

GENERAL SHEET NOTES:

- CONTRACTOR TO VERIFY LOCATION AND SIZES OF EXISTING DUCTWORK, PIPING, EQUIPMENT, CONTROLS, ETC. PRIOR TO COMMENCING WORK. IF SHOWN LOCATION OR SIZE DIFFER FROM PLANS, LOCATE THE CORRECT SIZE ON SITE AND ADJUST CONNECTION ACCORDINGLY. PROVIDE NEW DUCT, PIPING, EQUIPMENT, CONTROLS AND ETC. IF ONE IS NOT PRESENT.
- CONTRACTOR TO PROVIDE UL LISTED 3M FIRE STOPPING AT ALL NEW AND EXISTING PIPE AND DUCT PENETRATIONS, INCLUDING PENETRATIONS NOT SHOWN ON THE CONSTRUCTION DOCUMENTS.
- CONTRACTOR TO KEEP RECORD OF NEW SYSTEM, CONTROLS, PIPING, DUCTWORK INSTALLED AS WELL AS EXISTING TO REMAIN, AND ITEMS DISCOVERED OR ENCOUNTERED ON SITE THAT WERE NOT SHOWN ON THE PLANS. THESE INCLUDE SYSTEMS, DUCTWORK, PIPE, ETC THAT DO NOT AFFECT OR ARE NOT PART OF THE PROJECT SCOPE, BUT ARE WITHIN THE BOUNDARIES OF THE PROJECT SCOPE. CONTRACTOR IS RESPONSIBLE FOR PROVIDING AS-BUILT DRAWINGS THAT ACCURATELY REFLECT THE CONDITIONS WITHIN THE BOUNDARY OF THE PROJECT SCOPE AT THE END OF THE PROJECT.
- PIPING AND DUCTWORK LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE. CONTRACTOR TO VERIFY EXACT LOCATION PRIOR TO COMMENCING WORK.
- SEE VAV BOX AND HEATING COIL VALVES SCHEDULES ON M6.3 FOR 2-WAY OR 3-WAY CONTROL VALVE.
- SEE M6.1-M6.7 FOR MECHANICAL LEGEND, SCHEDULES AND DETAILS.
- PROVIDE ACCESS PANEL IF NECESSARY IN HARD LID CEILING OR WALL FOR ACCESS TO VAV UNITS OR HVAC EQUIPMENT THAT REQUIRES MAINTENANCE.
- PROVIDE VANES FOR ALL RECTANGULAR ELBOWS.
- PROVIDE MANUAL VOLUME DAMPERS IN ALL DUCT BRANCHES TO DIFFUSERS. LOCATE AS CLOSE TO MAIN TRUNK AS POSSIBLE IN ACCESSIBLE CEILING.
- NEW AND MODIFIED HVAC UNITS: REBALANCE ALL EXISTING DIFFUSERS AND GRILLES TO AIR FLOWS NOTED ON THE DRAWINGS.
- REPLACE ZONE SENSOR WITH NEW DIGITAL DEVICE. LABEL WITH ASSOCIATED EQUIPMENT INFORMATION, WHERE NLL SENSOR IS NO LONGER USED PROVIDE A STAINLESS STEEL COVER PLATE OVER HOLE & SECURE.
- REFURBISH UNIT. ALTER CONTROLS FROM MZU TO VAV SYSTEM. DEMO OF ALL (E) CONTROLS BY CONTROL CONTRACTOR. CLEAN CABINETS, FAN WHEELS. REPLACE BELT, BEARINGS AND SHEAVES. REPLACE EXISTING LINING WITH PERFORATED LINING.

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1 HVAC ROOF PLAN - SECTOR A
M2.1 SCALE: 1/16"=1'-0"

1-ADD #2 2/22/2018
2-ADD #3 3/2/2018
3-PHASE#2 6.12.18

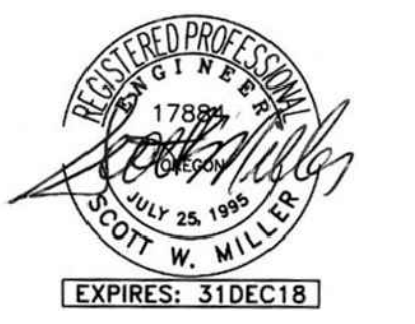
CONSTRUCTION SET-6.10.18

MEFA Consulting Engineers
2007 S.E. Ash St.
Portland, OR 97214
PH: (503) 234-0548
FAX: (503) 234-0677
WWW.MEFA-ENG.COM
CONTACT: Elena von Kamens

A NEW REMODEL PROJECT FOR:

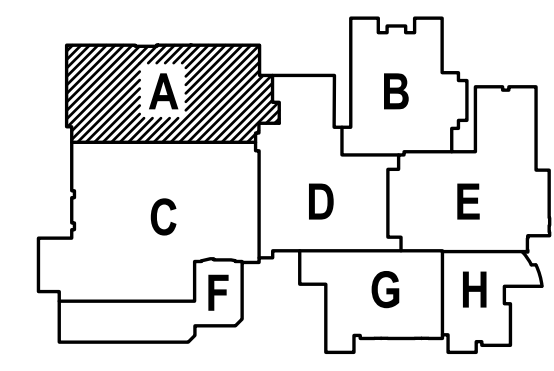
SHERWOOD HIGH SCHOOL

16956 SW MEINCKE ROAD
SHERWOOD, OR



DRAWN BY:	EVK
CHECKED BY:	SWM
DATE:	1-30-18
TITLE:	HVAC ROOF PLAN- SECTOR A
SCALE:	1/16" = 1'-0"

△ SHEET IS REVISED PER ADDENDUM #2.

