

ABBREVIATIONS	
A.F.F.	ABOVE FINISHED FLOOR
B.D.	BACKDRAFT DAMPER
CFM	CUBIC FEET OF AIR PER MINUTE
D.	DEEP / DEPTH
DIA.	DIAMETER
FPM	FEET PER MINUTE
FLEX.	FLEXIBLE
H.	HIGH
H.C.	HANDICAPPED
HP.	HORSEPOWER
I.D.	INSIDE DIAMETER
KW.	KILOWATT
L.	LONG
LAT.	LEAVING AIR TEMPERATURE
LWT.	LEAVING WATER TEMPERATURE
MAX.	MAXIMUM
MIN.	MINIMUM
MFR.	MANUFACTURER
MISC.	MISCELLANEOUS
MTD.	MOUNTED
N.I.C.	NOT IN CONTRACT
No. / #	NUMBER
NOM.	NOMINAL
N.T.S.	NOT TO SCALE
O.A.	OUTSIDE AIR
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.C.	ON CENTER
PE	PNEUMATIC / ELECTRIC
PREFAB.	PREFABRICATED
PSI.	POUNDS PER SQUARE INCH
REQ'D.	REQUIRED
RP.M.	REVOLUTIONS PER MINUTE
SCH. / E.	SCHEDULE
S.P.	STATIC PRESSURE
STD.	STANDARD
T.	TEMPERATURE
TYP.	TYPICAL
VOL.	VOLUME
V.D.	VOLUME DAMPER
VEL.	VELOCITY
VFD.	VARIABLE FREQUENCY DRIVE
W.	WIDE
W/.	WITH
W/O.	WITHOUT
WB.	WET BULB TEMPERATURE

MECHANICAL SYMBOL LEGEND	
SYMBOL	DESCRIPTION
	RECTANGULAR GALVANIZED DUCTWORK - DIMENSIONS 'W' x 'H'
	NEW EXHAUST DUCTWORK TO RISE UP
	NEW EXHAUST DUCTWORK TO DROP DOWN
	TRANSITION IN DUCTWORK
	ELBOW IN DUCTWORK w/ TURNING VANES
	ELBOW IN DUCTWORK (RADIUS = 1.5 x D)
	45 DEG. TAKEOFF FITTING
	90 DEG. TAKEOFF w/ BELLMOUTH FITTING
	CEILING RETURN AIR REGISTER
	ROOF MOUNTED EXHAUST FAN

DUCTWORK NOTES:	
1.	PROVIDE ALL NEW DUCTWORK AS SHOWN AND SPECIFIED UNDER SPECIFICATION SECTION 015891, AND IN CONFORMANCE WITH SMACNA SPECIFICATIONS.
2.	IF A DUCT ELBOW IS SHOWN TO BE RADIUS, THEN RADIUS ELBOWS SHALL BE INSTALLED. SQUARE ELBOWS MAY NOT BE SUBSTITUTED WHERE RADIUS ELBOWS ARE SHOWN. WHERE SQUARE ELBOWS ARE SHOWN, TURNING VANES SHALL BE INSTALLED UPON APPROVAL BY THE ENGINEER.
3.	WHERE FLEXIBLE DUCTWORK IS USED, LENGTHS MAY NOT EXCEED 4 FEET TOTAL IN ANY ONE RUN OF FLEXIBLE DUCTWORK. FLEXIBLE DUCTWORK SHALL BE RATED IN ACCORDANCE WITH UL 181, CLASS 1, REFER TO SPECIFICATION SECTION 15891 FOR FURTHER INFORMATION.
4.	MECHANICAL CONTRACTOR SHALL PROVIDE A BUTTERFLY TYPE VOLUME DAMPER WITH LOCKING QUADRANT HANDLE PRIOR TO EACH AIR OUTLET SHOWN. INSTALL DAMPER AT LEAST 5 FEET AWAY FROM AIR OUTLET WHEREVER POSSIBLE.
5.	MECHANICAL CONTRACTOR SHALL PROVIDE FLEXIBLE DUCT CONNECTIONS WHERE DUCT SYSTEMS CONNECT TO EQUIPMENT. REFER TO SPECIFICATION SECTION 15891 FOR FURTHER INFORMATION.

ROOFING CONSTRUCTION NOTES:	
1.	ALL EXISTING DIMENSIONS AND CONDITIONS ARE APPROXIMATE. MECHANICAL CONTRACTORS MUST FIELD VERIFY ALL CONDITIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO BIDDING. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS REQUIRED FOR BIDDING AND ESTIMATING. PRE-BID SITE INSPECTION IS STRONGLY RECOMMENDED. ALL CONTRACTORS SHALL CONTACT THE SCHOOL TO MAKE AN APPOINTMENT FOR SITE VISIT. UNDER NO CIRCUMSTANCES WILL ANY CONTRACTOR BE ALLOWED TO SHOW UP WITHOUT AN APPOINTMENT.
2.	IN ACCORDANCE WITH STATE AND LOCAL CODES, THE REQUIRED EXITS IN THE EXISTING BUILDING MUST BE MAINTAINED AS CLEAR, AND PROTECTED DURING THE ENTIRE CONSTRUCTION PERIOD.
3.	ALL WORK AND MATERIAL OF THIS PROJECT AND ADJACENT SURFACES SHALL BE PROTECTED FROM DAMAGE. IN THE EVENT OF DAMAGE, THE MECHANICAL CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT AND THE OWNER, AND MAKE ALL REPAIRS AND REPLACEMENTS NECESSARY TO THE APPROVAL OF THE ARCHITECT AND OWNER AND AT NO ADDITIONAL COST TO THE OWNER.
4.	THE MECHANICAL CONTRACTOR IS TO PROTECT AND MAKE WATER TIGHT ALL AREAS OF HIS WORK FROM INCLEMENT WEATHER DURING AND AT THE END OF EVERY DAY OF WORK OPERATIONS.
5.	ALL PROJECT WASTE MATERIAL AND RUBBISH GENERATED BY THE MECHANICAL CONTRACTOR AND / OR HIS SUB-CONTRACTORS SHALL BE DISPOSED IN CONTAINERS FOR SUBSEQUENT LEGAL, OFF-SITE DISPOSAL. CONTAINER LOCATION TO BE COORDINATED WITH BUILDINGS AND GROUNDS. OFF-SITE DISPOSAL TO BE ON A REGULAR BASIS.
6.	ALL FLASHING ON MECHANICALS MUST BE INSTALLED AT A DISTANCE ABOVE THE FINISHED ROOF SURFACE TO INSURE CONFORMANCE WITH ROOFING MANUFACTURERS WARRANTY REQUIREMENTS. INCLUSIVE OF ALL CONDITIONS, NO EXCEPTIONS WILL BE MADE.
7.	THE ROOFING CONTRACTOR SHALL BE SURE TO MAINTAIN ANY/ALL EXISTING ROOFING WARRANTIES IN PLACE AT THOSE ROOFS WHICH CUTTING, PATCHING AND RE-FLASHING IS REQUIRED. THE ROOFING CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ANY & ALL REPAIRS TO EXISTING ROOFING SYSTEM AS REQUIRED TO CONSTRUCTION ACTIVITIES AT NO ADDITIONAL COST TO THE OWNER. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS AND SHALL MAINTAIN ALL EXISTING WARRANTIES.
8.	THE ROOFING CONTRACTOR (R.C.) SHALL BE RESPONSIBLE FOR ALL NEW ROOF PENETRATIONS FOR NEW MECHANICAL UNITS ON EXISTING ROOF. R.C. SHALL COORDINATE SETTING OF CURBS WITH THE MECHANICAL CONTRACTOR (M.C.) AND R.C. SHALL BE RESPONSIBLE FOR ALL PATCHING/FLASHING OF EXISTING ROOF. THE MECHANICAL CONTRACTOR SHALL USE CERTIFIED ROOF INSTALLER AS APPROVED BY MANUFACTURER OF EXISTING ROOF AS TO NOT VOID EXISTING ROOF WARRANTY. COORDINATE WITH OWNER.
9.	THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE INSTALLATION OF ALL MECHANICAL UNITS/EQUIPMENT WITH ALL OTHER TRADES.
10.	ALL WALL & FLOOR PENETRATIONS SHALL BE DONE BY GENERAL CONTRACTOR WITH MECHANICAL CONTRACTOR PRESENT.

GENERAL NOTES FOR ALL ROOFTOP EQUIPMENT:	
1.	PROVIDE DISCONNECT SWITCH FOR EACH NEW EQUIPMENT.
2.	R.C. SHALL MAKE ALL ROOF PENETRATIONS IN THE PRESENCE OF THE MECHANICAL CONTRACTOR.
3.	MECHANICAL CONTRACTOR SHALL FURNISH NEW ROOF CURBS TO R.C. R.C. SHALL CUT HOLES IN ROOF IN PRESENCE OF M.C. AND R.C. SHALL INSTALL NEW ROOF CURBS IN THE PRESENCE OF THE CERTIFIED M.C. R.C. SHALL BE RESPONSIBLE FOR FLASHING ALL NEW ROOF CURBS. REFER TO ARCHITECTURAL DRAWINGS FOR FURTHER DETAILS OF FLASHING ROOF CURBS.

GENERAL MECHANICAL NOTES:	
1.	PROVIDE AND INSTALL 2" ACOUSTIC FIBERGLASS 3.0 LBS. DENSITY WITHIN ROOF CURBS AND ADAPTER ROOF CURBS.
2.	ALL DISCONNECT SWITCHES AND STARTERS TO BE FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED AND WIRED BY THE ELECTRICIAN.
3.	DUCT SIZE DIMENSIONS SHOWN ARE CLEAR INSIDE DIMENSIONS.
4.	CONTROLS CONTRACTOR SHALL FURNISH ALL CONTROLS EQUIPMENT AND PROVIDE TO MECHANICAL CONTRACTOR TO INSTALL. CONTROLS CONTRACTOR SHALL WIRE ALL CONTROLS EQUIPMENT.
5.	UNLESS OTHERWISE NOTED, THE GENERAL CONTRACTOR (G.C.) SHALL MAKE ALL INTERIOR WALL, CEILING, & FLOOR PENETRATIONS FOR PIPING & DUCTWORK. M.C. SHALL BE RESPONSIBLE TO COORDINATE WITH ALL TRADES. M.C. SHALL BE PRESENT WHEN G.C. MAKES PENETRATIONS FOR ALL MECHANICAL PIPING & DUCTWORK.

