

Seaford School District
Frederick Douglass ES
School Based Health Center Renovations
SEA_22001-FDE-SBHC



consultants

MECHANICAL / PLUMBING /
FIRE PROTECTION / ELECTRICAL
ENGINEER:

Gipe Associates
8719 Brooks Drive
Easton, MD 21601



5 EXISTING IMAGE - 05
Scale: None



6 EXISTING IMAGE - 06
Scale: None



1 EXISTING IMAGE - 01
Scale: None



2 EXISTING IMAGE - 02
Scale: None



3 EXISTING IMAGE - 03
Scale: None



4 EXISTING IMAGE - 04
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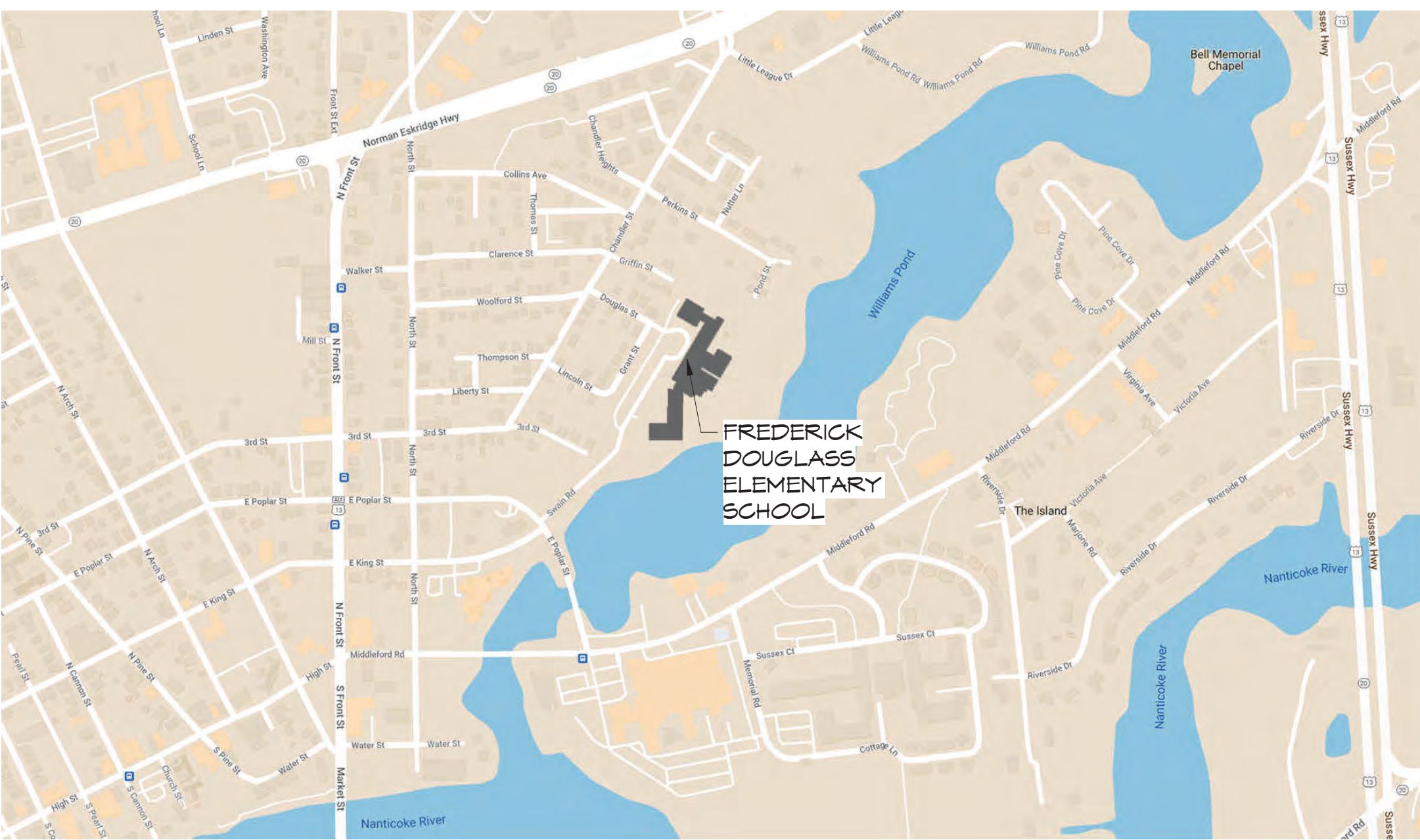
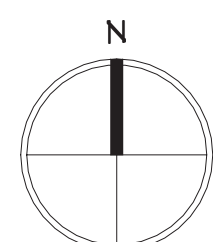
ABBREVIATIONS

ACST	ACOUSTICAL	FPN	FOUNDATION	MIN	MINIMUM	RT	RIGHT
ADDL	ADDITIONAL	FE	FIRE EXTINGUISHER	RO	ROUGH	RO	ROUGH
ADJ	ADJUST	FG	FIBERGLASS	MISC	MISCELLANEOUS	REC	RECESSED
AF	ABOVE FINISH FLOOR	FIN	FINISH (ED)	MO	MASONRY OPENING	S	SOUTH
ALT	ALTERNATE	FLR	FLOOR	MR	MOISTURE RESISTANT	SAMF	SELF ADHERED MEMBRANE
ALUM	ALUMINUM	FLR	FLOOR	MTL	METAL	SF	SQUARE FEET (FOOT)
APPROX	APPROXIMATE	FOG	FACE OF CONCRETE	MULL	MULLION	SIM	SIMILAR
ARCH	ARCHITECT	FOP	FACE OF FINISH	MULT	MULTIPLE	SOG	SLAB ON GRADE
BD	BOARD	FOM	FACE OF MASONRY	NA	NOT APPLICABLE	SPEC	SPECIFICATION
BIT	BITUMINOUS	FOS	FACE OF STUD	NIC	NOT IN CONTRACT	SPKLR	SPRINKLER
BLDG	BUILDING	FOT	FACE OF TALL	NO	NUMBER	SQ	SQUARE
BLKG	BLOCKING	FTS	FOOTING	NOM	NOMINAL	SQ IN	SQUARE INCH
BM	BEAM	FURN	FURNITURE	NR	NON RATED	SS	STAINLESS STEEL
BO	BOTTOM OF	HDPN	HARDWARE	NTS	NOT TO SCALE	ST	STAIR
BOT	BOTTOM	HQVD	HARDWOOD	OA	OVERALL	STC	SOUND TRANSMISSION CLASS
CAB	CABINET	HM	HOLLOW METAL	OC	ON CENTER	STD	STANDARD
CL	CENTERLINE	HTR	HEATER	OD	OUTSIDE DIAMETER	STR	STRUCTURAL
CLS	CEILING	HT	HORIZONTAL	OF	OUTSIDE FACE	T&G	TONGUE & GROOVE
CLR	CLEAR	HVAC	HEATING, VENTILATION & AIR	OPNG	OPENING	TEL	TELEPHONE
CNU	CONCRETE MASONRY UNIT	IBC	INTERNATIONAL BUILDING CODE	OVHD	OVERHEAD	TEMP	TEMPORARY
COL	COLUMN	ID	INSIDE DIAMETER	PAT	PATTERN	THK	THICK (NESS)
CONC	CONCRETE	IIC	IMPACT ISOLATION CLASS	PBD	PARTICLE BOARD	THRU	THROUGH
CONT	CONTINUOUS	INCL	INCLINING	FEED	FEEDSTOCK	TOS	TOP OF STEEL
CORR	CORRIDOR	INSUL	INSULATION	PERF	PERFORATED	TOT	TOP OF TALL
CPT	CARPET	INT	INTERIOR	PERM	PERMANENT	TYP	TYPICAL
CR	CORROSION RESISTANT	IS	LONG	PERP	PERPENDICULAR	UNO	UNLESS NOTED OTHERWISE
CT	CERAMIC	LAM	LAMINATE (D)	PH	PHASE	UTL	UTILITY
DE	DECEMBER	LVL	LEVEL	PLM	PLASTIC LAMINATE	VCT	VINYL COMPOSITE TILE
DEM	DEMOLISH, DEMOLITION	LAV	LAVATORY	PREFAB	PREFABRICATED	VIF	VERIFY IN FIELD
DF	DRINKING FOUNTAIN	LB	LEFT HAND	PRELIM	PRELIMINARY	VIN	VINYL
DIA	DIAMETER	LS	LANDSCAPE	PROP	PROPERTY	W	WEST
DM	DIVISION	LOC	LOCATION	R	RISER	WTH	WITH
DN	DOWN	MAS	MASONRY	RAD	RADIUS, RADIO		
DS	DOWNSPOUT	MATL	MATERIAL	RCP	REFLECTED CEILING PLAN		
E	EAST	MEG	MECHANICAL	RD	ROOF DRAIN		
EACH	EACH	MEMB	MEMBRANE	REGD	REQUIRED		
ELEC	ELECTRICAL	MEZ	MEZZANINE	REV	REVISION		
ELEV	ELEVATOR, ELEVATION	MFR	MANUFACTURE (R)	REIN	REINFORCED		
EQ	EQUAL			ROOM	ROOM		
EQUIP	EQUIPMENT						
EST	ESTIMATE						
EXIST	EXISTING						
EXP	EXPANSION						
EXT	EXTERIOR						
F	FLOOR DRAIN						

LOCATION MAP

PROJECT ADDRESS:
1 SWAIN ROAD
SEAFORD, DE 19973

STATE: DELAWARE
COUNTY: SUSSEX



DRAWING LIST

SHEET NUMBER	SHEET NAME
CS10-01	COVER SHEET
A10-01	PLANS AND NOTES
A21-01	SECTIONS, DETAILS, AND NOTES
A21-02	SCHEDULES AND NOTES
A30-01	ROOF DETAILS AND NOTES
M-00.01	LEGEND AND ABBREVIATIONS - HVAC
MD-10.01	PARTIAL FIRST FLOOR PLAN - HVAC DEMOLITION
MD-10.02	PARTIAL FIRST FLOOR PLAN - HVAC NEW WORK
M-10.01	PARTIAL FIRST FLOOR PLAN - HVAC NEW WORK
MP-10.01	PARTIAL FIRST FLOOR PLAN - HVAC NEW WORK
M-10.02	DETAILS - HVAC
M-30.01	DETAILS - HVAC
M-30.02	DETAILS - HVAC
M-30.03	DETAILS - HVAC
M-30.04	DETAILS - HVAC
M-40.01	LEGEND - PLUMBING
M-40.02	PARTIAL FIRST FLOOR PLAN - PLUMBING DEMOLITION
M-40.03	PARTIAL FIRST FLOOR PLAN - PLUMBING NEW WORK
PD-10.01	DETAILS - PLUMBING
P-10.01	DETAILS - PLUMBING
P-30.01	DETAILS - PLUMBING
P-30.02	DETAILS - PLUMBING
P-40.01	SCHEDULES - PLUMBING
P-50.01	SCHEDULES - PLUMBING
P-50.02	SCHEDULES - PLUMBING
P-50.03	SCHEDULES - PLUMBING
P-50.04	SCHEDULES - PLUMBING
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P-50.98	SCHEDULES - PLUMBING
P-50.99	SCHEDULES - PLUMBING
P-50.100	SCHEDULES - PLUMBING

BUILDING CODE SYNOPSIS	
APPLICABLE CODES FOR THIS REVIEW: CITY OF SEAFORD LOCAL ORDINANCES SUSSEX COUNTY LOCAL ORDINANCES INTERNATIONAL BUILDING CODE (IBC) - 2018 w/ LOCAL AMENDMENTS LIFE SAFETY CODE (NFPA 101-2021 AND 12-2014) DELAWARE STATE FIRE PREVENTION REGULATIONS (DSFPR) - 2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) - 2018 INTERNATIONAL MECHANICAL, PLUMBING, AND ELECTRICAL CODES - 2018 ADA ARCHITECTURAL GUIDELINES (ADAA) - 2011	
SUMMARY OF WORK: 1. PROJECT CONSISTS OF INTERIOR ALTERATIONS TO CREATE A NEW STUDENT WELLNESS CENTER FACILITY IN AN EXISTING CLASSROOM AREA WITHIN THE EXISTING SCHOOL BUILDING. 2. NO CHANGES TO THE EXISTING GROSS AREA, EDUCATIONAL OCCUPANCY, MEANS OF EGRESS, OR ACCESSIBILITY ARE INCLUDED. 3. NO STRUCTURAL MODIFICATIONS TO THE EXISTING BUILDING ARE INCLUDED.	
USE GROUP AND CONSTRUCTION TYPE: CLASSIFICATION: MULTIPLE / MIXED OCCUPANCY, UNSEPARATED (BUSINESS) ACCESSORY TO: E (EDUCATIONAL) CONSTRUCTION TYPE: IBC TYPE II B (UNPROTECTED) NFPA TYPE II (200) (NONSPRINKLERED)	
HEIGHT AND AREA - IBC / NFPA: USE GROUP E (SECTION 503) TABULAR HEIGHT AND AREA (TABLE 503): B (BUSINESS) - 4 ST / 69,000 GSF PER FLOOR E (EDUC) - 3 ST / 49,500 GSF PER FLOOR AUTOMATIC FIRE DETECTION: YES AUTOMATIC FIRE SUPPRESSION: NO AREA MODIFICATIONS: FRONTAGE (SECT 506.3): 75% (IF) = (1.0-0.25)(30'/30') ALLOWABLE AREA (SECT 506.1-3): B (BUSINESS) - 4 ST / 120,750 GSF PER FLOOR E (EDUC) - 3 ST / 76,125 GSF PER FLOOR ACTUAL AREA: B (BUSINESS) - 1 ST / 820 GSF TOTAL E (EDUC) - 3 ST / 60,300 GSF TOTAL (EXISTING) AREA SEPARATION: EXISTING EDUCATIONAL USE WILL NOT BE SEPARATED FROM NEW ACCESSORY BUSINESS USE.	
MEANS OF EGRESS: OCCUPANT LOAD (IBC 1004.1.2 / NFPA 1.3.1.2): NO PROPOSED CHANGE TO EXISTING APPROVED EDUCATIONAL USE OR OCCUPANCY. NEW BUSINESS USE: 820 GSF / 150 GSF PER OCC = 6 OCCUPANTS	
USE SEPARATION (TABLE 508.4): 0 HOUR (B > E OCCUPANCIES, ACCESSORY USE, NONSPRINKLERED) EGRESS SEPARATION: 1 HOUR (EXIT STAIRS) 0 HOUR (EXIT ACCESS) SHAFTS AND VERTICAL ENCLOSURES: 1 HOUR EGRESS PATH (IBC CHAPTER 10, NFPA 101 CHAPT 7 / 15.2): NO PROPOSED CHANGE TO EXISTING APPROVED EDUCATIONAL OCCUPANCY EGRESS PATHS AND CAPACITIES.	
NEW BUSINESS USE: TRAVEL DISTANCE: <200' (200' MAX) COMMON PATH: <100' (100' MAX) DEAD END CORRIDOR: <50' (50' FT MAX) REQUIRED DOOR WIDTH: 32" MINIMUM (1.2' @ 0.2' PER PERSON) 36" TOTAL (1 X 36" PANELS) REQUIRED STAIR WIDTH: 48" MINIMUM (1.8' @ 0.3' PER PERSON) 120" TOTAL (48" MIN CLEAR PER FLIGHT) PROVIDED STAIR WIDTH: 48" TOTAL (48" MIN CLEAR PER RAMP) SEE EGRESS PATHS AS SHOWN ON CODE PLAN.	
NOTES 1. ALL DOORS SHALL BE NON-KEYED FROM THE EGRESS SIDE AS REQUIRED BY NFPA / IBC. 2. ANY DELAYED-EGRESS OR ELECTRICALLY-OPERATED LOCKS SHALL UNLOCK IN THE EVENT OF FIRE ALARM OR SPRINKLER SYSTEM OPERATION, DURING LOSS OF POWER, OR VIA SIGNAL FROM THE FIRE ALARM SYSTEM CONTROL PANEL. 3. SEE ELECTRICAL DRAWINGS FOR EMERGENCY AND EGRESS LIGHTING. 4. SEE GENERAL NOTES, CONSTRUCTION NOTES, AND SIGNAGE NOTES FOR ADDITIONAL INFORMATION. 5. EXISTING BUILDING IS EQUIPPED THROUGHOUT WITH AUTOMATIC FIRE DETECTION AND ALARM SYSTEMS. MODIFY SYSTEMS AS REQUIRED TO MEET NEW CONFIGURATION WITHIN AREA OF WORK. SEE ELECTRICAL DRAWINGS FOR FURTHER INFORMATION. 6. UNLESS OTHERWISE INDICATED, ALL NEW FIRE RATED PARTITIONS ARE TO BE UL DESIGN DESIGNATION U419.	

FCArchitects
Fearn-Cleandaniel Architects, Inc.
6 Larch Avenue, Suite 398 Wilmington, Delaware 19804
302-998-7615 www.fcarchitects.net

PROJECT:
SEA_22001-FDE-SBHC

Seaford School District

Frederick Douglass ES

School Based Health Center
Renovations

1 Swain Road
Seaford, DE 19973

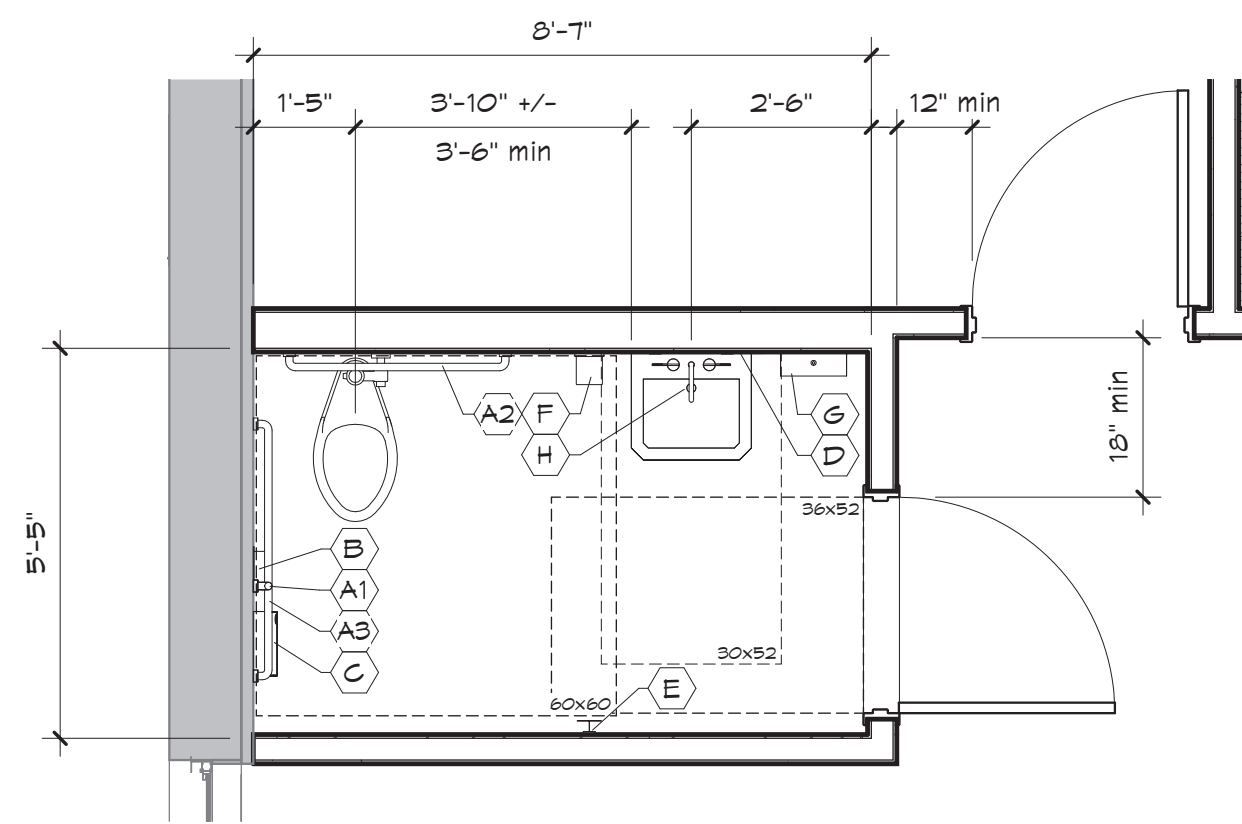
DRAWING TITLE:

COVER SHEET

DWN BY: DW CHK BY: KBF PROJECT NUMBER: 22104

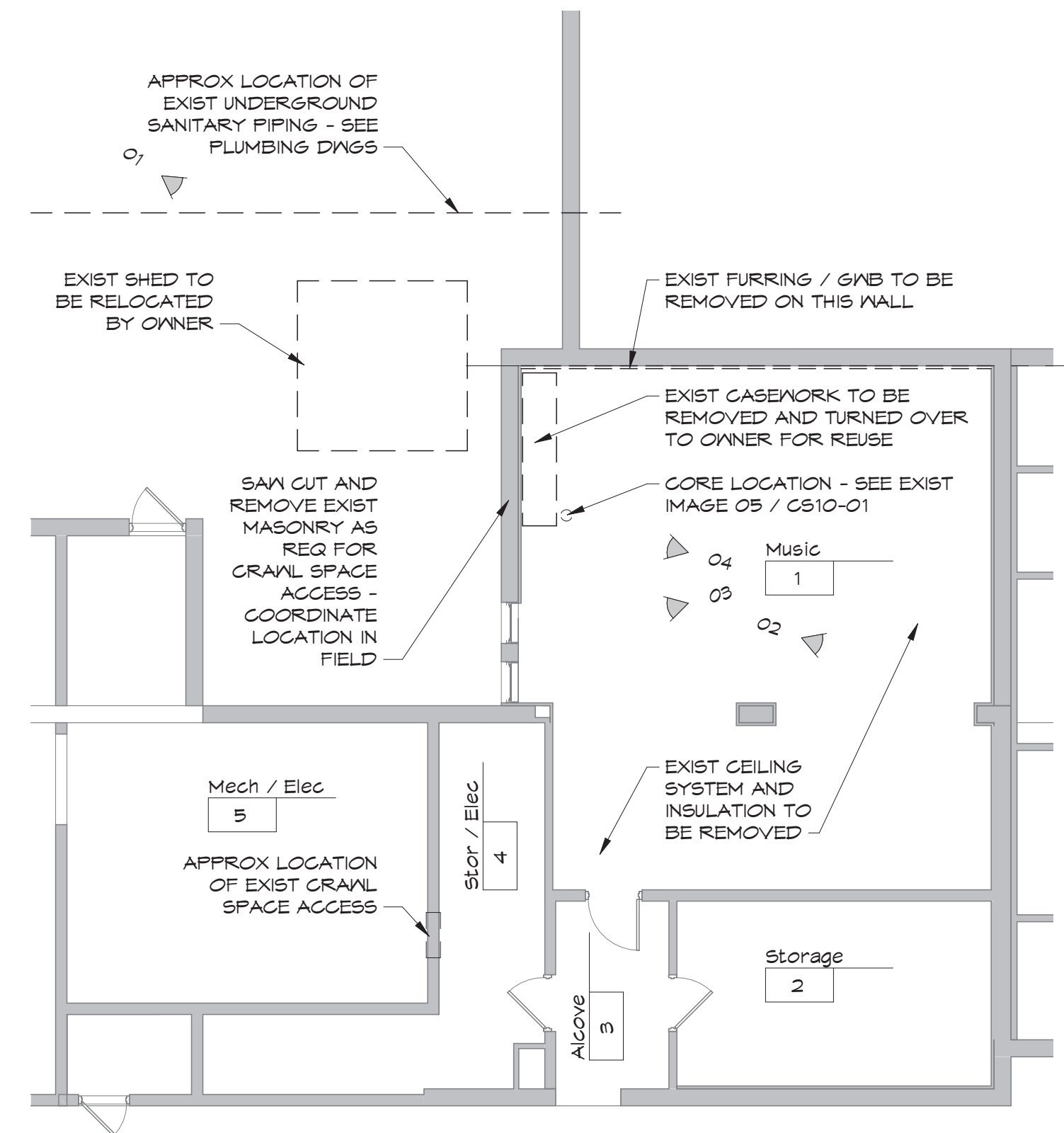
DATE: 2022/11/22 DRAWING NUMBER:

SCALE: As indicated CS10-01



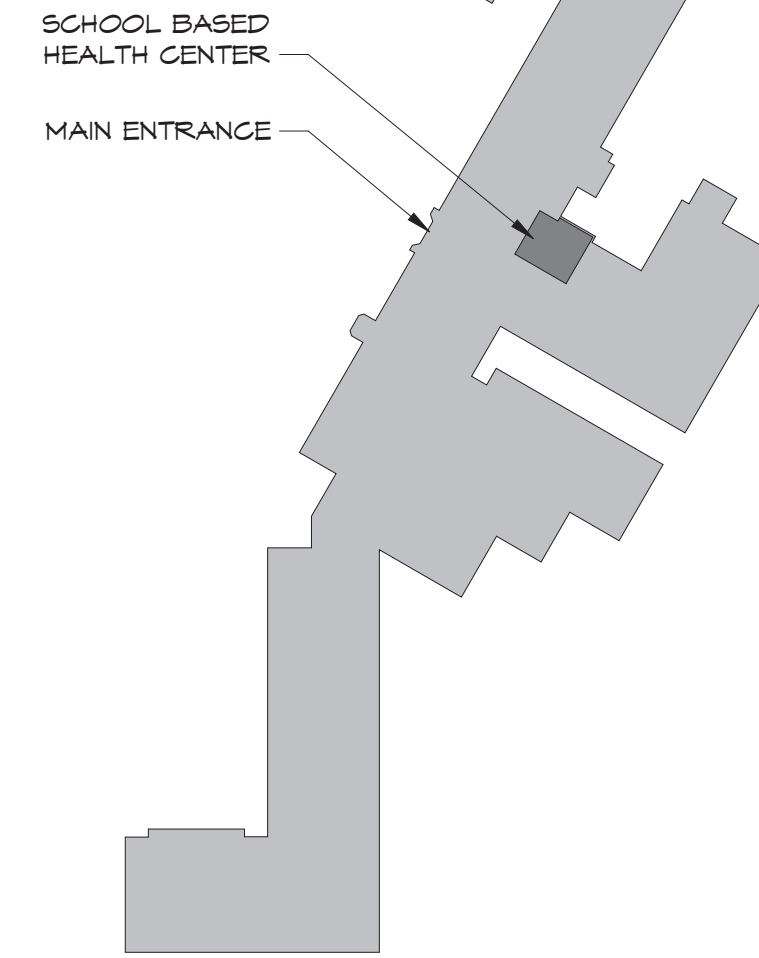
NOTE:
SEE A21-01 FOR TYPICAL ELEVATIONS AND ACCESSORY SCHEDULE

3 01 - First Floor SBHC - Enlarged
Scale: 3/8" = 1'-0"



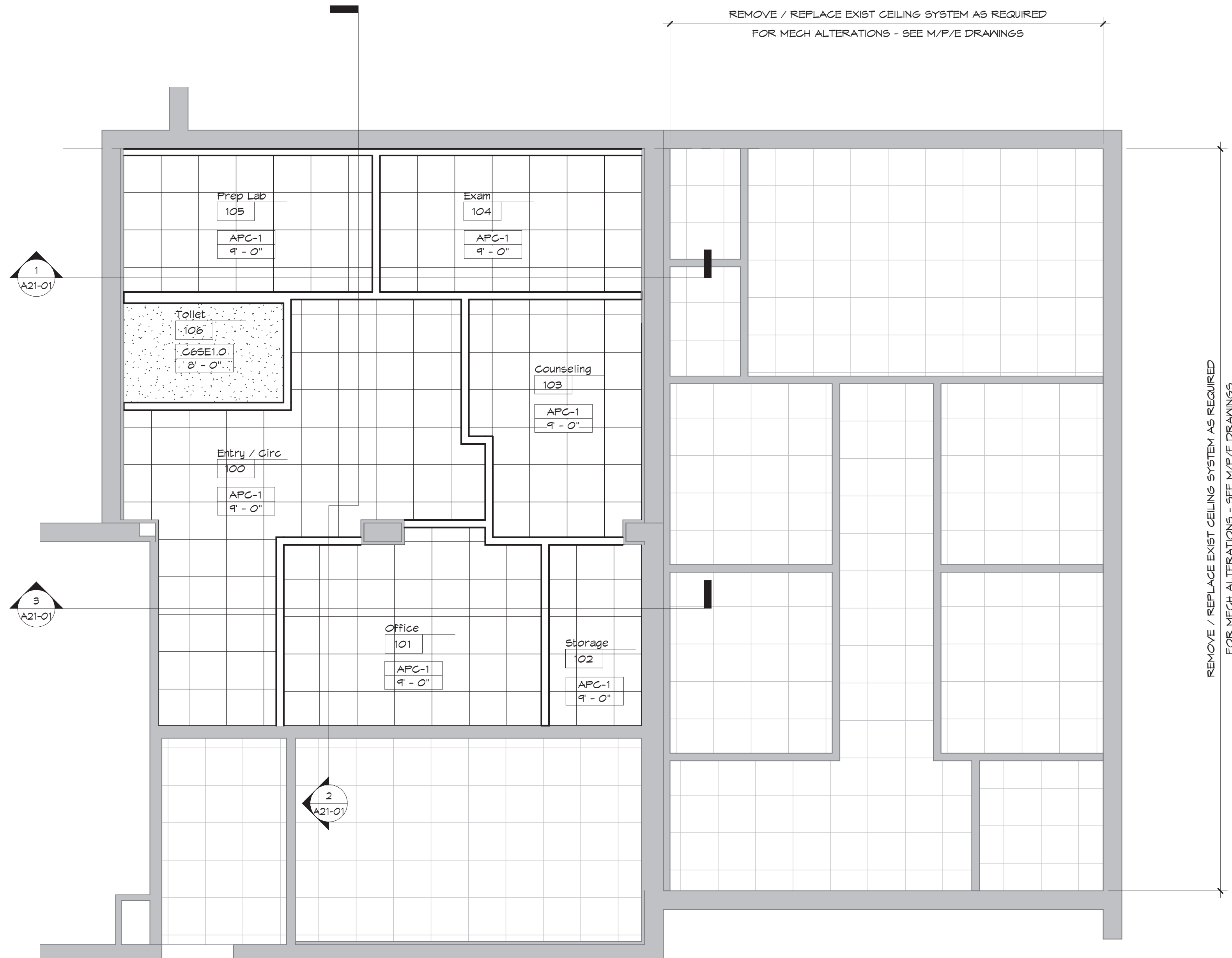
4 Floor Plan - Existing
Scale: 1/8" = 1'-0"

KEY PLAN - FDES
Scale: None

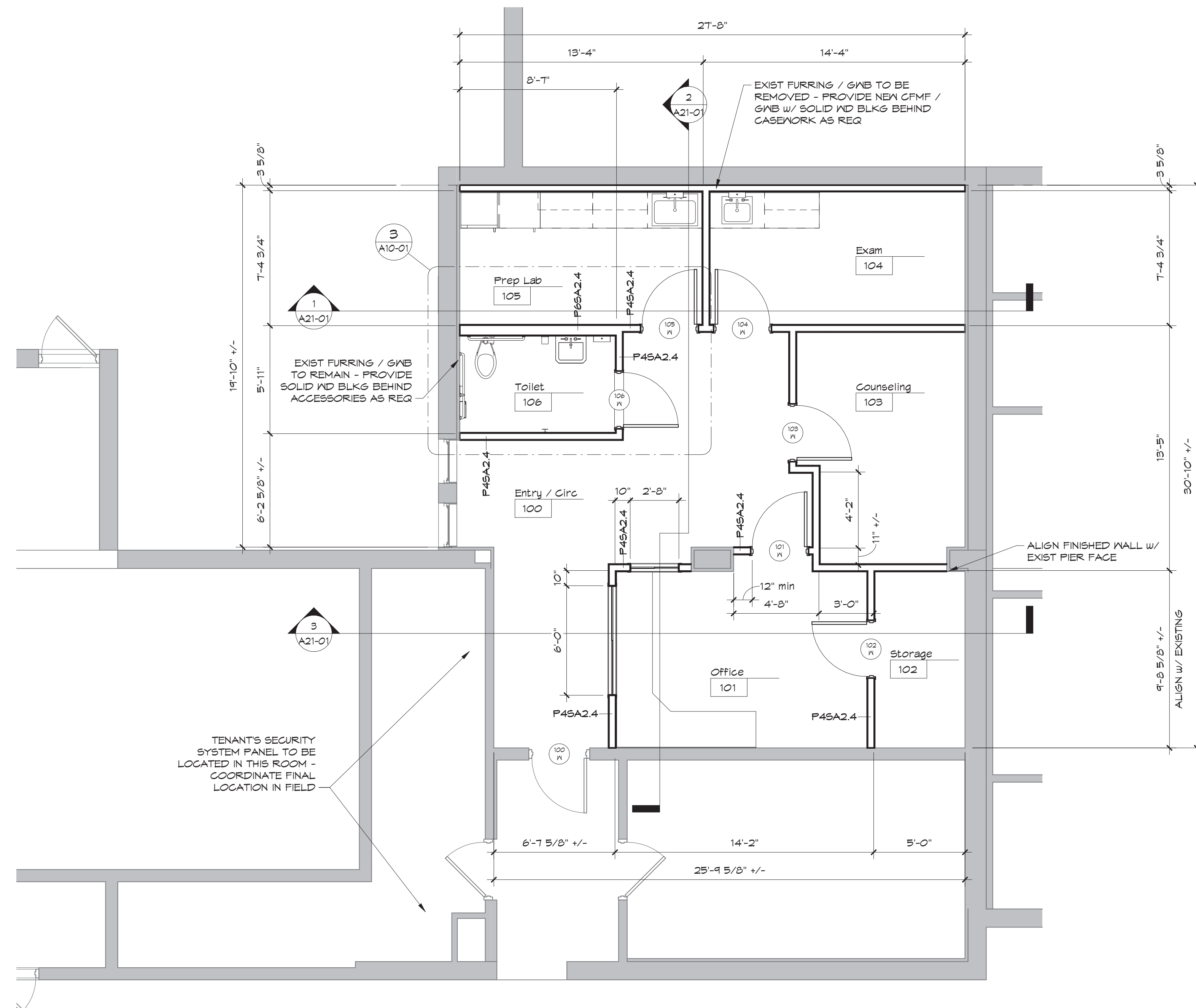


GENERAL NOTES

- ALL WORK SHALL COMPLY WITH THE CURRENT EDITIONS OF THE LIFE SAFETY CODE (NFPA 1101), ALL LOCAL AND STATE FIRE CODES, THE 2012 INTERNATIONAL BUILDING CODE WITH LOCAL AMENDMENTS, AND THE STATE OF DELAWARE ARCHITECTURAL ACCESSIBILITY STANDARDS.
- THE PROJECT CONSISTS OF INTERIOR ALTERATIONS AND IMPROVEMENTS, WITHOUT STRUCTURAL MODIFICATIONS.
- NO CHANGES ARE MADE TO USE, OCCUPANCY, OR EGRESS CAPACITY OF THE EXISTING BUILDING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS AND INSPECTIONS REQUIRED TO OBTAIN CERTIFICATE OF OCCUPANCY.
- UNLESS NOTED OTHERWISE, GC / CM SHALL PROVIDE ALL THIRD-PARTY INSPECTIONS AND TESTS REQUIRED BY STATE AND LOCAL AUTHORITIES, INCLUDING (BUT NOT LIMITED TO): FRAMING, MECHANICAL, PLUMBING, AND ELECTRICAL WORK. REFER TO INDIVIDUAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL TESTING REQUIREMENTS.
- NO PRODUCTS CONTAINING ASBESTOS OR OTHER HAZARDOUS MATERIALS SHALL BE INSTALLED OR USED DURING THE CONSTRUCTION OF THE PROJECT. IT SHALL BE THE RESPONSIBILITY OF THE GC / CM TO CERTIFY TO THE OWNER THAT THIS REQUIREMENT HAS BEEN MET. ALL SUBCONTRACTORS SHALL VERIFY TO THE CONTRACTOR THAT NO ASBESTOS OR OTHER HAZARDOUS PRODUCTS ARE USED IN THEIR WORK.
- THE CONTRACTOR SHALL COMPLY WITH APPLICABLE STATE AND LOCAL REGULATIONS REGARDING THE CONTROL OF POLLUTION AS IT APPLIES TO THE WORK.
- PROPERLY DISPOSE OF ALL RUBBISH, SCRAP, DEMOLISHED, OR REMOVED MATERIALS OFF SITE.
- THE GC / CM SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, SITE SAFETY PRECAUTIONS, EROSION AND SEDIMENTATION CONTROLS, AND COORDINATION OF ALL TRADES WITHIN THE CONTRACT.
- GC / CM SHALL BE RESPONSIBLE FOR ALL CUTTING, PATCHING, AND PROTECTION REQUIRED TO COMPLETE THE WORK INDICATED IN THE CONTRACT DOCUMENTS.
- THE GC / CM AND/OR SUBCONTRACTORS SHALL PROVIDE FALL PROTECTION ELEMENTS AS REQUIRED BY OSHA 1926.501 AND 1926.502 (CURRENT VERSION), INCLUDING (BUT NOT LIMITED TO): GUARDS AT WALL AND FLOOR OPENINGS, BARRICADES, FENCES, TIE-OFF POINTS, ETC.
- THE GC / CM AND/OR SUBCONTRACTORS SHALL PROVIDE CONFINED SPACE ACCESS PROTECTION ELEMENTS AS REQUIRED BY OSHA 1926.21 AND 1910.146 (CURRENT VERSION), INCLUDING (BUT NOT LIMITED TO): TRAINING OF WORKERS PRIOR TO ENTERING CONFINED SPACES, NOTIFICATION OF SITE SUPERINTENDENT WHEN ENTERING AND EXITING CONFINED SPACES, SUPERVISING AND MONITORING STATUS OF WORKERS WHILE IN CONFINED SPACES, ETC.
- IF THE CONTRACT DOCUMENTS ARE FOUND TO BE UNCLEAR, AMBIGUOUS, OR CONTRADICTORY, THE CONTRACTOR MUST REQUEST CLARIFICATION FROM THE ARCHITECT BEFORE PROCEEDING WITH THAT PORTION OF THE WORK.
- THE CONTRACTOR SHALL MAKE NO SUBSTITUTIONS FOR MATERIALS OR MODEL NUMBERS INDICATED ON THE DRAWINGS OR SPECIFICATIONS WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT AND / OR OWNER.
- REVIEW ALL PROPOSED DRAWINGS AND FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS IN RELATION TO BENCHMARKS, EXISTING CONSTRUCTION, AND OTHER FIXED CONDITIONS. COORDINATE ANY DISCREPANCIES WITH THE ARCHITECT PRIOR TO BEGINNING THAT PORTION OF THE WORK.
- ALL INTERIOR DIMENSIONS ARE FROM FACE OF STUD OR MASONRY UNLESS NOTED OTHERWISE. DIMENSIONS AT EXISTING WALLS ARE FROM OUTSIDE FACE OF EXISTING FINISH U.N.O.
- SHADED AREA REPRESENTS EXISTING CONSTRUCTION.
- ALL ITEMS NOT SPECIFICALLY CALLED OUT AS EXISTING ARE ASSUMED TO BE NEW.
- THE TERM "PROVIDE" SHALL MEAN FURNISH AND INSTALL.
- SEE DEMOLITION NOTES, CONSTRUCTION NOTES, AND OTHER ADDITIONAL NOTES ON OTHER DRAWINGS FOR MORE INFORMATION.
- SEE C210-01 FOR EXISTING CONDITIONS IMAGES. IMAGE VIEWPOINTS ARE DESIGNATED ON DEMOLITION PLAN WITH THIS SYMBOL INDICATING IMAGE NUMBER AND VIEW DIRECTION: ► 00



2 Reflected Ceiling Plan - SBHC
Scale: 1/4" = 1'-0"



1 Floor Plan - SBHC
Scale: 1/4" = 1'-0"



consultants

MECHANICAL / PLUMBING /
FIRE PROTECTION / ELECTRICAL
ENGINEER:
Gipe Associates
8719 Brooks Drive
Easton, MD 21601

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ISSUE DATES:
1 - ISSUED FOR BID / CONSTRUCTION 2022/11/22

FCArchitects

Fearn-Clendaniel Architects, Inc.
6 Larch Avenue, Suite 398 Wilmington, Delaware 19804
302-998-7615 www.fcarchitects.net

PROJECT:
SEA 22001-FDE-SBHC
Seaford School District
Frederick Douglass ES
School Based Health Center
Renovations

1 Swain Road
Seaford, DE 19973

DRAWING TITLE:

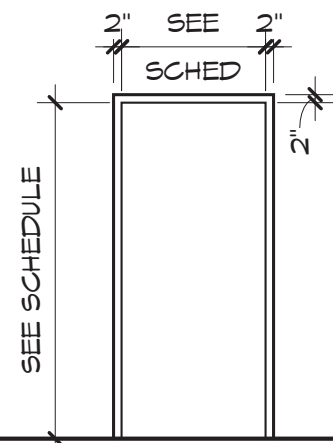
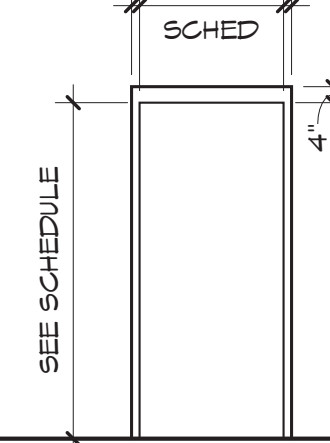
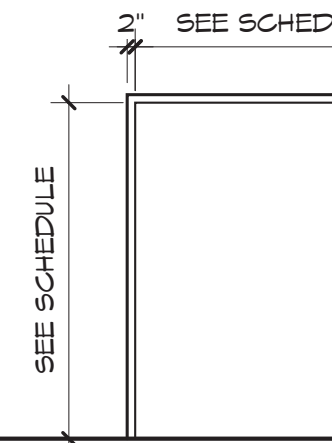
PLANS AND NOTES

OWN BY: DW	CHK BY: KBF	PROJECT NUMBER: 22104
DATE: 2022/11/22		DRAWING NUMBER: A10-01
SCALE: As indicated		

DOOR SCHEDULE - SBHC										
Door #	Door Width	Door Height	Door Type	Door Material	Thickness	Frame Type	Frame Material	Hardware Set	Fire Rating	Comments
100 W	3'-0"	7'-0"	D3	SC WD	1 3/4"	EX	HM	N101	-	EXISTING FRAME - FAIL SECURE
101 W	3'-0"	7'-0"	D3	SC WD	1 3/4"	1	HM	N102	-	
102 W	3'-0"	7'-0"	D1	SC WD	1 3/4"	1	HM	N102	-	
103 W	3'-0"	7'-0"	D3	SC WD	1 3/4"	1	HM	N102	-	
104 W	3'-0"	7'-0"	D1	SC WD	1 3/4"	1	HM	N102	-	
105 W	3'-0"	7'-0"	D3	SC WD	1 3/4"	1	HM	N103	-	
106 W	3'-0"	7'-0"	D1	SC WD	1 3/4"	1	HM	N103	-	

DOOR HARDWARE TYPES		DOOR HARDWARE SETS	
LATCHSET/ LOCKSET TYPES (LS)	CLOSER TYPES (CL)	INTERIOR SINGLE DOORS (N1_)	
NOTE: ALL LATCHSET/LOCKSET TYPES TO BE BEST 9K SERIES WITH LEVER TRIM STYLE 1 AND BEST INTERCHANGEABLE CORE.	NOTE: ALL CLOSER TYPES TO BE NORTON 9540 OR 9510 SERIES EXCEPT HEAVY DUTY WITH VANDAL-RESISTANT METAL COVER.	N101: INTERIOR SINGLE DOOR - ENTRY DR NUMBER(S): 100N	
LS01 - CLASSROOM SECURITY LOCKSET ANSI/BHMA A156.2, SERIES 4000 - GRADE 1, FUNCTION: F110 CLASSROOM SECURITY, DOUBLE CYLINDER FUNCTION. KEY OR INTERIOR TRIM SIDEWAYS AND UNLOCKS EXTERIOR TRIM. INTERIOR TRIM IS NOT TO BE ACTIVE. PROVIDE 2 REMOVABLE LOCK CORES.	CL02 - CLOSER ANSI/BHMA 156.4 GRADE 1, TYPE PT1, SERIES 4000, CQ2021, HEAVY DUTY PARALLEL ARM, CUSHIONED STOP, NO HOLD OPEN. PROVIDE ALL REQUIRED ACCESSORIES AND COMPONENTS FOR MECHANICAL OPERATION. FINISH WITH HEAVY DUTY, MECHANICALLY-FASTENED, TAMPER-RESISTANT COVER. UL LISTED FOR FIRE RATING OF OPENING.	QTY: TYPE DESCRIPTION 3 H503 HINGES 1 LS01 LOCKSET - CLASSROOM 1 EL01 ELECTRIC STRIKE 1 CL02 CLOSER 3 SILENCERS 1 ST01 WALL STOP 2 KICK PLATE, 6" HIGH	
LS02 - OFFICE LOCKSET ANSI/BHMA A156.2, SERIES 4000 - GRADE 1, FUNCTION: F81 ENTRANCE/ OFFICE, SINGLE CYLINDER FUNCTION. INTERIOR THUMBTURN LOCKS EXTERIOR TRIM UNTIL UNLOCKED BY KEY OR BY OPERATING THE INTERIOR TRIM. INTERIOR TRIM SHALL ALWAYS BE ACTIVE. PROVIDE REMOVABLE LOCK CORE.	HINGE TYPES (HG) HG03 - BUTT HINGE ANSI/BHMA A156.1 - HEAVY WEIGHT, 4-1/2" X 4-1/2", FULL MORTISE, STAINLESS STEEL, 5 KNUCKLE, 4 BALL BEARING HINGE, TAMPER RESISTANT PIN	N102: INTERIOR SINGLE DOOR - OFFICE DR NUMBER(S): 101N, 102N, 103N, 104N	
LS03 - PRIVACY LOCKSET ANSI/BHMA A156.2, SERIES 4000, GRADE 2, FUNCTION: F16 PRIVACY/ BATHROOM, NON-CYLINDER FUNCTION. INTERIOR THUMBTURN OR PUSHBUTTON LOCKS EXTERIOR TRIM UNTIL INTERIOR TRIM IS ROTATED OR DOOR IS CLOSED.	THRESHOLD TYPES (TH) TH03 - STONE ACCESSIBLE / ADAAGS-COMPLIANT, BEVELED STONE TYPE, 4" WIDE MINIMUM	QTY: TYPE DESCRIPTION 3 H503 HINGES 1 LS02 LOCKSET - OFFICE 3 SILENCERS 1 ST01 WALL STOP	
LS04 - DEADBOLT W/ THUMBTURN AND OCCUPANCY INDICATOR ANSI/BHMA A156.3, SERIES 1000, GRADE 2, CYLINDRICAL DEADBOLT, FUNCTION: E2191 DOOR BOLT FUNCTION, INTERIOR THUMBTURN LOCKS AND UNLOCKS DEADBOLT AND OPERATES OCCUPANCY INDICATOR ON EXTERIOR SIDE. PROVIDE EMERGENCY OVERRIDE ON EXTERIOR AND ADA-COMPLIANT THUMBTURN ON INTERIOR. INSTALL AT ACCESSIBLE HEIGHT (48" MAX A F F).	STOP TYPES (ST) ST01 - WALL ANSI/BHMA A156.16 WALL MOUNTED CONCEALED FASTENER. METAL STOP WITH RESILIENT INSERT - PROVIDE SOLID BLOCKING IN STUD WALLS. ST02 - FLOOR ANSI/BHMA A156.16 FLOOR MOUNTED CAST METAL STOP WITH RESILIENT INSERT ST03 - OVERHEAD ANSI/BHMA A156.9 BAR TYPE CUSHIONED OVERHEAD STOP - PREPARE FRAME AS REQUIRED	N103: INTERIOR SINGLE DOOR - PREP DR NUMBER(S): 105N	
ELECTRIC LOCK TYPES (EL)		QTY: TYPE DESCRIPTION 3 H503 HINGES 1 LS01 LOCKSET - CLASSROOM 3 SILENCERS 1 ST01 WALL STOP	
EL01 - ELECTRIC STRIKE ANSI/BHMA 156.31 - GRADE 1, RECESSED LOW-VOLTAGE ELECTRIC STRIKE. PROVIDE HARDWARE POWER SUPPLY UNIT / TRANSFORMER CONNECTED TO 120V POWER ABOVE ADJACENT SUSPENDED CEILING OR OTHER CONCEALED LOCATION. COORDINATE WITH OWNER'S ACCESS CONTROL SYSTEM. SEE REMARKS FOR DEVICE FAIL-SAFE OR FAIL-SECURE CONFIGURATION.		N104: INTERIOR SINGLE DOOR - SINGLE TOILET RM DR NUMBER(S): 106N	
		QTY: TYPE DESCRIPTION 3 H503 HINGES 1 LS03 LOCKSET - PRIVACY 1 LS04 DEADBOLT W/ OCCUPANCY INDICATOR 3 SILENCERS 1 ST01 WALL STOP 2 KICK PLATE, 6" HIGH 1 MOP PLATE, 10" HIGH 1 TH03 THRESHOLD	