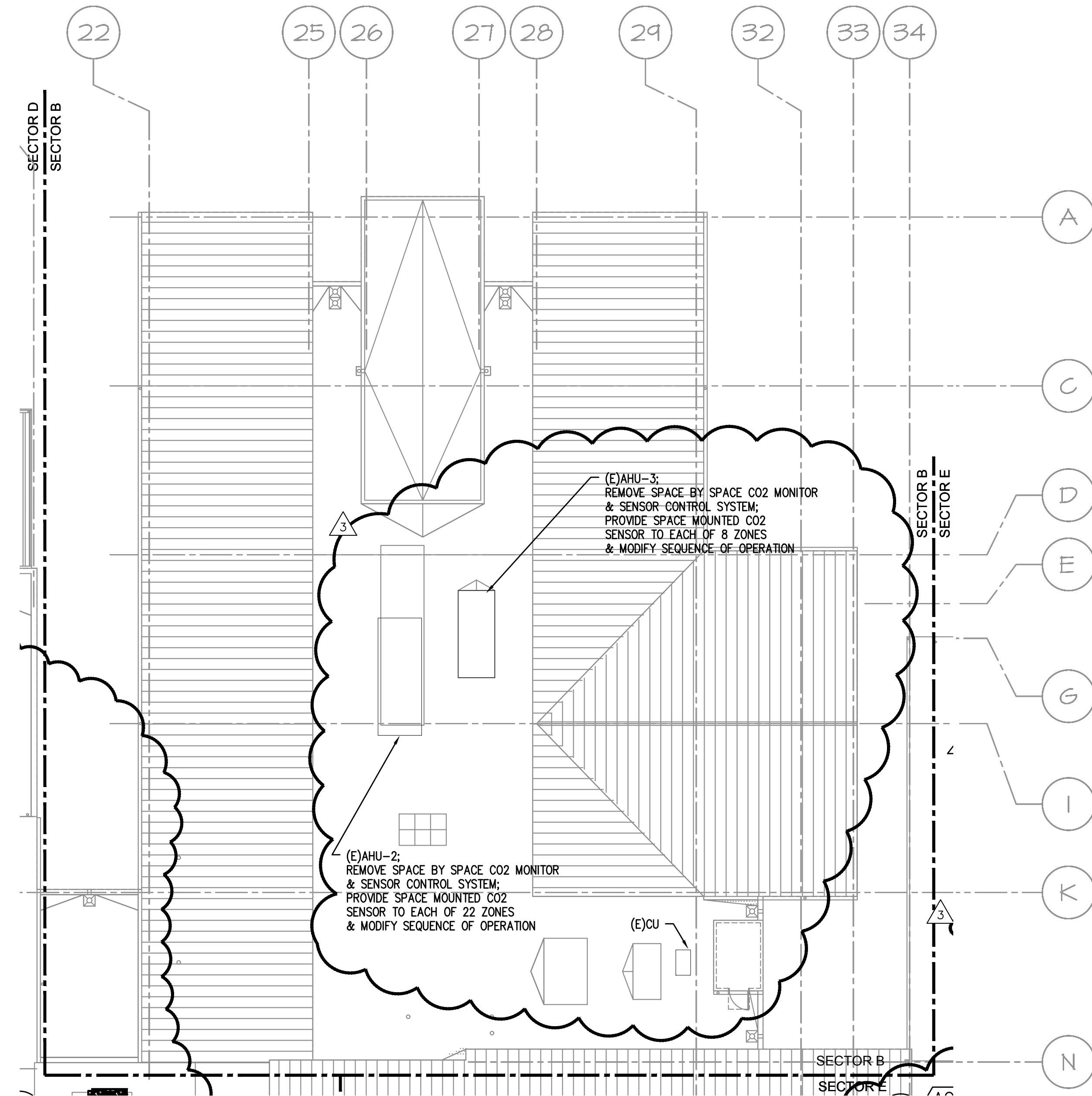


SHEET NO:	M-2.1
OF	8

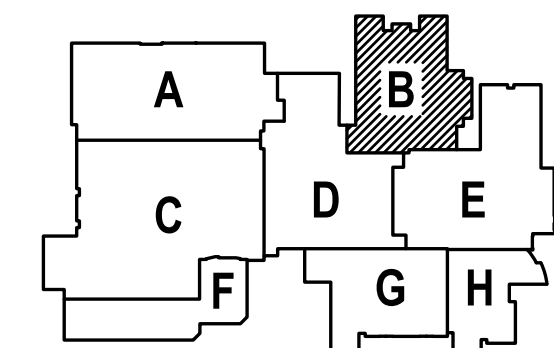
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1 HVAC ROOF PLAN-SECTOR B
M2.2 SCALE: 1/16"=1'-0"



1-ADD #2 2/22/2018
3-PHASE#2 6.12.18

CONSTRUCTION SET-6.10.18

M Consulting Engineers
2007 S.E. Ash St.
Portland, OR 97214
PH: (503) 234-0548
FAX: (503) 234-0677
INC. WWW.MPIA-ENG.COM
CONTACT: Elena von Kamerns

A NEW REMODEL PROJECT FOR:

