORIGINAL PLOT SIZE

SHEET NOTES

1. ADD AIR TREATMENT DEVICE IN ALL WSHP UNITS RECEIVING OUTSIDE AIR. REFER TO SPEC SECTION 234320.
2. ADD BALANCING DAMPER FOR BALANCING TO NEW AIR DISTRIBUTION. REFER TO SPEC SECTION 232110.
3. ADD BALANCING DAMPER AT OUTSIDE AIR CONNECTION FOR ALL WSHP UNITS.



1 MECHANICAL PLAN - LEVEL 1 - AREA A

1/8" = 1'-0"

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LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION

AREA A | AREA B

SHEET NAME:
MECHANICAL PLAN - LEVEL 1 - AREA A

ORIG SUBMISSION: 04/30/2024

SHEET:
M101A

DULOHERY WEEKS ENGINEERS

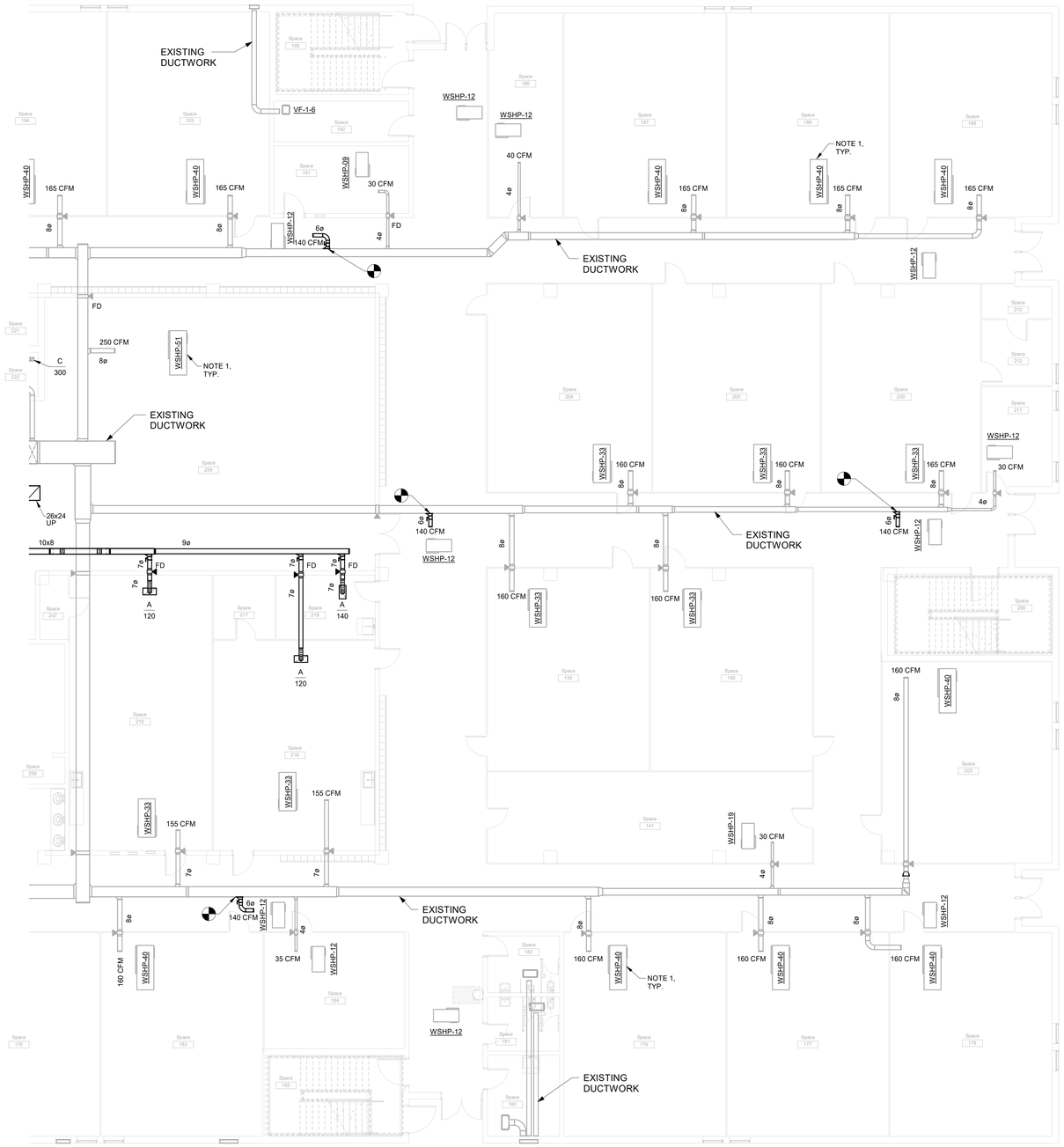
CONSTRUCTION DOCUMENTS

4/30/2024 2:51:37 PM

THE LINE SHOWN ABOVE IS EXACTLY ONE INCH ON ORIGINAL PAPER SIZE

SHEET NOTES

1. ADD AIR TREATMENT DEVICE IN ALL WSHP UNITS RECEIVING OUTSIDE AIR. REFER TO SPEC SECTION 234320.
2. ADD FACE DAMPERS FOR BALANCING TO NEW AIR DISTRIBUTION. REFER TO SPEC SECTION 232110.



1 **MECHANICAL PLAN - LEVEL 1 - AREA B**

1/8" = 1'-0"

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Colleton County MS Mechanical Replacement