DOOR / FRAME ABBREVIATIONS		DOOR / HARDWARE NOTES	
AL	ALUMINUM	<ol style="list-style-type: none"> ALL OPERATING HARDWARE AND THRESHOLDS SHALL COMPLY WITH ADAAG 2010, ANSI 111.1, AND OTHER APPLICABLE ACCESSIBILITY REQUIREMENTS. OPERATING HARDWARE SHALL BE CENTERED A MAXIMUM OF 48" ABOVE FINISH FLOOR. INTERIOR DOOR CLOSERS MUST BE SET NO HIGHER THAN 5 POUNDS OF PRESSURE TO OPERATE. DOOR CLOSERS MUST BE SET TO TAKE AT LEAST 3 SECONDS TO CLOSE FROM AN OPEN POSITION OF 10 DEGREES TO WITHIN 3" OF THE LATCH. 	SEE SCHEDULE
FAC	FACTORY FINISH		SEE SCHEDULE
FG	FIBERGLASS		SEE SCHEDULE
FRG	FIRE RATED GLAZING		SEE SCHEDULE
GALV	GALVANIZED		SEE SCHEDULE
HM	HOLLOW METAL		SEE SCHEDULE
INS	INSULATED		SEE SCHEDULE
PLAM	PLASTIC LAMINATE		SEE SCHEDULE
PT	PAINT / PAINTED		SEE SCHEDULE
S/R	STUCCO AND RAIL		SEE SCHEDULE
SC	SOLID CORE	<ol style="list-style-type: none"> ALL OPERATING HARDWARE AND THRESHOLDS SHALL COMPLY WITH ADAAG 2010, ANSI 111.1, AND OTHER APPLICABLE ACCESSIBILITY REQUIREMENTS. OPERATING HARDWARE SHALL BE CENTERED A MAXIMUM OF 48" ABOVE FINISH FLOOR. INTERIOR DOOR CLOSERS MUST BE SET NO HIGHER THAN 5 POUNDS OF PRESSURE TO OPERATE. DOOR CLOSERS MUST BE SET TO TAKE AT LEAST 3 SECONDS TO CLOSE FROM AN OPEN POSITION OF 10 DEGREES TO WITHIN 3" OF THE LATCH. 	SEE SCHEDULE
SF	STOREFRONT		SEE SCHEDULE
SG	SAFETY GLASS (TEMPERED OR LAMINATED)		SEE SCHEDULE
STF	STAINED TRANSPARENT FINISH		SEE SCHEDULE
STL	STEEL		SEE SCHEDULE
WD	WOOD		SEE SCHEDULE
			SEE SCHEDULE
			SEE SCHEDULE
			SEE SCHEDULE
			SEE SCHEDULE

DOOR / FRAME NOTES	<p> 1. MINIMUM STRIKE SIDE CLEARANCE ON FULL SIDE OF DOOR IS: <ul style="list-style-type: none"> A. 18" MIN INTERIOR DOORS, FRONT APPROACH B. 36" MIN INTERIOR DOORS, HINGE APPROACH C. 42" MIN INTERIOR DOORS, HINGE APPROACH IF CORRIDOR IS LESS THAN 60" BUT GREATER THAN 84" D. 24" MIN INTERIOR DOORS, LATCH APPROACH </p> <p> 2. MINIMUM STRIKE SIDE CLEARANCE ON PUSH SIDE OF DOOR IS: <ul style="list-style-type: none"> A. 0", FRONT APPROACH B. 12" MIN, FRONT APPROACH W/ LATCH AND CLOSER C. 54" MIN, TOTAL WIDTH, HINGE APPROACH D. 24" MIN, LATCH APPROACH </p> <p> 3. PROVIDE ALL OPENING PREPARATIONS, ACCESSORY HARDWARE, AND OTHER NECESSARY COMPONENTS REQUIRED FOR COMPLETE INSTALLATION OF DOOR AND FRAME. </p> <p> 4. ALL EXTERIOR HOLLOW METAL DOORS AND FRAMES TO BE GALVANIZED STEEL (16ga MIN), UNLESS NOTED OTHERWISE. </p> <p> 5. ALL INTERIOR HOLLOW METAL DOORS AND FRAMES TO BE FACTORY FINISH STEEL (16ga MIN), UNLESS NOTED OTHERWISE. </p> <p> 6. ALL HOLLOW METAL FRAMES IN FRAME CONSTRUCTION SHALL BE SIZED TO WRAP THE FULL THICKNESS OF WALL CONSTRUCTION (INCLUDING SURFACE FINISHES U N O) PLUS 1/8" THROAT CLEARANCE. </p> <p> 7. ALL HOLLOW METAL FRAMES IN MASONRY CONSTRUCTION TO BE 8-9/16" DEEP FRAMES W/ 4" MASONRY HEAD U N O. </p> <p> 8. ALL ROUGH OPENINGS IN FRAME CONSTRUCTION TO BE 8" FROM ADJOINING WALL ON HINGE SIDE U N O. </p> <p> 9. ALL MASONRY OPENINGS IN MASONRY CONSTRUCTION TO BE LOCATED AT VERTICAL UNIT JOINT BETWEEN 4" AND 8" FROM ADJOINING MASONRY WALL ON HINGE SIDE U N O. </p> <p> 10. PROVIDE TEMPERED SAFETY GLAZING IN ALL DOORS AND SIDELIGHTS, UNLESS NOTED OTHERWISE. </p> <p> 11. SEE VISION PANEL TYPES FOR HOLLOW METAL BORROWED LITE FRAMES. </p> <p> 12. SEE STOREFRONT AND CURTAINWALL TYPES FOR ALUMINUM FRAMED INTERIOR AND EXTERIOR STOREFRONTS AND CURTAINWALLS. </p>
<p> 6. FOR ALL HARDWARE SETS FEATURING SURFACE BOLTS, FLUSH BOLTS, EXPOSED RODS, OR CONCEALED RODS, PROVIDE TOP ROD / BOLT ONLY UNLESS NOTED OTHERWISE. </p> <p> 7. ALL WIRING CONDUIT IDENTIFIED ON THE DRAWINGS OR REQUIRED FOR THE INSTALLATION OF ELECTRONIC COMPONENTS, THAT IS WITHIN HOLLOW METAL FRAMES SHALL BE PROVIDED AS PART OF THE HOLLOW METAL FRAME WITH TERMINATIONS APPROPRIATE FOR EXTENSION BY OTHER TRADES. </p> <p> 8. BUILDING ACCESS CONTROL SYSTEM AND RELATED HARDWARE ARE BY OWNER'S SECURITY VENDOR UNLESS NOTED OTHERWISE. COORDINATE DOOR HARDWARE WITH ACCESS CONTROL SYSTEM. </p> <p> 9. AT DOOR 100V, MODIFY EXISTING FRAME AS REQUIRED TO ACCEPT NEW ELECTRIC STRIKE. </p> <p> 10. ALL DELAYED-EGRESS OR ELECTRICALLY LOCKED DOORS SHALL BE INTERCONNECTED WITH BUILDING FIRE ALARM SYSTEM TO PROVIDE IMMEDIATE EGRESS IN THE EVENT OF AN ALARM CONDITION. SEE CODE SYNOPSIS NOTES. </p> <p> 11. COORDINATE POWER DOOR OPERATORS WITH ACCESS CONTROL AND ALARM SYSTEM AS REQUIRED. PROVIDE MANUAL LATCH / EXIT DEVICE THAT IS COMPATIBLE WITH POWER OPERATOR SYSTEM. </p> <p> 12. PROVIDE ALL DOOR AND FRAME PREPARATIONS, ACCESSORY HARDWARE, AND OTHER NECESSARY COMPONENTS REQUIRED FOR COMPLETE INSTALLATION OF HARDWARE. </p> <p> 13. ALL INTERIOR DOOR LATCHSETS / LOCKSETS ARE TO BE HEAVY DUTY CYLINDRICAL TYPE, 2-3/4" BACKSET, WITH LARGE-FORMAT INTERCHANGEABLE CORE, UNLESS NOTED OTHERWISE. </p> <p> 14. PROVIDE SCHLAGE ND SERIES LOCKSETS WITH SPARTA LEVER TRIM UNLESS NOTED OTHERWISE. PROVIDE SCHLAGE T234 REMOVABLECORE, KEYED TO OWNER'S EXISTING KEY SYSTEM. AT RESTROOMS, PROVIDE THUMBTURN DEADLOCK WITH STATUS INDICATOR AND EMERGENCY OVERRIDE. </p> <p> 15. F-NUMBERS REFER TO FUNCTIONS OF BHMA SERIES 100 MORTISE OR SERIES 4000 BORED LOCKS. </p> <p> 16. ALL HARDWARE FINISHES ARE TO BE US22P SATIN STAINLESS STEEL OR US26SD SATIN CHROME PLATED STEEL UNLESS NOTED OTHERWISE. </p> <p> 17. FOR ALL DOORS WITH LITES, PROVIDE THRU-BOLTED FRAME KIT. APPLIED STOPS AND TRIM ARE NOT ACCEPTABLE. LITE KIT TO BE NATIONAL GUARD PRODUCTS L-GLF100-TB OR EQUAL. </p>	<div>  <p>TYPE F01 - DRYWALL FRAME</p> </div> <div>  <p>TYPE F02 - MASONRY HEAD</p> </div> <div>  <p>TYPE F03 - DOUBLE EGRESS</p> </div>

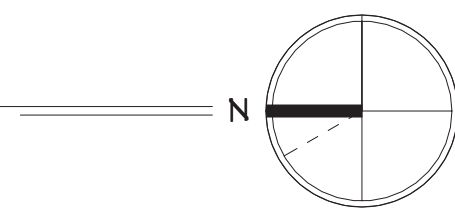
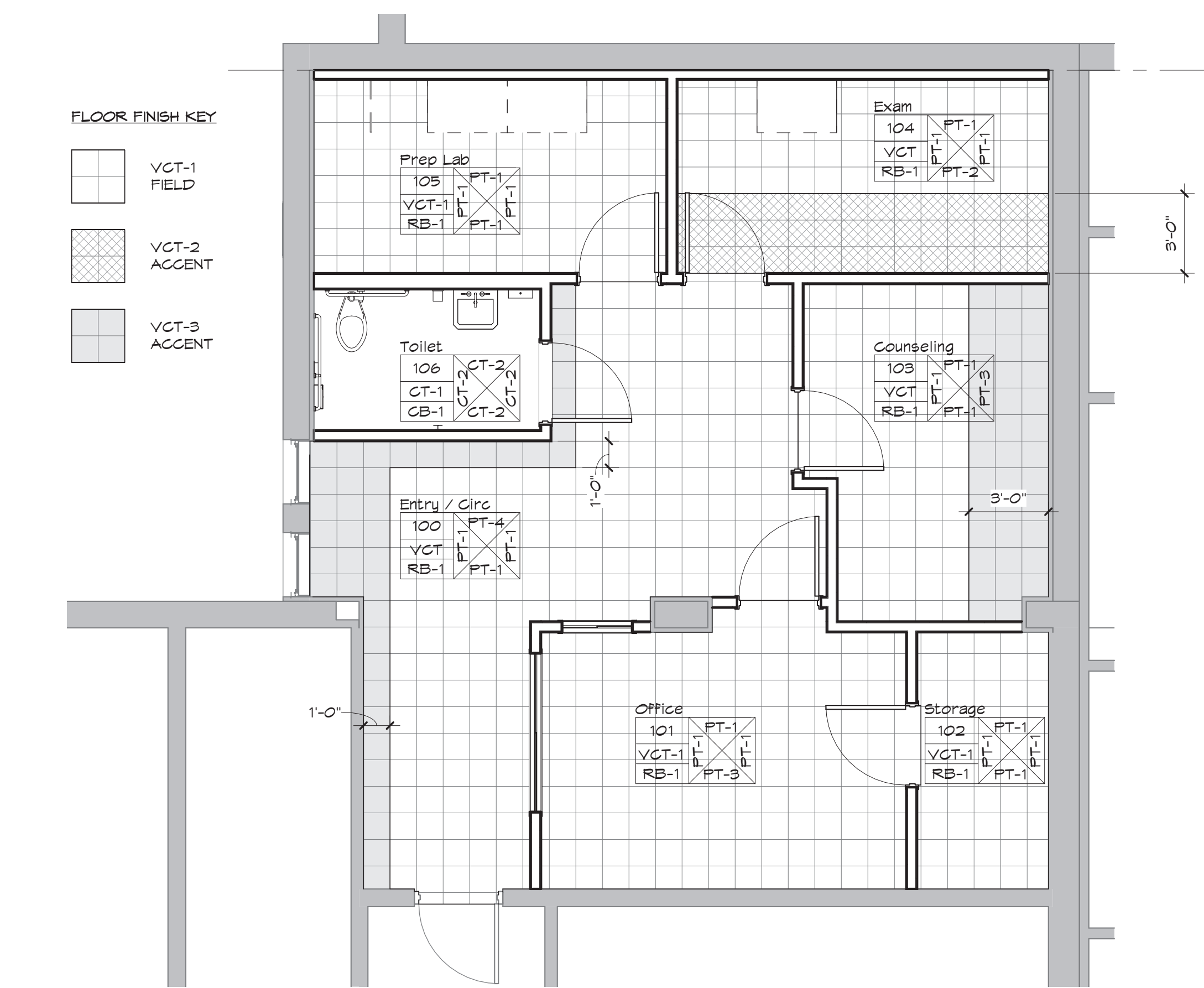
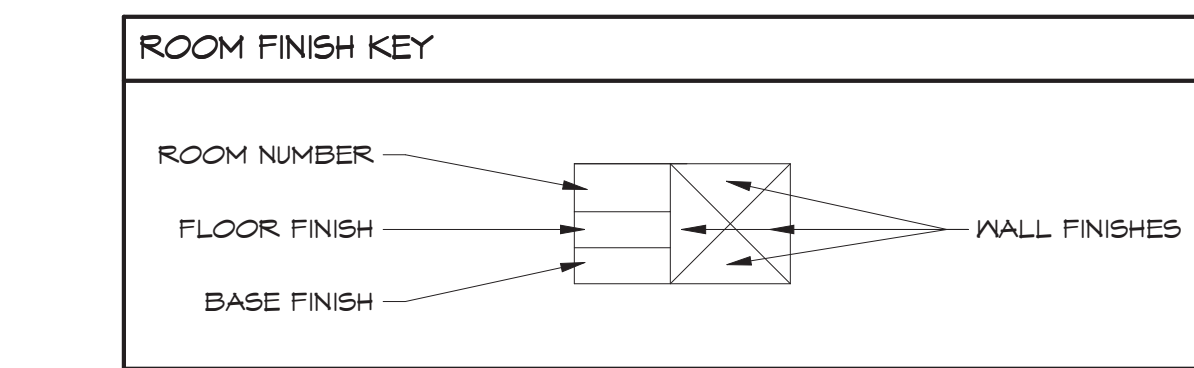
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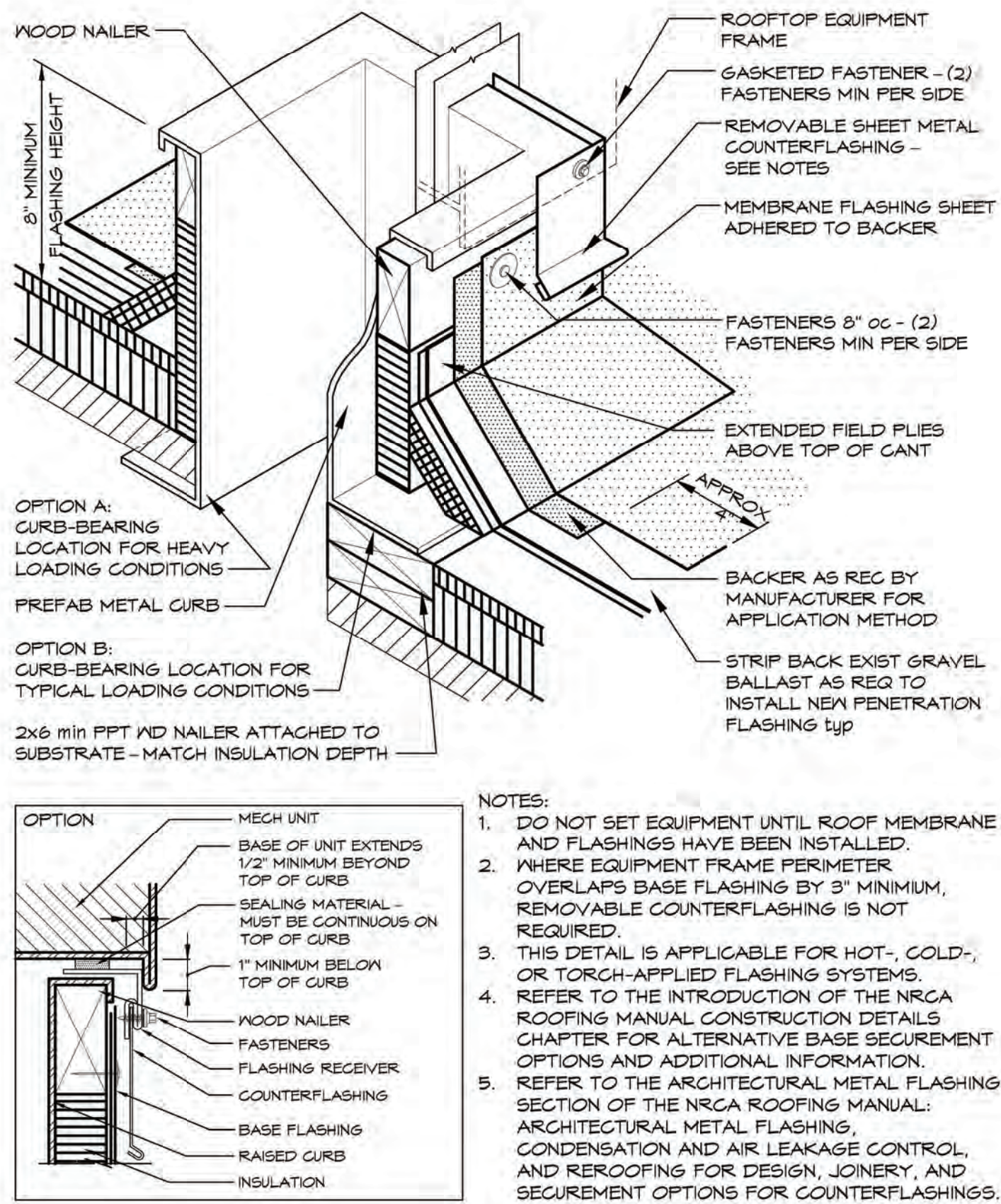
CEILING NOTES

ROOM FINISH SCHEDULE - 5BHC

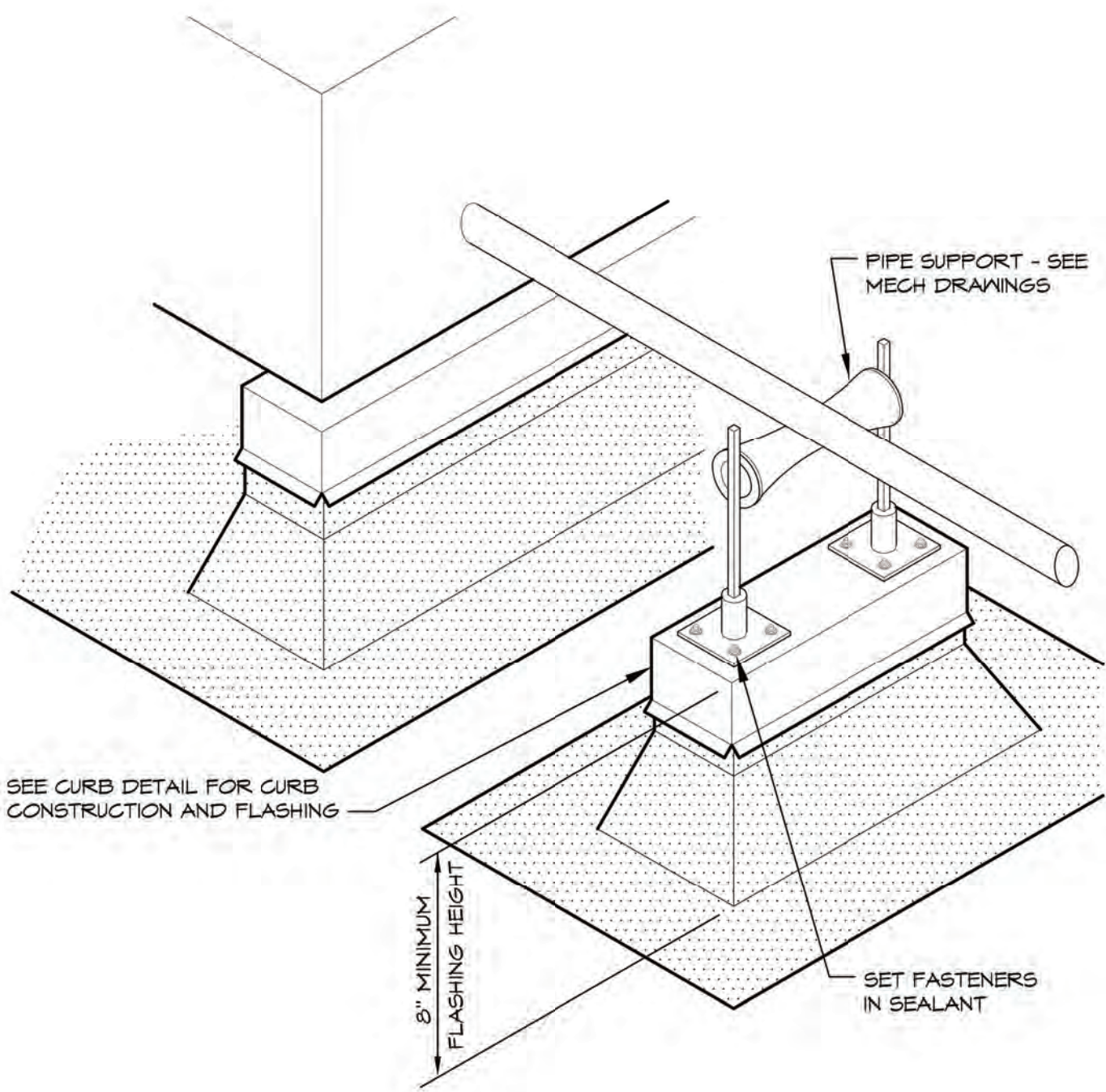
Number	Name	Floor	Base	Wall - E	Wall - S	Wall - N	Wall - W	Ceiling	Comments
1.	SEE SHEET A10-01 FOR REFLECTED CEILING PLAN.								
100	Entry / Circ	VCT	RB-1	PT-4	PT-1	PT-1	PT-1	APG-1	SEE FINISH PLAN FOR COLORS AND PATTERNS
101	Office	VCT-1	RB-1	PT-1	PT-1	PT-1	PT-3	APG-1	
102	Storage	VCT-1	RB-1	PT-1	PT-1	PT-1	PT-1	APG-1	
103	Counseling	VCT	RB-1	PT-1	PT-1	PT-3	PT-1	APG-1	SEE FINISH PLAN FOR COLORS AND PATTERNS
104	Exam	VCT	RB-1	PT-1	PT-1	PT-1	PT-1	APG-1	SEE FINISH PLAN FOR COLORS AND PATTERNS
105	Prep Lab	VCT-1	RB-1	PT-1	PT-1	PT-1	PT-1	APG-1	
106	Toilet	CT-1	CB-1	CT-2	CT-2	CT-2	CT-2	C6B6E10	CT-2 BASE AND ACENT BAND ON WALLS

5.	SEE ELECTRICAL, FIRE ALARM, AND FIRE PROTECTION DRAWINGS FOR SPECIAL SYSTEMS, SMOKE DETECTORS, EMERGENCY LIGHTING, SIGNAGE, GENERAL LIGHTING, AND ALL MOUNTED FIXTURES NOT SHOWN ON THIS SHEET. COORDINATE LOCATIONS OF ALL FIXTURES NOT INDICATED WITH LAYOUT INDICATED ON THIS SHEET.	INTERIOR FINISH MATERIAL LEGEND						
		TAG	MATERIAL	MANUFACTURER	STYLE	COLOR	SIZE	COMMENTS
6.	INSTALL ALL DEVICES AS IF CENTERED IN 24" x 24" GRID / TILE, REGARDLESS OF NOMINAL GRID / TILE SIZE.	VCT-1	VINYL COMP TILE	ARMSTRONG	STANDARD EXCELON	T B D	12" x 12"	TYPICAL FLOOR FIELD - MATCH EXISTING
		VCT-2	VINYL COMP TILE	ARMSTRONG	STANDARD EXCELON	5'510 KICKIN' KWI	12" x 12"	ACCENT - SEE PLAN
		VCT-3	VINYL COMP TILE	ARMSTRONG	STANDARD EXCELON	5'511 BODACIOUS BLUE	12" x 12"	ACCENT - SEE PLAN
7.	SEE MECHANICAL DRAWINGS FOR EXTENT OF ALL MECHANICAL DIFFUSERS, GRILLES, AND EXPOSED DUCTWORK.	EF-1	EPOXY FLOORING	DUREX	DX-1 D'YMAFLAKE	3 LAVENDER - 1/16" FLECK	--	SEAMLESS w/ INTEGRAL COVE BASE
		RB-1	RUBBER BASE	ROPPE	COVE	T B D - MFR'S STD COLORS	4" x 60ft	--
		EB-1	EPOXY BASE	DUREX	INTEGRAL COVE	3 LAVENDER - 1/16" FLECK	6" high	w/ BACKING TO MATCH WALL TILE THICKNESS
8.	COORDINATE WITH ENGINEERING DRAWINGS TO VERIFY CENTERING OF LIGHTS, DIFFUSERS, EXIT SIGNS, SMOKE DETECTORS, SPEAKERS, GENERAL ALARM SPEAKERS / STROBES, AND MISC. DEVICES IN CEILING TILES WHERE THEY ARE LOCATED. ALIGN MULTIPLE ITEMS BY CENTERS OR EDGES.	CB-1	CERAMIC BASE	DALTILE	HARMONIST PORCELAIN	HM39 SERENADE MATTE	15cm x 30cm	NOM 6x12 - COVE BASE
		CT-1	CERAMIC TILE	DALTILE	HARMONIST PORCELAIN	HM39 SERENADE MATTE	30cm x 30cm	NOM 12x12 - TYPICAL FLOOR FIELD
		CT-2	CERAMIC TILE	DALTILE	HARMONIST PORCELAIN	HM32 AMITY MATTE	30cm x 30cm	NOM 12x12 - TYPICAL MAINSCOT 12" high w/ MTL EDGE
9.	INSTALL ACCESS PANELS IN GYPSUM BOARD CEILINGS AT DUCT DAMPER CONTROLS, DUCT MOUNTED SMOKE DETECTORS, MANUAL DUCT CONTROLS, AND OTHER ITEMS REQUIRING MAINTENANCE OR ADJUSTMENT.	P-1	PAINT	SHERWIN-WILLIAMS	EGG SHELL	SN 0911 SHELL WHITE	--	TYPICAL WALL - MATCH EXISTING
		P-2	PAINT	SHERWIN-WILLIAMS	EGG SHELL	SN 6716 DANCING GREEN	--	ACCENT WALL
		P-3	PAINT	SHERWIN-WILLIAMS	EGG SHELL	SN 6802 JACARANDA	--	ACCENT WALL
		P-4	PAINT	SHERWIN-WILLIAMS	EGG SHELL	SN - MATCH PPG 1150-1 STUNNING SAPPHIRE	--	ACCENT WALL
		P-5	PAINT	SHERWIN-WILLIAMS	SEMI GLOSS	SN 7525 DHURRIE BEIGE	--	TYPICAL TRIM AND DOOR FRAMES
		P-6	PAINT	SHERWIN-WILLIAMS	FLAT	SN 7007 CLG BRIGHT WHITE	--	CEILING AND SOFFITS
		PL-1	PLASTIC LAMINATE	WILSONART	MATTE	7504-60 FUSION MAPLE	--	TYPICAL CABINET BODY AND CABINET DOORS
		PL-2	PLASTIC LAMINATE	FORMICA	GLOSS - SPECIALTY	M3019 CRYSTAL WHITE	--	MAGNETIC MARKER BD - NOT USED
		SS-1	SOLID SURFACE	DUPONT CORIAN	--	ANTARCTICA	SEE DETAILS	TYPICAL COUNTER / BACKSPLASH / SKIRT
		APG-1	ACOUST FNL CLG	ARMSTRONG	1711 FINE FIGURED	WH WHITE	24" x 24" x 3/4"	ANGLED REGULAR EDGE w/ PRELUDE XL 15/16" GRID

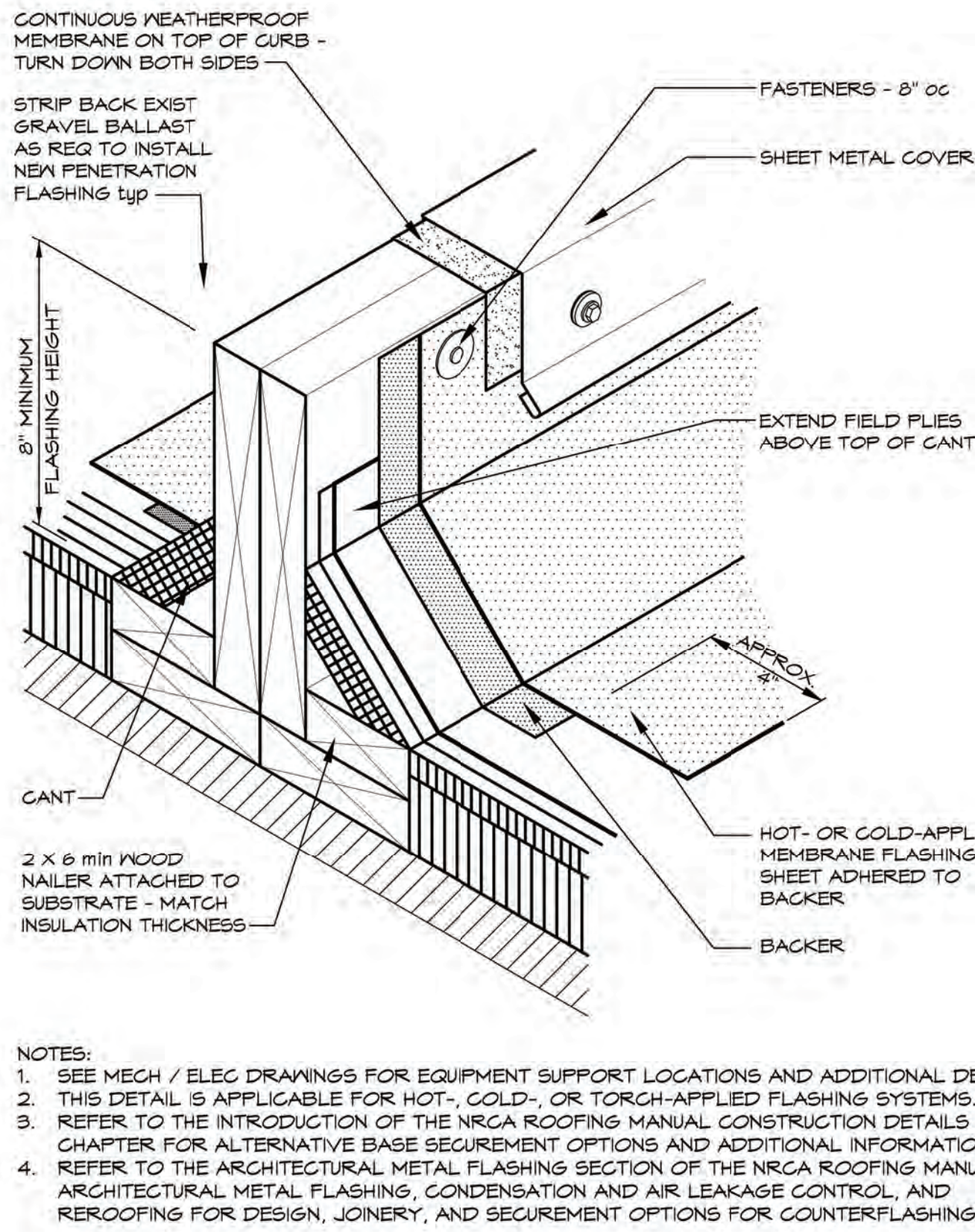




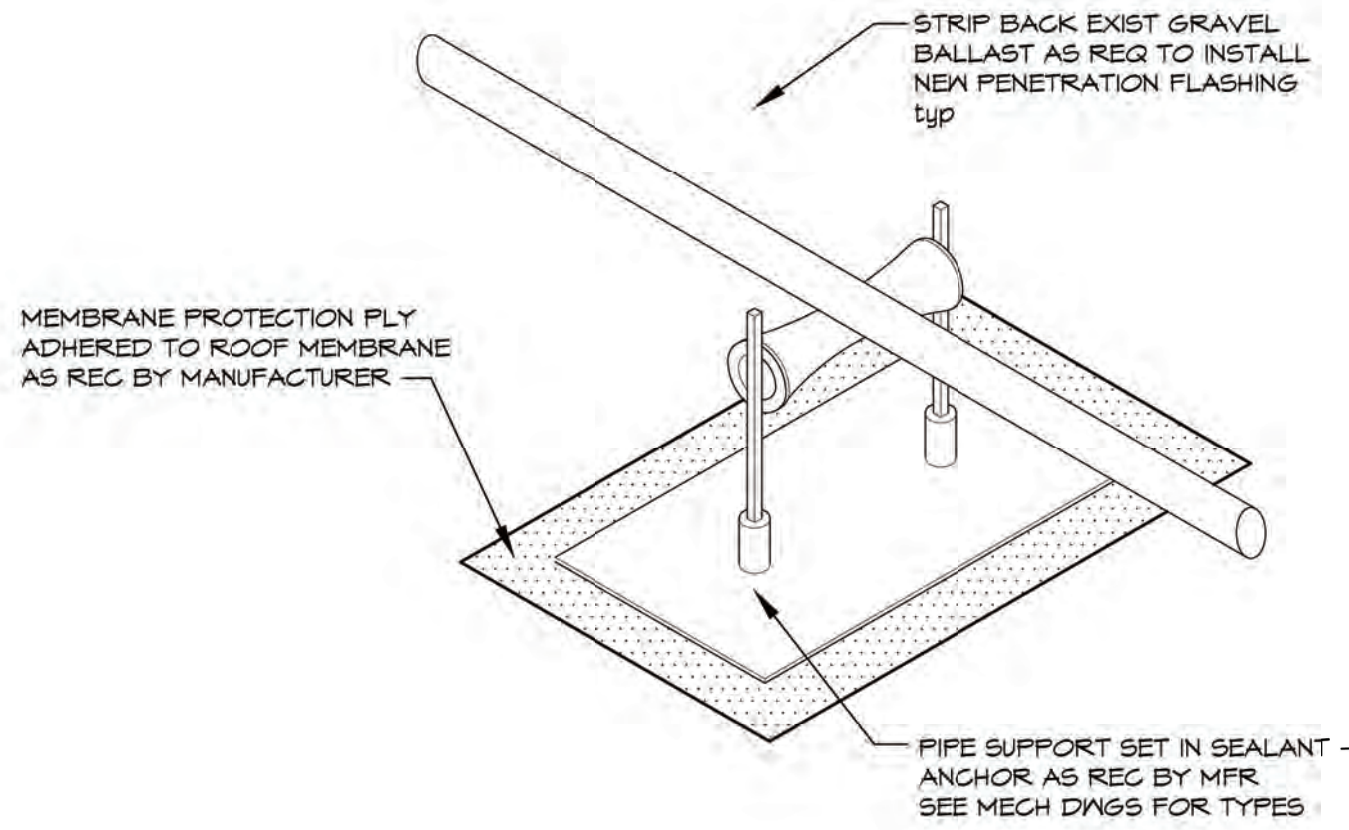
1 Roof Detail - Typ Continuous Equip Curb
Scale: None



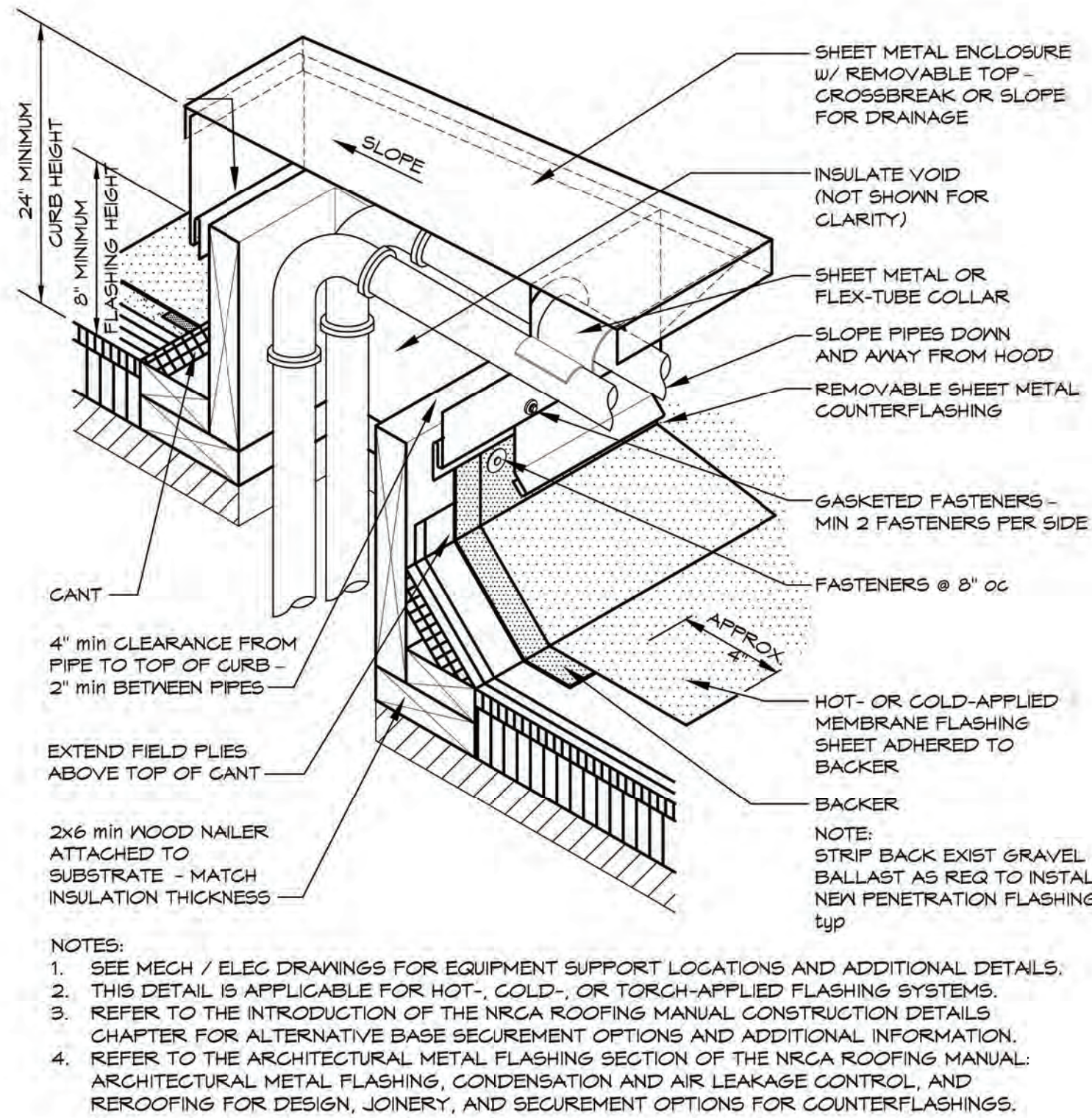
4 Roof Detail - Typ Pipe Support 1
Scale: None



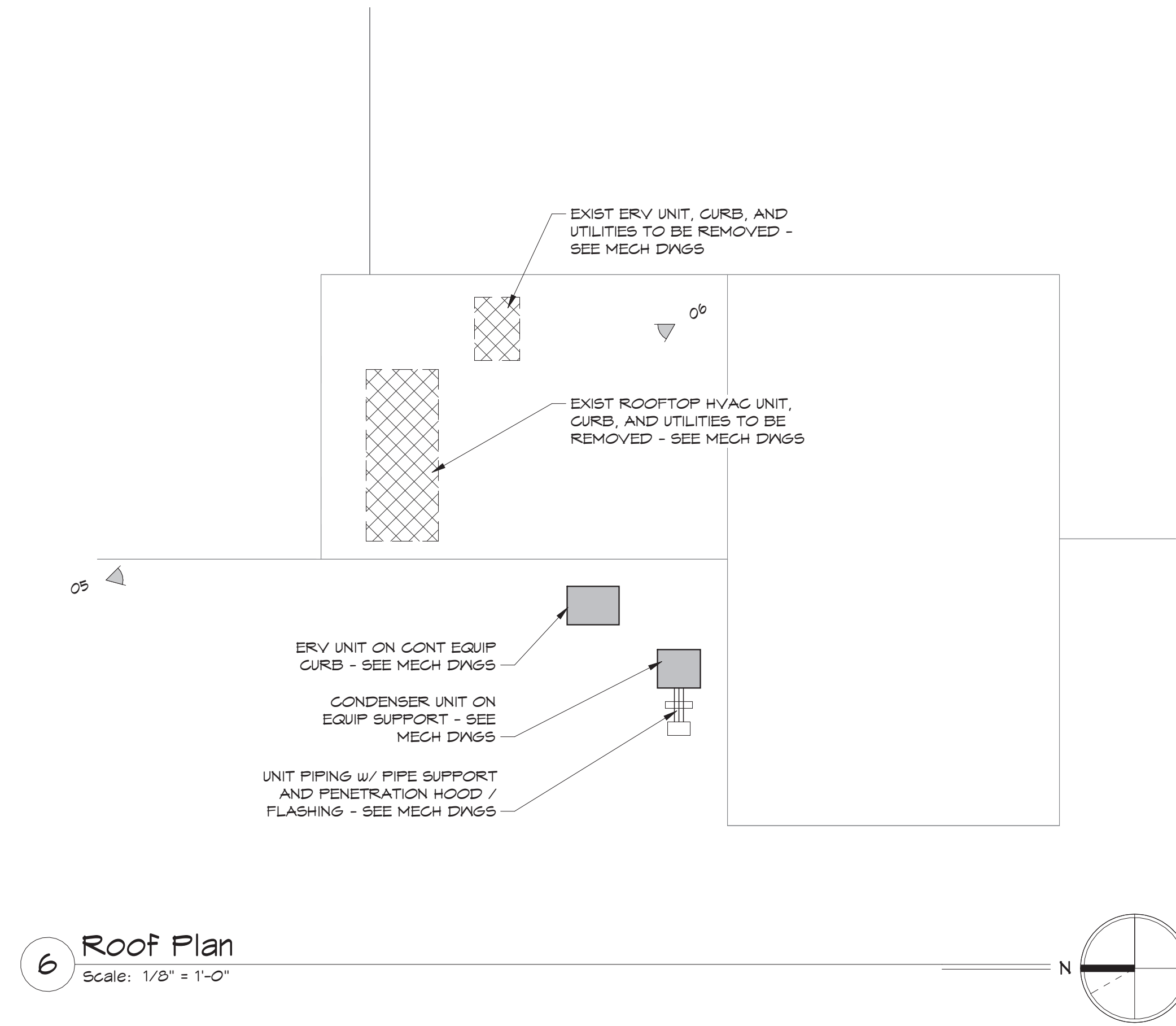
2 Roof Detail - Typ Equip Support
Scale: None



5 Roof Detail - Typ Pipe Support 2
Scale: None



3 Roof Detail - Typ Pipe Penetration
Scale: None



6 Roof Plan
Scale: 1/8" = 1'-0"

ROOFING NOTES

1. SEE KEY PLAN AND ROOF PLAN FOR AREA OF WORK. ALL OTHER EXISTING ROOFING IS TO REMAIN.
2. EXISTING LOW SLOPE ROOF SYSTEM IS MODIFIED BITUMEN MEMBRANE OVER UNKNOWN INSULATION ON METAL DECK AND/OR KD LUMBER SHEATHING.
3. TEMPORARILY REMOVE EXISTING GRAVEL PROTECTION COURSE AS REQUIRED TO PERFORM REQUIRED ROOF ALTERATIONS IN AREA OF WORK. REDISTRIBUTE WHEN WORK IS COMPLETE.
4. ALL FLASHING ADHESIVES, SEALANTS, MEMBRANES, AND JOINT COATINGS SHALL BE COMPATIBLE WITH AND RECOMMENDED FOR USE ON EXISTING ROOFING SYSTEM.
5. ALL PENETRATIONS TO RECEIVE NEW CURBS, FLASHING, TIE INS, BOOTS, TRIMS, ETC. AS INDICATED IN TYPICAL DETAILS, MECHANICAL / ELECTRICAL DRAWINGS, AND OTHER CONTRACT DOCUMENTS.
6. EXISTING EXHAUST FANS, CAPPED CURBS, AND SUPPORT PADS TO REMAIN AS IS UNLESS NOTED OTHERWISE.
7. UNLESS NOTED OTHERWISE, ALL NEW CURBS, FLASHINGS, ETC. SHALL BE OF SUFFICIENT HEIGHT TO PROVIDE 8" MINIMUM FREEBOARD ABOVE ALLOWANCE FOR 8" MINIMUM THICKNESS OF EXISTING OR FUTURE INSULATION.
8. TYPICAL DETAILS INDICATE WOOD CURBS. CONTRACTOR MAY PROVIDE PREFABRICATED METAL CURBS AT THEIR OPTION.
9. ALL WOOD BLOCKING, NAILERS, AND CURBS PLACED IN ROOF CONSTRUCTION SHALL BE PRESSURE PRESERVATIVE TREATED.
10. ALL NOMINAL DIMENSIONS GIVEN FOR WOOD BLOCKING ARE MINIMUM SIZES. CONTRACTOR SHALL INCREASE SIZE OR QUANTITY AS REQUIRED TO SUIT FIELD CONDITIONS.
11. WHERE MULTIPLE COURSES OF BLOCKING ARE REQUIRED, CONTRACTOR MAY PROVIDE 2x PFT KD MEMBERS (RIPPED AS REQUIRED) SET ON EDGE OVER THE HORIZONTAL BOTTOM COURSE AND CAPPED WITH A TOP COURSE LAID HORIZONTALLY TO FORM A BOX.
12. EXTEND PLUMBING VENT PIPING TO MINIMUM 12" ABOVE NEW ROOF SURFACE WHERE REQUIRED. MATCH EXISTING PIPING SIZE.
13. PROVIDE CRICKETS ON UPSLOPE SIDE OF ALL EQUIPMENT OR SUPPORT CURBS, AND AS REQUIRED TO DIVERT WATER TO DRAIN / RYG SYSTEM. SLOPE DIVERTERS AT 1/2" PER FOOT UNLESS NOTED OTHERWISE.
14. WHERE EQUIPMENT IS REMOVED, REMOVE IN ENTIRETY INCLUDING ALL RELATED CURBS, SUPPORTS, AND UTILITY PENETRATIONS.
15. WHERE EQUIPMENT IS REMOVED, PATCH ALL REMAINING ROOF OPENINGS AND PENETRATIONS TO MATCH EXISTING ADJACENT CONSTRUCTION. PROVIDE INSULATION, COVER BOARD, AND ROOFING SYSTEM COMPATIBLE WITH EXISTING MATERIALS. FLASHING NEW ROOFING AREAS INTO EXISTING USING MANUFACTURER'S RECOMMENDED MATERIALS, METHODS, AND DETAILS.