GENERAL EXHAUST FAN NOTES:	
A.	E.C. SHALL DISCONNECT & REMOVE EXISTING STARTERS FOR ALL EXHAUST FANS SHOWN TO BE REPLACED. THEN M.C. SHALL PROVIDE NEW STARTERS & DISCONNECTS FOR THOSE EXHAUST FANS BEING REPLACED. E.C. SHALL INSTALL NEW STARTERS / DISCONNECTS, VERIFY EXISTING LOCATIONS OF ALL EXISTING EXHAUST FAN STARTERS.
B.	M.C. SHALL PROVIDE AND INSTALL NEW ADAPTER CURB ASSEMBLIES AS REQ'D. TO MOUNT NEW EXHAUST FANS IN EXIST. EXHAUST FAN LOCATIONS.
C.	M.C. SHALL MODIFY AS NECESSARY ALL EXIST. EXHAUST FAN EQUIPMENT TO COMPLETELY INSTALL THE NEW REPLACEMENT EXHAUST FAN ASSEMBLIES.
D.	FOR FURTHER DETAILS ON ALL MECHANICAL EXHAUST FAN EQUIPMENT REFER TO MECHANICAL DRAWINGS.

FIRESTOPPING NOTES:	
1.	ALL PENETRATIONS THROUGH FIRE RATED WALLS, FLOORS OR OTHER STRUCTURES SHALL BE FIRE STOPPED BY MECHANICAL CONTRACTOR.
2.	THE FIRE STOP MATERIALS SHALL BE HILTI TYPE FS-657 FIRE BLOCK, FS-ONE SEALANT, CP-672 JOINT SPRAY, CP-601S ELASTOMERIC SEALANT, 6P-606 FLEXIBLE SEALANT, CP-643 OR CP-642 COLLAR, CP-618 PUTTY STICK, OR FS-635 TROWEL APPLIED COMPOUND, AS SUITABLE.
3.	CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF PRODUCTS TO BE USED.
4.	FIRESTOP MATERIALS OTHER THAN HILTI SHALL INCLUDE FULL TECHNICAL DATA WITH SHOP DRAWINGS TO DEMONSTRATE EQUALITY WITH THE SPECIFIED FIRE STOPS.

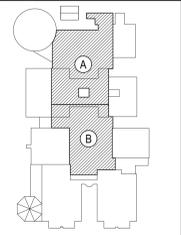
ROOFTOP MECHANICAL EQUIPMENT DEMOLITION PLAN GENERAL NOTES:	
1.	MECHANICAL CONTRACTOR SHALL VERIFY IN THE FIELD THE EXACT LOCATION OF ALL EXISTING MECHANICAL RELATED EQUIPMENT, DUCTWORK, PIPING, LOUVERS, AND ROOFTOP EQUIPMENT PRIOR TO START OF ANY WORK.
2.	MECHANICAL CONTRACTOR SHALL COORDINATE ALL ROOF DEMOLITION PLAN WORK AND WALL DEMOLITION PLAN WORK WITH ROOFING CONTRACTOR.
3.	REMOVE EXISTING EQUIPMENT AS SHOWN ON PLANS. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL MECHANICAL EQUIPMENT AND ASSOCIATED DUCTWORK AND ASSOCIATED ROOF CURBS, ASSOCIATED DUCTWORK, WALL LOUVERS, WHERE CALLED OUT IN KEY PLAN NOTES. MECHANICAL CONTRACTOR SHALL COORDINATE REMOVAL OF ALL ROOF MECHANICAL EQUIPMENT WITH ROOFING CONTRACTOR.
4.	ROOFING CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ANY ROOF PENETRATION THAT SHALL NOT BE RE-USED. REFER TO ARCHITECTURAL DRAWINGS FOR FURTHER DETAILS ON ROOF PATCHING.
5.	GENERAL CONTRACTOR (G.C.) SHALL BE RESPONSIBLE FOR PATCHING ALL WALL PENETRATIONS. ROOFING CONTRACTOR (R.C.) SHALL BE RESPONSIBLE FOR PATCHING ALL ROOF PENETRATIONS AND FLASHING ALL NEW ROOF CURBS. MECHANICAL CONTRACTOR (M.C.) SHALL BE RESPONSIBLE FOR MAKING ALL WALL PENETRATIONS IN THE PRESENCE OF THE GENERAL CONTRACTOR. ROOFING CONTRACTOR (R.C.) SHALL BE RESPONSIBLE FOR MAKING ALL ROOF PENETRATIONS AND INSTALLING ROOF CURBS.

TESTING and BALANCING NOTES	
1.	MECHANICAL CONTRACTOR WILL BE REQUIRED TO PERFORM ALL EQUIPMENT & SYSTEM TESTING / BALANCING REQUIRED UNDER THIS CONTRACT. PROVIDE A FULL REPORT DETAILING ALL DESIGN & ACTUAL CONDITIONS FOR ALL AIR SYSTEMS SHOWN ON THE DRAWINGS. REFER TO SPECIFICATION SECTIONS 15990 & 15997 FOR FURTHER DETAILS.
2.	UPON NOTICE OF COMPLETION OF WORK BY THE CONTRACTOR, OWNER WILL OBTAIN THE SERVICES OF AN INDEPENDENT TESTING & BALANCING CONTRACTOR TO VERIFY THE RESULTS OF THE TESTING & BALANCING REPORT SUBMISSION. INDEPENDENT TESTING AGENCY SHALL SELECT A RANDOM NUMBER OF MEASUREMENTS TO BE CHECKED. MEASUREMENTS WILL BE CHECKED IN THE SAME MANNER AS ORIGINALLY MEASURED. NUMBER OF VERIFICATION MEASUREMENTS SHALL BE APPROXIMATELY 25% OF THE TOTAL MEASUREMENTS FOR THE PROJECT.
3.	IF MORE THAN 10% OF THE VERIFICATION TESTING SHOWS DEVIATIONS OF 10% OR MORE / SOUND LEVEL OF 2dB DIFFERENT THAN THAT ORIGINALLY MEASURED, THE ORIGINAL REPORT WILL BE REJECTED. ALL SYSTEMS WILL THEN BE REQUIRED TO BE COMPLETELY RE-TESTED, WITH A SECOND REPORT SUBMITTED. IN THE EVENT THAT THE ORIGINAL REPORT IS REJECTED, ALL SYSTEMS SHALL BE READJUSTED & TESTED, NEW CERTIFIED REPORTS SUBMITTED, AND NEW VERIFICATION TESTS MADE, AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS INVOLVED WITH THE VERIFICATION TESTS.

ELECTRICAL WORK UNDER MECHANICAL CONTRACT	
1.	MECHANICAL CONTRACTOR SHALL PROVIDE ALL STARTERS & DISCONNECT SWITCHES REQUIRED FOR ALL NEW MECHANICAL EQUIPMENT. STARTER / DISCONNECT SWITCH INSTALLATION TO BE PERFORMED UNDER THE ELECTRICAL CONTRACT. COORDINATE WORK W/ ELECTRICAL CONTRACTOR PRIOR TO START OF WORK.
2.	POWER WIRING REQUIRED FOR CONTROLS SHALL BE PERFORMED UNDER THE MECHANICAL CONTRACT UNLESS SPECIFICALLY NOTED OTHERWISE ON THE ELECTRICAL DRAWINGS. MECHANICAL CONTRACTOR SHALL OBTAIN THE SERVICES OF A LICENSED ELECTRICIAN (PER NEC REQUIREMENTS), TO PERFORM ALL ELECTRICAL WORK.

REV.	DATE	ITEM
1	1/14/2022	ISSUED FOR BID

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KEY PLAN
 NOT TO SCALE

PROJECT
 BRIARCLIFF MANOR UFSD
 BOND IMPROVEMENTS - PHASE 1
 MIDDLEHIGH SCHOOL
 BRIARCLIFF MANOR/WESTCHESTER

DWG TITLE
 GENERAL NOTES, LEGENDS AND SYMBOLS

GENERAL NOTES:

