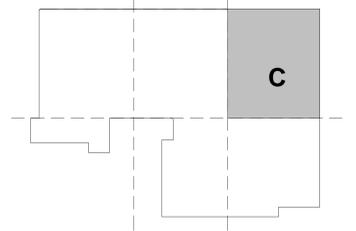


1 MECHANICAL FIRST FLOOR DUCTWORK PLAN - AREA C
1/8" = 1'-0"



KEY PLAN

REV.	DATE	DESCRIPTION	SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

DESIGNER/DRAFTER: GTH / MJC
 CHECKED BY: DJF
 SCALE: 1/8" = 1'-0"

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

ARCHITECT: WENDEL
 ENGINEERS: RøSTL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL
 APPROVED BY: BPM
 DATE: 06/11/2014

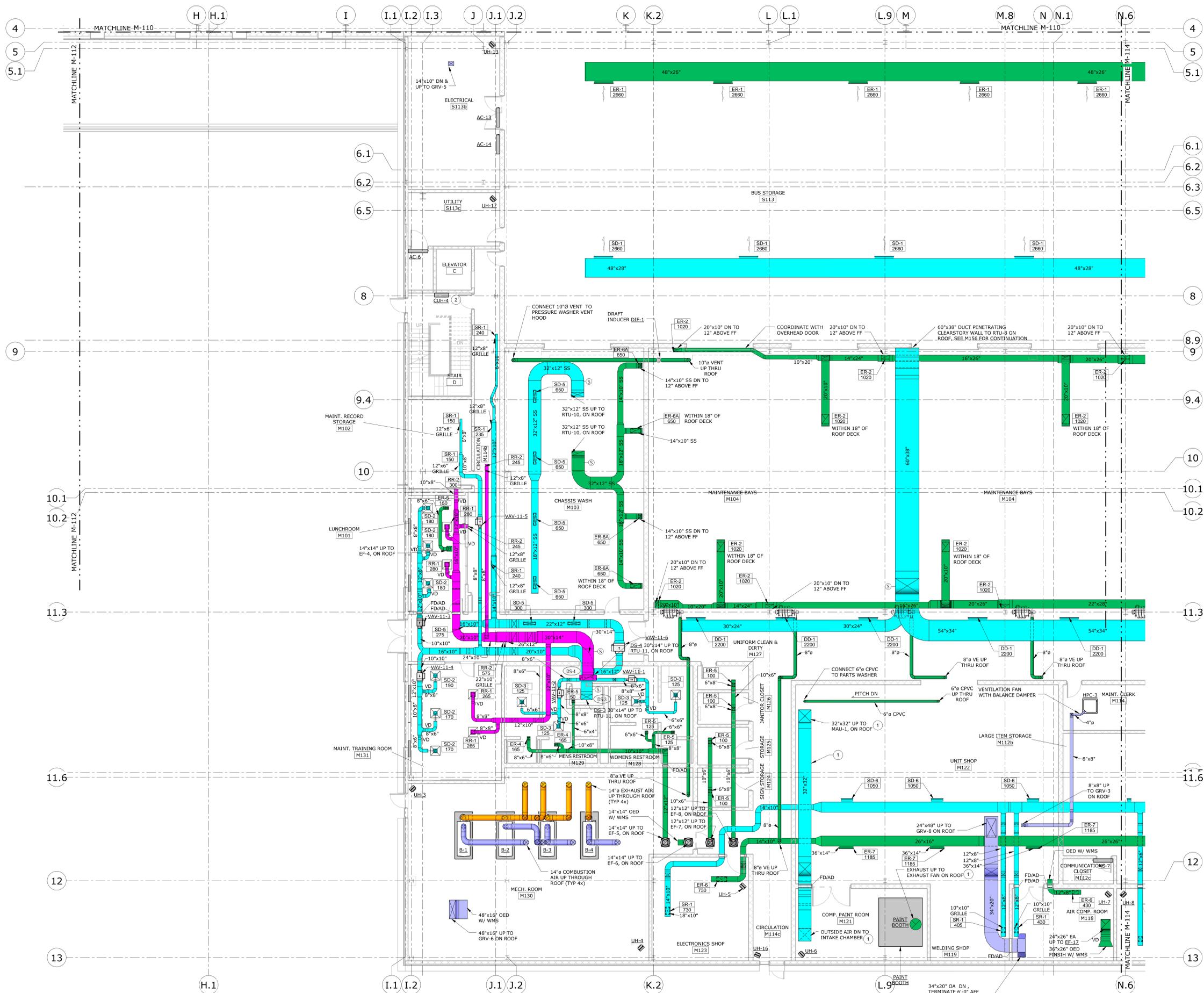
DESIGNED BY:
 CLOUGH HARBOUR & ASSOCIATES
 2139 SILAS DEANE HIGHWAY
 SUITE 212
 ROCKY HILL, CT 06067-2336

PROJECT TITLE:
WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT

ADDRESS: FROST BRIDGE ROAD
 WATERTOWN, CONNECTICUT 06787

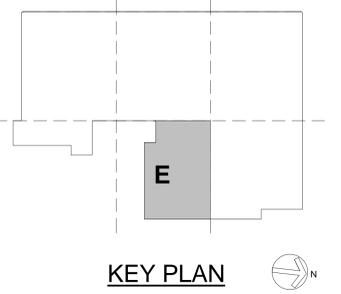
DRAWING TITLE:
MECHANICAL FIRST FLOOR DUCTWORK PLAN - AREA C

PROJECT NO. **431-0006**
 DRAWING NO. **M-111**
 SHEET NO. **12.006**



- CODED NOTES**
- DUCTWORK AND SIZES SHOWN FOR REFERENCE ONLY. DUCTWORK AND INTAKE CHAMBER PROVIDED BY PAINTBOOTH MANUFACTURER. REFER TO SPECIFICATION SECTION 115100.
 - MOUNT BOTTOM OF CUH-4, 8'-0" A.F.F. PROVIDE WITH FRONT BOTTOM DISCHARGE.

MECHANICAL FIRST FLOOR DUCTWORK PLAN - AREA E
1/8" = 1'-0"



REV.	DATE	DESCRIPTION	SHEET NO.

FILENAME: _____

DESIGNER/DRAFTER: GTH / MJC
 CHECKED BY: DJF
 SCALE: 1/8" = 1'-0"

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

ARCHITECT: WENDEL
 ENGINEERS: RoSt DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL
 DATE: 06/11/2014

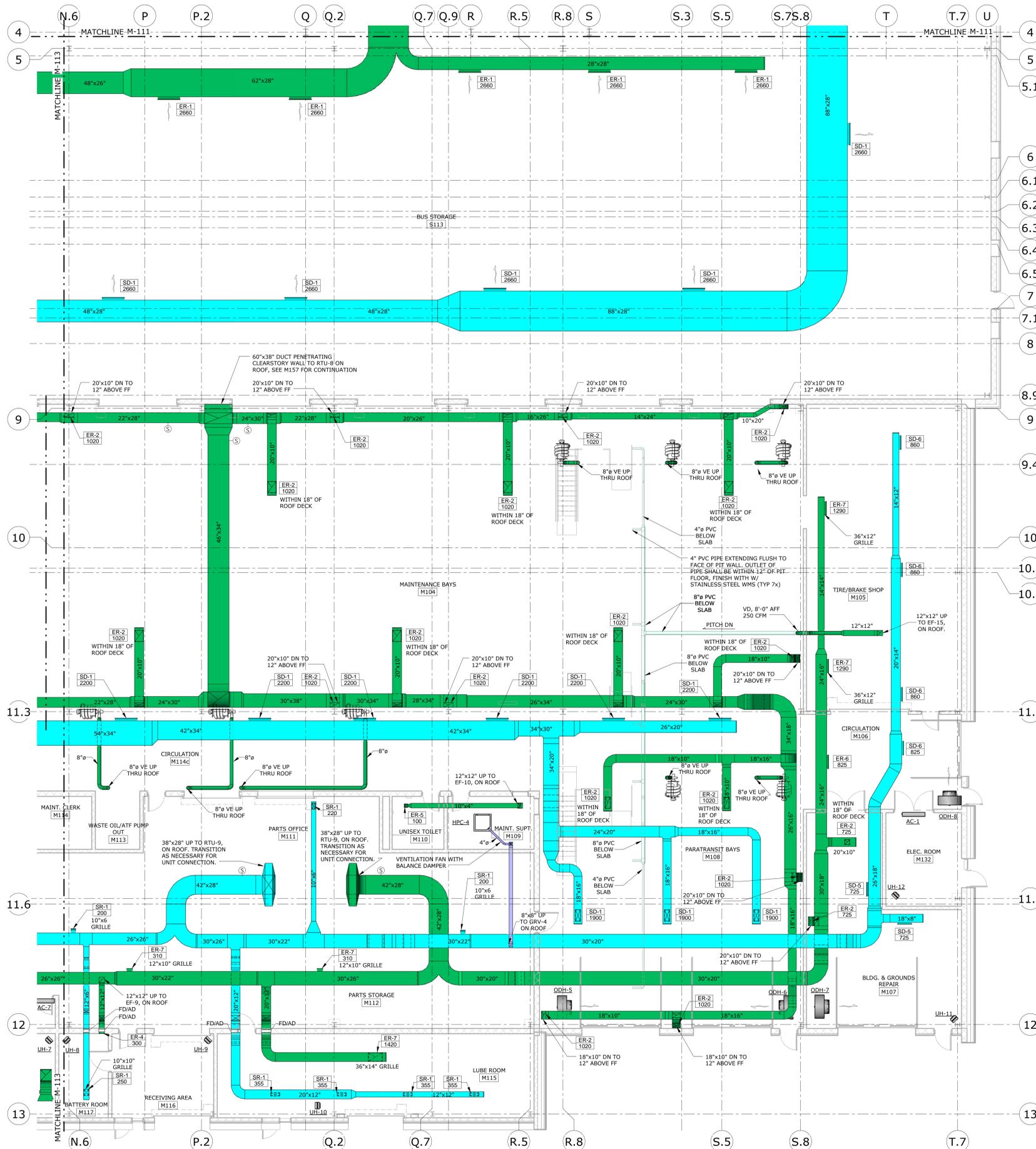
DESIGNED BY:
 CLOUGH HARBOUR & ASSOCIATES
 2139 SILAS DEANE HIGHWAY
 SUITE 212
 ROCKY HILL, CT 06067-2336

PROJECT TITLE:
WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT

ADDRESS:
 FROST BRIDGE ROAD
 WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:
MECHANICAL FIRST FLOOR DUCTWORK PLAN - AREA E

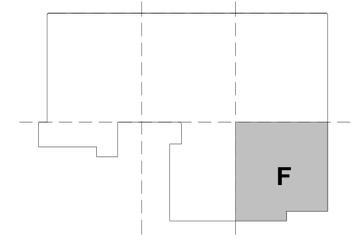
PROJECT NO.: **431-0006**
 DRAWING NO.: **M-113**
 SHEET NO.: **12.008**



1 MECHANICAL FIRST FLOOR DUCTWORK PLAN - AREA F
1/8" = 1'-0"

GENERAL NOTES

- 8"Ø DN TO 8"Ø PVC AT 12" ABOVE FLOOR. 8"Ø PVC FROM DUCT CONNECTION BELOW GRADE TO SERVICE PIT.



KEY PLAN

REV.	DATE	DESCRIPTION	SHEET NO.

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DESIGNER/DRAFTER: GTH / MJC
 CHECKED BY: DJF
 SCALE: 1/8" = 1'-0"

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

ARCHITECT: WENDEL
 ENGINEERS: RoSt DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL
 DATE: 06/11/2014

DESIGNED BY:
 CLOUGH HARBOUR & ASSOCIATES
 2139 SILAS DEANE HIGHWAY
 SUITE 212
 ROCKY HILL, CT 06067-2336

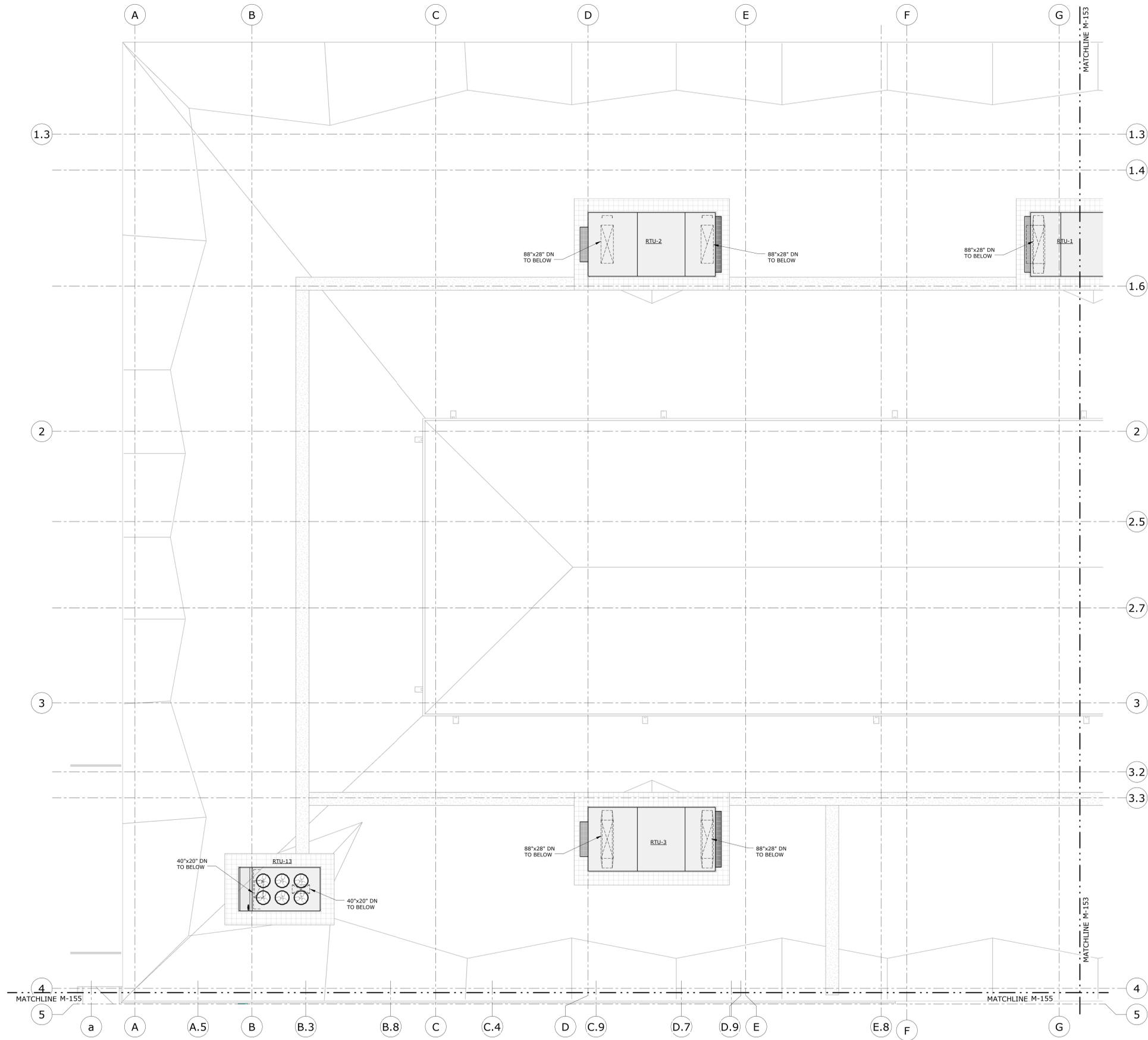


PROJECT TITLE:
WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT

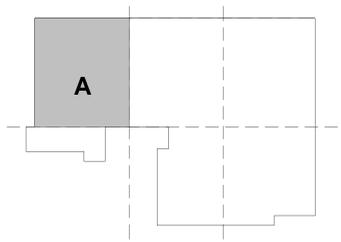
ADDRESS: FROST BRIDGE ROAD
 WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:
MECHANICAL FIRST FLOOR DUCTWORK PLAN - AREA F

PROJECT NO.: **431-0006**
 DRAWING NO.: **M-114**
 SHEET NO.: **12.009**



1 MECHANICAL ROOF DUCTWORK PLAN - AREA A
1/8" = 1'-0"



KEY PLAN

REV.	DATE	DESCRIPTION	SHEET NO.
B	07/12/13	60% DESIGN DEVELOPMENT SUBMISSION	
REVISIONS			
FILENAME:			

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

DESIGNER/DRAFTER: GTH / MJC
 CHECKED BY: DJF
 SCALE: 1/8" = 1'-0"

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

ARCHITECT: WENDEL
 APPROVED BY: BPM

ENGINEERS: R&STL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL
 DATE: 06/11/2014