MECHANICAL / PLUMBING /
FIRE PROTECTION / ELECTRICAL
ENGINEER:
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Easton, Maryland 21601

STRUCTURAL ENGINEER:
PILOTTOWN ENGINEERING
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ISSUE DATES:
1 - ISSUED FOR BID / CONSTRUCTION 2022/11/22

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302-998-7615 www.fcarchitects.net

PROJECT:
SEA_22001-FDE-SBHC
Seaford School District
Frederick Douglass ES
School Based Health Center Renovations
1 Swain Road
Seaford, DE 19973

DRAWING TITLE:

ROOF DETAILS AND NOTES
OWN BY: **DW** CHK BY: **WBC** PROJECT NUMBER: **22104**
DATE: **2022/11/22** DRAWING NUMBER:
SCALE: **As indicated** **A30-01**

MECHANICAL ABBREVIATIONS			
ABBREV.	DEFINITION	ABBREV.	DEFINITION
AFF	ABOVE FINISHED FLOOR	LBS	POUNDS
AFG	ABOVE FINISHED GRADE	LF	LINEAR FOOT
AHU	AIR HANDLING UNIT	MAX	MAXIMUM
APD	AIR PRESSURE DROP	MAU	MAKE-UP AIR UNIT
APPROX	APPROXIMATELY	MBH	BTU PER HOUR (THOUSAND)
ARCH	ARCHITECTURAL	MECH	MECHANICAL
BHP	BRAKE HORSEPOWER	MIN	MINIMUM
BTU	BRITISH THERMAL UNIT	MOCP	MAX. OVERCURRENT PROTECTION
BTUH	BRITISH THERMAL UNITS/HOUR	MOD	MOTORIZED DAMPER
C	CLOSED	NC	NORMALLY CLOSED
CAP	CAPACITY	NO	NORMALLY OPEN
CCMS	CENTRAL CONTROL MONITORING STATION	NC	NOISE CRITERIA
CCW	COUNTER CLOCKWISE	NO#	NUMBER
CFM	CUBIC FEET PER MINUTE	OA	OUTSIDE AIR
CONT	CONTINUATION	OAF	OUTSIDE AIR FAN
COP	COEFFICIENT OF PERFORMANCE	OAT	OUTSIDE AIR TEMPERATURE
CU	CONDENSING UNIT	OED	OPEN END DUCT
CUR	CURTAIN	PD	PRESSURE DROP
CW	CLOCKWISE	PSI	POUNDS PER SQUARE INCH
DB	DRY BULB	RE-CIRC	RECIRCULATING
DD	DUCT DETECTOR	REG	REGISTER
DEPT	DEPARTMENT	REQ'D	REQUIRED
DIFF	DIFFUSER	RH	RELIEF HOOD
DN	DOWN	RH	RELATIVE HUMIDITY
DWG	DRAWING	RLF	RELIEF AIR FAN
EAT	ENTERING AIR TEMPERATURE	RM	ROOM
ECON	ECONOMIZER	RPM	REVOLUTIONS PER MINUTE
EDG	ELECTRIC DUCT COIL	SB	STAND-BY
EER	ENERGY EFFICIENCY RATIO	SECT	SECTION
EF	EXHAUST FAN	SENS	SENSIBLE
EFF	EFFICIENCY	SF	SUPPLY AIR FAN
ELEC CHAR	ELECTRICAL CHARACTERISTICS	SL	SOUND LINING
EQUIP	EQUIPMENT	SP	STATIC PRESSURE
ERHP	ELECTRIC RADIANT HEAT PANEL	SPC	STATIC PRESSURE CONTROLLER
ERV	ENERGY RECOVERY VENTILATOR	SPLY	SUPPLY
ESP	EXTERNAL STATIC PRESSURE	SQ	SQUARE
EX	EXISTING	SS	STAINLESS STEEL
EXH	EXHAUST	STD	STANDARD
F	DEGREES FAHRENHEIT	STOR	STORAGE
FLA	FULL LOAD AMPS	TEMP	TEMPERATURE
FPM	FEET PER MINUTE	T-OA	OUTSIDE TEMPERATURE SENSOR
FT H2O	FEET WATER GAUGE	TONS	TONS OF REFRIGERATION
GPM	GALLONS PER MINUTE	TYP	TYPICAL
IHC	HANDICAPPED	V	VOLTS
HP	HEAT PUMP	VAV	VARIABLE AIR VOLUME
HP	HORSEPOWER	VEL	VELOCITY
HPI	HEAT PUMP (INDOOR)	VF	VENTILATION FAN
HPD	HEAT PUMP (OUTDOOR)	VSD	VARIABLE SPEED DRIVE
HPWS	HEAT PUMP WATER SUPPLY	VTR	VENT THROUGH ROOF
HPWR	HEAT PUMP WATER RETURN	W	WITH
HT	HEIGHT	WB	WET BULB
HZ	HERTZ	WG	WATER GAUGE
IH	INTAKE HOOD	WPD	WATER PRESSURE DROP
IN H2O	INCHES WATER GAUGE	WTR	WATER
IW	INDIRECT WASTE	%	PERCENT
KW	KILOWATT	Ø	PHASE
L	LOUVER	Δ P	PRESSURE DIFFERENCE
LAT	LEAVING AIR TEMPERATURE	Δ T	TEMPERATURE DIFFERENCE

MECHANICAL LEGEND					
SYMBOL	ABBREV.	DEFINITION	SYMBOL	ABBREV.	DEFINITION
	SA	SUPPLY AIR DUCT UP/DOWN			PRESSURE REDUCING VALVE
	RA	RETURN AIR DUCT UP/DOWN			NEEDLE VALVE
	EA	EXHAUST AIR DUCT UP/DOWN			PRESSURE RELIEF OR SAFETY VALVE
	OA	OUTSIDE AIR DUCT UP/DOWN			STRAINER WHOSE END DRAIN VALVE AND CAP
		RECT. TO ROUND TRANSITION			HOSE END DRAIN VALVE
		DUCT TRANSITION			MANUAL AIR VENT
		FLEXIBLE CONNECTION (DUCTWORK)			PRESSURE GAUGE W/NEEDLE VALVE AND SNUBBER
		FLEXIBLE DUCT			COMB. SHUT-OFF/BALANCE VALVE WITH MEMORY (CIRCUIT SETTER)
	AMS	AIR MONITORING STATION			THERMOMETER
	SL	SOUND LINING			UNION
		ELBOW W/ TURNING VANES			FLANGE
		RADIUS ELBOW			CONCENTRIC REDUCER
	VD	MANUAL VOLUME DAMPER			ECCENTRIC REDUCER
	FD	FIRE DAMPER			FLEXIBLE CONNECTION (PIPING)
	MOD	MOTOR OPERATED DAMPER			AUTOMATIC AIR VENT
	DD	DUCT SMOKE DETECTOR			BACKFLOW PREVENTER MAKE-UP WATER SYSTEM
	DPS	DIFFERENTIAL PRESSURE SENSOR			PIPE - TURN DOWN
	SPC	STATIC PRESSURE CONTROLLER			PIPE - TURN UP
	SPS	STATIC PRESSURE SENSOR			PIPE - BOTTOM TAKE OFF
	TSTAT	TEMPERATURE SENSOR WITH GUARD			PIPE - TOP TAKE OFF
		AQUASTAT			END CAP
	CO	CARBON MONOXIDE SENSOR			DIRECTION OF FLOW
		SWITCH			GAUGE VALVE
	ATC	AUTOMATIC TEMPERATURE CONTROL PANEL		CW	COLD WATER
		BLIND FLANGE		HW	DOMESTIC HOT WATER
		FLEXIBLE HOSE		HWR	DOMESTIC HOT WATER RECIRCULATING
	RS	REFRIGERANT SUCTION		CX	CONNECT TO EXISTING
	RL	REFRIGERANT LIQUID		RX	REMOVE EXISTING (ENDS HERE)
	HL	HIGH PRESSURE/LOW PRESSURE REFRIGERANT			PART PLAN DESIGNATION
	CD	A/C CONDENSATE DRAIN		HP	CEILING CASSETTE HEAT PUMP UNIT
	NG	NATURAL GAS PIPING		ACC	VARIABLE REFRIGERANT SYSTEM COMPRESSOR UNIT
	HPWS	HEAT PUMP WATER SUPPLY		BS	BRANCH SELECTOR BOX WITH CLEARANCES
	HPWR	HEAT PUMP WATER RETURN		#	AIR DEVICE TAG
	#	DRAWING NOTE - DEMOLITION			GLOBE VALVE
	#	DRAWING NOTE - NEW WORK			BALANCING VALVE
	HWS	HEATING WATER SUPPLY			FLOW METER FITTING
	HWR	HEATING WATER RETURN			MULTI-PURPOSE VALVE
	CHWS	CHILLED WATER SUPPLY			CHECK VALVE
	CHWR	CHILLED WATER RETURN			SHUT-OFF VALVE
	DTS	DUAL TEMP SUPPLY			
	DTR	DUAL TEMP RETURN			
NOTE: 1. NOT ALL ITEMS WITHIN LEGEND MAY BE UTILIZED ON THIS PROJECT.					



CONSULTANTS:

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WOF: 22067

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6 Larch Avenue Suite 308 Wilmington, Delaware 19804
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PROJECT

SEA_22001-FDE-SBHC

Seaford School District

Frederick Douglass ES

School Based Health Center
Renovations

1 Swain Road
Seaford, DE 19973

DRAWING TITLE:

LEGEND AND ABBREVIATIONS
HVAC

DWN BY: RAK
CHK BY: DRH
DATE: 2022/11/22

PROJ. NUMBER: 22104
DRAWING NUMBER:

SCALE:
AS NOTED

M-00.01

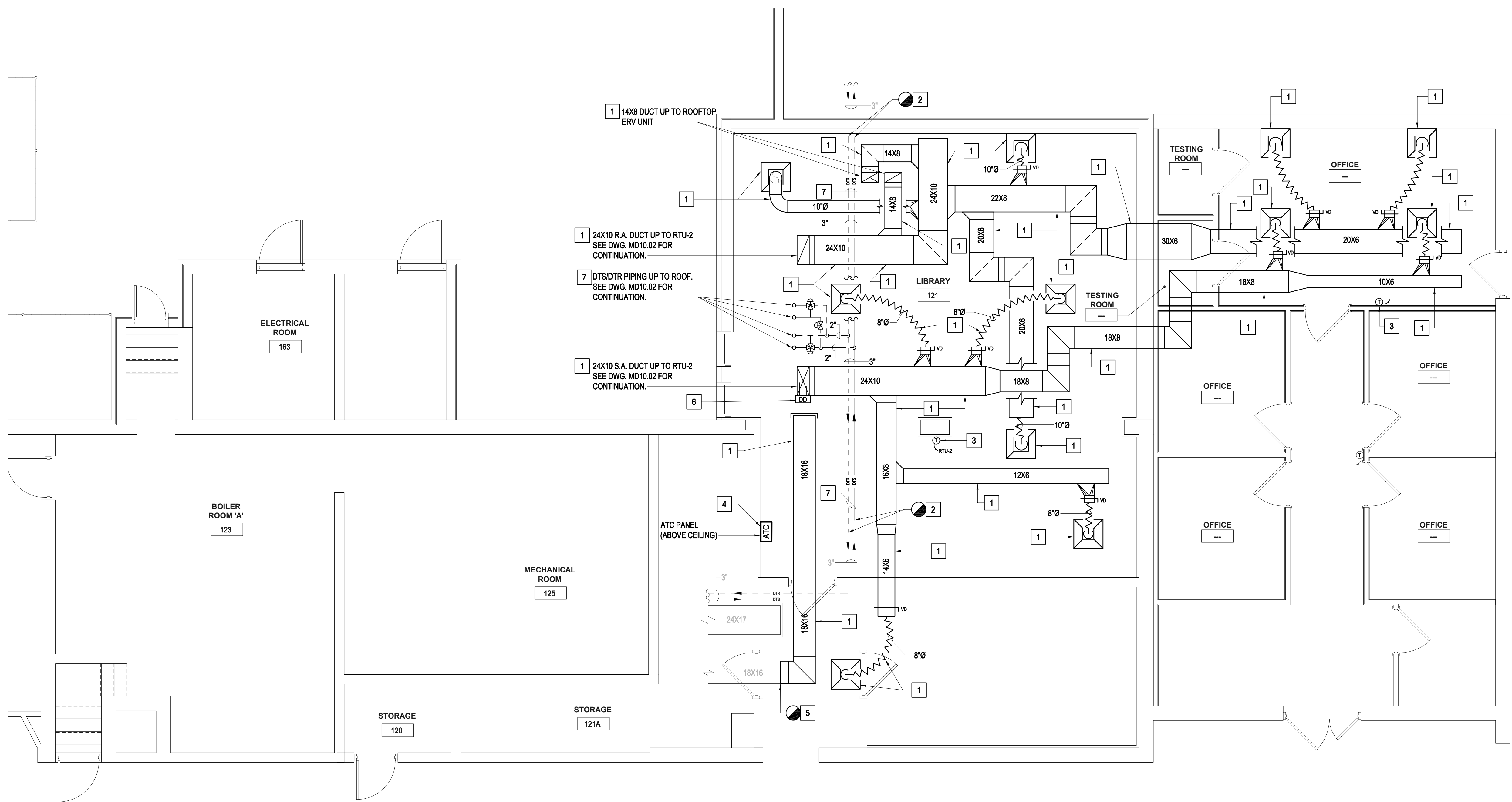
DRAWING NOTES:
(APPLY TO THIS DRAWING ONLY)

- 1 REMOVE ALL DUCTWORK, SUPPORTS, INSULATION, AND AIR DEVICES.
- 2 REMOVE ALL PIPING AND ASSOCIATED SUPPORTS, INSULATION, AND VALVING TO POINT INDICATED AND TEMPORARILY CAP FOR CONNECTION UNDER NEW WORK.
- 3 REMOVE THERMOSTAT, CONTROL WIRING AND/OR TUBING.
- 4 REMOVE ATC PANEL, WIRING AND SUPPORTS ASSOCIATED WITH RTU-2 AND ERV. CONTROLS SERVING EQUIPMENT TO REMAIN SHALL BE MAINTAINED .
- 5 REMOVE DUCTWORK TO POINT INDICATED AND PERMANENTLY CAP.
- 6 REMOVE DUCT SMOKE DETECTOR AND ALL ASSOCIATED WIRING AND SUPPORTS.
- 7 REMOVE ALL PIPING AND ASSOCIATED SUPPORTS, INSULATION, AND VALVING



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1 PARTIAL FIRST FLOOR PLAN - HVAC - DEMOLITION
MD10-01



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Seaford School District

Frederick Douglass ES

School Based Health Center
Renovations

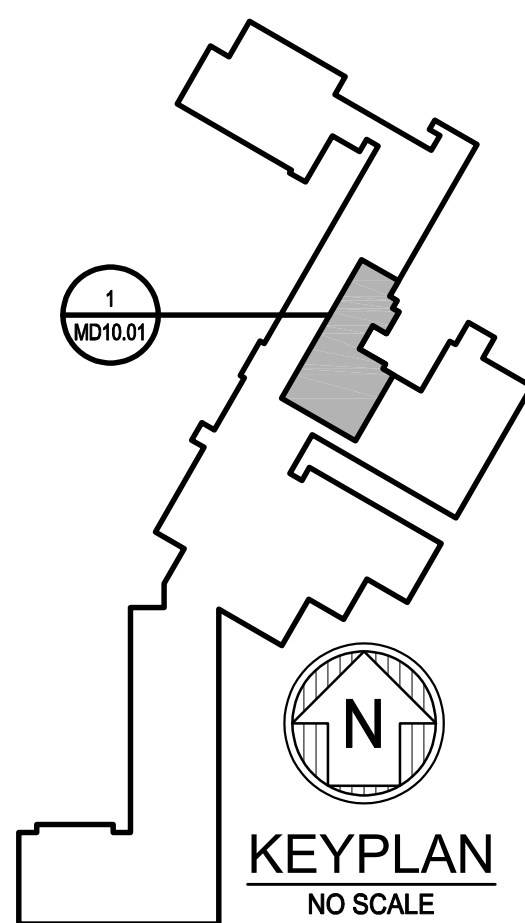
1 Swain Road
Seaford, DE 19973

DRAWING TITLE:
PARTIAL FIRST FLOOR PLAN
HVAC
DEMOLITION

DWN BY: RAK CHK BY: DRH PROJ. NUMBER:
22104

DATE:
2022/11/22 DRAWING NUMBER:

SCALE:
AS NOTED MD-10.01



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

DRAWING NOTES:
(APPLY TO THIS DRAWING ONLY)

- 1

REMOVE ERV UNIT AND ALL ASSOCIATED DUCTWORK, CURB AND CONTROLS.
- 2

REMOVE RTU-2 UNIT AND ALL ASSOCIATED DUCTWORK, PIPING, CURB AND CONTROLS.
- 3

REMOVE ALL DUCTWORK, SUPPORTS AND INSULATION.
- 4

REMOVE ALL PIPING AND ASSOCIATED SUPPORTS, INSULATION, AND VALVING.



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Seaford School District

Frederick Douglass ES

School Based Health Center
Renovations

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Seaford, DE 19973

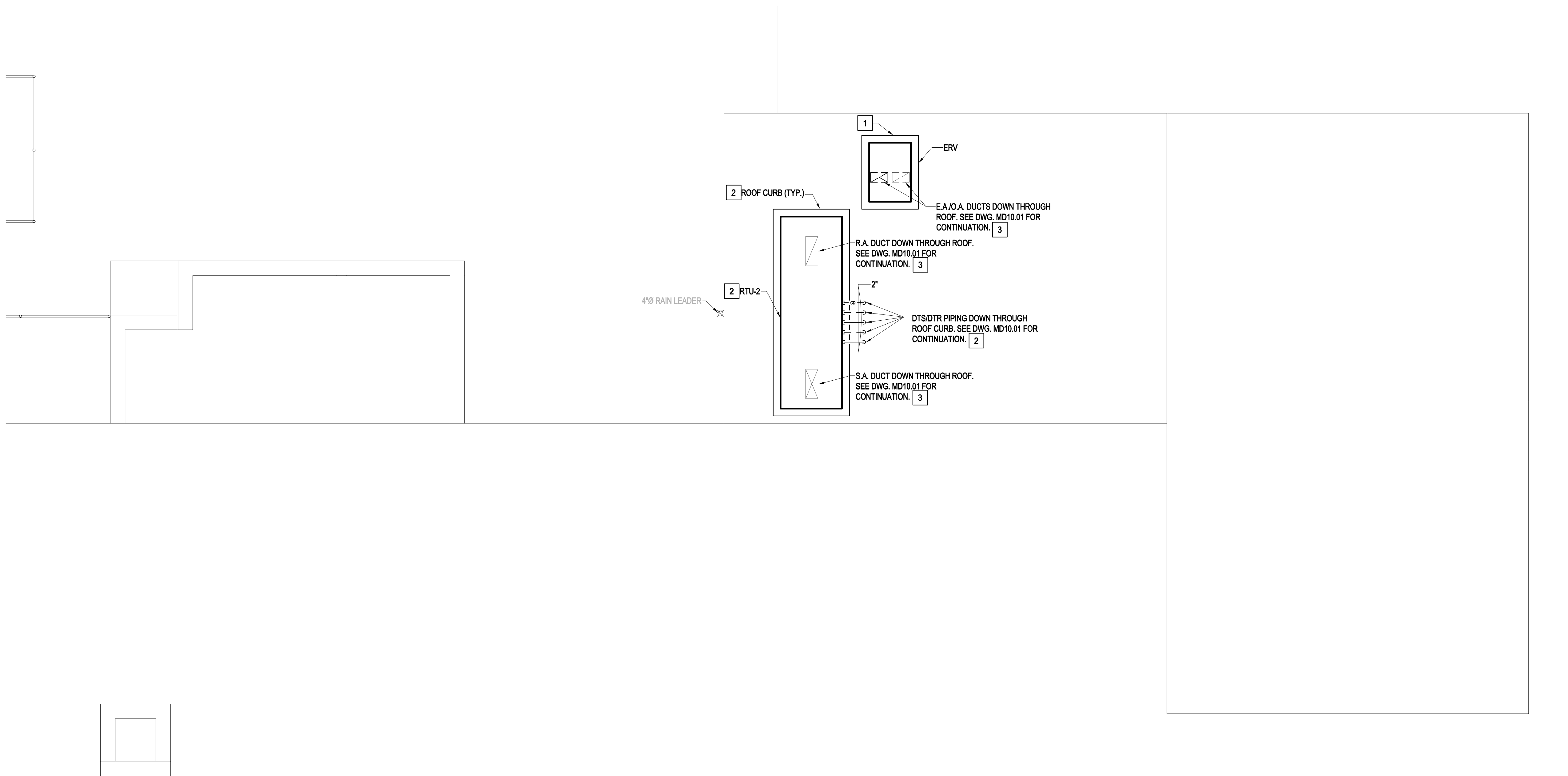
DRAWING TITLE:

PARTIAL ROOF PLAN
HVAC
DEMOLITION

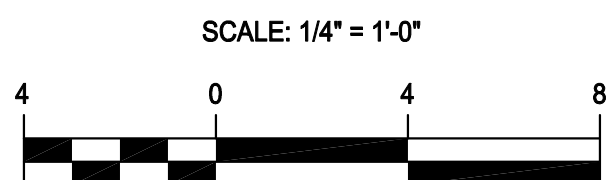
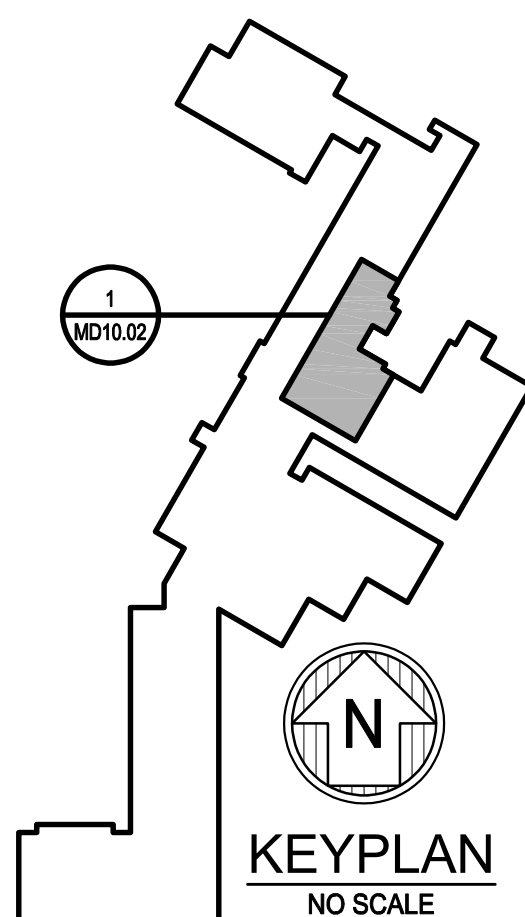
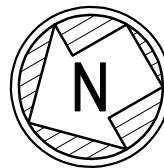
DWN BY: RAK CHK BY: DRH PROJ. NUMBER: 22104

DATE: 2022/11/22 DRAWING NUMBER:

SCALE: AS NOTED MD-10.02



1 PARTIAL ROOF PLAN - HVAC - DEMOLITION

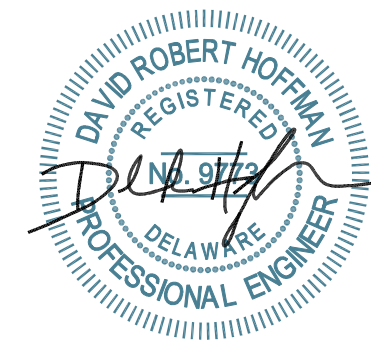


(APPLY TO ALL DRAWINGS)

1. REFER TO DWG. MP10.01 FOR DUAL TEMPERATURE, REFRIGERANT AND CONDENSATE PIPING. REFER TO VRF SYSTEM RISERS FOR ADDITIONAL INFORMATION (PIPE SIZES).

(APPLY TO THIS DRAWING ONLY)

- ① 14X8 O.A. AND 14X8 E.A. DUCT UP TO ERV-1 ON ROOF. TRANSITION TO FULL SIZE UNIT DUCT CONNECTION AS REQUIRED. SEE DWG. M10.02 FOR CONTINUATION.
- ② CAP EXISTING DUCT AIRTIGHT AND INSULATE THE SAME.



CONSULTANTS:

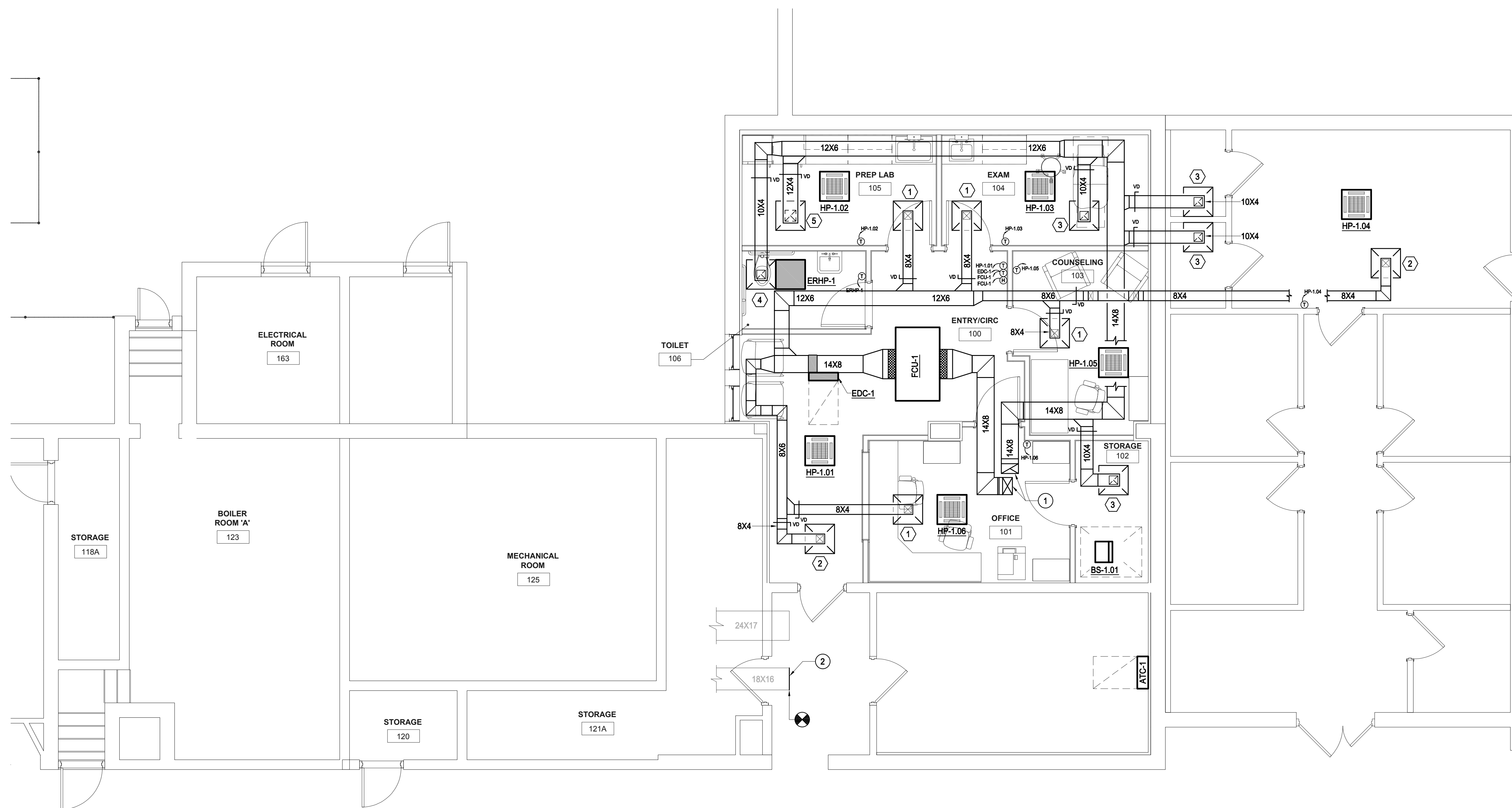
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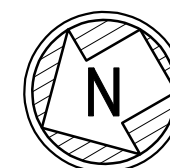
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1 PARTIAL FIRST FLOOR PLAN - HVAC - NEW WORK



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PROJECT

SEA_22001-FDE-SBHC

Seaford School District

Frederick Douglass ES

School Based Health Center Renovations

1 Swain Road
Seaford, DE 19973

DRAWING TITLE:

PARTIAL FIRST FLOOR PLAN

NEW WORK

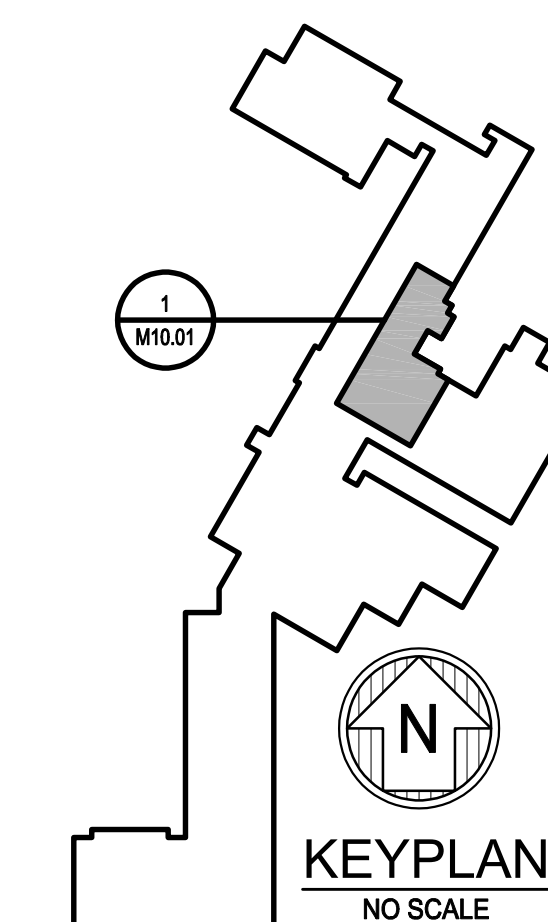
DWN BY:	CHK BY:	PROJ. NUMBER:
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RAK	DRH	22104
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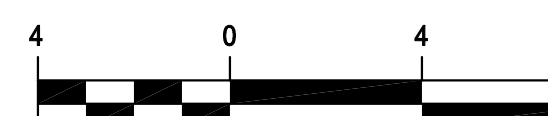
DATE:	DRAWING NUMBER:
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2022/11/22

SCALE:	M-10.01
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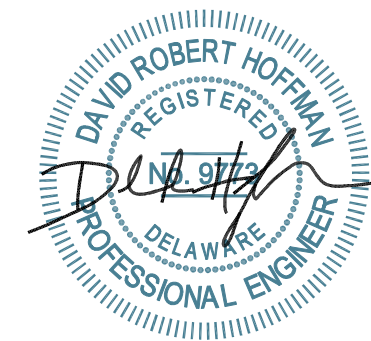


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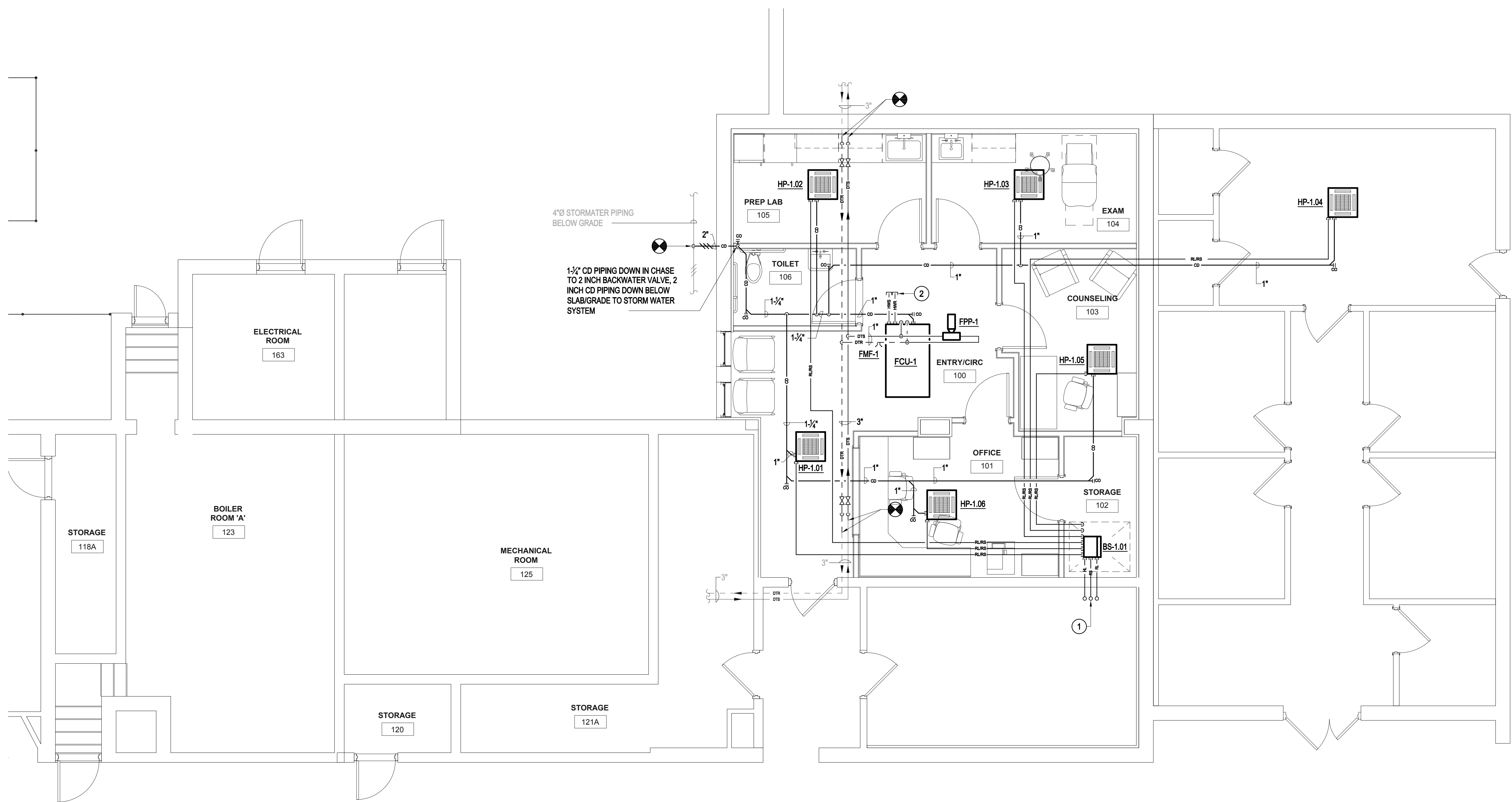
DRAWING NOTES:
(APPLY TO THIS DRAWING ONLY)

- ① RL, RS, HL PIPING UP TO ACCU-1 ON ROOF. SEE DWG. M10.02 FOR CONTINUATION.
- ② 3/4" HWS/HWR PIPING CAPPED FOR FUTURE CONNECTION.

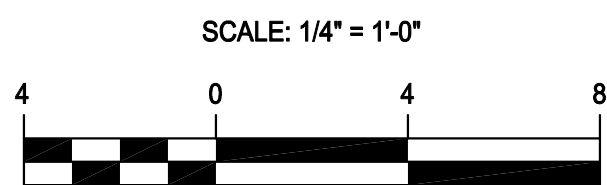
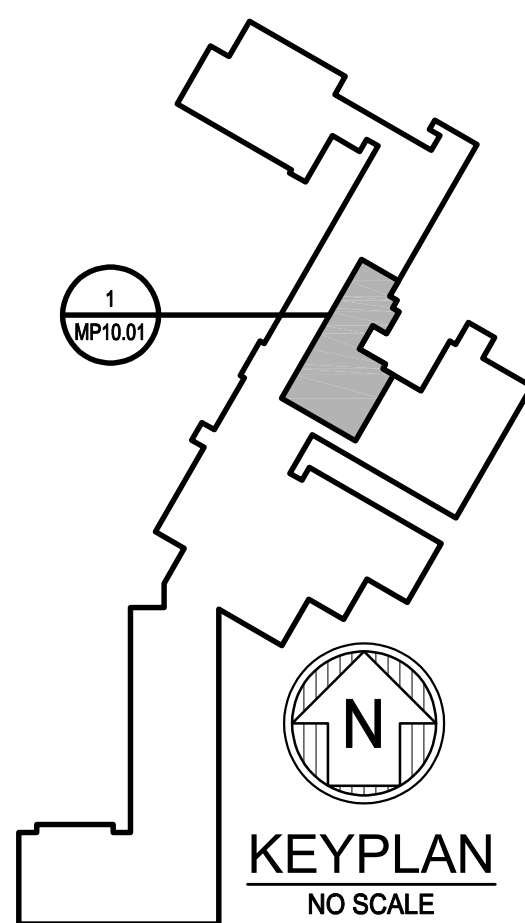


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① PARTIAL FIRST FLOOR PLAN - HVAC PIPING - NEW WORK



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Seaford School District
Frederick Douglass ES
School Based Health Center
Renovations

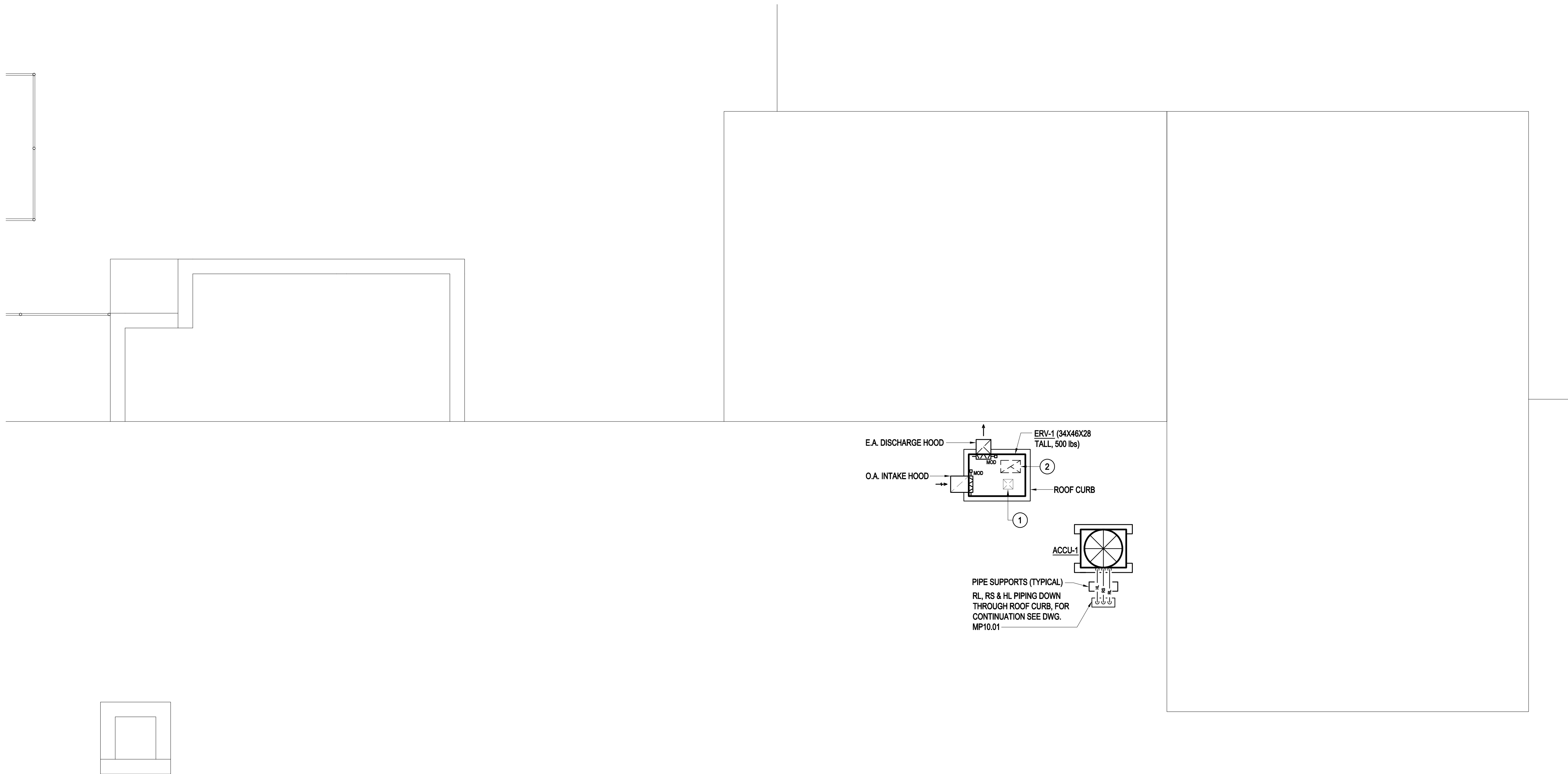
1 Swain Road
Seaford, DE 19973

DRAWING TITLE:
PARTIAL FIRST FLOOR PLAN
HVAC
NEW WORK

DWN BY: RAK CHK BY: DRH PROJ. NUMBER:
22104

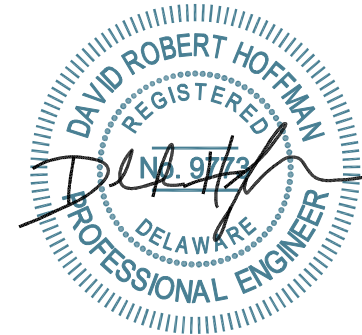
DATE:
2022/11/22 DRAWING NUMBER:
MP-10.01

SCALE:
AS NOTED



DRAWING NOTES:
(APPLY TO THIS DRAWING ONLY)

- 1 O.A. DUCTWORK DOWN THROUGH ROOF CURB. SEE DWG. M10.01 FOR CONTINUATION.
- 2 E.A. DUCTWORK DOWN THROUGH ROOF CURB. SEE DWG. M10.01 FOR CONTINUATION.



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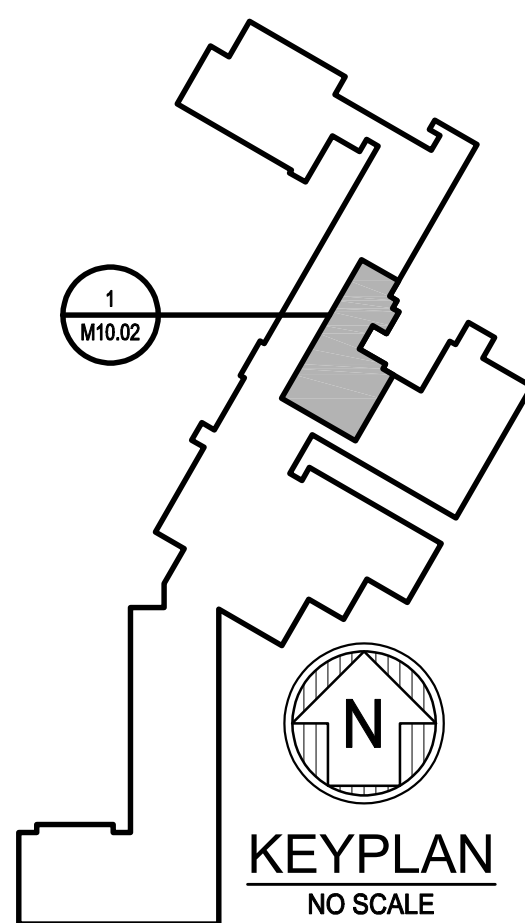
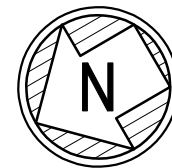
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1 PARTIAL ROOF PLAN - HVAC - NEW WORK
M10.02



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

Architects
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PROJECT

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Seaford School District
Frederick Douglass ES
School Based Health Center Renovations
1 Swain Road
Seaford, DE 19973

DRAWING TITLE:

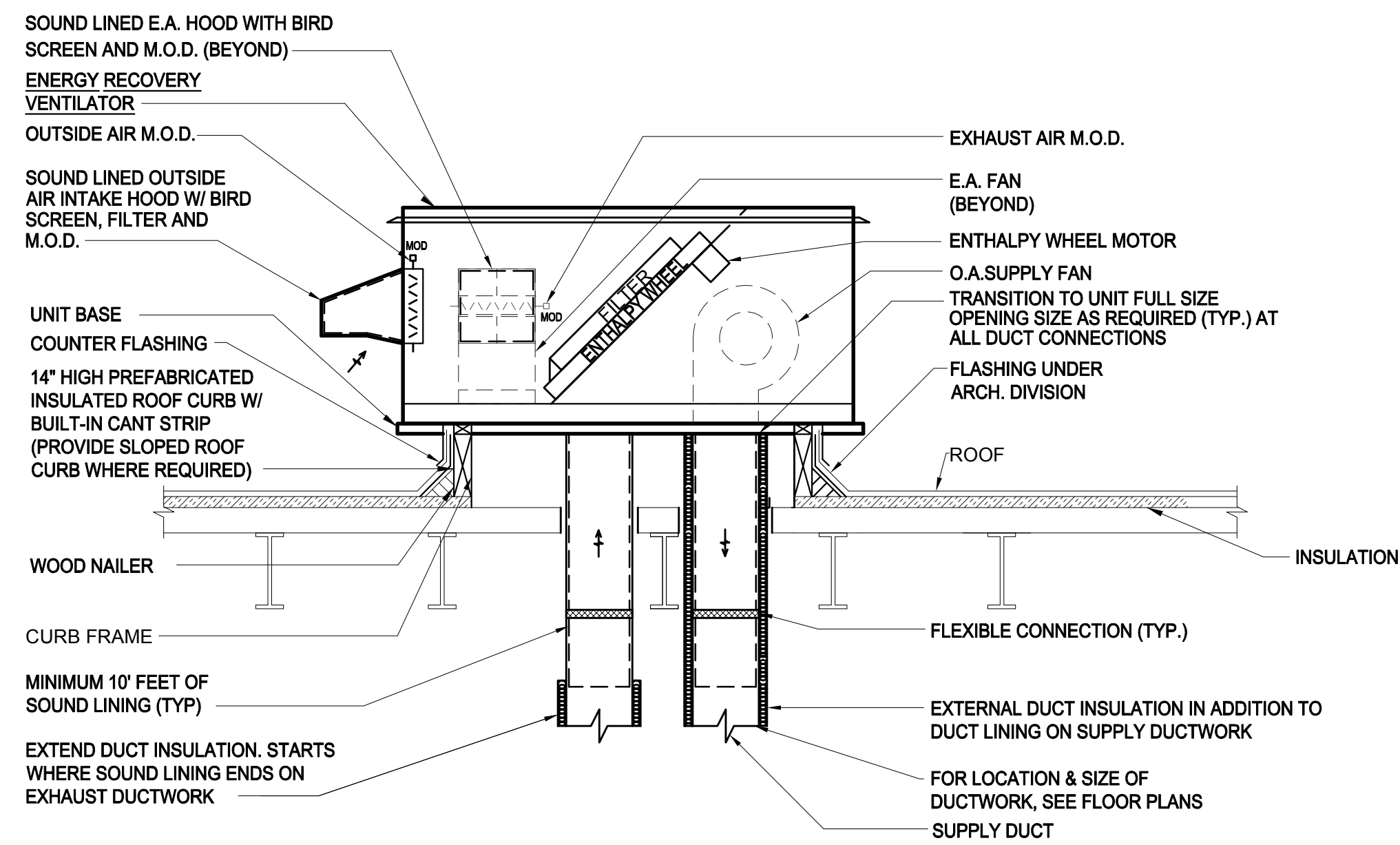
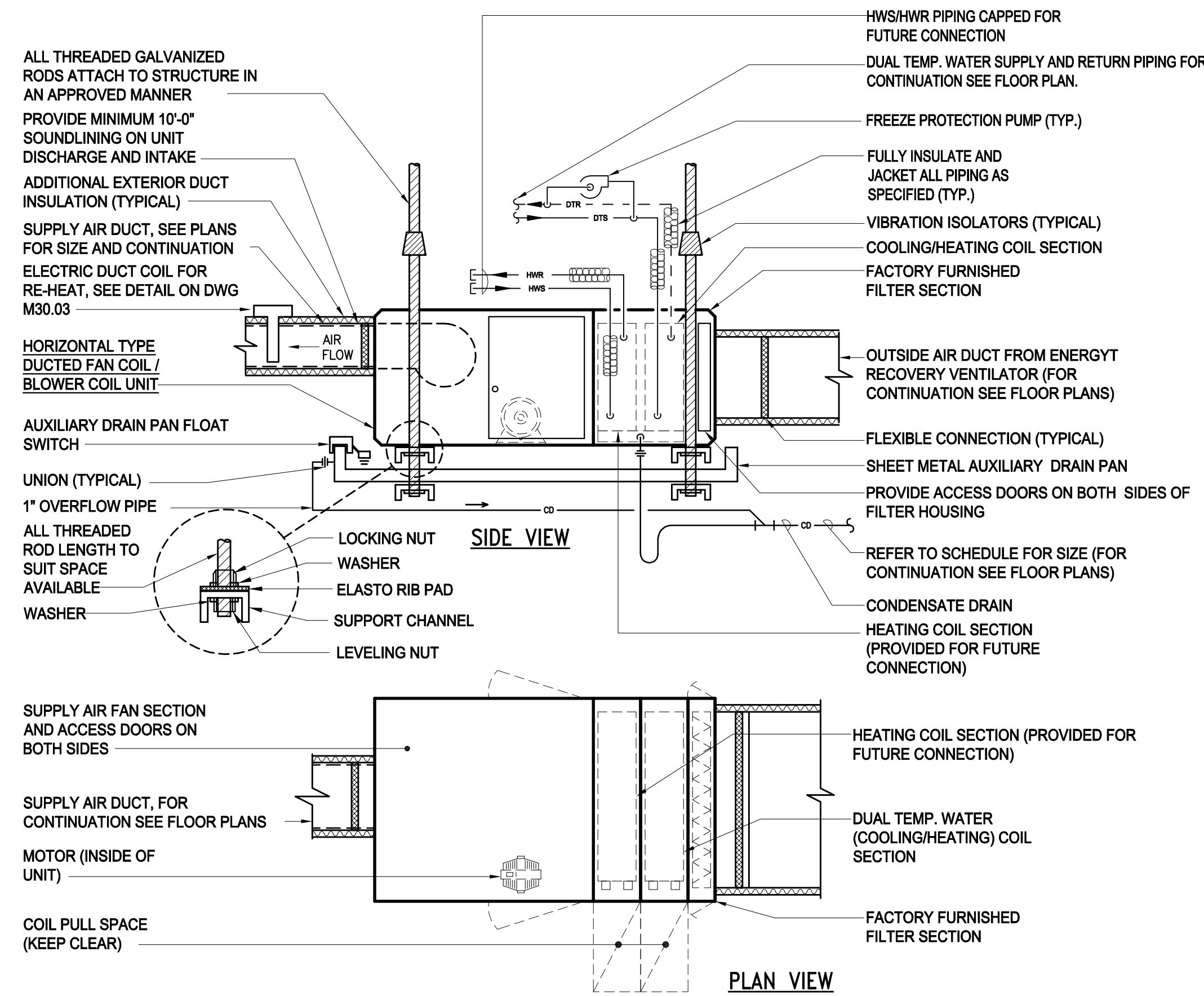
PARTIAL ROOF PLAN
HVAC
NEW WORK