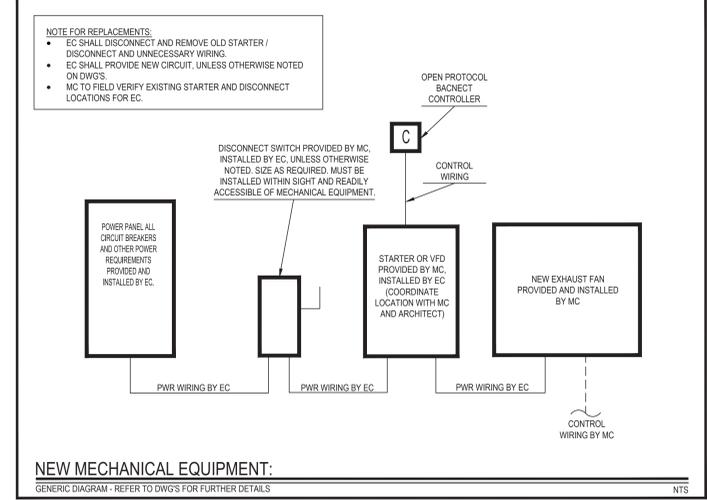
- REMOVAL & RELOCATION OF CERTAIN EXISTING WORK SHALL BE NECESSARY FOR THE PERFORMANCE OF THE NEW WORK SHOWN HEREIN. ALL EXISTING CONDITIONS ARE NOT COMPLETELY DETAILED ON THE DRAWINGS. THE CONTRACTOR SHALL SURVEY THE SITE & MAKE ALL NECESSARY CHANGES BASED ON EXISTING CONDITIONS AS REQUIRED FOR PROPER DEMOLITION OF EXISTING WORK & SHALL INCLUDE ALL MATERIALS & LABOR FOR SAME IN HIS BID PRICE. NO ALLOWANCE WILL BE MADE FOR FAILURE TO DO SO.
- PRIOR TO SUBMITTING A BID, THE CONTRACTOR SHALL VISIT THE PREMISES OF THE PROPOSED WORK & SHALL CAREFULLY EXAMINE THE ENGINEERING DRAWINGS, EXISTING CONDITIONS & LIMITATIONS THEREOF. VERIFY ACTUAL LOCATIONS WHERE THE NEW PIPING WILL BE ROUTED, COORDINATE WITH NEW & EXISTING WORK & PROVIDE CLEARANCE W/ BUILDING STRUCTURE, OTHER SERVICES, ETC. THE CONTRACTOR SHALL INCLUDE ALL COSTS WHATSOEVER WHICH ARE INCURRED AS A RESULT OF LIMITATIONS OF THE EXISTING & NEW CONDITIONS. LATER CLAIMS FOR EXTRA LABOR, EQUIPMENT, MATERIALS, ETC. REQUIRED DUE TO DIFFICULTIES WHICH COULD HAVE BEEN FORESEEN WILL NOT BE CONSIDERED AS EXTRA WORK.
- INSTALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATING, MAINTENANCE & REPAIR. MINOR DEVIATIONS FROM DRAWINGS MAY BE MADE TO ACCOMPLISH THIS, BUT CHANGES OF MAGNITUDE WHICH INVOLVE EXTRA COST SHALL NOT BE MADE WITHOUT APPROVAL.
- INVESTIGATE EACH SPACE THROUGH WHICH EQUIPMENT MUST BE MOVED. WHEN NECESSARY, EQUIPMENT SHALL BE SHIPPED FROM MANUFACTURER IN GRADED SECTIONS OF SIZE SUITABLE FOR MOVING THROUGH AREAS AVAILABLE. ASCERTAIN FROM BUILDING OWNER AT WHAT TIMES OF DAY EQUIPMENT MAY BE MOVED THROUGH THE BUILDING.
- COORDINATE THE EXACT SIZE & LOCATION OF NEW OPENINGS WITH EXISTING STRUCTURE. PATCH / INSULATE AS REQUIRED. CONTRACTOR SHALL FIRESTOP ALL PENETRATIONS FROM NEW PIPING, CONDUIT, DUCTWORK, ETC. THROUGH EXISTING OR NEW FIRE/ SMOKE BARRIERS. REFER TO SPECIFICATION SECTION 15511 FOR FURTHER DETAILS.
- IT IS THE INTENT OF THIS CONTRACT FOR REMAINING SYSTEMS TO BE LEFT IN GOOD WORKING ORDER, READY FOR OPERATION. COORDINATE ANY REQUIRED SYSTEM SHUTDOWNS WITH OWNER 48 HOURS IN ADVANCE. EXISTING SYSTEM SHUTDOWNS WILL NOT BE PERMITTED IF THEY INTERFERE WITH THE DAILY OPERATIONS OF THE BUILDING. CONTRACTOR WILL BE REQUIRED TO TAKE PROPER PRECAUTIONS AGAINST DAMAGING OR DISRUPTING BUILDING SYSTEMS, WIRING, PIPING OR CONTROL TUBING. ANY DAMAGE TO THESE ITEMS SHALL BE REPAIRED AT THE CONTRACTORS COST AS A PART OF THIS CONTRACT.
- THE CONTRACTOR SHALL REPAIR / RESTORE TO ORIGINAL CONDITION ANY EXISTING EQUIPMENT OR MATERIALS DAMAGED IN THE PROCESS OF INSTALLATION, OR DEMOLITION TO THE SATISFACTION OF THE OWNERS REPRESENTATIVE. CONTRACTOR SHALL MAKE REPAIRS USING THE SAME OR EQUIVALENT MATERIALS. WORK WILL BE PERFORMED AT THE CONTRACTORS COST.
- CONTRACTOR SHALL INCUR ANY COSTS OR BURDENS ASSOCIATED WITH LOST OR STOLEN EQUIPMENT / MATERIALS.
- DURING THE LIFE OF THE CONTRACT PERIOD, CONTRACTOR SHALL REMOVE ALL RUBBISH / EXCESS MATERIAL, ACCUMULATED AS A RESULT OF HIS OPERATIONS ON A DAILY BASIS. ALL AREAS / EQUIPMENT AFFECTED UNDER THIS CONTRACT SHALL BE KEPT CLEAN OF DUST / DEBRIS. ALL AREAS SHALL RECEIVE A FINAL CLEANING PRIOR TO FINAL ACCEPTANCE BY THE OWNER.
- PROVIDE FOR LEGAL REMOVAL / DISPOSAL OF ALL RUBBISH / DEBRIS FROM THE BUILDING & SITE. PROTECT ALL WORK NOT SLATED FOR DEMOLITION.
- THIS CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES PRIOR TO SCHEDULING THE WORK. WORK SHALL BE PERFORMED IN PROPER SEQUENCE, AS AGREED TO BY ALL TRADES. ANY COSTS INCURRED BY THE OWNER DUE TO IMPROPER SEQUENCING OF WORK WILL BE PAID FOR BY THIS CONTRACTOR.
- CONTRACTOR SHALL OBTAIN ALL PERMITS, PAY ALL FEES, CONNECTION CHARGES, ETC. ASSOCIATED WITH THE WORK UNDER THEIR CONTRACT.
- PAINT / TOUCH UP ALL SURFACES MARRED AS A RESULT OF THE PERFORMANCE OF THE CONTRACT WORK.
- THE MECHANICAL CONTRACTOR SHALL REFER TO / REVIEW ALL OTHER TRADE DRAWINGS IN THE BID PACKAGE & SHALL BE RESPONSIBLE FOR / PERFORM ALL WORK INDICATED AS (M.C.) MECHANICAL WORK AS A PART OF THE BASE BID UNLESS SPECIFICALLY NOTED OTHERWISE.
- SUBSTITUTED EQUIPMENT OF GREATER OR LARGER POWER, DIMENSIONS, CAPACITIES & RATINGS MAY BE FURNISHED PROVIDED THAT SAID EQUIPMENT IS APPROVED IN WRITING PRIOR TO ORDER. ANY CONNECTING MECHANICAL SERVICES, ELECTRICAL SERVICES, BASES, STRUCTURAL APPURTENANCES, ETC. REQUIRED TO BE INCREASED DUE TO THE USE OF SAID EQUIPMENT WILL BE PAID FOR IN FULL BY THE MECHANICAL CONTRACTOR, INCLUDING ANY ADDITIONAL REQUIRED ENGINEERING FEES.
- EACH PIECE OF EQUIPMENT SHALL BE PROVIDED WITH A PERMANENT TYPE LAMINATED, BLACK FINISH, WHITE CORE, PHENOLIC NAMEPLATE. NAMEPLATES SHOULD INDICATE THE NAME & NUMBER OF THE UNIT, UNIT VOLTAGE & ANY INTERLOCK REFERENCE. STARTERS / DISCONNECT SWITCHES SHOULD ALSO BE EQUIPPED WITH AN IDENTICAL NAMEPLATE WITH THE SAME INFORMATION.
- MECHANICAL CONTRACTOR SHALL PROVIDE (1) SPARE MOTOR FOR EACH SIZE MOTOR USED ON THE PROJECT. IN INSTANCES WHERE MORE THAN TEN OF THE SAME MOTOR ARE USED, MECHANICAL CONTRACTOR SHALL PROVIDE (1) SPARE MOTOR FOR EVERY TEN MOTORS OF A GIVEN SIZE USED ON THE PROJECT.
- MAINTENANCE MANUAL: UPON COMPLETION OF THE PROJECT, THE MECHANICAL CONTRACTOR SHALL PROVIDE A BINDER CONTAINING THE OPERATIONS & MAINTENANCE MANUALS FOR EACH NEW PIECE OF EQUIPMENT INSTALLED UNDER THIS PROJECT. THE FIRST SECTION OF THE MAINTENANCE MANUAL SHALL CONTAIN A LIST OF EACH PIECE OF EQUIPMENT, COMPLETE WITH INFORMATION SHOWING APPROPRIATE REPLACEMENT FILTER SIZES / TYPES, APPROPRIATE REPLACEMENT BELT SPECIFICATIONS, REPLACEMENT MOTOR SPECIFICATIONS, REPLACEMENT BEARING SPECIFICATIONS, VOLTAGES OF UNIT, ETC. THIS SHALL SERVE AS A WRITTEN DATABASE DESCRIBING ALL MAINTENANCE INFORMATION FOR EACH NEW PIECE OF EQUIPMENT USED.

LOCK OUT-TAG OUT NOTIFICATION:

1. IN ACCORDANCE WITH OSHA REGULATIONS - ALL CONTRACTORS MUST PROPERLY LOCK OUT & TAG OUT ALL ELECTRICAL EQUIPMENT THEY ARE WORKING ON, PRIOR TO DISMANTLING FOR SERVICE OR CLEANING.

CONTRACTOR ABBREVIATIONS:

M.C. = MECHANICAL CONTRACTOR	P.C. = PLUMBING CONTRACTOR
C.C. = CONTROLS CONTRACTOR	E.C. = ELECTRICAL CONTRACTOR
G.C. = GENERAL CONTRACTOR	C.W.C. = CASEWORK CONTRACTOR
R.C. = ROOFING CONTRACTOR	



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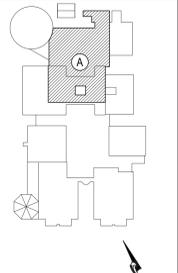
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SED No.	66-14-02-02-0-004-022
DISTRICT	BRIARCLIFF MANOR UFSD DISTRICT NAME
PROJECT	BOND IMPROVEMENTS PHASE 1
DWG TITLE	GENERAL NOTES, LEGENDS AND SYMBOLS
SCALE	AS NOTED
DATE	10/8/21
BID PICK-UP	1/17/2022
FILE No.	21-274A

M0.01

REV.	DATE	ITEM
1	1/14/2022	ISSUED FOR BID

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KEY PLAN
 NOT TO SCALE

PROJECT
 BRIARCLIFF MANOR UFSD
 BOND IMPROVEMENTS - PHASE 1
 MIDDLE HIGH SCHOOL
 BRIARCLIFF MANOR WESTCHESTER

DWG TITLE
 ROOF DEMOLITION PART PLAN
 AREA "A"

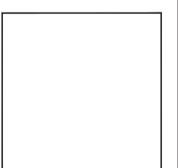
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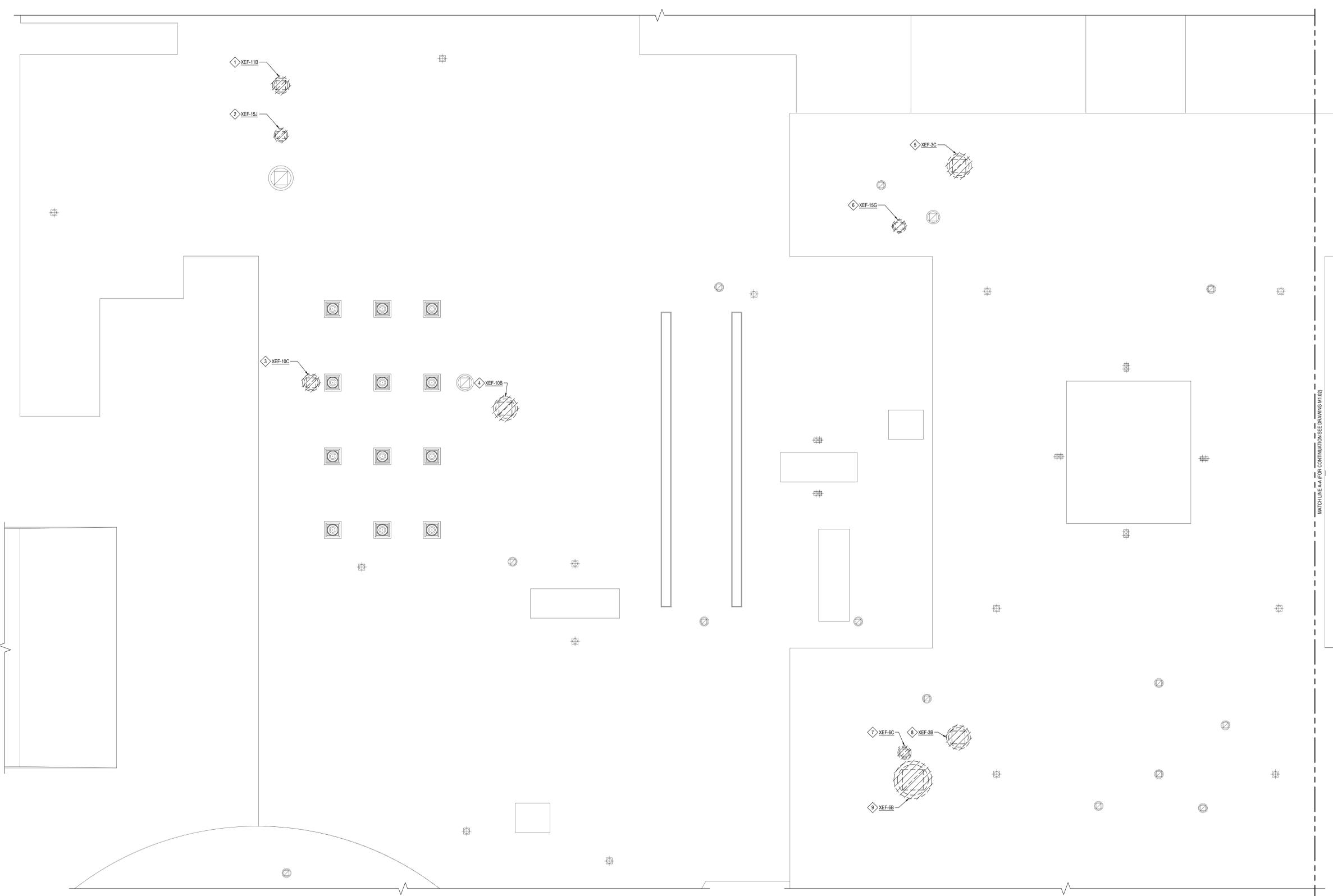
SED No: 66-14-02-02-0-004-022

