DANE COUNTY DEPT. OF PUBLIC WORKS, HIGHWAY & TRANSPORTATION

1919 Alliant Energy Center Way
Madison, Wisconsin 53713
Office: 608/266-4018 ◊ Fax: 608/267-1533
Public Works Engineering Division
Public Works Solid Waste Division

ADDENDUM 3

Thursday, April 19, 2018

ATTENTION ALL REQUEST FOR BID (RFB) HOLDERS

RFB NO. 316003 - ADDENDUM NO. 3

CONCRETE FLATWORK REMOVAL AND REPLACEMENT

BIDS DUE: TUESDAY, APRIL 24, 2018, 2:00 PM. DUE DATE AND TIME ARE NOT CHANGED BY THIS ADDENDUM.

This Addendum is issued to modify, explain or clarify the original Request for Bid (RFB) and is hereby made a part of the RFB. Please attach this Addendum to the RFB.

PLEASE MAKE THE FOLLOWING CHANGES:

1. Bid Form

Delete current Bid Form; replace with new Bid Form issued with this Addendum.

This changes the commencement date from May 21, 2018 to July 13, 2018 and adds an alternate bid for the ADA ramp snow melt system.

2. Table of Contents

Delete current Table of Contents; replace with new Table of Contents issued with this Addendum.

3. Basic Requirements

Delete current Basic Requirements; replace with new Basic Requirements included with this Addendum.

Change: Page 3 – Item 1.6.C, Schedule of Alternates:

"1. ADA Ramp Snow Melt System

a. This alternate includes providing a snow melt system and associated flat work for the ADA ramp."

Page 6 – Item 1.24.D, Occupancy During Construction and Conduct of Work.:

Change: "Work may be done during normal business hours (8:00 am to 4:30 pm)" to "Demolition Work should be performed on weekends. Other Work may be performed between 7 a.m. and 7 p.m. weekdays"

4. Section 23 07 00

Page 2, line 32, add the following:

ELASTOMERIC INSULATION:
Flexible closed cell, minimum nominal density of 5.5 lbs. per cu. ft., thermal conductivity of not more than 0.28 at 75 degrees F mean temperature, minimum compressive strength of 4.5 psi at 25% deformation, maximum water vapor permeability of 0.08 perm inch, maximum water absorption of 6% by weight, rated for service temperature range of -20 degrees F to 220 degrees F on piping and 180 degrees F where adhered to equipment.

Page 4, line 30, add the following:

Service: Radiant Supply to Circuit # 13 & 14 inside building & adjacent to Trench Drain
Insulation: Elastomeric
Jacket: None
Thickness: 0.5 inch
Note: The two supply lines may be insulated together.

5. Section 23 83 18

Page 2, line 39, after "281861-100" add the following: "or article no. 281881-100 as required".

Page 2, line 40, after "six station" add the following: "or eight station as indicated on the drawings and radiant circuit schedules".

6. Sheet P1

Delete current Drawing P1 – Snow Melt Tubing Layout and replace with new Drawing 1 – Snow Melt Tubing Layout – Base Bid, issued with this Addendum.

7. Sheet 1A

Add new Drawing 1A – Snow Melt Tubing Layout – Alternate Bid, issued with this Addendum.

8. Sheet 3

Delete current Drawing 3 - Partial Mechanical Room Floor Plan and replace with new Drawing 3 - Partial Mechanical Room Floor Plan, issued with this Addendum.

9. Sheet 4

Delete current Drawing 4 – Glycol / Water Piping Detail and replace with new Drawing 4 – Glycol / Water Piping Detail, issued with this Addendum.

10. Sheet 5

Delete current Drawing 5 – Steam Piping Detail and replace with new Drawing 5 – Steam Piping Detail, issued with this Addendum.

11. Sheet 6

Add new Drawing 6 – Ground Floor Mechanical / Electrical Plan, issued with this Addendum.

12. Schedules

Add Pump Schedule, Hot Water System Specialties Schedule, Radiant Sidewalk Snow Melt Circuit Schedule – Alternate Bid, Radiant Sidewalk Snow Melt Circuit Schedule – Base Bid, issued with this Addendum.

13. Work Notes

Replace HVAC Work Key Notes with Base Bid – HVAC Work Key Notes – Sidewalk Snow Melt and Alternate Bid – HVAC Work Key Notes – Sidewalk Snow Melt, issued with this Addendum.

If any additional information about this Addendum is needed, please call Ryan Shore at 608/266-4475, shore@countyofdane.com.

Sincerely,
Ryan Shore
Project Manager

Enclosures:

Bid Form
Table of Contents
Pump Schedule – Addendum No. 3
Hot Water System Specialties – Addendum No. 3
Radiant Sidewalk Snow Melt Circuit Schedule – Base Bid – Addendum No. 3
Radiant Sidewalk Snow Melt Circuit Schedule – Alternate Bid – Addendum No. 3
Sheet 1 – Snow Melt Tubing Layout - Base Bid
Sheet 1A – Snow Melt Tubing Layout - Alternate Bid
Sheet 3 – Partial Mechanical Room Floor Plan
Sheet 4 – Glycol / Water Piping Detail
Sheet 5 – Steam Piping Detail
Sheet 6 – Ground Floor Mechanical/Electrical Plan
Base Bid – HVAC Work Key Notes – Sidewalk Snow Melt
Alternate Bid – HVAC Work Key Notes – Sidewalk Snow Melt

Name of Bidding Firm: _____

BID FORM

BID NO. 316003
PROJECT: CONCRETE FLATWORK REMOVAL AND REPLACEMENT
CITY-COUNTY BUILDING

TO: DANE COUNTY DEPARTMENT OF PUBLIC WORKS, HIGHWAY & TRANSPORTATION PROJECT MANAGER
1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713

NOTE: WISCONSIN STATUTE 77.54 (9M) ALLOWS FOR NO SALES & USE TAX ON THE PURCHASE OF MATERIALS FOR COUNTY PUBLIC WORKS PROJECTS.