DWN BY: RAK CHK BY: DRH PROJ. NUMBER: 22104

DATE: 2022/11/22 DRAWING NUMBER:

SCALE: AS NOTED

M-10.02

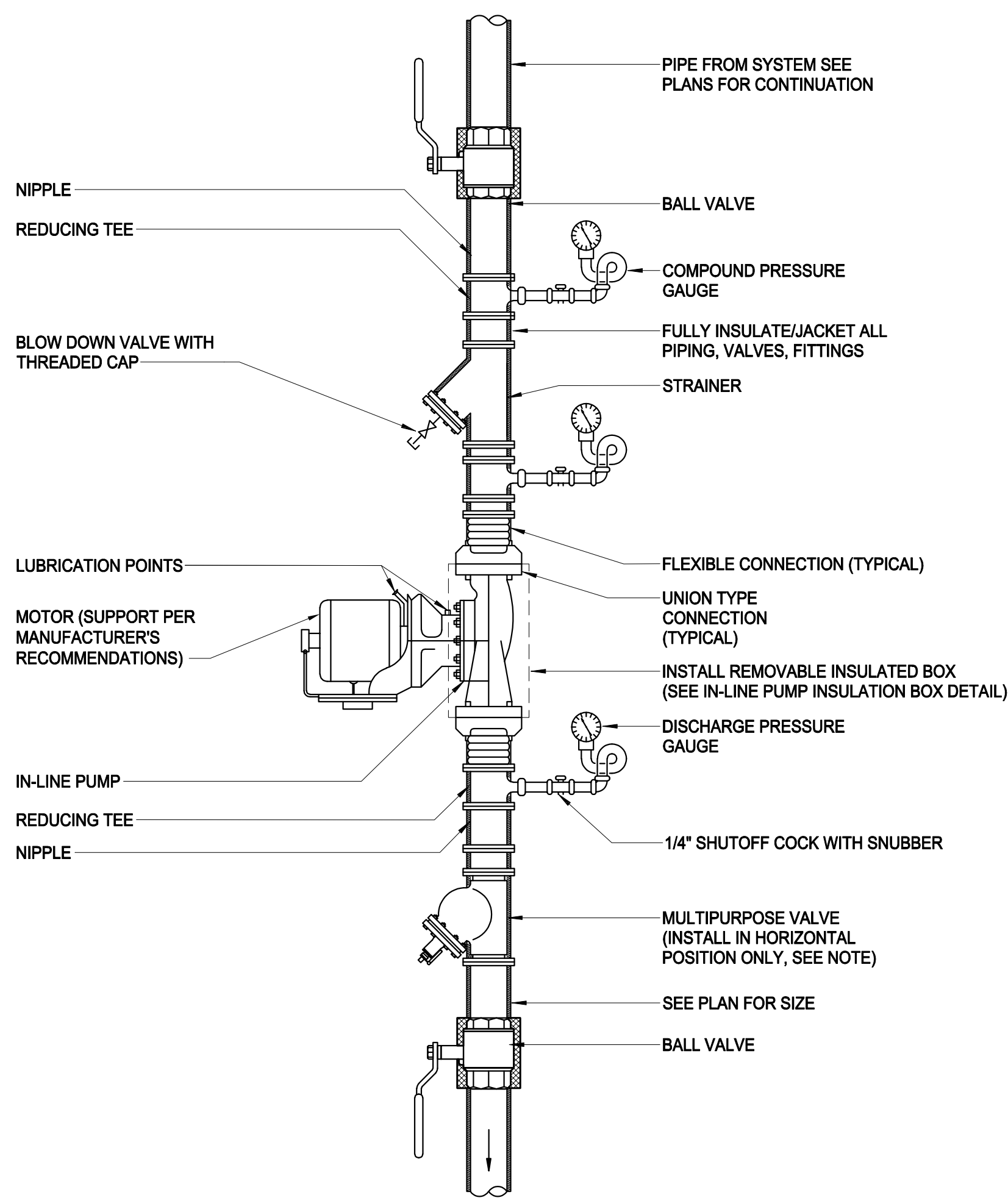


1 DETAIL - FAN COIL UNIT (DUAL WALL)

NO SCALE

2 DETAIL - TYPICAL ROOF MOUNTED ENERGY RECOVERY VENTILATOR

NO SCALE



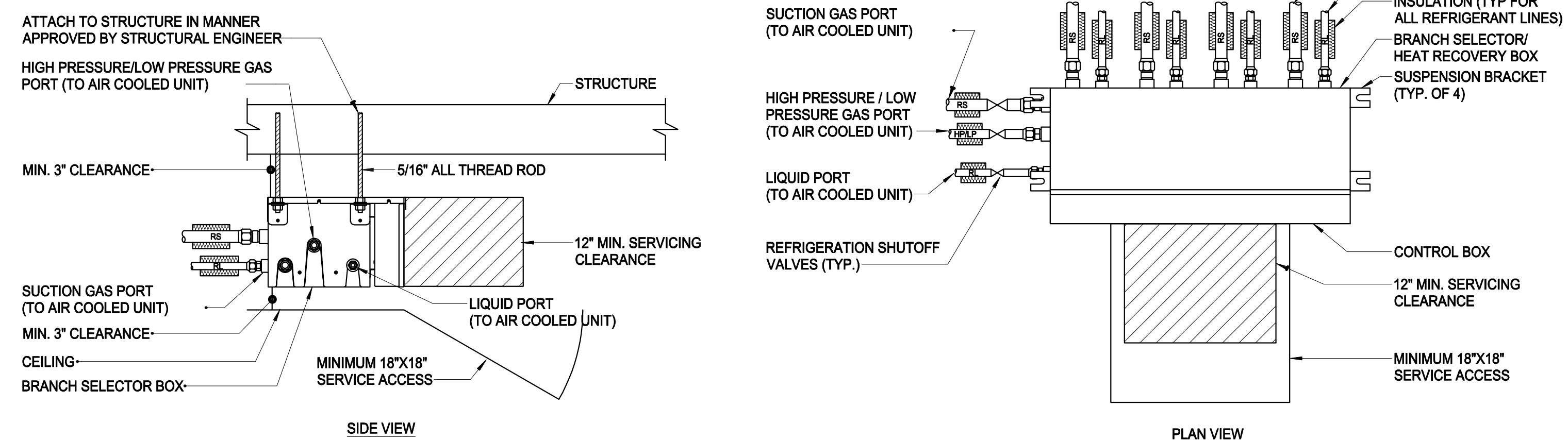
NOTES:

- IF PRIMARY PIPING LESS THAN 1-1/2", THEN CONTRACTOR SHALL INSTALL SEPARATE CHECK VALVE, SHUT-OFF VALVE, AND BALANCE VALVE IN LIEU OF MULTIPURPOSE VALVE.
- PIPES, VALVES AND FITTINGS SHALL BE LINE SIZE, NOT PUMP FLANGE SIZE.

3 DETAIL - IN-LINE PUMP

NO SCALE

4 DETAIL - VARIABLE REFRIGERANT FLOW BRANCH SELECTOR/HEAT RECOVERY BOX

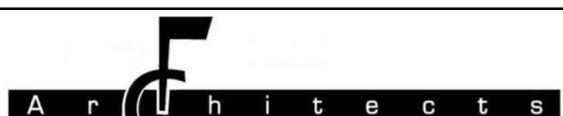


NOTE:

- REFER TO PLANS FOR QUANTITY OF PIPING RUNOUTS TO HEAT PUMP UNITS.

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PROJECT

SEA_22001-FDE-SBHC

Seaford School District

Frederick Douglass ES

School Based Health Center
Renovations

1 Swain Road
Seaford, DE 19973

DRAWING TITLE:

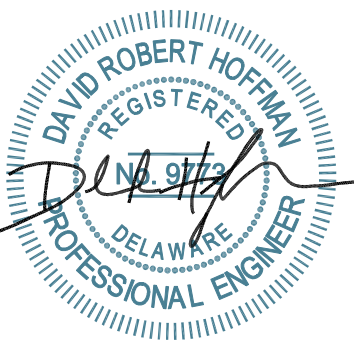
DETAILS
HVAC

DWN BY: RAK CHK BY: DRH PROJ. NUMBER: 22104

DATE: 2022/11/22 DRAWING NUMBER:

SCALE: AS NOTED

M-30.01



CONSULTANTS:

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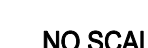
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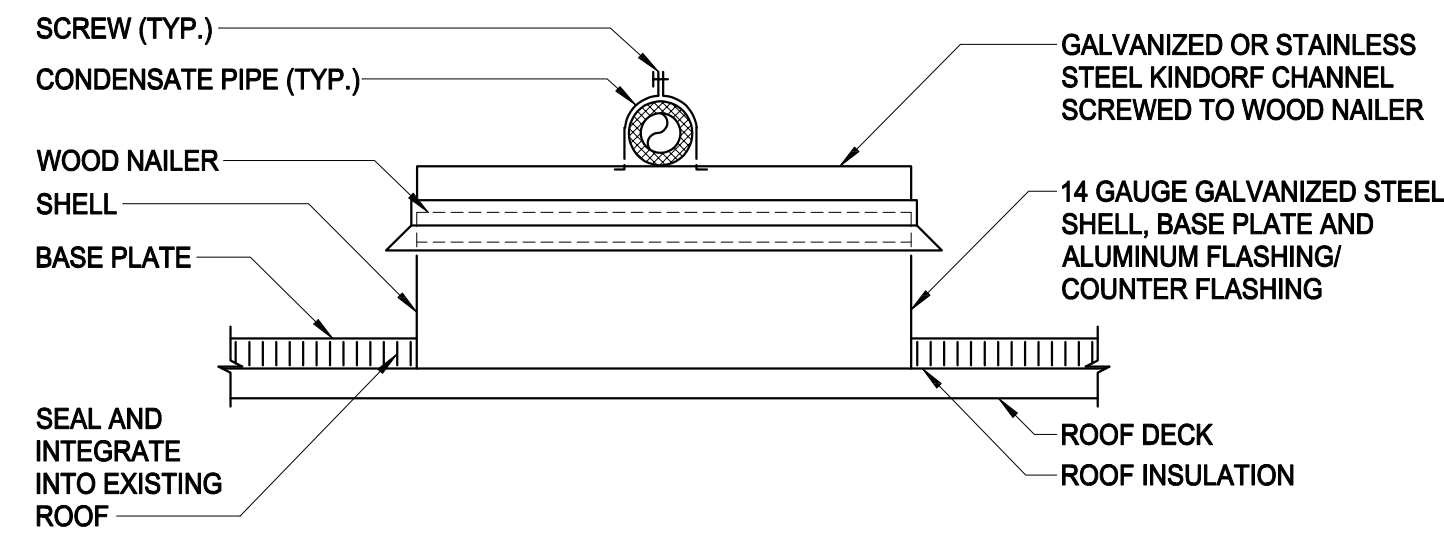


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SCALE: M-30.02



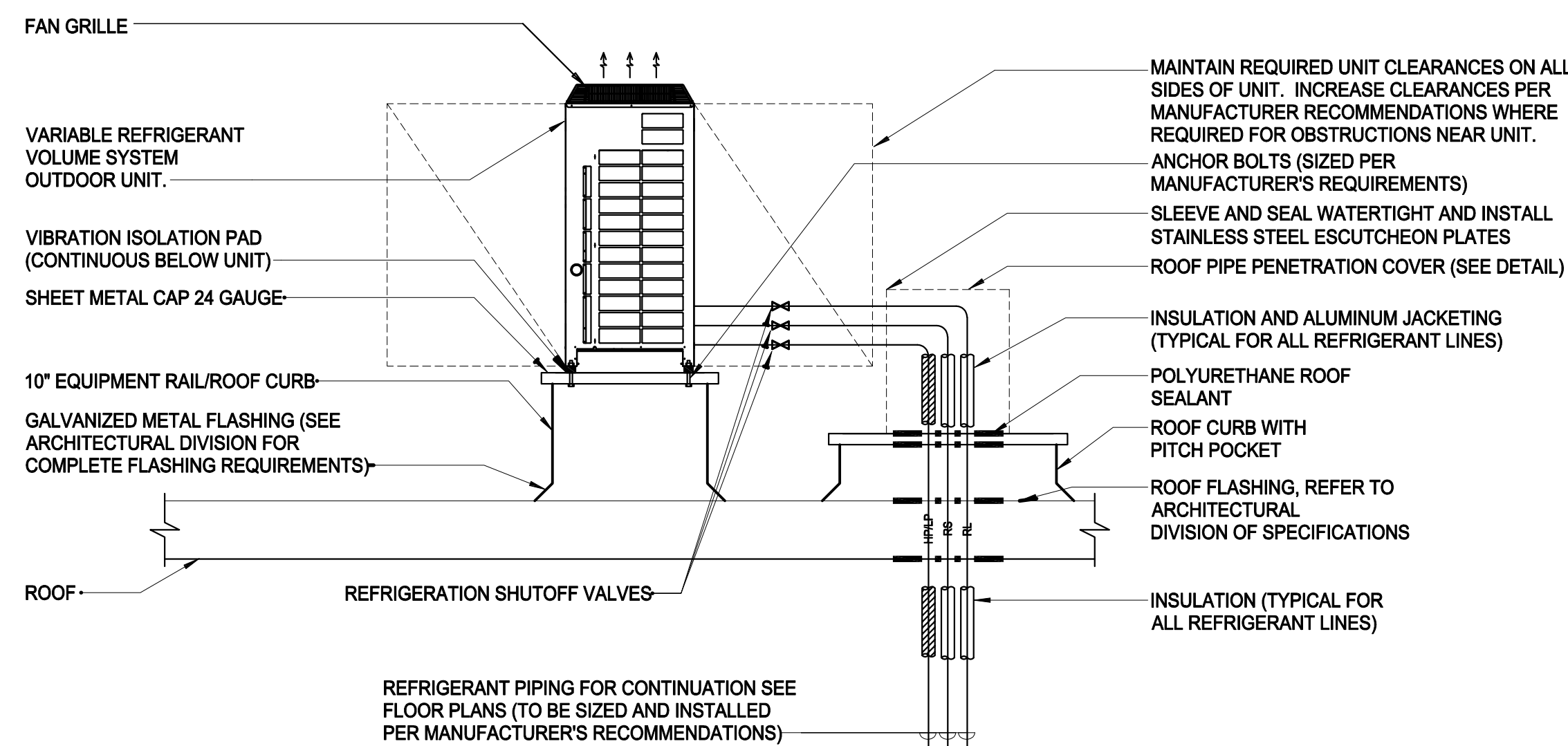


NOTE:
1. REFER TO FLOOR PLANS FOR QUANTITY.

1 DETAIL - TYPICAL PIPE SUPPORT ON ROOF

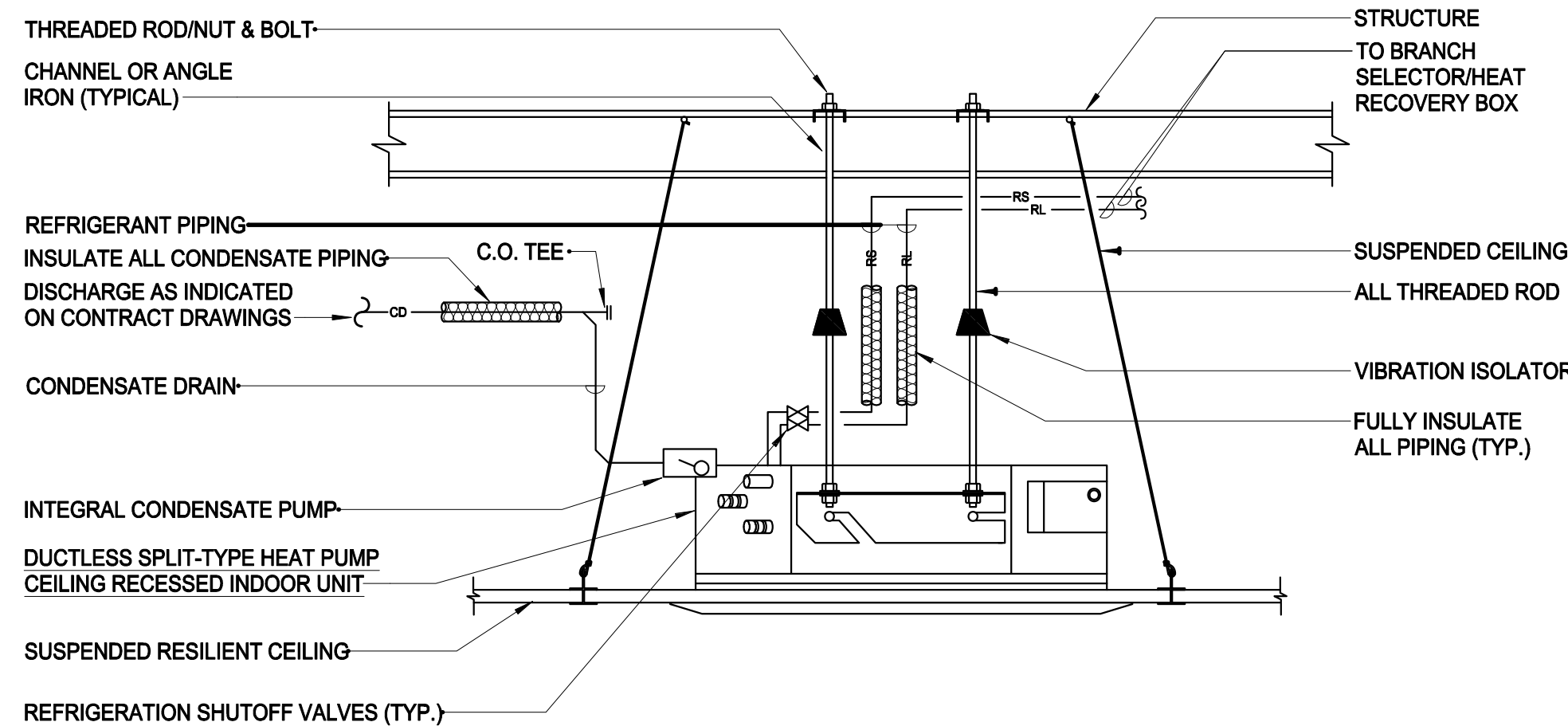
NO SCALE

2 NOT USED



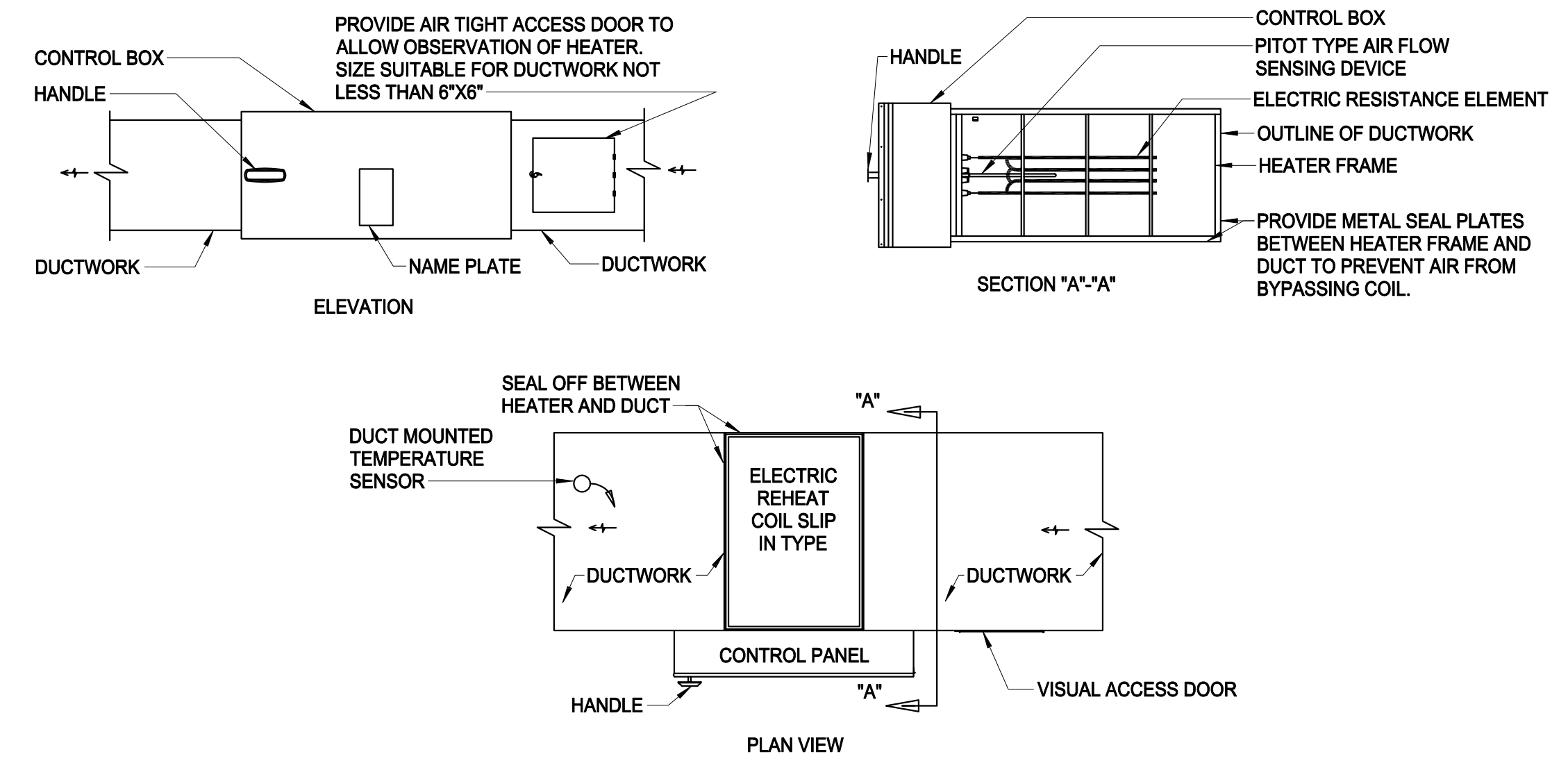
4 DETAIL - VARIABLE REFRIGERANT VOLUME SPLIT SYSTEM WITH HEAT RECOVERY - ROOF MOUNTED OUTDOOR UNIT

NO SCALE



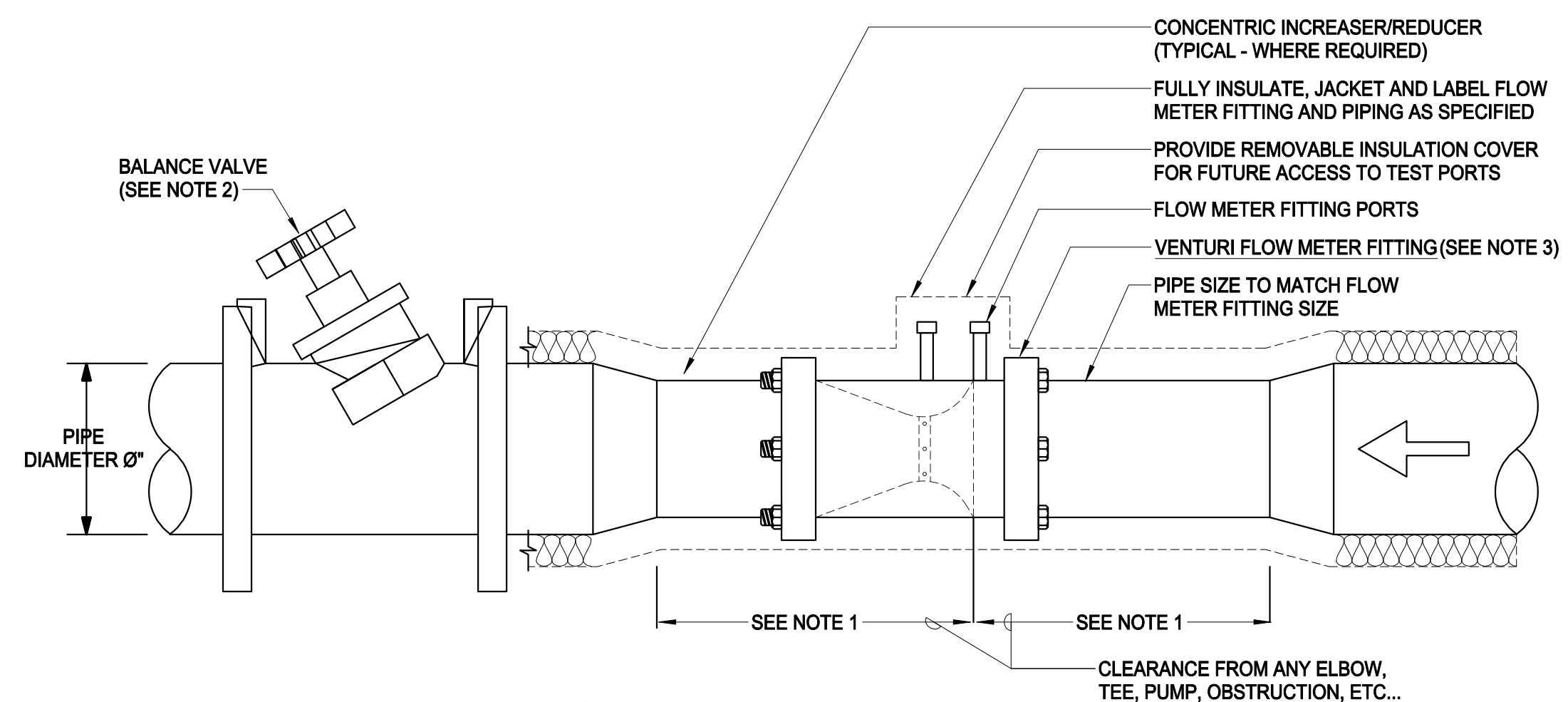
5 DETAIL - VARIABLE REFRIGERANT FLOW SPLIT SYSTEM INDOOR CEILING MOUNTED UNIT

NO SCALE



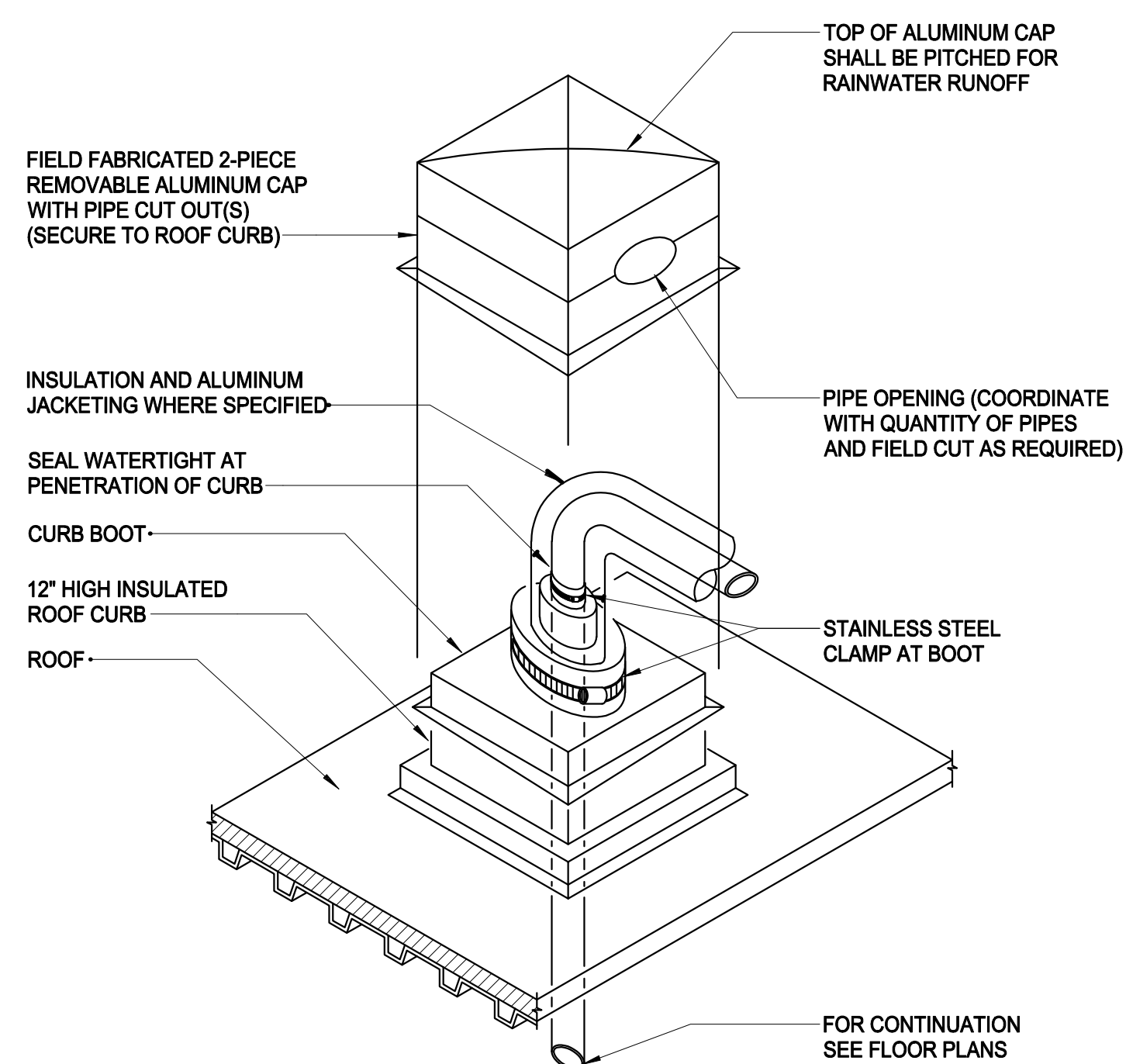
3 DETAIL - TYPICAL ELECTRIC DUCT MOUNTED HEATING COIL

NO SCALE



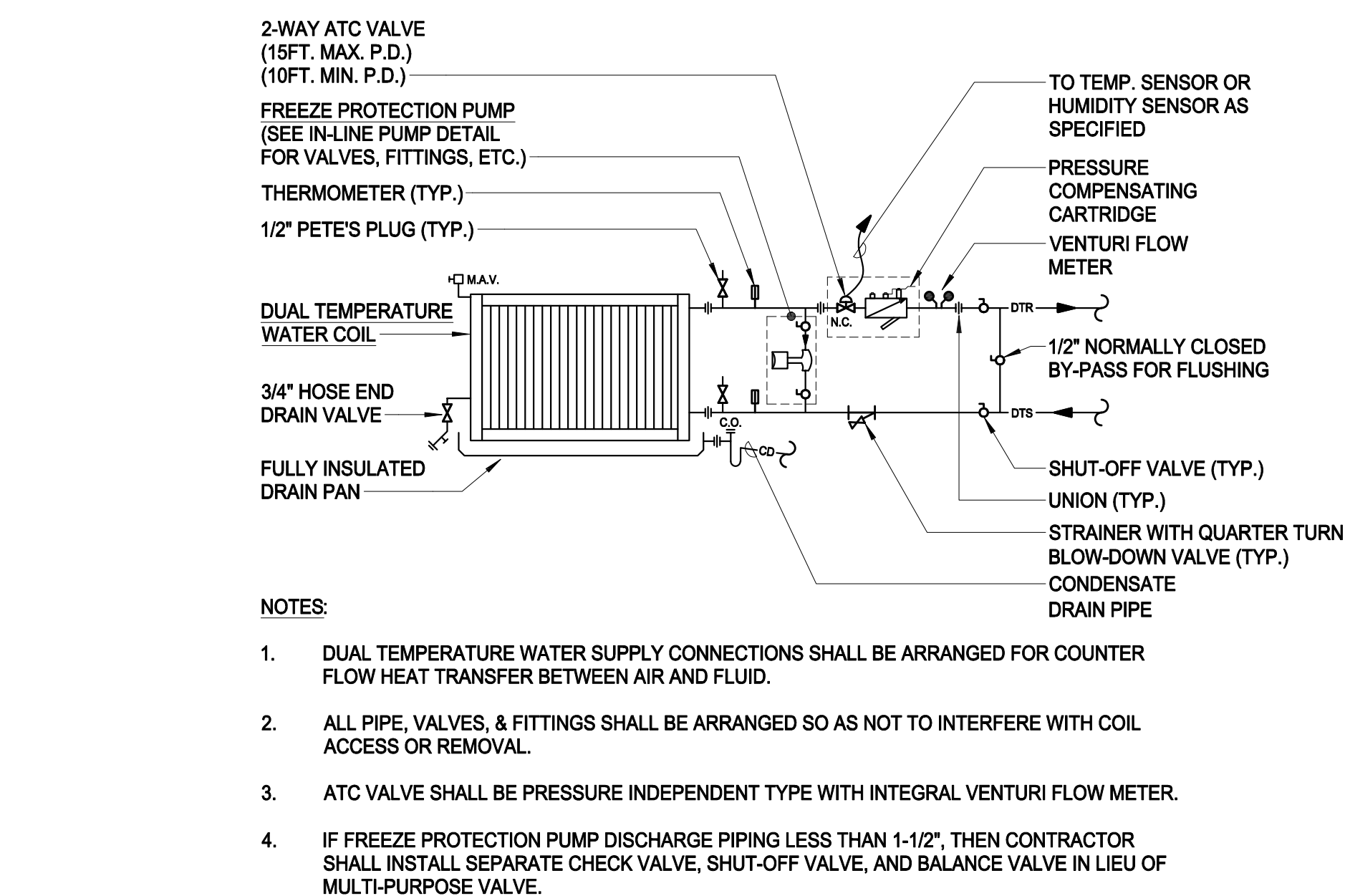
6 DETAIL - FLOW METER FITTING (VENTURI TYPE)

NO SCALE



7 DETAIL - TYPICAL PIPING THROUGH ROOF DECK

NO SCALE



8 PIPING DETAIL - DUAL TEMPERATURE WATER COIL W/2-WAY PRESSURE INDEPENDENT CONTROL VALVE & FREEZE PROTECTION PUMP

NO SCALE

9 NOT USED

NO SCALE



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Frederick Douglass ES

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1 Swain Road
Seaford, DE 19973

DRAWING TITLE:

DETAILS
HVAC

DWN BY:

CHK BY:

PROJ. NUMBER:

22104

DATE:

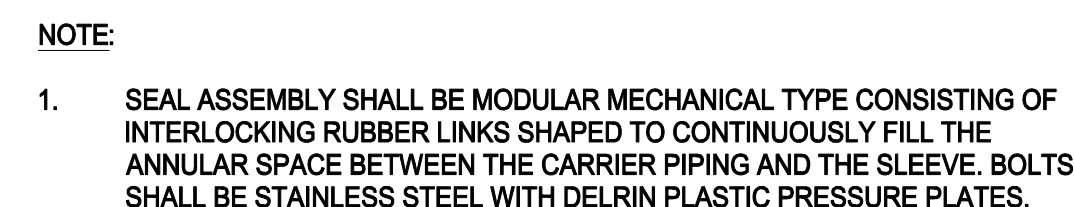
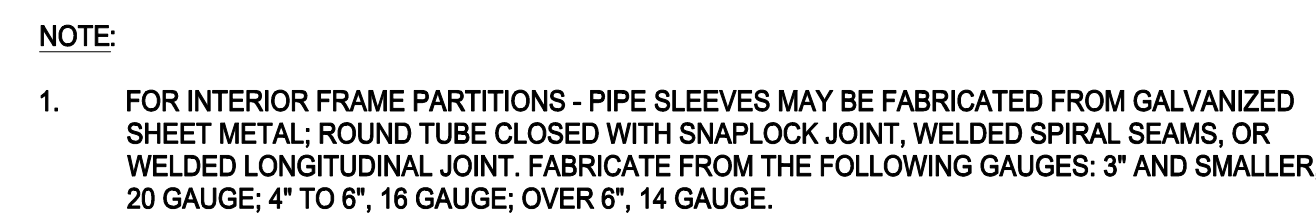
DRAWING NUMBER:

2022/11/22

SCALE:

AS NOTED

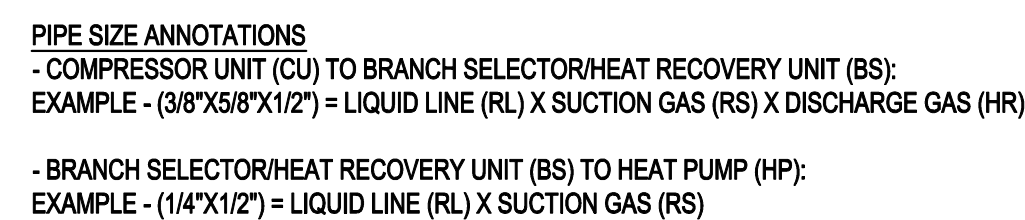
M-30.03



NO SCALE

NO SCALE

4 NOT USED



6 VRV/VRF COMPRESSOR UNIT (ACCU-1) PIPE SIZE RISER

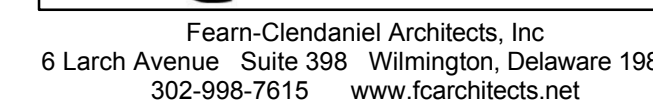


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ISSUE DATES:

-1 - ISSUED FOR BID/ 2022/11/22
CONSTRUCTION



PROJECT

SEA_22001-FDE-SBHC

Seaford School District

Frederick Douglass ES

School Based Health Center Renovations

1 Swain Road
Seaford, DE 19973

DRAWING TITLE:

DETAILS
HVAC

DWN BY:	CHK BY:	PROJ. NUMBER:
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RAK	DRH	22104
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DATE:	DRAWING NUMBER:
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2022/11/22

M-30.04

NO SCALE

AUTOMATIC TEMPERATURE CONTROL POINT LIST																										
EQUIPMENT OR SYSTEM		DISCRETE & ANALOG CONTROL				DISCRETE & STATUS ALARM	DISCRETE ALARM	ANALOG VALVE INDICATION & ALARM				PROGRAMS														
		START & STOP	WATERSIDE CONTROL VALVE (FULLY MODULATING - PRESSURE INDEPENDENT TYPE)	TWO POSITION DAMPERS WITH ENDSWITCHES	FREEZE PROTECTION PUMP	CURRENT SENSOR	FLUID FLOW / PUMP STATUS	FAN STATUS	LOW TEMPERATURE ALARM (FREEZE/STAT)	CONDENSATE OVERFLOW SAFETY SWITCH (TYP OF 2)	ELECTRIC HEATER AIR FLOW PROVING SWITCH	ELECTRIC HEATER HIGH TEMPERATURE LIMIT	RELATIVE HUMIDITY - SPACE	TEMP - OA GLOBAL	RELATIVE HUMIDITY - OA GLOBAL	TEMP - ERV EXHAUST AIR	TEMP - ERV SUPPLY AIR	TEMP - FCU DISCHARGE AIR	TEMP - SPACE (RE-SET DISCHARGE AIR)	TEMP - EDG DISCHARGE AIR	FREEZE PROTECTION PUMP EXERCISE MODE	ERV HIGH AND LOW TEMPERATURE ALARM	TOTAL RUN TIME	TIME PROGRAM	GRAPHIC DISPLAY	
ENERGY RECOVERY VENTILATOR	●	●		●	●		●						●	●	●	●			●	●	●	●	●	●	●	●
FAN COIL UNIT	●	●						●															●	●	●	●
FREEZE PROTECTION PUMP	●			●															●	●			●	●	●	●
ELECTRIC DUCT HEAT COIL	●									●	●								●	●			●	●	●	●

NOTES:

1. PROVIDE ADDITIONAL DIGITAL POINTS AS NECESSARY TO ACCOMPLISH THE SPECIFIED SEQUENCE OF OPERATION DESCRIBED IN THE SPECIFICATIONS.
2. ALL ITEMS IN THE POINTS LIST SHALL BE VIEWABLE FROM THE OPERATOR'S TERMINAL.

ENERGY RECOVERY VENTILATOR UNIT (ERV) ATC INTERLOCK SCHEDULE			
ERV NO.	100% O.A. FAN COIL NO.	HEAT PUMP UNIT NO.	ELEC. DUCT HEATING COIL NO.
ERV-1	FCU-1	HP-1.01 THROUGH HP-1.06	EDC-1

ATC CONTROL SEQUENCE

A. GENERAL

1. FAN COIL UNITS, ELECTRIC DUCT HEATING COIL AND ASSOCIATED ENERGY RECOVERY VENTILATORS SHALL BE STARTED AND STOPPED THROUGH THE CCMS SYSTEM BY WAY OF ATC SYSTEM PROGRAM (WITH MANUAL OVERRIDE). FAN COIL UNITS SHALL BE COUPLED WITH AN ENERGY RECOVERY VENTILATOR TO PROVIDE CONDITIONED, NEUTRAL, 100% OUTSIDE AIR FOR VENTILATING THE SPACES DURING OCCUPIED PERIODS. FAN COIL IS SPECIFIED AS A 4-PIPE FAN COIL UNIT WITH SEPARATE CHILLED AND HEATING WATER COILS. EXISTING CENTRAL PLANT SERVING THE SCHOOL, IS A DUAL TEMPERATURE SYSTEM (2-PIPS). THE HEATING COIL IN THE FAN COIL SHALL BE INACTIVE UNTIL A FUTURE DATE WHEN THE CENTRAL PLANTS ARE CHANGED TO A 4-PIPE SYSTEM. THE CHILLED WATER COIL SHALL ACT AS A DUAL TEMPERATURE COIL AND PROVIDE BOTH HEATING AND COOLING FOR THE FAN COIL UNIT.
2. WHEN A FAN COIL UNIT IS DE-ENERGIZED THE DUAL TEMPERATURE COIL CONTROL VALVE, (V-1) SHALL OPEN IN HEATING MODE AND CLOSE IN COOLING MODE.
3. FAN COILS SHALL BE CONTROLLED BY DISCHARGE AIR TEMPERATURE SENSORS WITH DUAL HEATING AND COOLING, SET-POINT WITH DEADBAND. TEMPERATURE SENSORS SHALL MODULATE DUAL TEMPERATURE CONTROL VALVE AS NECESSARY TO MAINTAIN SET POINTS.
4. PROVIDE MOTOR CURRENT SENSOR TO MONITOR STATUS OF FAN COIL UNIT, FREEZE PROTECTION PUMP AND ENERGY RECOVERY VENTILATOR.
5. PROVIDE DISCHARGE AIR TEMPERATURE SENSOR TO MONITOR AND CONTROL FAN COIL UNIT SUPPLY AIR TEMPERATURE.
6. PROVIDE DISCHARGE AIR TEMPERATURE SENSOR TO MONITOR AND CONTROL ELECTRIC DUCT HEATING COIL SUPPLY AIR TEMPERATURE.
7. CONTROL VALVE SHALL BE PRESSURE INDEPENDENT, FULLY MODULATING TYPE.
8. THE ELECTRIC HEATING COIL SHOULD BE PROVIDED WITH AIR FLOW PROVING SWITCH, AF AND HIGH LIMIT SAFETY SWITCH, HL THAT SHALL BE ARRANGED TO SHUT DOWN AUXILIARY ELECTRIC COIL SHALL EITHER ONE TRIP. INTERLOCK WITH ATC SYSTEM.
9. ATC CONTRACTOR TO INSTALL AND INTERLOCK A/C CONDENSATE OVER FLOW SAFETY SWITCH. SHOULD OVERFLOW CONDITION OCCUR UNITS SHALL SHUTDOWN AND AN ALARM SHALL ANNUNCIATE ON ATC SYSTEM.
10. DEHUMIDIFICATION SHALL BE CONTROLLED BY A WALL MOUNTED RELATIVE HUMIDITY SENSOR.
11. ENERGY RECOVERY VENTILATOR (ERV) SUPPLY AIR FAN SHALL BE STARTED AND STOPPED THROUGH THE ATC SYSTEM BASED ON THE OCCUPIED SCHEDULE PROGRAM.
12. ERV (ENERGY RECOVERY VENTILATOR) SUPPLY FAN AND ERV EXHAUST AIR FANS SHALL BE INTERLOCKED TO OPERATE WHEN THE FAN COIL SUPPLY FAN OPERATES, AND DE-ENERGIZE WHEN THE FAN COIL SUPPLY FAN DE-ENERGIZES.
13. WHEN THE FAN COIL SUPPLY AIR FAN IS DE-ENERGIZED THE OUTSIDE AIR DAMPER (D-1) AND EXHAUST DAMPERS (D-2) SHALL CLOSE. THE ERV SUPPLY FAN AND ERV EXHAUST AIR FAN SHALL BE INTERLOCKED TO DE-ENERGIZE DURING UNOCCUPIED PERIODS.
14. PROVIDE DIFFERENTIAL PRESSURE SENSORS (OR MOTORS CURRENT SENSORS ON SMALL FANS) TO DETERMINE THE STATUS OF ALL FANS ASSOCIATED WITH THE ENERGY RECOVERY UNITS.
15. PROVIDE TEMPERATURE SENSORS TO MONITOR ENERGY RECOVERY VENTILATOR UNIT SUPPLY AIR TEMPERATURE, EXHAUST AIR TEMPERATURE, AND OUTSIDE AIR TEMPERATURE. OUTSIDE AIR TEMPERATURE SHALL BE MONITORED BY GLOBAL OUTSIDE AIR TEMPERATURE SENSOR.
16. WHEN THE OUTSIDE TEMPERATURE (AS SENSED BY T-OA) IS 45 DEGREES F OR BELOW, THE FREEZE PROTECTION PUMPS SHALL BE ENERGIZED TO RUN CONTINUOUSLY WHETHER THE SUPPLY FAN IS ON OR OFF. WHEN THE OUTSIDE AIR TEMPERATURE RISES TO 48 DEGREES F, THE FREEZE PROTECTION PUMPS SHALL BE DE-ENERGIZED. PROVIDE A DIFFERENTIAL PRESSURE SENSOR OR CURRENT SENSOR TO DETERMINE STATUS OF FREEZE PROTECTION PUMPS.
21. REGARDLESS OF OUTSIDE AIR TEMPERATURE PROVIDE A SCHEDULE THAT WILL PERIODICALLY EXERCISE FREEZE PROTECTION PUMPS FOR 15 MINUTES EVERY TWO(2) WEEKS (ADJUSTABLE) TO PREVENT PUMPS FROM SEIZING UP. THIS MODE OF ACTION SHOULD OCCUR AT NIGHT AND THE ATC SYSTEM SHOULD INDICATE "FREEZE PROTECTION PUMP EXERCISING" WHEN THIS MODE IS ACTIVATED.
22. PROVIDE A MANUAL RE-SET LOW TEMPERATURE DETECTION THERMOSTAT (LT-1), ON THE ENTERING SIDE OF THE DUAL TEMPERATURE COIL ARRANGED TO STOP THE SUPPLY AIR FAN, DE-ENERGIZE ERV, OPEN DUAL TEMPERATURE COIL CONTROL VALVE AND CLOSE ALL DAMPERS IF THE LEAVING AIR TEMPERATURE DROPS TO THE LOW LIMIT SETTING OF 36 DEGREES F (ADJUSTABLE). THE LOW TEMPERATURE DETECTION THERMOSTAT, LT-1 SHALL BE OF THE MANUAL RE-SET TYPE AND WILL BE EQUIPPED WITH A 20' ELEMENT SERPENTINE ACROSS THE FACE OF THE COIL SENSITIVE TO THE COLDEST POINT ALONG ANY 12 INCH INCREMENT. AN AUDIBLE AND VISUAL ALARM WITH SILENCE SWITCH SHALL ANNUNCIATE UPON ACTIVATION OF LOW TEMPERATURE DETECTION THERMOSTAT. A ONE MINUTE (ADJUSTABLE) TIME DELAY SHALL LOCKOUT THE LOW TEMPERATURE DETECTION THERMOSTAT, LT-1 WHEN THE UNIT IS INITIALLY STARTED TO PREVENT NUISANCE TRIPPING.
23. THE ATC SUBCONTRACTOR SHALL INTERLOCK THE A/C CONDENSATE FLOAT SWITCHES TO THE FAN COIL UNIT. THE A/C CONDENSATE FLOAT SWITCHES SHALL BE WIRED TO DE-ENERGIZE THE FAN COIL UNIT IF MOISTURE IS DETECTED IN THE PRIMARY OR AUXILIARY DRAIN PAN. A LOCAL ALARM SHALL BE ANNUNCIATED UPON ACTIVATION OF EITHER FLOAT SWITCH.
24. PROVIDE HIGH AND LOW TEMPERATURE ALARM AS SENSED AT ERV SUPPLY AIR TEMPERATURE SENSOR (T-2) TO VERIFY ERV WHEEL PERFORMANCE. LOW TEMPERATURE ALARM SHALL ANNUNCIATE ON ATC SYSTEM IF TEMPERATURE IS BELOW 40°F (ADJUSTABLE). HIGH TEMPERATURE ALARM SHALL ANNUNCIATE ON ATC SYSTEM IF TEMPERATURE IS ABOVE 90°F (ADJUSTABLE).

