

**STATE OF IOWA
REQUEST FOR PROPOSALS
PROFESSIONAL DESIGN SERVICES**

RFP COVER SHEET

Administrative Information

RFP Number	RFP950300-01	Title of RFP	WRC CDC Freezer Repair
Agency	Iowa Department of Administrative Services (DAS)		
Project Description	The State of Iowa Department of Administrative Services (DAS) is seeking professional design services for to the roof, walls and doors of the Freezer building.		
State Issuing Officer: Katelyn Howells Issuing Officer Iowa Department of Administrative Services Hoover State Office Building, Level 3 1305 East Walnut, Des Moines, IA 50319-0105 Phone: 515-721-7856 Email: construction.procurement@iowa.gov			
PROCUREMENT TIMETABLE—Event or Action			Date/Time (Central Time)
State Posts Notice of RFP on TSB website			2/25/2026
State Issues RFP			2/27/2026
Pre-Proposal Conference Location and Address: 1251 334 th Street, Woodward, IA 50276 Meet at the Story Construction Trailer Is Pre-Proposal Conference mandatory? No If a map is needed, contact the Issuing Officer.			3/10/2026 @ 11:00 AM
Questions, requests for clarification, and suggested changes from Respondents due to Construction Procurement			3/13/2026 @ 2:00 PM
Proposals Due			3/25/2026 @ 2:00 PM
Relevant Websites			
Website where Addenda to this RFP will be posted http://bidopportunities.iowa.gov			
Website where contract terms and conditions are posted https://das.iowa.gov/sites/default/files/procurement/pdf/ConsensusDoc803.pdf			
Number of Copies of Proposals Required to be Submitted: 1 Digital			
Firm Proposal Terms The minimum number of days following the deadline for submitting Proposals that the firm guarantees all proposal terms, including price, will remain firm is 120 Days.			

1.1 INTRODUCTION

The Iowa Department of Administrative Services (DAS) is seeking proposals from qualified and available Design companies for services, per RFP cover page, and as outlined in the following (Sections 1.2 - 1.3). The successful proposal must:

- For the staff that will be assigned, identify and describe qualifications, experience, and expertise in providing services for similar, or relevant, projects.
- For the staff that will be assigned, provide a list of past similar or relevant projects completed in the last 5 years, and include brief descriptions of what the projects entailed and a contact name and phone number (reference). In addition provide estimated project cost, final project cost at acceptance, and whether it was completed on time.
- Describe the composition of your team. Identify staff to be assigned. Provide resumes of key individual(s) including education, relevant experience, and certifications/licensing. NOTE: Any responding company and/or consultant that is part of the project design services cannot receive an award from the resulting request for bid of construction services.
- Describe the cost estimating, status reporting, and cost reporting procedures you utilize.
- Describe computer program/software capabilities and expertise you utilize. Please describe your experience.
- Provide a copy of your organizational chart.
- Describe your experience, if any, on designing similar or relevant projects for the State of Iowa.
- Provide the hourly rates, and anticipated hours by position, for all persons (including sub-consultants) that will be assigned to the project. Also provide an estimated fee total.
- Identify desired reimbursable charges (the State has limitations, per State of Iowa Accounting Policies and Procedures 210.245), and all other charges.

1.2 SCHEDULE

DAS is seeking a firm that can commence work upon execution of a contract. Time is of the essence.

Execution of Designer's Contract	Week of April 13, 2026
Tentative Design Kick-Off Meeting	Week of April 20, 2026
100% Design Development Documents and Cost Opinion By	To Be Coordinated
50% Construction Documents and Cost Opinion By	To Be Coordinated
95% Construction Documents and Cost Opinion By	To Be Coordinated
100% Construction Documents and Cost Opinion By	August 21, 2026
Contractor Bidding	September 2026
Execution of Contractor's Contract(s)	October 2026
Submittals, Procurement and Construction	October 2026 to July 2027
Close out	July 2027

1.3 PROJECT DESCRIPTION

Construction Manager (Story Construction) has been engaged for this Project to serve as advisor to DAS and to provide assistance in administrating the Contract for Design between DAS and the Designer according to separate contract between DAS and Construction Manager. DAS is currently seeking design services from qualified firms for a project consisting of evaluating the freezers at the Woodward Resource Center's Central Distribution Center (CDC) and designing repairs needed for the roof and walls, which may include panel replacement. The current "freezer" is an amalgamation of 3 different freezers designed in 1978, 1982, and 2001.