BASE BID - LUMP SUM:
Construction services for concrete flatwork removal and replacement and installation of a hydronic snow melt system at the City-County Building. The undersigned, having examined the site where the Work is to be executed and having become familiar with local conditions affecting the cost of the Work and having carefully examined the Drawings and Specifications, all other Construction Documents and Addenda thereto prepared by Dane County Department of Public Works, Highway & Transportation hereby agrees to provide all labor, materials, equipment and services necessary for the complete and satisfactory execution of the entire Work, as specified in the Construction Documents, for the Base Bid stipulated sum of:

_____ and _____ /100 Dollars
Written Price

$_____
Numeric Price

The undersigned agrees to add the alternate(s) portion of the Work as described, for the following addition(s) to or subtraction(s) from the Base Bid, as stipulated below.

ALTERNATE BID 1 - LUMP SUM:
Add price for providing additional snow melt system and associated flat work for the ADA ramp.

_____ and _____ /100 Dollars
Written Price

$_____
Numeric Price (circle: Add or Deduct)

Receipt of the following addenda and inclusion of their provisions in this Bid is hereby acknowledged:

Addendum No(s). _____ through _____

Dated _____

Dane County Department of Administration must have this project completed by November 16, 2018. Assuming this Work can be started by July 13, 2018, what dates can you commence and complete this job?

Commencement Date: _____ Completion Date: _____
(final, not substantial)

I hereby certify that all statements herein are made on behalf of:

_____
(Name of Corporation, Partnership or Person submitting Bid)

Select one of the following:
1. A corporation organized and existing under the laws of the State of _____, or

2. A partnership consisting of _____, or

3. A person conducting business as _____;

Of the City, Village, or Town of _____ of the State of _____.

I have examined and carefully prepared this Bid from the associated Construction Documents and have checked the same in detail before submitting this Bid; that I have full authority to make such statements and submit this Bid in (its) (their) (my) behalf; and that the said statements are true and correct. In signing this Bid, we also certify that we have not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise taken any action in restraint of free competition; that no attempt has been made to induce any other person or firm to submit or not to submit a Bid; that this Bid has been independently arrived at without collusion with any other bidder, competitor, or potential competitor; that this Bid has not been knowingly disclosed prior to the Bids Due Date to another bidder or competitor; that the above statement is accurate under penalty of perjury.

The undersigned further agrees to honor the Base Bid and the Alternate Bid(s) for sixty (60) calendar days from date of Award of Contract.

SIGNATURE: _____
(Bid is invalid without signature)

Print Name: _____ Date: _____

Title: _____

Address: _____

Telephone No.: _____ Fax No.: _____

Email Address: _____

Contact Person: _____

THIS PAGE IS FOR BIDDERS' REFERENCE AND NEED NOT BE SUBMITTED WITH BID FORM.

BID CHECK LIST:
These items **must** be included with Bid:
☐ Bid Form ☐ Bid Bond ☐ Fair Labor Practices Certification
☐ Project Experience / Reference Summary

BIDDERS SHOULD BE AWARE OF THE FOLLOWING:

DANE COUNTY VENDOR REGISTRATION PROGRAM

Any person bidding on any County contract must be registered with the Dane County Purchasing Division & pay an annual registration fee. A contract will not be awarded to an unregistered vendor. Obtain a *Vendor Registration Form* by calling 608/266-4131 or complete a new form or renewal online at:
www.danepurchasing.com/registration

DANE COUNTY BEST VALUE CONTRACTING PRE-QUALIFICATION

Contractors must be pre-qualified as a Best Value Contractor with the Dane County Public Works Engineering Division before the award of contract. Obtain a *Best Value Contracting Application* by calling 608/266-4018 or complete one online at:
www.countyofdane.com/pwht/BVC_Application.aspx

EQUAL BENEFITS REQUIREMENT

By submitting a Bid, the contractor acknowledges that a condition of this contract is to provide equal benefits as required by Dane County Code of Ordinances Chapter 25.13. Contractor shall provide equal benefits as required by that Ordinance to all required employees during the term of the contract. Equal Benefits Compliance Payment Certification shall be submitted with final pay request. For more information:
www.danepurchasing.com/partner_benefit.aspx

TABLE OF CONTENTS FOR RFB NO. 316003-REBID

Base Bid – HVAC Work Key Notes – Sidewalk Snow Melt
Alternate Bid – HVAC Work Key Notes – Sidewalk Snow Melt

SCHEDULES

Pump Schedule
Hydronic Specialties Schedule
Radiant Sidewalk Snow Melt Circuit Schedule – Base Bid
Radiant Sidewalk Snow Melt Circuit Schedule – Alternate Bid

PUMP SCHEDULE - ADDENDUM #3

TAG	TYPE	MANUFACTURER	MODEL	SERVICE	TYPE	FLANGE SIZE INLET/OUTLET	CAPACITY GPM	HEAD (FT -H2O)	IMPELLER (INCHES)	MOTOR						REMARKS
										HP	BHP	RPM	VOLT	PH	VFD	
SMP-1	IN-LINE	BELL & GOSSETT	E60 1.25 X 1.25 X 5.25	SNOW MELT SYSTEM	CENTRIFUGAL	1.25 X 1.25	23.6	21	4.625	1/2	0.239	1750	120	1	NO	1, 2
SMP-1A	IN-LINE	BELL & GOSSETT	E60 1.5 X 1.5 X 6.25	SNOW MELT SYSTEM	CENTRIFUGAL	1.5 X 1.5	27.3	23	4.875	3/4	0.313	1750	120	1	NO	1, 3

REMARKS

1 50% PROPYLENE GLYCOL
2 BASE BID PUMP
3 ALTERNATE BID PUMP

HOT WATER SYSTEM SPECIALTIES

Addendum #3

ITEM	TYPE	MODEL NUMBER (SEE REMARK # 1)	SIZE	CAPACITY	REMARKS
AIR SEPARATOR	INLINE	IAS-2	2" SYSTEM,, 3/4" VENT, 1/2" TO TANK	24 GPM MIN	
BALANCING VALVE		Circuit Setter Plus	2 INCH		2
AIR VENT	AUTOMATIC	87	COMBINATION 1/2" FPT / 3/4" MPT		
RELIEF VALVE	BRONZE	790-30	3/4 INCH - INLET AND OUTLET	790,000 BTU/HR	
EXPANSION TANK	BLADDER	B-35LA	10 GAL VOLUME	10 GAL ACCEPTANCE	