DESIGNED BY:
 CLOUGH HARBOUR & ASSOCIATES
 2139 SILAS DEANE HIGHWAY
 SUITE 212
 ROCKY HILL, CT
 06067-2336

PROJECT TITLE:
WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT

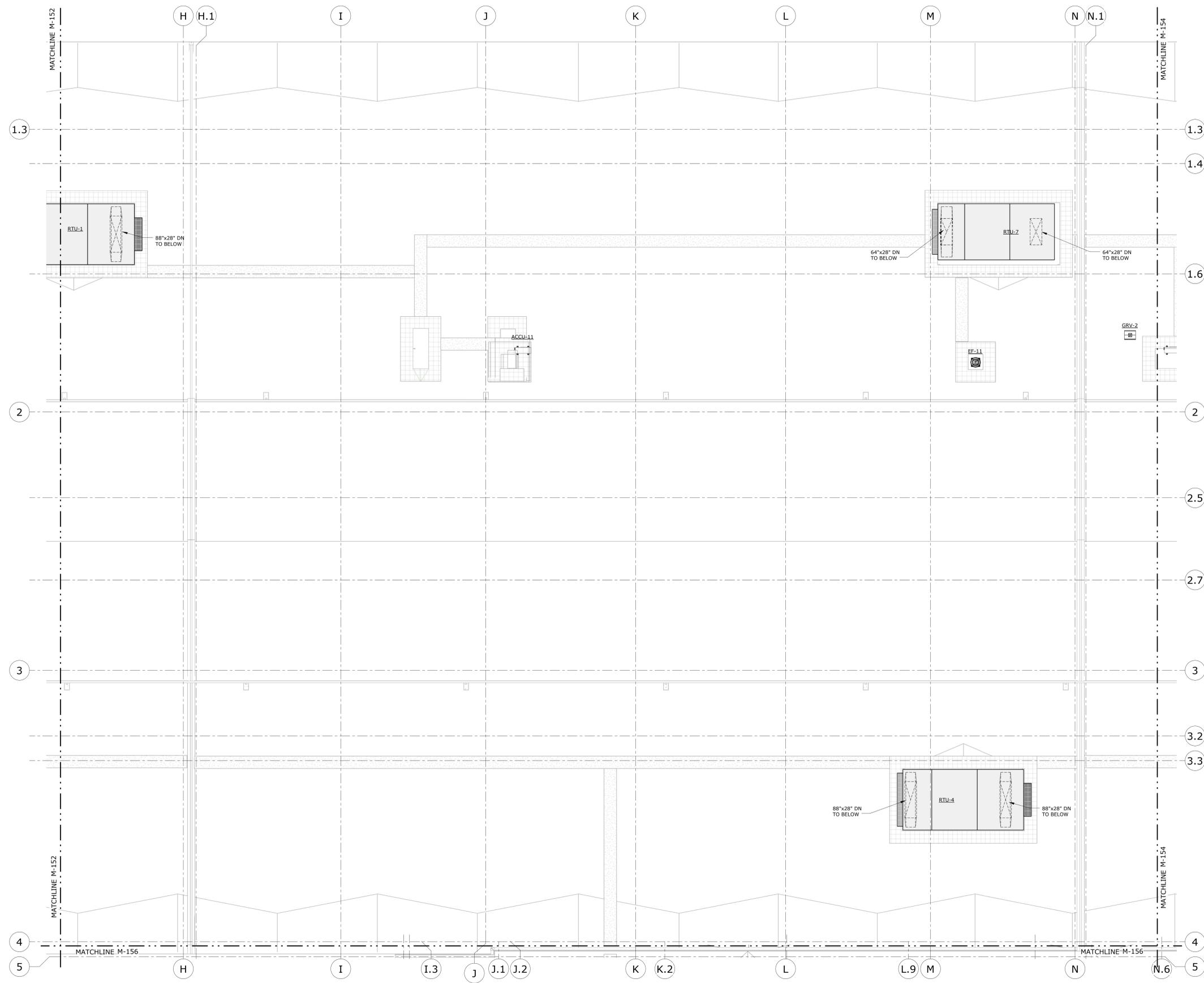
ADDRESS:
 FROST BRIDGE ROAD
 WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:
MECHANICAL ROOF DUCTWORK PLAN - AREA A

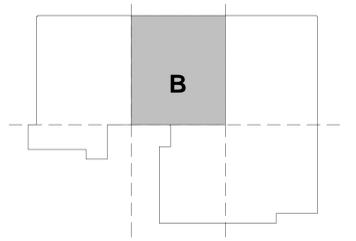
PROJECT NO.
431-0006

DRAWING NO.
M-152

SHEET NO.
12.011



1 MECHANICAL ROOF DUCTWORK PLAN - AREA B
1/8" = 1'-0"



KEY PLAN

REV.	DATE	DESCRIPTION	SHEET NO.

DESIGNER/DRAFTER:	GTH / MJC
CHECKED BY:	DJF
SCALE:	1/8" = 1'-0"

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ARCHITECT: WENDEL
APPROVED BY: BPM

ENGINEERS: R&STL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL
DATE: 06/11/2014

DESIGNED BY:
CLOUGH HARBOUR & ASSOCIATES
2139 SILAS DEANE HIGHWAY
SUITE 212
ROCKY HILL, CT
06067-2336

PROJECT TITLE:
WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT

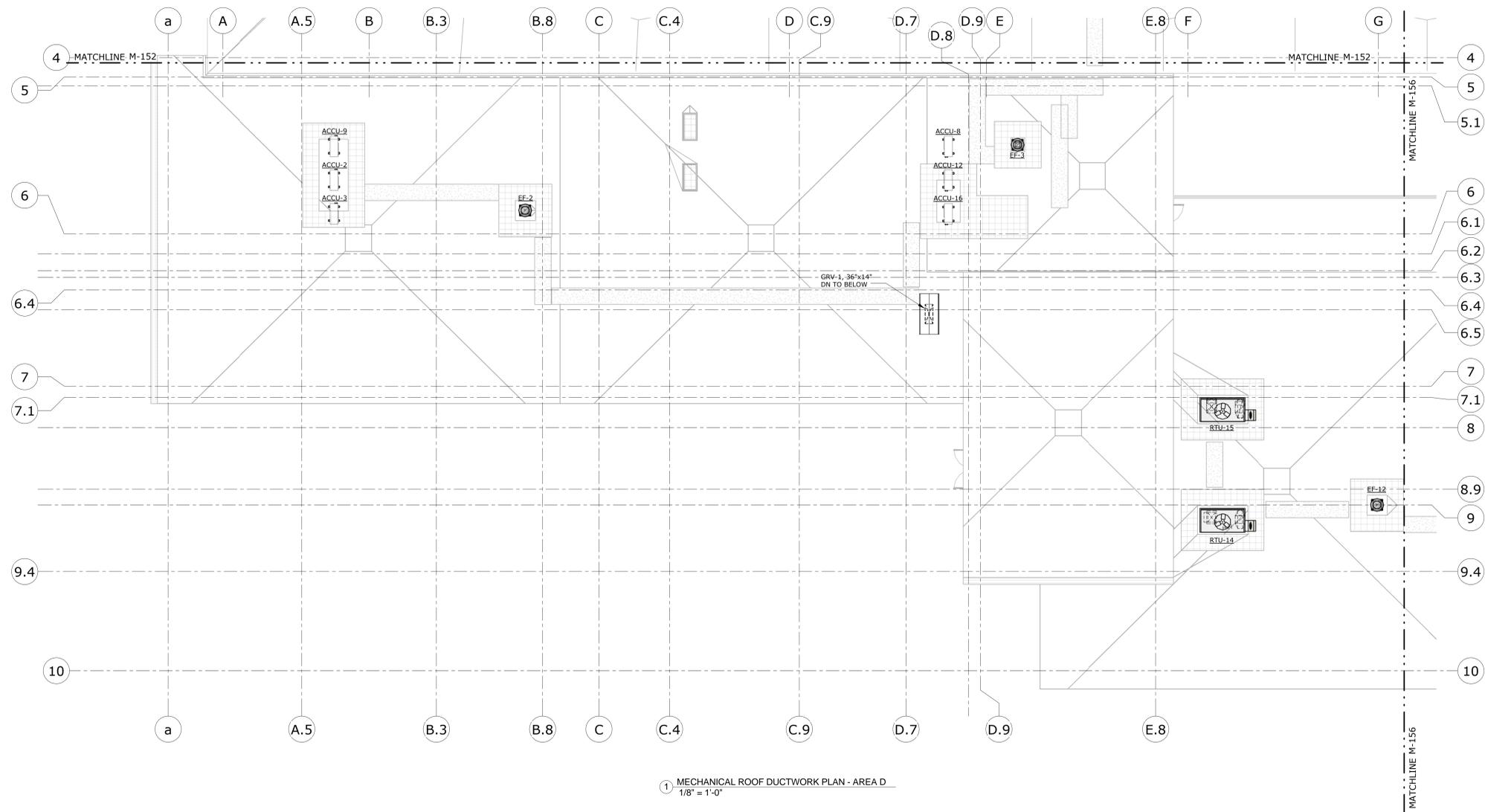
ADDRESS:
FROST BRIDGE ROAD
WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:
MECHANICAL ROOF DUCTWORK PLAN - AREA B

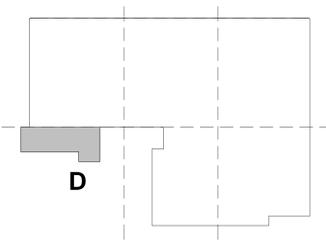
PROJECT NO.
431-0006

DRAWING NO.
M-153

SHEET NO.
12.012



1 MECHANICAL ROOF DUCTWORK PLAN - AREA D
1/8" = 1'-0"



KEY PLAN

REV.	DATE	DESCRIPTION	SHEET NO.

DESIGNER/DRAFTER:	GTH / MJC
CHECKED BY:	DJF
SCALE:	1/8" = 1'-0"

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

ARCHITECT: WENDEL	ENGINEERS: R&STL DESIGNERS, CLOUGH HARBOUR ASSOC., AI
APPROVED BY: BPM	ENGINEERS: WENDEL
	DATE: 06/11/2014

DESIGNED BY:
 CLOUGH HARBOUR &
 ASSOCIATES
 2139 SILAS DEANE
 HIGHWAY
 SUITE 212
 ROCKY HILL, CT
 06067-2336

PROJECT TITLE:
**WATERBURY BUS
 MAINTENANCE FACILITY
 REPLACEMENT**

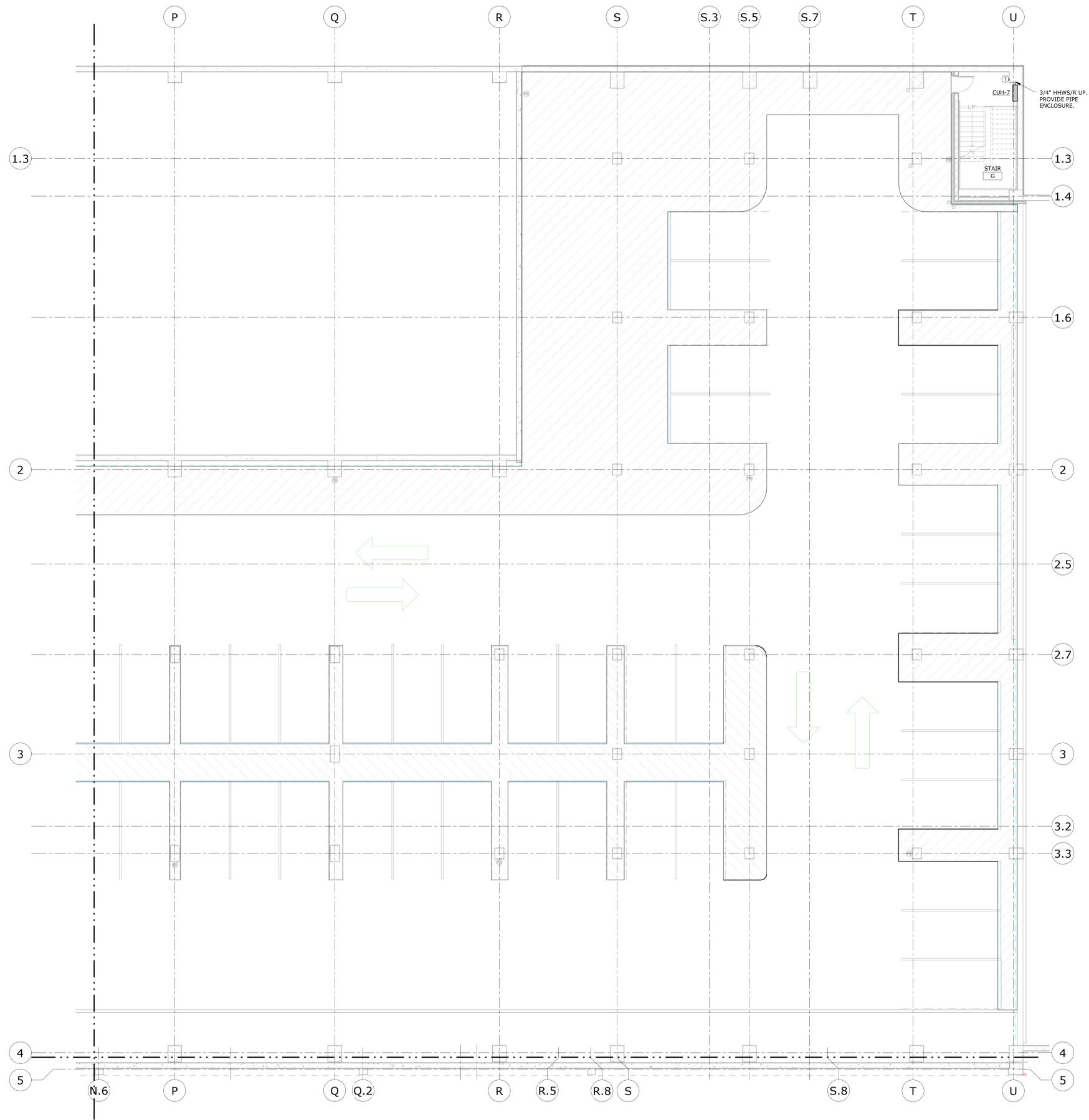
ADDRESS:
 FROST BRIDGE ROAD
 WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:
**MECHANICAL ROOF DUCTWORK
 PLAN - AREA D**

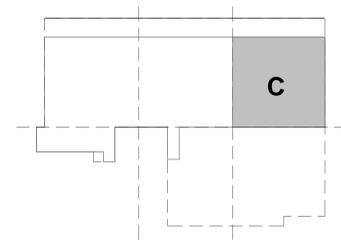
PROJECT NO.
431-0006

DRAWING NO.
M-155

SHEET NO.
12.014



1 MECHANICAL GROUND FLOOR PIPING PLAN - AREA C
1/8" = 1'-0"



KEY PLAN

REV.	DATE	DESCRIPTION	SHEET NO.

DESIGNER/DRAFTER:	GTH / MJC
CHECKED BY:	DJF
SCALE:	1/8" = 1'-0"

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

ARCHITECT: WENDEL
 ENGINEERS: R&STL DESIGNERS, CLOUGH HARBOUR ASSOC., AI
 ENGINEERS, WENDEL
 APPROVED BY: BPM
 DATE: 06/11/2014