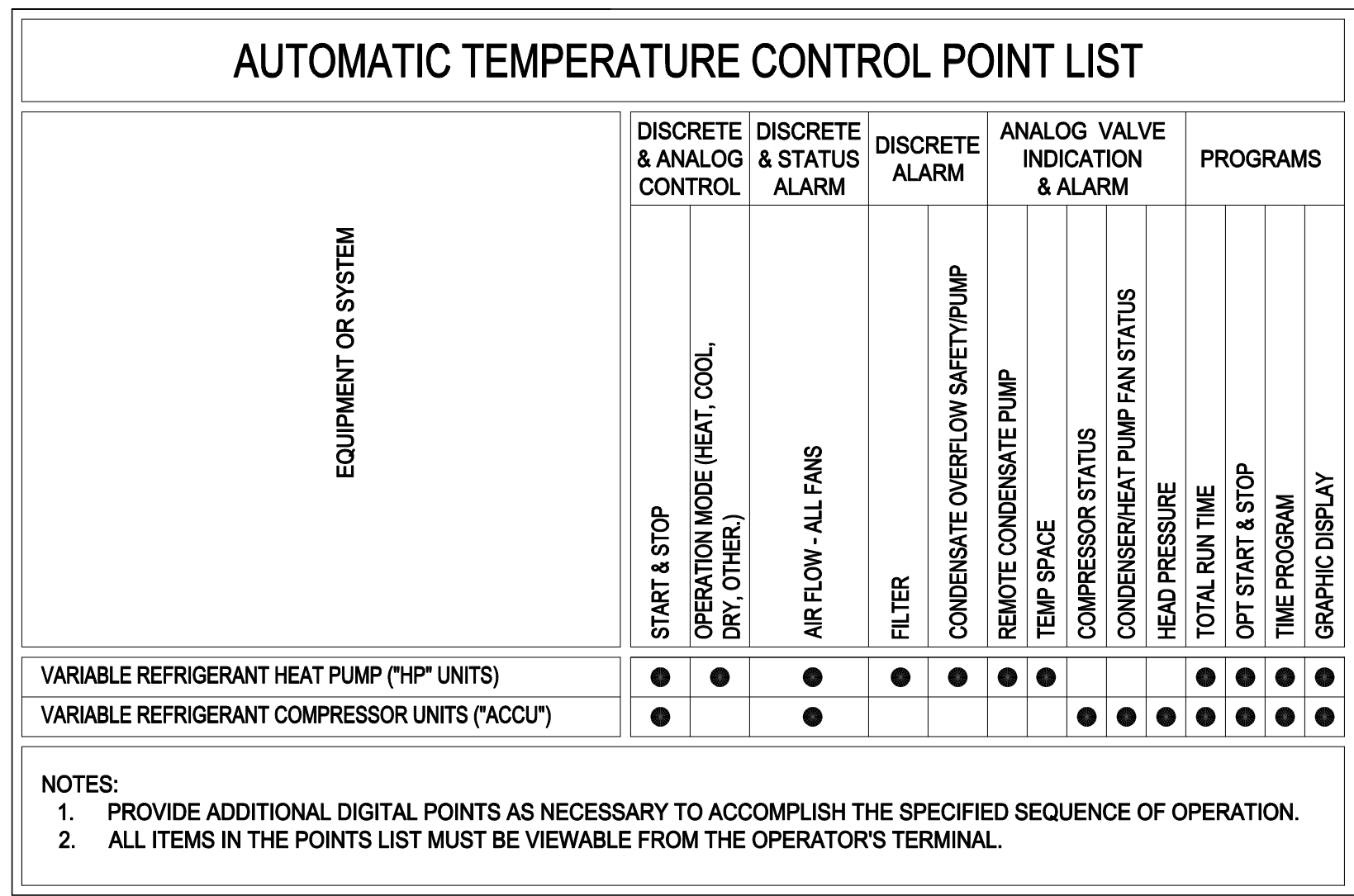
B. OCCUPIED CYCLE:

1. THE FAN COIL UNIT CONTROLS, INTERLOCKED ERV CONTROLS AND INTERLOCKED ELECTRIC DUCT HEATING COIL SHALL BE ARRANGED FOR CONTINUOUS VENTILATION DURING ALL OCCUPIED PERIODS. THE FAN COIL UNIT/ERV/EDC SHALL NOT ENERGIZE UNTIL THE RECIRCULATING HEAT PUMP UNITS (HEAT/COOL) REACH THEIR OCCUPIED SETPOINT.
2. THE GLOBAL OUTSIDE AIR TEMPERATURE SENSOR, T-OA SHALL DETERMINE HEATING, VENTILATION OR COOLING MODE. WHENEVER OUTSIDE AIR TEMPERATURE IS 75 DEGREES F (ADJUSTABLE) OR ABOVE, THE FAN COIL UNIT SHALL OPERATE IN COOLING MODE. WHENEVER THE OUTSIDE AIR TEMPERATURE IS 55 DEGREES F (ADJUSTABLE) OR BELOW, THE FAN COIL UNIT SHALL OPERATE IN THE HEATING MODE. BMS SYSTEM SHALL DETERMINE AVAILABILITY OF HEATING HOT WATER AND COOLING CHILLED WATER. BETWEEN 55 DEGREES F AND 75 DEGREES F UNIT SHALL OPERATE IN VENTILATION MODE.
3. HEATING MODE: DURING HEATING MODE, THE FAN COIL UNIT FAN SHALL OPERATE CONTINUOUSLY. THE DUAL TEMPERATURE COIL TEMPERATURE SENSOR, T-1 SHALL MODULATE COIL CONTROL VALVE, V-1 TO MAINTAIN DISCHARGE AIR SET POINT AT 72 DEGREES F (ADJUSTABLE). THE ELECTRIC DUCT MOUNTED RE-HEAT COIL SHALL BE DE-ENERGIZED DURING HEATING MODE. THE SPACE TEMPERATURE SENSOR (T-6), SHALL BE PROVIDED FOR MANUAL RESET OF DISCHARGE AIR TEMPERATURE CONTROLLER, T-1&T-4.
4. COOLING MODE: DURING COOLING MODE, THE FAN COIL UNIT UNIT FAN AND INTERLOCKED ERV UNIT FANS SHALL OPERATE CONTINUOUSLY. THE DUAL TEMPERATURE COIL TEMPERATURE SENSOR, T-1 SHALL MODULATE DUAL TEMPERATURE COIL CONTROL VALVE, V-1 TO MAINTAIN DISCHARGE AIR SET POINT AT 75 DEGREES F (ADJUSTABLE). THE ELECTRIC RE-HEAT COIL SHALL BE DE-ENERGIZED IN COOLING MODE UNLESS THERE IS A CALL FOR DEHUMIDIFICATION. THE ELECTRIC RE-HEAT COIL SHALL ALSO BE DE-ENERGIZED WHEN THE OUTSIDE AIR TEMPERATURE IS 80 DEGREES FAHRENHEIT (ADJUSTABLE) OR ABOVE TO ALLOW THE MAKE UP AIR UNIT TO DELIVER AIR THAT IS COLDER THAN SPACE NEUTRAL AND CONTRIBUTE TO MEETING THE SPACE SENSIBLE LOADS. WHEN THE OUTSIDE AIR TEMPERATURE DROPS BELOW 80 DEGREES FAHRENHEIT DOWN TO 75 DEGREES FAHRENHEIT, THE ELECTRIC RE-HEAT COIL SHALL BE ENABLED WHEN SYSTEM IS IN DE-HUMIDIFICATION MODE.
5. VENTILATION MODE: DURING VENTILATION MODE THE MAKE-UP UNIT SHALL OPERATE CONTINUOUSLY TO DELIVER AMBIENT AIR BETWEEN 55 DEGREES F AND 65 DEGREES F. DUAL TEMPERATURE COIL CONTROL VALVE SHALL BE CLOSED AND ELECTRIC RE-HEAT COIL SHALL BE DISABLED.
6. DEHUMIDIFICATION: A WALL MOUNTED RELATIVE HUMIDITY SENSOR, H-1, SHALL BE PROVIDED THAT WILL OVERRIDE THE POSITION OF THE DUAL TEMPERATURE COIL CONTROL VALVE, V-1 TO FULL OPEN, WHEN HUMIDITY CONDITIONS EXCEED ITS SETPOINT (55 PERCENT RH, ADJUSTABLE). THE ELECTRIC DUCT RE-HEAT COIL SHALL THEN BE ENABLED AND MODULATE TO PROVIDE RE-HEAT ENERGY TO PREVENT SUBCOOLING OF THE SPACE. THE REVERSE SEQUENCE SHALL OCCUR UPON A DROP IN SPACE RELATIVE HUMIDITY TO 45-50% RH (ADJUSTABLE).
7. WHEN THE BUILDING GOES INTO THE OCCUPIED MODE THE ENERGY RECOVERY UNIT FANS SHALL BE INTERLOCKED TO RUN. PROVIDE END SWITCHES ON THE OUTDOOR AIR DAMPER (D-1) AND EXHAUST DAMPER (D-2) TO PREVENT UNIT ERV AND FAN COIL UNIT FANS FROM ENERGIZING UNTIL BOTH DAMPERS ARE PROVED OPEN.
8. AIR TEMPERATURE SENSORS SHALL BE ADJUSTABLE THROUGH SOFTWARE. ALL TEMPERATURE SENSORS SHALL BE MONITORED.
9. THE ENERGY RECOVERY VENTILATOR FANS AND ENERGY RECOVERY WHEEL SHALL OPERATE CONTINUOUSLY TO PROVIDE TEMPERED, 100 PERCENT OUTSIDE AIR TO FAN COIL UNIT #1.

C. UNOCCUPIED CYCLE

1. DURING THE UNOCCUPIED CYCLE THE FAN COIL UNIT, ELECTRIC DUCT HEATING COIL AND ERV UNIT, SHALL BE DE-ENERGIZED. THE DUAL TEMPERATURE COIL CONTROL VALVE, (V-1) SHALL FAIL OPEN. OUTSIDE AIR DAMPER (D-1) AND EXHAUST DAMPER (D-2) SHALL CLOSE.
2. THE BUILDING DDC SYSTEM SHALL RE-SET THE VRV HEAT PUMP UNIT (TERMINAL UNITS) SYSTEMS TO MAINTAIN A NIGHT SET BACK TEMPERATURE OF 60°F (ADJUSTABLE). THE NIGHT SET BACK TEMPERATURE SHALL BE MAINTAINED BY CYCLING THE VRV HEAT PUMP UNITS (TERMINAL UNITS) TO MAINTAIN ALL SPACES AT 60 DEGREES F (ADJUSTABLE) OR ABOVE.
3. THE 100% OUTSIDE AIR FAN COIL UNIT, ELECTRIC DUCT HEATING COIL AND ERV SHALL REMAIN OFF DURING NIGHT SETBACK CONDITIONS.
4. FREEZE PROTECTION PUMPS SHALL OPERATE INDEPENDENT OF MODE OF OPERATION BASED ON OUTSIDE AIR TEMPERATURE.





1. VARIABLE REFRIGERANT VOLUME SPLIT SYSTEM AIR COOLED SYSTEMS SHALL BE FURNISHED WITH A COMBINATION OF PACKAGED CONTROLS/DEVICES AND FIELD INSTALLED CONTROLS/DEVICES. ALL CONTROLS/DEVICES SHALL BE INTEGRATED, COORDINATED, AND INSTALLED TO PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM.

B. THE VARIABLE REFRIGERANT VOLUME SPLIT SYSTEM SHALL BE PROVIDED WITH FACTORY FURNISHED CONTROLS AS INDICATED IN DIVISION 23 SPECIFICATION SECTION VRV SPLIT SYSTEMS WITH HEAT RECOVERY (AIR COOLED SYSTEMS).

C. ATC SUBCONTRACTOR SHALL INSTALL FIELD AND FACTORY FURNISHED CONTROLS, INTERLOCK WIRING, THERMOSTATS, AND CONTROL WIRING FOR COMPLETE AND OPERATIONAL SYSTEM.

D. ATC SUBCONTRACTOR SHALL INTERLOCK THE A/C CONDENSATE FLOAT SWITCHES TO THEIR RESPECTIVE HEAT PUMP UNITS. THE A/C CONDENSATE FLOAT SWITCHES SHALL BE WIRED TO DE-ENERGIZE THE INDOOR UNITS IF MOISTURE IS DETECTED IN THE AUXILIARY DRAIN PAN. A REMOTE ALARM SHALL BE ANNUNCIATED UPON ACTIVATION OF THE FLOAT SWITCH, THROUGH THE ATC SYSTEM.

E. THE ATC SUBCONTRACTOR SHALL INTERLOCK THE REMOTE A/C CONDENSATE PUMP SAFETY SWITCHES (WHERE INDICATED) TO THE ATC SYSTEM. A LOCAL ALARM SHALL BE ANNUNCIATED UPON ACTIVATION OF REMOTE PUMP SAFETY SWITCH.

F. PROVIDE OCCUPIED AND UNOCCUPIED SCHEDULING THAT WILL ALLOW THE VARIABLE REFRIGERANT VOLUME SPLIT SYSTEM TO BE DE-ENERGIZED DURING UNOCCUPIED PERIODS. DURING UNOCCUPIED PERIODS THE VARIABLE REFRIGERANT VOLUME SPLIT SYSTEM SHALL ONLY BE ENERGIZED IF ANY UNOCCUPIED OR SETBACK TEMPERATURE IS NOT MET. ONCE THE UNOCCUPIED OR SETBACK TEMPERATURES ARE MET IN ALL ZONES THE VARIABLE REFRIGERANT VOLUME SPLIT SYSTEM SHALL BE DE-ENERGIZED.

G. INTERLOCK VRV SYSTEM CONTROLLER TO ATC SYSTEM TO ALLOW SCHEDULING, SETPOINT ADJUSTMENT, AND MONITORING THROUGH THE ATC SYSTEM. CREATE GRAPHIC ON ATC SYSTEM AND RECORD, TREND, AND MONITOR ALL INFORMATION AVAILABLE FROM VRV SYSTEM CONTROLLER.

H. HEAT PUMP UNIT OPERATION:

1. FAN SPEED - EACH HEAT PUMP UNIT SHALL HAVE LOW, MEDIUM, HIGH MODE AND AN AUTO MODE. IN AUTO THE FAN SHALL AUTOMATICALLY ADJUST TO LOWER SPEEDS AS ROOM TEMPERATURE APPROACHES SETPOINT.
2. REACHING SETPOINT - THE FAN SHALL OPERATE AT SUPER LOW (~50% OF LOW) SPEED WHEN SETPOINT IS ACHIEVED.
3. DRY MODE - FANS SHALL OPERATE AT LOW SPEED WITH FAN COOLING REFRIGERATION TO OBTAIN THE COLDEST TEMPERATURE POSSIBLE. THIS MODE SHALL MAXIMIZE MOISTURE REMOVAL WHILE MINIMIZING THE DECREASE IN SPACE DRY BULB TEMPERATURE.
4. HEAT PUMP UNIT MODE SHALL BE DETERMINED AT SPACE TEMPERATURE CONTROLLER. UNIT SHALL HAVE AUTO MODE, HEATING MODE, COOLING MODE, AND DRY MODE.
5. PER ASHRAE 90.1 HEAT PUMP UNITS SHALL HAVE SEPARATE SETPOINTS FOR COOLING AND HEATING WITH DEADBAND IN BETWEEN.

I. THE UNITS SHALL BE ARRANGED FOR A WINTER TIME MORNING WARM-UP CYCLE AND A SUMMER TIME MORNING PULL DOWN CYCLE (FROM 6:00A.M. TO 7:30A.M.).

1. MORNING WARM-UP CYCLE: DURING MORNING WARM-UP CYCLE, THE SPACE AIR TEMPERATURE SENSOR (T-1) SHALL ENERGIZE THE MECHANICAL REFRIGERATION SYSTEM AND THE HEAT PUMP UNIT FAN SHALL OPERATE AT FULL SPEED TO PROVIDE FULL HEATING UNTIL THE SPACE AIR TEMPERATURE RISES TO 70 DEGREES F (ADJUSTABLE). THE SUPPLY AIR FAN SHALL THEN CYCLE BASED ON SPACE TEMPERATURE SENSOR. UPON COMPLETION OF THE MORNING WARM-UP CYCLE, THE SPACE TEMPERATURE SENSOR, (T-1) SHALL CYCLE MECHANICAL REFRIGERATION SYSTEM AND SUPPLY AIR FAN TO MAINTAIN SPACE TEMPERATURE SET POINT. MORNING WARM UP SHALL BE COMPLETED PRIOR TO ENERGIZING INTERLOCKED ERV UNITS.
2. MORNING PULL DOWN COOLING CYCLE: DURING MORNING PULL DOWN COOLING CYCLE, THE SPACE AIR TEMPERATURE SENSOR (T-1) SHALL ENERGIZE THE MECHANICAL REFRIGERATION SYSTEM AND THE HEAT PUMP UNIT FAN SHALL OPERATE AT FULL SPEED TO PROVIDE FULL COOLING UNTIL THE SPACE AIR TEMPERATURE DROPS TO 78 DEGREES F (ADJUSTABLE). THE SUPPLY AIR FAN SHALL THEN CYCLE BASED ON SPACE TEMPERATURE SENSOR. UPON COMPLETION OF THE MORNING COOL DOWN PERIOD, THE SPACE TEMPERATURE SENSOR, (T-1), SHALL CYCLE MECHANICAL REFRIGERATION SYSTEM AND SUPPLY AIR FAN TO MAINTAIN SPACE TEMPERATURE SET POINT. MORNING PULL DOWN SHALL BE COMPLETED PRIOR TO ENERGIZING INTERLOCKED ERV UNITS.



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ISSUE DATES:

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CONSTRUCTION

NO SCALE



EQUIPMENT OR SYSTEM	DISCRETE & ANALOG CONTROL		PROGRAMS
	START & STOP	TIME PROGRAM	GRAPHIC DISPLAY
RECEPTACLES (W/CONTACTORS)	●	●	●

NOTES:
 1. PROVIDE ADDITIONAL DIGITAL POINTS AS NECESSARY TO ACCOMPLISH THE SPECIFIED SEQUENCE OF OPERATION.

NOTES:
1. PROVIDE ADDITIONAL DIGITAL POINTS AS NECESSARY TO ACCOMPLISH THE SPECIFIED SEQUENCE OF OPERATION.

SWITCHED RECEPTACLE CONTROL

A. GENERAL

1. PROVIDE ALL INTERLOCKS AND WIRING TO PROVIDE AUTOMATIC CONTROL OF RECEPTACLES WITH CONTACTORS TO THE EXTENT INDICATED ON THE ELECTRICAL DOCUMENTS.
2. ATC SYSTEM SHALL PROVIDE START/STOP WITH MANUAL OVERRIDE ON RECEPTACLES INDICATED.
3. THE ATC SYSTEM SHALL BE INTERLOCKED WITH RELAYS/CONTACTORS AS INDICATED ON ELECTRICAL DOCUMENTS.
4. THE RECEPTACLES SHALL BE ENERGIZED/DE-ENERGIZED BASED ON OCCUPIED SCHEDULING. REVIEW SCHEDULE WITH OWNER PRIOR TO IMPLEMENTATION. SCHEDULE SHALL BE ADJUSTABLE THROUGH THE AUTOMATIC TEMPERATURE CONTROL SYSTEM.

NOTES:

1. COORDINATE EXACT QUANTITY AND LOCATION OF CONTACTORS WITH DIVISION 26.
2. COORDINATE ON/OFF SCHEDULE WITH OWNER.
3. PROVIDE GRAPHIC OF CONTACTORS AND ZONES CONTROLLED ON ATC SYSTEM.

3 CONTROLS - SWITCHED RECEPTACLES

NO SCALE

NO SCALE

PROJECT

SEA_22001-FDE-SBHC

Seaford School District

Frederick Douglass ES

School Based Health Center Renovations

1 Swain Road
Seaford, DE 19973

DRAWING TITLE:

AUTOMATIC TEMPERATURE CONTROLS

DWN BY:	CHK BY:	PROJ. NUMBER:
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RAK	DR
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DATE: _____

2022/11/22

M-40.02



CONSULTANTS:

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302-998-7615 www.fcarchitects.net

PROJECT

SEA_22001-FDE-SBHC

Seaford School District

Frederick Douglass ES

School Based Health Center
Renovations

1 Swain Road
Seaford, DE 19973

DRAWING TITLE:

LEGEND
PLUMBING

DWN BY: RAK | CHK BY: DRH | PROJ. NUMBER: 22104

DATE: 2022/11/22 | DRAWING NUMBER:

SCALE: AS NOTED | P-00.01

PLUMBING LEGEND

SYMBOL	ABBREVIATION	DEFINITION
		SHOCK ABSORBER
		THERMOMETER
		PRESSURE GAUGE W/ NEEDLE VALVE
	VTR	VENT THRU ROOF
		STRAINER W/ BLOW DOWN VALVE AND HOSE END DRAIN CONNECTION
		GAS COCK
		GAUGE VALVE
		BALL VALVE
		CIRCUIT SETTER
		BALANCE & SHUT-OFF VALVE W/ MEMORY
		UNION
		FLEXIBLE CONNECTION
	NFWH	WALL HYDRANT (NON-FREEZE)
	HB	HOSE BIBB
	IRWH	INTERIOR RECESSED WALL HYDRANT
		GLOBE VALVE
		GATE VALVE
		MULTI-PURPOSE VALVE
		RPZ BACKFLOW PREVENTER
		BALANCE VALVE
		STRAINER
	OS&Y	OUTSIDE SCREW AND YOKE
		CHECK VALVE
		VACUUM RELIEF VALVE
		PIPE ANCHOR
		PIPE GUIDE/SLEEVE
		CAPPED PIPE
		PIPE UP
		PIPE DOWN
		BOTTOM PIPE CONNECTION
		TOP PIPE CONNECTION
	FDR	FLOOR SINK W/ TRAP PRIMING LINE
	FDR	FLOOR DRAIN W/ TRAP PRIMING LINE
	SAN, W	SANITARY, SOIL, WASTE
	V	PLUMBING VENT
	SW	STORMWATER PIPING
		BACKWATER VALVE
	CO	CLEANOUT: LINE, FLUSH
		BELOW SLAB/GRADE PIPING
	CW	COLD WATER
	CW	COLD WATER (BELOW GRADE)
	HW	HOT WATER (110°F)
	HW	HOT WATER (110°F, BELOW GRADE)
	HWR	HOT WATER RECIRCULATING (110°F)
	CD	A/C CONDENSATE DRAIN
	NG	NATURAL GAS PIPING
	NG	NATURAL GAS PIPING (BELOW GRADE)
	PDI	PLUMBING & DRAINAGE INSTITUTE
	IW	INDIRECT WASTE
	AFF	ABOVE FINISHED FLOOR
	AFG	ABOVE FINISHED GRADE
	DS	DOWNSPOUT
	RDR	ROOF DRAIN
	EX	EXISTING
		DOUBLE CHECK VALVE BACKFLOW PREVENTER
	RX	DEMOLITION ENDS HERE
	CX	CONNECT TO EXISTING
	#	DRAWING NOTE - DEMOLITION
	#	DRAWING NOTE - NEW WORK
		PART PLAN NO. DRAWING NO.
		PART PLAN DESIGNATION

DRAWING NOTES:
(APPLY TO THIS DRAWING ONLY)

- 1 REMOVE PIPING TO POINT INDICATED AND TEMPORARILY CAP FOR FUTURE CONNECTION UNDER NEW WORK. REMOVE ALL ASSOCIATION INSULATION, SUPPORTS, AND VALVING.



CONSULTANTS:

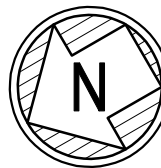
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CONSTRUCTION

1 PD10.01 PARTIAL FIRST FLOOR PLAN - PLUMBING - DEMOLITION



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PROJECT

SEA_22001-FDE-SBHC

Seaford School District

Frederick Douglass ES

School Based Health Center
Renovations

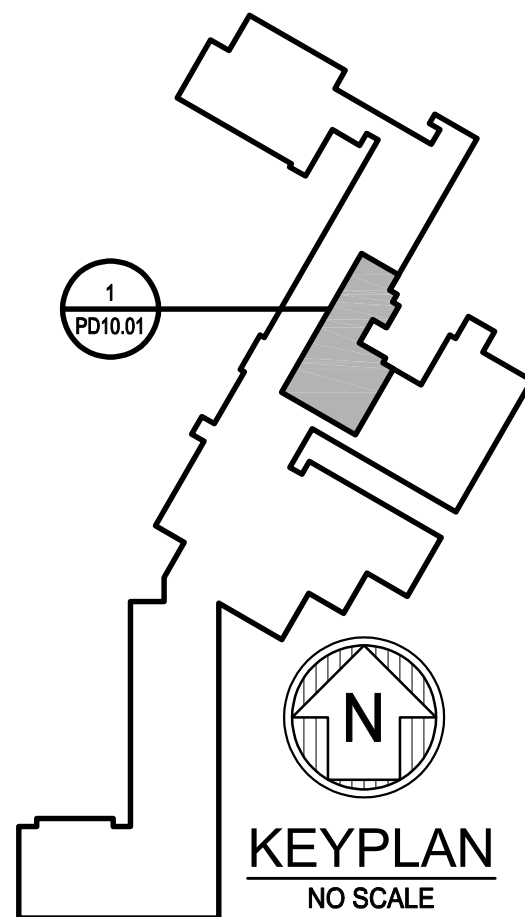
1 Swain Road
Seaford, DE 19973

DRAWING TITLE:
PARTIAL FIRST FLOOR PLAN
PLUMBING
DEMOLITION

DWN BY: RAK CHK BY: DRH PROJ. NUMBER:
22104

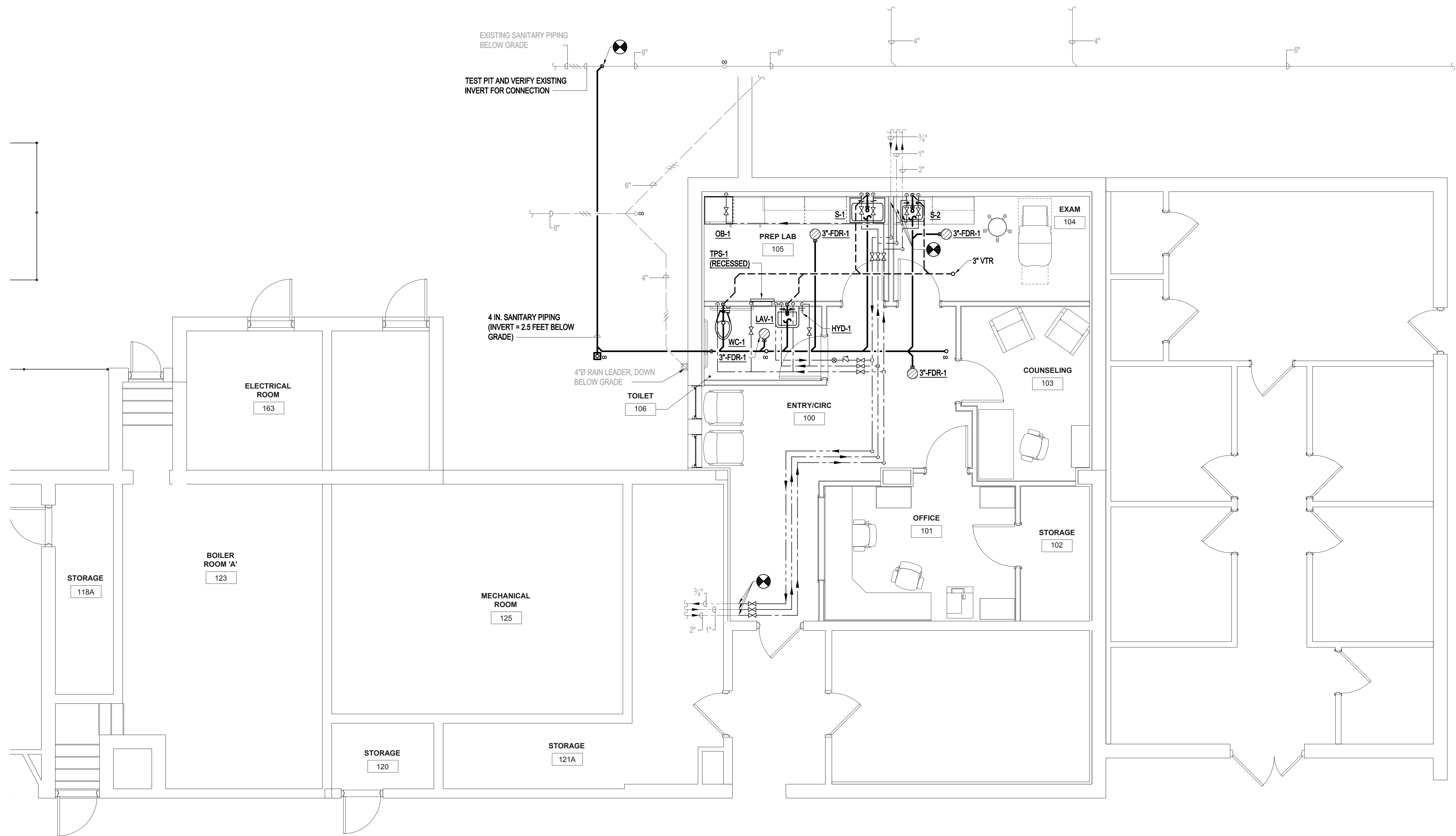
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PD-10.01

SCALE:
AS NOTED



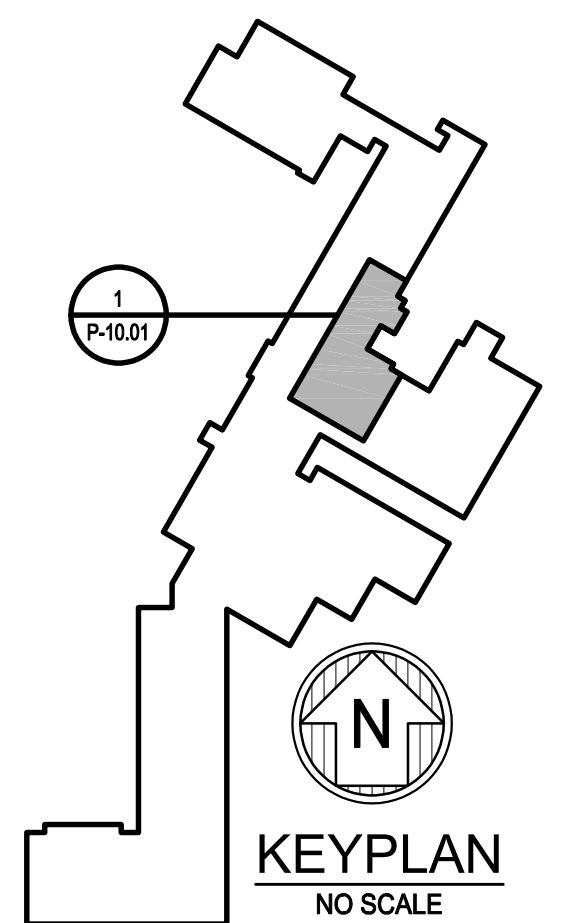
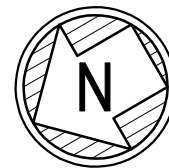
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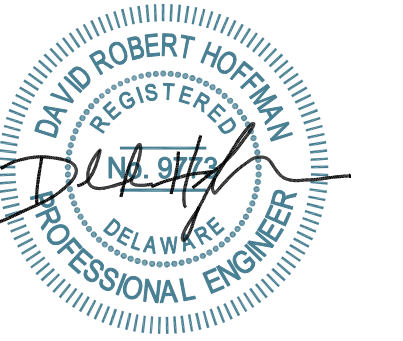
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P-10.01

PARTIAL FIRST FLOOR PLAN - PLUMBING - NEW WORK



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

4 0 4 8



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Renovations

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DRAWING TITLE:
PARTIAL FIRST FLOOR PLAN
PLUMBING
NEW WORK

DWN BY: RAK CHK BY: DRH PROJ. NUMBER:
22104

DATE:
2022/11/22 DRAWING NUMBER:

SCALE:
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School Based Health Center Renovations

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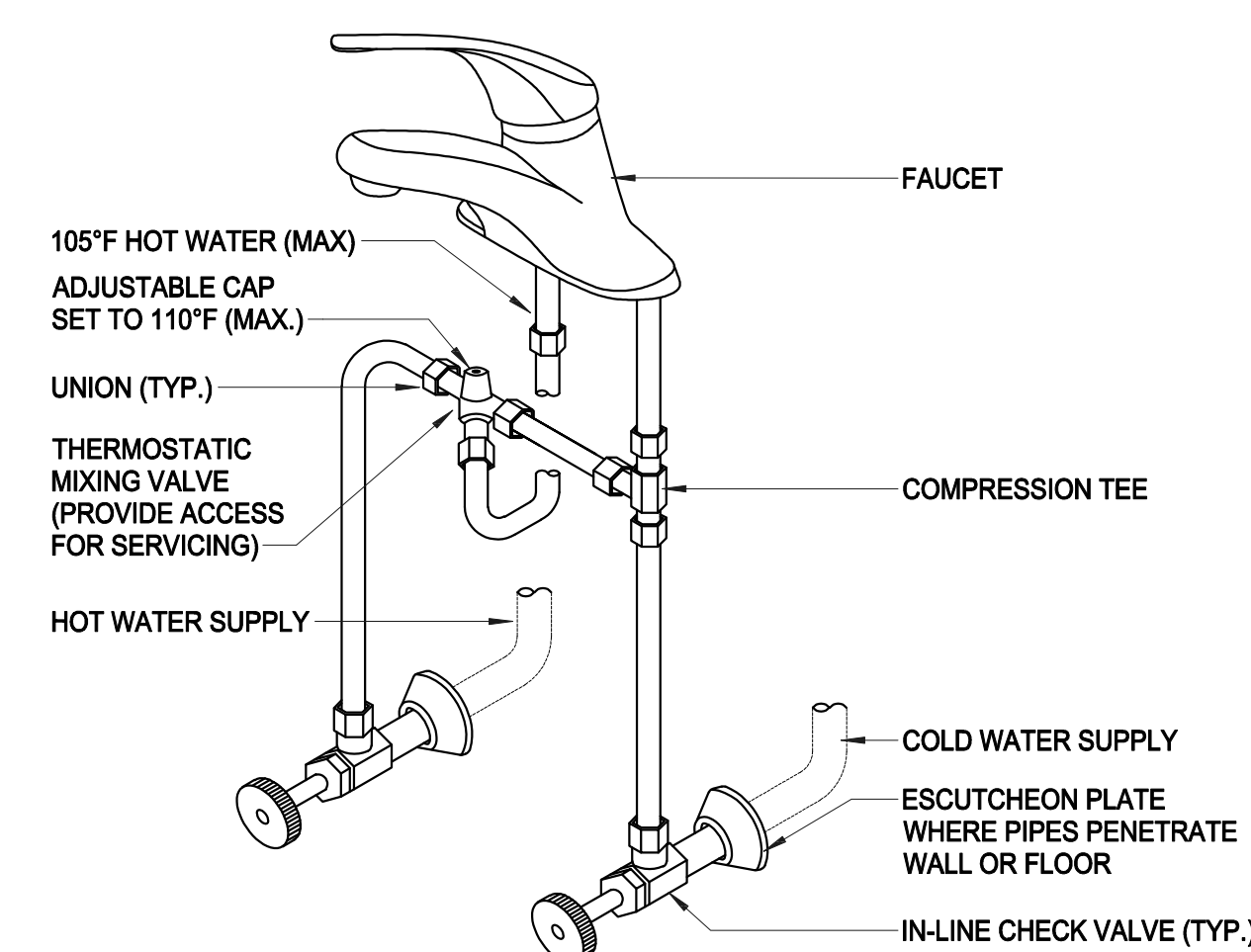
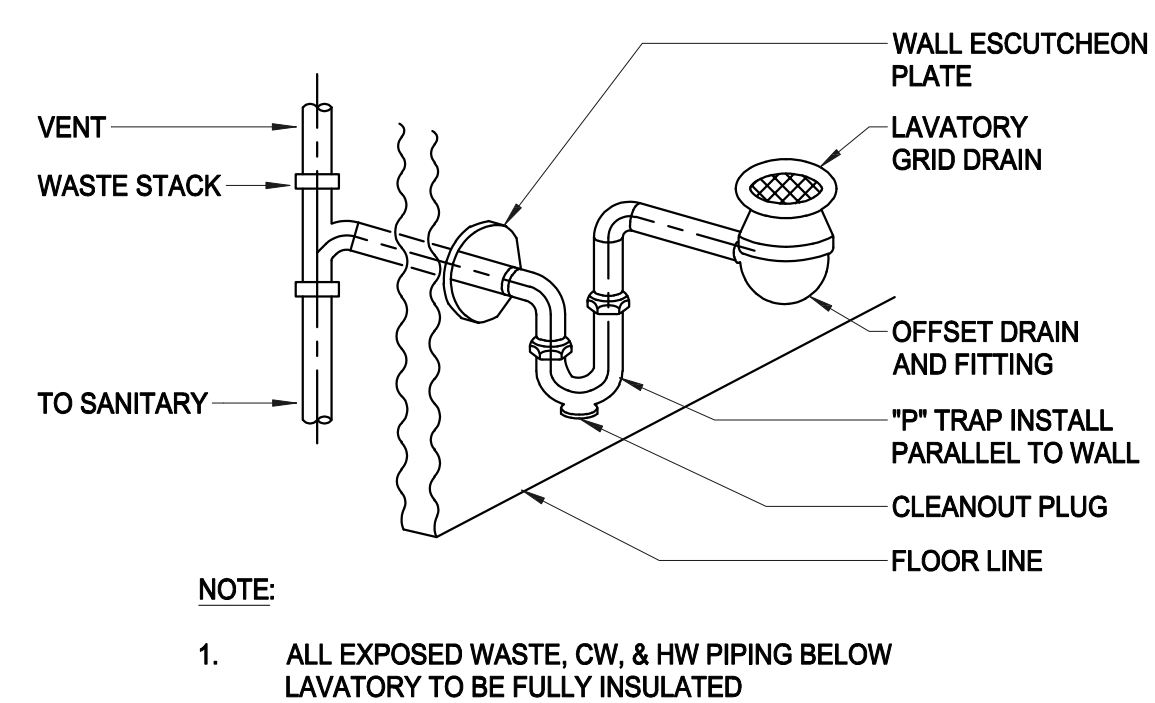
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DETAILS PLUMBING

DWN BY:	CHK BY:	PROJ. NUMBER:
RAK	DRH	22104

DATE:	DRAWING NUMBER:
2022/11/22	

SCALE: **P-30.01**
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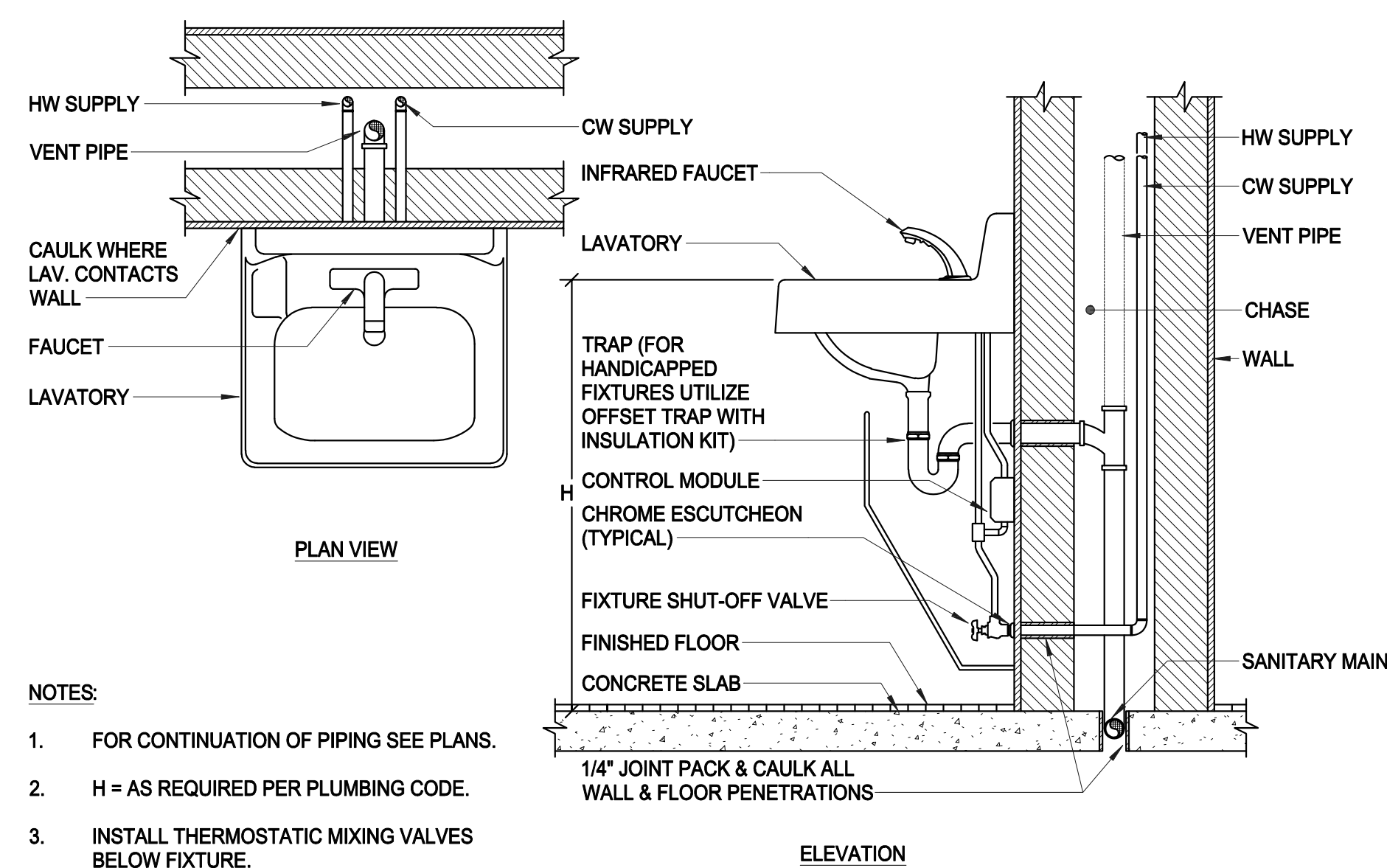
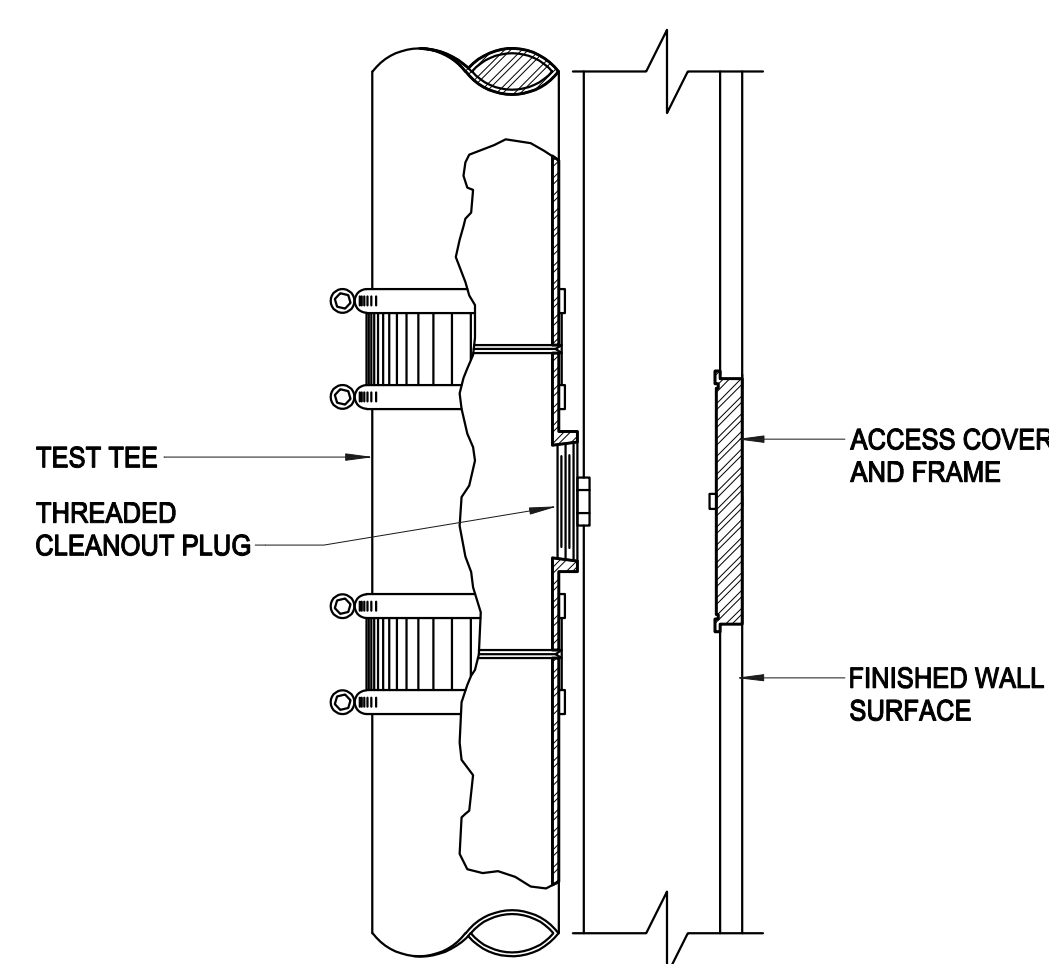
1 NOT USED