DISTRICT: BRIARCLIFF MANOR UFSD
 DISTRICT NAME

PROJECT: BOND IMPROVEMENTS
 PHASE 1

DWG TITLE: ROOF DEMOLITION PART PLAN
 AREA "A"

SCALE: AS NOTED
 DATE: 10/8/21
 BID PICK-UP: BID P/D DATE
 FILE No: 21-274A



ROOF DEMOLITION PART PLAN - AREA "A"

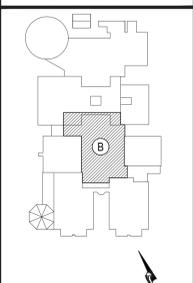
- NOTE:**
- EXHAUST FAN REPLACEMENT KEYED DEMOLITION NOTES:**
- 1 DEMO & REMOVE EXISTING ROOFTOP EXHAUST FAN, 22-1/2x22-1/2 ROOF CURB AND ASSOCIATED DAMPER SHOWN, E.C. SHALL DISCONNECT FAN PRIOR TO REMOVAL.
 - 2 DEMO & REMOVE EXISTING ROOFTOP EXHAUST FAN, 18x18 ROOF CURB AND ASSOCIATED DAMPER SHOWN, E.C. SHALL DISCONNECT FAN PRIOR TO REMOVAL.
 - 3 DEMO & REMOVE EXISTING ROOFTOP EXHAUST FAN, 22-1/2x22-1/2 ROOF CURB AND ASSOCIATED DAMPER SHOWN, E.C. SHALL DISCONNECT FAN PRIOR TO REMOVAL.
 - 4 DEMO & REMOVE EXISTING ROOFTOP EXHAUST FAN, 31-1/2x31-1/2 ROOF CURB AND ASSOCIATED DAMPER SHOWN, E.C. SHALL DISCONNECT FAN PRIOR TO REMOVAL.
 - 5 DEMO & REMOVE EXISTING ROOFTOP EXHAUST FAN, 32x32 ROOF CURB AND ASSOCIATED DAMPER SHOWN, E.C. SHALL DISCONNECT FAN PRIOR TO REMOVAL.
 - 6 DEMO & REMOVE EXISTING ROOFTOP EXHAUST FAN, 18x18 ROOF CURB AND ASSOCIATED DAMPER SHOWN, E.C. SHALL DISCONNECT FAN PRIOR TO REMOVAL.
 - 7 DEMO & REMOVE EXISTING ROOFTOP EXHAUST FAN, 17-1/2x17-1/2 ROOF CURB AND ASSOCIATED DAMPER SHOWN, E.C. SHALL DISCONNECT FAN PRIOR TO REMOVAL.
 - 8 DEMO & REMOVE EXISTING ROOFTOP EXHAUST FAN, 31-1/2x31-1/2 ROOF CURB AND ASSOCIATED DAMPER SHOWN, E.C. SHALL DISCONNECT FAN PRIOR TO REMOVAL.
 - 9 DEMO & REMOVE EXISTING ROOFTOP EXHAUST FAN, 50x50 ROOF CURB AND ASSOCIATED DAMPER SHOWN, E.C. SHALL DISCONNECT FAN PRIOR TO REMOVAL.

PRE-CONSTRUCTION NOTE:
 M.C. TO VERIFY EXISTING VOLTS, PHASE & HERTZ OF EXISTING FANS AND COORDINATE SUBMITTALS WITH EXISTING FIELD VERIFICATIONS. M.C. TO FIELD VERIFY EXISTING CURB DIMENSIONS PRIOR TO REMOVAL OF EXISTING CURBS.

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

REV.	DATE	ITEM
1	1/14/2022	ISSUED FOR BID

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PROJECT: BRIARCLIFF MANOR UFSD BOND IMPROVEMENTS - PHASE 1 MIDDLE/HIGH SCHOOL BRIARCLIFF MANOR/WESTCHESTER

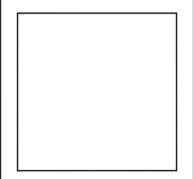
DWG TITLE: ROOF & FIRST FLOOR DEMOLITION PART PLANS AREA "B"

DRAWING BY: RDP
 CHECK BY: FS

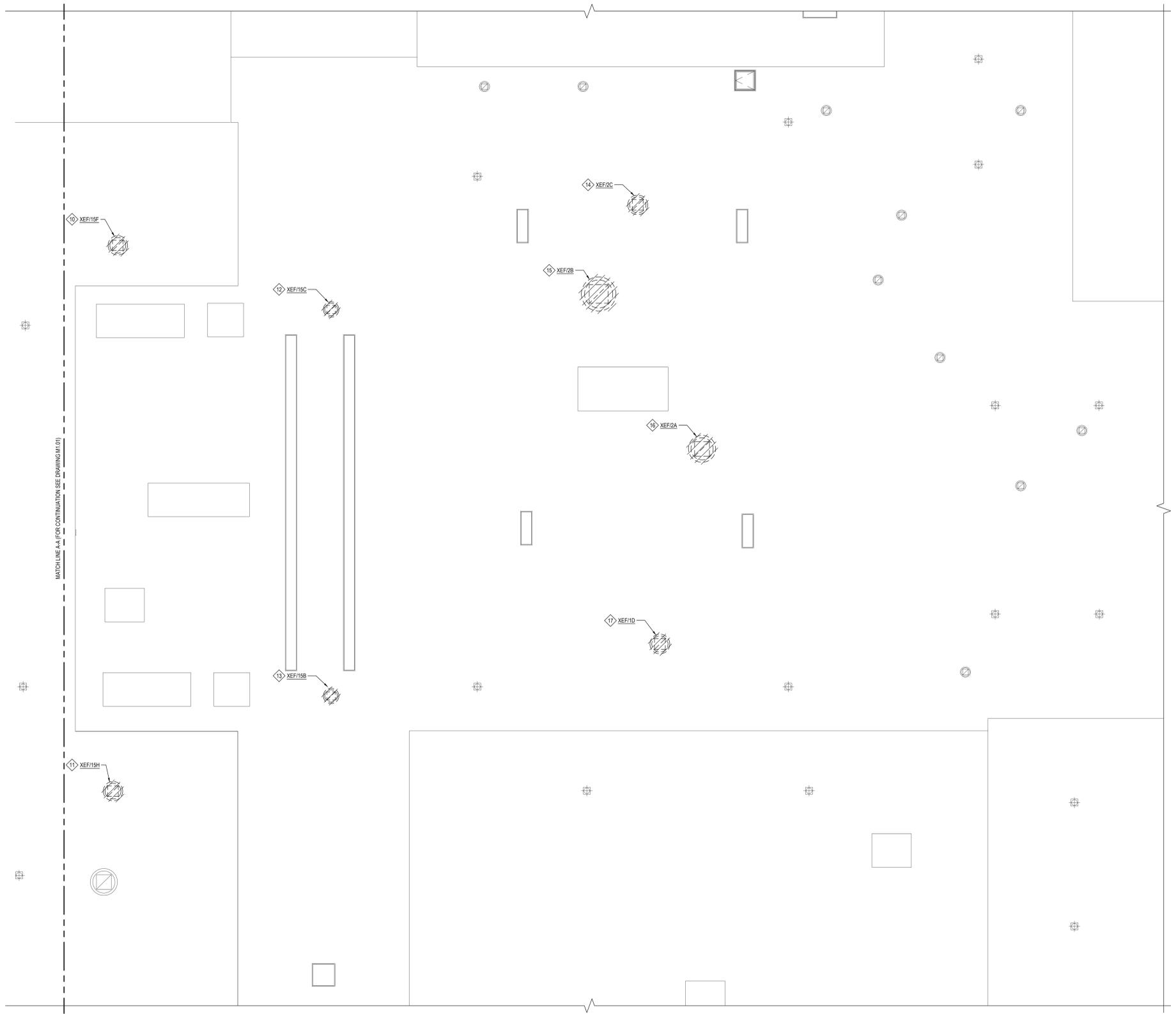
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SED No.	66-14-02-02-0-004-022
DISTRICT	BRIARCLIFF MANOR UFSD DISTRICT NAME
PROJECT	BOND IMPROVEMENTS PHASE 1
DWG TITLE	ROOF & FIRST FLOOR DEMO PART PLANS AREA "B"
SCALE	AS NOTED
DATE	10/8/21
BID PICK-UP	1/17/2022
FILE No.	21-274A