1379 Tuskegeee Airmen Drive Walterboro, SC 29488

LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION

AREA A | AREA B

SHEET NAME:
MECHANICAL PLAN - LEVEL 1 - AREA B

ORIG SUBMISSION: 04/30/2024

SHEET: **M101B**

DULOHERY WEEKS ENGINEERS

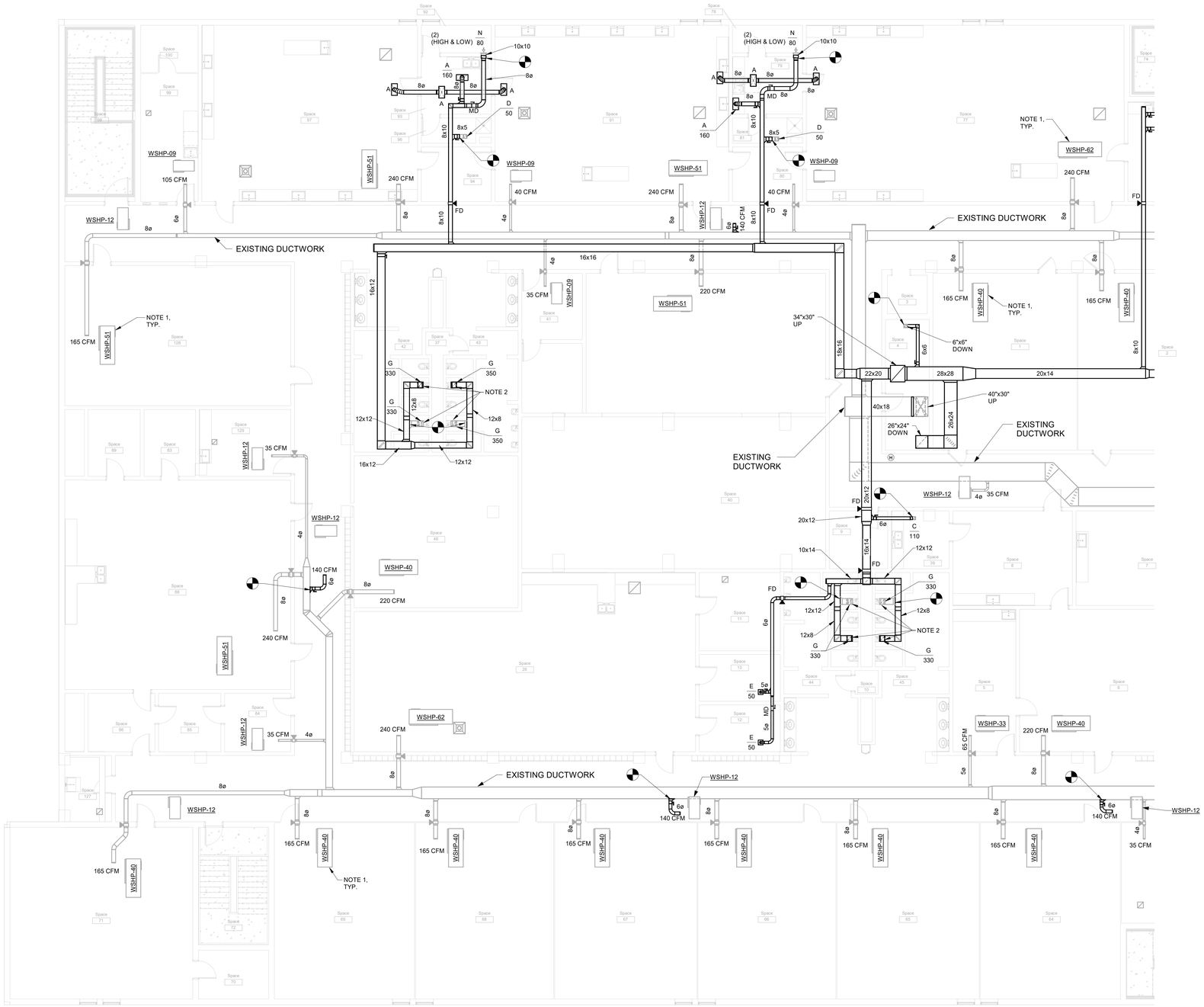
CONSTRUCTION DOCUMENTS

4/30/2024 2:51:46 PM

THE LINE SHOWN ABOVE IS EXACTLY ONE INCH ON THE SHEETS ORIGINAL PAPER SIZE

SHEET NOTES

1. ADD AIR TREATMENT DEVICE IN ALL WSHP UNITS RECEIVING OUTSIDE AIR. REFER TO SPEC SECTION 234320.
2. ADD FACE DAMPERS FOR BALANCING TO NEW AIR DISTRIBUTION. REFER TO SPEC SECTION 232110.



1 MECHANICAL PLAN - LEVEL 2 - AREA A

1/8" = 1'-0"

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1379 Tuskegeee Airmen Drive Walterboro, SC 29488

LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION

AREA A | AREA B

SHEET NAME:
MECHANICAL PLAN - LEVEL 2 - AREA A

ORIG SUBMISSION: 04/30/2024

SHEET: **M102A**

DULOHERY WEEKS ENGINEERS

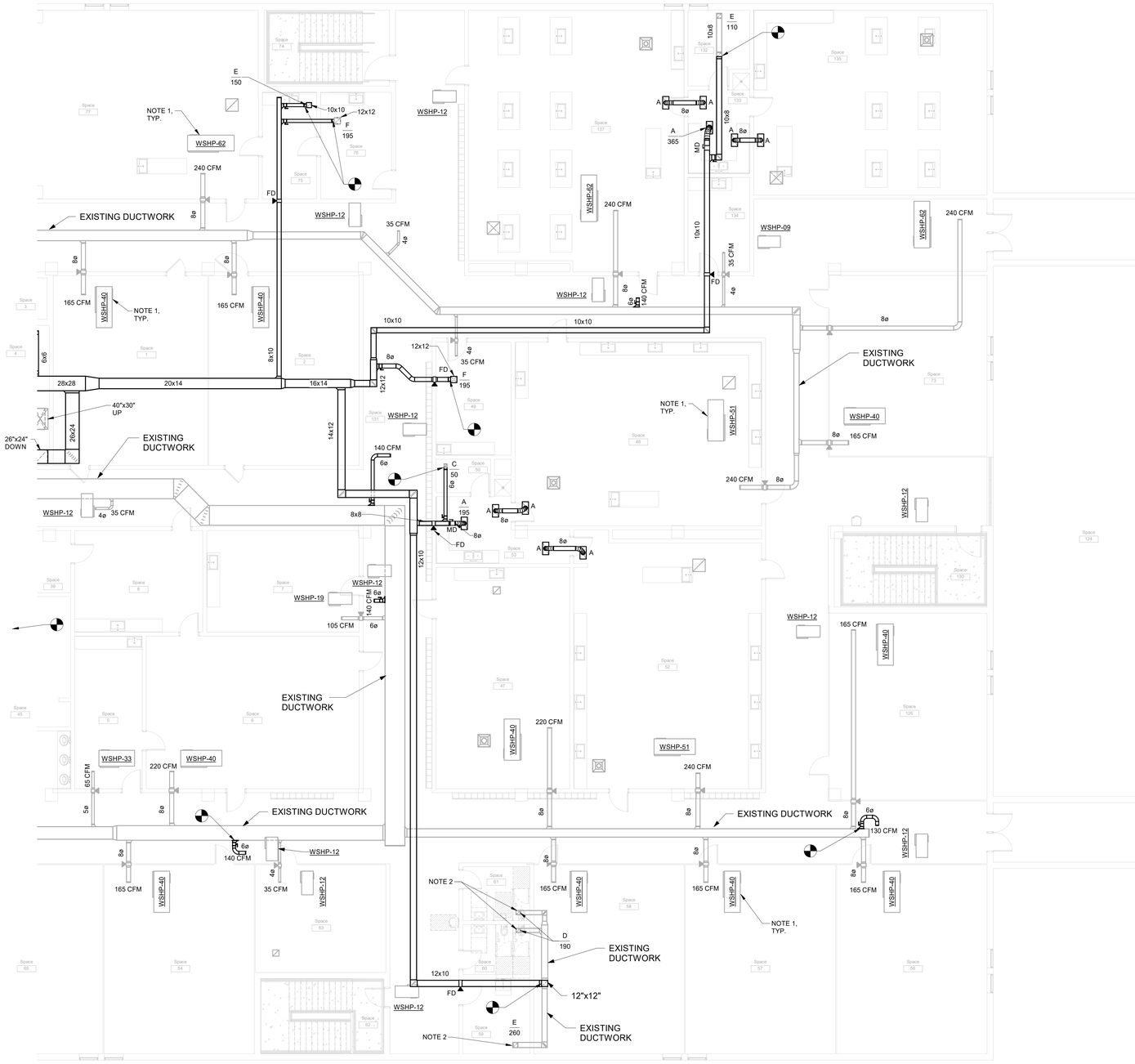
CONSTRUCTION DOCUMENTS

4/30/2024 2:51:57 PM

THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG ON THE SHEETS ORIGINAL PLOT SIZE

SHEET NOTES

1. ADD AIR TREATMENT DEVICE IN ALL WSHP UNITS RECEIVING OUTSIDE AIR. REFER TO SPEC SECTION 234320.
2. ADD FACE DAMPERS FOR BALANCING TO NEW AIR DISTRIBUTION. REFER TO SPEC SECTION 232110.



1 **MECHANICAL PLAN - LEVEL 2 - AREA B**

1/8" = 1'-0"

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Colleton County MS Mechanical Replacement

1379 Tuskegeee Airmen Drive Walterboro, SC 29488

LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION

AREA A | AREA B

SHEET NAME:
MECHANICAL PLAN - LEVEL 2 - AREA B

ORIG SUBMISSION: 04/30/2024

SHEET:
M102B

DULOHERY WEEKS ENGINEERS

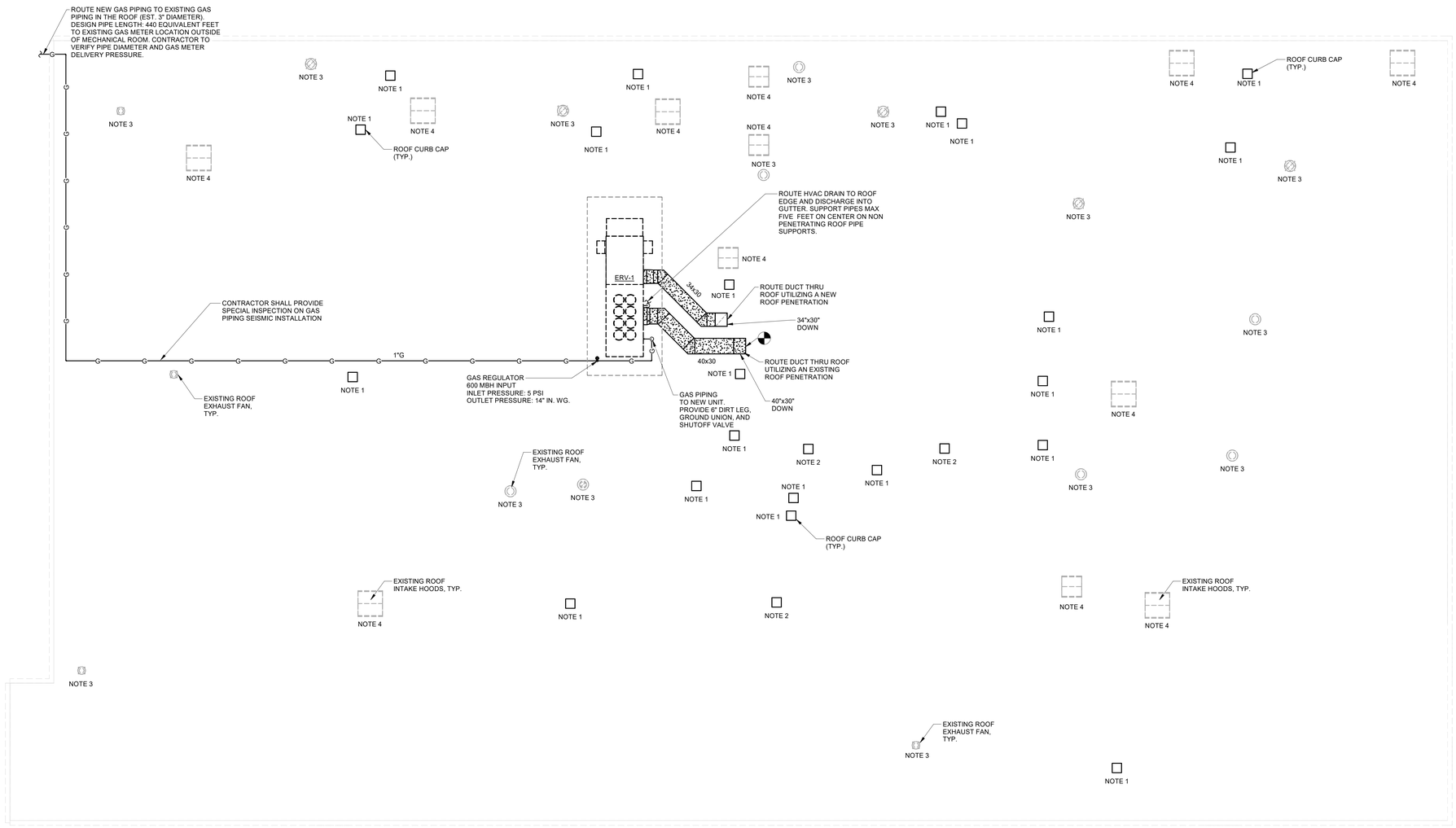
CONSTRUCTION DOCUMENTS

4/30/2024 2:52:06 PM

THE LINE SHOWN ABOVE IS EXACTLY ONE INCH ON ORIGINAL PAPER SIZE

SHEET NOTES

1. CAP EXISTING ROOF CURB OF DEMOLISHED FAN.
2. CAP EXISTING CURB OF DEMOLISHED INTAKE HOOD.
3. EXISTING ROOF FAN TO REMAIN AS-IS.
4. EXISTING ROOF INTAKE HOOD TO REMAIN AS-IS.