SHERWOOD HIGH SCHOOL

16956 SW MEINECKE ROAD SHERWOOD, OR

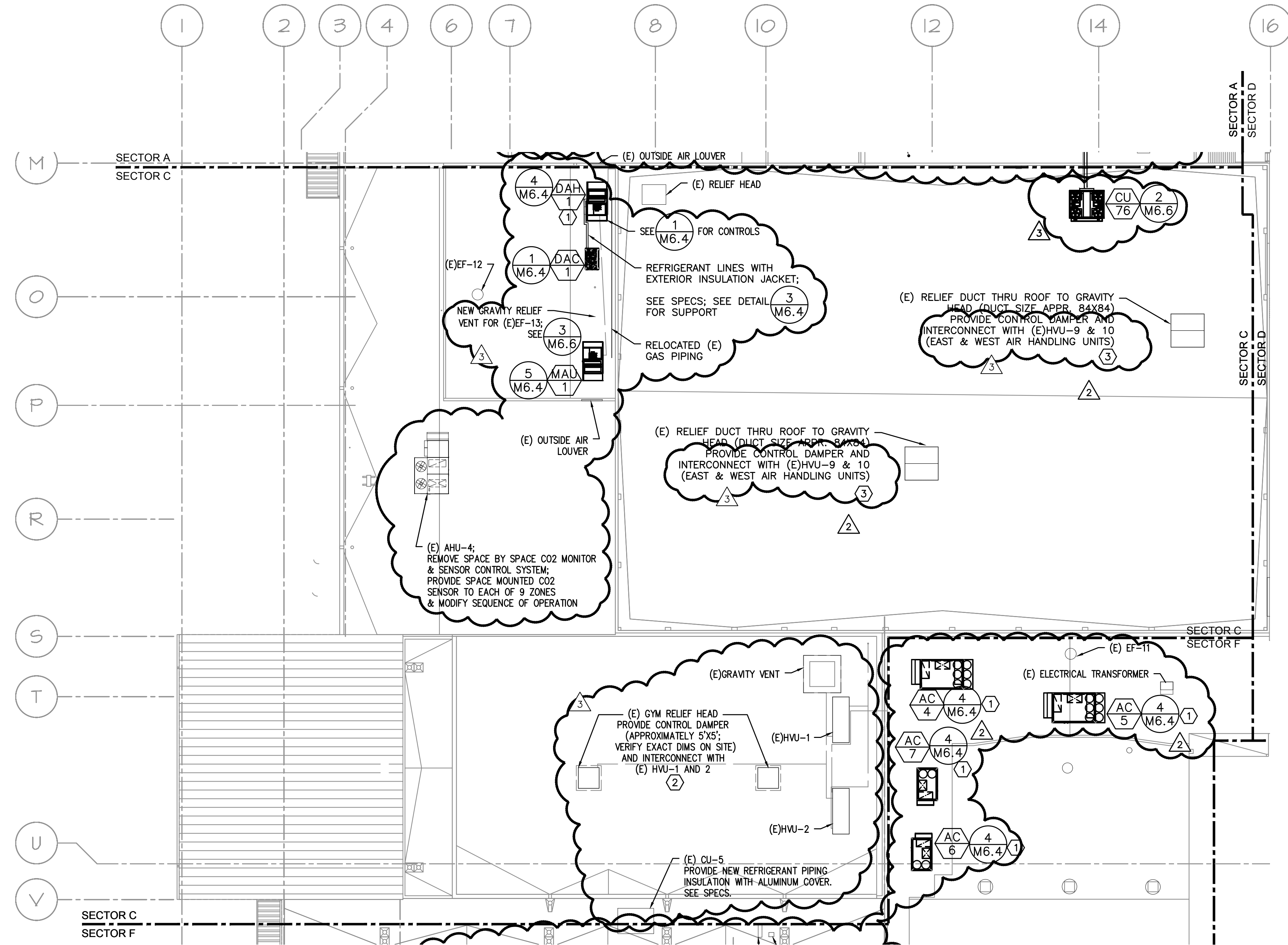
REGISTERED PROFESSIONAL
SCOTT W. MILLER
EXPIRES: 31DEC18

DRAWN BY: EVK
CHECKED BY: SWM
DATE: 1-30-18
TITLE: HVAC ROOF PLAN- SECTOR B
SCALE: 1/16 = 1'-0"

SHEET NO:
M-2.2
OF 8

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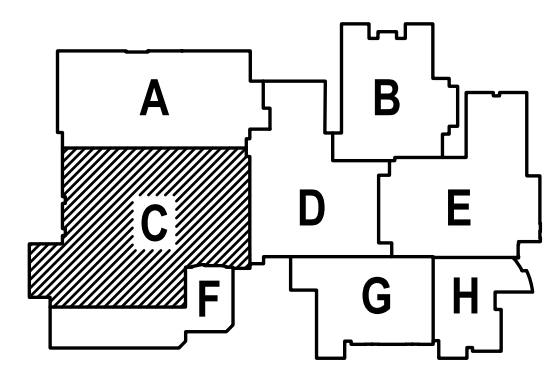


1 HVAC ROOF PLAN-SECTOR C
M2.3 SCALE: 1/16"=1'-0"

KEYED NOTES:

- INSTALL (E) CONTROLLER IN UNIT OR ON NORTH SIDE OF UNIT IN NEMA 3R ENCLOSURE. EXTEND NETWORK CABLE AS REQUIRED. WIRE TO ALL SENSORS PER SPECS & LABEL. LABEL ALL NEW CONTROL DEVICES PER SPECS. PROVIDE ADDITIONAL CONTROLLER CAPACITY AS REQUIRED.
- MODULATE DAMPER WITH (E)HVU-1 & 2 OSA DAMPER SIGNAL. PROGRAM OFFSET PER BALANCER TO MAINTAIN POSITIVE SPACE PRESSURE.
- MODULATE DAMPER WITH (E)HVU-9 & 10 OSA DAMPER SIGNAL. PROGRAM OFFSET PER BALANCER TO MAINTAIN POSITIVE SPACE PRESSURE.

SHEET IS REVISED PER ADDENDUM #2.



- 1-ADD #2 2/22/2018
- 2-ADD #3 3/2/2018
- 3-PHASE#2 6.12.18

CONSTRUCTION SET-6.10.18
MFI Consulting Engineers
2007 S.E. Ash St.
Portland, OR 97214
PHN: (503) 234-0518
FAX: (503) 234-0677
INC. WWW.MFI-ENG.COM
CONTACT: Elena von Kaments

A NEW REMODEL PROJECT FOR:

SHERWOOD HIGH SCHOOL

16956 SW MEINCKE ROAD
SHERWOOD, OR

REGISTERED PROFESSIONAL
ENGINEER
17897
July 25, 1989
SCOTT W. MILLER
EXPIRES: 31DEC18

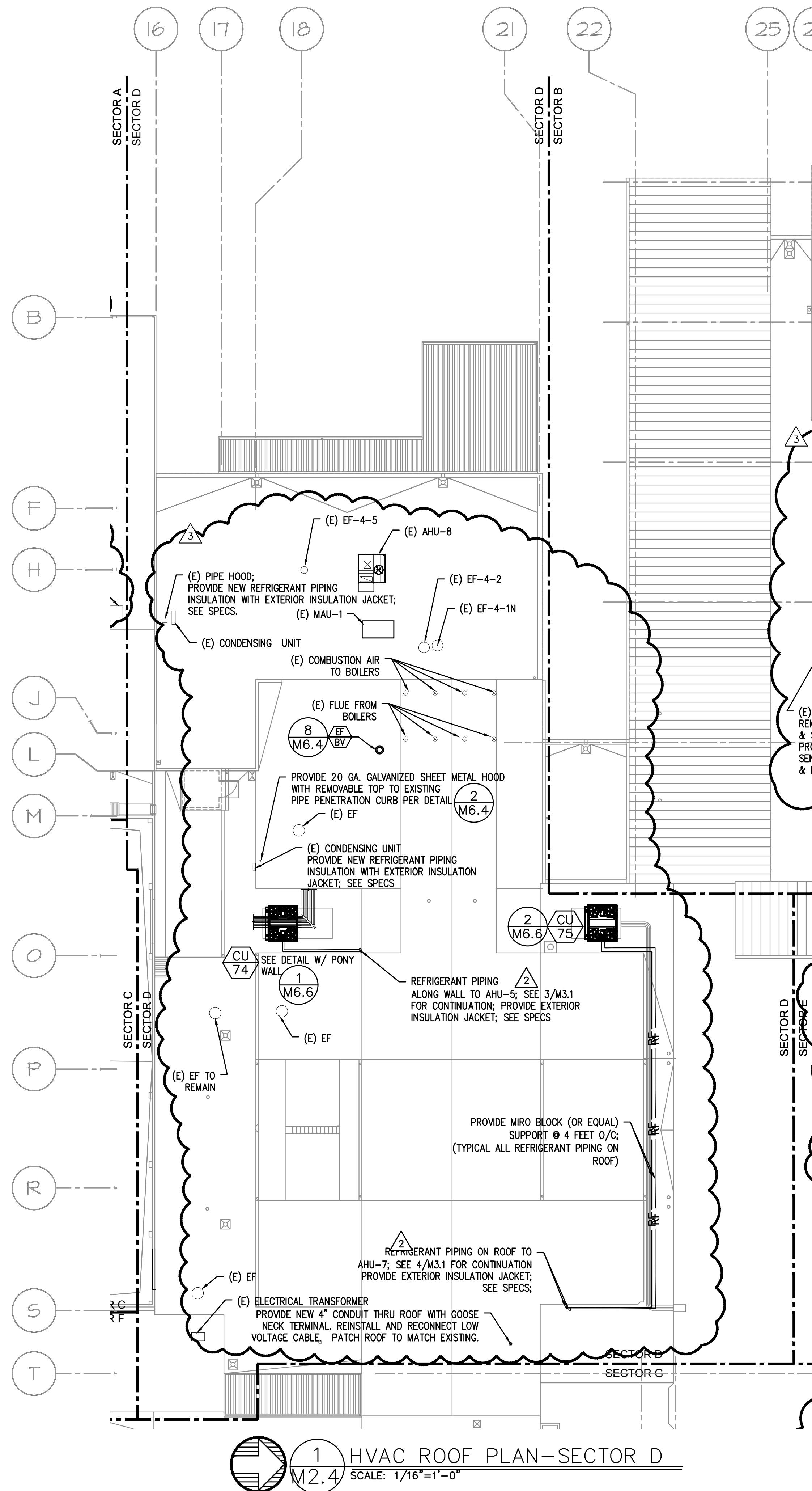
DRAWN BY:	EVK
CHECKED BY:	SWM
DATE:	1-30-18
TITLE:	HVAC ROOF PLAN- SECTOR C
SCALE:	1/16" = 1'-0"

SHEET NO:
M-2.3
OF 8

GENERAL SHEET NOTES:

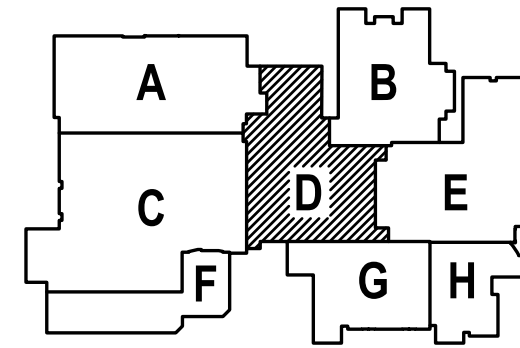
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1 HVAC ROOF PLAN-SECTOR D
SCALE: 1/16"=1'-0"

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- 1-ADD #2 2/22/2018
- 2-ADD #3 3/2/2018
- 3-PHASE#2 6.12.18

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SHERWOOD, OR

REGISTERED PROFESSIONAL
ENGINEER
SCOTT W. MILLER
EXPIRES: 31DEC18

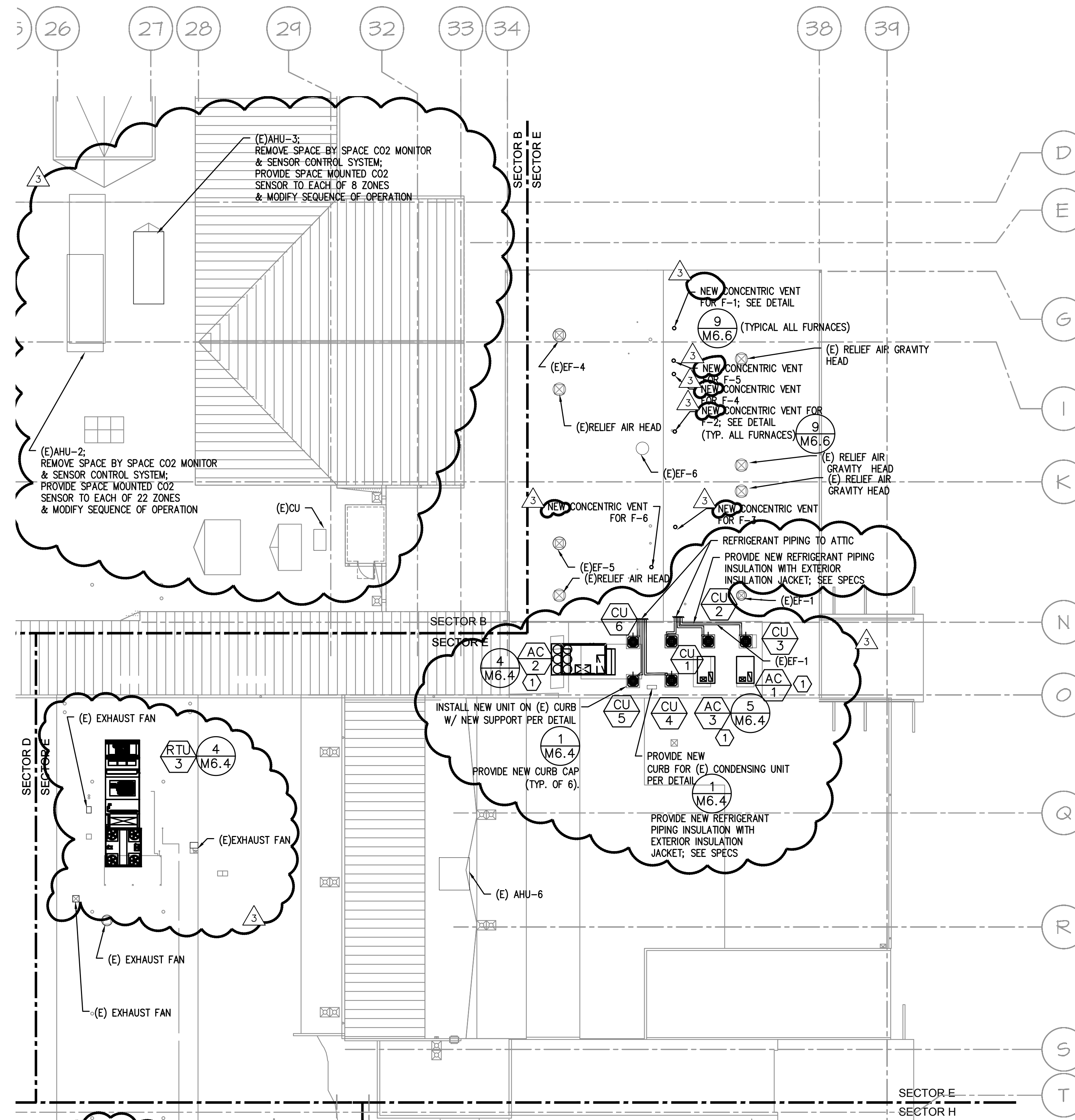
DRAWN BY:	EVK
CHECKED BY:	SWM
DATE:	1-30-18
TITLE:	HVAC ROOF PLAN-SECTOR D
SCALE:	1/16" = 1'-0"