REMARKS

1 THE MODEL NUMBER IS BASED ON PRODUCTS BY BELL AND GOSSETT.
REFER TO SPECIFICATION FOR OTHER ACCEPTABLE MANUFACTURERS OF EQUIVALENT PRODUCTS

2 23.6 GPM BASE BID, 27.3 GPM ALTERNATE BID

RADIANT SIDEWALK SNOW MELT CIRCUIT SCHEDULE - BASE BID - ADDENDUM #3

CIRCUIT NUMBER	MANIFLOD NUMBER	APPROXIMATE LENGTH FEET	SPACING INCHES	ENTERING FLUID TEMP	FLOW GPM	TEMPERATURE DROP DEG. F		NOTE
A-1	1	188	9	112.5	1.99	25		
A-2	1	187	9	112.5	1.99	25		
A-3	1	185	9	112.5	1.99	25		
A-4	1	177	9	112.5	1.91	25		
A-9	1	187	9	112.5	1.99	25		
A-11	1	181	9	112.5	1.91	25		
TOTAL MANIFOLD 1					**11.78**			5
A-5	2	190	9	112.5	1.99	25		
A-6	2	185	9	112.5	1.96	25		
A-7	2	184	9	112.5	1.97	25		
A-8	2	183	9	112.5	1.97	25		
A-10	2	183	9	112.5	1.97	25		
A-12	2	182	9	112.5	1.94	25		
TOTAL MANIFOLD 2					**11.8**			5
SYSTEM TOTALS		**2212**			**23.58**			

NOTES

1 LENGTH LISTED IS ONLY THE LENGTH OF TUBING IN ACTIVE SNOW MELT AREA AND DOES NOT INCLUDE THE PIPING IN THE MECHANICAL ROOM BELOW.

2 FLUID IS 50 PERCENT ETHLYENE GLYCOL

3 TUBING 9 INCHES ON CENTER

4 SNOW MELT LOAD 152.1 BTUH/SF

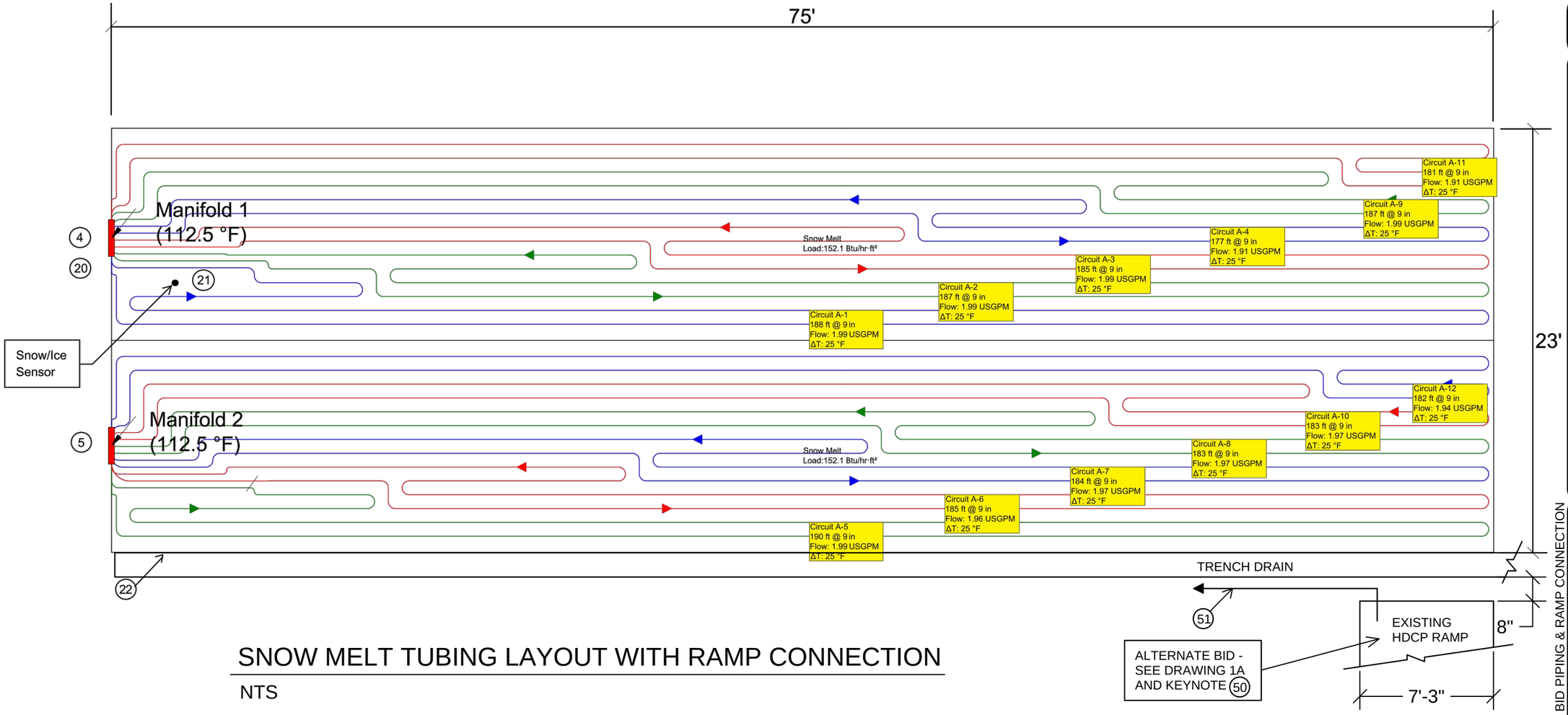
5 SIX OUTLET MANIFOLD

RADIANT SIDEWALK SNOW MELT CIRCUIT SCHEDULE - ALTERNATE BID - ADDENDUM #3

CIRCUIT NUMBER	MANIFLOD NUMBER	APPROXIMATE LENGTH FEET	SPACING INCHES	ENTERING FLUID TEMP	FLOW GPM	TEMPERATURE DROP DEG. F	NOTE
A-1	1	188	9	112.5	1.99	25	
A-2	1	187	9	112.5	1.99	25	
A-3	1	185	9	112.5	1.99	25	
A-4	1	177	9	112.5	1.91	25	
A-9	1	187	9	112.5	1.99	25	
A-11	1	181	9	112.5	1.91	25	
TOTAL MANIFOLD 1					**11.78**		7
A-5	2	190	9	112.5	1.99	25	
A-6	2	185	9	112.5	1.96	25	
A-7	2	184	9	112.5	1.97	25	
A-8	2	183	9	112.5	1.97	25	
A-10	2	183	9	112.5	1.97	25	
A-12	2	182	9	112.5	1.94	25	
A-13 (ALT)	2	153	9	112.5	1.52	25	
A-14 (ALT)	2	218	9	112.5	2.2	25	
TOTAL MANIFOLD 2 ALTERNATE BID					**15.52**		8
SYSTEM TOTALS		**2583**			**27.3**		