DESIGNED BY:
 CLOUGH HARBOUR &
 ASSOCIATES
 2139 SILAS DEANE
 HIGHWAY
 SUITE 212
 ROCKY HILL, CT
 06067-2336

PROJECT TITLE:
**WATERBURY BUS
 MAINTENANCE FACILITY
 REPLACEMENT**

ADDRESS:
 FROST BRIDGE ROAD
 WATERTOWN, CONNECTICUT 06787

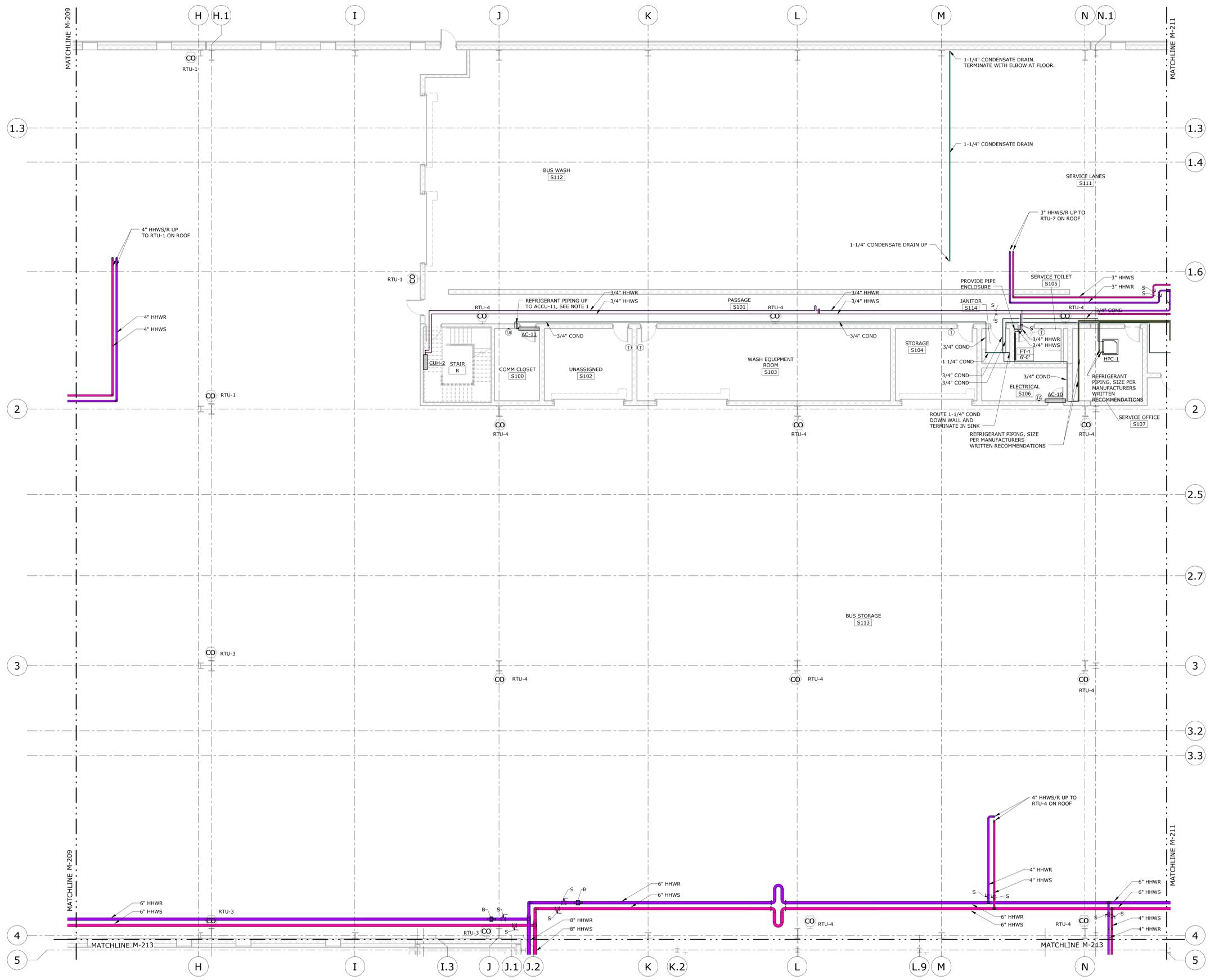
DRAWING TITLE:
**MECHANICAL GROUND FLOOR
 PIPING PLAN - AREA C**

PROJECT NO.
431-0006

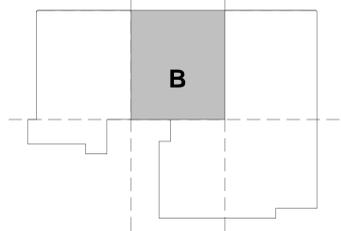
DRAWING NO.
M-207

SHEET NO.
12.017

GENERAL NOTES:
 1. REFRIGERANT PIPING UP THROUGH ROOF;
 SIZE PER MANUFACTURERS WRITTEN
 RECOMMENDATION.



1 MECHANICAL FIRST FLOOR PIPING PLAN - AREA B
 1/8" = 1'-0"



KEY PLAN

REV.	DATE	DESCRIPTION	SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

DESIGNER/DRAFTER: GTH / MJC
 CHECKED BY: DJF
 SCALE: 1/8" = 1'-0"

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

ARCHITECT: WENDEL
 ENGINEERS: R&STL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL
 DATE: 06/11/2014

DESIGNED BY:
 CLOUGH HARBOUR & ASSOCIATES
 2139 SILAS DEANE HIGHWAY
 SUITE 212
 ROCKY HILL, CT 06067-2336



PROJECT TITLE:
WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT

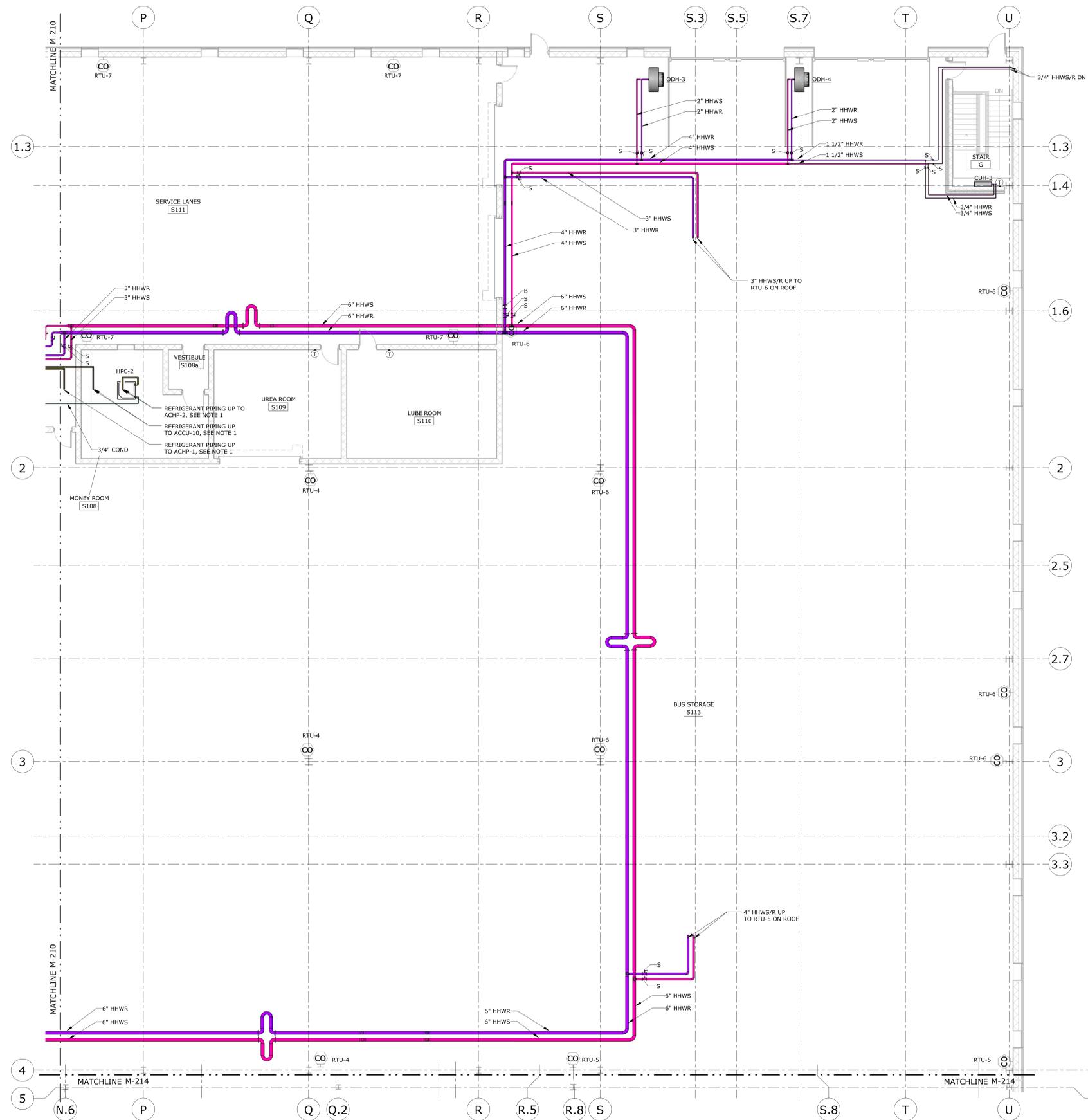
ADDRESS:
 FROST BRIDGE ROAD
 WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:
MECHANICAL FIRST FLOOR PIPING PLAN - AREA B

PROJECT NO.
431-0006

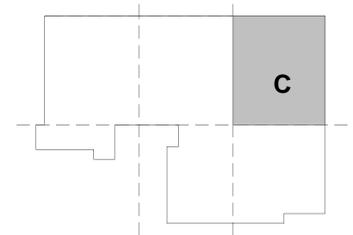
DRAWING NO.
M-210

SHEET NO.
12.020



GENERAL NOTES:
 1. REFRIGERANT PIPING UP THROUGH ROOF;
 SIZE PER MANUFACTURER'S WRITTEN
 RECOMMENDATION.

1 MECHANICAL FIRST FLOOR PIPING PLAN - AREA C
 1/8" = 1'-0"



KEY PLAN

REV.	DATE	DESCRIPTION	SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

DESIGNER/DRAFTER: GTH / MJC
 CHECKED BY: DJF
 SCALE: 1/8" = 1'-0"

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

ARCHITECT: WENDEL
 ENGINEERS: R&STL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL
 DATE: 06/11/2014

DESIGNED BY:
 CLOUGH HARBOUR & ASSOCIATES
 2139 SILAS DEANE HIGHWAY
 SUITE 212
 ROCKY HILL, CT 06067-2336

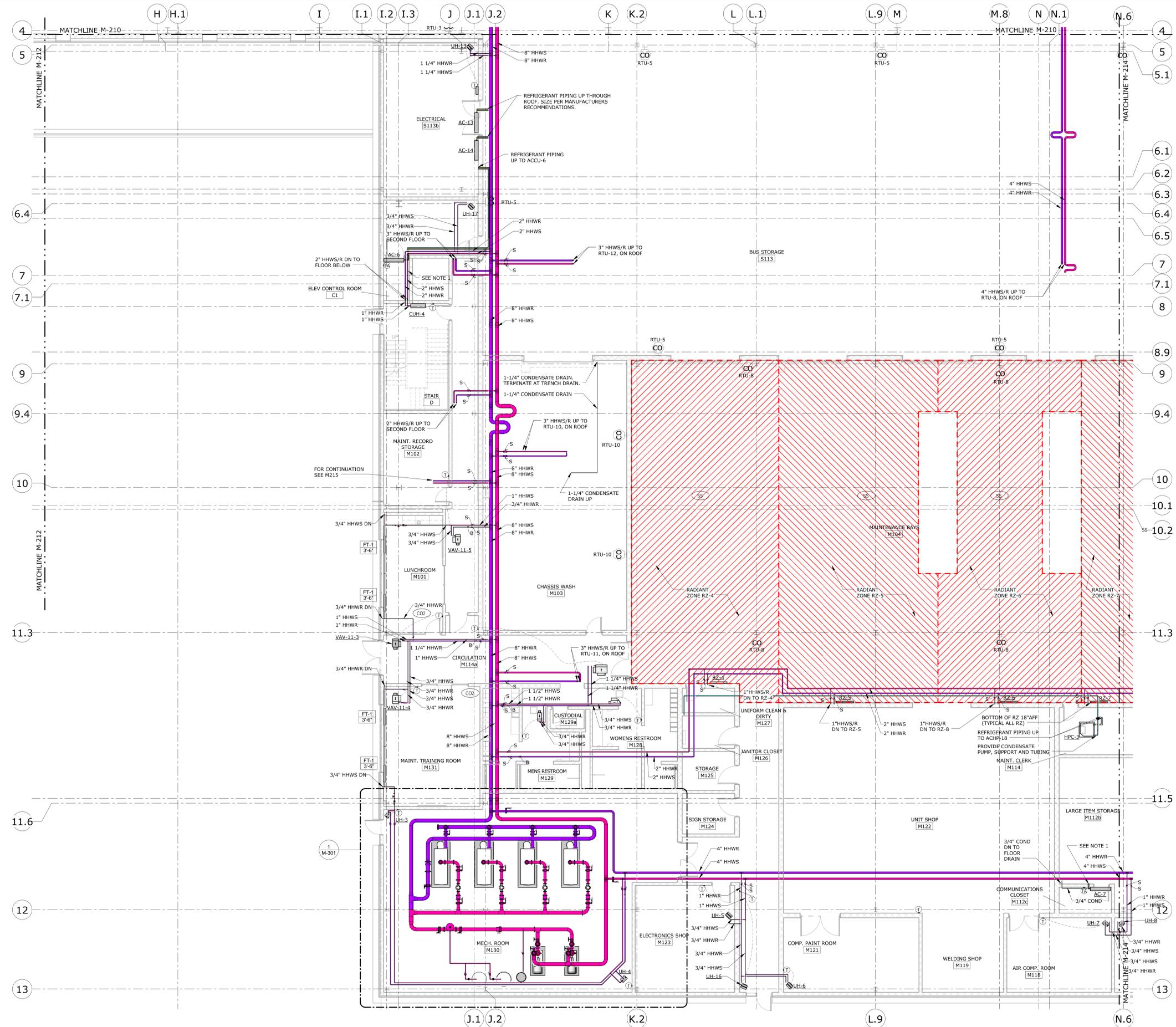


PROJECT TITLE:
WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT

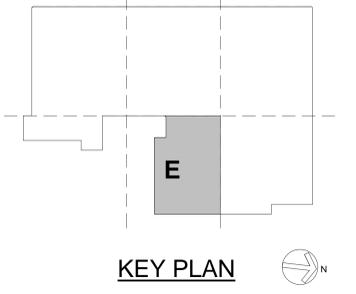
ADDRESS: FROST BRIDGE ROAD
 WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:
MECHANICAL FIRST FLOOR PIPING PLAN - AREA C

PROJECT NO. **431-0006**
 DRAWING NO. **M-211**
 SHEET NO. **12.021**



MECHANICAL FIRST FLOOR PIPING PLAN - AREA E
1/8" = 1'-0"



REV.	DATE	DESCRIPTION	SHEET NO.

FILENAME: _____

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

DESIGNER/DRAFTER:	GTH / MJC
CHECKED BY:	DJF
SCALE:	1/8" = 1'-0"

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ARCHITECT: WENDEL
ENGINEERS: RoSt DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL
APPROVED BY: BPM
DATE: 06/11/2014

DESIGNED BY:
CLOUGH HARBOUR & ASSOCIATES
2139 SILAS DEANE HIGHWAY
SUITE 212
ROCKY HILL, CT
06067-2336



PROJECT TITLE:
WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT

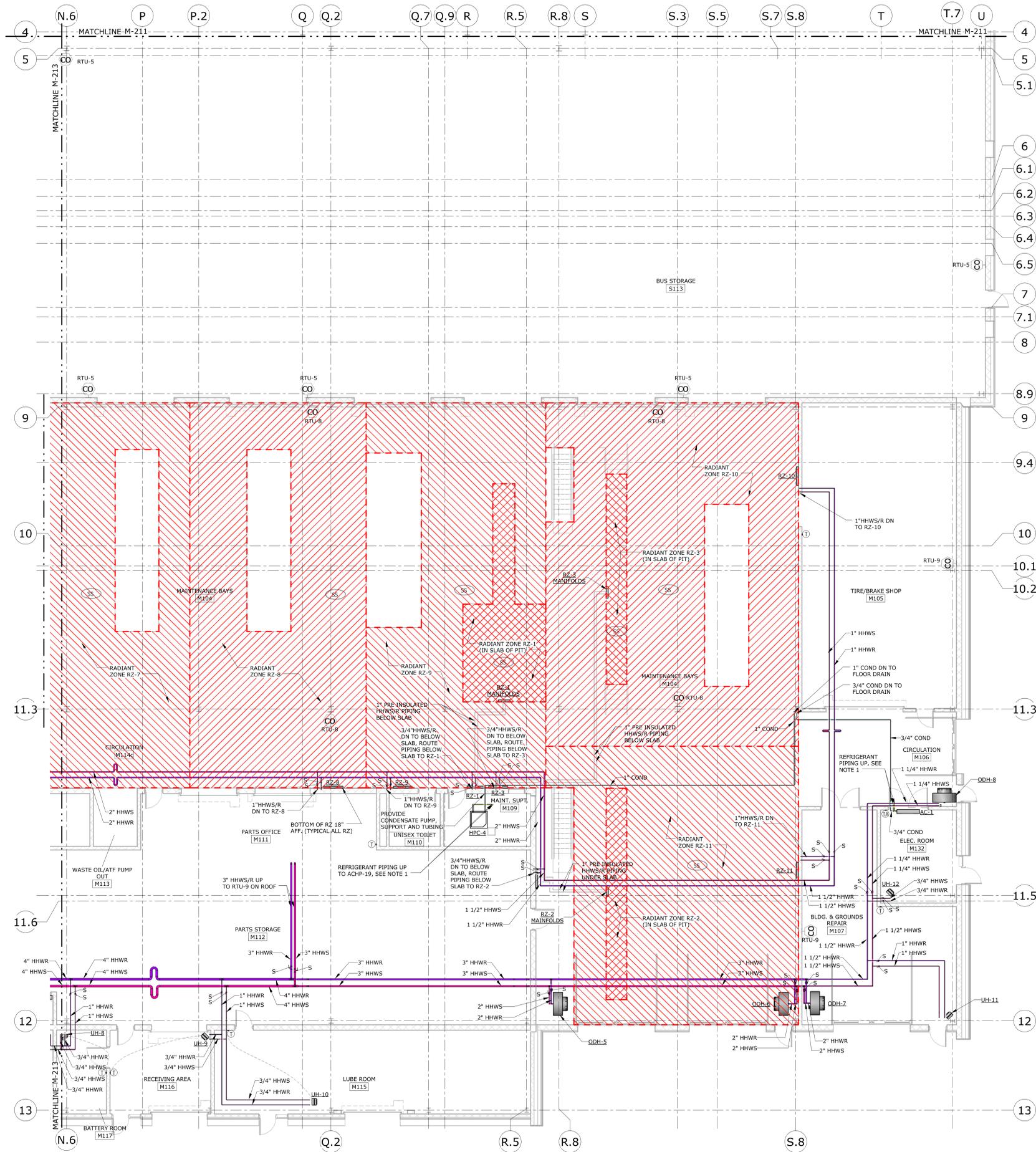
ADDRESS:
FROST BRIDGE ROAD
WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:
MECHANICAL FIRST FLOOR PIPING PLAN - AREA E

PROJECT NO.
431-0006

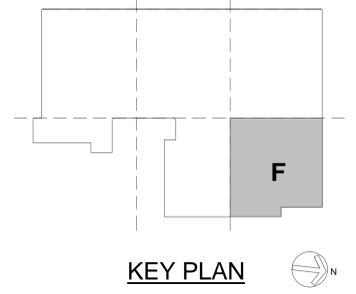
DRAWING NO.
M-213

SHEET NO.
12.023



GENERAL NOTES:
 1. REFRIGERANT PIPING UP THROUGH ROOF; SIZE PER MANUFACTURERS WRITTEN RECOMMENDATION.