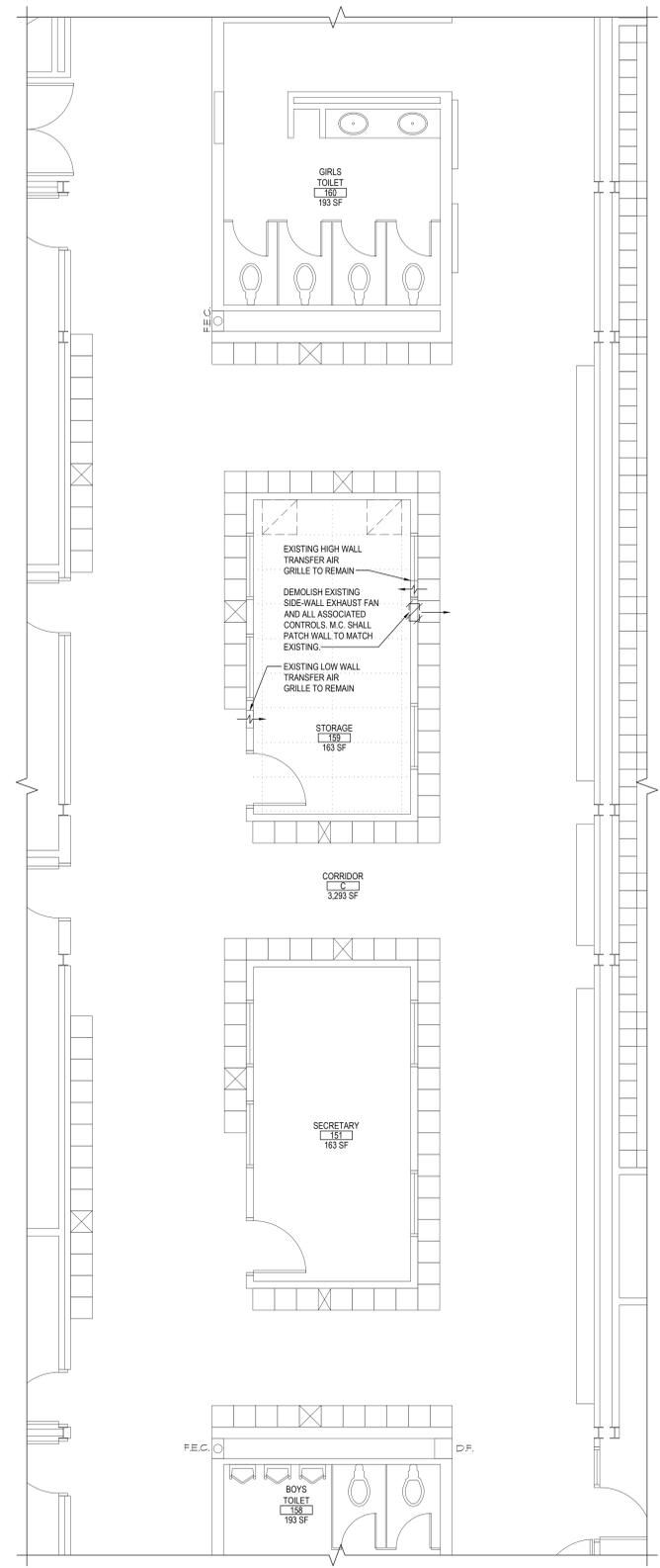


ROOF DEMOLITION PART PLAN - AREA "B"

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

- EXHAUST FAN REPLACEMENT KEYED DEMOLITION NOTES:**
- 10 DEMO & REMOVE EXISTING ROOFTOP EXHAUST FAN, 22-1/2x22-1/2 ROOF CURB AND ASSOCIATED DAMPER SHOWN. E.C. SHALL DISCONNECT FAN PRIOR TO REMOVAL.
 - 11 DEMO & REMOVE EXISTING ROOFTOP EXHAUST FAN, 22-1/2x22-1/2 ROOF CURB AND ASSOCIATED DAMPER SHOWN. E.C. SHALL DISCONNECT FAN PRIOR TO REMOVAL.
 - 12 DEMO & REMOVE EXISTING ROOFTOP EXHAUST FAN, 18x18 ROOF CURB AND ASSOCIATED DAMPER SHOWN. E.C. SHALL DISCONNECT FAN PRIOR TO REMOVAL.
 - 13 DEMO & REMOVE EXISTING ROOFTOP EXHAUST FAN, 18x18 ROOF CURB AND ASSOCIATED DAMPER SHOWN. E.C. SHALL DISCONNECT FAN PRIOR TO REMOVAL.
 - 14 DEMO & REMOVE EXISTING ROOFTOP EXHAUST FAN, 23x23 ROOF CURB AND ASSOCIATED DAMPER SHOWN. E.C. SHALL DISCONNECT FAN PRIOR TO REMOVAL.
 - 15 DEMO & REMOVE EXISTING ROOFTOP EXHAUST FAN, 40x40 ROOF CURB AND ASSOCIATED DAMPER SHOWN. E.C. SHALL DISCONNECT FAN PRIOR TO REMOVAL.
 - 16 DEMO & REMOVE EXISTING ROOFTOP EXHAUST FAN, 31-1/2x31-1/2 ROOF CURB AND ASSOCIATED DAMPER SHOWN. E.C. SHALL DISCONNECT FAN PRIOR TO REMOVAL.
 - 17 DEMO & REMOVE EXISTING ROOFTOP EXHAUST FAN, 23x23 ROOF CURB AND ASSOCIATED DAMPER SHOWN. E.C. SHALL DISCONNECT FAN PRIOR TO REMOVAL.

PRE-CONSTRUCTION NOTE:
 M.C. TO VERIFY EXISTING VOLTS, PHASE & HERTZ OF EXISTING FANS AND COORDINATE SUBMITTALS WITH EXISTING FIELD VERIFICATIONS. M.C. TO FIELD VERIFY EXISTING CURB DIMENSIONS PRIOR TO REMOVAL OF EXISTING CURBS.

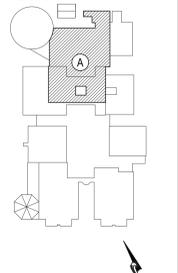


FIRST FLOOR DEMOLITION PART PLAN - AREA "B"

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

REV.	DATE	ITEM
1	1/14/2022	ISSUED FOR BID

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KEY PLAN
 NOT TO SCALE

PROJECT
 BRIARCLIFF MANOR UFSD
 BOND IMPROVEMENTS - PHASE 1
 MIDDLE/HIGH SCHOOL
 BRIARCLIFF MANOR/WESTCHESTER

DWG TITLE
 ROOF NEW HVAC PART PLAN
 AREA "A"

DRAWING BY: RDP
 CHECK BY: FS

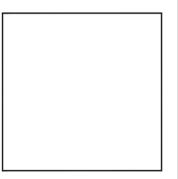
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SED No: 66-14-02-02-0-004-022

DISTRICT: BRIARCLIFF MANOR UFSD
 DISTRICT NAME:

PROJECT: BOND IMPROVEMENTS
 PHASE 1

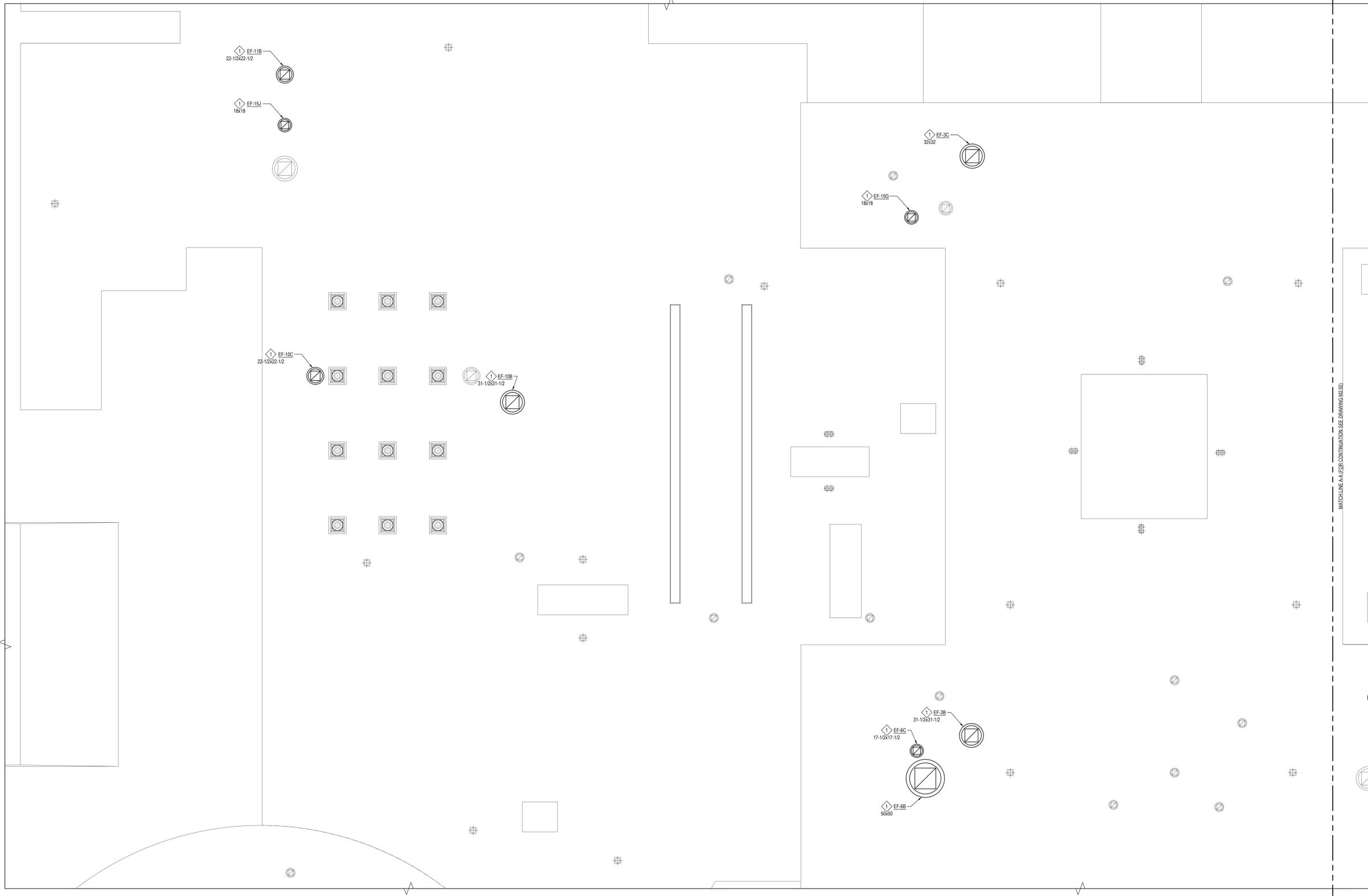
DWG TITLE: ROOF NEW HVAC PART PLAN
 AREA "A"

SCALE: AS NOTED

DATE: 10/8/21

BID PICKUP: BID P/D DATE

FILE No: 21-274A



ROOF HVAC PART PLAN - AREA "A"

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

NEW WORK KEYED NOTES:

◆ M.C. SHALL COORDINATE EXHAUST FAN REPLACEMENT WORKSCOPE WITH R.C. & E.C. E.C. SHALL DISCONNECT FAN POWER PRIOR TO REMOVAL OF EXISTING EXHAUST FAN. M.C. SHALL REMOVE EXISTING FAN AND REPLACE WITH FAN ON EXHAUST FAN SCHEDULE REFER TO EXHAUST FAN SCHEDULE AND MECHANICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION. EXISTING ROOF CURB DIMENSIONS SHOWN ON PLANS. M.C. SHALL BE RESPONSIBLE FOR VERIFYING IN THE FIELD ALL EXISTING CONDITIONS & THE EXACT DIMENSIONS OF ALL EXISTING ROOF CURBS. EXISTING ROOF CURB DIMENSION SHOWN UNDER EACH KEYED NOTE SYMBOL ON DRAWING. M.C. SHALL REPLACE EXISTING ROOF CURB IN-KIND. R.C. SHALL INSTALL NEW ROOF CURB & FLASH IT IN PRESENCE OF M.C.