NOTES

1 CIRCUITS A-1 THROUGH 1-12 ARE THE SAME IN BASE BID AND ALTERNATE BID
2 LENGTH LISTED IS ONLY THE LENGTH OF TUBING IN ACTIVE SNOW MELT AREA AND DOES NOT ICLUDE THE PIPING IN THE MECHANICAL ROOM BELOW.
3 FLUID IS 50 PERCENT PROPYLENE GLYCOL
4 TUBING 9 ICHES ON CENTER
5 SNOW MELT LOAD- BASE BID AREA 152.1 BTUH/SF
6 SNOW MELT LOAD - ALTERNATE BID AREA 161.8 BTUH/SF
7 SIX OUTLET MANIFOLD
8 EIGHT OUTLET MANIFOLD



SNOW MELT TUBING LAYOUT WITH RAMP CONNECTION

NTS

ADENDUM #2 - BASE BID PIPING & RAMP CONNECTION

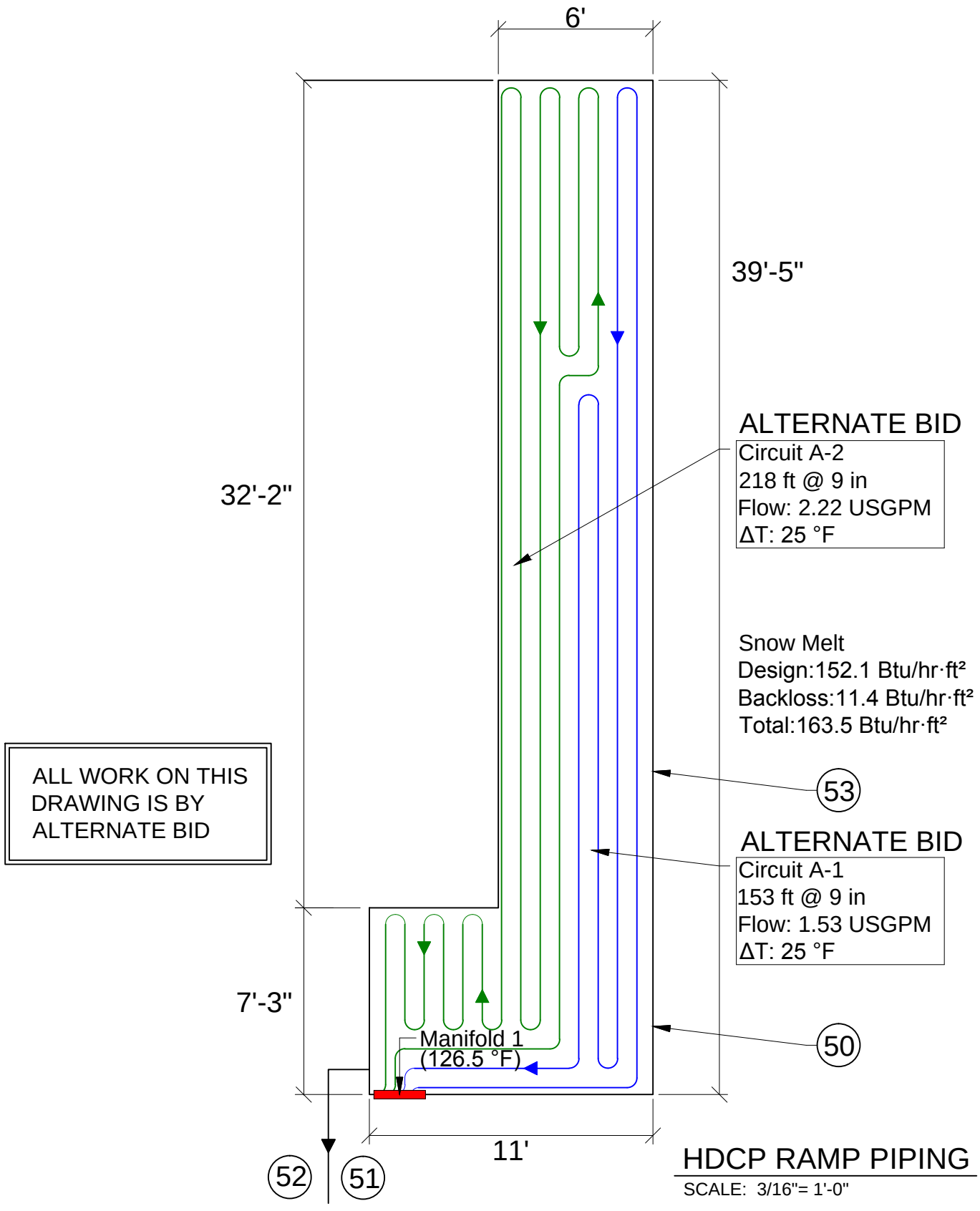
CONCRETE FLATWORK REMOVAL
AND REPLACEMENT
CITY-COUNTY BUILDING
210 MARTIN LUTHER KING JR BLVD
MADISON, WISCONSIN

DEPARTMENT OF PUBLIC WORKS
1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713

Design By: GJ
Drawn By: JRL
Approved By: RLS
Bid No.: 316003
Date: 4-4-18
Scale: NONE

Revisions

Drawing
1



ALL WORK ON THIS DRAWING IS BY ALTERNATE BID

HDCP RAMP PIPING

SCALE: 3/16"= 1'-0"