SHEET NO:	M-2.4
OF	8

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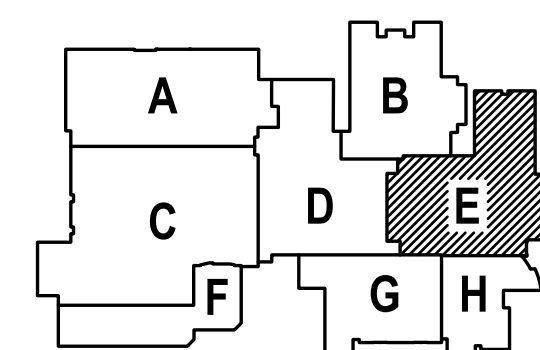


1 HVAC ROOF PLAN-SECTOR E
M2.5 SCALE: 1/16" = 1'-0"

KEYED NOTES:

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△ -ADD #2 2/22/2018
② -ADD #3 3/2/2018
③ -PHASE#2 6.12.18

CONSTRUCTION SET-6.10.18

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A NEW REMODEL PROJECT FOR:

SHERWOOD HIGH SCHOOL

16956 SW MEINECKE ROAD
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REGISTERED PROFESSIONAL
ENGINEER
17887
July 25 1989
SCOTT W. MILLER
EXPIRES: 31DEC18

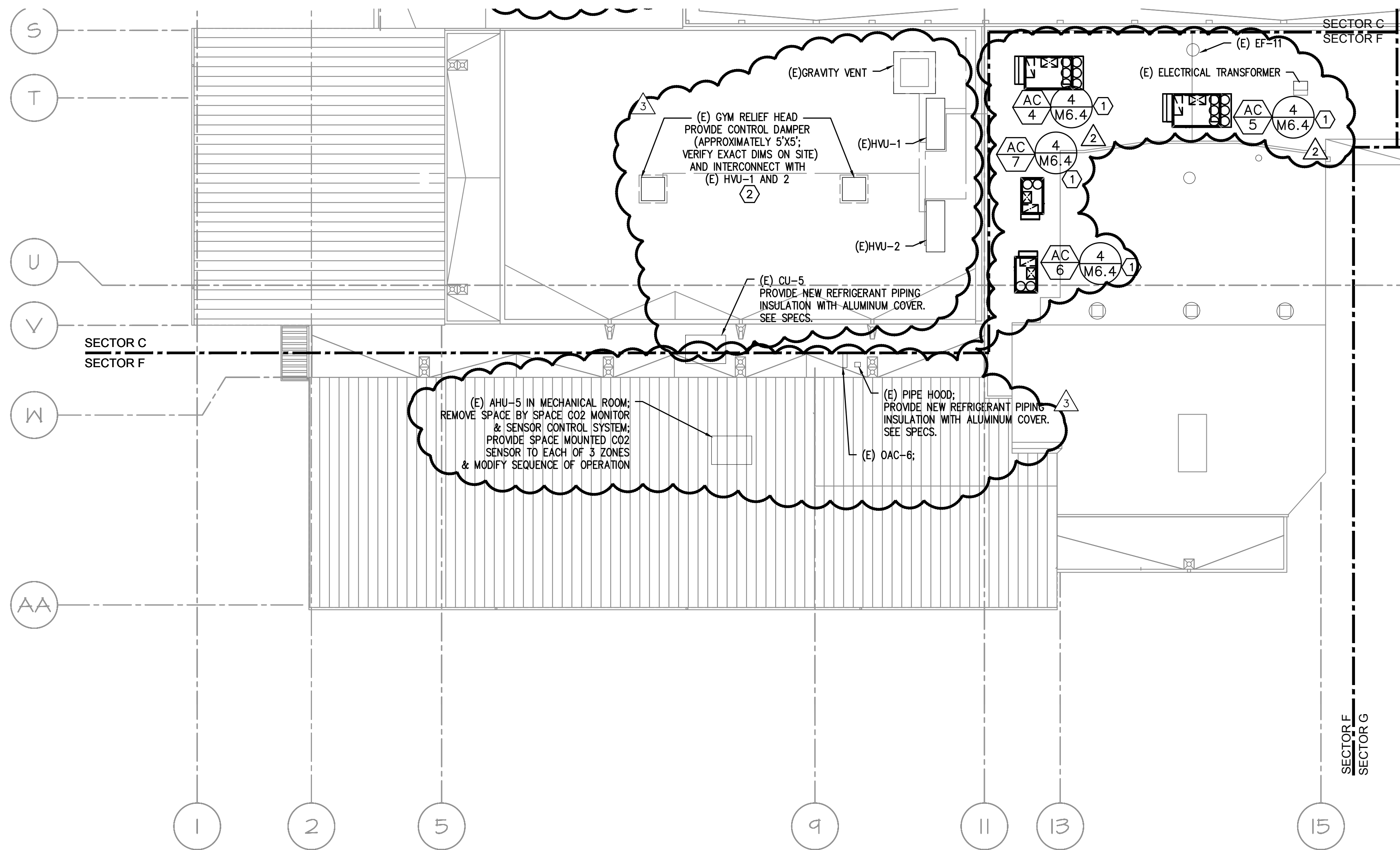
DRAWN BY:	EVK
CHECKED BY:	SWM
DATE:	1-30-18
TITLE:	HVAC ROOF PLAN-SECTOR E
SCALE:	1/16" = 1'-0"