2 DETAIL - HANDICAPPED LAVATORY / SINK OFF-SET DRAIN

NO SCALE

3 DETAIL - TYPICAL INSTALLATION FOR ALL LAVATORIES/SINKS

NO SCALE



4 DETAIL - INTERIOR WALL CLEANOUT - NO-HUB WITH ACCESS COVER

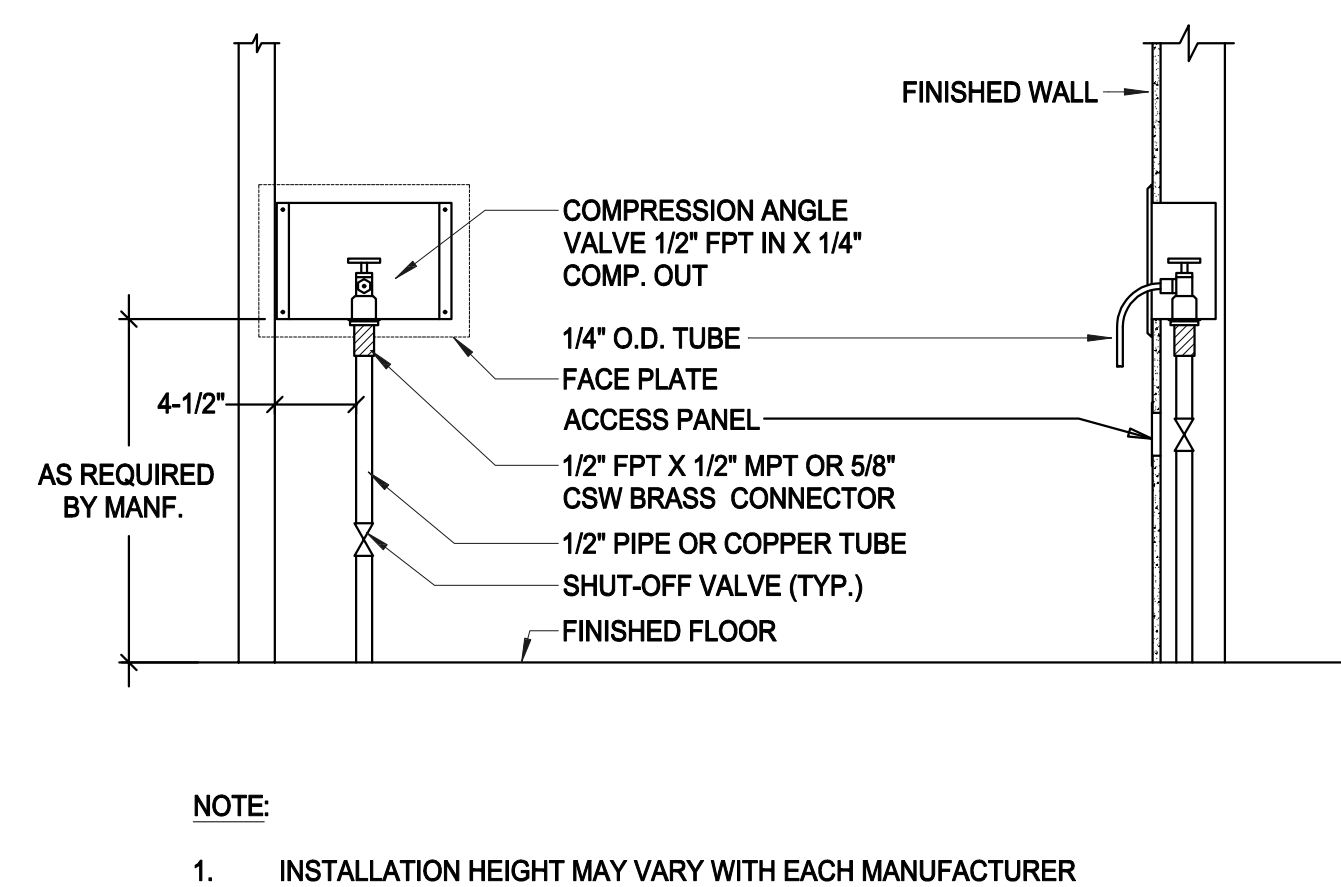
NO SCALE

5 DETAIL - SINGLE WALL MOUNTED LAVATORY (INFRARED FAUCET)

NO SCALE

6 DETAIL - REFRIGERATOR ICE MAKER WATER SUPPLY WALL BOX

NO SCALE



4 DETAIL - INTERIOR WALL CLEANOUT - NO-HUB WITH ACCESS COVER

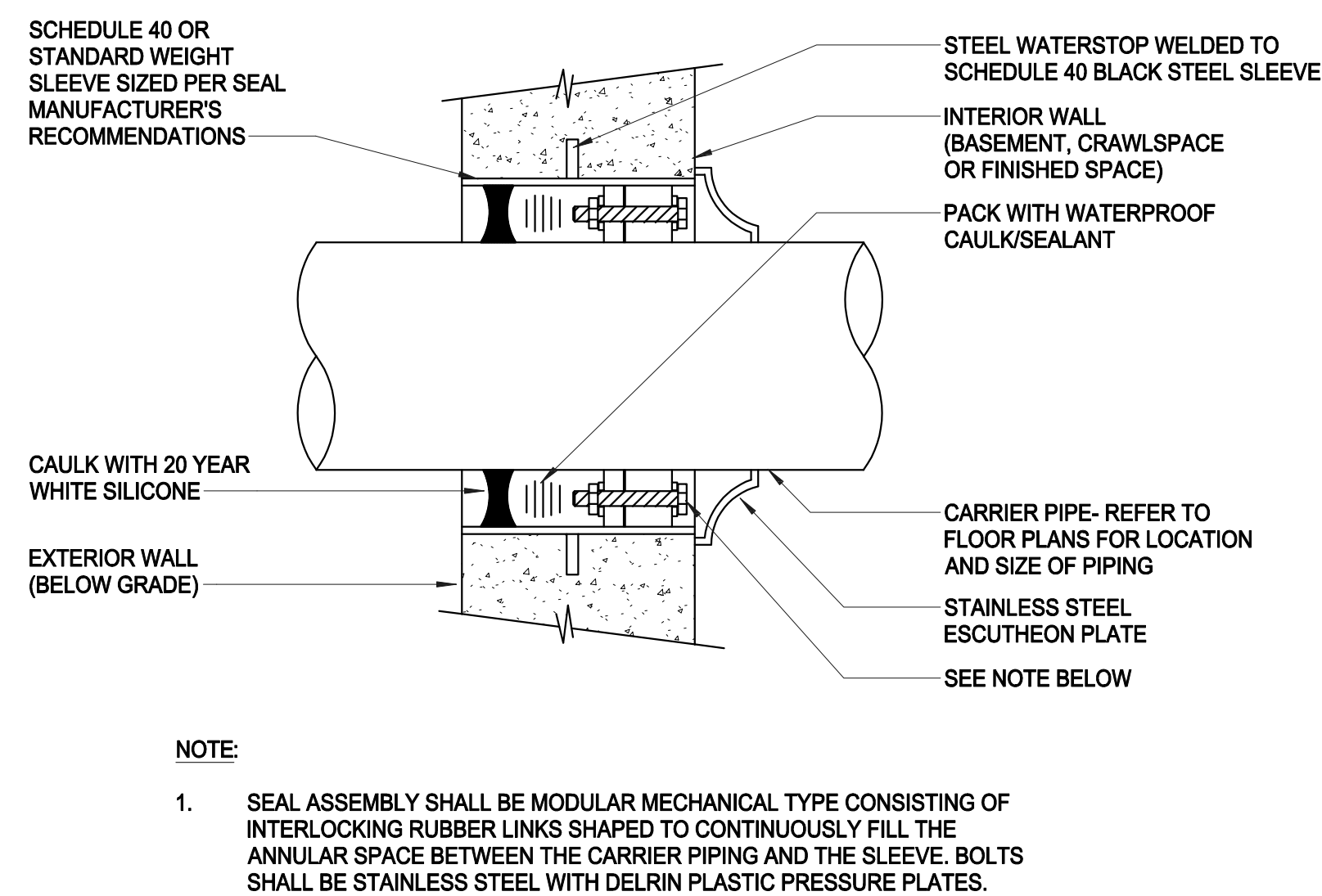
NO SCALE

5 DETAIL - SINGLE WALL MOUNTED LAVATORY (INFRARED FAUCET)

NO SCALE

6 DETAIL - REFRIGERATOR ICE MAKER WATER SUPPLY WALL BOX

NO SCALE



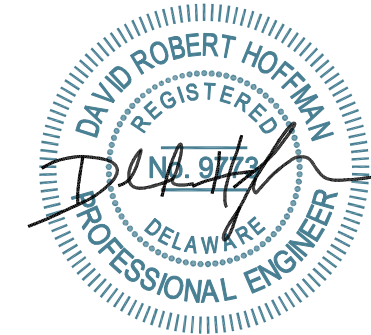
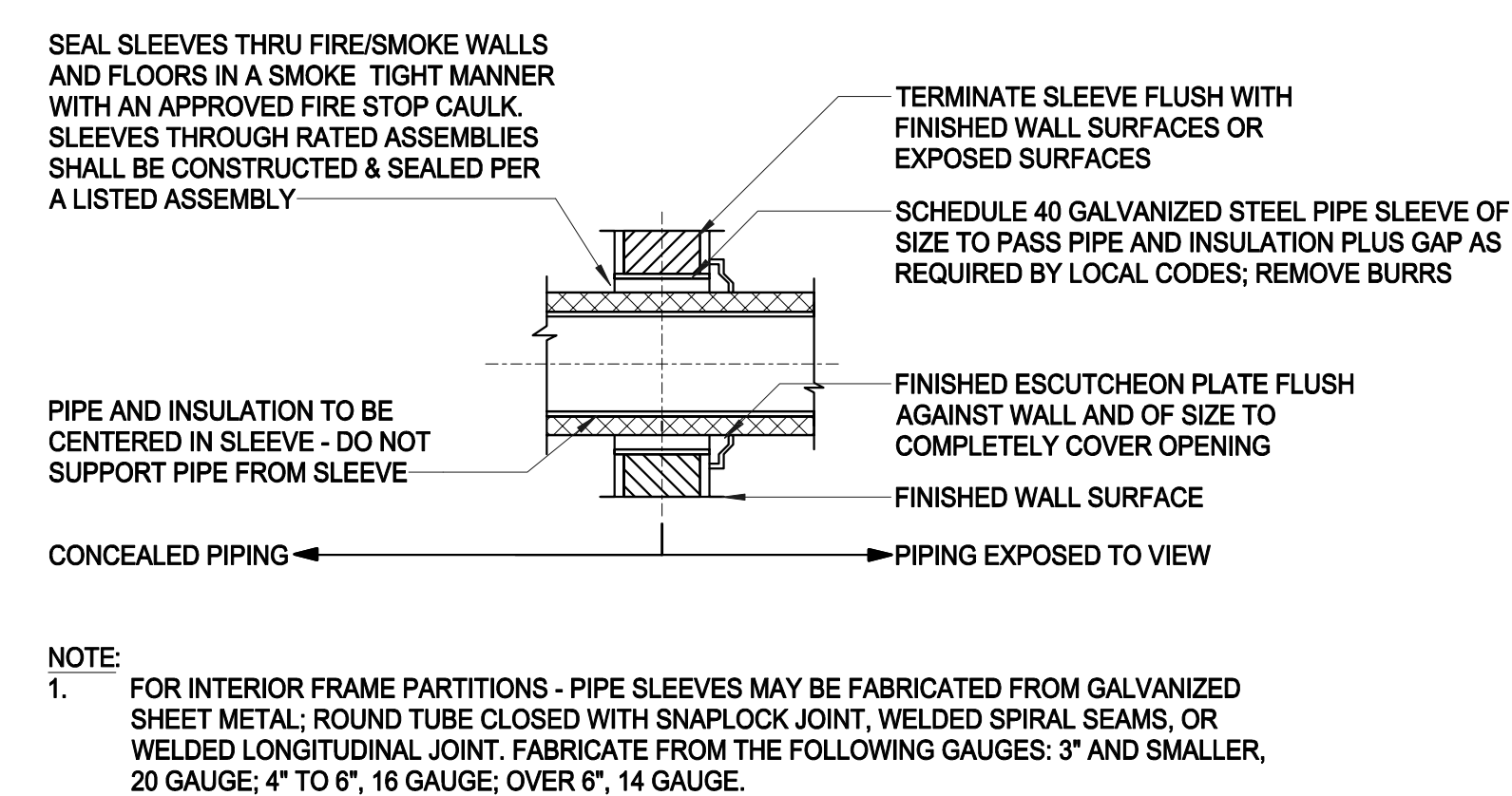
7 NOT USED

8 DETAIL - TYPICAL WATERTIGHT SLEEVE THRU EXTERIOR WALL (BELOW GRADE)

NO SCALE

9 DETAIL - TYPICAL PIPE SLEEVE THRU INTERIOR WALL

NO SCALE



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PROJECT

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Seaford School District

Frederick Douglass ES

School Based Health Center Renovations

1 Swain Road
Seaford, DE 19973

DRAWING TITLE:

DETAILS PLUMBING

DWN BY: RAK	CHK BY: DRH	PROJ. NUMBER: 22104
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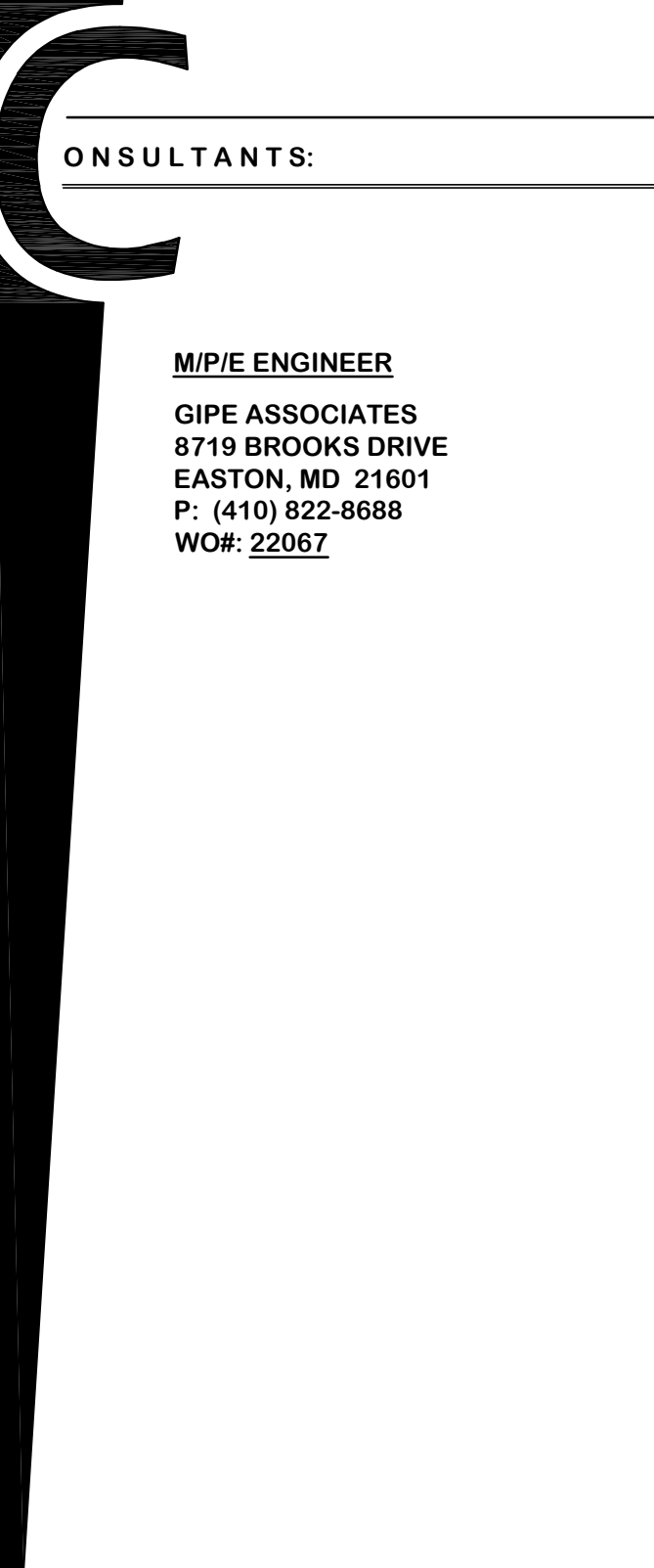
DATE:	DRAWING NUMBER:
2022/11/22	

SCALE:	P-30.02
AS NOTED	

PLUMBING FIXTURE SCHEDULE												
FIXTURE NO.	TYPE	SAN (INCHES)	VENT (INCHES)	CW (INCHES)	HW (INCHES)	FLOW RATE	ELEC. CHARACTERISTICS			REMARKS		
							VOLTS	PHASE	HZ			
WATER CLOSETS												
WC-1	WATERCLOSET	4"	2"	1-1/4"	---	1.6 GALLONS PER FLUSH	BATTERY OPERATED			FLOOR MOUNTED, EXPOSED BATTERY OPERATED INFRARED FLUSH VALVE W/ MANUAL OVERRIDE BUTTON, HANDICAPPED		
LAVATORIES												
LAV-1	LAVATORY	1-1/4"	1-1/4"	1/2"	1/2"	0.35 GALLONS PER MINUTE	BATTERY OPERATED			WALL HUNG, DECK MOUNTED, BATTERY OPERATED INFRARED SENSOR FAUCET, HANDICAPPED		
COUNTER SINKS												
S-1	COUNTER SINK	1-1/2"	1-1/2"	3/4"	3/4"	2.2 GALLONS PER MINUTE	---	---	---	COUNTER MOUNTED, SINGLE BOWL, 22"X20"X5.5", HANDICAPPED		
S-2	COUNTER SINK	1-1/2"	1-1/2"	3/4"	3/4"	2.2 GALLONS PER MINUTE	---	---	---	COUNTER MOUNTED, SINGLE BOWL, 17"X16"X5.5", HANDICAPPED		
OUTLET BOXES - WATER SUPPLY												
OB-1	REFRIGERATOR	---	---	1/2"	---	---	SEE ARCH. DWGS.			REFRIGERATOR PROVIDED UNDER ARCH. DIVISION. UNDER THIS DIVISION PROVIDE ROUGH-IN & FINAL CONNECTION TO ICE MAKER		
HOSE BIBBS - HYDRANTS												
HYD-1	WALL HYDRANT - INTERIOR	---	---	---	3/4"	2.5 GALLONS PER MINUTE	---	---	---	KEY OPERATED W/ HINGED LOCKING COVER		

FLOOR DRAIN SCHEDULE				
NO.	TYPE	SAN. IN.	VENT IN.	REMARKS
FDR-1	GENERAL SERVICE FLOOR DRAIN	AS INDICATED	AS INDICATED	SEE SPECIFICATIONS

TRAP PRIMING STATION				
UNIT #	ELEC. CHARACTERISTICS			REMARKS
	AMPS	VOLTAGE	PHASE	
1	5	120	1	



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PROJECT		
SEA_22001-FDE-SBHC		
Seaford School District		
Frederick Douglass ES		
School Based Health Center Renovations		
1 Swain Road Seaford, DE 19973		
DRAWING TITLE:		
		SCHEDULES PLUMBING
DWN BY: RAK	CHK BY: DRH	PROJ. NUMBER: 22104
DATE: 2022/11/22		DRAWING NUMBER: P-40.01
SCALE: AS NOTED		

SEA 22001-FDE-SBHC

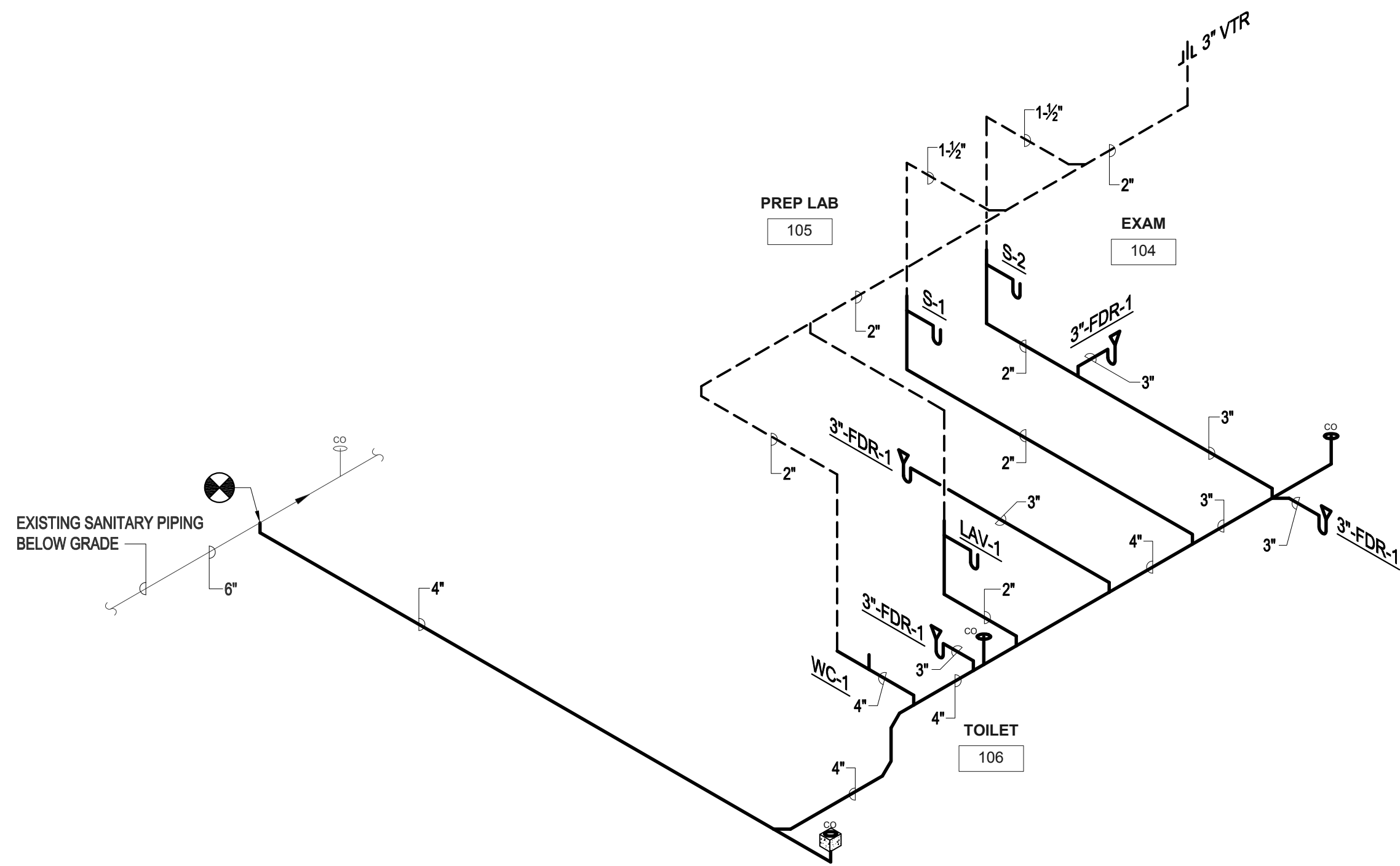
Seaford School District

Frederick Douglass ES

**School Based Health Center
Renovations**

**1 Swain Road
Seaford, DE 19973**

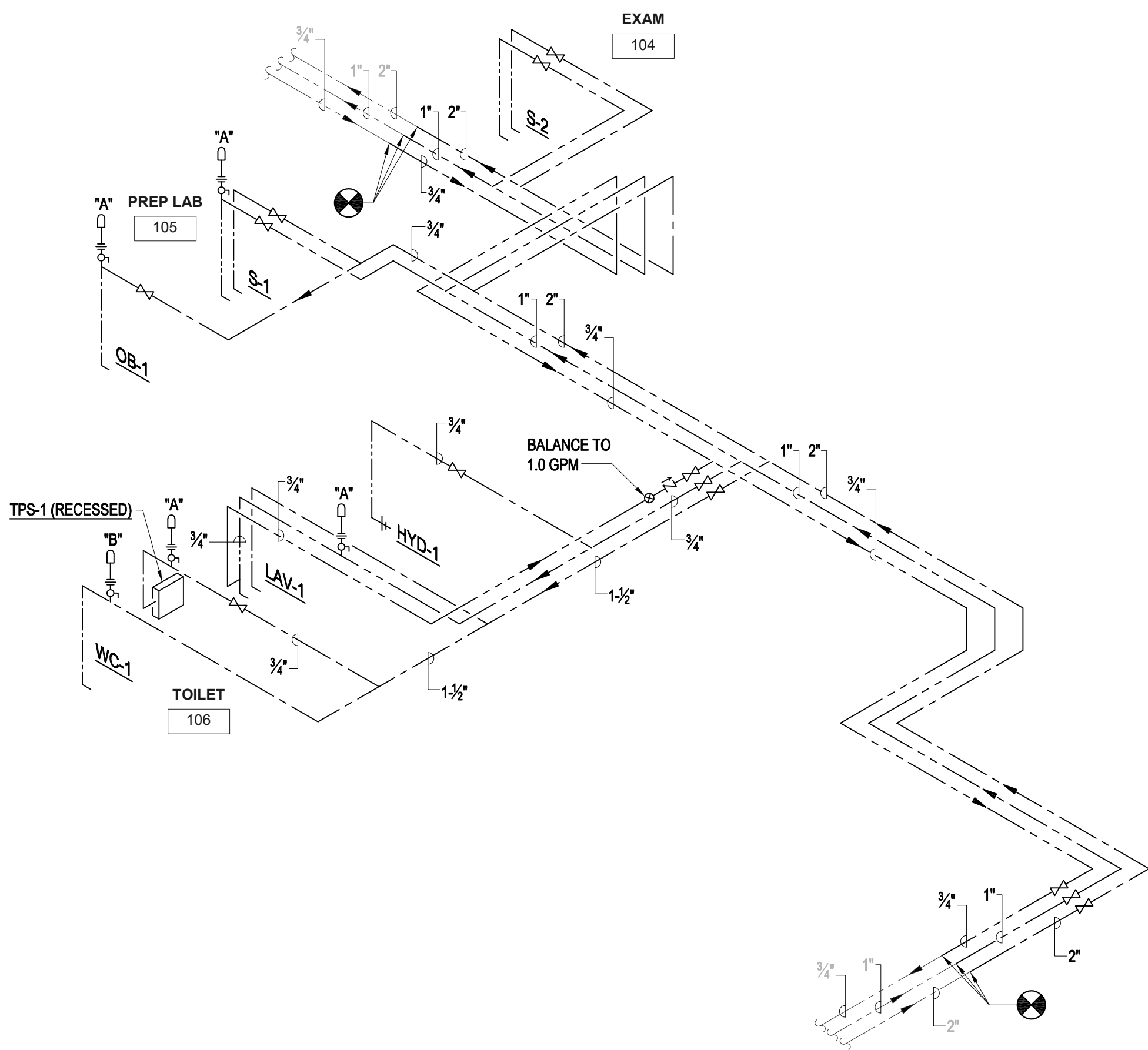
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DWN BY: RAK	CHK BY: DRH	PROJ. NUMBER: 22104		
DATE: 2022/11/22		DRAWING NUMBER: P-40.01		
SCALE: AS NOTED				



SYSTEM SUMMARY	
SYSTEM	DRAINAGE FIXTURE UNITS
SANITARY AND VENT	32

1 SANITARY AND VENT RISER DIAGRAM

NO SCALE



SYSTEM SUMMARY		
SYSTEM	FIXTURE UNITS	GPM
DOMESTIC WATER MAIN	17	38
DOMESTIC COLD WATER	15	36
DOMESTIC HOT WATER	6	5

2 DOMESTIC WATER RISER DIAGRAM

NO SCALE



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Seaford School District

Frederick Douglass ES

School Based Health Center
Renovations

1 Swain Road
Seaford, DE 19973

DRAWING TITLE:

RISERS
PLUMBING

DWN BY:

RAK

DATE:

2022/11/22

SCALE:

AS NOTED

CHK BY:

DRH

PROJ. NUMBER:

22104

DRAWING NUMBER:

P-50.01

ABBREVIATIONS

A	AMPERE, AMPERES	HOA	HAND-OFF-AUTOMATIC	RGS	RIGID GALVANIZED STEEL
AFB	ABOVE FINISHED FLOOR	HP	HORSEPOWER	RL	RELOCATED
AFG	ABOVE FINISHED GRADE	IDF	INTERMEDIATE DISTRIBUTION FRAME	RR	REMOVE AND RELOCATE
AHU	AIR HANDLING UNIT	IMC	INTERMEDIATE METAL CONDUIT	RX	REMOVE EXISTING
AIC	AMPERE INTERRUPTING CAPACITY	KMIL	THOUSAND CIRCULAR MILS	SWBD	SWITCHBOARD
ATS	AUTOMATIC TRANSFER SWITCH	KVA	KILOVOLT-AMPERES	SWGR	SWITCHGEAR
AWG	AMERICAN WIRE GAUGE	KW	KILOWATT	TTE	TELEPHONE TERMINAL BOARD
C	CONDUIT	L	LOW	TYP	TYPICAL
CB	CIRCUIT BREAKER	LRA	LOCKED ROTOR AMPERES	UH	UNIT HEATER
CKT	CIRCUIT	MCA	MINIMUM CIRCUIT AMPERES	V	VOLT, VOLTS
CT	CURRENT TRANSFORMER	MCB	MAIN CIRCUIT BREAKER	UON	UNLESS OTHERWISE NOTED
DIA	DIAMETER	MCC	MAIN CONTROL CENTER	UTP	UNSHIELDED TWISTED PAIR
DWG	DRAWING	MOF	MAIN DISTRIBUTION FRAME	UV	UNIT VENTILATOR
EC	ELECTRICAL CONTRACTOR	M	MAIN LUGS ONLY	VFD	VARIABLE FREQUENCY DRIVE
ECB	ENCLOSED CIRCUIT BREAKER	MPOP	MAIN POINT OF PRESENCE	VSD	VARIABLE SPEED DRIVE
E	EXHAUST FAN	MTD	MOUNTED	VR	VANDALL RESISTANT
EPO	EMERGENCY POWER OFF	MH	MOUNTING HEIGHT/MANHOLE	W	WATTS, WIRE, WIRES
ETR	EXISTING TO REMAIN	NEC	NATIONAL ELECTRICAL CODE	WP	WEATHERPROOF
EWC	ELECTRIC WATER COOLER	NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION	XPFR	TRANSFORMER
E	EXISTING				
FAF	FIRE ALARM ANNUNCIATOR PANEL	NFSS	NONFUSED SAFETY SWITCH		
FACP	FIRE ALARM CONTROL PANEL	NIC	NOT IN CONTACT		
FLA	FULL LOAD AMPERES	NO	NUMBER		
FSD	FUSED SAFETY SWITCH	OC	ON CENTERS		
GFP	GROUND FAULT EQUIPMENT PROTECTION	P	POLE, POLES		
GFI	GROUND FAULT INTERRUPTING	PH	PHASE		
G	GROUND	PIL	PANEL		
GW	GROUND WIRE	PVC	POLYVINYL CHLORIDE		
H	HIGH	RAF	RETURN AIR FAN		

GENERAL NOTES

- GENERAL NOTES ON THIS DRAWING SHALL APPLY TO ALL ELECTRICAL DRAWINGS ON THIS PROJECT. CAREFULLY READ ALL GENERAL NOTES PRIOR TO COMMENCEMENT OF WORK.

 - THE ELECTRICAL CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE DRAWINGS OF ALL OTHER TRADES ON THE PROJECT. ELECTRICAL OR SYSTEMS CONNECTIONS INDICATED ON ARCHITECTURAL, MECHANICAL, CIVIL, STRUCTURAL, KITCHEN AND ALL OTHER DRAWINGS WHICH ARE PART OF THIS PROJECT, SHALL BE CONSIDERED A PART OF THIS CONTRACT AND SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR AT NO EXTRA COST TO THE OWNER.
 - THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC IN NATURE AND AS SUCH SHALL NOT BE SCALED. REFER TO THE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF DEVICES AND EQUIPMENT AND DIMENSIONAL INFORMATION PRIOR TO ROUGH-IN. COORDINATE LOCATIONS OF MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN OF SERVICE EQUIPMENT AND WIRING.
 - PROVIDE PROPER WORKING CLEARANCE AT ALL ELECTRICAL EQUIPMENT IN ACCORDANCE WITH 2017 NATIONAL ELECTRICAL CODE ARTICLE 110-26 SPACES ABOVE ELECTRICAL EQUIPMENT. ALL SPACES SHALL BE CONSIDERED AS CONDITION 2 OR 3. MINIMUM SPACES WITH WORKING SPACE WIDTH SHALL BE 30 INCHES OR MATCH THE WIDTH OF THE EQUIPMENT WHICH EVER IS GREATER. IN ALL CASES WORK SPACE SHALL PERMIT AT LEAST 90 DEGREE OPENING OF EQUIPMENT DOORS OR HINGED PANELS.
 - COORDINATE MOUNTING HEIGHTS OF ALL DEVICES WITH ARCHITECTURAL PLANS, SECTIONS, ELEVATIONS AND

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT ROUTING OF WIRING AND CONDUITS AND SHALL BE RESPONSIBLE FOR SIZING ALL BRANCH CIRCUIT WIRING TO LIMIT VOLTAGE DROP TO 3%. CONTRACTOR SHALL SIZE CONDUIT TO ACCOMMODATE WIRING PER NEC. 20 AMPERE CIRCUITS SHALL BE SIZED AS FOLLOWS:

20 AMPERE CIRCUITS					
120 VOLT		277 VOLT		MINIMUM CONDUIT SIZE	
WIRING LENGTH	WIRE SIZE	WIRING LENGTH	WIRE SIZE		
0' - 60'	#12	0' - 130'	#12	3/4"	
60' - 100'	#10	130' - 210'	#10	3/4"	
100' - 150'	#8	210' - 340'	#8	3/4"	
150' - 240'	#6	340' - 540'	#6	3/4"	
OVER 240'	#4	OVER 540'	#4	1"	

NOTES:
BRANCH CIRCUITS IN PANELBOARDS WITH 200% RATED NEUTRAL BUS, ALL DIMMED LIGHTING CIRCUITS, AND ALL CIRCUITS WITH ECM MOTORS SHALL HAVE DEDICATED NEUTRAL CONDUCTORS.

 - WIRING AND CONDUIT SIZES INDICATED IN PANEL SCHEDULES ARE MINIMUM ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT WIRING AND CONDUIT SIZES. CONTRACTOR SHALL PROVIDE SPICE BLOCKS AND REDUCING PINS AS REQUIRED TO TERMINATE WIRING AND MAKE FINAL CONNECTIONS.
 - FEEDERS, BRANCH CIRCUITS AND TELECOMMUNICATIONS WIRING WHICH MUST BE RUN ACROSS FINISHED OPEN AREAS SHALL BE ROUTED AS DIRECTED BY THE ARCHITECT.
 - ELECTRICAL BOXES IN FIRE RATED PARTITIONS SHALL NOT EXCEED 16 SQUARE INCHES IN AREA (IF 4"x4"), SHALL BE MADE OF STEEL, AND SHALL BE SUCH THAT THE CUMULATIVE AREA OF BOX "CUTOUTS" IN THE FIREWALL DOES NOT EXCEED 100 SQUARE INCHES PER 100 SQUARE FEET OF WALL AREA. ELECTRICAL BOXES ON OPPOSITE SIDES OF THE SAME FIREWALL SHALL BE SEPARATED BY A HORIZONTAL AND VERTICAL DISTANCE OF NOT LESS THAN 24 INCHES. THE ELECTRICAL CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS, AS NECESSARY, TO ELECTRICAL BOX LOCATIONS TO ENSURE COMPLIANCE WITH THIS REQUIREMENT. DIMENSIONS ARE TYPICALLY NOT DIMENSIONED ON THE DRAWINGS. CONSULT ARCHITECT IF CLARIFICATION IS REQUIRED.


















20 AMPERE CIRCUITS					
120 VOLT		277 VOLT		MINIMUM CONDUIT SIZE	
WIRING LENGTH	WIRE SIZE	WIRING LENGTH	WIRE SIZE		
0' - 60'	#12	0' - 130'	#12	3/4"	
60' - 100'	#10	130' - 210'	#10	3/4"	
100' - 150'	#8	210' - 340'	#8	3/4"	
150' - 240'	#6	340' - 540'	#6	3/4"	
OVER 240'	#4	OVER 540'	#4	1"	

NOTES:
BRANCH CIRCUITS IN PANELBOARDS WITH 200% RATED NEUTRAL BUS, ALL DIMMED LIGHTING CIRCUITS,
AND ALL CIRCUITS WITH ECM MOTORS SHALL HAVE DEDICATED NEUTRAL CONDUCTORS.













GENERAL ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	BRANCH CIRCUIT CONDUIT AND WIRING CONCEALED IN CEILING OR WALL SPACE, OR SURFACE MOUNTED WHERE NO CEILING OR WALL SPACE EXISTS; REFER TO PANEL SCHEDULES FOR MINIMUM WIRE AND CONDUIT SIZES
	BRANCH CIRCUIT CONDUIT AND WIRING IN SLAB, UNDER FLOOR OR UNDERGROUND; REFER TO PANEL SCHEDULES FOR MINIMUM WIRE AND CONDUIT SIZES
	4" CONDUIT SLEEVE THROUGH WALL, LOCATED ABOVE CEILING. PROVIDE FIRE STOP AS REQUIRED.
L1A1-1	HOMERUN TO PANELBOARD - REFER TO PANEL SCHEDULES FOR MINIMUM WIRE AND CONDUIT SIZES. (NOTE: CONDUCTOR SIZE DEPENDENT ON HOMERUN LENGTH)
	EQUIPMENT CONNECTION
	CONDUIT UP
	CONDUIT DOWN
	JUNCTION BOX; CEILING, WALL MOUNTED
	ENCLOSURE OR CABINET AS NOTED
	DRAWING NOTE - NEW WORK
	EQUIPMENT DESIGNATION
#/E##	DETAIL REFERENCE: DETAIL NUMBER/DRAWING NUMBER
	ITEMS SHOWN DASHED/HEAVY ARE TO BE REMOVED
	ITEMS SHOWN SOLID/HEAVY ARE NEW WORK
	ITEMS SHOWN SOLID/LIGHT ARE EXISTING TO REMAIN
	ITEMS SHOWN DASHED/HEAVY WITH RL SUFFIX ARE TO BE REMOVED AND RELOCATED. EXTEND ASSOCIATED CONDUIT AND WIRING TO NEW LOCATION AS REQUIRED.
#	CIRCUIT NUMBERS INDICATED ADJACENT TO WIRING DEVICES AND FIXTURES INDICATE CIRCUIT DESIGNATIONS. EXTEND HOMERUNS TO DEVICES WITH SAME CIRCUIT DESIGNATIONS.
	PART PLAN NO. DRAWING NO.
	VIEW DIRECTION SECTION NO. DRAWING NO.
	VIEW DIRECTION ELEVATION NO. DRAWING NO.

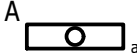
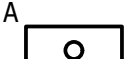

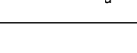






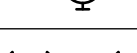
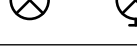
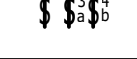
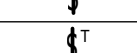
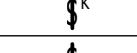
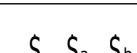
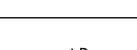

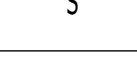
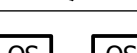
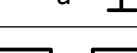
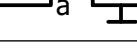
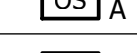
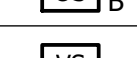
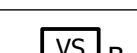
COMMUNICATIONS LEGEND

SYMBOL	DESCRIPTION
	PROJECTOR HIGH DROP - MOUNT HIGH ON WALL ADJACENT TO WALL MOUNT PROJECTOR BRACKET- REFER TO DETAILS FOR CONFIGURATION
	PROJECTOR LOW DROP; - M.H. 18" AFF U.O.N. - REFER TO DETAILS FOR CONFIGURATION
	PROJECTOR DROP; SEE DETAILS FOR CONFIGURATION - MOUNT IN 2X2 DROP CEILING PLATE
	VIDEO DROP - MOUNT TO SUIT MONITOR - SEE DETAILS FOR CONFIGURATION
	VIDEO HIGH DROP - M.H. 70" AFF U.O.N. - SEE DETAILS FOR CONFIGURATION
	VIDEO LOW DROP - M.H. 18" AFF U.O.N. - SEE DETAILS FOR CONFIGURATION
	INTERACTIVE WHITEBOARD OUTLET - M.H. 96" AFF U.O.N.
	SOUND ENHANCEMENT SYSTEM OUTLET - M.H. 96" AFF U.O.N.
	WIRELESS ACCESS POINT OUTLET - CEILING MOUNTED, WALL MOUNTED 12'-0" AFF FOR EXTERIOR DROPS AND 9'-6" AFF FOR CAFETERIA AND GYMNASIUM INTERIOR DROPS, UON - REFER TO DETAILS FOR CONFIGURATION
	DATA DROP - M.H. 18" A.F.F. U.O.N. - REFER TO DETAILS FOR CONFIGURATION
	VOICE DROP - M.H. 18" A.F.F. U.O.N. - REFER TO DETAILS FOR CONFIGURATION
	SURFACE RACEWAY WITH WIRING DEVICES - M.H. 18" A.F.F. U.O.N.
	PUBLIC ADDRESS SYSTEM SPEAKER - CEILING-MOUNTED, WALL-MOUNTED 96" AFF U.O.N. - SUBSCRIPT H DENOTES HORN TYPE
	LOCAL SOUND SYSTEM SPEAKER - CEILING-MOUNTED, WALL-MOUNTED 96" AFF U.O.N.
	SOUND SYSTEM - VOLUME CONTROL UNIT - M.H. 42" AFF TO BOTTOM, 48" AFF TO TOP
	24" - 24V ANALOG CLOCK - M.H. [96" AFF] [12" BELOW CEILING] U.O.N.
	CONDUIT SLEEVE THRU WALL PARTITION ABOVE FINISHED CEILING WHERE REQUIRED - 2" SLEEVE AT CLASSROOMS WITH PULL CORD AT ALL OTHER SPACES - 1" SLEEVE WITH A PULL CORD U.O.N.

SECURITY LEGEND

SYMBOL	DESCRIPTION
	VIDEO SURVEILLANCE CAMERA - CEILING-MOUNTED, WALL-MOUNTED AND CORNER MOUNTED 10'-0" AFF TO BOTTOM OF DEVICE IF EXTERIOR, 7'-6" AFF TO BOTTOM OF DEVICE IF INTERIOR U.O.N.; WP DENOTES WEATHERPROOF, PTZ DENOTES PAN-TILT-ZOOM
 CR	ACCESS CONTROL SYSTEM - CARD READER - M.H. 48" AFF TO TOP
 CRH	ACCESS CONTROL SYSTEM - CARD READER (MULLION TYPE) - M.H. 48" AFF TO TOP
 DL	ACCESS CONTROL SYSTEM - DOOR LOCK
 X	ACCESS CONTROL SYSTEM - REQUEST TO EXIT MOTION DETECTOR - CEILING MOUNTED ABOVE DOOR
 PS	POWER SUPPLY
 SCP	CONTROL PANEL
 ES	ACCESS CONTROL SYSTEM - ELECTRIC DOOR STRIKE
 ML	ACCESS CONTROL SYSTEM - MAGNETIC LOCK
 IDP	INTRUSION DETECTION SYSTEM - MOTION DETECTOR - CEILING MOUNTED, WALL MOUNTED 7'-6" AFF U.O.N.
 DC	INTRUSION DETECTION SYSTEM - DOOR CONTACT SWITCH
 KP	INTRUSION DETECTION SYSTEM - KEY PAD







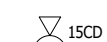
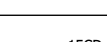
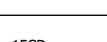
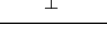
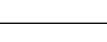
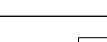


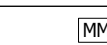
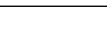



LIGHTING LEGEND

SYMBOL	DESCRIPTION
	LIGHTING FIXTURE - 1'x4' UPPER-CASE LETTER INDICATES FIXTURE TYPE, LOWER-CASE LETTER INDICATES SWITCH DESIGNATION (WHERE INDICATED)
	LIGHTING FIXTURE - 2'x4' - UPPER-CASE LETTER INDICATES FIXTURE TYPE, LOWER-CASE LETTER INDICATES SWITCH DESIGNATION (WHERE INDICATED)
	LIGHTING FIXTURE - 2'x2' - UPPER-CASE LETTER INDICATES FIXTURE TYPE, LOWER-CASE LETTER INDICATES SWITCH DESIGNATION (WHERE INDICATED)
	STRIP LIGHTING FIXTURE - UPPER-CASE LETTER INDICATES FIXTURE TYPE, LOWER-CASE LETTER INDICATES SWITCH DESIGNATION (WHERE INDICATED)
	WALL SCONCE LIGHTING FIXTURE - NORMAL POWER, EMERGENCY POWER - UPPER-CASE LETTER INDICATES FIXTURE TYPE, LOWER-CASE LETTER INDICATES SWITCH LEG (WHERE INDICATED)
	DOWNLIGHT LIGHTING FIXTURE - NORMAL POWER, EMERGENCY POWER - UPPER-CASE LETTER INDICATES FIXTURE TYPE, LOWER-CASE LETTER INDICATES SWITCH LEG (WHERE INDICATED)
	INDICATES LIGHTING FIXTURE WITH INTEGRAL EMERGENCY BATTERY BACKUP
	EMERGENCY LIGHTING UNIT - INTEGRAL BATTERY; REMOTE HEAD - M.H. 8'-0" AFF U.O.N.
	EXIT SIGN - CEILING-MOUNTED, WALL-MOUNTED; SHADING INDICATES ILLUMINATED FACE, DIRECTIONAL ARROWS AS INDICATED/REQUIRED - EXIT SIGNS SHALL GENERALLY BE CENTERED OVER THE DOOR OPENING
	EXIT SIGN - CEILING-MOUNTED, WALL-MOUNTED; WITH INTEGRAL EMERGENCY LIGHTING HEADS
	LINE VOLTAGE TOGGLE SWITCH - SINGLE POLE, 3-WAY, 4-WAY; SUBSCRIPT INDICATES FIXTURES/OUTLETS CONTROLLED - M.H. 48" TO TOP
	LINE VOLTAGE PILOT LIGHT TOGGLE SWITCH, LIT WHEN ON; M.H. 48" AFF TO TOP
	LINE VOLTAGE LIGHTED TIME SWITCH; PUSHBUTTON STYLE; M.H. 48" AFF TO TOP
	LINE VOLTAGE KEY SWITCH; M.H. 48" AFF TO TOP
	LINE VOLTAGE DIMMER SWITCH; M.H. 48" AFF TO TOP
	LOW VOLTAGE SWITCH; SUBSCRIPT INDICATES FIXTURES/OUTLETS CONTROLLED. PROVIDE NUMBER OF SWITCHES TO MATCH SUBSCRIPT. M.H. 48" AFF TO TOP
	LOW VOLTAGE DIMMER SWITCH; SUBSCRIPT INDICATES FIXTURES/OUTLETS CONTROLLED. PROVIDE NUMBER OF SWITCHES TO MATCH SUBSCRIPT. M.H. 48" AFF TO TOP
	LOW VOLTAGE SWITCH; ON/OFF WITH DIM UP/DN AND TWO PRESET SCENE BUTTONS; M.H. 48" AFF TO TOP - REFER TO DETAILS FOR CONFIGURATION
	LOW VOLTAGE MAINTAINED KEY SWITCH; M.H. 48" AFF TO TOP
	OCCUPANCY SENSOR, LOW VOLTAGE DIGITAL W/ CONTROLLER, DUAL TECHNOLOGY, CEILING, WALL MOUNT 10'-0" AFF UON; SUBSCRIPT F- CORNER COVERAGE. LOWER-CASE SUBSCRIPT INDICATES FIXTURES CONTROLLED
	VACANCY SENSOR, LOW VOLTAGE DIGITAL W/ CONTROLLER, DUAL TECHNOLOGY, CEILING, WALL MOUNT 10'-0" AFF UON; SUBSCRIPT F- CORNER COVERAGE. LOWER-CASE SUBSCRIPT INDICATES FIXTURES CONTROLLED
	OCCUPANCY SENSOR, LINE VOLTAGE, DUAL TECHNOLOGY - SINGLE LOAD, WALL SWITCH TYPE; M.H. 48" AFF TO TOP
	OCCUPANCY SENSOR, LINE VOLTAGE, DUAL TECHNOLOGY - SINGLE LOAD, 3-WAY, WALL SWITCH TYPE; M.H. 48" AFF TO TOP
	VACANCY SENSOR, LINE VOLTAGE, DUAL TECHNOLOGY - SINGLE LOAD, WALL SWITCH TYPE; M.H. 48" AFF TO TOP
	VACANCY SENSOR, LINE VOLTAGE, DUAL TECHNOLOGY - SINGLE LOAD, 3-WAY, WALL SWITCH TYPE; M.H. 48" AFF TO TOP

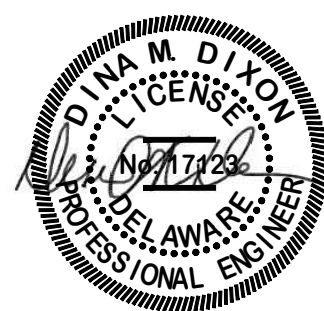
POWER LEGEND

SYMBOL	DESCRIPTION
	SIMPLEX RECEPTACLE - M.H. 18" AFF U.O.N.
	DUPLEX, DOUBLE DUPLEX RECEPTACLE - M.H. 18" AFF U.O.N.
	DUPLEX, DOUBLE DUPLEX RECEPTACLE - M.H. 6" ABOVE COUNTER OR 42" AFF U.O.N., 48" AFF MAX.
	DUPLEX, DOUBLE DUPLEX RECEPTACLE - GFCI TYPE - M.H. 18" AFF U.O.N.
	DUPLEX, DOUBLE DUPLEX RECEPTACLE - WEATHER-RESISTANT GFCI TYPE WITH WEATHERPROOF WHILE-IN-USE COVER - M.H. 18" AFF U.O.N.
	DUPLEX, DOUBLE DUPLEX RECEPTACLE - WEATHER-RESISTANT - M.H. 18" AFF U.O.N.
	DUPLEX, DOUBLE DUPLEX RECEPTACLE - SWITCHED TYPE - M.H. 18" AFF U.O.N.
	SPECIAL PURPOSE RECEPTACLE OUTLET - NEMA CONFIGURATION AS NOTED - M.H. 18" AFF U.O.N.
	DISTRIBUTION PANELBOARD - SURFACE-MOUNTED, TOP 6-6" AFF
	PANELBOARD - SURFACE-MOUNTED, FLUSH-MOUNTED, TOP 5-6" AFF
	TRANSFORMER - REFER TO DRY TYPE TRANSFORMER SCHEDULE
	TRANSFORMER - PAD-MOUNTED
	ENCLOSURE OR CABINET AS NOTED
	ENCLOSED CIRCUIT BREAKER IN NEMA 1 ENCLOSURE U.O.N.; MOUNT 5'-6" AFF, SIZE AS NOTED
	SAFETY DISCONNECT SWITCH - FUSED, NON-FUSED IN NEMA 1 ENCLOSURE U.O.N. - MOUNT TOP 48" AFF U.O.N.; RATING AND FUSING AS NOTED
	MAGNETIC MOTOR CONTROLLER; FVNR WITH CONTROL XFMR, RED AND GREEN INDICATING LIGHTS, HOA SELECTOR SWITCH IN NEMA 1 ENCLOSURE U.O.N.; MOUNT 5'-6" AFF TO TOP U.O.N.
	COMBINATION MAGNETIC MOTOR CONTROLLER; FVNR WITH CONTROL XFMR, RED AND GREEN INDICATING LIGHTS, HOA SELECTOR SWITCH AND DISCONNECT SWITCH IN NEMA 1 ENCLOSURE U.O.N.; MOUNT 5'-6" AFF TO TOP U.O.N.
S ₁ , S ₁₂	TOGGLE SWITCH - SINGLE POLE, TWO POLE - HORSEPOWER RATED, WITH LOCKABLE HANDLE GUARD COVERPLATE - M.H. 42" AFF TO BOTTOM, 48" AFF TO TOP UON
S _N	MANUAL MOTOR CONTROLLER - SINGLE POLE, WITH H.O.A. SWITCH AND LOCKABLE HANDLE GUARD COVERPLATE IN NEMA 1 ENCLOSURE U.O.N. - M.H. 48" AFF TO TOP UON
S ₁₂ , S ₁₃	MANUAL MOTOR SWITCH - TWO POLE, THREE POLE - 30A, 600VAC, WITH LOCKABLE HANDLE GUARD COVERPLATE - M.H. 48" AFF TO TOP UON
	TO GROUND
	SOLENOID VALVE
	VARIABLE FREQUENCY DRIVE - FURNISEHD UNDER DIVISION 23, INSTALLED UNDER DIVISION 26
	AUTOMATIC TEMPERATURE CONTROL PANEL
	SURGE PROTECTION DEVICE
	SURFACE RACEWAY - HORIZONTAL RUN - M.H. 18" AFF UON
	SURFACE RACEWAY - VERTICAL DROP
	SURFACE RACEWAY - HORIZONTAL RUN WITH VERTICAL DROP - M.H. 18" AFF UON
	SURFACE RACEWAY WITH WIRING DEVICES - M.H. 18" A.F.F. U.O.N.
	MOTOR; AS NOTED
	PUSHBUTTON - M.H. 48" AFF TO TOP UON

FIRE ALARM LEGEND

SYMBOL		DESCRIPTION
		FIRE ALARM SYSTEM - CONTROL PANEL - SURFACE-MOUNTED, FLUSH-MOUNTED - 5'-6" AFF TO TOP
		FIRE ALARM SYSTEM - ANNUNCIATOR PANEL - SURFACE-MOUNTED, FLUSH-MOUNTED - 5'-6" AFF TO TOP
		FIRE ALARM SYSTEM - NAC PANEL - SURFACE-MOUNTED, FLUSH-MOUNTED - 5'-6" AFF TO TOP
		FIRE ALARM - MANUAL PULL STATION - M.H. 48" AFF TO TOP
		FIRE ALARM SYSTEM - COMBINATION HORN/FLASHING STROBE LIGHT - WALL-MOUNTED 7'-6" AFF OR 6" FROM CEILING, WHICHEVER IS LOWER, CEILING MOUNTED, NUMBER INDICATES CANDELLA RATING. IF NO CANDELLA RATING IS INDICATED PROVIDE 110CD
		FIRE ALARM SYSTEM - VISUAL STROBE LIGHT - WALL-MOUNTED 7'-6" AFF OR 6" FROM CEILING, WHICHEVER IS LOWER, CEILING MOUNTED, NUMBER INDICATES CANDELLA RATING. IF NO CANDELLA RATING IS INDICATED PROVIDE 110CD
		FIRE ALARM SYSTEM - SMOKE DETECTOR - CEILING MOUNTED, WALL MOUNTED 7'-6" AFF U.O.N.
		FIRE ALARM SYSTEM - HEAT DETECTOR - CEILING MOUNTED, WALL MOUNTED 7'-6" AFF U.O.N.
		FIRE ALARM SYSTEM - CARBON MONOXIDE DETECTOR - CEILING MOUNTED, WALL MOUNTED 18" AFF U.O.N.
		FIRE ALARM SYSTEM - DUCT DETECTOR - STANDARD, WEATHERPROOF
		FIRE ALARM SYSTEM - DUCT DETECTOR REMOTE TEST STATION - M.H. 42" AFF TO BOTTOM, 48" AFF TO TOP
		FIRE ALARM SYSTEM - ADDRESSIBLE MONITOR MODULE
		FIRE ALARM SYSTEM - MAGNETIC DOOR HOLD-OPEN DEVICE - PROVIDED UNDER DIVISION 08, CONNECTED UNDER DIVISION 28 - INTERLOCK WITH FACP TO RELEASE DOORS DURING FIRE ALARM - FIELD COORDINATE MOUNTING HEIGHT WITH DOORS

*NOTE: NOT ALL ITEMS WITHIN LEGEND(S) MAY BE UTILIZED ON THIS PROJECT.