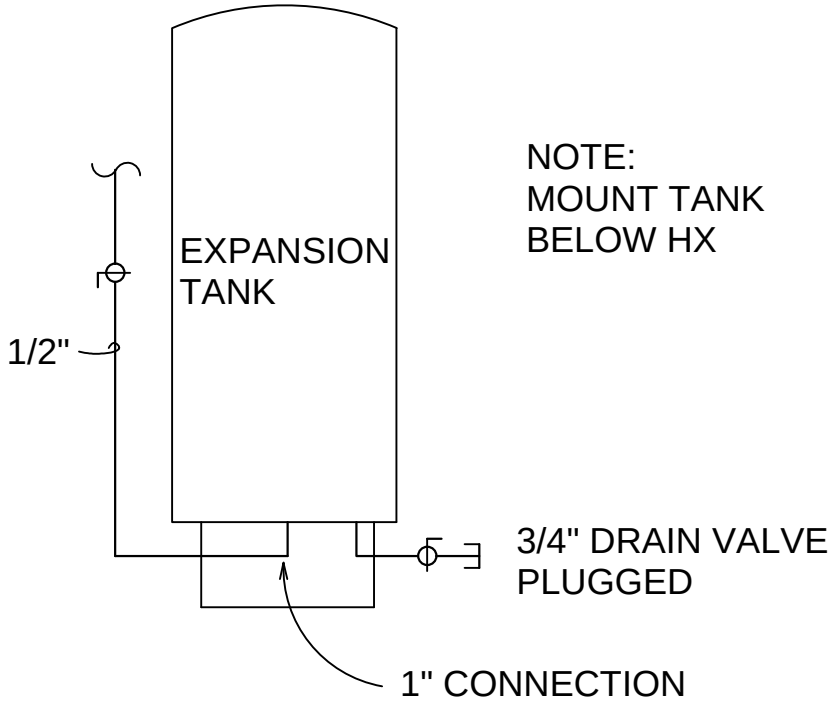
ALTERNATE BID #2

Design By:	Drawn By:	Approved By:	Revisions
GJ	JRL	RLS	

Bid No.:	Date:	Scale:
316003	4/6/18	AS NOTED

CONCRETE FLATWORK REMOVAL AND REPLACEMENT
CITY-COUNTY BUILDING
210 MARTIN LUTHER KING JR BLVD
MADISON, WISCONSIN

Drawing
1A



EXPANSION TANK PIPING DETAIL

NTS

Design By:	Drawn By:	Approved By:	Revisions
GJ	JRL	RLS	

Bid No.:	Date:	Scale:
316003	4/4/18	NONE

CONCRETE FLATWORK REMOVAL AND REPLACEMENT
CITY-COUNTY BUILDING
210 MARTIN LUTHER KING JR BLVD
MADISON, WISCONSIN 53713

Drawing
2

PARTIAL MECH. RM FLOOR PLAN

GR 100

SCALE: 1/2"= 1'

DOMESTIC WATER HOUSE PUMPS

5"

LPS

CS

COLD SOFT

2"

1 1/4"

3"

EXISTING WATER SOFTENERS

LEGEND

- CONCENTRIC REDUCER
- GATE VALVE
- STRAINER
- UNION
- PIPE PITCH
- CONTROL VALVE
- BALL VALVE
- PRESSURE GAUGE
- BALANCE VALVE
- RELIEF VALVE
- FLANGED CONNECTION
- (1) PLAN NOTES - SEE 'NOTES' PAGE X

Revisions

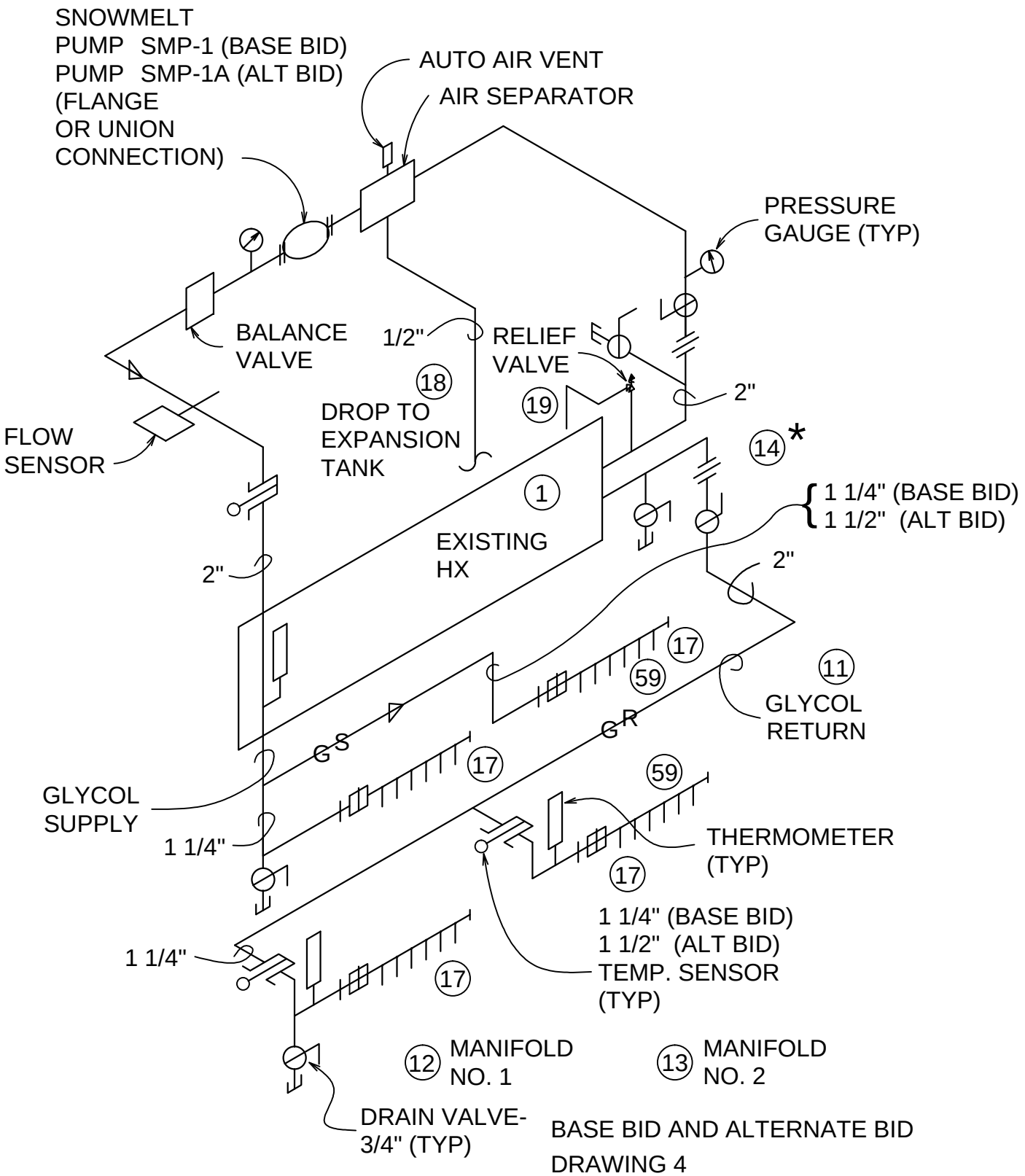
Design By: GJ
Drawn By: JRL
Approved By: RLS
Bid No.: 316003
Date: 4-4-18
Scale: NONE