SHEET NO:	M-2.5
OF	8

GENERAL SHEET NOTES:

- CONTRACTOR TO VERIFY LOCATION AND SIZES OF EXISTING DUCTWORK, PIPING, EQUIPMENT, CONTROLS, ETC. PRIOR TO COMMENCING WORK. IF SHOWN LOCATION OR SIZE DIFFER FROM PLANS, LOCATE THE CORRECT SIZE ON SITE AND ADJUST CONNECTION ACCORDINGLY. PROVIDE NEW DUCT, PIPING, EQUIPMENT, CONTROLS AND ETC. IF ONE IS NOT PRESENT.
- CONTRACTOR TO PROVIDE UL LISTED 3M FIRE STOPPING AT ALL NEW AND EXISTING PIPE AND DUCT PENETRATIONS, INCLUDING PENETRATIONS NOT SHOWN ON THE CONSTRUCTION DOCUMENTS.
- CONTRACTOR TO KEEP RECORD OF NEW SYSTEM, CONTROLS, PIPING, DUCTWORK INSTALLED AS WELL AS EXISTING TO REMAIN, AND ITEMS DISCOVERED OR ENCOUNTERED ON SITE THAT WERE NOT SHOWN ON THE PLANS. THESE INCLUDE SYSTEMS, DUCTWORK, PIPE, ETC THAT DO NOT AFFECT OR ARE NOT PART OF THE PROJECT SCOPE, BUT ARE WITHIN THE BOUNDARIES OF THE PROJECT SCOPE. CONTRACTOR IS RESPONSIBLE FOR PROVIDING AS-BUILT DRAWINGS THAT ACCURATELY REFLECT THE CONDITIONS WITHIN THE BOUNDARY OF THE PROJECT SCOPE AT THE END OF THE PROJECT.
- PIPING AND DUCTWORK LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE. CONTRACTOR TO VERIFY EXACT LOCATION PRIOR TO COMMENCING WORK.
- SEE VAV BOX AND HEATING COIL VALVES SCHEDULES ON M6.3 FOR 2-WAY OR 3-WAY CONTROL VALVE.
- SEE M6.1-M6.7 FOR MECHANICAL LEGEND, SCHEDULES AND DETAILS.
- PROVIDE ACCESS PANEL IF NECESSARY IN HARD LID CEILING OR WALL FOR ACCESS TO VAV UNITS OR HVAC EQUIPMENT THAT REQUIRES MAINTENANCE.
- PROVIDE VANES FOR ALL RECTANGULAR ELBOWS.
- PROVIDE MANUAL VOLUME DAMPERS IN ALL DUCT BRANCHES TO DIFFUSERS. LOCATE AS CLOSE TO MAIN TRUNK AS POSSIBLE IN ACCESSIBLE CEILING.
- NEW AND MODIFIED HVAC UNITS: REBALANCE ALL EXISTING DIFFUSERS AND GRILLES TO AIR FLOWS NOTED ON THE DRAWINGS.
- REPLACE ZONE SENSOR WITH NEW DIGITAL DEVICE. LABEL WITH ASSOCIATED EQUIPMENT INFORMATION. WHERE NULL SENSOR IS NO LONGER USED PROVIDE A STAINLESS STEEL COVER PLATE OVER HOLE & SECURE.
- REFURBISH UNIT. ALTER CONTROLS FROM MZU TO VAV SYSTEM. DEMO OF ALL (E) CONTROLS BY CONTROL CONTRACTOR. CLEAN CABINETS, FAN WHEELS. REPLACE BELT, BEARINGS AND SHEAVES. REPLACE EXISTING LINING WITH PERFORATED LINING.

NOTE THAT FAN PERFORMANCE POINT IS DIFFERENT. PROVIDE SHEAVES SELECTED FOR CORRECT PERFORMANCE. REPLACE (E) FLEX CONNECTION BETWEEN UNIT AND RETURN, RELIEF & OSA DUCTWORK WITH NEW. REPLACE RETURN MOTOR, SEE DRAWING FOR SIZE. CONFIRM VOLTAGE ON SITE. MODIFY UNIT MOTOR MOUNT AS REQUIRED FOR NEW MOTOR. RE-BALANCE UNITS AND OUTLETS TO LISTED AIRFLOWS. REPLACE STARTER W/ VFD. COORDINATE W/ ELECTRICAL TO FEED FROM REPLACED OR (E) DISCONNECT. COORDINATE W/ ELECTRICAL/CONTROLS FOR INSTALL. PROVIDE NEW EQUIPMENT TAG TO MATCH NEW DESIGNATION. PROVIDE NEW INTAKE, RELIEF AND MIXING DAMPERS. FOR UNIT REFURBISH, SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- PROVIDE NEW FILTER, HEATING COIL, DX COOLING COIL AND SUPPLY FAN IN EXISTING AHU-5, 7 & 13 AND MODIFY HEATING WATER PIPING AS REQUIRED. SEE DETAIL 7/M6.7 FOR HEATING WATER PIPING DIAGRAM.
- AC-1-AC-7, MAU-1, DAH-1, F-1-F-6 GAS PIPING NOTE: MODIFY AND CONNECT GAS PIPING TO NEW UNITS AS REQUIRED.

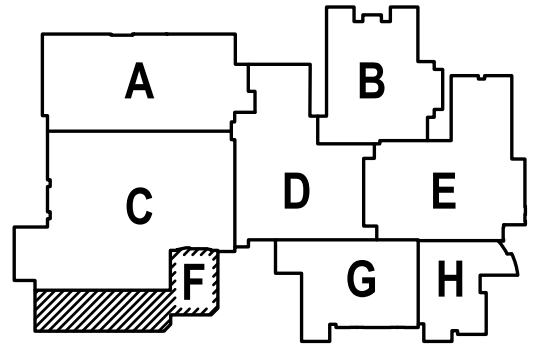


1 HVAC ROOF PLAN-SECTOR F
SCALE: 1/16" = 1'-0"

KEYED NOTES:

① - INSTALL (E) CONTROLLER IN UNIT OR ON NORTH SIDE OF UNIT IN NEMA 3R ENCLOSURE. EXTEND NETWORK CABLE AS REQUIRED. WIRE TO ALL SENSORS PER SPECS & LABEL. LABEL ALL NEW CONTROL DEVICES PER SPECS. PROVIDE ADDITIONAL CONTROLLER CAPACITY AS REQUIRED.