CONSULTANTS:

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ISSUE DATES:

-1 · ISSUED FOR BID/ 2022/11/22
· CONSTRUCTION



Fearn-Clendaniel Architects, Inc
6 Larch Avenue Suite 398 Wilmington, Delaware 19804
302-998-7615 www.fcarchitects.net

PROJECT

SEA 22001-FDE-SBHC

Seaford School District

Frederick Douglass ES

School Based Health Center Renovations

1 Swain Road
Seaford, DE 19973

DRAWING TITLE:

ELECTRICAL LEGEND CONVENTIONS AND ABBREVIATIONS

DWN BY:	CHK BY:	PROJ. NUMBER:
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DMD	DM
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DMD	DMD
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DATE: _____

2022/11/22

E-00.01

DEMOLITION NOTES:

1. DEMOLITION DRAWINGS ARE DIAGRAMMATIC IN NATURE; NO ATTEMPT HAS BEEN MADE TO SHOW ALL EXISTING ELECTRICAL WORK. IN AREAS INDICATED TO BE RENOVATED, ALL EXISTING ELECTRICAL WORK SHALL REMAIN UNLESS OTHERWISE NOTED. WHEN AN ITEM IS INDICATED TO BE REMOVED, REMOVE ALL ASSOCIATED ELECTRICAL WORK BACK TO POINT OF SOURCE UNLESS OTHERWISE NOTED. DISCONNECT AND REMOVE ELECTRICAL WORK ASSOCIATED WITH HVAC EQUIPMENT INDICATED TO BE REMOVED. REMOVAL OF EQUIPMENT SHALL BE BY OTHERS.
2. WHERE WORK PASSES THROUGH THE RENOVATION AREA TO SERVE OTHER PORTIONS OF THE BUILDING, OR WORK IN THE RENOVATION AREA IS INDICATED TO REMAIN, IT SHALL BE SUITABLY RELOCATED AND THE SYSTEMS RESTORED TO NORMAL. COORDINATE ANY OUTAGES WITH OWNER 7 DAYS IN ADVANCE.
3. WORK INDICATED TO REMAIN SHALL BE SUITABLY PROTECTED AGAINST DAMAGE.

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3. WORK INDICATED TO REMAIN SHALL BE SUITABLE PROTECTED AGAINST DAMAGE.

GENERAL NOTES:

(APPLY TO THIS DRAWING ONLY)

1. REMOVE AND REINSTALL ALL CEILING MOUNTED DEVICES, INCLUDING BUT NOT LIMITED TO, LIGHTING FIXTURES, PA SPEAKERS, WIRELESS ACCESS POINTS, CAMERAS ETC. AS REQUIRED FOR INSTALLATION OF MECHANICAL AND ELECTRICAL WORK.

(APPLY TO THIS DRAWING ONLY)

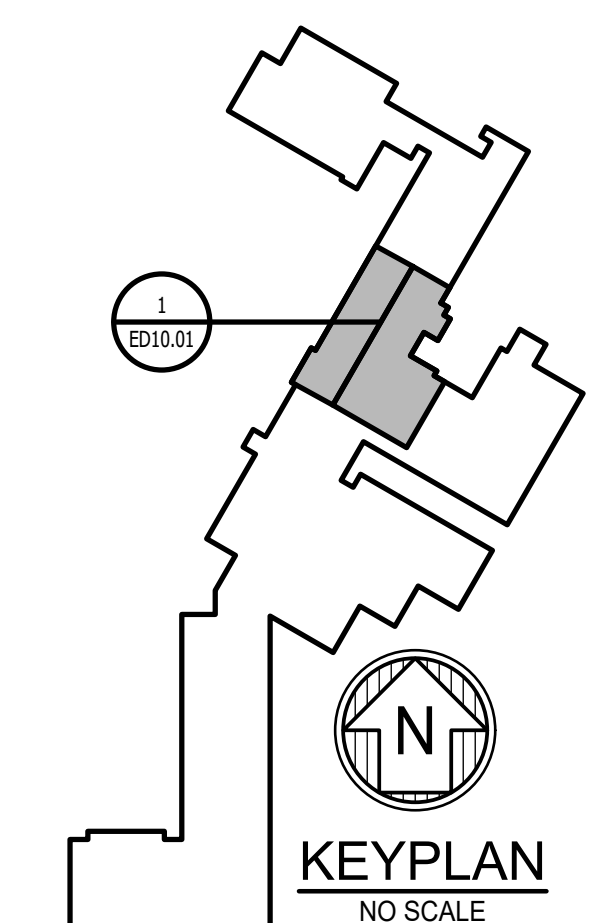
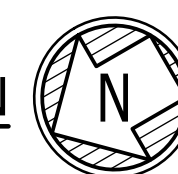

1. REMOVE AND REINSTALL ALL CEILING MOUNTED DEVICES, INCLUDING BUT NOT LIMITED TO, LIGHTING FIXTURES, PA SPEAKERS, WIRELESS ACCESS POINTS, CAMERAS ETC. AS REQUIRED FOR INSTALLATION OF MECHANICAL AND ELECTRICAL WORK.

DRAWING NOTES:
(APPLY TO THIS DRAWING ONLY)

- 1 MAINTAIN EX CIRCUIT FOR CONNECTION TO NEW FIXTURE. EXTEND ASSOCIATED CONDUIT AND WIRING AS REQUIRED.
- 2 MAINTAIN EX CIRCUIT FOR CONNECTION TO NEW ATC PANEL. EXTEND ASSOCIATED CONDUIT AND WIRING TO NEW LOCATION AS REQUIRED.

(APPLY TO THIS DRAWING ONLY)

- ① MAINTAIN EX CIRCUIT FOR CONNECTION TO NEW FIXTURE. EXTEND ASSOCIATED CONDUIT AND WIRING AS REQUIRED.
- ② MAINTAIN EX CIRCUIT FOR CONNECTION TO NEW ATC PANEL. EXTEND ASSOCIATED CONDUIT AND WIRING TO NEW LOCATION AS REQUIRED.



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



CONSULTANTS:

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- . -	CONSTRUCTION	



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302-998-7615 www.fcarchitects.net

PROJECT			
SEA_22001-FDE-SBHC			
Seaford School District			
Frederick Douglass ES			
School Based Health Center Renovations			
1 Swain Road Seaford, DE 19773			
DRAWING TITLE: PARTIAL FIRST FLOOR PLAN ELECTRICAL DEMOLITION			
DWN BY:	CHK BY:	PROJ. NUMBER:	
DMD	DMD	22104	
DATE: 2022/11/22		DRAWING NUMBER:	
SCALE: AS NOTED		ED-10.01	

SEA_22001-FDE-SBHC

Seaford School District

Frederick Douglass ES

School Based Health Center Renovations

1 Swain Road
Seaford, DE 19973

DRAWING TITLE:
PARTIAL FIRST FLOOR PLAN
ELECTRICAL
DEMOLITION

DWN BY:	CHK BY:	PROJ. NUMBER:
DMD	DMD	22104

DMD	DMD	2210
DATE:		DRAWING NUMBER:

2022/11/22	ED-10.01
------------	----------

SCALE: **LD-10.01**
AS NOTED

DEMOLITION NOTES:

1. DEMOLITION DRAWINGS ARE DIAGRAMMATIC IN NATURE; NO ATTEMPT HAS BEEN MADE TO SHOW ALL EXISTING ELECTRICAL WORK. IN AREAS INDICATED TO BE RENOVATED, ALL EXISTING ELECTRICAL WORK SHALL REMAIN UNLESS OTHERWISE NOTED. WHEN AN ITEM IS INDICATED TO BE REMOVED, REMOVE ALL ASSOCIATED ELECTRICAL WORK BACK TO POINT OF SOURCE UNLESS OTHERWISE NOTED. DISCONNECT AND REMOVE ELECTRICAL WORK ASSOCIATED WITH HVAC EQUIPMENT INDICATED TO BE REMOVED. REMOVAL OF EQUIPMENT SHALL BE BY OTHERS.
2. WHERE WORK PASSES THROUGH THE RENOVATION AREA TO SERVE OTHER PORTIONS OF THE BUILDING, OR WORK IN THE RENOVATION AREA IS INDICATED TO REMAIN, IT SHALL BE SUITABLY RELOCATED AND THE SYSTEMS RESTORED TO NORMAL. COORDINATE ANY OUTAGES WITH OWNER 7 DAYS IN ADVANCE.
3. WORK INDICATED TO REMAIN SHALL BE SUITABLY PROTECTED AGAINST DAMAGE.

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3. WORK INDICATED TO REMAIN SHALL BE SUITABLE PROTECTED AGAINST DAMAGE.

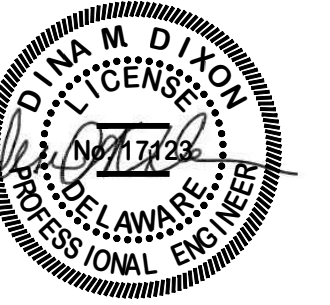
GENERAL NOTES:

(APPLY TO THIS DRAWING ONLY)

1. REMOVE AND REINSTALL ALL CEILING MOUNTED DEVICES, INCLUDING BUT NOT LIMITED TO, LIGHTING FIXTURES, PA SPEAKERS, WIRELESS ACCESS POINTS, CAMERAS ETC. AS REQUIRED FOR INSTALLATION OF MECHANICAL AND ELECTRICAL WORK.

(APPLY TO THIS DRAWING ONLY)

1. REMOVE AND REINSTALL ALL CEILING MOUNTED DEVICES, INCLUDING BUT NOT LIMITED TO, LIGHTING FIXTURES, PA SPEAKERS, WIRELESS ACCESS POINTS, CAMERAS ETC. AS REQUIRED FOR INSTALLATION OF MECHANICAL AND ELECTRICAL WORK.



CONSULTANTS:

M/P/E ENGINEER

GIPE ASSOCIATES
8719 BROOKS DRIVE
EASTON, MD 21601
P: (410) 822-8688
WO#: 22067

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ISSUE DATES:

1 • ISSUED FOR BID/ 2022/11/22
• CONSTRUCTION



Fearn-Clendaniel Architects, Inc
6 Larch Avenue Suite 398 Wilmington, Delaware 19804
302-998-7615 www.fcarchitects.net

PROJECT

SEA_22001-FDE-SBHC

Seaford School District

Frederick Douglass ES

School Based Health Center Renovations

1 Swain Road
Seaford, DE 19973

DRAWING TITLE:

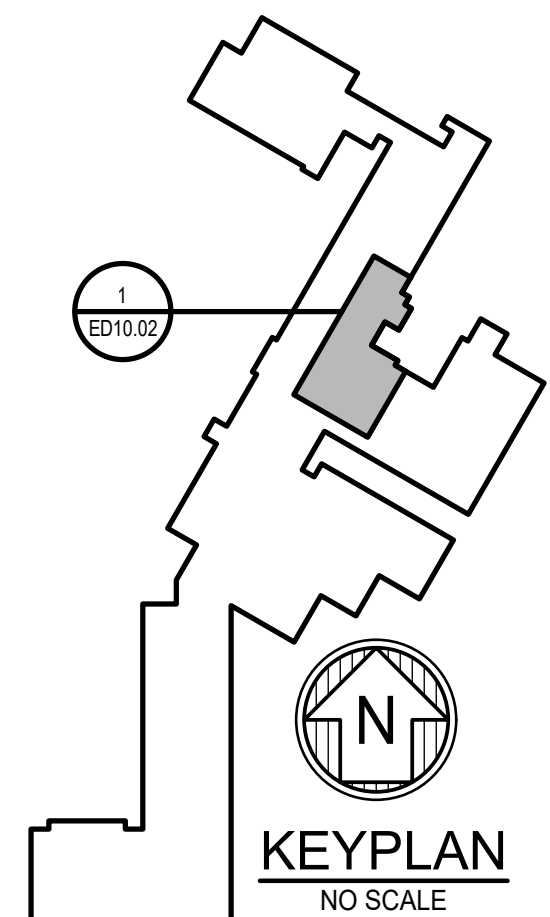
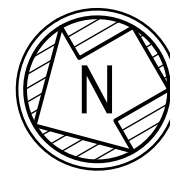
DWN BY:	CHK BY:	PROJ. NUMBER:
DMD	DMD	22104

DATE:	DRAWING NUMBER:
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2022/11/22 **FD 10.00**

AS NOTED

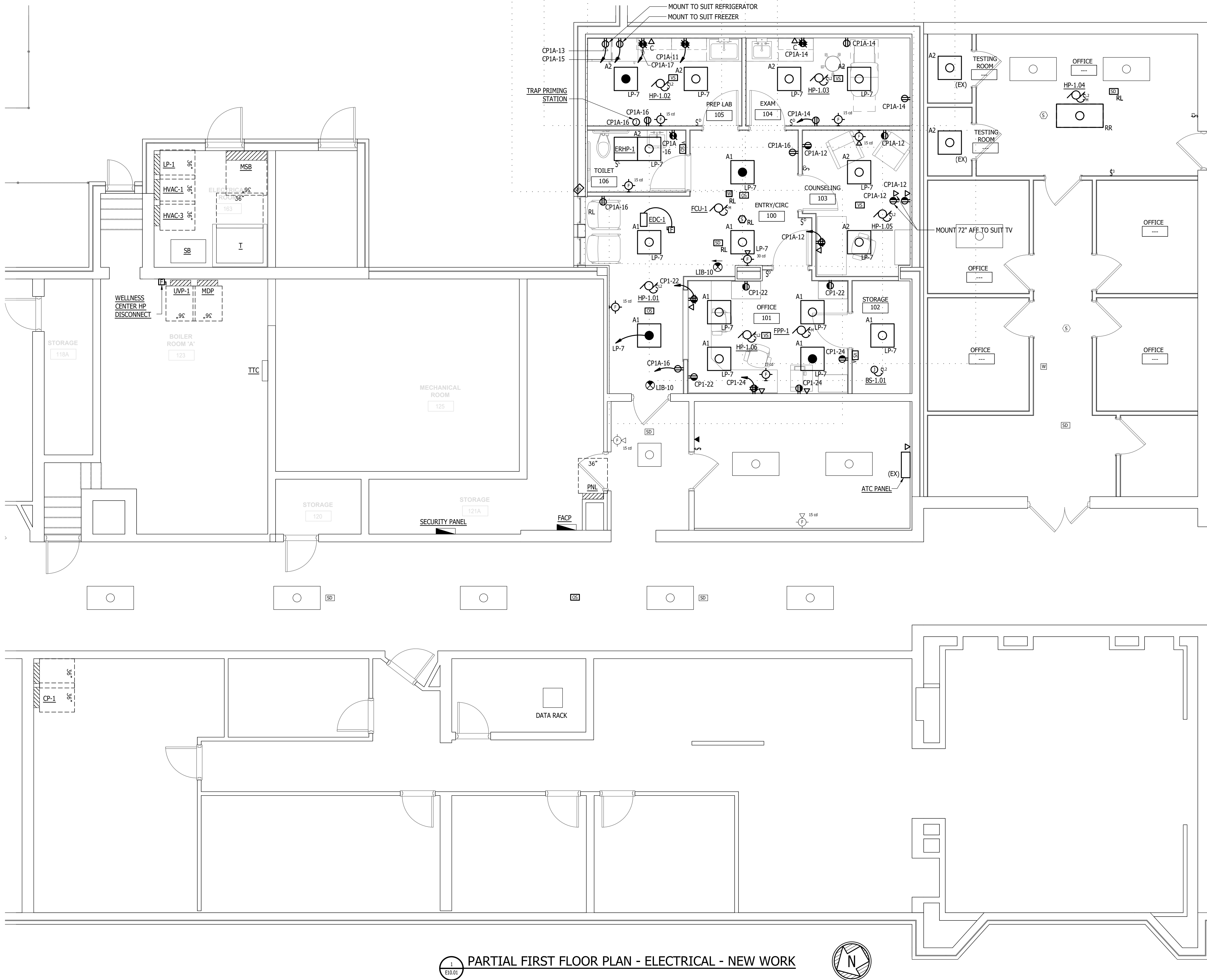
1 PARTIAL ROOF PLAN - ELECTRICAL - DEMOLITION N



KEYPLAN
NO SCALE

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





GENERAL NOTES:
(APPLY TO THIS DRAWING ONLY)

1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE, DWG. E30-1, FOR ADDITIONAL INFORMATION.
2. REINSTALL EX DEVICES INDICATED TO BE REMOVED AND REINSTALLED ON NEW WORK DRAWINGS.

DRAWING NOTES:
(APPLY TO THIS DRAWING ONLY)

1. MAKE CONNECTION TO 120V RECP CIRCUIT MADE SPARE BY NEW WORK.



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PROJECT

SEA 22001-FDE-SBHC

Seaford School District

Frederick Douglass ES

School Based Health Center Renovations

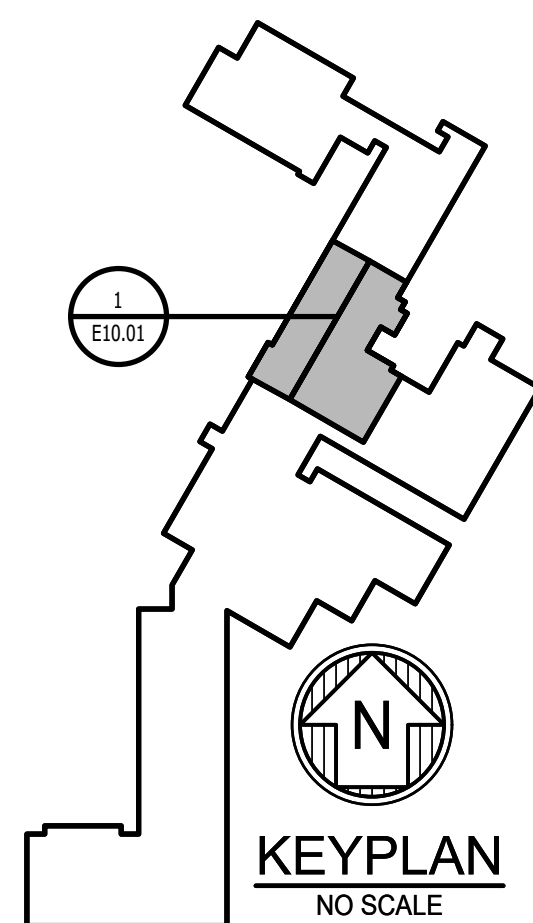
**1 Swain Road
Seaford, DE 19973**

DRAWING TITLE:
**PARTIAL FIRST FLOOR PLAN
ELECTRICAL
NEW WORK**

DWN BY: | CHK BY: | PROJ. NUMBER:
DMD DMD 22104

DATE: **2022/11/22** DRAWING NUMBER:

SCALE: **AS NOTED** **E-10.01**

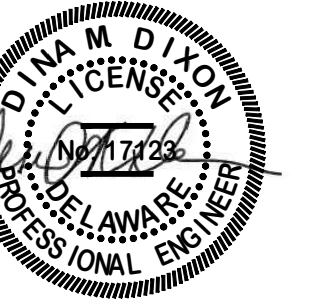


SCALE: 1/4" = 1'-0"



(APPLY TO THIS DRAWING ONLY)

1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE, DWG. E-30.01, FOR ADDITIONAL INFORMATION.



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: (410) 822-8688
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PROJECT

SEA 22001-FDE-SBHC

Seaford School District

Frederick Douglass ES

School Based Health Center Renovations

1 Swain Road
Seaford, DE 19973

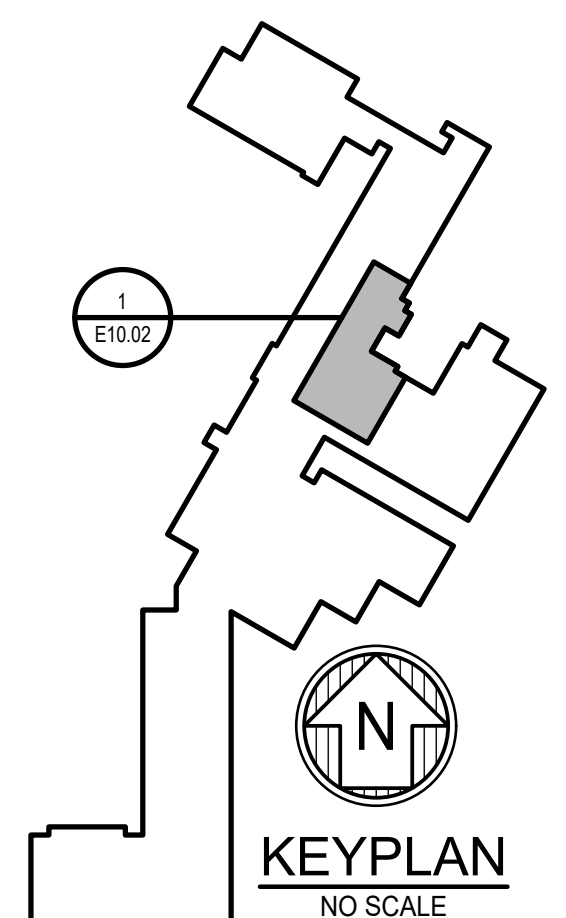
DRAWING TITLE: **PARTIAL ROOF PLAN
ELECTRICAL
NEW WORK**

OWN BY:	CHK BY:	PROJ. NUMBER:
DMD	DMD	22104

DATE:	DRAWING NUMBER:
2022/11/22	

SCALE: AS NOTED

PARTIAL ROOF PLAN - ELECTRICAL - NEW WORK



KEYPLAN
NO SCALE

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



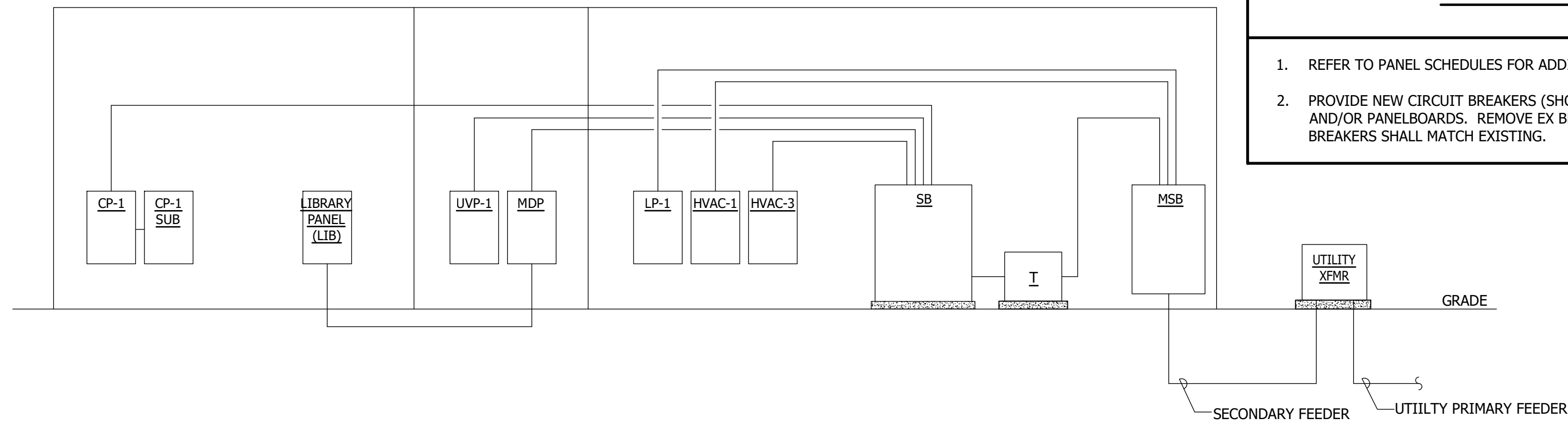
(APPLY TO PARTIAL SCHEMATIC FIRE ALARM RISER DIAGRAM ONLY)

- (APPLY TO PARTIAL SCHEMATIC FIRE ALARM RISER DIAGRAM ONLY)

- EX EST FIRE ALARM CONTROL PANEL**
PROVIDE MODIFICATIONS AND
EXTENSIONS, INCLUDING ADDITIONAL
BATTERY CAPACITY, AS REQUIRED TO
ACCOMMODATE NEW DEVICES.



1. REFER TO PANEL SCHEDULES FOR ADDITIONAL INFORMATION.
2. PROVIDE NEW CIRCUIT BREAKERS (SHOWN BOLD) IN EXISTING SWITCHBOARDS AND/OR PANELBOARDS. REMOVE EX BREAKERS AS REQUIRED. NEW CIRCUIT BREAKERS SHALL MATCH EXISTING.



SCALE: NONE

EX CP-11A										DE A SERIES II										MOUNTING: SURFACE																			
VOLTAGE: 200/120V, 3PH, 4W																				LOCATION: CONFERENCE ROOM																			
150 AMPERE BUS										150A MLO										200% RATED NEUTRAL BUS										22,000 A I.C.									
CONN NO.		CK	DESCRIPTION		BREAKER P. AMPS		N	SIZE	WIRE	COND	CT	DESCRIPTION		BREAKER P. AMPS		N	SIZE	WIRE	COND	CONN NO.																			
			1	BATH FN	1	2C						1	SERVER RESP		22																								
			5	BATH FN	1	2C						4	SERVER RESP		22																								
			5	HALL LN	1	2C						5			22																								
					1	2C						5			22																								
			3		1	2C						5			22																								
			*1	SPACE	1							*2	SPACE																										
			*3	SPACE	1							*4	SPACE																										
			*5	SPACE	1							*6	SPACE																										
			*7	SPACE	1							*8	SPACE																										
			*9	SPACE	1							*C	SPACE																										
			*21	SPACE	1							*22	SPACE																										
			*23	SPACE	1							*24	SPACE																										
TOTAL CONNECTED LOAD										C C NO										A C B D C C C C																			

EX CP-1A (MODIFIED)										GE 4 SERIES I										MOUNTING: SURFACE																																																	
VOLTAGE: 200/120V, 3PH, 4W																				LOCATION: CONFERENCE ROOM																																																	
150 AMPERE BUS										150A MLO										200% RATED NEUTRAL BUS										22,000 A.I.C.																																							
CON KVA		C		DESCRIPTION		P		Amps		N		S		Z		GND		C		CON KVA		C		DESCRIPTION		P		Amps		N		S		Z		GND		C		CON KVA																													
1		BATH		FAN		1		23												2		SERVER		REC'D		1		23																																									
3		BATH		FAN		1		23												4		SERVER		REC'D		1		23																																									
3		HALL LH		1		23														5				"		23																																											
2						1		23												6				"		23																																											
3						1		23												7				"		23																																											
2.4		1"		LAB REC'D		1		20		2		12		2		3.4				12		OFFICE REC'D		1		20		2		12		3.4								2																													
1.3		12		REFRIGERATOR		1		20		2		12		2		3.4				14		EXAM REC'D		1		20		2		12		3.4								1.3																													
1.3		12		FREEZER		1		20		2		12		2		3.4				15		GENERAL REC'D		1		20		2		12		3.4								1.3																													
2.4		12		LAB REC'D		1		20		2		12		2		3.4				19		SPACE		"		23																																											
12		SPACE																		20		SPACE		"		23																																											
12		SPACE																		21		SPACE		"		23																																											
23		SPACE																		22		SPACE		"		23																																											
23		SPACE																		23		SPACE		"		23																																											
TOTAL CONNECTED LOAD										50.0 KVA										KVA PER PHASE										A										2.0										2.0										2.0									

EX CP-1										SQUARE D N1000										MOUNTING SURFACE																			
VOLTAGE: 208/120V, 3PH, 4W																				LOCATION: CONFERENCE ROOM																			
150 AMPERE BUS										150A MLO										200% RATED NEUTRAL BUS										22,000 A.I.C.									

EX LIBRARY PANEL				GE				MOUNTING SURFACE							
VOLTAGE: 208/120V, 3PH, 4W								LOCATION: STORAGE RM							
400 AMPERE BUS				225A MLO				100% RATED NEUTRAL BUS							
CONN KVA		BREAKER P AMPS		CIRCUIT W/ RING		CIRCUIT W/ RING		BREAKER P AMPS		CIRCUIT W/ RING		CONN KVA			
OKT	DESCRIPTION	SIZE	GND	OKT	DESCRIPTION	SIZE	GND	OKT	DESCRIPTION	SIZE	GND	OKT	DESCRIPTION		
1	AC	3	80	2	BOYS OFFICE STORAGE	2	50	3	BOYS OFFICE STORAGE	2	50	4	BOYS OFFICE STORAGE		
2	AC	3	80	4	RM 1 & 2	2	50	5	RM 1 & 2	2	50	6	RM 1 & 2		
3	AC	3	80	6	REC OLD L B COMP RM	2	50	7	REC OLD L B COMP RM	2	50	8	REC OLD L B COMP RM		
4	FACP	1	20	8	F RE ALARM TROUBLE	2	50	9	F RE ALARM TROUBLE	2	50	10	EX LITS		
5	FACP	1	20	10	EX LITS	2	50	11	EX LITS	2	50	12	REC		
6	REC FOR PA & DESK	1	20	12	REC	2	50	13	REC	2	50	14	SOUTH BRARY L'S		
7	REC	1	20	14	SOUTH BRARY L'S	2	50	15	REC	2	50	16	REC		
8	NORTH LIBRARY LITS	1	20	16	REC	2	50	17	REC	2	50	18	REC		
9	LIBRARY OFFICE LITS	1	20	18	REC	2	50	19	REC	2	50	20	REC		
10	FLOOR REC	1	20	20	REC	2	50	21	REC	2	50	22	REC OLD L B COMP RM		
11	FLOOR REC	1	20	22	REC OLD L B COMP RM	2	50	23	REC	2	50	24	REC		
12	NORTH LIBRARY LITS	1	20	24	REC	2	50	25	REC	2	50	26	LOBBY REC		
13	SOUTH LIBRARY LITS	1	20	26	LOBBY REC	2	50	27	REC	2	50	28	AC COMPUTER LAS		
14	COMP REC - RM 120	1	20	28	AC COMPUTER LAS	2	50	29	REC	2	50	30	REC		
15	COMP REC - RM 120	1	20	30	REC	2	50								
TOTAL CONNECTED LOAD				5.0 KVA				KVA PER PHASE				A 0.0 B 0.0 C 0.0			

EX PANEL HVAC-1										GE A SERIES										MOUNTING: SURFACE																			
VOLTAGE: 480/277V,3PH,4W																				LOCATION: MAIN ELEC ROOM																			
225 AMPERE BUS										225A MLO										100% RATED NEUTRAL BUS										15,000 A.I.C.									
CONN KVA										BREAKER P. AMPS		CIRCUIT WIRING								CKT		DESCRIPTION		BREAKER P. AMPS		CIRCUIT WIRING				CONN KVA									
KVA	CKT	DESCRIPTION	P	AMPS	NO	SIZE	GND	C														CKT	DESCRIPTION	P	AMPS	NO	SIZE	GND	C										
		1 SPACE	3	60	-	-	-	-	-													2	PUMP-5	3	15	-	-	-	-										
	3	-	-	-	-	-	-	-	-													3	-	-	-	-	-	-	-										
	5	-	-	-	-	-	-	-	-													6	-	-	-	-	-	-	-										
9.4		7 PUMP-1	3	70	-	-	-	-	-													8	PUMP-2	3	70	-	-	-	-		0.0								
9.4	9	-	-	-	-	-	-	-	-													10	-	-	-	-	-	-	-		0.0								
9.4	11	-	-	-	-	-	-	-	-													12	-	-	-	-	-	-	-		0.0								
	13	WF-1	3	15	-	-	-	-	-													14	PUMP-6	3	15	-	-	-	-		1.3								
0.4	15	-	-	-	-	-	-	-	-													16	-	-	-	-	-	-	-		1.3								
0.4	17	-	-	-	-	-	-	-	-													18	-	-	-	-	-	-	-		1.3								
3.1	19	PUMP-3	3	20	-	-	-	-	-													20	PUMP-4	3	20	-	-	-	-		3.1								
3.1	21	-	-	-	-	-	-	-	-													22	-	-	-	-	-	-	-		3.1								
3.1	23	-	-	-	-	-	-	-	-													24	-	-	-	-	-	-	-		3.1								
	25	SPACE	3	-	-	-	-	-	-													26	SPACE	3	-	-	-	-	-	-									
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	29	SPACE	3	-	-	-	-	-	-													30	SPACE	3	-	-	-	-	-	-									
	31	SPACE	3	-	-	-	-	-	-													32	SPACE	3	-	-	-	-	-	-									
	33	SPACE	3	-	-	-	-	-	-													34	SPACE	3	-	-	-	-	-	-									
	35	SPACE	3	-	-	-	-	-	-													36	SPACE	3	-	-	-	-	-	-									
	37	SPACE	3	-	-	-	-	-	-													38	SPACE	3	-	-	-	-	-	-									
	39	SPACE	3	-	-	-	-	-	-													40	SPACE	3	-	-	-	-	-	-									
	41	SPACE	3	-	-	-	-	-	-													42	SPACE	3	-	-	-	-	-	-									
TOTAL CONNECTED LOAD										51.9 KVA										KVA PER PHASE										A 17.3 B 17.3 C 17.3									

EX HVAC-2			GE A SERIES					MOUNTING SURFACE					
VOLTAGE: 208/120V, 3PH, 4W								LOCATION: MAIN ELEC ROOM					
225 AMPERE BUS			225A MLO					100% RATED NEUTRAL BUS					22,000 A.I.C.
CONN KVA	OKT	DESCRIPTION	BREAKER P AMP'S	CIRCUIT WIRING NO SIZE	QND	C	OKT	DESCRIPTION	BREAKER P AMP'S	CIRCUIT WIRING NO SIZE	QND	C	CONN KVA
	1	ERU-1 GYM	3	30	-	-	2	ELEC RM FAN	1	15	-	-	
	3	-	-	-	-	-	4	ERU-3	1	15	-	-	
	5	-	-	-	-	-	6	RTU-1	1	15	-	-	
	7	ERU-3	3	15	-	-	8	ERU-4	3	15	-	-	
	9	-	-	-	-	-	10	-	-	-	-	-	
	11	-	-	-	-	-	12	-	-	-	-	-	
	13	ERU-8	3	15	-	-	14	ERU-6	3	25	-	-	
	15	-	-	-	-	-	16	-	-	-	-	-	
	17	-	-	-	-	-	18	-	-	-	-	-	
	19	ERU-7	3	25	-	-	20	ERU-9	3	30	-	-	
	21	-	-	-	-	-	22	-	-	-	-	-	
	23	-	-	-	-	-	24	-	-	-	-	-	
	25	ERU-10	3	40	-	-	26	ERU-11	3	30	-	-	
	27	-	-	-	-	-	28	-	-	-	-	-	
	29	-	-	-	-	-	30	-	-	-	-	-	
	31	ERU-1 GYM	3	30	-	-	32	AH-3 GYM	3	20	-	-	
	33	-	-	-	-	-	34	-	-	-	-	-	
	35	-	-	-	-	-	36	-	-	-	-	-	
	37	AH-1 GYM	3	30	-	-	38	SPACE	-	-	-	-	
	39	-	-	-	-	-	40	-	-	-	-	-	
	41	-	-	-	-	-	42	-	-	-	-	-	
TOTAL CONNECTED LOAD			0.0 KVA				KVA PER PHASE				A 0.0 B 0.0 C 0.0		

EX UVP-1		GE A SERIES										MOUNTING: SURFACE											
VOLTAGE: 208/120V, 3PH, 4W												LOCATION: BOILER RM											
400 AMPERE BUS		400A M.C.										100% RATED NEUTRAL BUS										10,000 A.I.C.	
CONN KVA	CT	DESCRIPTION	BREAKER P	AMPS	NO	CIRCUIT WIRING	SIZE	GND	C	CT	DESCRIPTION	BREAKER P	AMPS	NO	CIRCUIT WIRING	SIZE	GND	C	CONN KVA				
	1	LIBRARY RTU	3	30	-	-	-	-	-		2	EMER SHUTOFF	1	20	-	-	-	-					
	3	-	-	-	-	-	-	-	-		4	WATER HEATER	1	20	-	-	-	-					
	5	-	-	-	-	-	-	-	-		6	DHW PUMP-6	1	20	-	-	-	-					
0.8	7	BOILER-2	3	15	-	-	-	-	-		8	DHW PUMP-7	3	20	-	-	-	-					
0.8	9	-	-	-	-	-	-	-	-		10	-	-	-	-	-	-	-					
0.8	11	-	-	-	-	-	-	-	-		12	-	-	-	-	-	-	-					
	13	UVS	2	20	-	-	-	-	-		14	FC'S	2	15	-	-	-	-					
	15	-	-	-	-	-	-	-	-		16	-	-	-	-	-	-	-					
	17	UVS	2	15	-	-	-	-	-		18	FC'S	2	20	-	-	-	-					
	19	-	-	-	-	-	-	-	-		20	-	-	-	-	-	-	-					
	21	FC'S	2	20	-	-	-	-	-		22	UVS	2	20	-	-	-	-					
	23	-	-	-	-	-	-	-	-		24	-	-	-	-	-	-	-					
	25	UVS	2	20	-	-	-	-	-		26	FC'S	2	20	-	-	-	-					
	27	-	-	-	-	-	-	-	-		28	-	-	-	-	-	-	-					
	29	UVS	2	20	-	-	-	-	-		30	FC'S	2	20	-	-	-	-					
	31	-	-	-	-	-	-	-	-		32	-	-	-	-	-	-	-					
1.0	33	ATC PANEL	1	20	-	-	-	-	-		34	SPARE	3	30	-	-	-	-					
0.8	35	BOILER-1	3	15	-	-	-	-	-		36	-	-	-	-	-	-	-					
0.8	37	-	-	-	-	-	-	-	-		38	-	-	-	-	-	-	-					
0.8	39	-	-	-	-	-	-	-	-		40	DHW PUMP-6	1	20	-	-	-	-					
1.0	41	ATC PANEL	1	20	-	-	-	-	-		42	UH-1	1	15	-	-	-	-	0.2				
TOTAL CONNECTED LOAD			7.0 KVA							KVA PER PHASE							A 0.8 B 0.8 C 2.0						

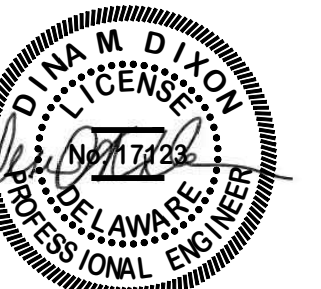
EX LP-1 VOLTAGE: 480/277V, 3PH, 4W 225 AMPERE BUS										GE A SERIES 225A MLO										MOUNTING SURFACE LOCATION: MAIN ELEC ROOM 100% RATED NEUTRAL BUS										42,000 A.I.C.									
CONN KVA	CKT	DESCRIPTION	BREAKER P	AMPS	NO	CIRCUIT WIRING SIZE	GND	C	CKT	DESCRIPTION	BREAKER P	AMPS	NO	CIRCUIT WIRING SIZE	GND	C	CONN KVA																						
	1	NBE WING LTS	1	20					2	OFFICE LTS	1	20																											
	2	CENTER BUILDGTS	1	20					4	OFFICE LTS	1	20																											
	5	SOUTH WING LTS	1	20					6	OFFICE LTS	1	20																											
	7	LIBRARY NURSE, HALL LTS	1	20					8	OUTSIDE LTS	1	20																											
	9	CAFÉ LTS	1	20					10	CAFÉ LTS	1	20																											
	11	KITCHEN LTS	1	20					12	SPACE	1	20																											
	13	SPACE	1	20					14	SPACE	1	20																											
	15	SPACE	1						16	SPACE	1																												
	17	SPACE	1						18	SPACE	1																												
	19	SPACE	1						20	SPACE	1																												
	21	SPACE	1						22	SPACE	1																												
	23	SPACE	1						24	SPACE	1																												
	25	SPACE	1						26	SPACE	1																												
	27	SPACE	1						28	SPACE	1																												
	29	SPACE	1						30	SPACE	1																												
	31	SPACE	1						32	SPACE	1																												
	33	SPACE	1						34	SPACE	1																												
	35	SPACE	1						36	SPACE	1																												
	37	SPACE	1						38	SPACE	1																												
	39	SPACE	1						40	SPACE	1																												
	41	SPACE	1						42	SPACE	1																												
TOTAL CONNECTED LOAD									0.9 KVA									KVA PER PHASE									A 0.0 B 0.0 C 0.0												

EX. PANEL HVAC-1 (MODIFIED)										GE A SERIES		MOUNTING: SURFACE																				
VOLTAGE: 480/277V,3PH,4W												LOCATION: MAIN ELEC ROOM																				
225 AMPERE BUS										225A MLO		100% RATED NEUTRAL BUS		13,000 A.I.C.																		
CONN				BREAKER		CIRCUIT WIRING				BREAKER		CIRCUIT WIRING		CONN																		
KVA	CKT	DESCRIPTION	F.	AMPS	NO	SIZE	1	2	3	4	CKT	DESCRIPTION	F.	AMPS	NO	SIZE	1	2	3	4	KVA											
	1	SPACE		3	60		-	-	-	-	2	PUMP 5		3	15		-	-	-	-												
	3	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-												
	5	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-												
9.4	7	PUMP-1		3	70		-	-	-	-	8	PUMP-2		3	70		-	-	-	-	0.0											
0.4	9	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	0.0											
0.4	11	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	0.0											
0.4	13	VF-1		3	15		-	-	-	-	14	PUMP-6		3	15		-	-	-	-	1.3											
0.4	15	-	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	-	-	-	1.3											
0.4	17	-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	1.3											
3.1	19	PUMP-3		3	20		-	-	-	-	20	PUMP-4		3	20		-	-	-	-	3.1											
3.1	21	-	-	-	-	-	-	-	-	-	22	-	-	-	-	-	-	-	-	-	3.1											
3.1	23	-	-	-	-	-	-	-	-	-	24	-	-	-	-	-	-	-	-	-	3.1											
10	25	EDC-1		3	15	3	12	12	3/4		26	ACCU-1		3	20	3	12	12	3/4		4.2											
10	27	-	-	-	-	-	-	-	-	-	28	-	-	-	-	-	-	-	-	-	4.2											
10	29	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	4.2											
	31	SPACE		3			-	-	-	-	32	SPACE		3			-	-	-	-												
	33	SPACE		3			-	-	-	-	34	SPACE		3			-	-	-	-												
	35	SPACE		3			-	-	-	-	36	SPACE		3			-	-	-	-												
	37	SPACE		3			-	-	-	-	38	SPACE		3			-	-	-	-												
	39	SPACE		3			-	-	-	-	40	SPACE		3			-	-	-	-												
	41	SPACE		3			-	-	-	-	42	SPACE		3			-	-	-	-												
TOTAL CONNECTED LOAD						67.5 KVA						KVA PER PHASE:			A			17.3			B			17.3			C			17.3		