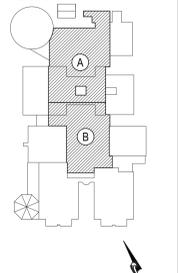
NOTE "ATC" (NEW AUTOMATIC TEMPERATURE CONTROL WORK)

MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROVISION & INSTALLATION OF ALL WIRING, CONTROL DEVICES, PROGRAMMING, ETC. AS REQUIRED TO CONNECT ALL NEW EXHAUST FANS (REPLACED UNDER THIS CONTRACT) TO THE EXISTING BUILDING MANAGEMENT SYSTEM. NOTE THAT THE EXISTING BMS IS AN 'ANDOVER' CONTINUUM BRAND, CURRENTLY SERVICED BY 'AUTOMATED CONTROL LOGIC, INC. 578 COMMERCE ST., THORNWOOD NY, 10984. TEMPERATURE CONTROL WORK SHALL BE PERFORMED BY A FACTORY AUTHORIZED SERVICE PERSON TRAINED IN THIS SYSTEM. ALL CONTROLS USED MUST BE FULLY COMPATIBLE WITH THIS SYSTEM. WORK SHALL BE AS FOLLOWS:

- PROVIDE CONTROLS AS REQUIRED TO CONNECT / MAP EACH NEW EXHAUST FAN SHOWN ON THESE DRAWINGS TO THE EXISTING HEAD END. ALL NEW CONTROLS SHALL BE FULLY COMPATIBLE WITH THE EXISTING HEAD END. CONTRACTOR SHALL MODIFY THE EXISTING SYSTEM DATABASE AS REQUIRED. IF THE EXISTING SYSTEM HAS ENOUGH POINTS TO ACCOMMODATE THE NEW EQUIPMENT, CONTROLLERS, IT MAY BE USED. IF THE SYSTEM REQUIRES EXPANSION, PROVIDE EXPANSION CONTROLLER AS REQUIRED. IF EXPANSION IS REQUIRED, NEW EXPANSION CONTROLLERS SHALL BE LARGE ENOUGH TO ACCOMMODATE (2) ADDITIONAL FANS (FOR FUTURE CONNECTION TO SYSTEM). PROVIDE ALL BUSS WIRING FROM MAIN BMS HEAD END OUT TO EACH NEW FAN.
- PERFORM ALL SYSTEM PROGRAMMING AS REQUIRED TO SHOW FAN RUN STATUS / OCCUPIED UNOCCUPIED STATUS / FACP FAN SHUTDOWN STATUS / ALARM STATUS, SHOWING AN ALARM AT THE HEAD END WHEN FAN IS COMMANDED 'ON' & DOES NOT RUN. FANS SHALL APPEAR ON THE HEAD END COMPUTER GRAPHICALLY. ANY NEW GRAPHICS CREATED SHALL MATCH THE EXISTING GRAPHICS IN APPEARANCE AND FUNCTION. IF THERE ARE NO EXISTING GRAPHICS, CONTRACTOR SHALL CREATE A GRAPHIC SHOWING EACH FAN INDIVIDUALLY WITH POINTS AS LISTED ABOVE. PROVIDE A GRAPHIC SHOWING THE BUILDING ROOF PLAN WITH EACH FAN (NEW & EXISTING) SHOWN. MAIN PLAN SHALL SHOW RUN / STOP STATUS OF CONNECTED FANS. CLICKING ON A CONNECTED FAN SHALL OPEN A GRAPHIC PAGE SHOWING ALL OF THE CONNECTED POINTS FOR THAT FAN.
- PROVIDE & MOUNT NEW FAN STARTERS & DISCONNECT SWITCHES FOR EACH FAN BEING REPLACED. COORDINATE LOCATIONS WITH THE ELECTRICAL CONTRACTOR. NEW STARTERS TO BE CAPABLE OF INTERFACE WITH THE BMS. ALL DISCONNECT SWITCHES MAY BE UNFUSED TYPE. ALL ELECTRICAL HARDWARE TO BE NEMA-1 (INDOOR) OR NEMA-3R (IF USED OUTDOORS). STARTERS, DISCONNECT SWITCH & FAN POWER WIRING SHALL BE PERFORMED BY THE ELECTRICAL CONTRACTOR. ALL CONTROL WIRING, WHETHER LOW OR LINE VOLTAGE, SHALL BE PERFORMED BY THE MECHANICAL CONTRACTOR.

REV.	DATE	ITEM
1	1/14/2022	ISSUED FOR BID

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KEY PLAN
 NOT TO SCALE

PROJECT
 BRIARCLIFF MANOR UFSD
 BOND IMPROVEMENTS - PHASE 1
 MIDDLE/HIGH SCHOOL
 BRIARCLIFF MANOR/WESTCHESTER

DWG TITLE
 ROOF HVAC PART PLAN
 AREA "B"

DRAWING BY: RDP
 CHECK BY: FS

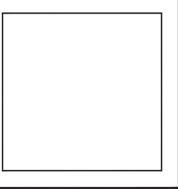
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SED No: 66-14-02-02-0-004-022

DISTRICT: BRIARCLIFF MANOR UFSD
 DISTRICT NAME:

PROJECT: BOND IMPROVEMENTS
 PHASE 1

DWG TITLE: ROOF HVAC PART PLAN
 AREA "B"