△ SHEET IS REVISED PER ADDENDUM #2.



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503.222.7560 FAX
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PAUL L BENTLEY Architect A.I.A. P.C.

△ -ADD #2 2/22/2018
② -ADD #3 3/2/2018
③ -PHASE#2 6.12.18

CONSTRUCTION SET-6.10.18

MFA Consulting Engineers
2007 S.E. Ash St.
Portland, OR 97214
PH: (503) 231-0518
FAX: (503) 231-0677
WWW.MFA-ENG.COM
CONTACT: Elena von Kaments

16956 SW MEINCKE ROAD
SHERWOOD, OR

A NEW REMODEL PROJECT FOR:

SHERWOOD HIGH SCHOOL

16956 SW MEINCKE ROAD
SHERWOOD, OR

DRAWN BY: EVK

CHECKED BY: SWM

DATE: 1-30-18

TITLE: HVAC ROOF PLAN-SECTOR F

SCALE: 1/16" = 1'-0"

SHEET NO:

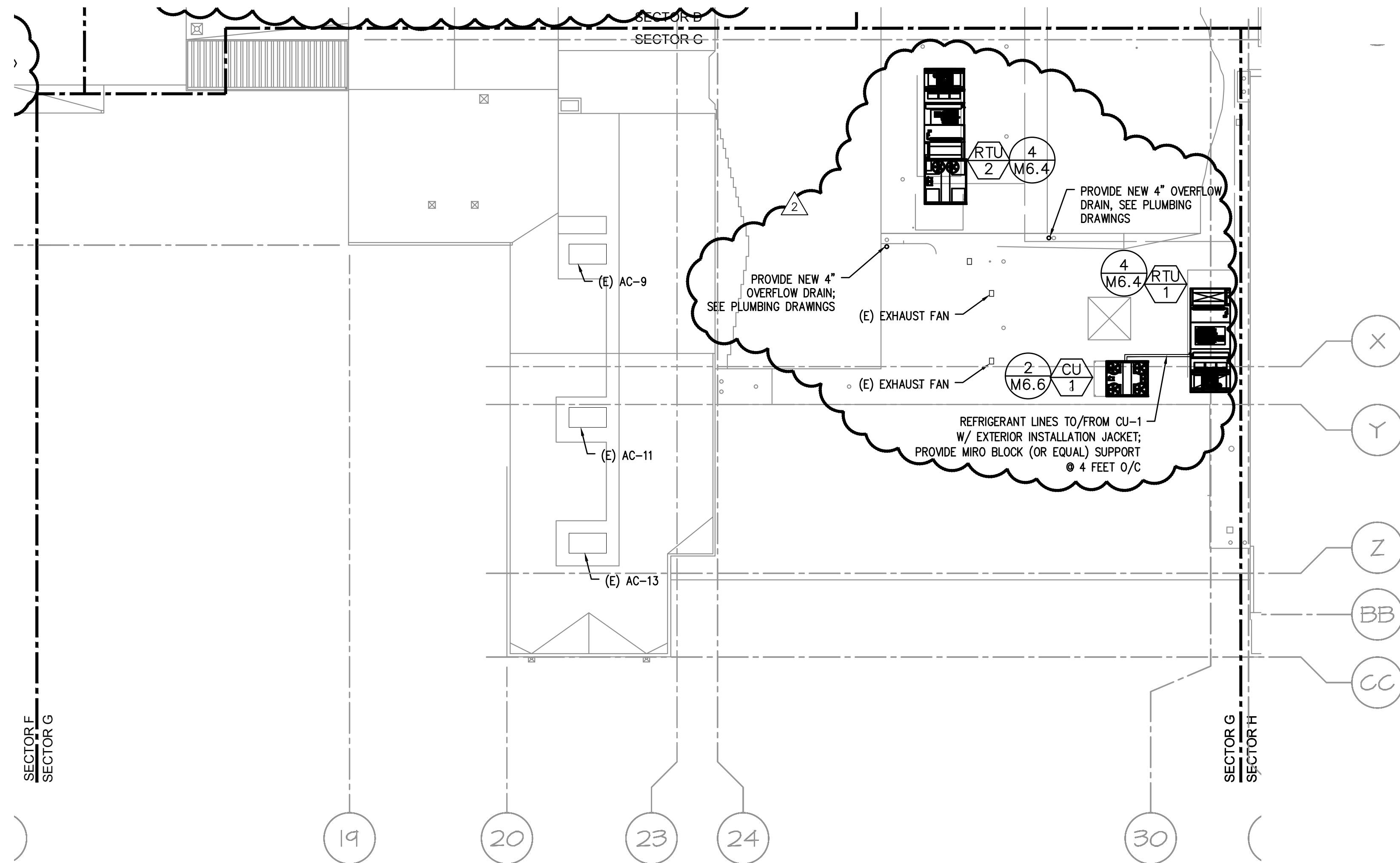
M-2.6

OF 8

GENERAL SHEET NOTES:

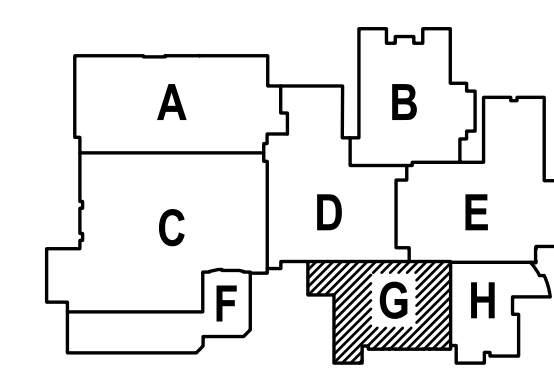
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1 HVAC ROOF PLAN-SECTOR G
M2.7 SCALE: 1/16"=1'-0"

△ SHEET IS REVISED PER ADDENDUM #2.