EX HVAC-2 (MODIFIED)					GE A SERIES					MOUNTING SURFACE						
VOLTAGE: 208/120V 3PH 4W										LOCATION: MAIN ELEC ROOM						
225 AMPERE BUS					225A MLC					100% RATED NEUTRAL BUS					22,000 A.I.C.	
CONN KVA	CKT	DESCRIPTION	BREAKER P AMPS	CIRCUIT W RING NO SIZE GND C	CKT	DESCRIPTION	BREAKER P AMPS	CIRCUIT WIRING NO SIZE GND C	CONN KVA							
	1	ERU-1 GYM	3	30	2	ELEC RM FAN	1	15								
	3	-	-	-	4	PP-1	1	20	0.8							
	5	-	-	-	6	RDU-1	1	15								
	7	ERU-3	3	15	8	ERU-4	3	25								
	9	-	-	-	10	-	-	-								
	11	-	-	-	12	-	-	-								
	13	ERU-8	3	15	14	ERU-8	3	25								
	15	-	-	-	16	-	-	-								
	17	-	-	-	18	-	-	-								
	19	ERU-7	3	25	20	ERU-9	3	30								
	21	-	-	-	22	-	-	-								
	23	-	-	-	24	-	-	-								
	25	ERU-1C	3	40	26	ERU-11	3	30								
	27	-	-	-	28	-	-	-								
	29	-	-	-	30	-	-	-								
	31	ERU-1 GYM	3	30	32	AH-3 GYM	3	20								
	33	-	-	-	34	-	-	-								
	35	-	-	-	36	-	-	-								
	37	AH-1 GYM	3	30	38	ERV-1	2	15	1.0							
	39	-	-	-	40	-	-	-	1.0							
	41	-	-	-	42	-	-	-								
Total Connected Load:					2.9 KVA	2.4 PER PHASE				0.9	0.9	0.9				

EX UVP-1 (MODIFIED)							GE A SERIES			MOUNTING: SURFACE												
VOL.TAGE: 208/120V,3PH,4W							LOCATION: BOILER RM															
400 AMPERE BUS							400A MLO							100% RATED NEUTRAL BUS							15,000 A I.C.	
CONN KVA	CKT	DESCRIPTION	BREAKER P	AMPS NO	CIRCUIT WIRING SIZE	GRD	C	CKT	DESCRIPTION	BREAKER P	AMPS NO	CIRCUIT WIRING SIZE	GRD	C	CONN KVA							
	1	SPARE	3	30				2	EMER SHUTOFF	1	20											
	4	WATER HEATER	-	-				4	WATER HEATER	1	20											
	5	-	-	-				6	DAMP PUMP-6	1	20											
	7	BOILER-2	3	15	3	12	12	3/4	8	DHW PUMP-7	3	20										
	9	-	-	-				10	-	-	-											
	11	-	-	-				12	-	-	-											
	13	UWS	2	20				14	FCS	2	15											
	15	-	-	-				15	-	-	-											
	17	UWS	2	15				18	FCS	2	20											
	19	-	-	-				20	-	-	-											
	21	FCS	2	20				22	UWS	2	20											
	23	-	-	-				24	-	-	-											
	25	UWS	2	20				26	FCS	2	20											
	27	-	-	-				28	-	-	-											
	29	UWS	2	20				30	FCS	2	20											
	31	-	-	-				32	-	-	-											
	33	ATC PANEL	1	20				34	HP-1:2:1-06:05-1:01	2	15	2	12	3/4	C.3							
	35	BOILER-1	3	15				36	-	-	-				C.3							
	37	-	-	-				38	FCU-1	1	20	2	12	3/4	1.2							
	39	-	-	-				40	DHW PUMP-6	1	20											
	41	ATC PANEL	1	20				42	UHSYER-#1	1	15	2	12	3/4	C.6							
TOTAL CONNECTED LOAD			2.4 KVA			KVA PER PHASE:			A			B			C			0.6				

EX LP-1 (MODIFIED)				GE A SERIES				MOUNTING SURFACE									
VOL.TAGE: 480/277V,3PH,4W								LOCATION: MAIN ELEC ROOM									
225 AMPERE BUS				225A M.L.O				100% RATED NEUTRAL BUS				42.006 A.I.C.					
CONN KVA	CKT	DESCRIPTION	BREAKER P	AMPS	CIRCUIT WIRING NO	SIZE	CND	C	CKT	DESCRIPTION	BREAKER P	AMPS	CIRCUIT WIRING NO	SIZE	CND	C	CONN KVA
	1	N#E WING LITS	1	20					2	OFFICE LITS	1	20					
	2	CENTER BLDG LITS	1	20					4	OFFICE LITS	1	20					
	3	SOUTH WING LITS	1	20					6	OFFICE LITS	1	20					
	7	LIBRARY NURSE HALL LITS	1	20	2	12	12	3/4	8	OUTSIDE LITS	1	20					
	9	CAF# LITS	1	20					10	CAF# LITS	1	20					
	11	KITCHEN LITS	1	20					12	SPACE	1	20					
	13	SPACE	1	20					14	SPACE	1	20					
	15	SPACE	1						16	SPACE	1						
	17	SPACE	1						18	SPACE	1						
	18	SPACE	1						20	SPACE	1						
	21	SPACE	1						22	SPACE	1						
	23	SPACE	1						24	SPACE	1						
	25	SPACE	1						26	SPACE	1						
	27	SPACE	1						28	SPACE	1						
	28	SPACE	1						30	SPACE	1						
	31	SPACE	1						32	SPACE	1						
	33	SPACE	1						34	SPACE	1						
	35	SPACE	1						36	SPACE	1						
	37	SPACE	1						38	SPACE	1						
	39	SPACE	1						40	SPACE	1						
	41	SPACE	1						42	SPACE	1						
TOTAL CONNECTED LOAD				0.0 KVA				KVA PER PHASE				A 0.0 B 0.0 C 0.0					



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1	ISSUED FOR BID/	2022/11/22
	CONSTRUCTION	



Fearn-Clendaniel Architects, Inc
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302-998-7615 www.fcarchitects.net

PROJECT

SEA_22001-FDE-SBHC

Seaford School District

Frederick Douglass ES

School Based Health Center Renovations

1 Swain Road
Seaford, DE 19973

DRAWING TITLE:

PARTIAL SCHEMATIC POWER RISER AND FIRE ALARM RISER DIAGRAMS

DWN BY:	CHK BY:
---------	---------

DMD	DMD
-----	-----

DATE:

2022/11/22

SCALE:

AS NOTED

E-20.01

AS NOTED

LIGHTING FIXTURE SCHEDULE								
TYPE	DESCRIPTION	MANUFACTURER	CATALOG NO.	VOLTS	INPUT WATTS	LAMP	MOUNTING	REMARKS
A1	2'X2' LED SHALLOW PLENUM TROFFER 2-3/16" DEEP WITH CRS HOUSING, WHITE POWDERCOAT FINISH, CENTER SHIELDING WITH DIFFUSE RIBBED ACRYLIC LENS, 0-10V 1% ELECTRONIC DIMMING DRIVER	H.E.WILLIAMS ACUTY HUBBELL EATON	PT-22-L28/840-RA-DIM1-LINV	277	22	LED 4000K, 2712 LUMENS	RECESSED	
A2	2'X2' LED SHALLOW PLENUM TROFFER 2-3/16" DEEP WITH CRS HOUSING, WHITE POWDERCOAT FINISH, CENTER SHIELDING WITH DIFFUSE RIBBED ACRYLIC LENS, 0-10V 1% ELECTRONIC DIMMING DRIVER	H.E.WILLIAMS ACUTY HUBBELL EATON	PT-22-L43/840-RA-DIM1-LINV	277	35	LED 4000K, 4474 LUMENS	RECESSED	
EXIT	LED EXIT SIGN WITH DIE CAST ALUMINUM HOUSING, RED STENCIL LETTERS AND DIRECTIONAL CHEVRON KNOCKOUTS, POWDERCOAT WHITE FINISH, SINGLE OR TWIN FACE AND UNIVERSAL MOUNTING AS INDICATED, VANDAL SHIELD	LIGHTALARMS ACUTY DUAL-LITE SURELITES	1/2-XDAWRW-LVR	277	2.5	LED ARRAY	UNIVERSAL	
NOTES 1. COORDINATE LIGHTING FIXTURES INDICATED ON DRAWINGS WITH ARCHITECTURAL REFLECTED CEILING PLANS AND ELEVATIONS FOR EXACT LOCATIONS. VERIFY CEILING CONSTRUCTION IN ALL AREAS WITH ARCHITECTURAL DRAWINGS AND PROVIDE ALL MOUNTING FRAMES AND HARDWARE AS REQUIRED FOR A COMPLETE INSTALLATION, SUITABLE FOR THE CEILING TYPE AND CONFIGURATION. 2. REFER TO SPECIFICATIONS FOR ADDITIONAL LAMP AND DRIVER INFORMATION. PROVIDE DRIVERS FOR VOLTAGE AS INDICATED. 3. FIRST NAMED PRODUCT IS BASIS OF DESIGN. PROVIDE PRODUCTS WHICH INCLUDE ALL FEATURES AND ACCESSORIES AS INDICATED IN THE DESCRIPTION AND MODEL NUMBER OF THE BASIS OF DESIGN PRODUCT. 4. FIXTURES WITH "D" SUFFIX ON PLANS SHALL BE CONTROLLED BY LIGHT LEVEL SENSOR FOR DAYLIGHT HARVESTING. 5. ALL FINISH SELECTIONS SHALL BE AS APPROVED BY THE ARCHITECT. COLOR TO BE SELECTED FROM THE MANUFACTURER'S FULL RANGE, INCLUDING CUSTOM COLOR AS NOTED. 6. MOUNTING HEIGHTS ARE TO THE BOTTOM OF THE FIXTURE UNLESS OTHERWISE NOTED. 7. PROVIDE INTEGRAL EMERGENCY BATTERY DRIVER FOR FIXTURES INDICATED ON THE FLOOR PLANS.								

LIGHTING CONTROL MATRIX								
	AUTO ON	MANUAL ON	AUTO OFF	DELAY TIME	DIMMING	TIME SCHEDULE ON	TIME SCHEDULE OFF	SPECIAL COMMENTS
EXAM ROOM		Y	Y	20	Y			DIMMING PER ZONE
LAB		Y	Y	20	Y			DIMMING PER ZONE
CORRIDOR	Y		Y	20	Y			ACTIVATION OF FIRE ALARM SYSTEM SHALL TURN ON LIGHTING TO 100%
STORAGE ROOMS		Y	Y	10	N			
OFFICES		Y	Y	15	Y			DIMMING PER ZONE. DESKS SHALL HAVE 100% MINOR MOTION COVERAGE
RESTROOMS (SINGLE)		Y	Y	15	N			

MECHANICAL EQUIPMENT CONNECTION SCHEDULE										
EQUIPMENT NAME	LOAD			SERVICE		SOURCE PANELBOARD	STARTER SIZE	DISCONNECT (MOUNT AT UNIT LOCATION)		
	KW	HP	AMPS	VOLTS	PH			POLE	FUSE (VERIFY WITH NAMEPLATE)	NEMA ENCLOSURE
ERV-1			8.9	208	1	HVAC-2-38		2	30	15
ACCU-1			15.2	480	3	HVAC-1-26		3	30	20
HP-1.01			0.3	208	1	UVP-1-34				
HP-1.02			0.3	208	1	UVP-1-34				
HP-1.03			0.3	208	1	UVP-1-34				
HP-1.04			0.3	208	1	UVP-1-34				
HP-1.05			0.3	208	1	UVP-1-34				
HP-1.06			0.3	208	1	UVP-1-34				
BS-1.01			0.1	208	1	UVP-1-34				
EDC-1	3.0			480	3	HVAC-1-25		3	30	15
FCU-1		1/2		120	1	UVP-1-38				
ERHP-1	0.375			120	1	UVP-1-42				
FPP-1		1/3		120	1	HVAC-2-4				

MECHANICAL SCHEDULE NOTES:
1. PROVIDE SINGLE POLE MANUAL MOTOR STARTER WITH HOA SWITCH.
2. MOUNT TO KINDEROPF SUPPORT AS REQUIRED.
3. PROVIDE TWO-POLE HP RATED TOGGLE DISCONNECT SWITCH AT UNIT. CIRCUIT VIA A COMMON 2P-30A-F/SS (F@15A) FOR THE CIRCUIT INDICATED.
4. PROVIDE TOGGLE DISCONNECT SWITCH AT UNIT. MAKE CONNECTION VIA LINE VOLTAGE THERMOSTAT FURNISHED WITH UNIT. INSTALL THERMOSTAT 56" AFF.



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PROJECT

SEA_22001-FDE-SBHC

Seaford School District

Frederick Douglass ES

School Based Health Center
Renovations

1 Swain Road
Seaford, DE 19973

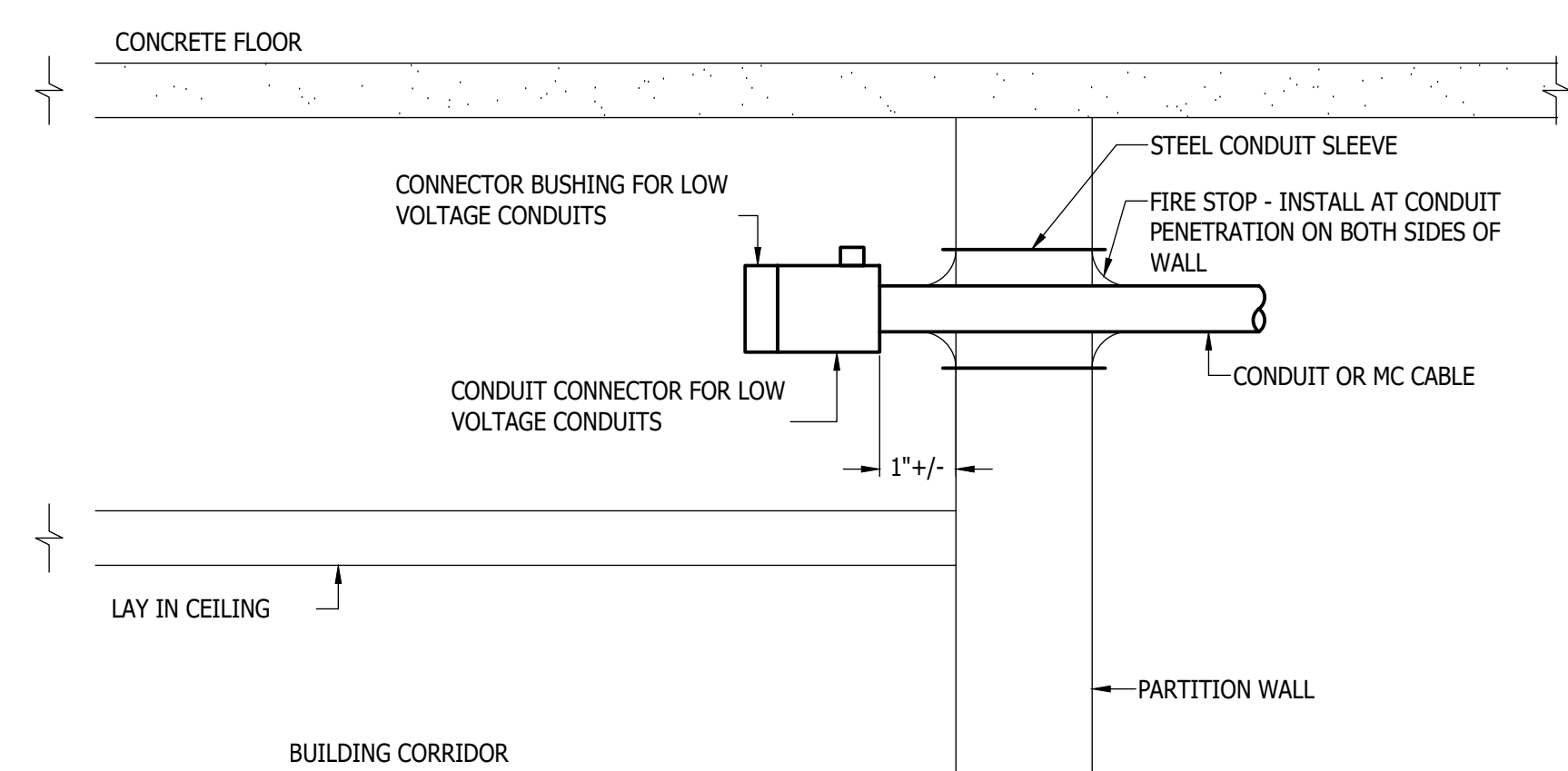
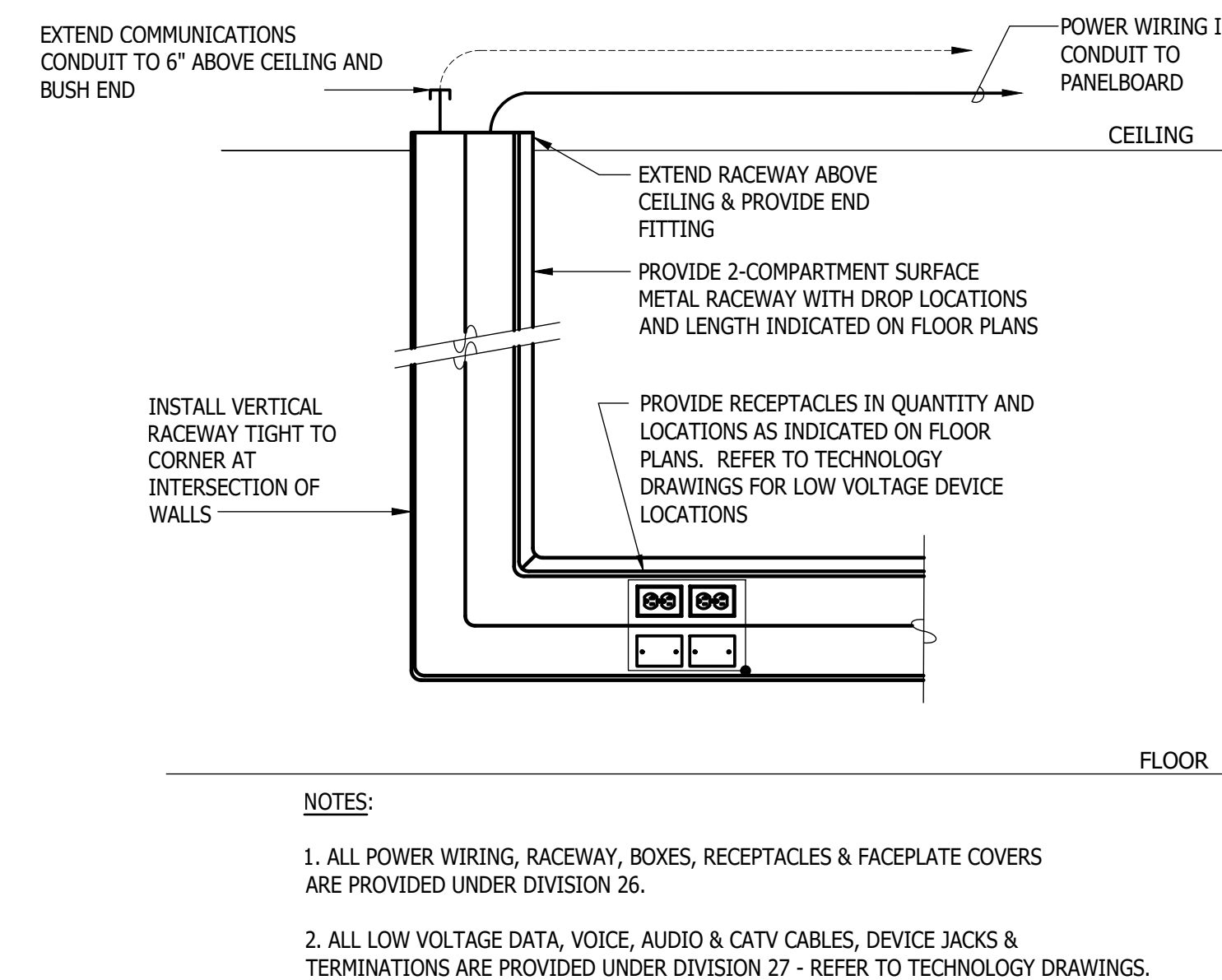
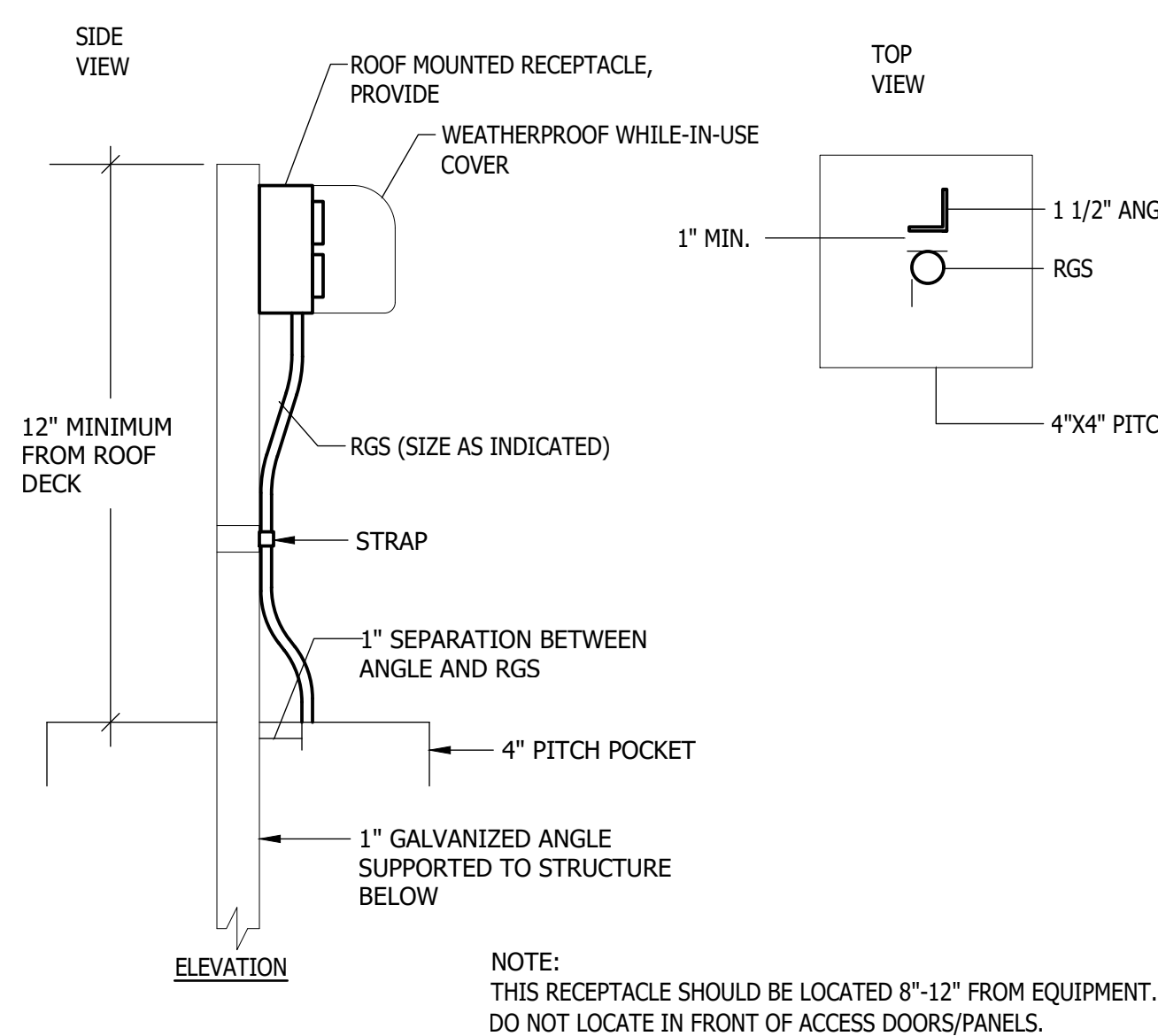
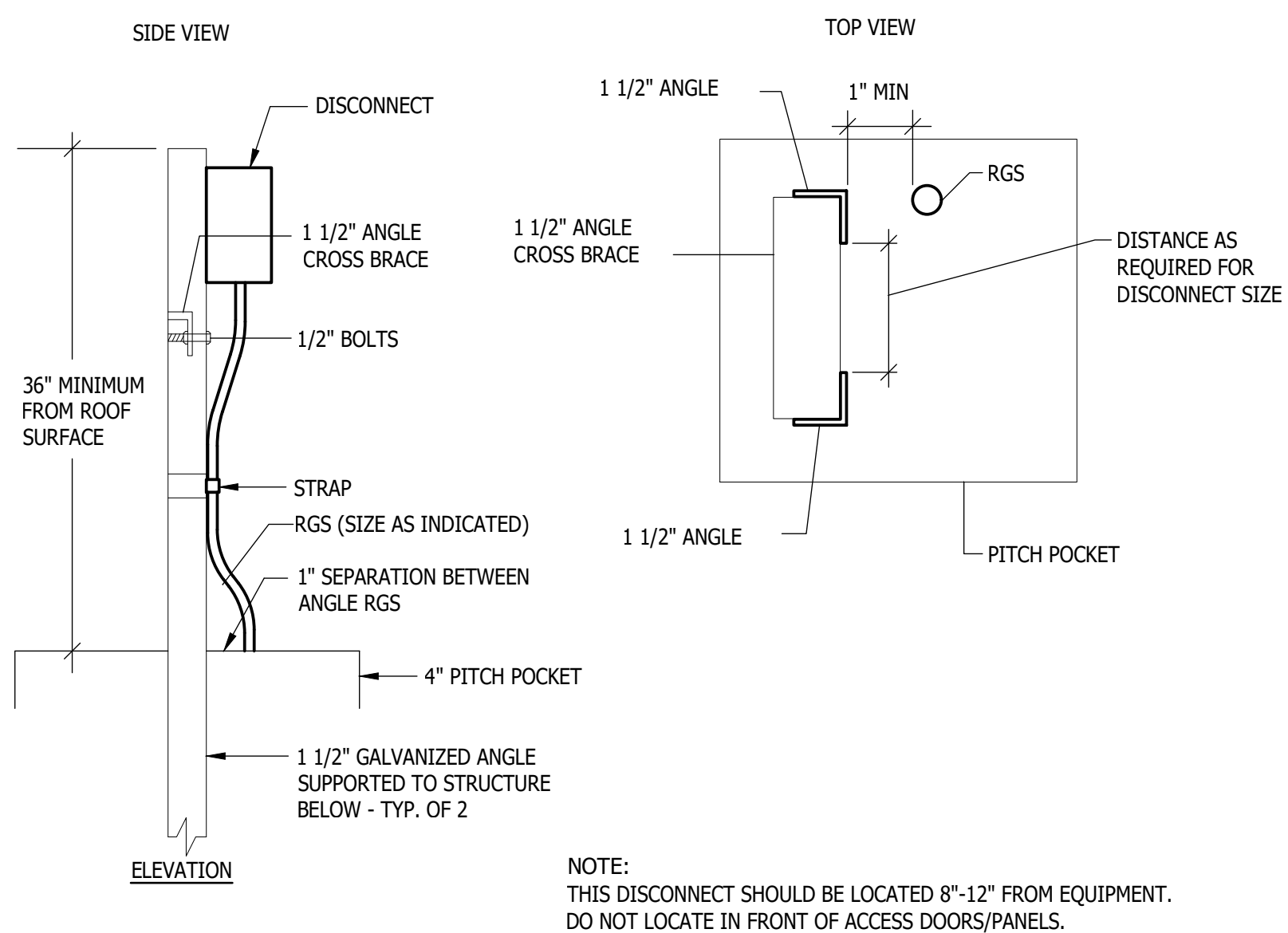
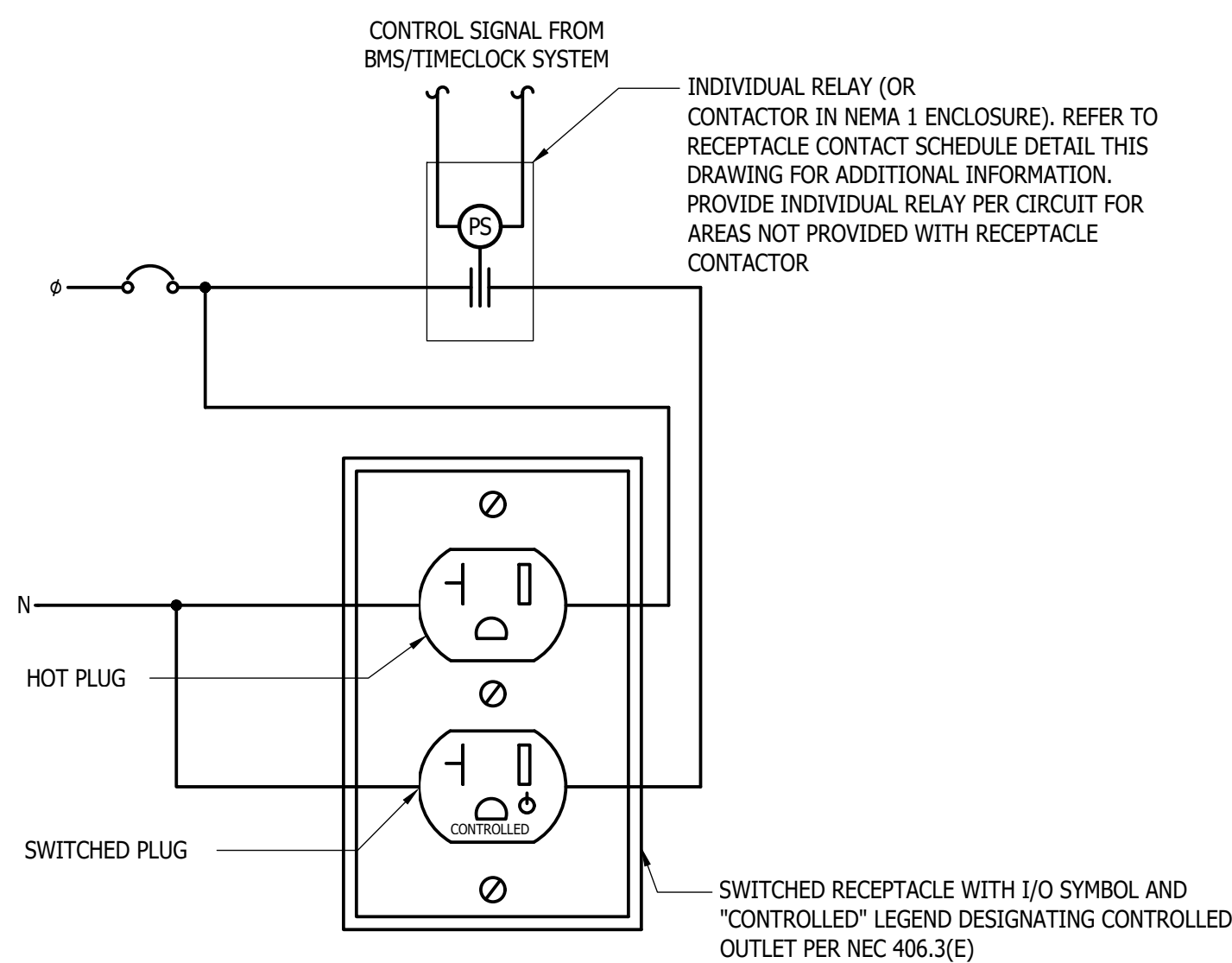
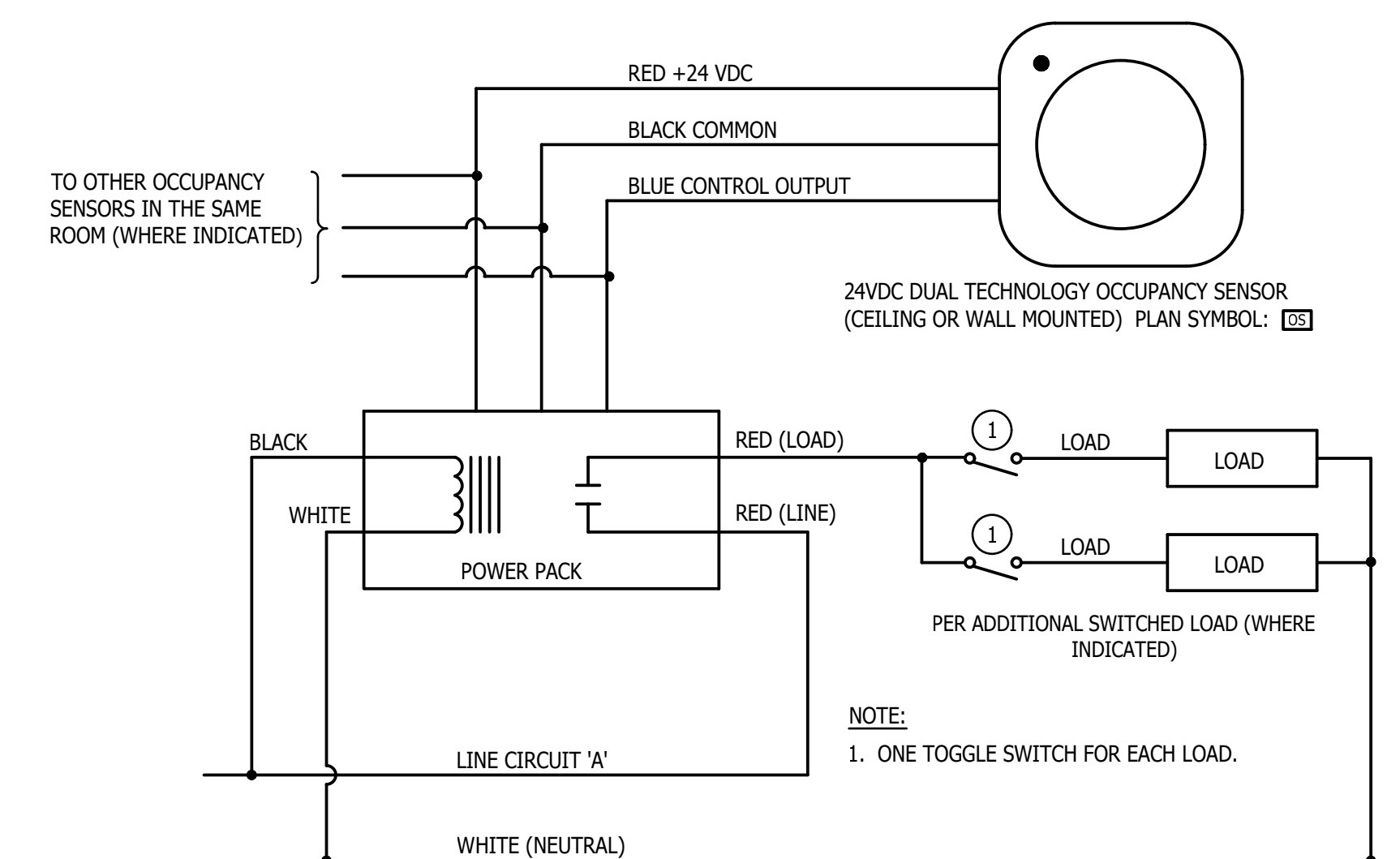
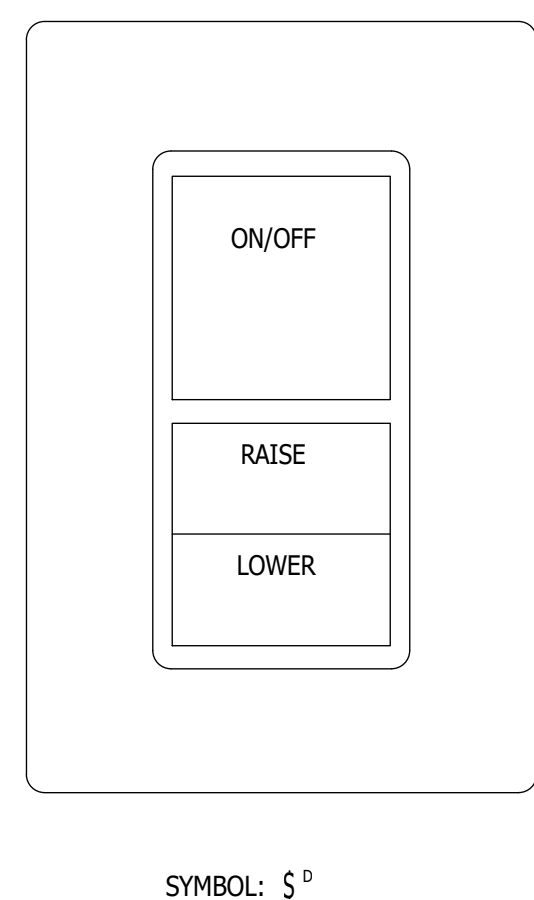
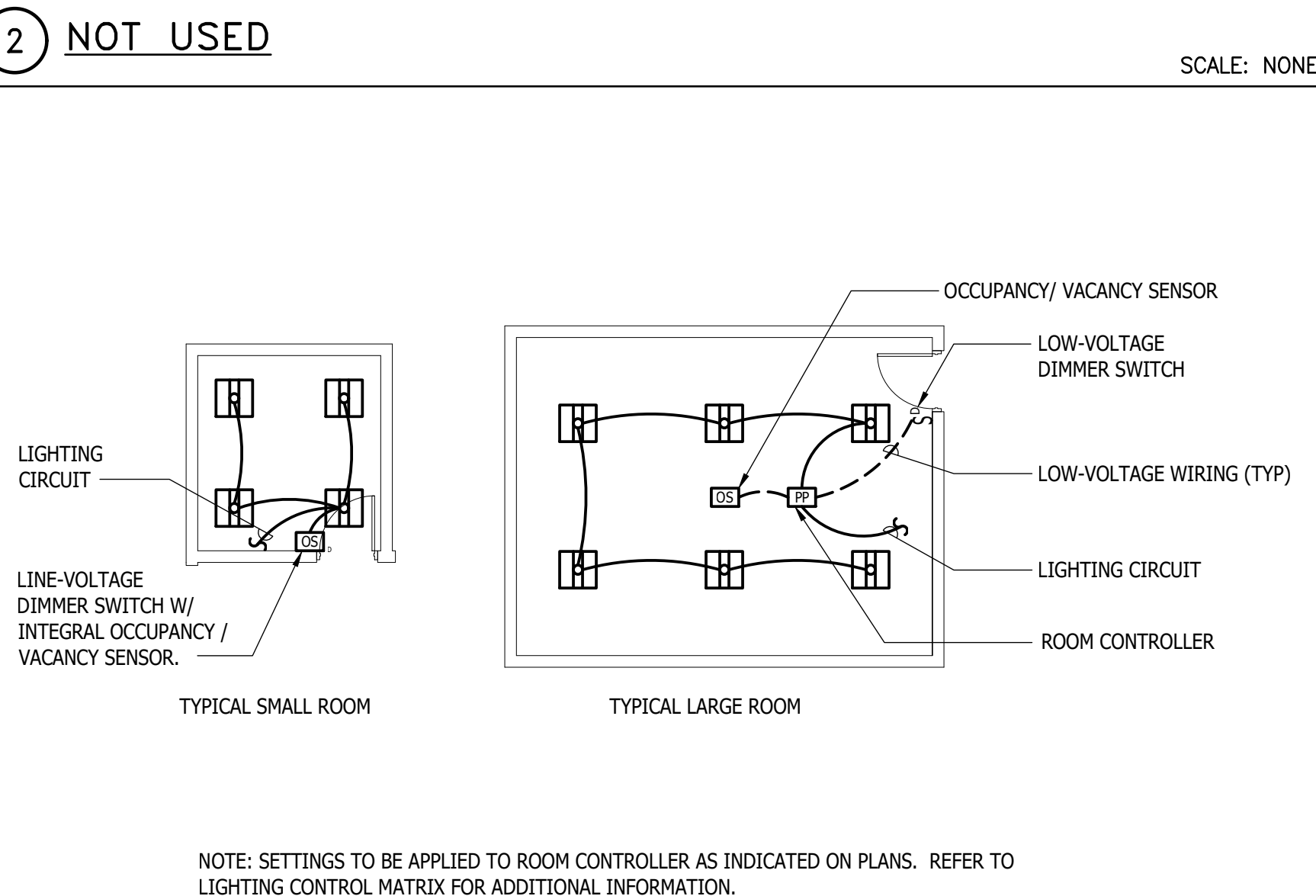
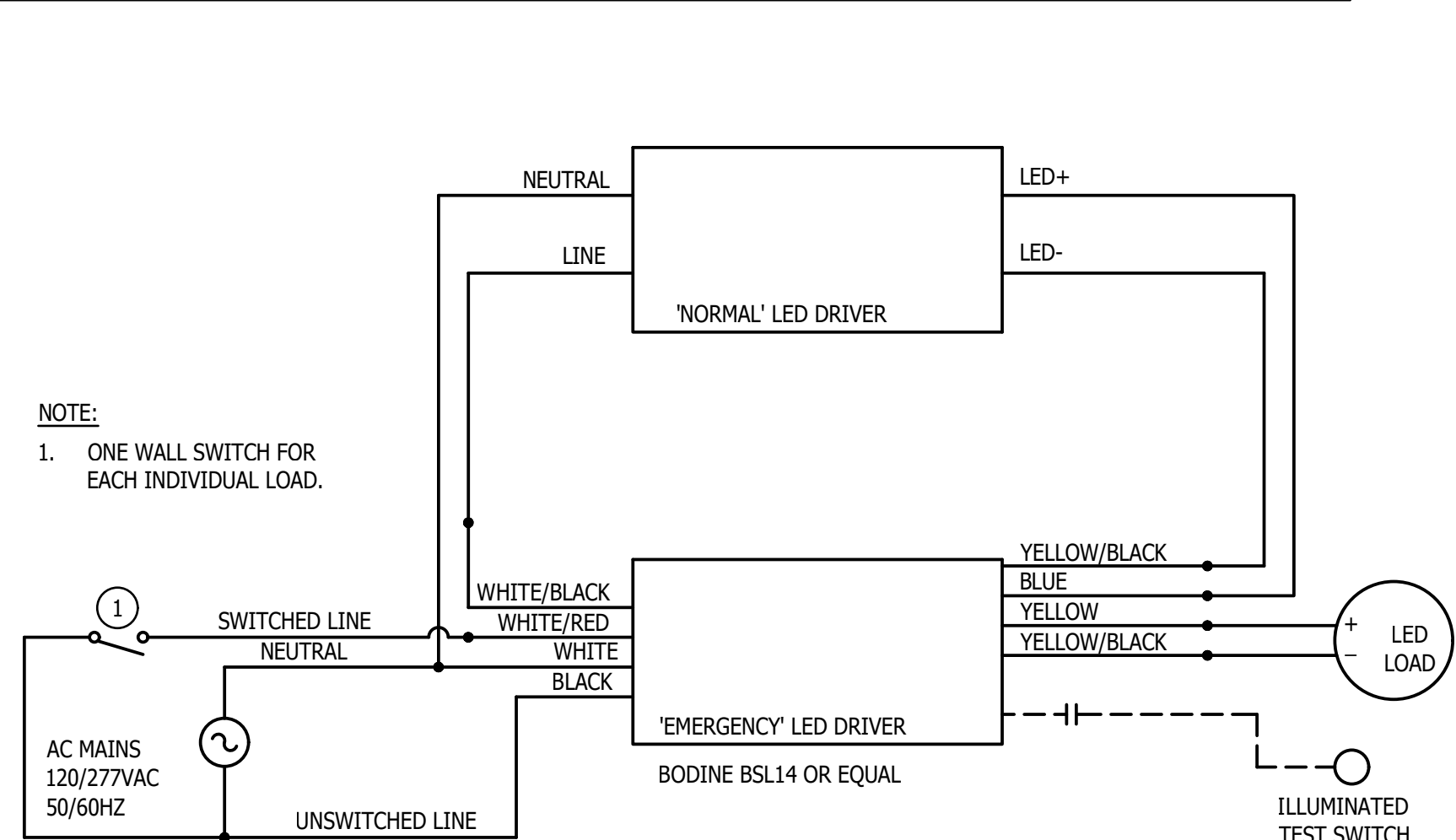
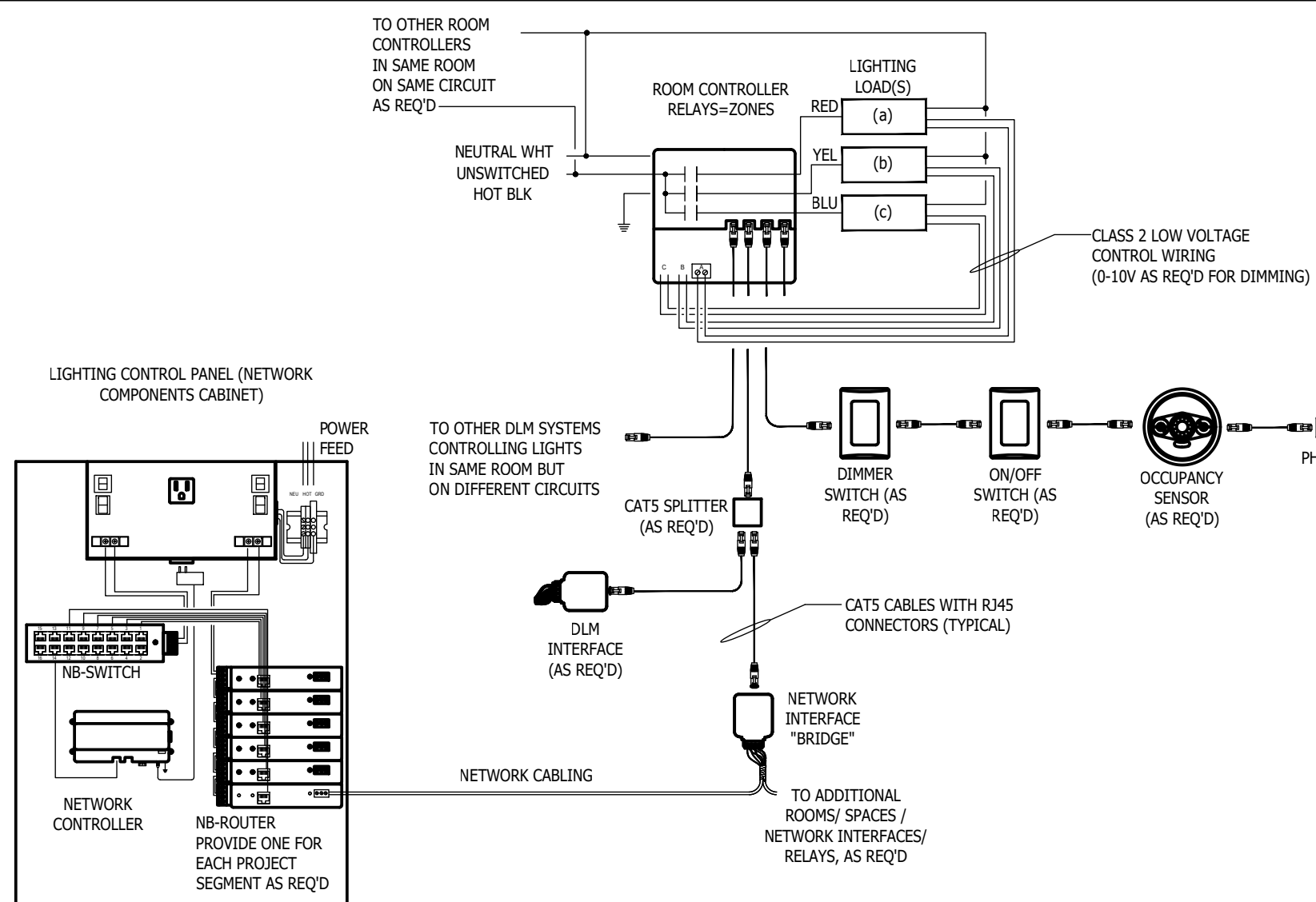
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SCHEDULES

DWN BY: DMD | CHK BY: DMD | PROJ. NUMBER: 22104

DATE: 2022/11/22 | DRAWING NUMBER: E-30.01

SCALE: AS NOTED



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	CONSTRUCTION	

Table 1

A c h i t e c t s

Fearn-Clendaniel Architects, Inc
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PROJECT
SEA_22001-FDE-SBHC
Seaford School District
Frederick Douglass ES
School Based Health Center Renovations
1 Swain Road Seaford, DE 19973

DRAWING TITLE

DETAILS

DWN BY:	CHK BY:	PROJ. NUMBER:
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DMD	DMD	22104
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DATE:	DRAWING NUMBER
-------	----------------

2022/11/22

SCALE:

AS NOTED

E-40.04