1 **MECHANICAL PLAN - ROOF**

3/32" = 1'-0"

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SOUTH CAROLINA DULOHERY, WEEKS & GAGLIANO, INC. No. C00154 EXP. 3/31/25 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL ENGINEER ROBERT E. LAFONTANT 04.30.2024

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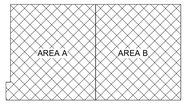
Colleton County MS Mechanical Replacement

1379 Tuskegeee Airmen Drive Walterboro, SC 29488

LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION



SHEET NAME: MECHANICAL PLAN - ROOF

ORIG SUBMISSION: 04/30/2024

SHEET: **M103**

DULOHERY WEEKS ENGINEERS

CONSTRUCTION DOCUMENTS

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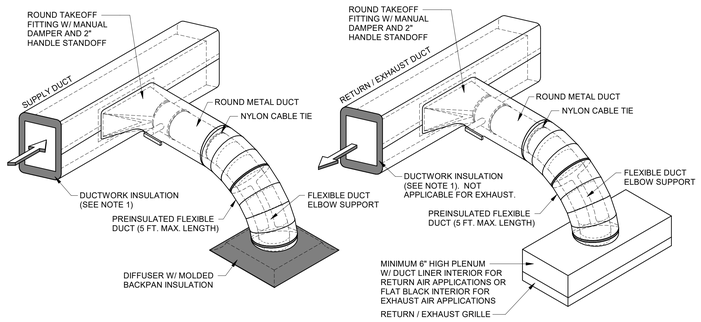
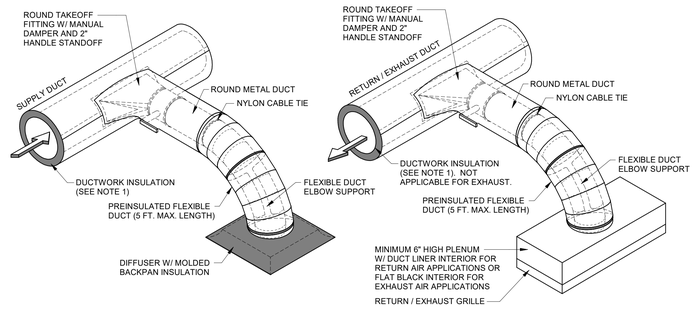


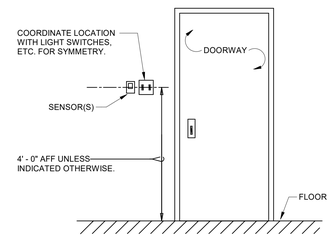
NOTES:
1. REFER TO PLANS FOR ACTUAL DUCTWORK INSULATION TYPE AND LOCATION.
2. INSTALL NYLON CLAMP ON FLEX DUCT INNER LINER AND ALSO ON OUTER JACKET.
3. SEAL DUCT CONNECTIONS PER DUCT MANUFACTURER'S INSTALLATION INSTRUCTIONS.
4. DIFFUSER INSULATION SHALL BE FULL SIZE OF GRID WITH SQUARE CORNERS, DO NOT COMPRESS INSULATION OR ALLOW AIR GAPS BETWEEN INSULATION AND DIFFUSER. DO NOT TAPE INSULATION TO GRID.
5. USE FSK TAPE TO SECURE INSULATION AND BOTTOM EDGE OF DIFFUSER TO CEILING GRID. TRIM TAPE ON FACE OF DIFFUSER. TAPE SHALL NOT BE EXPOSED AT CEILING GRID.
6. PROVIDE FLEXIBLE DUCT ELBOW SUPPORT ACCESSORY FOR FLEX DUCT CONNECTION AS SPECIFIED.

1 / M200 DIFFUSER / GRILLE DETAIL - RECTANGULAR TRUNKS
NOT TO SCALE

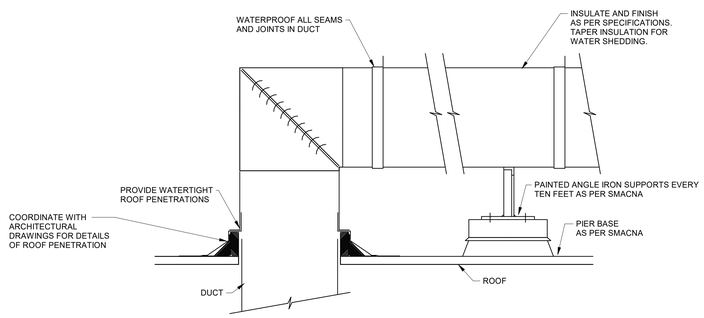


NOTES:
1. REFER TO PLANS FOR ACTUAL DUCTWORK INSULATION TYPE AND LOCATION.
2. INSTALL NYLON CLAMP ON FLEX DUCT INNER LINER AND ALSO ON OUTER JACKET.
3. SEAL DUCT CONNECTIONS PER DUCT MANUFACTURER'S INSTALLATION INSTRUCTIONS.
4. DIFFUSER INSULATION SHALL BE FULL SIZE OF GRID WITH SQUARE CORNERS, DO NOT COMPRESS INSULATION OR ALLOW AIR GAPS BETWEEN INSULATION AND DIFFUSER. DO NOT TAPE INSULATION TO GRID.
5. USE FSK TAPE TO SECURE INSULATION AND BOTTOM EDGE OF DIFFUSER TO CEILING GRID. TRIM TAPE ON FACE OF DIFFUSER. TAPE SHALL NOT BE EXPOSED AT CEILING GRID.
6. PROVIDE FLEXIBLE DUCT ELBOW SUPPORT ACCESSORY FOR FLEX DUCT CONNECTION AS SPECIFIED.

