THIS FORM MUST BE PRINTED TO A STATIC PDF FOR DISTRIBUTION

Yellow highlighted text will not appear in the printed document.

SUBMITTAL REVIEW

CLIENT NAME: Vails Gate Fire Department

PROJECT TITLE: Vails Gate FD - New Firehouse

SUBMITTAL No.: 238318 1-1 **H2M PROJECT No.:** VGFD2001

SUBMITTAL NAME: Radiant Floor Heat

SUBMITTAL REVIEW

REVIEW IS FOR GENERAL COMPLIANCE WITH CONTRACT DOCUMENTS.
NO RESPONSIBILITY IS ASSUMED FOR CORRECTNESS
OF DIMENSIONS OR DETAILS

- ☐ NO EXCEPTIONS TAKEN
- ☐ SUBMIT SPECIFIED ITEM
- ☒ MAKE CORRECTIONS NOTED (RESUBMISSION NOT REQUIRED)
- ☐ NO ACTION TAKEN (REVIEW IS THE RESPONSIBILITY OF ANOTHER PARTY)
- ☐ REVISE & RESUBMIT
- ☐ NO ACTION TAKEN (THIS SUBMITTAL IS NOT REQUIRED BY THE CONTRACT)
- ☐ REJECTED - SEE REMARKS
- ☐ RECEIVED FOR RECORD

Corrections or comments made on the shop drawings during this review do not relieve contractor from compliance with requirements of the drawings and specifications. This check is only for review of general conformance with the design concept of the project and general compliance with the information given in the contract documents. The contractor is responsible for: confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating their work with that of all other trades; and performing the work in a safe and satisfactory manner.

H2M architects + engineers

Date: 08/19/2024 By: EJN

Rev.: 2020-05-20

Comments:

CONTRACTOR'S COMPANY NAME
ADDRESS

SUBMISSION TRANSMITTAL FORM
CLIENT NAME: Vails Gate Fire District
PROJECT TITLE: VGFD2001-New Firehouse

H2M PROJECT NO.: VGFD2001

Product, Item, or System Submitted:	Radiant Floor Heating System Shop Drawings (Phase 2)		
Submission Date:	8/16/24	Submission Log No.:	238318-1.1
Specification Section:	238318	Paragraph Reference:	1.08/A&D
Contract Drawing Reference(s):			
Manufacturer's Name:			
Manufacturer's Mailing Address:			
Manufacturer's Contact Information:	*Name*	( ) *Tel. no.*	*Email*
Supplier's Name:	Joseph Lombardo Plumbing & Heating		
Supplier's Mailing Address:			
Supplier's Contact Information:	*Name*	( ) *Tel. no.*	*Email*
This item is a substitution for the specified item:		☐ No	☐ Yes

KEY CONSTRUCTION SERVICES, LLC

Project No: VGFD2001

Reviewed for General Acceptance Only. This review does not relieve the Subcontractors or Suppliers of responsibility for making the work conform to the requirements of the contract. The Subcontractor and Suppliers are responsible for all dimensions, correct fabrication and accurate fit with the work of other trades.

SUBJECT TO ARCHITECT AND OR ENGINEER APPROVAL

Signed *Joseph Manfredi*(PM) **Date:** 8/16/24

Contractor's Approval Stamp with Signature & Date

Contractor's Brief Comments or Remarks (attach separate letter as needed):

By making this submission, we represent that we have determined and verified all field measurements and dimensions, field construction criteria, site and building constraints in terms of limitations in moving the item into the enclosed space, materials, catalog and model numbers and similar data and that we have checked and coordinated this submission with other work at or adjacent to the installed location in accordance with the requirements contained in the Contract Documents.

END OF SECTION 013300

Joe Lombardo

Plumbing & Heating of Rockland, Inc.