1 MECHANICAL FIRST FLOOR PIPING PLAN - AREA F
 1/8" = 1'-0"



REV.	DATE	DESCRIPTION	SHEET NO.

DESIGNER/DRAFTER: GTH / MJC
 CHECKED BY: DJF
 SCALE: 1/8" = 1'-0"

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

ARCHITECT: WENDEL
 ENGINEERS: RoStL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL
 DATE: 06/11/2014

DESIGNED BY:
 CLOUGH HARBOUR & ASSOCIATES
 2139 SILAS DEANE HIGHWAY
 SUITE 212
 ROCKY HILL, CT 06067-2336

PROJECT TITLE:
WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT

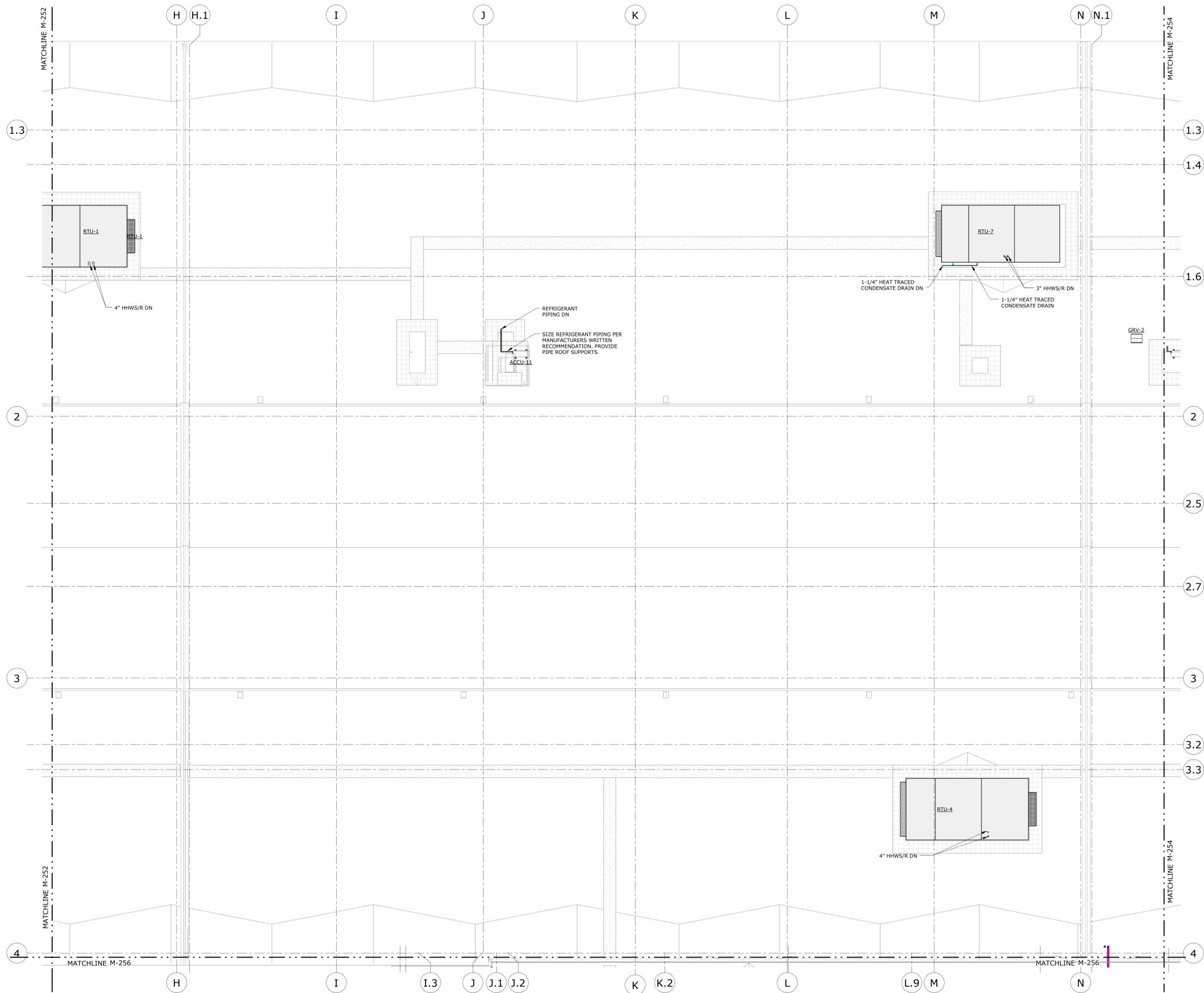
ADDRESS:
 FROST BRIDGE ROAD
 WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:
MECHANICAL FIRST FLOOR PIPING PLAN - AREA F

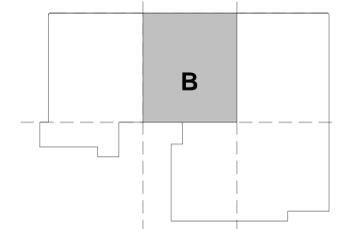
PROJECT NO.
431-0006

DRAWING NO.
M-214

SHEET NO.
12.024



1 MECHANICAL ROOF PIPING PLAN - AREA B
1/8" = 1'-0"



KEY PLAN

REV.	DATE	DESCRIPTION	SHEET NO.

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DESIGNER/DRAFTER: GTH / MJC
 CHECKED BY: DJF
 SCALE: 1/8" = 1'-0"

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

ARCHITECT: WENDEL
 APPROVED BY: BPM

ENGINEERS: R&STL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL
 DATE: 06/11/2014

DESIGNED BY:
 CLOUGH HARBOUR & ASSOCIATES
 2139 SILAS DEANE HIGHWAY
 SUITE 212
 ROCKY HILL, CT 06067-2336

PROJECT TITLE:
WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT

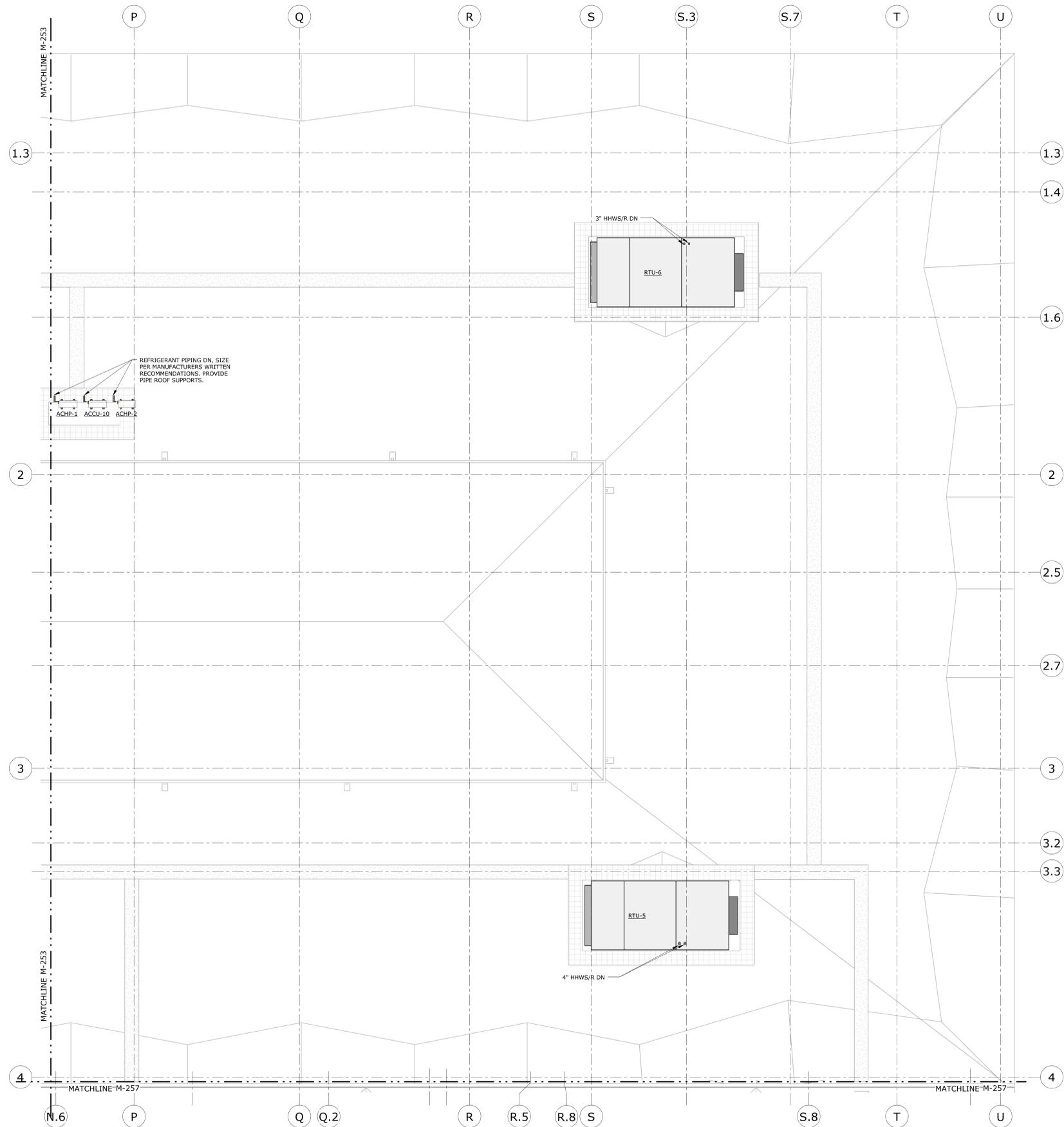
ADDRESS:
 FROST BRIDGE ROAD
 WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:
MECHANICAL ROOF PIPING PLAN - AREA B

PROJECT NO.
431-0006

DRAWING NO.
M-253

SHEET NO.
12.027



REFRIGERANT PIPING DN. SIZE PER MANUFACTURERS WRITTEN RECOMMENDATIONS. PROVIDE PIPE ROOF SUPPORTS.

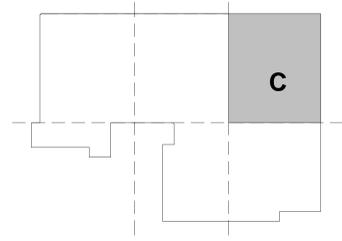
ACHP-1 ACCU-10 ACHP-2

3" HHWS/R DN

RTU-6

4" HHWS/R DN

RTU-5



KEY PLAN

MECHANICAL ROOF PIPING PLAN - AREA C
1/8" = 1'-0"

REV.	DATE	DESCRIPTION	SHEET NO.

DESIGNER/DRAFTER:	GTH / MJC
CHECKED BY:	DJF
SCALE:	1/8" = 1'-0"

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

ARCHITECT: WENDEL
 ENGINEERS: R&STL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL
 APPROVED BY: BPM
 DATE: 06/11/2014

DESIGNED BY:
 CLOUGH HARBOUR & ASSOCIATES
 2139 SILAS DEANE HIGHWAY
 SUITE 212
 ROCKY HILL, CT 06067-2336

PROJECT TITLE:
WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT

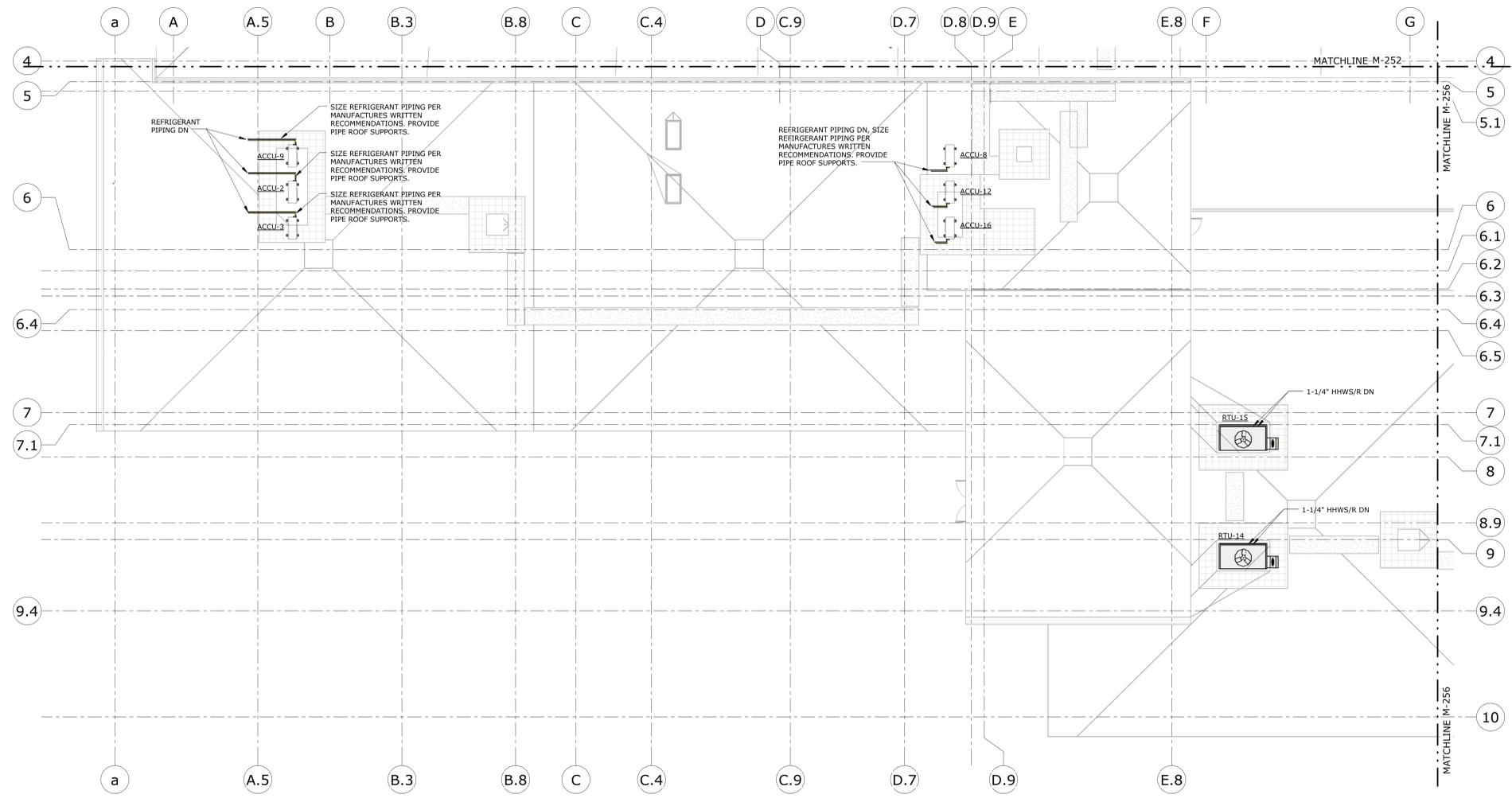
ADDRESS:
 FROST BRIDGE ROAD
 WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:
MECHANICAL ROOF PIPING PLAN - AREA C

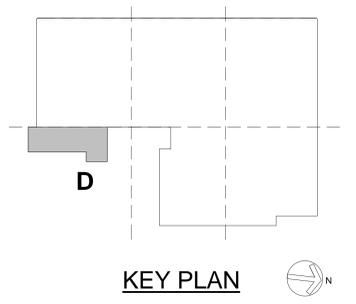
PROJECT NO.
431-0006

DRAWING NO.
M-254

SHEET NO.
12.028



1 MECHANICAL ROOF PIPING PLAN - AREA D
1/8" = 1'-0"



KEY PLAN

REV.	DATE	DESCRIPTION	SHEET NO.