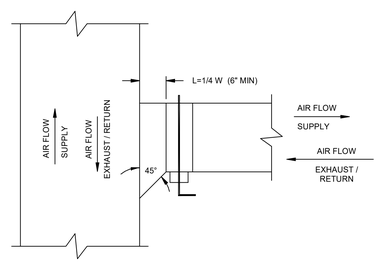
2 / M200 DIFFUSER / GRILLE DETAIL - ROUND TRUNKS
NOT TO SCALE



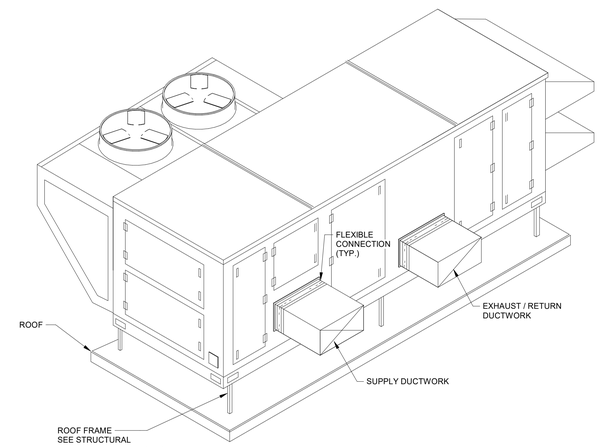
3 / M200 SENSOR MOUNTING DETAIL
NOT TO SCALE



4 / M200 DUCT ROOF PENETRATION DETAIL
NOT TO SCALE



5 / M200 RECTANGULAR DUCT TAKE-OFF DETAIL
NOT TO SCALE



NOTES:
1. EXTERIOR DUCTWORK SHALL BE INSULATED WITH DUCT BOARD AND ALUMINUM JACKETING.
2. ROUTE FULL-SIZE PVC DRAIN LINE TO NEAREST ROOF DRAIN.
3. PROVIDE VIBRATION ISOLATION RAILS BETWEEN ERV AND SUPPORT FRAME.

6 / M200 ENERGY RECOVERY VENTILATOR DETAIL
NOT TO SCALE

THE LINE SHOWN ABOVE IS EXACTLY ONE INCH ON ORIGINAL PAGE SIZE

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SOUTH CAROLINA DULOHERY, WEEKS & GAGLIANO, INC. No. C00154 EXP. 3/31/25 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL ENGINEER No. 07754 ROBERT E. LAPOINTE 04.30.2024

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Colleton County MS Mechanical Replacement

1379 Tuskegeee Airmen Drive Walterboro, SC 29488

LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION

SHEET NAME: MECHANICAL DETAILS

ORIG SUBMISSION: 04/30/2024

SHEET: M200

CONSTRUCTION DOCUMENTS

DULOHERY WEEKS ENGINEERS

4/30/2024 2:52:14 PM

THE LINE SHOWN ABOVE IS EXACTLY ONE INCH ON ORIGINAL PLAN SHEETS

ELECTRICAL SPECIFICATIONS

1. GENERAL PROVISIONS:

   APPLICABLE PROVISIONS OF THE STATE AND LOCAL CODES AND OF THE NATIONAL ELECTRICAL CODE (NFPA NO. 70), CURRENTLY ADOPTED EDITION, ARE HEREBY IMPOSED ON

A

   GENERAL BASIS FOR ELECTRICAL WORK.

   PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND SUPERVISION TO CONSTRUCT A COMPLETE AND OPERABLE ELECTRICAL SYSTEM. ALL MATERIALS AND EQUIPMENT USED SHALL BE NEW, UNDAMAGED AND FREE FROM ANY DEFECTS.

   WITH PERMISSION FROM THE OWNER, EXISTING ELECTRICAL EQUIPMENT MAY BE REUSED IF THE SIZE, RATING AND CAPACITY MEETS THE EXACT REQUIREMENTS AS SPECIFIED IN THESE DOCUMENTS. EQUIPMENT THAT IS REUSED SHALL BE CLEANED AND/OR REPAIRED TO ORIGINAL CONDITION BEFORE INSTALLATION. EXISTING MATERIALS MADE UNNECESSARY SHALL REMAIN THE PROPERTY OF THE OWNER.

2. DEMOLITION

   REMOVE ALL POWER AND LIGHTING EQUIPMENT IN AREAS OF DEMOLITION UNLESS OTHERWISE NOTED. DEMOLITION SHALL INCLUDE THE REMOVAL OF THE ASSOCIATED OUTLET BOX, SUPPORTS, CONDUITS, FITTINGS AND CONDUCTORS. DEVICES IN AREAS OF NON-DEMOLISHED AREAS SHALL REMAIN INTACT AND OPERATIVE. RE-CIRCUIT THESE DEVICES IF CIRCUIT EXTENDS THROUGH DEMOLISHED AREA.

3. MATERIALS:

   A. ALL MATERIALS SHALL CONFORM TO U.L. & NEMA REQUIREMENTS AND SHALL BE AS SPECIFIED OR "PRIOR APPROVED EQUAL" BY THE ENGINEER.

   B. RACEWAY SYSTEM: ALL CONDUITS AND RACEWAYS SHALL BE INSTALLED CONCEALED IN FINISHED SPACES. CONCEALED CONDUITS SHALL BE EMT, IMC OR RGS. ROUTE ALL CONDUITS AND RACEWAYS PARALLEL AND PERPENDICULAR TO THE STRUCTURE AND SUPPORT AS REQUIRED BY THE NEC. ALL EXPOSED EXTERIOR OR WET LOCATED BRANCH CIRCUIT OR FEEDER RACEWAYS SHALL BE RGS OR IMC CONDUIT. ALL UNDERGROUND BRANCH CIRCUIT OR FEEDER RACEWAYS SHALL BE PVC CONDUIT. EXPOSED CONDUITS IN MECHANICAL SPACES AND CLOSETS SHALL BE RGS OR IMC. EXPOSED CONDUITS IN FINISHED SPACES SHALL BE SURFACE METAL RACEWAY (WIREMOLD). CONNECTORS/COUPLINGS FOR USE WITH EMT CONDUIT SHALL BE STEEL COMPRESSION TYPE, EXCEPT THAT STEEL, SET SCREW TYPE WILL BE ACCEPTABLE FOR EMT CONDUIT SIZES 2-1/2" AND LARGER. SUPPORT RACEWAY SYSTEM USING WOOD SCREWS TO WOOD; BY TOGGLE BOLTS ON HOLLOW MASONRY UNITS; BY CONCRETE INSERTS OR EXPANSION BOLTS ON CONCRETE OR BRICK; BY MACHINE SCREWS, WELDED THREADED STUDS, OR SPRINGTENSION CLAMPS ON STEEL WORK. CONDUIT SUPPORTS SHALL BE TWO-HOLE STRAPS, WALL BRACKETS, HANGERS OR CEILING TRAPEZE. THE USE OF MC CABLE IS NOT ALLOWED.

   C. BOXES: PROVIDE GALVANIZED STEEL OUTLET BOXES WITH STAMPED KNOCKOUTS FOR INTERIOR DRY LOCATIONS. PROVIDE CAST ALUMINUM BELL TYPE FOR ALL EXTERIOR WET LOCATIONS. INTERIOR FLUSH BOXES SHALL BE 4" SQUARE BY 1-1/4" DEEP. INTERIOR FLUSH BOXES FOR COMMUNICATION OUTLETS AND GFCI OUTLETS SHALL BE 4-11/16" SQUARE BY 2-1/8" DEEP. PROVIDE SINGLE GANG TILE COVERS UNLESS REQUIRED OTHERWISE.