Design services shall include:

- 1.3.1** The contract for this work will be a modified ConsensusDoc 803. See link on cover page for a sample contract.
- 1.3.2** All design disciplines necessary to complete the scope of work.
- 1.3.3** Attend design kick-off meeting onsite to discuss desired outcome of the project with the Owner, Construction Manager, and Owner's maintenance staff.
- 1.3.4** Use of the State of Iowa's construction management software program for uploading all documents, submitting and approving pay apps, and construction administration. The cost for the use of the software is paid by the Owner.
- 1.3.5** At a minimum, design for repairs or replacement of the walls and roof. Approximate size of freezers is the following: (Freezer 1 & 2: 92' x 63' x 14' high, Freezer 3: 96' x 65' x 16' high).
 - 1.3.5.1** Review of the foundation/floors is included, but any needed design for repairs would be negotiated as additional services.
 - 1.3.5.2** Mechanical system repairs/replacement are not anticipated.
 - 1.3.5.3** SystemWorks has completed a building envelope review, which is included as Attachment A.
- 1.3.6** Existing PDF drawings s for the 2001 and 1982 additions, along with roof replacement drawings from 1994 will be provided to the successful designers. There are no drawings for the original freezer construction.
- 1.3.7** Field examination of the existing buildings.
- 1.3.8** Design for scope of work. Provide material recommendations based on experience, quality, and price. Recommendations for replacements and upgrades shall include non-proprietary equipment and systems.
- 1.3.9** Provide minor drawing work to assist the Construction Manager in the development of hazardous materials bid package. This shall include providing PDF backgrounds for identification, by others, of hazardous materials removal.
- 1.3.10** Designer shall include any and all survey work required for completion of project.
- 1.3.11** Coordinate with State agencies to confirm utilities that may be abandoned as well as shut down requirements where required.
- 1.3.12** Provide detailed input of design schedule to Construction Manager for overall incorporation into master schedule.
- 1.3.13** Designer shall assist Construction Manager in the evaluation of long lead times.
- 1.3.14** Quality control during Design, Preconstruction and Construction.

- 1.3.15** Compliance with all Federal, State, and applicable AHJ codes.
- 1.3.16** Completion of State building and energy code documents, as required.
- 1.3.17** Design review will be conducted at 100% design development documents, 50% construction documents, and 95% construction documents. Dates for design review meetings to be coordinated with the design and project team and set no later than the design kickoff meeting. Review will be conducted with DAS Owner Representative, Construction Manager, and Facility Representative, at a minimum. Drawings, specifications and cost opinions (if applicable) shall be provided at least five days prior to each review meeting. An additional review meeting may be required at the end if there are discrepancies in cost opinions or constructability review questions.
- 1.3.18** Review with the Department of Inspections, Appeals, and Licensing's Building Code Bureau for approval of plans or exemption from review. All fees associated with the Bureau are the responsibility of the designer.
- 1.3.19** Develop and distribute agendas and meeting minutes for all meetings during the design phase.
- 1.3.20** Designer shall provide any information necessary to obtain utility rebates where applicable.
- 1.3.21** Construction cost opinions provided by the Design Professional team during Design (at 100% design development documents, 50% construction documents, and 95% construction documents) with a Final Estimate for construction included with bid documents, per Iowa Code.
- 1.3.22** Construction drawings, specifications (the Construction Manager will produce Divisions 00 and 01), and addenda.
- 1.3.23** Provide bid alternates as determined during the course of design and bid package development.
- 1.3.24** Assist Owner and Construction Manager in obtaining bids from qualified contractors.
- 1.3.25** Construction administration, including creation of the submittal and closeout items log, review of and responses to submittals and closeout documentation, RFIs, proposal requests, change orders, pay applications, periodic site visits, attendance at project meetings as required, participation / development of contractor punch list, closeout documentation review and approval, certificates of substantial completion, and certificates of final completion, as well as development of Architectural Supplemental Instructions for design revisions, and punch lists within the construction management software program.
- 1.3.26** Participation with project team during construction progress meetings as required. Designer shall participate in monthly conference calls during the construction period.
- 1.3.27** Field Observation reports, with photos, submitted for each site inspection within five (5) days of the site visit.