DESIGNER/DRAFTER:	GTH / MJC
CHECKED BY:	DJF
SCALE:	1/8" = 1'-0"

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

ARCHITECT: WENDEL
 APPROVED BY: BPM

ENGINEERS: R&STL DESIGNERS, CLOUGH HARBOUR ASSOC., AI
 ENGINEERS: WENDEL
 DATE: 06/11/2014

DESIGNED BY:
 CLOUGH HARBOUR &
 ASSOCIATES
 2139 SILAS DEANE
 HIGHWAY
 SUITE 212
 ROCKY HILL, CT
 06067-2336

PROJECT TITLE:
**WATERBURY BUS
 MAINTENANCE FACILITY
 REPLACEMENT**

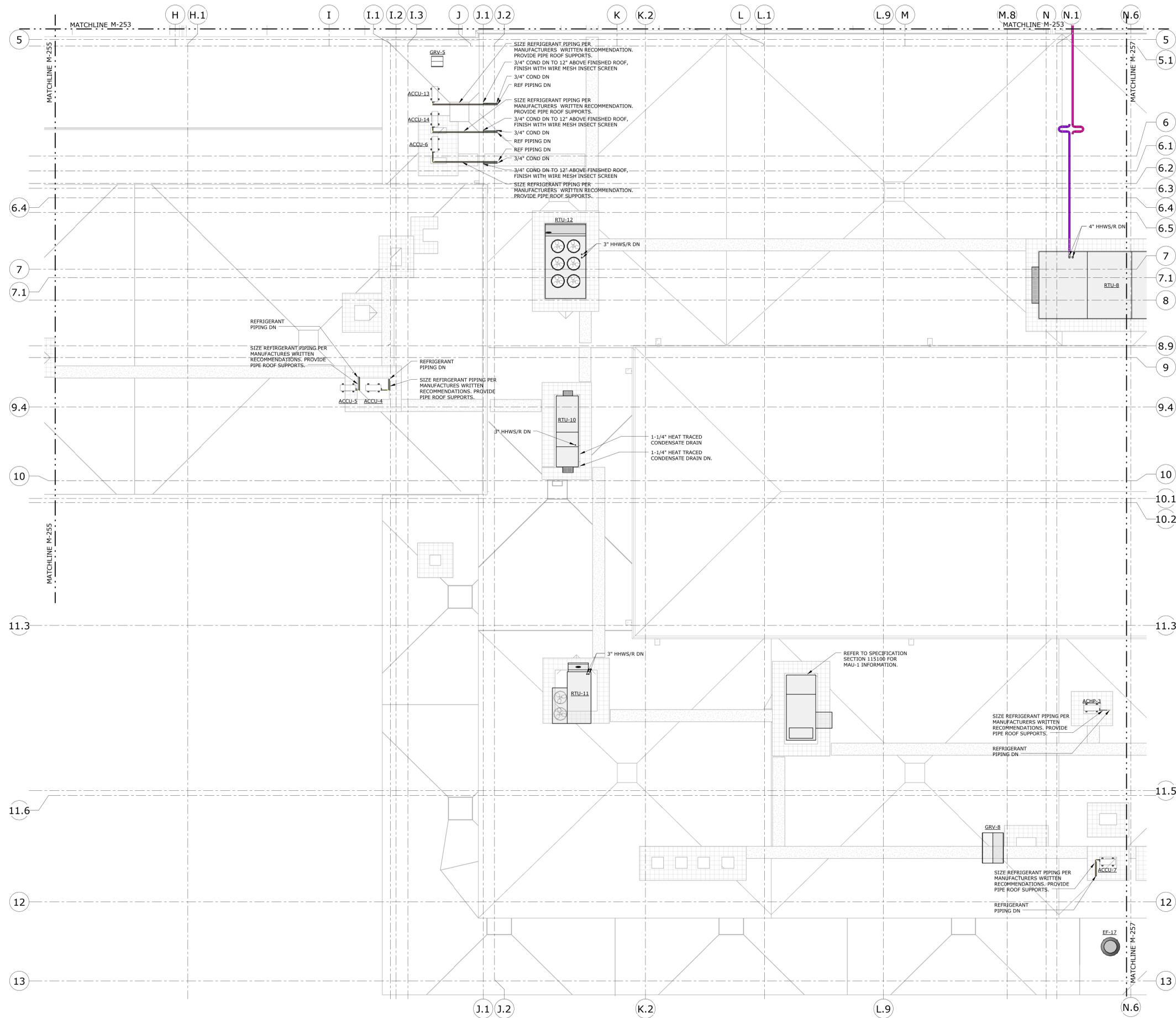
ADDRESS:
 FROST BRIDGE ROAD
 WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:
**MECHANICAL ROOF PIPING PLAN -
 AREA D**

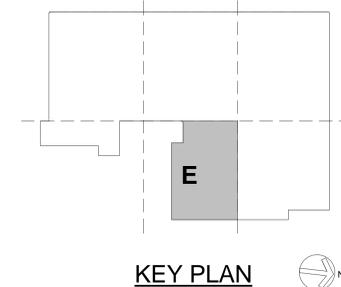
PROJECT NO.
431-0006

DRAWING NO.
M-255

SHEET NO.
12.029



MECHANICAL ROOF PIPING PLAN - AREA E
1/8" = 1'-0"



KEY PLAN

REV.	DATE	DESCRIPTION	SHEET NO.

DESIGNER/DRAFTER:	GTH / MJC
CHECKED BY:	DJF
SCALE:	1/8" = 1'-0"

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ARCHITECT: WENDEL
ENGINEERS: R&STL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL
DATE: 06/11/2014

APPROVED BY: BPM

DESIGNED BY:
CLOUGH HARBOUR & ASSOCIATES
2139 SILAS DEANE HIGHWAY
SUITE 212
ROCKY HILL, CT 06067-2336

PROJECT TITLE:
WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT

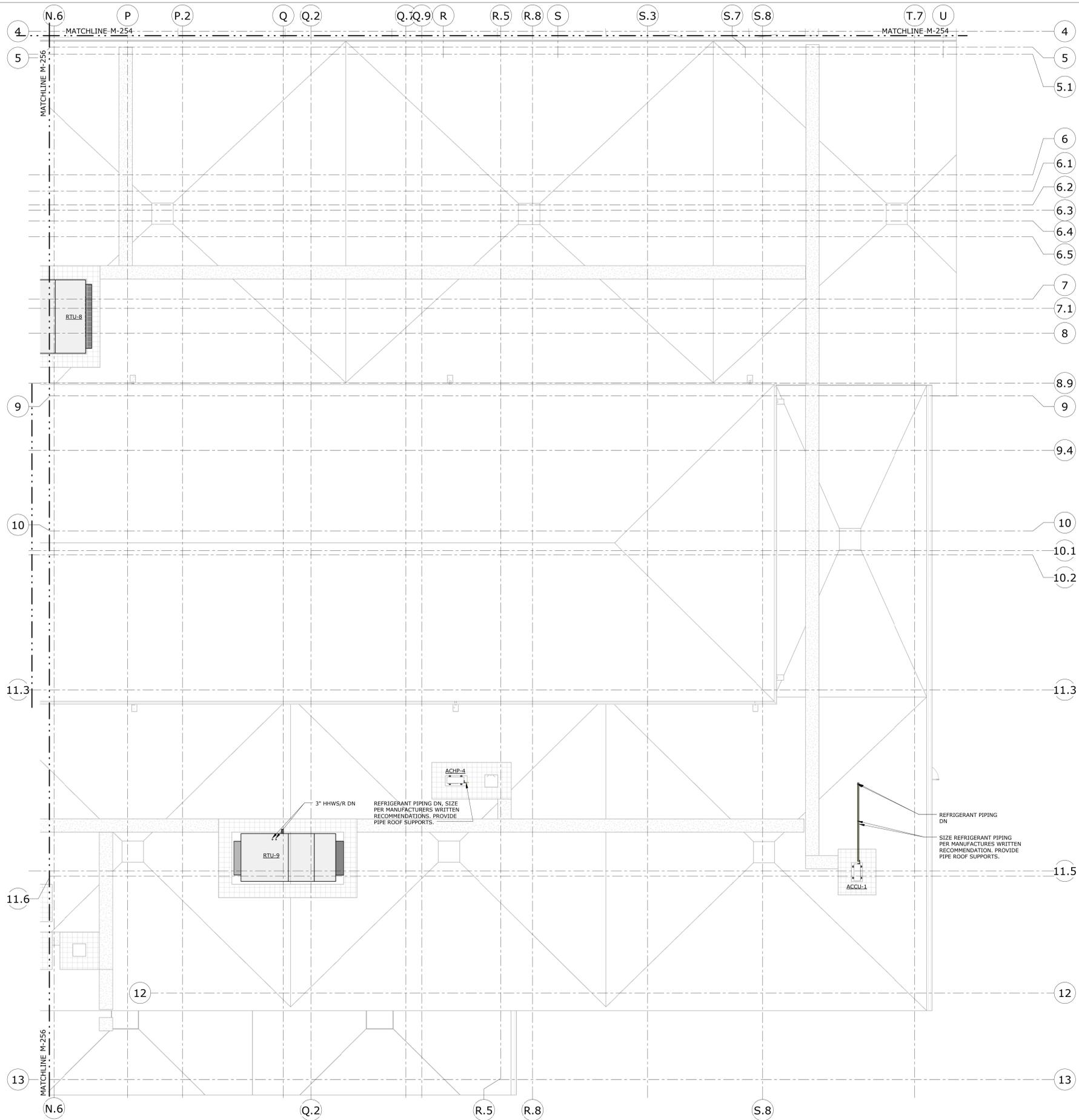
ADDRESS:
FROST BRIDGE ROAD
WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:
MECHANICAL ROOF PIPING PLAN - AREA E

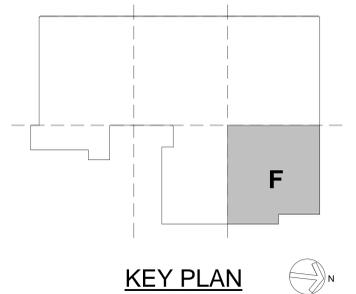
PROJECT NO.
431-0006

DRAWING NO.
M-256

SHEET NO.
12.030



1 MECHANICAL ROOF PIPING PLAN - AREA F
1/8" = 1'-0"



REV.	DATE	DESCRIPTION	SHEET NO.

DESIGNER/DRAFTER:	GTH / MJC
CHECKED BY:	DJF
SCALE:	1/8" = 1'-0"

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

ARCHITECT: WENDEL
 ENGINEERS: RøSTL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL
 DATE: 06/11/2014

DESIGNED BY:
 CLOUGH HARBOUR & ASSOCIATES
 2139 SILAS DEANE HIGHWAY
 SUITE 212
 ROCKY HILL, CT 06067-2336

PROJECT TITLE:
WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT

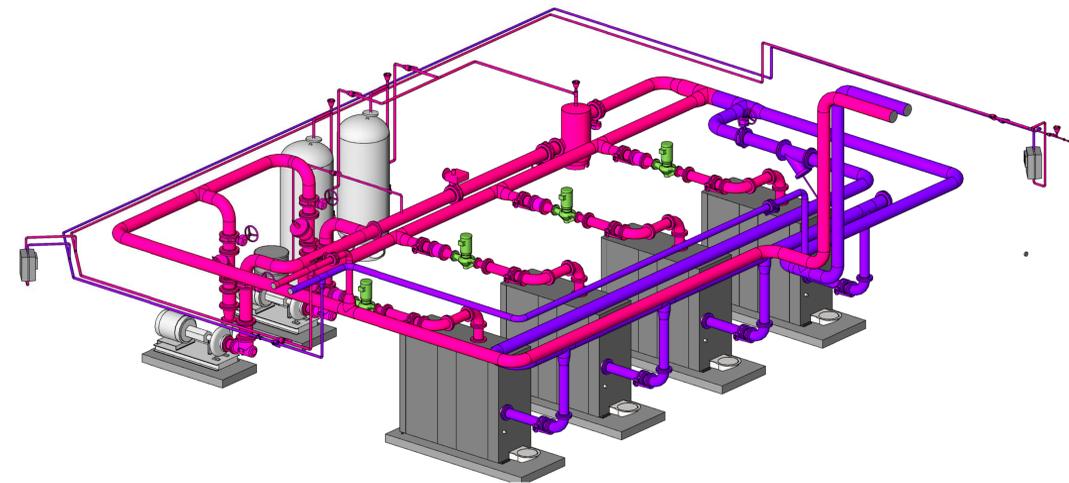
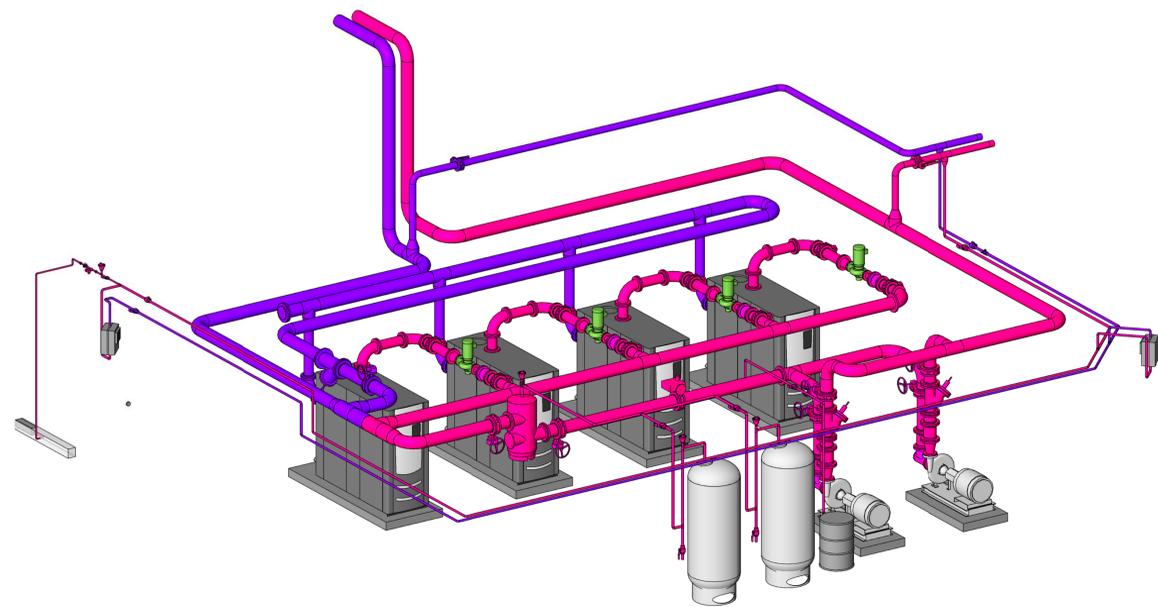
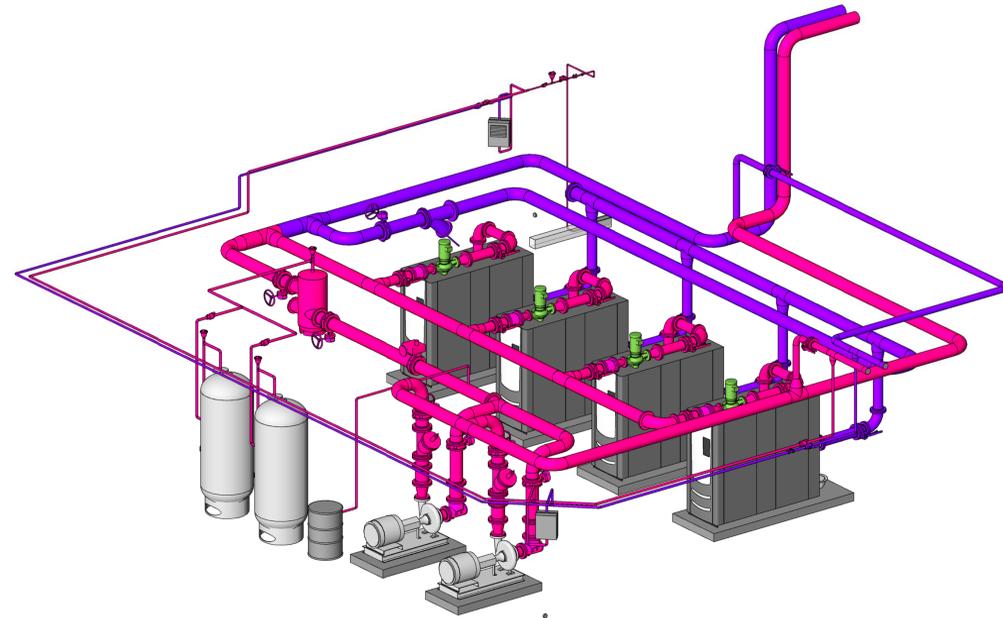
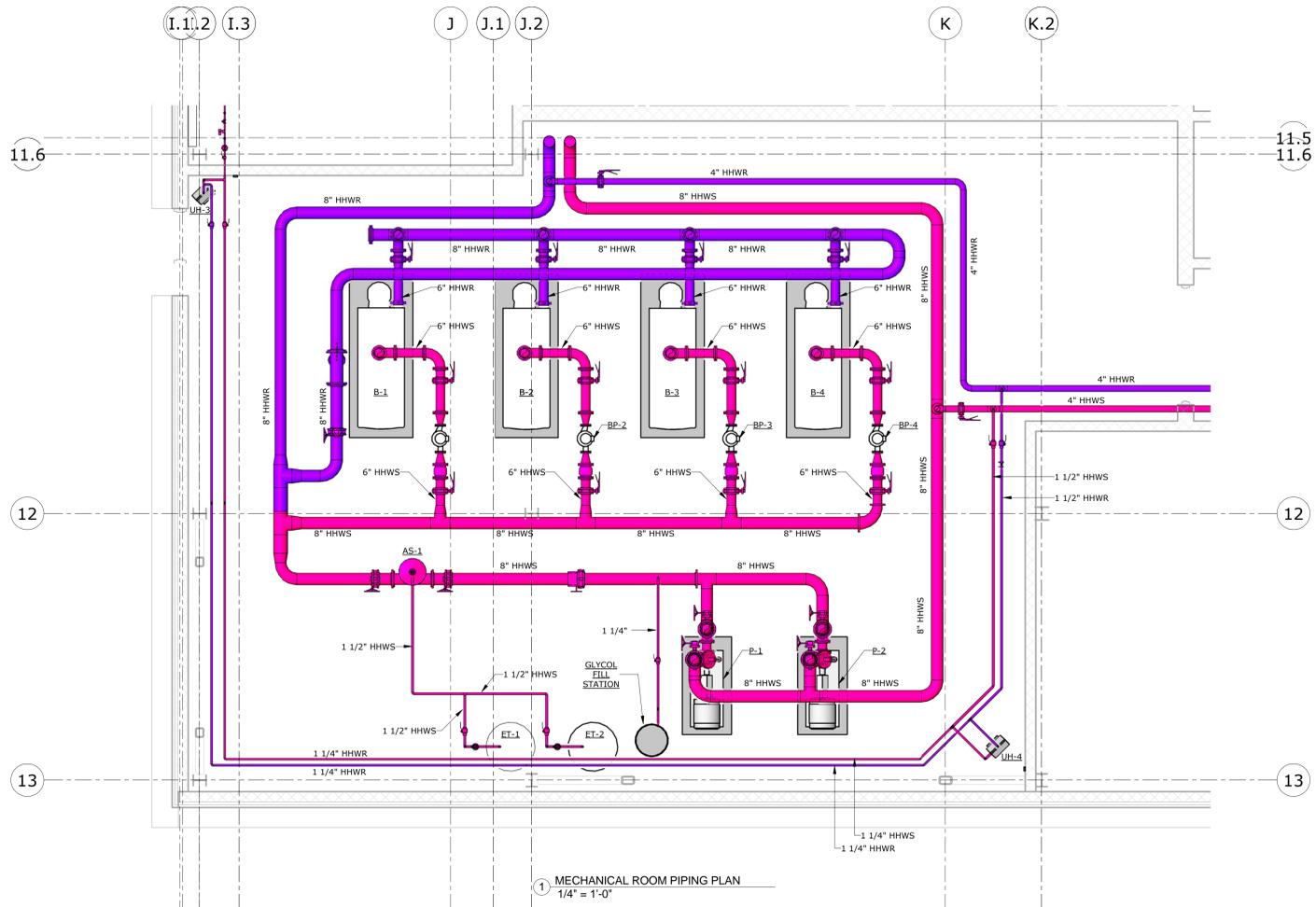
ADDRESS: FROST BRIDGE ROAD
 WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:
MECHANICAL ROOF PIPING PLAN - AREA F