   D. GRADE LEVEL PULL BOXES: BOXES SHALL BE QUASITE COMPOSOLITE TYPE. PROVIDE SIZE AS INDICATED ON THE DRAWINGS. PROVIDE STACKABLE SECTIONS TO ACHIEVE BURIAL DEPTH FOR SPECIFIED FOR CONDUITS. BOXES SHALL HAVE OPEN BOTTOM AND LOCKING COVER WITH "ELECTRICAL" OR "COMMUNICATIONS" LOGO AS APPROPRIATE. PULL BOXES SHALL BE RATED FOR LIGHT VEHICULAR TRAFFIC. ENCASEMENT IS REQUIRED ONLY IF DIRECTED BY MANUFACTURER TO OBTAIN RATING.

   E. WIRE AND CABLES: CONDUCTORS SHALL BE COPPER, TYPE THHN OR THWN. CONDUCTORS SHALL BE COLOR CODED.

   I. GROUNDING: ELECTRICAL GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NEC. PROVIDE ELECTRICAL BRAZING OR EXOTHERMIC CONNECTORS AND TERMINALS. BOLTED CLAMP WILL NOT BE ACCEPTED BETWEEN GROUNDING RODS AND GROUND CONDUCTORS. BOND EQUIPMENT GROUNDING CONDUCTORS TO ALL OUTLET BOXES WITH A SCREW USED FOR NO OTHER PURPOSE. CONNECT EQUIPMENT GROUNDING CONDUCTOR TO DEVICE GROUNDING TERMINALS. PROVIDE BARE OR GREEN INSULATED STRANDED COPPER SIZED ACCORDING TO NEC OR AS SHOWN. GROUND RODS SHALL BE 3/4" DIAMETER X 10' COPPER-CLAD STEEL, SECTIONAL TYPE.

   J. DISCONNECT SWITCHES: PROVIDE DISCONNECTS PRODUCED BY ONE OF THE FOLLOWING MANUFACTURERS: GE, SIEMENS, SQUARE D, OR CUTLER HAMMER. PROVIDE HEAVY DUTY TYPE, SHEET STEEL ENCLOSED SAFETY SWITCHES, INCORPORATING QUICK-BREAK TYPE SWITCHES. ALL SWITCHES SHALL BE UL LISTED. DISCONNECTS SHALL BE NON-FUSED TYPE, UNO.

   K. SPD: PROVIDE SPD UNITS CONNECTED IN PARALLEL WITH POWER DISTRIBUTION EQUIPMENT. SPD UNITS SHALL BE MOUNTED EXTERNAL TO POWER DISTRIBUTION EQUIPMENT. THE USE OF SPD UNITS INTEGRAL WITH POWER DISTRIBUTION EQUIPMENT IS NOT ACCEPTABLE. PROVIDE SPD UNITS BY THE FOLLOWING MANUFACTURERS/SERIES: SURGE SUPPRESSION, INC. CURRENT TECHNOLOGIES TG. AND ADVANCED PROTECTION TECHNOLOGIES. SPD FOR SERVICE EQUIPMENT SHALL BE AS FOLLOWS: SINGLE PULSE SURGE CAPACITY PER MODE: [150,000] [225,000] AMPS AND MODES: L-L, L-N, AND L-G. ALL UNITS SHALL HAVE THE FOLLOWING FEATURES: PHASE LED INDICATOR LIGHTS, DISTURBANCE COUNTER, 5-YEAR REPAIR/REPLACEMENT WARRANTY FROM MANUFACTURER IN THE NAME OF THE OWNER. INSTALL SPD UNITS ADJACENT TO ELECTRICAL EQUIPMENT, ENSURING THAT LEAD LENGTHS ARE AS SHORT AS POSSIBLE TO ACHIEVE MAXIMUM PROTECTION. CONNECT TO CIRCUIT BREAKER IN ELECTRICAL EQUIPMENT AS SHOWN ON THE MANUFACTURER'S WIRING DIAGRAMS.

4. REFER TO ARCHITECTURAL SECTION FOR LOCATION OF FIRE RATED WALLS AND CEILINGS. ALL OUTLETS, FIXTURES, AND THROUGH PENETRATIONS SHALL BE MADE IN ACCORDANCE WITH THE NFPA 70 AND THE UL DESIGN NO. OF THE TYPE OF CONSTRUCTION ENCOUNTERED.

5. SUBMITTALS: SUBMIT TO THE ARCHITECT FOR APPROVAL BEFORE BEGINNING CONSTRUCTION THE FOLLOWING:

   A. DATA SHEETS ON ALL ITEMS LISTED ABOVE.

   B. SCALED LAYOUT OF ELECTRICAL SPACES BASED ON THE ELECTRICAL EQUIPMENT BEING INSTALLED.

MECHANICAL EQUIPMENT RATINGS AND CONNECTIONS							
ITEM	VOLT	PH	FLA	MCA	MOCP	DISCONNECT	WIRE SIZE
ERV-1	480 V	3	184.9	192.8	200	200A/3P/3R	3#4/0,#4G,2"C (300' VOLTAGE DROP)

LEGEND:

RECEPTACLES:

NOMINAL MOUNTING HEIGHT OF RECEPTACLES SHALL BE 18" TO CENTER, UNO. IF APPLICABLE, ADJUST SO DEVICE COVER IS IN THE CENTER OF MASONRY COURSE NEAREST THAT HEIGHT. THE HEIGHT ESTABLISHED SHALL GOVERN FOR ALL BOX INSTALLATIONS, WHERE INSTALLED IN MASONRY OR FRAMED WALLS.

ALL RECEPTACLES INSTALLED IN THE FOLLOWING LOCATIONS SHALL BE TAMPER RESISTANT TYPE:
A. DWELLING UNITS, DORM ROOMS, GUEST ROOMS AND GUEST SUITES OF HOTELS AND MOTELS.
B. CHILD CARE FACILITIES.
C. PRESCHOOLS AND ELEMENTARY EDUCATION FACILITIES.
D. BUSINESS OFFICES, CORRIDORS, WAITING ROOMS AND THE LIKE IN CLINICS, MEDICAL AND DENTAL OFFICES AND OUTPATIENT FACILITIES.
E. SUBSETS OF ASSEMBLY OCCUPANCIES DESCRIBED IN NEC 518.2 TO INCLUDE PLACES OF WAITING TRANSPORTATION, GYMNASIUMS, SKATING RINKS, AND AUDITORIUMS.