321 Spook Rock Road
Suffern, NY 10901
Ph. 845-357-6537 Fx 845-357-8529
E: info@josephlombardo.com
Website: www.josephlombardo.com

Rockland Cty. Plumbing #1000 *Rockland Cty. Cooling # 1468*
Westchester Cty. Plumbing #460 *New Jersey State Plumbing #12702*

LETTER OF TRANSMITTAL

DATE: 8.16.24	JOB NO.
ATTENTION: Joe Manfredi	
RE: Vails Gate Firehouse	

TO: Key Construction
4246 Albany Post Rd. Suite 1
Hyde Park, NY 12538

WE ARE SENDING YOU ☐ Attached ☐ Under separate cover via _____ the following items:

☐ Shop Drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change order ☐ _____

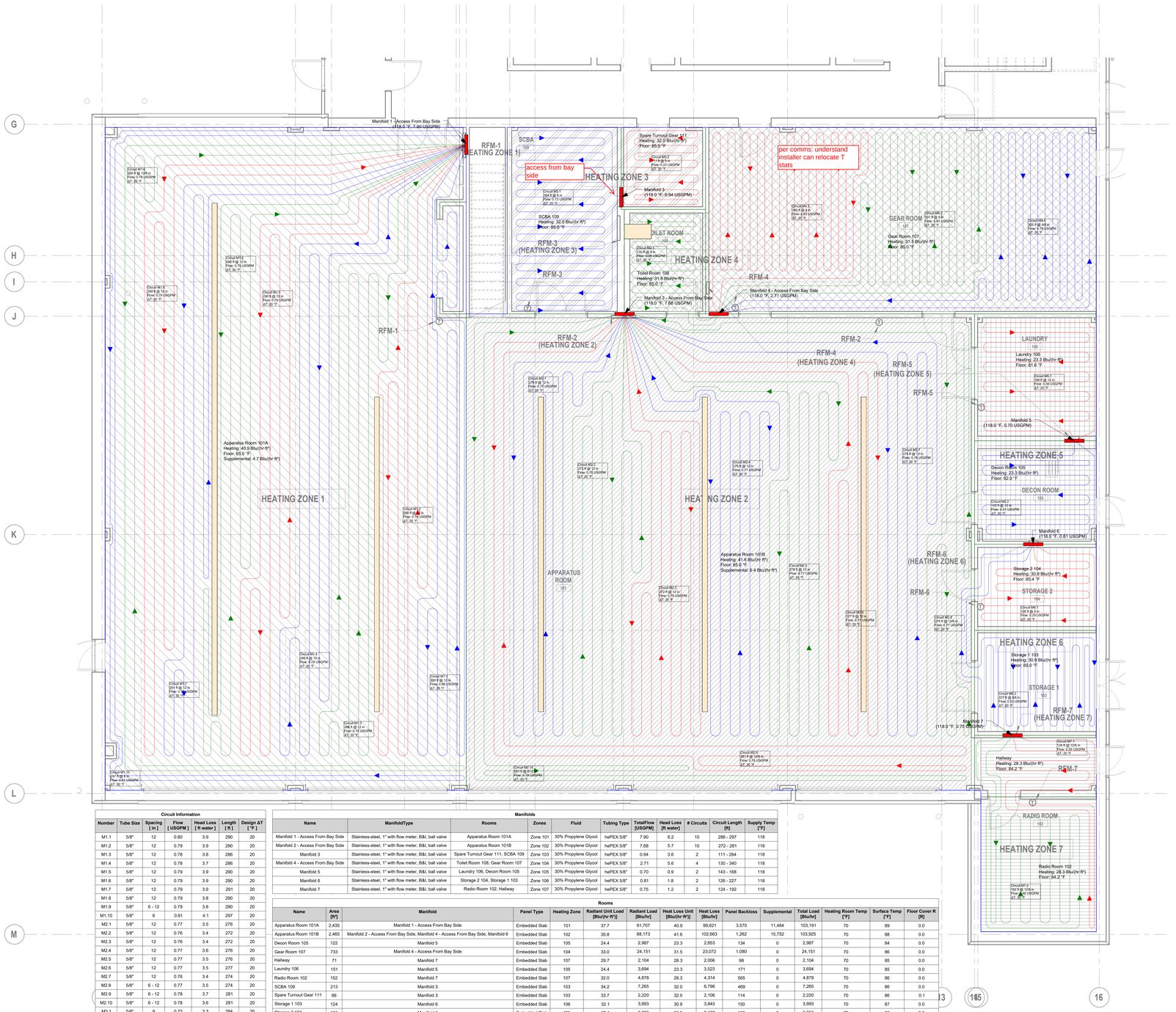
EMAIL	DATE	NO.	DESCRIPTION
1	8.16.24	238318	Snow melt system – SHOP DWG REVISION #2