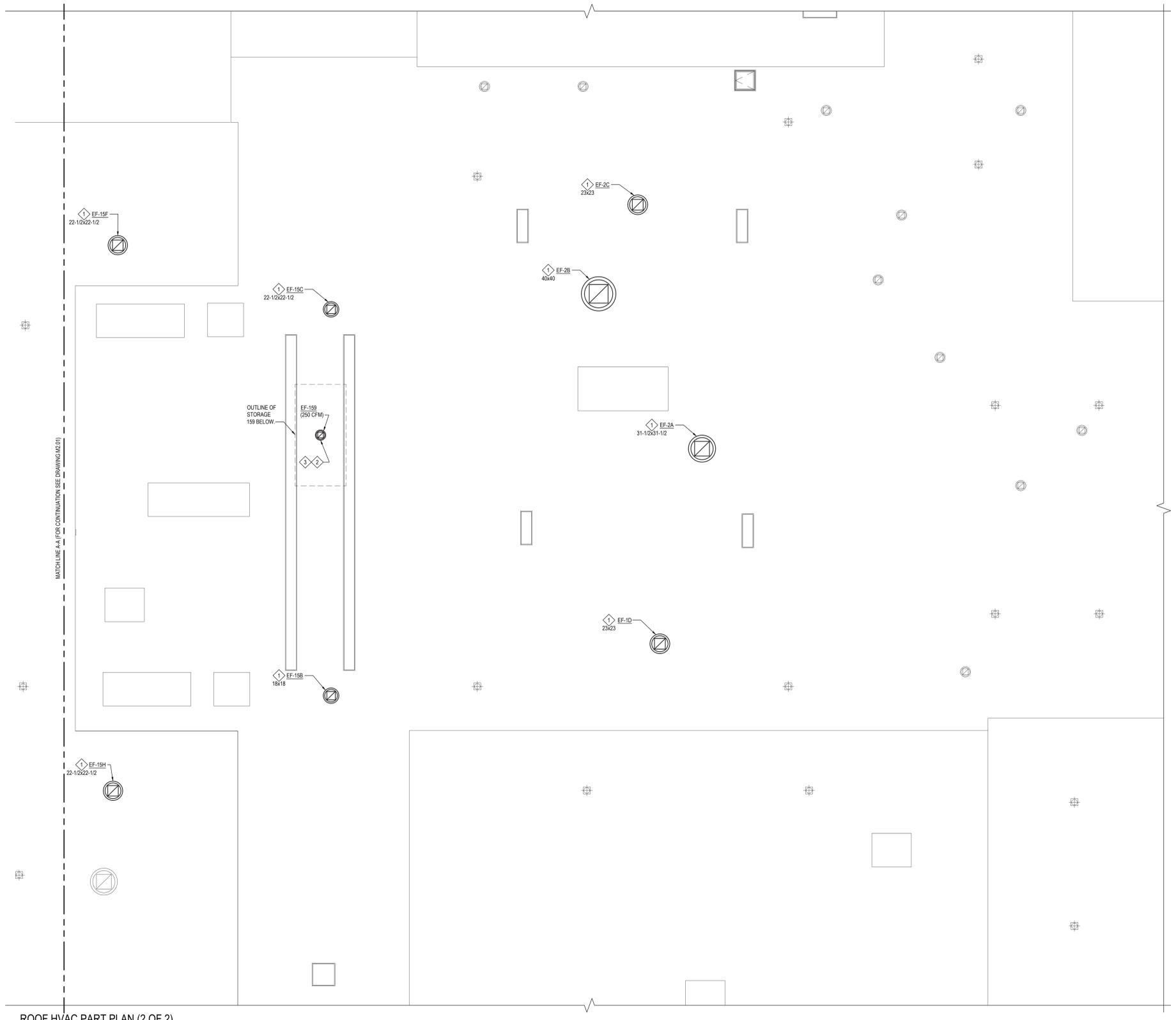
SCALE: AS NOTED

DATE: 10/8/21

BID PICK-UP: 1/17/2022

FILE No: 21-274A

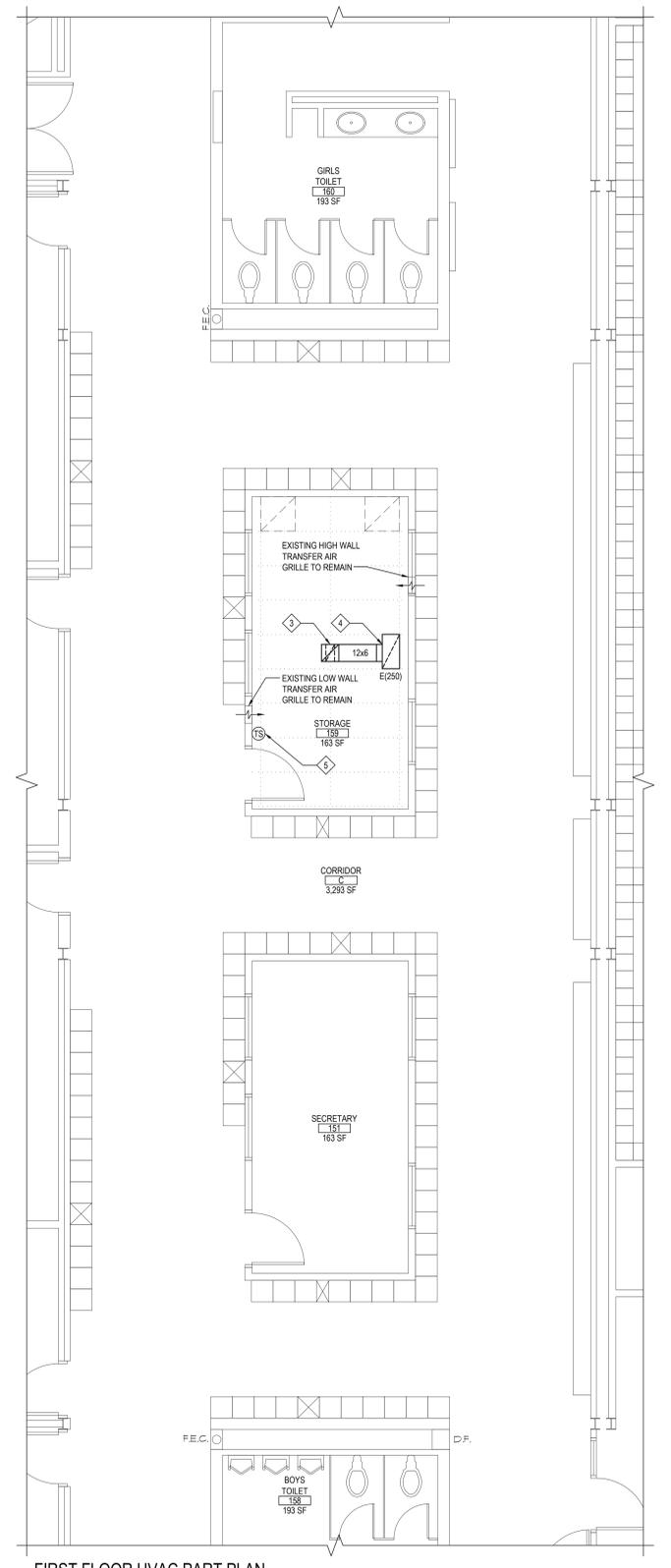
M2.02 OF - - -



ROOF HVAC PART PLAN (2 OF 2)

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

- NEW WORK KEYED NOTES:**
- 1. M.C. SHALL COORDINATE EXHAUST FAN REPLACEMENT WORKSCOPE WITH R.C. & E.C. E.C. SHALL DISCONNECT FAN POWER PRIOR TO REMOVAL OF EXISTING EXHAUST FAN. M.C. SHALL REMOVE EXISTING FAN AND REPLACE WITH FAN ON EXHAUST FAN SCHEDULE. REFER TO EXHAUST FAN SCHEDULE AND MECHANICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION. EXISTING ROOF CURB DIMENSIONS SHOWN ON PLANS. M.C. SHALL BE RESPONSIBLE FOR VERIFYING IN THE FIELD ALL EXISTING CONDITIONS & THE EXACT DIMENSIONS OF ALL EXISTING ROOF CURBS. EXISTING ROOF CURB DIMENSION SHOWN UNDER EACH KEYED NOTE SYMBOL ON DRAWING. M.C. SHALL REPLACE EXISTING ROOF CURB IN-KIND. M.C. SHALL PROVIDE R.C. WITH NEW ROOF CURB FOR FAN. R.C. SHALL INSTALL NEW ROOF CURB & FLASH IT IN PRESENCE OF M.C.
 - 2. M.C. SHALL COORDINATE EXHAUST FAN INSTALLATION WORKSCOPE WITH R.C. & E.C. M.C. SHALL PROVIDE R.C. WITH NEW ROOF CURB FOR FAN. R.C. SHALL CUT OPENING IN ROOF IN PRESENCE OF M.C. R.C. SHALL INSTALL NEW ROOF CURB & FLASH IT IN PRESENCE OF M.C. SHALL INSTALL NEW EXHAUST FAN (EF-159) SHOWN ON DRAWING AND E.C. SHALL PROVIDE NEW ELECTRICAL CONNECTIONS FOR FAN.
 - 3. RUN NEW 10x10 EXHAUST DUCT FROM NEW EXHAUST FAN (EF-159) AND TRANSITION TO 12x6 IN DROP.
 - 4. CLINCH NEW 12x6 EXHAUST DUCT INTO SIDE OF NEW 24"x12" Wx 10" H EXHAUST PLENUM ABOVE EXHAUST GRILLE.
 - 5. NEW 1-HOUR DIAL TIMER SWITCH TO CONTROL NEW EXHAUST FAN (EF-159) ON ROOF ABOVE.



FIRST FLOOR HVAC PART PLAN

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

AIR DEVICE SCHEDULE

TAG	SIZE	NC	CFM	ACCESSORIES	KRUGER MODEL NO.
EF(FM)	24"x12"	<10	0-250	-	S80

NOTES:

- 1) MECHANICAL CONTRACTOR TO COORDINATE BORDER TYPES WITH CLG. CONSTRUCTION.
- 2) ALL BALANCING TO BE PERFORMED VIA SPEED CONTROLLER MOUNTED IN FAN HOUSING.

Model S80:
 Model S80, The exhaust grille shall be a Krueger model S80 (steel). This grille must have 35° deflection (H and V models) blades on 3/4" centers made of 22 gage steel (S80). The blades must be held in place by mullions placed behind the grille and welded to the frame. The frame of the grille must be constructed of 22 gage steel (S80) for sizes less than and equal to 24"x24" and extruded aluminum with nominal thickness 0.040 - 0.050" for sizes greater than 24"x24" with countersunk screw holes. This frame must also produce a border of 1 1/4" around all sides of the grille with mitered corners.

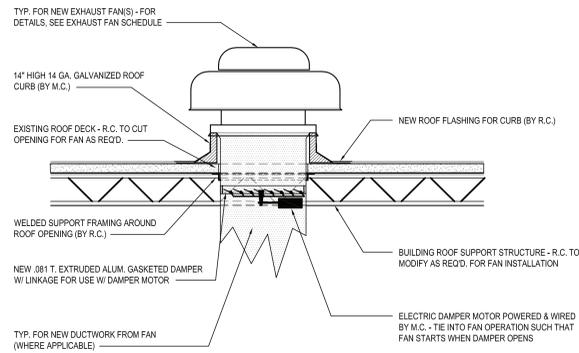
FINISH The paint finish shall be #44 British White and be an anodic acrylic paint, baked at 315°F for 30 minutes. The paint thickness shall be 0.8 - 1.0 mils, gloss at 60° per ASTM D523-89 of 50 - 85%, pencil hardness per ASTM D3363-92A of HB - H, crosshatch adhesion per ASTM D3359-83 of 4B - 5B, impact per ASTM D2794-93 of direct impact >100 in/lb and reverse impact >80 in/lb, salt spray per ASTM B117-90/88 of 96 hours, humidity per ASTM D2247-92 of >500 hours and water soak per ASTM D870-92 of 250 hours.

EXHAUST FAN SCHEDULE											GREENHECK AS STD.
TAG	SERVICE	MODEL	CFM	ESP	FAN RPM	MOTOR (HP)	INLET SONES	VOLT/PH	WEIGHT (LBS)	OPTIONS AND ACCESSORIES	NOTES
EF-1D	STORAGE ROOMS A102 & A109	G-100-VG	1000	0.75	1619	1/4	8.9	115/1	75.0	1,2,3,4,6,7,13	PROVIDE W/VCD-43 MOTORIZED DAMPER
EF-2A	OFFICE A111, TOILET A114, SHOWER RMS. A118, A119 & A120 & TOILET A115	GB-180-VGD-15	3790	0.75	1162	1 1/2	16.0	230/3	167.0	1,2,3,5,6,7	PROVIDE W/VCD-43 MOTORIZED DAMPER
EF-2B	DRIVING ROOM A121, SHOWER RM. A117, FOOTBALL LOCKERS & TOILETS	GB-220-VGD-10	4000	0.75	738	1.0	12.9	208/3	197.0	1,2,3,5,6,7	PROVIDE W/VCD-43 MOTORIZED DAMPER
EF-2C	STOR. A105, CLEAT RM. A106, LAUNDRY A126 & STOR. A125	G-100-VG	1000	0.75	1619	1/4	8.9	115/1	75.0	1,2,3,4,6,7,13	PROVIDE W/VCD-43 MOTORIZED DAMPER
EF-3B	LIB. OFFICE B154, OFFICE B234, SECY B233, CLASSROOM B213 & AV STOR. B235	GB-180-VGD-7	2500	0.75	924	3/4	10.7	208/3	169.0	1,2,3,5,6,7	PROVIDE W/VCD-43 MOTORIZED DAMPER
EF-3C	CONF., FACULTY, PROF. LIB., SEMINAR & CLASSROOM B166	G-140-VG	2510	0.75	1601	1.0	16.0	115/1	97.0	1,2,3,4,6,7,13	PROVIDE W/VCD-43 MOTORIZED DAMPER
EF-6B	SCIENCE STUDY AREA B121 & CHEM. STOR. B135	GB-330-VGD-15	7150	0.5	418	1 1/2	10.3	208/3	261.0	1,2,3,5,6,7	PROVIDE W/VCD-43 MOTORIZED DAMPER
EF-6C	FUME HOODS	CUE-099-VG	700	0.75	1529	1/4	8.8	115/1	51.0	1,2,3,4,6,7,13	PROVIDE W/VCD-43 MOTORIZED DAMPER
EF-10B	HOME ARTS C117/GRAPHICS C121	GB-220HP-VGD-10	3400	0.75	773	1.0	10.9	208/3	169.0	1,2,3,5,6,7	PROVIDE W/VCD-43 MOTORIZED DAMPER
EF-10C	FINE ARTS C138	G-100-VG	900	0.75	1543	1/4	8.1	115/1	75.0	1,2,3,4,6,7,13	PROVIDE W/VCD-43 MOTORIZED DAMPER
EF-11B	DISHWASHER C131	CUE-120-VG	1000	0.75	1292	1/4	10.5	115/1	85.0	1,2,3,4,6,7,13,14	PROVIDE W/VCD-43 MOTORIZED DAMPER
EF-15B	BOYS TOILET B169	G-098-VG	450	0.75	1488	1/4	8.4	115/1	40.0	1,2,3,4,6,7,13	PROVIDE W/VCD-43 MOTORIZED DAMPER
EF-15C	GIRLS TOILET B170	G-098-VG	450	0.75	1488	1/4	8.4	115/1	40.0	1,2,3,4,6,7,13	PROVIDE W/VCD-43 MOTORIZED DAMPER
EF-15F	GIRLS TOILET B275, MENS TOILET B176 & CUST. B188	G-099-VG	600	0.75	1425	1/4	8.9	115/1	75.0	1,2,3,4,6,7,13	PROVIDE W/VCD-43 MOTORIZED DAMPER
EF-15G	CUST. B189 & BOYS TOILET B220	G-099-VG	600	0.75	1425	1/4	8.9	115/1	75.0	1,2,3,4,6,7,13	PROVIDE W/VCD-43 MOTORIZED DAMPER
EF-15H	CUST. B137, TOILET B173 & BOOYS TOILET B221	G-099-VG	700	0.75	1496	1/4	9.7	115/1	75.0	1,2,3,4,6,7,13	PROVIDE W/VCD-43 MOTORIZED DAMPER
EF-15I	LOCKER/TOILET	G-099-VG	600	0.75	1425	1/4	8.9	115/1	75.0	1,2,3,4,6,7,13	PROVIDE W/VCD-43 MOTORIZED DAMPER
EF-15J	COPY ROOM	G-099-VG	300	0.375	1520	1/10	7.1	115/1	48.0	2,3,4,6,13	PROVIDE W/VCD-43 MOTORIZED DAMPER