DEPARTMENT OF PUBLIC WORKS
1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713

ADENDUM #2 - BASE BID AND ALTERNATE BID

CONCRETE FLATWORK REMOVAL AND REPLACEMENT
CITY-COUNTY BUILDING
210 MARTIN LUTHER KING JR BLVD
MADISON, WISCONSIN

Drawing 3



SNOW MELT GLYCOL/WATER PIPING DETAIL

NTS

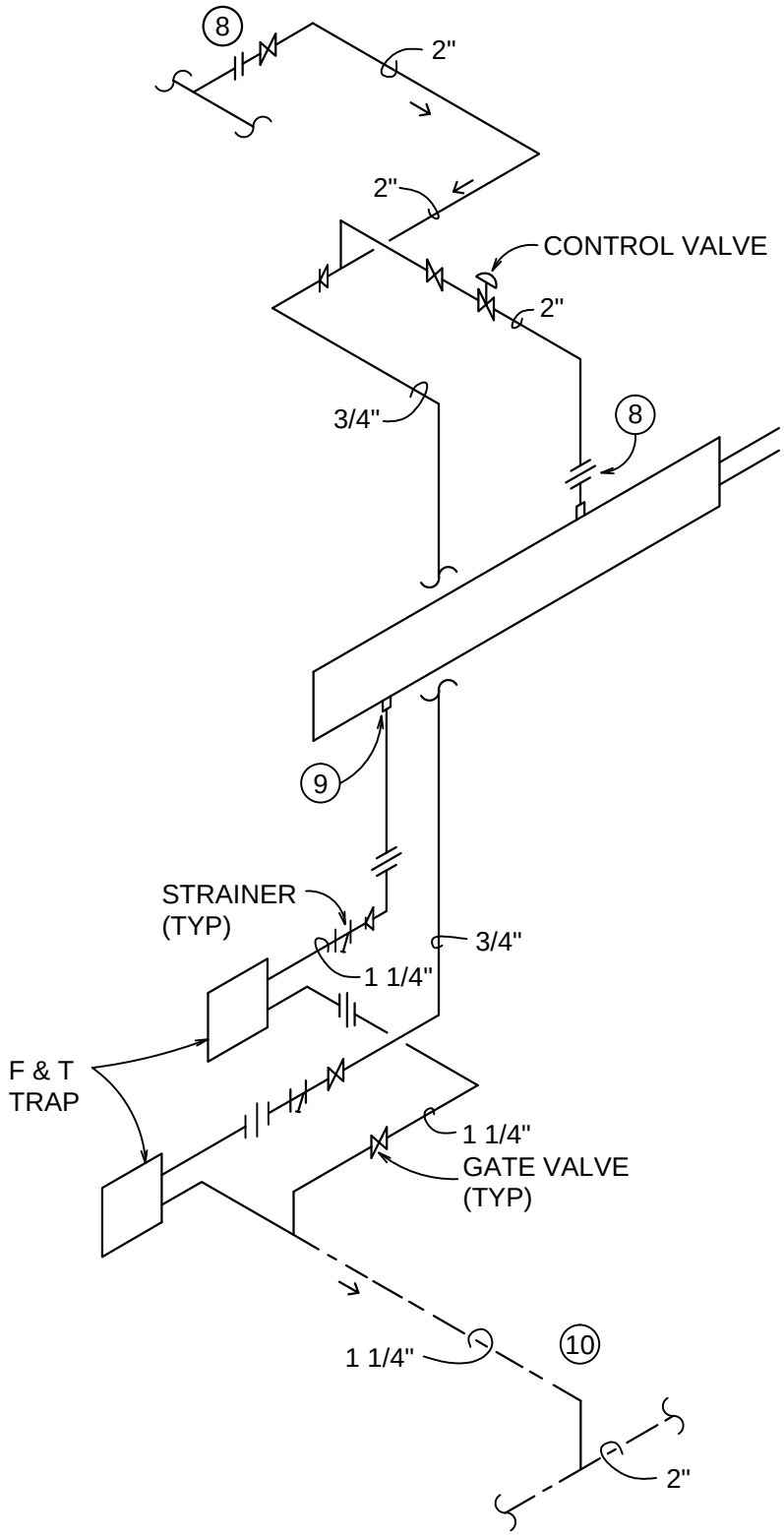
ADENDUM #2 - BASE BID AND ALTERNATE BID

Design By:	Drawn By:	Approved By:	Revisions
GJ	JRL	RLS	

Bid No.:	Date:	Scale:
316003	4/4/18	NONE

CONCRETE FLATWORK REMOVAL AND REPLACEMENT
CITY-COUNTY BUILDING
210 MARTIN LUTHER KING JR BLVD
MADISON, WISCONSIN

Drawing
4



LEGEND

- CONCENTRIC REDUCER
- GATE VALVE
- STRAINER
- UNION
- PIPE PITCH
- CONTROL VALVE
- BALL VALVE
- PRESSURE GAUGE
- BALANCE VALVE
- RELIEF VALVE
- FLANGED CONNECTION
- (1) PLAN NOTES - SEE 'NOTES' PAGE X