1.3.28 Acknowledgement that all documents are copyright to the State of Iowa and shall be turned over to the State of Iowa in their native computer format. Any ASIs/RFIs/PRs and addendums will be expected to be incorporated before final posting. Both the native computer format and PDF versions shall be uploaded to the construction management software program at the end of the project.

1.3.29 The Department requests lump sum pricing from the respondents to this RFP, with the lump sum base scope price being inclusive of all reimbursables, such as printing, mileage and travel expenses. The Department requests the fee proposal from the respondents to this RFP be broken down as follows. These breakdown prices will be used as the schedule of values for billing purposes.

1.3.29.1 Design Development Documents

1.3.29.2 Construction Documents

1.3.29.3 Bidding or Negotiation Assistance

1.3.29.4 Construction Phase

Include at minimum the following site/virtual visits:

	In-Person	Virtual
Design Kickoff/Building Evaluation	1	-
100% Design Development	-	1
50% Construction Documents	1	-
95% Construction Documents	-	1
100% Construction Documents	-	-
Pre-Bid Meeting	1	-
Construction Field Observation	2	-
Substantial Completion/Punch List Development	1	-
Final Completion/Punch List Verification	1	-
One year Warranty Correction Period Visit	1	-
	8	2

Beyond these site visits, each proposing firm shall provide additional visits as they see fit to complete the work of design. In addition to the lump sum pricing, the Department requests a unit price per construction inspection visit. This unit price will be additive or deductive based on the number of actual visits made.

1.4 ATTACHMENTS

1.4.1 Attachment A: System Works Report

2 – ADMINISTRATIVE ISSUES

2.1 GENERAL INFORMATION

- 2.1.1 DAS will evaluate the qualifications, experience, and other relevant information from companies interested in contracting with the State of Iowa to provide the necessary services to complete the project described in this RFP.
- 2.1.2 Companies certified as Targeted Small Businesses are encouraged to submit Proposals. The Iowa Department of Economic Development administers the Targeted Small Business (TSB) Program. Businesses meeting the requirements of the program are approved and registered with the Department of Economic Development and are considered Targeted Small Businesses for purposes of this RFP and most other solicitations issued by DAS. Questions concerning the TSB Program and for identification of companies certified as Targeted Small Businesses, contact the TSB Certification office in the Department of Economic Development at (515) 348-6159.

2.2 INQUIRIES

- 2.2.1 All inquiries concerning this RFP shall reference the RFP number and shall be provided (via email) to the issuing officer email address identified on the cover page of this RFP. Addenda type questions must be submitted per Schedule, Section 1.2.
- 2.2.2 Any information provided by prospective companies orally shall not be considered part of the company's Proposal.
- 2.2.3 DAS assumes no responsibility for representations concerning conditions made by its officers or employees prior to the execution of a contract. Oral discussions pertaining to modifications or clarifications of this RFP shall not be considered part of this RFP and are not binding.

2.3 PREPARATION OF THE PROPOSAL

- 2.3.1 **Proposals must be submitted on the Iowa [IMPACS Electronic Procurement System](#).** Prospective companies are solely responsible for timely submission.

2.4 DATE, TIME AND PLACE TO SUBMIT PROPOSALS

- 2.4.1 As stated above the proposal must be submitted on the Iowa IMPACS Electronic Procurement System
- 2.4.2 The Proposal must be submitted into IMPACS, on or before 2:00 pm, central time on the Proposal due date.

2.5 ECONOMY OF PRESENTATION

Proposals shall address the specific RFP requirements. All questions posed by the RFP shall be answered clearly and concisely.

2.6 RFP CHANGES AND ADDENDA

Written Addenda will serve to amend the RFP documents accordingly.