1-ADD #2 2/22/2018
3-PHASE#2 6.12.18
CONSTRUCTION SET-6.10.18

MFA Consulting Engineers
2007 S.E. Ash St.
Portland, OR 97214
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INC. WWW.MFA-ENG.COM
CONTACT: Elena von Kaments

A NEW REMODEL PROJECT FOR:
SHERWOOD HIGH SCHOOL
16956 SW MEINCKE ROAD
SHERWOOD, OR

REGISTERED PROFESSIONAL
ENGINEER
17820
SCOTT W. MILLER
EXPIRES: 31DEC18

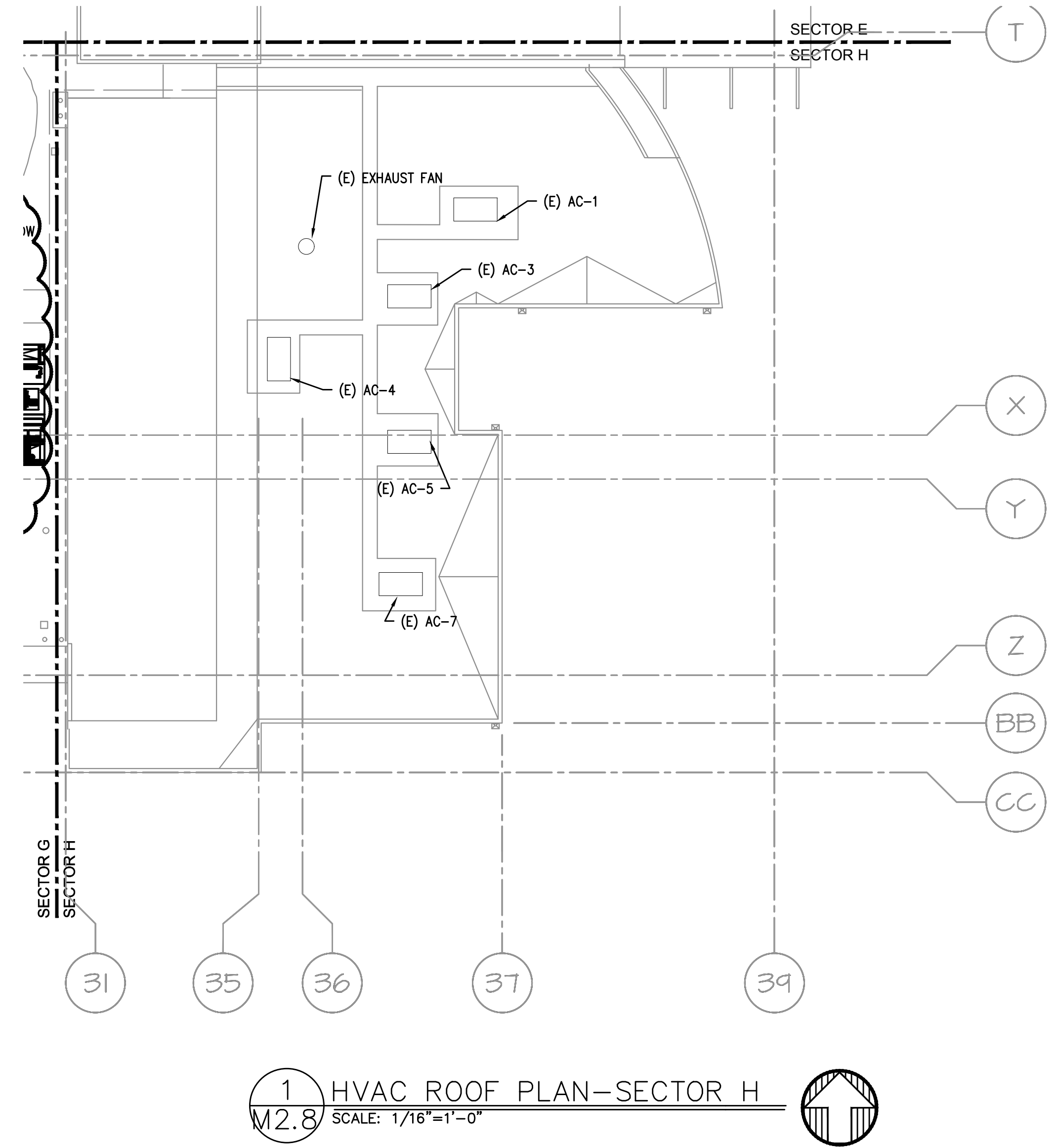
DRAWN BY: EVK
CHECKED BY: SWM
DATE: 1-30-18
TITLE: ROOF HVAC PLAN- SECTOR G
SCALE: 1/16" = 1'-0"

SHEET NO:
M-2.7
OF 8

GENERAL SHEET NOTES:

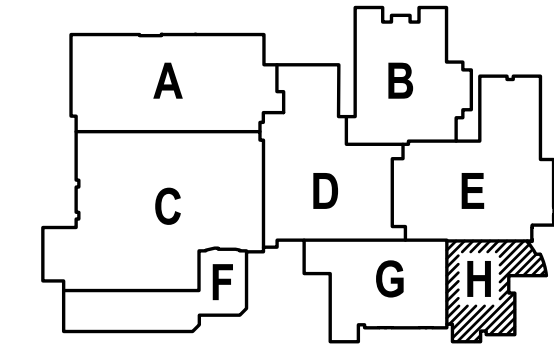
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1
M2.8 HVAC ROOF PLAN-SECTOR H
SCALE: 1/16"=1'-0"

△
SHEET IS REVISED PER ADDENDUM #2.



△-ADD #2 2/22/2018
△-PHASE#2 6.12.18

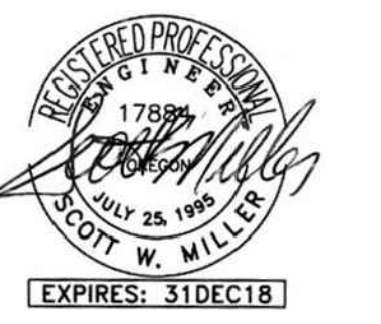
CONSTRUCTION SET-6.10.18

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A PHN: (503) 234-0518
INC. FAX: (503) 234-0677
WWW.MEIA-ENG.COM
CONTACT: Elena von Kamens

A NEW REMODEL PROJECT FOR:

SHERWOOD HIGH SCHOOL

16956 SW MEINECKE ROAD
SHERWOOD, OR



DRAWN BY:	EVK
CHECKED BY:	SWM
DATE:	1-30-18
TITLE:	HVAC ROOF PLAN- SECTOR H
SCALE:	1/16" = 1'-0"

SHEET NO:	M-2.8
OF	8