- RECEPTACLE: SIMPLEX
- RECEPTACLE: DUPLEX
- RECEPTACLE: GROUND-FAULT-INTERRUPTING TYPE
- RECEPTACLE: QUADRUPLEX
- IN-SLAB FLOOR BOX: SEE SPECIFICATIONS
- POKE-THRU DEVICE: SEE SPECIFICATIONS
- RECEPTACLE: DRYER, 30 AMP, 120/250 VOLT
- RECEPTACLE: SPECIAL PURPOSE , COORDINATE NEMA RATING WITH SPECIFIED EQUIPMENT
- W — ELECTRIC WATER COOLER POWER CONNECTION, GFCI OUTLET
- HD — HAND DRYER POWER CONNECTION: COORDINATE MOUNTING HEIGHT W/ ARCHITECTURAL ELEVATIONS SEE HAND DRYER INSTALLATION DETAIL 1/E7.01.
- C — RECEPTACLE FOR CLOCK (RECESSED) AND CLOCK; COORDINATE MOUNTING HEIGHT & LOCATION WITH ARCHITECTURAL FLOOR PLAN AND ELEVATIONS
- RECEPTACLE: CEILING MOUNTED

ELECTRICAL EQUIPMENT:

REFER TO ONE-LINE DIAGRAM AND EQUIPMENT CONNECTION SCHEDULE FOR LOAD DATA USED AS THE BASIS OF DESIGN AND REQUIRED CONNECTIONS. VERIFY LOAD AND LOCATION WITH EQUIPMENT CUT-SHEETS AND INSTALLER.

- $_M — SWITCH: MOTOR RATED, WITHOUT OVERLOAD PROTECTION
- DISCONNECT SWITCH
- T — DRY-TYPE TRANSFORMER
- PANELBOARD: SURFACE MOUNTED
- XX-1 — EQUIPMENT AS NOTED, SEE ABBREVIATIONS, THIS SHEET
- GROUND CONNECTION

BRANCH CIRCUITS:

CONDUCTOR COUNTS ARE SHOWN ON THE HOMERUNS ONLY. CONTRACTOR SHALL DETERMINE COUNTS FOR INTERMEDIATE RUNS BASED ON THE MANNER IN WHICH THE CIRCUIT ELEMENTS ARE CONNECTED. REFER TO THE SPECIFICATION SECTIONS 262010, 262080, & 262030 FOR SPECIAL REQUIREMENTS.

- BRANCH CIRCUIT: CONCEALED
- BRANCH CIRCUIT: CONCEALED IN FLOOR SLAB
- BRANCH CIRCUIT: EXPOSED
- LA-1,3,5 — 'HOMERUN' TO PANEL: NUMBER OF HASH MARKS INDICATES QUANTITY OF UNGROUNDED CONDUCTORS IN MINIMUM 3/4" RACEWAY. GROUNDED CONDUCTORS (NEUTRALS) ARE NOT SHOWN. NUMBER OF ARROWHEADS DENOTES QUANTITY OF CIRCUITS INSTALLED. ONE DEDICATED NEUTRAL IS REQUIRED FOR EACH CIRCUIT INSTALLED, SEE SPECIFICATIONS. EACH CONDUCTOR SHALL BE MIN. #12 AWG UNLESS NOTED OTHERWISE. FOR MECHANICAL EQUIPMENT, SEE MECHANICAL EQUIPMENT RATINGS AND CONNECTIONS SCHEDULE FOR ELECTRICAL CHARACTERISTICS.

MISCELLANEOUS COMPONENTS:

- J — JUNCTION BOX: MTD. ABOVE CEILING
- J — JUNCTION BOX: WALL MTD.

COORDINATE MOUNTING HEIGHTS, DEVICE LOCATIONS & POWER/CONTROL REQUIREMENTS WITH ARCHITECTURAL DRAWINGS AND SYSTEM INSTALLER.

GENERAL NOTES:

1. THE ELECTRICAL DRAWINGS ARE ONLY PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS FOR THEIR INTERRELATIONSHIP AND REQUIRED COORDINATION BETWEEN DISCIPLINES.
2. WHERE COMPLETE BRANCH CIRCUIT WIRING IS NOT SHOWN, PROVIDE ACCORDING TO HOMERUNS SHOWN AND CORRESPONDING CIRCUIT NUMBERS ADJACENT TO THE DEVICE OR FIXTURE. REFER TO THE SPECIFICATIONS FOR THE WIRING METHODS. BRANCH CIRCUIT RATINGS SHALL BE BASED ON OVERCURRENT DEVICE RATINGS SHOWN IN THE PANEL SCHEDULES.
3. REFER TO THE ELECTRICAL PANELBOARD SCHEDULES AND EQUIPMENT RATINGS & CONNECTIONS SCHEDULE FOR VOLTAGE, BRANCH CIRCUITS REQUIREMENTS, BREAKERS SIZES AND OTHER RELATED ELECTRICAL EQUIPMENT TO BE PROVIDED AND/OR INSTALLED BY THE ELECTRICAL CONTRACTOR.

EXTERIOR ELECTRICAL LEGEND

EXISTING	NEW	
G	NG	GAS
SD	NSD	STORM DRAIN
SS	NSS	SANITARY SEWER
W	NW	WATER
OHF	NOHF	OVERHEAD FIBER
OHP	NOHP	OVERHEAD PRIMARY
OHS	NOHS	OVERHEAD SECONDARY
OHT	NOHT	OVERHEAD TELEPHONE
OHTC	NOHTC	OVERHEAD TELECOMMUNICATIONS
OHTV	NOHTV	OVERHEAD TELEVISION
UF	NUF	UNDERGROUND FIBER
UP	NUP	UNDERGROUND PRIMARY
US	NUS	UNDERGROUND SECONDARY
UT	NUT	UNDERGROUND TELEPHONE
UTC	NUTC	UNDERGROUND TELECOMMUNICATIONS
UTV	NUTV	UNDERGROUND TELEVISION
T	T	PAD-MOUNTED TRANSFORMER, BY OTHERS
H	H	HANDHOLE, FLUSH WITH FINISHED GRADE
P	P	PULL BOX, FLUSH WITH FINISHED GRADE
E	E	ELECTRICAL MANHOLE, FLUSH WITH FINISHED GRADE
T	T	TELECOMMUNICATIONS MANHOLE, FLUSH WITH FINISHED GRADE
		POLE AND SIDEARM MOUNTED LIGHTING FIXTURE
		POLE AND TOP MOUNTED FIXTURE OR BOLLARD