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ No Exceptions Taken ☐ Resubmit _____ copies for review
☐ For your use ☐ Make Corrections Noted ☐ Submit _____ copies for distribution
☐ As requested ☐ Rejected ☐ Return _____ corrected prints
☐ For review and comment ☐ _____
☐ FOR BIDS DUE _____ 20___ ☐ PRINTS RETURNED AFTER LOAN TO US

COPY TO: Joe Manfredi

SIGNED: Ronald J. Lombardo



Circuit Information

Number	Tube Size	Spacing [in]	Flow [USGPM]	Head Loss [ft water]	Length [ft]	Design ΔT [°F]
M1.1	5/8"	12	0.80	3.9	290	20
M1.2	5/8"	12	0.79	3.9	290	20
M1.3	5/8"	12	0.78	3.8	286	20
M1.4	5/8"	12	0.78	3.7	286	20
M1.5	5/8"	12	0.79	3.9	290	20
M1.6	5/8"	12	0.79	3.9	290	20
M1.7	5/8"	12	0.79	3.9	291	20
M1.8	5/8"	12	0.79	3.8	290	20
M1.9	5/8"	6 - 12	0.79	3.8	290	20
M1.10	5/8"	6	0.81	4.1	297	20
M2.1	5/8"	12	0.77	3.5	276	20
M2.2	5/8"	12	0.76	3.4	272	20
M2.3	5/8"	12	0.76	3.4	272	20
M2.4	5/8"	12	0.77	3.6	276	20
M2.5	5/8"	12	0.77	3.5	276	20
M2.6	5/8"	12	0.77	3.5	277	20
M2.7	5/8"	12	0.76	3.4	274	20
M2.8	5/8"	6 - 12	0.77	3.5	274	20
M2.9	5/8"	6 - 12	0.78	3.7	281	20
M2.10	5/8"	6 - 12	0.78	3.6	281	20
M3.1	5/8"	9	0.72	3.3	284	20
M3.2	5/8"	9	0.22	0.2	111	20
M4.2	5/8"	9	0.83	4.9	340	20
M4.3	5/8"	9	0.81	4.7	337	20
M4.4	5/8"	6 - 9	0.79	4.5	335	20
M4.5	5/8"	9	0.28	0.3	130	20
M5.1	5/8"	12	0.39	0.7	168	20
M5.2	5/8"	12	0.31	0.4	143	20
M6.1	5/8"	9	0.29	0.3	126	20
M6.2	5/8"	6 - 9	0.53	1.5	227	20
M7.1	5/8"	6 - 12	0.29	0.3	124	20
M7.2	5/8"	6 - 12	0.46	1.0	192	20

Manifolds

Name	ManifoldType	Rooms	Zones	Fluid	Tubing Type	TotalFlow [USGPM]	Head Loss [ft water]	# Circuits	Circuit Length [ft]	Supply Temp [°F]
Manifold 1 - Access From Bay Side	Stainless-steel, 1" with flow meter, B&I, ball valve	Apparatus Room 101A	Zone 101	30% Propylene Glycol	hePEX 5/8"	7.90	6.2	10	286 - 297	118
Manifold 2 - Access From Bay Side	Stainless-steel, 1" with flow meter, B&I, ball valve	Apparatus Room 101B	Zone 102	30% Propylene Glycol	hePEX 5/8"	7.68	5.7	10	272 - 281	118
Manifold 3	Stainless-steel, 1" with flow meter, B&I, ball valve	Spare Turnout Gear 111, SCBA 109	Zone 103	30% Propylene Glycol	hePEX 5/8"	0.94	3.6	2	111 - 284	118
Manifold 4 - Access From Bay Side	Stainless-steel, 1" with flow meter, B&I, ball valve	Toilet Room 108, Gear Room 107	Zone 104	30% Propylene Glycol	hePEX 5/8"	2.71	5.6	4	130 - 340	118
Manifold 5	Stainless-steel, 1" with flow meter, B&I, ball valve	Laundry 106, Decon Room 105	Zone 105	30% Propylene Glycol	hePEX 5/8"	0.70	0.9	2	143 - 168	118
Manifold 6	Stainless-steel, 1" with flow meter, B&I, ball valve	Storage 2 104, Storage 1 103	Zone 106	30% Propylene Glycol	hePEX 5/8"	0.81	1.8	2	126 - 227	118
Manifold 7	Stainless-steel, 1" with flow meter, B&I, ball valve	Radio Room 102, Hallway	Zone 107	30% Propylene Glycol	hePEX 5/8"	0.75	1.2	2	124 - 192	118