STEAM PIPING DETAIL

NTS

ADENDUM #2 - BASE BID AND ALTERNATE BID

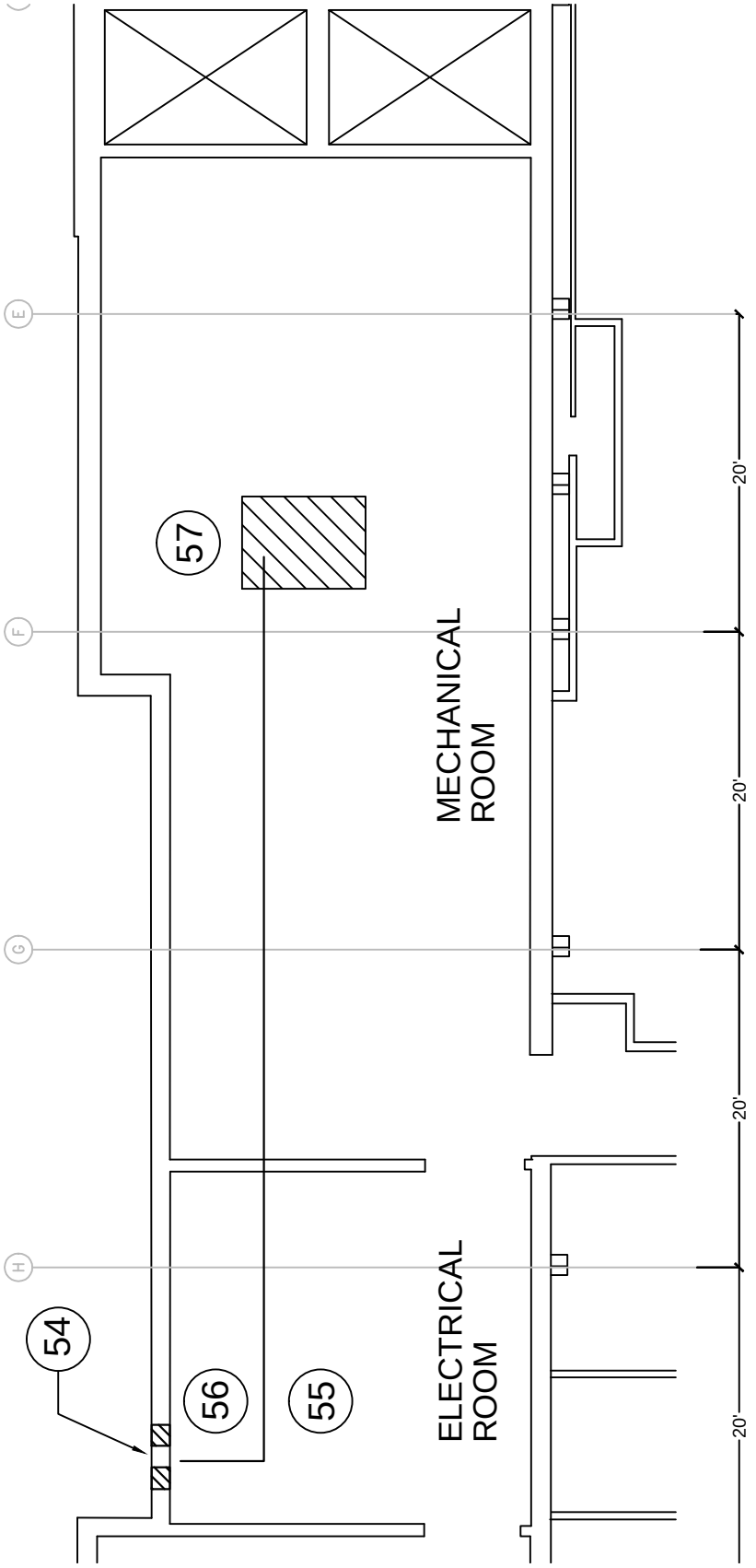
Design By:	Drawn By:	Approved By:
GJ	JRL	RLS