PROJECT NO.
431-0006

DRAWING NO.
M-257

SHEET NO.
12.031



REV.	DATE	DESCRIPTION	SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

DESIGNER/DRAFTER: GTH / MJC
 CHECKED BY: DJF
 SCALE: 1/4" = 1'-0"

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

ARCHITECT: WENDEL
 ENGINEERS: R&STL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL
 DATE: 06/11/2014

DESIGNED BY:
 CLOUGH HARBOUR & ASSOCIATES
 2139 SILAS DEANE HIGHWAY
 SUITE 212
 ROCKY HILL, CT 06067-2336



PROJECT TITLE:
WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT

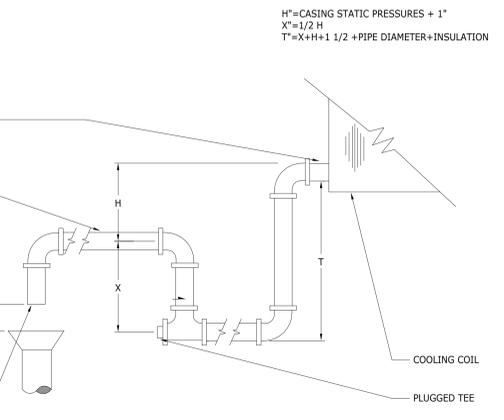
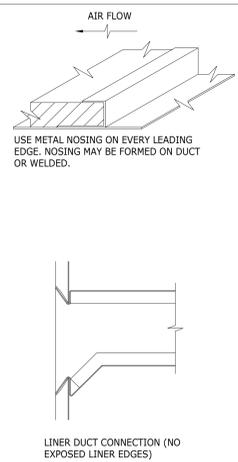
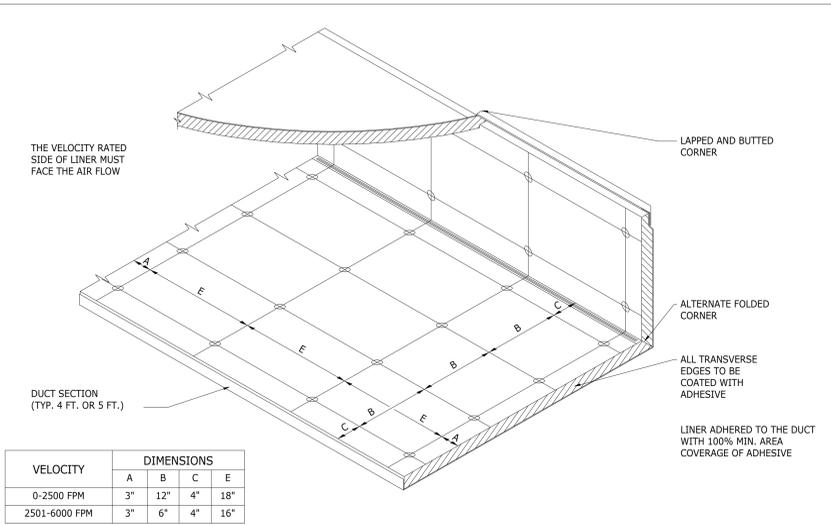
ADDRESS:
 FROST BRIDGE ROAD
 WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:
MECHANICAL PARTIAL PLANS

PROJECT NO.
431-0006

DRAWING NO.
M-301

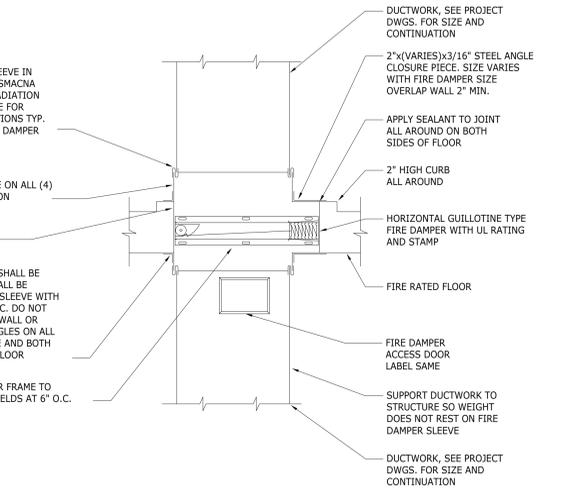
SHEET NO.
12.032



MAXIMUM SPACING FOR FASTENERS, UNLESS A SMALLER DIMENSION IS SET BY MANUFACTURER OR LISTING AGENCY, USE ONLY WELDED PINS WITH PRESS-ON OR INTEGRAL HEADS FOR FASTENING.

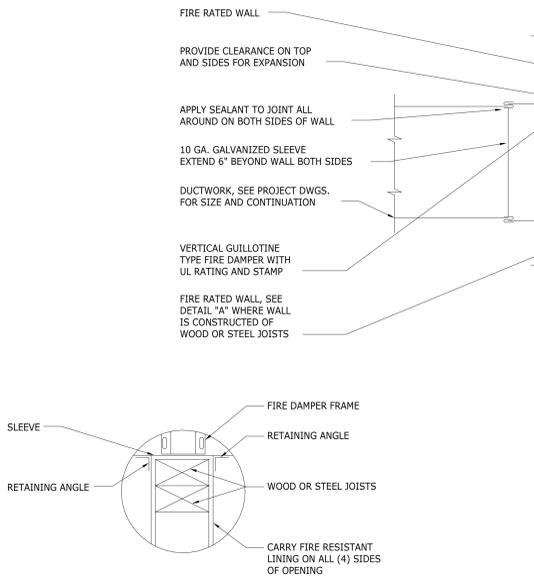
1 DUCT LINER DETAIL NOT TO SCALE

2 COOLING COIL CONDENSATE TRAP DETAIL NOT TO SCALE



- NOTES:
1. LOCATE FIRE DAMPERS AS SHOWN ON PLANS.
 2. PROVIDE SQUARE ACCESS DOOR (AD) 2" SMALLER THAN HEIGHT OF DUCT. MAXIMUM SIZE 18"x18", MINIMUM SIZE 6"x6". LOCATE AD TO PROVIDE ACCESS TO FIRE DAMPER.
 3. WALL OPENING CLEARANCE SHALL BE 1/8" PER LINEAR FOOT OF DAMPER DIMENSION IN EACH DIRECTION.
 4. INSTALL FIRE DAMPER ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
 5. REFER TO SMACNA FIRE DAMPER AND HEAT STOP GUIDE FOR ACCEPTABLE MATERIALS AND FASTENING METHODS.

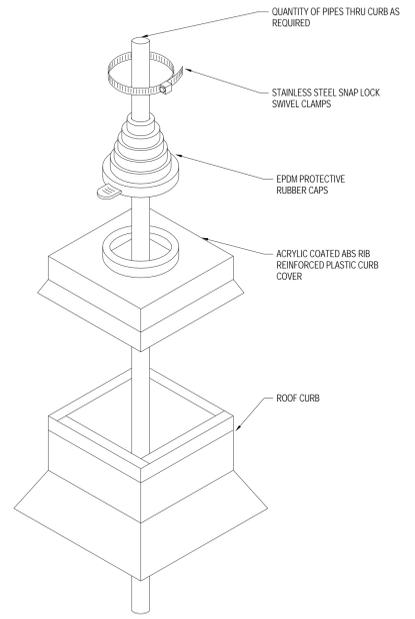
3 FIRE DAMPER AND FIRE RATED FLOOR DETAIL NOT TO SCALE



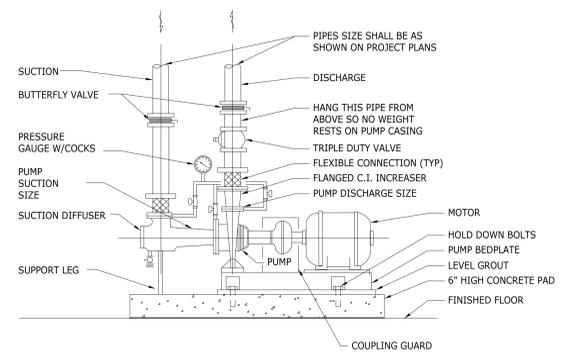
- NOTES:
1. LOCATE FIRE DAMPERS AS SHOWN ON PLANS.
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 4. INSTALL FIRE DAMPER ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
 5. REFER TO SMACNA FIRE DAMPER AND HEAT STOP GUIDE FOR ACCEPTABLE MATERIALS AND FASTENING METHODS.

DETAIL 'A' SCALE: NOT TO SCALE

4 FIRE DAMPER AND FIRE RATED WALL DETAIL NOT TO SCALE

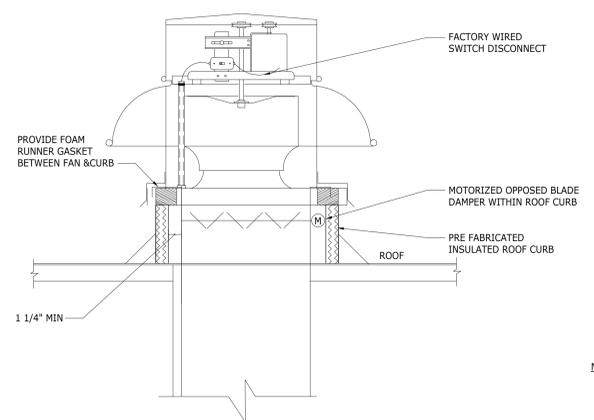


5 ROOF PIPE PENETRATION DETAIL NOT TO SCALE

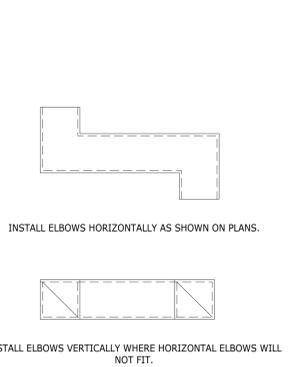


- NOTE:
1. THE SIZE OF THE PUMP SUCTION SHALL BE THE SIZE SHOWN FOR THE PIPE ON PROJECT DRAWINGS AND SHALL NOT BE REDUCED IN SIZE REGARDLESS OF FLOW RATES SHOWN.
 2. ANCHOR FIRST ELBOW. (SUCTION AND DISCHARGE)

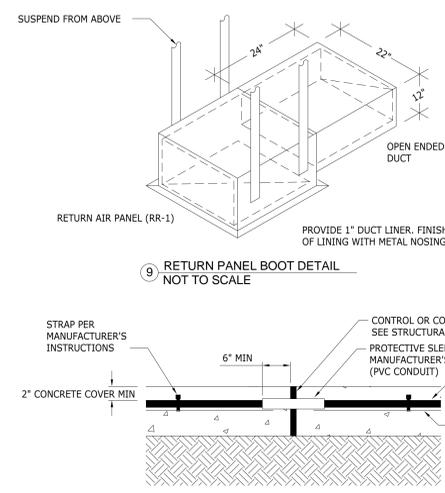
6 END SUCTION PUMP DETAIL NOT TO SCALE



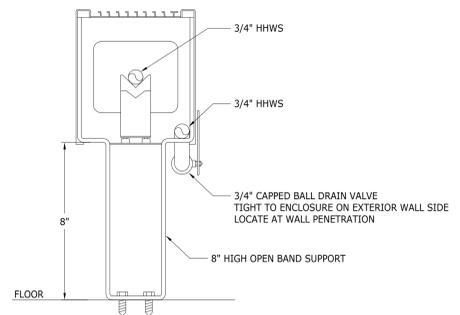
7 ROOF EXHAUST FAN CURB DETAIL NOT TO SCALE



8 TRANSFER DUCT DETAIL NOT TO SCALE



9 RETURN PANEL BOOT DETAIL NOT TO SCALE



10 RADIANT JOINT DETAIL 12" = 1'-0"

REV.	DATE	DESCRIPTION	SHEET NO.