Rooms

Name	Area [ft²]	Manifold	Panel Type	Heating Zone	Radiant Unit Load [Btu/(hr·ft²)]	Radiant Load [Btu/hr]	Heat Loss Unit [Btu/(hr·ft²)]	Heat Loss [Btu/hr]	Panel Backloss	Supplemental	Total Load [Btu/hr]	Heating Room Temp [°F]	Surface Temp [°F]	Floor Cover R [R]
Apparatus Room 101A	2,435	Manifold 1 - Access From Bay Side	Embedded Slab	101	37.7	91,707	40.9	99,621	3,570	11,484	103,191	70	89	0.0
Apparatus Room 101B	2,465	Manifold 2 - Access From Bay Side, Manifold 4 - Access From Bay Side, Manifold 6	Embedded Slab	102	35.8	88,173	41.6	102,663	1,262	15,752	103,925	70	88	0.0
Decon Room 105	122	Manifold 5	Embedded Slab	105	24.4	2,987	23.3	2,853	134	0	2,987	70	84	0.0
Gear Room 107	733	Manifold 4 - Access From Bay Side	Embedded Slab	104	33.0	24,151	31.5	23,072	1,080	0	24,151	70	86	0.0
Hallway	71	Manifold 7	Embedded Slab	107	29.7	2,104	28.3	2,006	98	0	2,104	70	85	0.0
Laundry 106	151	Manifold 5	Embedded Slab	105	24.4	3,694	23.3	3,523	171	0	3,694	70	85	0.0
Radio Room 102	152	Manifold 7	Embedded Slab	107	32.0	4,878	28.3	4,314	565	0	4,878	70	86	0.0
SCBA 109	213	Manifold 3	Embedded Slab	103	34.2	7,265	32.0	6,796	469	0	7,265	70	86	0.0
Spare Turnout Gear 111	66	Manifold 3	Embedded Slab	103	33.7	2,220	32.0	2,106	114	0	2,220	70	86	0.1
Storage 1 103	124	Manifold 6	Embedded Slab	106	32.1	3,993	30.9	3,843	150	0	3,993	70	87	0.0
Storage 2 104	101	Manifold 6	Embedded Slab	106	32.1	3,253	30.9	3,130	122	0	3,253	70	86	0.0
Toilet Room 108	81	Manifold 4 - Access From Bay Side	Embedded Slab	104	32.9	2,680	31.5	2,562	117	0	2,680	70	88	0.0

DISCLAIMER:
Note: Details of the tubing bend radius have been simplified for clarity. Consult tubing manufacturer for specific bend radius recommendations.

PROJECT:
Vails Gate Fire Department

CUSTOMER:

PROJECT NO.:
43204H R1

SCALE:
1/4"=1'

DRAWING NAME:
Ground Floor

DRAWN BY:
David Riggs

Created Using LoopCAD 2023 23.0.0594 (8/13/2024)

DATE:
7/9/2024

REVISIONS

No	Desc	Date
1	Moved Manifold 4. In zones 1 & 2 avoided trench drains and increased slab thickness to 8".	7/8/2024
2	Added Manifold Access Notes	8/13/2024

PAGE NO.
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