Colleton County School District

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SOUTH CAROLINA DULOHERY, WEEKS & GALIANO, INC. No. C00154 EXP. 3/31/25 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL ENGINEER 3-21-2024

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Colleton County MS Mechanical Replacement

1379 Tuskegeee Airmen Drive Walterboro, SC 29488

LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION

SHEET NAME: ELECTRICAL SCHEDULES & LEGENDS

ORIG SUBMISSION: 04/30/24

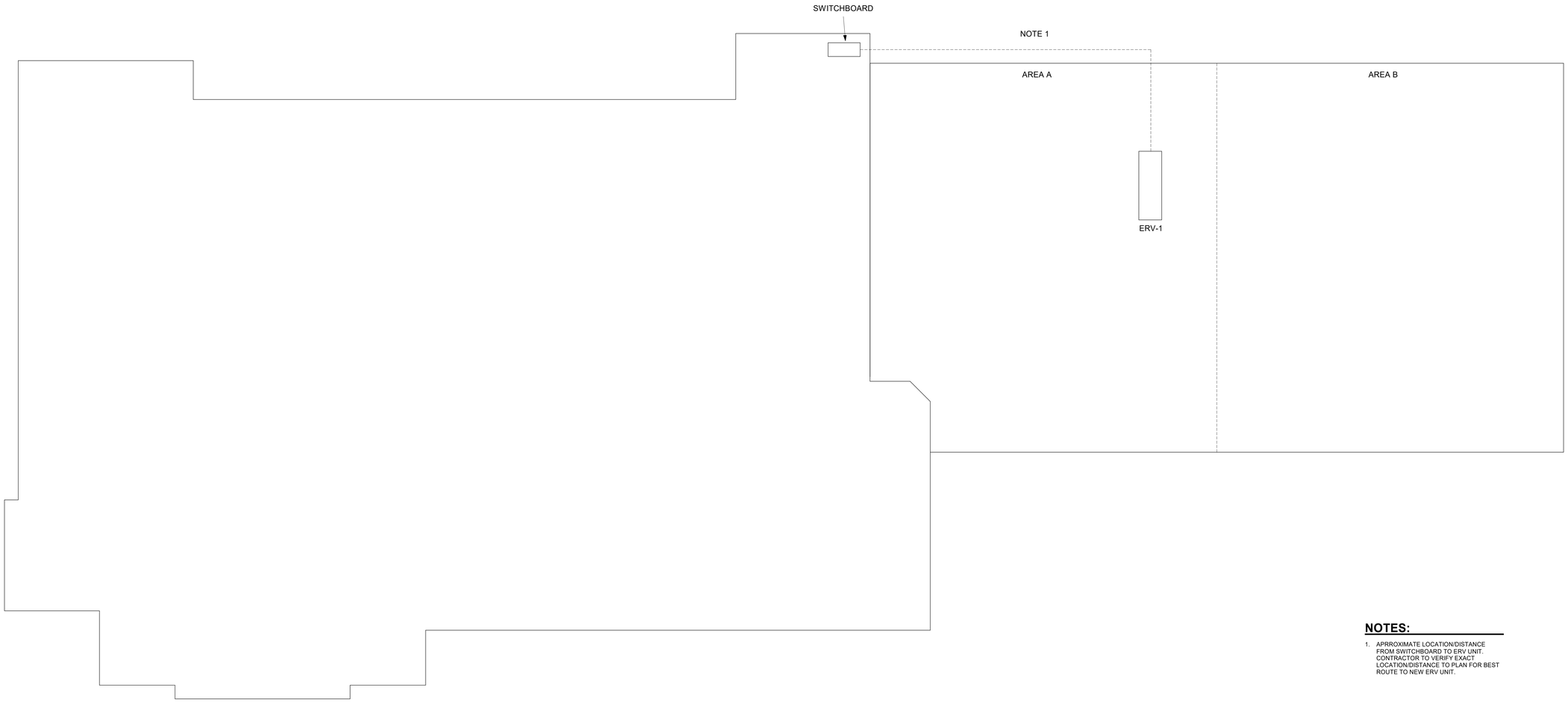
SHEET: E100

CONSTRUCTION DOCUMENTS

DULOHERY WEEKS ENGINEERS

5/17/2024 10:18:38 AM

THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG ON THE SHEETS ORIGINAL PAPER SIZE



NOTES:

1. APRROXIMATE LOCATION/DISTANCE FROM SWITCHBOARD TO ERV UNIT. CONTRACTOR TO VERIFY EXACT LOCATION/DISTANCE TO PLAN FOR BEST ROUTE TO NEW ERV UNIT.

1 / E101 **ELECTRICAL SITE PLAN**
SCALE: 1" = 20'-0"

5/1/2024 10:18:41 AM

Colleton County School District
PREPARING EVERY CHILD TODAY FOR TOMORROW

Colleton County School District

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205 1/2 KING STREET
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SOUTH CAROLINA
DULOHERY, WEEKS & GAGLIANO, INC.
No. C00154
EXP. 3/31/25
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SOUTH CAROLINA
PROFESSIONAL ENGINEER
3-21-20

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LS3P PROJECT: 1201-230265

Δ	DATE	DESCRIPTION

SHEET NAME:
ELECTRICAL SITE PLAN

ORIG SUBMISSION: 04/30/24

SHEET: **E101**

CONSTRUCTION DOCUMENTS

DULOHERY WEEKS ENGINEERS

THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG ON ORIGINAL PAPER SIZE

NOTES:

1. ERV-1 UNIT TO BE POWERED FROM MAIN SWITCHBOARD. PROVIDE NEW 200A/3P BREAKER. MATCH EXISTING SWITCHBOARD MANUFACTURER AND TYPE AND AIC RATING. PROVIDE (3) 250 KCMIL, #6 G, 2-1/2" C HOMERUN TO SWITCHBOARD. PROVIDE 200A/3P/3R DISCONNECT ON ROOF NEXT TO UNIT. CONTRATOR TO DETERMINE BEST ROUTE FOR POWER TO NEW UNIT.

1 **MECHANICAL POWER PLAN - LEVEL 2 - AREA A**

1/8" = 1'-0"

Colleton County School District

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205 1/2 KING STREET
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SOUTH CAROLINA PROFESSIONAL ENGINEER 3-24-20

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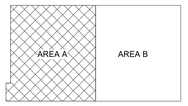

SHEET NAME:
MECHANICAL POWER PLAN - LEVEL 2 - AREA A

ORIG SUBMISSION: 04/30/24

SHEET: **E102A**

CONSTRUCTION DOCUMENTS

DULOHERY WEEKS ENGINEERS

5/1/2024 10:18:48 AM