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DESIGNER/DRAFTER: GTH / MJC
 CHECKED BY: DJF
 SCALE: NOT TO SCALE

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

ARCHITECT: WENDEL
 ENGINEERS: RoStl DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL
 DATE: 06/11/2014

DESIGNED BY:
 CLOUGH HARBOUR & ASSOCIATES
 2139 SILAS DEANE HIGHWAY
 SUITE 212
 ROCKY HILL, CT 06067-2336



PROJECT TITLE:
WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT

ADDRESS:
 FROST BRIDGE ROAD
 WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:
MECHANICAL DETAILS

PROJECT NO.
431-0006

DRAWING NO.
M-501

SHEET NO.
12.034

HOT WATER UNIT HEATER SCHEDULE																	
TAG	LOCATION	TYPE	MBH	CFM	EAT (°F)	LAT (°F)	FLUID TYPE	HOT WATER DATA				FAN MOTOR DATA				BASIS OF DESIGN MANUFACTURER & MODEL #	REMARKS
								GPM	EWT (°F)	LWT (°F)	WPD (FT)	RPM	HP	VOLT	PH		
ODH-1	BUS STORAGE	HORIZONTAL	197.4	11,750	60	76	30% PG	20.6	140	120	0.20	1,160	1 1/2	480	3	MODINE PT 610S 05	
ODH-2	BUS STORAGE	HORIZONTAL	197.4	11,750	60	76	30% PG	20.6	140	120	0.20	1,160	1 1/2	480	3	MODINE PT 610S 05	
ODH-3	BUS STORAGE	HORIZONTAL	197.4	11,750	60	76	30% PG	20.6	140	120	0.20	1,160	1 1/2	480	3	MODINE PT 610S 05	
ODH-4	BUS STORAGE	HORIZONTAL	197.4	11,750	60	76	30% PG	20.6	140	120	0.20	1,160	1 1/2	480	3	MODINE PT 610S 05	
ODH-5	MAINTENANCE	HORIZONTAL	197.4	11,750	60	76	30% PG	20.6	140	120	0.20	1,160	1 1/2	480	3	MODINE PT 610S 05	
ODH-6	MAINTENANCE	HORIZONTAL	197.4	11,750	60	76	30% PG	20.6	140	120	0.20	1,160	1 1/2	480	3	MODINE PT 610S 05	
ODH-7	MAINTENANCE	HORIZONTAL	197.4	11,750	60	76	30% PG	20.6	140	120	0.20	1,160	1 1/2	480	3	MODINE PT 610S 05	
ODH-8	MAINTENANCE	HORIZONTAL	103.9	5,980	60	76	30% PG	10.8	140	120	0.10	1,140	3/4	480	3	MODINE PT 333S 05	

TAG	LOCATION	TYPE	MBH	CFM	EAT (°F)	LAT (°F)	FLUID TYPE	HOT WATER DATA				FAN MOTOR DATA				BASIS OF DESIGN MANUFACTURER & MODEL #	REMARKS
								GPM	EWT (°F)	LWT (°F)	WPD (FT)	RPM	HP	VOLT	PH		
UH-1	ROOM M002	HORIZONTAL	11.1	580	60	78	30% PG	1.0	140	100	0.55	1,550	25W	120	1	STERLING HS-125A	
UH-2	ROOM M002	HORIZONTAL	11.1	580	60	78	30% PG	1.0	140	100	0.55	1,550	25W	120	1	STERLING HS-125A	
UH-3	ROOM M130	HORIZONTAL	117.5	5,500	60	79	30% PG	10.5	140	100	0.53	1,100	1/2	120	1	STERLING HS-360	
UH-4	ROOM M130	HORIZONTAL	117.5	5,500	60	79	30% PG	10.5	140	100	0.53	1,100	1/2	120	1	STERLING HS-360	
UH-5	ROOM M123	HORIZONTAL	15.6	750	60	79	30% PG	1.4	140	100	0.03	1,000	1/20	120	1	STERLING HS-48	
UH-6	ROOM M121	HORIZONTAL	27.4	1,400	60	78	30% PG	2.4	140	100	0.06	1,000	1/12	120	1	STERLING HS-84	
UH-7	ROOM M118	HORIZONTAL	19.6	900	60	80	30% PG	1.8	140	100	0.04	1,000	1/20	120	1	STERLING HS-60	
UH-8	ROOM M117	HORIZONTAL	23.5	1,100	60	80	30% PG	2.1	140	100	0.06	1,000	1/20	120	1	STERLING HS-72	
UH-9	ROOM M116	HORIZONTAL	23.5	1,100	60	80	30% PG	2.1	140	100	0.06	1,000	1/20	120	1	STERLING HS-72	
UH-10	ROOM M115	HORIZONTAL	45.7	2,200	60	79	30% PG	4.2	140	100	0.11	1,140	1/3	120	1	STERLING HS-144	
UH-11	ROOM M107	HORIZONTAL	78.3	3,500	60	80	30% PG	7.0	140	100	0.33	1,140	1/3	120	1	STERLING HS-240	
UH-12	ROOM M132	HORIZONTAL	11.1	580	60	78	30% PG	1.0	140	100	0.55	1,550	25W	120	1	STERLING HS-125A	
UH-13	ROOM S113b	HORIZONTAL	11.7	550	60	80	30% PG	1.1	140	100	0.03	1,550	25W	120	1	STERLING HS-36	
UH-14	ROOM M002	HORIZONTAL	11.1	580	60	78	30% PG	1.0	140	100	0.55	1,550	25W	120	1	STERLING HS-125A	
UH-15	ROOM M002	HORIZONTAL	11.1	580	60	78	30% PG	1.0	140	100	0.55	1,550	25W	120	1	STERLING HS-125A	
UH-16	ROOM M114c	HORIZONTAL	11.1	580	60	78	30% PG	1.0	140	100	0.55	1,550	25W	120	1	STERLING HS-125A	
UH-17	ROOM S113c	HORIZONTAL	11.1	580	60	78	30% PG	1.0	140	100	0.55	1,550	25W	120	1	STERLING HS-125A	
UH-18	ROOM M004	HORIZONTAL	11.1	580	60	78	30% PG	1.0	140	100	0.55	1,550	25W	120	1	STERLING HS-125A	

PUMP SCHEDULE																
TAG	LOCATION	SERVICE	FLUID	GPM	FT HD	EFF	ELECTRICAL				BASIS OF DESIGN MANUFACTURER & MODEL #	REMARKS				
							HP	VOLT	PH	HZ						
P-1	MECH. ROOM M130	HEATING SYSTEM	30% PROP. GLYCOL	850	110	84%	30	480	3	60	1,760	TACO F15011	1			
P-2	MECH. ROOM M130	HEATING SYSTEM	30% PROP. GLYCOL	850	110	84%	30	480	3	60	1,760	TACO F15011	1			
BP-1	MECH. ROOM M130	BOILER B-1	30% PROP. GLYCOL	300	20	65%	3.0	480	3	60	1,760	TACO KV3007				
BP-2	MECH. ROOM M130	BOILER B-2	30% PROP. GLYCOL	300	20	65%	3.0	480	3	60	1,760	TACO KV3007				
BP-3	MECH. ROOM M130	BOILER B-3	30% PROP. GLYCOL	300	20	65%	3.0	480	3	60	1,760	TACO KV3007				
BP-4	MECH. ROOM M130	BOILER B-4	30% PROP. GLYCOL	300	20	65%	3.0	480	3	60	1,760	TACO KV3007				

1. PROVIDE VFD - REFER TO SPECIFICATION SECTION 262900 MOTOR CONTROLLERS.

UNIT VENTILATOR SCHEDULE																	
TAG	SERVICE	TYPE	CFM	OA CFM	SUPPLY FAN MOTOR				HOT WATER COIL				BASIS OF DESIGN MANUFACTURER & MODEL #	REMARKS			
					RPM	HP	VOLT	PH	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)			GPM	MBH	
UV-1	VESTIBULE M003	HORIZONTAL DUCTED	750	750	1330	1/2	120	1	3	73	140	110	6.0	57.5	30% PROP. GLYCOL	3.8	AAF H07
UV-2	VESTIBULE M006	HORIZONTAL DUCTED	750	750	1330	1/2	120	1	3	73	140	110	6.0	57.5	30% PROP. GLYCOL	3.8	AAF H07

EXHAUST FAN SCHEDULE																
TAG	LOCATION	SERVICE	TYPE	DRIVE	CFM	TSP (IN WG)	BHP	FAN MOTOR DATA				BASIS OF DESIGN MANUFACTURER & MODEL #	REMARKS			
								RPM	HP	VOLT	PH					
EF-1	PUMP ROOM M002	ROOM M002	IN-LINE	BELT	1,500	0.750	0.46	1150	1/2	480	3	PENN/BARRY SX225BC				
EF-2	AREA 'D' ROOF	RMS. A103, A104, A103a	ROOF MOUNTED	BELT	710	0.500	0.12	850	1/4	120	1	PENN/BARRY DX12B	1			
EF-3	AREA 'D' ROOF	ROOM A109	ROOF MOUNTED	BELT	175	0.375	0.05	880	1/4	120	1	PENN/BARRY DX08B	1			
EF-4	AREA 'E' ROOF	ROOM M101	ROOF MOUNTED	BELT	150	0.375	0.05	880	1/4	120	1	PENN/BARRY DX08B	1			
EF-5	AREA 'E' ROOF	RMS. M128, M129, M129a	ROOF MOUNTED	BELT	630	0.500	0.13	900	1/4	120	1	PENN/BARRY DX11B	1			
EF-6	AREA 'E' ROOF	ROOM M130	ROOF MOUNTED	BELT	1,200	0.375	0.17	900	1/4	120	1	PENN/BARRY DX12B	1			
EF-7	AREA 'E' ROOF	RMS. M126, M127	ROOF MOUNTED	BELT	200	0.375	0.05	970	1/4	120	1	PENN/BARRY DX06B	1			
EF-8	AREA 'E' ROOF	ROOM M124, M125	ROOF MOUNTED	BELT	200	0.375	0.05	880	1/4	120	1	PENN/BARRY DX08B	1			
EF-9	AREA 'F' ROOF	ROOM M117	ROOF MOUNTED	BELT	200	0.375	0.05	880	1/4	120	1	PENN/BARRY DX08B	1			
EF-10	AREA 'F' ROOF	ROOM M110	ROOF MOUNTED	BELT	70	0.375	0.05	970	1/4	120	1	PENN/BARRY DX06B	1			
EF-11	AREA 'B' ROOF	ROOM S105	ROOF MOUNTED	BELT	70	0.375	0.05	970	1/4	120	1	PENN/BARRY DX06B	1			
EF-12	AREA 'G' ROOF	RMS. A221a, A222a	ROOF MOUNTED	BELT	550	0.500	0.13	900	1/4	120	1	PENN/BARRY DX11B	1			
EF-13	AREA 'G' ROOF	ROOM A226	ROOF MOUNTED	BELT	50	0.375	0.05	970	1/4	120	1	PENN/BARRY DX06B	1			
EF-14	AREA 'G' ROOF	ROOM A212	ROOF MOUNTED	BELT	100	0.375	0.05	925	1/4	120	1	PENN/BARRY DX06B	1			
EF-15	AREA 'E' ROOF	SERVICE PIT	ROOF MOUNTED	BELT	250	0.625	0.12	1150	1/4	120	1	PENN/BARRY DX08B	1			
EF-16	GUARD BOOTH ROOF	GUARD BOOTH TOILET	ROOF MOUNTED	BELT	70	0.375	0.05	970	1/4	120	1	PENN/BARRY DX06B	1			
EF-17	AREA 'E' ROOF	AIR COMP. ROOM	ROOF MOUNTED	BELT	6000	0.750	1.60	820	2	480	3	PENN/BARRY DX24B	1,2			

1. ROOF CURB WITH INTEGRAL MOTORIZED DAMPER 2. PROVIDE INVERTER DUTY READY MOTOR

LOUVER SCHEDULE										
TAG	LOCATION	SERVICE	TYPE	WIDTH (IN)	HEIGHT (IN)	MIN FREE AREA	CFM	APD (IN WG)	BASIS OF DESIGN MANUFACTURER & MODEL #	REMARKS

CONDENSING BOILER SCHEDULE																				
TAG	LOCATION	SERVICE	INPUT MBH	OUTPUT MBH	GPM MAX/MIN	ASME WORKING PRESSURE	FLUID TYPE	GAS REQ. MIN @ FULL LOAD (IN W.C.)	VENT SIZE	INLET SIZE	WATER CONNECTION	GAS CONNECTION	WATER PRESS DROP (IN W.C.)	WATER VOLUME (GALLONS)	WEIGHT (WET) (LBS)	ELECTRICAL			BASIS OF DESIGN MANUFACTURER & MODEL #	REMARKS
																FLA	VOLT	PH		
B-1	MECH RM. M130	HEATING SYSTEM	6,000	5,610	600/75	80 PSIG	30% PROPYLENE GLYCOL	20"	14"	14"	6"	2"	10"	110	4,000	12	480	3	AERCO BMK 6000	
B-2	MECH RM. M130	HEATING SYSTEM	6,000	5,610	600/75	80 PSIG	30% PROPYLENE GLYCOL	20"	14"	14"	6"	2"	10"	110	4,000	12	480	3	AERCO BMK 6000	
B-3	MECH RM. M130	HEATING SYSTEM	6,000	5,610	600/75	80 PSIG	30% PROPYLENE GLYCOL	20"	14"	14"	6"	2"	10"	110	4,000	12	480	3	AERCO BMK 6000	
B-4	MECH RM. M130	HEATING SYSTEM	6,000	5,610	600/75	80 PSIG	30% PROPYLENE GLYCOL	20"	14"	14"	6"	2"	10"	110	4,000	12	480	3	AERCO BMK 6000	

DUCT SILENCER SCHEDULE																	
TAG	SERVICE	SIZE W x H x L (IN) (L=Centerline)	CFM	STATIC PRESSURE (IN WG)	FPM	FLOW DIRECTION	DYNAMIC INSERTION LOSS, dB @ 2000 FPM								BASIS OF DESIGN MANUFACTURER & MODEL #	REMARKS	
							OCTAVE BAND HZ	1	2	3	4	5	6	7			8
DS-1	RTU-13 SUPPLY	40 x 20 x 120	8,300	0.17	1,494	+	12	20	22	31	42	35	25	24		VAW SYSTEMS #REA-HTL	ELBOW
DS-2	RTU-13 RETURN	40 x 20 x 120	8,300	0.17	1,494	-	13	19	24	28	38	32	23	23		VAW SYSTEMS #REA-HTL	ELBOW
DS-3	RTU-11 SUPPLY	30 x 22 x 132	3,500	0.20	1,200	+	14	27	37	38	48	37	32	31		VAW SYSTEMS #REA-EW-HTL	ELBOW
DS-4	RTU-11 RETURN	30 x 22 x 132	3,500	0.14	1,200	-	12	21	27	30	34	30	25	22		VAW SYSTEMS #REA-EW-HTL	ELBOW
DS-5	RTU-14 SUPPLY	18 x 26 x 144	1,630	0.21	931	+	16	34	45	55	55	54	43	27		VAW SYSTEMS #REA-EW-HTL	ELBOW
DS-6	RTU-14 RETURN</																

DRAFT INDUCER FAN SCHEDULE												
TAG	LOCATION	SERVICE	TYPE	CFM	TSP (IN WG)	FAN MOTOR DATA				BASIS OF DESIGN MANUFACTURER & MODEL #	REMARKS	
						RPM	HP	VOLT	PH			
DIF-1	CHASSIS WASH	PRESSURE WASHER	10" RD. DUCT MOUNTED IN-LINE DRAFT INDUCER	440	.140	1725	.25	120	1	"TJERNLUND" MODEL I	1	
1. PROVIDE WITH SAFETY INTERLOCK USING "TJERNLUND" UCI CONTROL AND PS1505 FAN PROVER.												

FINNED TUBE RADIATION SCHEDULE												
TAG	LOCATION	SERVICE	TYPE	PIPE SIZE	FINN SIZE	FLUID TYPE	AVERAGE WT (°F)	GPM	BTUH/FT	BASIS OF DESIGN MANUFACTURER & MODEL #	REMARKS	
												FT-1
FT-2	SEE PLANS	AREA 'G'	PEDESTAL	3/4"	4-1/4" x 3-5/8"	30% PROP. GLYCOL	120	1	321	STERLING JVB-ARPM	1, 2	
FT-3	SEE PLANS	AREA 'D'	WALL HUNG	3/4"	4-1/4" x 3-5/8"	30% PROP. GLYCOL	120	1	314	STERLING JVA-AR-14		
FT-4	SEE PLANS	UNDER FLOOR OF AREA 'G'	BARE ELEMENT	1"	2-3/4" x 5"	30% PROP. GLYCOL	120	1.5	373	STERLING SP-R07R	3	
1. PROVIDE WITH 8" HIGH BAND SUPPORTS.												
2. U-BEND WITH RETURN PIPE WITHIN ENCLOSURE BELOW ELEMENT.												
3. PROVIDE SUPPORTS FROM DECK ABOVE.												