- Options / Accessories:**
- Aluminum roof curb adapter (factory mounted), contractor to field verify existing curb dimensions prior to fabrication
 - UL-705 Listing
 - Disconnect Switch
 - Varigreen motor w/balancing dial, soft start and thermal overload protection
 - Varigreen drive (factory mounted, wired and programmed) w/fan mounted speed adjustment dial. Field mounted VFDs will not be accepted
 - Roof Curb w/damper tray
 - Roof curb extension (aluminum construction) w/damper tray and access panel
- ADDITIONAL SCHEDULE NOTES:**
- REFER TO SPECIFICATIONS FOR SEQUENCE OF OPERATIONS FOR NEW UNIT.
 - PROVIDE FACTORY-AUTHORIZED REPRESENTATIVE TO BE PRESENT FOR START-UP, COMMISSIONING, AND TRAINING OF EQUIPMENT TO OWNER'S PERSONNEL.
 - FACTORY-AUTHORIZED MANUFACTURER'S REPRESENTATIVE SHALL BE PRESENT FOR RIGGING OF EQUIPMENT.
 - PROVIDE A 24" HEIGHT ROOF CURB.
 - PROVIDE BIRDSCREEN WITH FAN.
 - PROVIDE ALL SINGLE PHASE FANS WITH A GREENHECK VARIGREEN H.O.A. CONTROLLER.
 - NEW DISHWASHER FAN SHALL HAVE THE EXISTING ON/OFF SWITCH AND EXISTING INTERLOCKS TIED INTO NEW FAN.

DAMPER SCHEDULE						GREENHECK AS STD.
TAG	SERVICE	MODEL	DUCT SIZE	ACTUATOR VOLTAGE	NOTES	
EF-1D	STORAGE ROOMS A102 & A109	VCD-43	16x16	120 VAC	ALUMINUM CONSTRUCTION w/AUX SWITCHES	
EF-2A	OFFICE A111, TOILET A114, SHOWER RMS. A118, A119 & A120 & TOILET A115	VCD-43	21x21	24 VDC	ALUMINUM CONSTRUCTION w/AUX SWITCHES	
EF-2B	DRIVING ROOM A121, SHOWER RM. A117, FOOTBALL LOCKERS & TOILETS	VCD-43	28x28	24 VDC	ALUMINUM CONSTRUCTION w/AUX SWITCHES	
EF-2C	STOR. A105, CLEAT RM. A106, LAUNDRY A126 & STOR. A125	VCD-43	16x16	120 VAC	ALUMINUM CONSTRUCTION w/AUX SWITCHES	
EF-3B	LIB. OFFICE B154, OFFICE B234, SECY B233, CLASSROOM B213 & AV STOR. B235	VCD-43	21x21	24 VDC	ALUMINUM CONSTRUCTION w/AUX SWITCHES	
EF-3C	CONF., FACULTY, PROF. LIB., SEMINAR & CLASSROOM B166	VCD-43	21x21	120 VAC	ALUMINUM CONSTRUCTION w/AUX SWITCHES	
EF-6B	SCIENCE STUDY AREA B121 & CHEM. STOR. B135	VCD-43	39x39	24 VDC	ALUMINUM CONSTRUCTION w/AUX SWITCHES	
EF-6C	FUME HOODS	VCD-43	11x11	120 VAC	ALUMINUM CONSTRUCTION w/AUX SWITCHES	
EF-10B	HOME ARTS C117/GRAPHICS C121	VCD-43	21x21	24 VDC	ALUMINUM CONSTRUCTION w/AUX SWITCHES	
EF-10C	FINE ARTS C138	VCD-43	11x11	120 VAC	ALUMINUM CONSTRUCTION w/AUX SWITCHES	
EF-11B	DISHWASHER C131	VCD-43	16x16	120 VAC	ALUMINUM CONSTRUCTION w/AUX SWITCHES	
EF-15B	BOYS TOILET B169	VCD-43	16x16	120 VAC	ALUMINUM CONSTRUCTION w/AUX SWITCHES	
EF-15C	GIRLS TOILET B170	VCD-43	16x16	120 VAC	ALUMINUM CONSTRUCTION w/AUX SWITCHES	
EF-15F	GIRLS TOILET B275, MENS TOILET B176 & CUST. B188	VCD-43	16x16	120 VAC	ALUMINUM CONSTRUCTION w/AUX SWITCHES	
EF-15G	CUST. B189 & BOYS TOILET B220	VCD-43	16x16	120 VAC	ALUMINUM CONSTRUCTION w/AUX SWITCHES	
EF-15H	CUST. B137, TOILET B173 & BOOYS TOILET B221	VCD-43	16x16	120 VAC	ALUMINUM CONSTRUCTION w/AUX SWITCHES	
EF-15I	LOCKER/TOILET	VCD-43	11x11	120 VAC	ALUMINUM CONSTRUCTION w/AUX SWITCHES	
EF-15J	COPY ROOM	VCD-43	10x10	120 VAC	ALUMINUM CONSTRUCTION w/AUX SWITCHES	

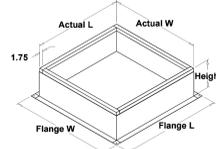
- Options / Accessories:**
- Aluminum roof curb adapter (factory mounted), contractor to field verify existing curb dimensions prior to fabrication
 - UL-705 Listing
 - Disconnect Switch
 - Varigreen motor w/balancing dial, soft start and thermal overload protection
 - Varigreen drive (factory mounted, wired and programmed) w/fan mounted speed adjustment dial. Field mounted VFDs will not be accepted



1 NEW ROOF MOUNTED EXHAUST FAN INSTALLATION
SCALE: N.T.S.

ROOF CURB - (BASIS: GREENHECK)

Roof Curb
Model: GPI



Standard Construction Features:

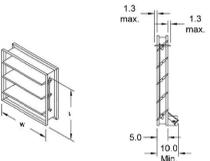
- Roof Curb fits between the building roof and the fan mounted directly to the roof support structure - Constructed of either 18 ga galvanized steel or 0.084 in. aluminum - Straight Sided without a cant - 2 in. mounting flange - 3 lb density insulation - Height - Available from 12 in. to 42 in. as specified in 0.5 in. increments.

Notes:

- The maximum roof opening dimension should not be greater than the "Actual" top outside dimension minus 2 in.
- The minimum roof opening dimension should be at least 2.5 in. more than the damper dimension or recommended duct size.
- The Roof Opening Dimension may or may not be the same as the Structural Opening Dimension.
- Damper Tray is optional and must be specified. Tray size is same as damper size.
- Security bars are optional and must be specified. Frames and gridwork are all 12 ga steel. Gridwork is welded to the frame and the frame is welded to the curb.

CONTROL DAMPER - (BASIS: GREENHECK)

Control Damper
Model: VCD-43



Standard Construction Features:

- Model VCD-43 is an extremely low leakage control damper for commercial control dampers - Aluminum channel frame - Heavy gauge extruded aluminum blades, airfoil shape - Side mounted steel linkage is out of airstream, concealed in frame - Extruded silicone rubber blade seals - Axles are steel and 0.5 in. dia - Synthetic axle bearings - Width and height furnished approximately 0.25 in. undersize - Field wiring is required to individual components

Damper Configuration:

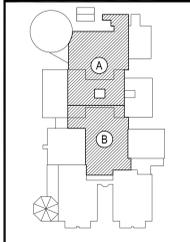
ITEM	Tag	Quantity	W (in.)	H (in.)	AST Qty	Actuator Model
2	EF-1D	12	12	12	1	MS4104F1210
3	EF-2A	1	30	18	1	Y1824-S
4	EF-2B	1	26	24	1	Y1824-S
5	EF-2C	1	12	12	1	MS4104F1210
6	EF-3B	1	18	18	1	Y1824-S
7	EF-3C	1	18	18	1	MS4104F1210
8	EF-6B	1	36	36	1	MS4104F1210
9	EF-6C	1	12	12	1	MS4104F1210
10	EF-10B	1	24	24	1	Y1824-S
11	EF-10C	1	12	12	1	MS4104F1210
12	EF-11B	1	12	12	1	MS4104F1210
13	EF-10B	1	12	12	1	MS4104F1210
14	EF-15C	1	12	12	1	MS4104F1210
15	EF-15F	1	12	12	1	MS4104F1210
16	EF-15G	1	12	12	1	MS4104F1210
17	EF-15H	1	12	12	1	MS4104F1210
18	EF-15I	1	12	12	1	MS4104F1210
21	EF-NEW	1	10	10	1	MS4104F1210

Notes: All dimensions shown are in units of in.
Width And height furnished approximately 0.25 in. undersize

REV.	DATE	ITEM
1	1/14/2022	ISSUED FOR BID

NOTICE

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KEY PLAN
NOT TO SCALE

BRIARCLIFF MANOR UFSD
 BOND IMPROVEMENTS - PHASE 1
 MIDDLE/HIGH SCHOOL
 BRIARCLIFF MANOR/WESTCHESTER
 SCHEDULES AND DETAILS
 PROJECT
 DWG TITLE

DRAWING BY: RDP

CHECK BY: FS

NOTICE

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SED No. 66-14-02-02-0-004-022

DISTRICT BRIARCLIFF MANOR UFSD DISTRICT NAME

PROJECT BOND IMPROVEMENTS PHASE 1

DWG TITLE SCHEDULES AND DETAILS

SCALE: AS NOTED

DATE: 10/8/21

BID PICK-UP: 1/17/2022

FILE No. 21-274A

M6.01