Bid No.:	Date:	Scale:
316003	4/4/18	NONE

Revisions

CONCRETE FLATWORK REMOVAL AND REPLACEMENT
CITY-COUNTY BUILDING
210 MARTIN LUTHER KING JR BLVD
MADISON, WISCONSIN 53713

Drawing
5



GROUND FLOOR MECH. & ELEC. ROOMS

NTS

ADENDUM #3 - PIPING TO ADA RAMP - ALTERNATE BID

Design By:	Drawn By:	Approved By:
GJ	JRL	RLS

Bid No.:	Date:	Scale:
316003	4/17/18	NONE

Revisions

CONCRETE FLATWORK REMOVAL AND REPLACEMENT
CITY-COUNTY BUILDING
210 MARTIN LUTHER KING JR BLVD
MADISON, WISCONSIN

Drawing
6

DANE COUNTY CITY COUNTY
BUILDING SNOW MELT SYSTEM
RFB 316003

BASE BID – HVAC WORK KEY NOTES – SIDEWALK SNOW MELT

1. EXISTING HEAT EXCHANGER ON STEEL FRAME TO BE USED FOR SNOW MELT SYSTEM. UNIT TO BE MOVED TO LOCATION TO LIMIT THE LENGTH OF PEX PIPING IN MECHANICAL ROOM. WHEN LOCATED BOLT TO FLOOR. REMOVE EXISTING PIPING CONNECTED TO STEAM AND WATER CONNECTIONS.
2. EXISTING DOMESTIC HOT WATER HEATER – NO WORK THIS PROJECT.
3. EXISTING DOMESTIC HOT WATER STORAGE TANKS – NO WORK THIS PROJECT.
4. APPROXIMATE LOCATION OF OPENING FOR MANIFOLD ONE.
5. APPROXIMATE LOCATION OF OPENING FOR MANIFOLD TWO.
6. DANE COUNTY HAS DRILLED A PILOT HOLE BESIDE THE CONCRETE BEAM TO THE SURFACE ABOVE. USE THIS LOCATION FOR THE OPENING FOR THE PEX PIPING. PROVIDE AN OPENING OF SIZE REQUIRED TO RUN THE SIX SUPPLY AND SIX RETURN LINES UP TO THE SIDEWALK. AFTER INSTALLATION CAULK THE CONCRETE SLAB OPENING WATER TIGHT, REFER TO SPECIFICATION.
7. RUN SIX ¾ INCH SUPPLY AND SIX ¾ INCH RETURN PEX LINES FROM ABOVE ALONG THE BEAM AND DROP AND CONNECT TO THE RESPECTIVE MANIFOLD.
8. CONNECT TO STEAM MAIN AT EXISTING 4 INCH BLAND FLANGE. REDUCE TO 2 INCH AND RUN TO HEAT EXCHANGER, MAKE 2 INCH CONNECTION TO 2-1/2 INCH INLET. REFER TO STEAM PIPING DETAIL.
9. CONNECT CONDENSATE PIPING TO HEAT EXCHANGER I INCH RETURN AND RUN 1 INCH TO EXISTING MAIN.
10. CONNECT 1-1/4 INCH CONDENSATE TO TOP OF EXISTING 2 INCH SERVING EXISTING WATER HEATERS.
11. PROVIDE GALVANIZED STRUT CHANNEL FASTENED TO EXISTING STEEL HEAT EXCHANGER SUPPORT AND ¾ INCH PLYWOOD FOR MOUNTING MANIFOLDS AND SNOW MELT CONTROLS.
12. MANIFOLD # 1.
13. MANIFOLD # 2.
14. CONNECT 2 INCH GLYCOL/WATER PIPING TO 3 INCH HEAT EXCHANGER INLET AND OUTLET. REFER TO GLYCOL/WATER PIPING DETAIL.
15. EXISTING HEAT EXCHANGER – NO WORK THIS PROJECT.
16. EXISTING CONTROL CABINET. LOCATION OF SNOW MELT SYSTEM CONTROL CONNECTION TO EXISTING BUILDING AUTOMATION SYSTEM
17. CONNECT PEX PIPING TO RESPECTIVE MANIFOLD INLETS AND OUTLETS. TAG EACH PEX LINE IDENTIFYING EACH WITH THE LAYOUT CIRCUIT NUMBER AND SUPPLY OR RETURN DESIGNATION.
18. DROP ½ INCH LINE FROM AIR SEPARATOR TO EXPANSION TANK.
19. DROP ¾ INCH LINE FROM RELIEF VALVE TO A 5 GALLON RECEIVER. RECEIVER TO BE PROVIDED BY OWNER
20. CONNECT ELECTRICAL NON-METALLIC TUBING (ENT) TO SENSOR SOCKET AND RUN TO THE OPENING IN SLAB AND DROP INTO MECHANICAL ROOOM. . RUN WIRE FROM SENSOR IN ENT TUBING TO MECHANICAL ROOM. TERMINATE TUBING AND SENSOR WIRING AT MANIFOLD MOUNTING PANEL. COORDINATE CONNECTION OF SENSOR WIRE WITH CONTROL CONTRACTOR.
21. LOCATE A SENSOR SOCKET AND SNOW/ICE SENSOR IN THE CONCRETE SIDE WALK AT LOCATION INDICATED ON THE PEX TUBING LAUOUT DRAWING. INSTALL SENSOR AND SOCKET PER MANUFACTURERS REQUIREMENTS.
22. INSTALL TUBING AS INDICATED ON THE LAYOUT DRAWING. TUBING TO BE ¾ INCH DIAMITER, NINE INCHES ON CENTER. INSTALL SPECIFIED FIXING RAILS ON CONCRETE SUBSTRATE AND INSTALL PEX TUBING INTO RAILS. COORDINATE FIXING RAIL AND TUBING INSTALLATION WITH GENERAL CONTRACTOR.

DANE COUNTY CITY COUNTY BUILDING REVIEWED AND EDITED 03/21/2018
SNOW MELT SYSTEM

ALTERNATE BID - HVAC WORK KEY NOTES – SIDEWALK SNOW MELT

50. ALTERNATE BID AREA ADA RAMP. CIRCUITS A13 AND A14 SUPPLIED BY MANIFOLD #2
51. RUN TWO ¾ INCH SUPPLY PEX LINES AND TWO ¾ INCH RETURN PEX LINES IN 8 INCH SPACE ADJACENT TO TRENCH DRAIN. INSULATE THE SUPPLY LINES WITH ½ INCH ELEATOMERIC INSULATION. REFER TO DRAWING 1.
52. CONTINUE TUBING RUN AND DROP INTO MECHANICAL/ELECTRICAL ROOMS AS INDICATED ON DRAWING 6.
53. INSTALL TUBING ON TOP OF RIGID FOAM INSULATION. FASTEN TUBING TO INSULATIONWITH MANUFACTURERS RECOMMENDED METHOD, MAINTAINING THE REQUIRED TUBING SPACING. GENERAL CONTRACTOR TO PROVIDE AND INSTALL INSULATION.
54. RISE TWO ¾ INCH SUPPLY PEX LINES AND TWO ¾ INCH RETURN PEX LINES IN 8 INCH SPACE ADJACENT TO TRENCH DRAIN. REFER TO DRAWING 1.
55. RUN THE FOUR SNOW MELT PEX LINES THROUGH THE ELECTRICAL ROOM COORDINATING THE LOCATION WITH EQUIPMENT IN THE ROOM TO MEET NATIONAL ELECTRICAL CODE REQUIREMENTS FOR CLEARANCE AND LOCATIONS.
56. INSULATE THE PEX SUPPLY LINES FOR CIRCUITS A13 AND A14 WITH ½ INCH ELASTOMERIC INSULATION.
57. APPROXIMATE LOCATION OF SNOW MELT MANIFOLDS
58. RUN TWO ¾ INCH SUPPLY PEX LINES AND TWO ¾ INCH RETURN PEX LINES AT CEILING OF MECHANICAL ROOM COORDINATING WITH EXISTING EQUIPMENT AND PIPING. CONTINUE ON DRAWING 6.
59. MANIFOLD #2. UNDER BASED BID THE MANIFOLD IS A SIX STATION SUPPLY – RETURN UNIT. UNDER ALTERNATE BID THE MANIFOLD SHALL BE AN EIGHT STATION SUPPLY – RETURN UNIT.