EXPANSION TANK (BLADDER TYPE) SCHEDULE										
TAG	LOCATION	SERVICE	TYPE	FLUID	ACCEPTANCE VOLUME (GAL)	SIZE VOLUME	FILL PRESS (PSIG)	RELIEF VALVE SETTING (PSIG)	BASIS OF DESIGN MANUFACTURER & MODEL #	REMARKS
ET-2	MECH. ROOM M130	HEATING SYSTEM	BLADDER	30% PROP. GLYCOL	370	370	12	175	TACO	

REGISTER, GRILLE AND DIFFUSER SCHEDULE											
TAG	LOCATION	SERVICE	TYPE	CFM	NECK SIZE	PATTERN	APD (IN WG)	MAX NC	BASIS OF DESIGN MANUFACTURER & MODEL #	REMARKS	
											SD-1
SD-2	SEE PLANS	SUPPLY	PANEL FACE	SEE PLANS	24 x 24	4-WAY	0.031	20	NAILOR UNI T-BAR		
SD-3	SEE PLANS	SUPPLY	PANEL FACE	SEE PLANS	24 x 24	4-WAY	0.031	20	NAILOR UNI GYP	2, CEILING FRAME	
SD-4	SEE PLANS	SUPPLY	LINEAR SLOT	SEE PLANS	48 x 4	FIXED	0.071	25	NAILOR 5075TZ	LINED PLENUM BOX	
SD-5	SEE PLANS	SUPPLY	DRUM	SEE PLANS	30 x 6	ADJUSTABLE	0.011	20	NAILOR 45DL1-0	1, ALUMINUM	
SD-6	SEE PLANS	SUPPLY	DRUM	SEE PLANS	30 x 6	ADJUSTABLE	0.011	20	NAILOR 45DL1-0	1, ALUMINUM	
SD-7	SEE PLANS	SUPPLY	REVERSABLE CORE	SEE PLANS	12 x 12	FIXED	0.011	20	NAILOR 51RC-0	2	
SD-8	SEE PLANS	SUPPLY	REVERSABLE CORE	SEE PLANS	18 x 10	FIXED	0.016	20	NAILOR 51RC-0	2	
SD-9	SEE PLANS	SUPPLY	DOUBLE DEFLECTION	SEE PLANS	36x30	ADJUSTABLE	0.028	20	NAILOR 61DH-HD	1, HEAVY DUTY	
SR-1	SEE PLANS	SUPPLY	DOUBLE DEFLECTION	SEE PLANS	SEE PLANS	ADJUSTABLE	0.022	20	NAILOR 61DH-0	1	
SR-1A	SEE PLANS	SUPPLY	DOUBLE DEFLECTION	SEE PLANS	SEE PLANS	ADJUSTABLE	0.022	20	NAILOR 51DH-0	1, ALUMINUM	
RR-1	SEE PLANS	RETURN	PERFORATED FACE	SEE PLANS	24 x 24	PERFORATED FACE	0.028	20	NAILOR 4302		
RR-2	SEE PLANS	RETURN	LOUVERED	SEE PLANS	SEE PLANS	FIXED	0.016	20	NAILOR 6145H-0	1	
RR-2A	SEE PLANS	RETURN	LOUVERED	SEE PLANS	SEE PLANS	FIXED	0.016	20	NAILOR 5145H-0	1, ALUMINUM	
RR-3	SEE PLANS	RETURN	LINEAR SLOT	SEE PLANS	48 x 4	FIXED	0.071	25	NAILOR 5075TZR	LINED PLENUM BOX	
RR-4	SEE PLANS	RETURN	REVERSABLE CORE	SEE PLANS	28 x 20	FIXED	0.010	20	NAILOR 51RC-0		
RR-5	SEE PLANS	RETURN	PERFORATED FACE	SEE PLANS	24 x 24	PERFORATED FACE	0.028	20	NAILOR 4302	CEILING FRAME	
RR-6	SEE PLANS	RETURN	REVERSABLE CORE	SEE PLANS	36 x 20	FIXED	0.010	20	NAILOR 51RC-0		
ER-1	SEE PLANS	EXHAUST	LOUVERED	SEE PLANS	72 x 12	FIXED	0.016	24	NAILOR 6145H-0	1	
ER-1A	SEE PLANS	EXHAUST	LOUVERED	SEE PLANS	72 x 12	FIXED	0.016	24	NAILOR 5145H-0	1, ALUMINUM	
ER-2	SEE PLANS	EXHAUST	LOUVERED	SEE PLANS	18 x 18	FIXED	0.016	20	NAILOR 6145H-0	1	
ER-2A	SEE PLANS	EXHAUST	LOUVERED	SEE PLANS	18 x 18	FIXED	0.016	20	NAILOR 5145H-0	1, ALUMINUM	
ER-3	SEE PLANS	EXHAUST	LOUVERED	SEE PLANS	14 x 14	FIXED	0.016	15	NAILOR 6145H-0	2	
ER-4	SEE PLANS	EXHAUST	LOUVERED	SEE PLANS	8 x 8	FIXED	0.016	20	NAILOR 6145H-0	1	
ER-5	SEE PLANS	EXHAUST	LOUVERED	SEE PLANS	6 x 6	FIXED	0.016	20	NAILOR 6145H-0	2	
ER-6	SEE PLANS	EXHAUST	LOUVERED	SEE PLANS	24 x 10	FIXED	0.016	20	NAILOR 6145H-0	1	
ER-6A	SEE PLANS	EXHAUST	LOUVERED	SEE PLANS	24 x 10	FIXED	0.016	20	NAILOR 5145H-0	ALUMINUM	
ER-7	SEE PLANS	EXHAUST	LOUVERED	SEE PLANS	SEE PLANS	FIXED	0.016	20	NAILOR 6145H-0	1	
1. INTEGRAL VOLUME DAMPER ADJUSTABLE THRU FACE											
2. INTEGRAL VOLUME DAMPER ADJUSTABLE THRU FACE IN ROOMS A103, A103a, A104, A107, A115a, A116, A201, A201a, A221a, A222a, A226, M004, M110, M124 THRU M129, M129a, S105, STAIR A											

GRAVITY HOOD SCHEDULE								
TAG	LOCATION	TYPE	DUCT SIZE	HOOD SIZE	CFM	SP	BASIS OF DESIGN MANUFACTURER & MODEL #	REMARKS
GRV-2	AREA 'C' ROOF	INTAKE	8x8	27x22x14	80	0.030	GREENHECK FGI	1
GRV-3	AREA 'E' ROOF	INTAKE	8x8	27x22x14	40	0.030	GREENHECK FGI	1
GRV-4	AREA 'F' ROOF	INTAKE	8x8	27x22x14	40	0.030	GREENHECK FGI	1
GRV-5	AREA 'E' ROOF	INTAKE	14x14	29x27x16	750	0.030	GREENHECK FGI	1
GRV-6	AREA 'E' ROOF	INTAKE	48x16	75x36x16	2400	0.030	GREENHECK FGI	1
GRV-7	GUARD BOOTH	INTAKE	8x8	27x22x14	40	0.030	GREENHECK FGI	1
GRV-8	AREA 'E' ROOF	INTAKE	24"x48"	52x75x19	6000	0.089	GREENHECK FGI	1
1. ROOF CURB WITH INTEGRAL MOTORIZED DAMPER								

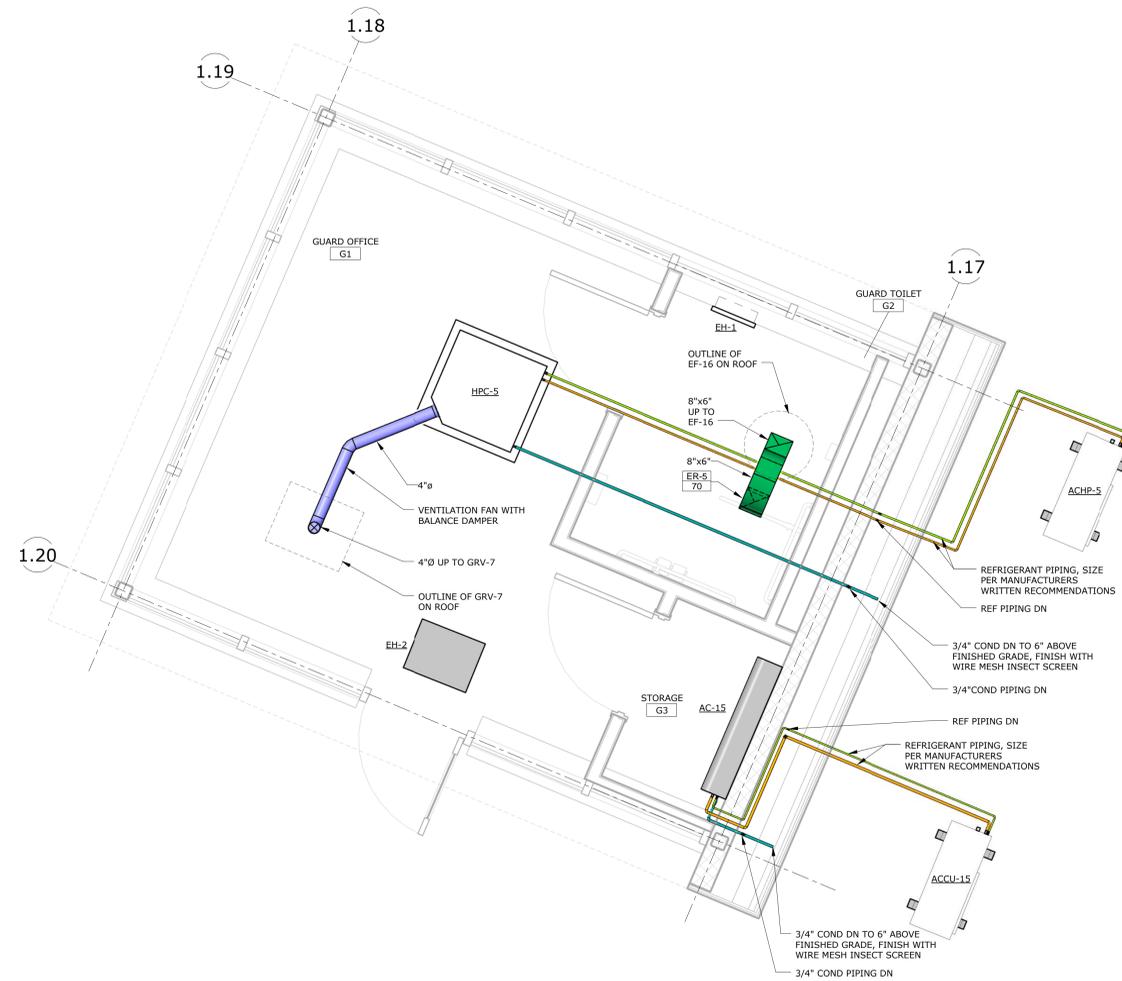
AIR SEPARATOR SCHEDULE							
TAG	LOCATION	SERVICE	FLUID	GPM	CONNECTION SIZES	BASIS OF DESIGN MANUFACTURER & MODEL #	REMARKS

ELECTRIC HEATER SCHEDULE										
TAG	LOCATION	TYPE	MIN. CFM	ELECTRICAL					BASIS OF DESIGN MANUFACTURER & MODEL #	REMARKS
				KW	AMPS	VOLT	PH	Ø		
EH-1	GUARD BOOTH	WALL	70	.75	3.1	208	1	60	MARKEL HF43752RP	UNIT MOUNTED THERMOSTAT AND WALL BOX
EH-2	GUARD BOOTH	T-BAR CEILING	175	4	19.2	208	1	60	MARKEL F3386D-RP	UNIT MOUNTED THERMOSTAT WITH T-BAR MOUNTING

HOT WATER CABINET HEATER SCHEDULE																	
TAG	LOCATION	SERVICE	TYPE	MBH	CFM	FLUID TYPE	GPM	EWT (°F)	LWT (°F)	MAX WPD (FT)	FAN MOTOR DATA				ARRANGEMENT	BASIS OF DESIGN MANUFACTURER & MODEL #	REMARKS
											RPM	HP	VOLT	PH			
CUH-1	ROOM S113a	H.W. HEATING	FLOOR	6.8	230	30% PROP. GLYCOL	0.40	140	100	0.02	1,050	1/15	120	1	SLOPE TOP	STERLING FS-1005-02	
CUH-2	STAIR 'R' FIRST FLOOR	H.W. HEATING	FLOOR	6.8	230	30% PROP. GLYCOL	0.40	140	100	0.02	1,050	1/15	120	1	SLOPE TOP	STERLING FS-1005-02	
CUH-3	STAIR 'G' FIRST FLOOR	H.W. HEATING	FLOOR	10.2	335	30% PROP. GLYCOL	0.80	140	100	0.07	1,050	1/15	120	1	SLOPE TOP	STERLING FS-1005-03	
CUH-4	STAIR 'D' FIRST FLOOR	H.W. HEATING	WALL	6.8	230	30% PROP. GLYCOL	0.40	140	100	0.02	1,050	1/15	120	1	INVERTED BOTTOM FRONT SUPPLY AIR	STERLING WI-1110-02	
CUH-5	STAIR 'A' GROUND FLOOR	H.W. HEATING	FLOOR	6.8	230	30% PROP. GLYCOL	0.40	140	100	0.02	1,050	1/15	120	1	SLOPE TOP	STERLING FS-1005-02	
CUH-6	STAIR 'D' GROUND FLOOR	H.W. HEATING	FLOOR	6.8	230	30% PROP. GLYCOL	0.40	140	100	0.02	1,050	1/15	120	1	SLOPE TOP	STERLING FS-1005-02	
CUH-7	STAIR 'G' GROUND FLOOR	H.W. HEATING	FLOOR	6.8	230	30% PROP. GLYCOL	0.40	140	100	0.02	1,050	1/15	120	1	SLOPE TOP	STERLING FS-1005-02	
CUH-8	STAIR 'D' SECOND FLOOR	H.W. HEATING	FLOOR	6.8	230	30% PROP. GLYCOL	0.40	140	100	0.02	1,050	1/15	120	1	SLOPE TOP	STERLING FS-1005-02	

HYDRONIC RADIANT SYSTEM SCHEDULE																				
ZONE PANEL																				
TAG	LOCATION	MATERIAL	ZONE AREA SQUARE FOOT	FLUID	EWT (°F)	LWT (°F)	TUBE DIA (IN)	MAX. CIRCUIT LENGTH (FT)	NO. CIRCUITS	TUBE SPACING (IN)	BTU/H REQ'D	HEAT INTENSITY BTU/H/S.F.	PUMP				ELECTRICAL			REMARKS
													GPM	TDH (FT)	BASIS OF DESIGN MANUFACTURER & MODEL #	HP	VOLT	PHASE	HERTZ	
RZ-1	ALIGNMENT PIT	PEX	340	30% GLYCOL	96	76	1/2	225	2	12	6,800	20	0.8	1.8	TACO 007	1/25	120	1	60	1, 3
RZ-2	MAINTENANCE PIT	PEX	150	30% GLYCOL	95.9	75.9	1/2	175	1	12	3,000	20	0.3	1.1	TACO 007	1/25	120	1	60	1, 3
RZ-3	MAINTENANCE PIT	PEX	165	30% GLYCOL	95.9	75.9	1/2	200	1	12	3,300	20	0.4	1.5	TACO 007	1/25	120	1	60	1, 3
RZ-4	MAINTENANCE	PEX	1890	30% GLYCOL	98	78	1/2	300	7	12	41,580	22	4.6	5.3	TACO 007	1/25	120	1	60	2, 3
RZ-5	MAINTENANCE	PEX	1890	30% GLYCOL	98	78	1/2	300	7	12	41,580	22	4.6	5.3	TACO 007	1/25	120	1	60	2, 3
RZ-6	MAINTENANCE	PEX	1890	30% GLYCOL	98	78	1/2	300	7	12	41,580	22	4.6	5.3	TACO 007	1/25	120	1	60	2, 3
RZ-7	MAINTENANCE	PEX	1890	30% GLYCOL	98	78	1/2	300	7	12	41,580	22	4.6	5.3	TACO 007	1/25	120	1	60	2, 3
RZ-8	MAINTENANCE	PEX	1890	30% GLYCOL	98	78	1/2	300	7	12	41,580	22	4.6	5.3	TACO 007	1/25	120	1	60	2, 3
RZ-9	MAINTENANCE	PEX	1890	30% GLYCOL	98	78	1/2	300	7	12	41,580	22	4.6	5.3	TACO 007	1/25	120	1	60	2, 3
RZ-10	MAINTENANCE	PEX	1890	30% GLYCOL	98	78	1/2	300	7	12	41,580	22	4.6	5.3	TACO 007	1/25	120	1	60	2, 3
RZ-11	MAINTENANCE	PEX	1890	30% GLYCOL	98	78	1/2	300	7	12	41,580	22	4.6	5.3	TACO 007	1/25	120	1	60	2, 3
RZ-12	MAINTENANCE	PEX	1890	30% GLYCOL	98	78	1/2	300	7	12	41,580	22	4.6	5.3	TACO 007	1/25	120	1	60	2, 3
1. PACKAGED SYSTEM WITH ENCLOSURE, PUMP, MIXING VALVE, CONTROLS, AND SUPPLY & RETURN PIPE CONNECTIONS. PROVIDE SUPPLY & RETURN VALVED MANIFOLDS WITH SUPPORTS FOR PIT INSTALLATION.																				
2. PACKAGED SYSTEM WITH ENCLOSURE, PUMP, MIXING VALVE, CONTROLS, AND SUPPLY & RETURN VALVED MANIFOLDS WITH SUPPORTS.																				
3. PROVIDE SLAB SENSOR.																				

DUCTLESS SPLIT SYSTEM SCHEDULE - COOLING ONLY																					
TAG	LOCATION	SERVICE	TYPE	REFRIGERANT	TONS	INDOOR UNIT DATA						OUTDOOR UNIT DATA					COOLING RATINGS	BASIS OF DESIGN MANUFACTURER & MODEL #	REMARKS		
						CFM (HT)	ELECTRICAL DATA			ELECTRICAL DATA			TOTAL (MBH)	SEER	PH	HZ				MCA	MOCP
							VOLT	PH	HZ	VOLT	PH	HZ									
AC-1/ACCU-1	ROOM M132	ELEC. ROOM	WALL-HUNG	R-410A	1.5	645	208	1	60	0.48	15	208	1	60	12.1	20	18.0	13	CARRIER 40QNC018-3-01 / 38HDF018-3-01	1, 2	
AC-2/ACCU-2																					



1 MECHANICAL GUARD BOOTH FIRST FLOOR DUCTWORK PLAN
1/2" = 1'-0"

REV.	DATE	DESCRIPTION	SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

DESIGNER/DRAFTER: GTH / MJC
 CHECKED BY: DJF
 SCALE: 1/2" = 1'-0"


STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

ARCHITECT: WENDEL
 ENGINEERS: RøSTL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL
 APPROVED BY: BPM
 DATE: 06/11/2014

DESIGNED BY:
 CLOUGH HARBOUR & ASSOCIATES
 2139 SILAS DEANE HIGHWAY
 SUITE 212
 ROCKY HILL, CT 06067-2336



PROJECT TITLE:
WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT

ADDRESS: FROST BRIDGE ROAD
 WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:
MECHANICAL GUARD BOOTH FIRST FLOOR PLAN

PROJECT NO. **431-0006**
 DRAWING NO. **MG-101**
 SHEET NO. **12.037**