2.7 CERTIFICATION OF INDEPENDENT PRICE DETERMINATION

By submission of a response to this Proposal, the Company certifies, and in the case of a joint Proposal, each party thereto certifies as to its own organization, that in connection with this procurement:

- 2.7.1 Any prices or hourly rates in this Proposal have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any competitor.
- 2.7.2 Unless otherwise required by law, any prices or hourly rates which have been provided in this Proposal shall not knowingly be disclosed by the Firm, directly or indirectly, to any competitor prior to the notice of intent to award a contract for services.
- 2.7.3 No attempt has been made or shall be made by the Company to induce any other person or Company to submit or not to submit a Proposal for the purpose of restricting competition.
- 2.7.4 Each person signing this Proposal certifies that:
 - 2.7.4.1 He/she is the person in the Firm's organization responsible within that organization for the decision as to any prices being offered herein, or
 - 2.7.4.2 He/she is not the person in the Firm's organization responsible within that organization for the decision as to any prices being offered herein, but that he/she has been authorized in writing to act as agent for the persons responsible for such decision, and
 - 2.7.4.3 Any offer made by the submitted Proposal and any clarifications to that Proposal shall be signed by an officer of the offering Company or a designated agent empowered to bind the Company in a contract.

2.8 NOTICE OF INTENT TO AWARD

After the successful Company has been selected, a copy of the *Notice of Intent to Award* will be issued to all Companies who submitted Proposals in response to this RFP.

2.9 WITHDRAWAL OF PROPOSALS

Prospective Companies may withdraw, modify, and/or resubmit at any time prior to the date and time set for the receipt of Proposals. Once the time set for receipt of Proposals has passed, a Company shall not withdraw a Proposal for a period of sixty (60) days following the issuance of the Notice of Intent to Award a contract. Proposals shall remain open and valid for consideration by DAS throughout this period of sixty days, and until such time thereafter that written request to withdraw a Proposal is received by DAS.

2.10 DISPOSITION OF PROPOSALS

All Proposals become the property of DAS and disposition of the Proposals shall be at the sole discretion of DAS.

2.11 DISCLOSURE OF PROPOSAL CONTENT

Proposals will be placed in the public domain and be available for examination by interested parties. No Proposals shall be disclosed until after a *Notice of Intent to Award* has been issued. DAS reserves

the right to destroy all Proposals if the RFP is withdrawn or otherwise in the normal course of business. Trade secrets or proprietary information legally recognized as such and protected by law may be withheld if they are clearly and conspicuously labeled "Proprietary" in the margin of each individual page where they appear in the Proposal. Pricing information is not normally considered proprietary.

Public Records and Requests for Confidential Treatment.

The Agency's release of public records is governed by Iowa Code chapter 22. Contractors are encouraged to familiarize themselves with Chapter 22 before submitting a Proposal. The Agency will copy and produce public records upon request as required to comply with Chapter 22 and will treat all information submitted by a Contractor as non-confidential records unless Contractor requests specific parts of the Proposal be treated as confidential at the time of the submission as set forth herein **AND the information is confidential under Iowa or other applicable law.**

Failure to request information be treated as confidential as specified herein shall relieve Agency and State personnel from any responsibility for maintaining the information in confidence. Contractors may not request confidential treatment with respect to pricing information and transmittal letters. A contractor's request for confidentiality that does not comply with this section or a contractor's request for confidentiality on information or material that cannot be held in confidence as set forth herein are grounds for rejecting contractor's Proposal as non-responsive. Requests to maintain an entire Proposal as confidential will be rejected as non-responsive.

If Agency receives a request for information that Contractor has marked as confidential and if a judicial or administrative proceeding is initiated to compel the release of such material, Contractor shall, at its sole expense, appear in such action and defend its request for confidentiality. If Contractor fails to do so, Agency may release the information or material with or without providing advance notice to Contractor and with or without affording Contractor the opportunity to obtain an order restraining its release from a court possessing competent jurisdiction. Additionally, if Contractor fails to comply with the request process set forth herein, if Contractor's request for confidentiality is unreasonable, or if Contractor rescinds its request for confidential treatment, Agency may release such information or material with or without providing advance notice to Contractor and with or without affording Contractor the opportunity to obtain an order restraining its release from a court possessing competent jurisdiction.

2.12 PROPOSAL EVALUATION AND AWARD

The contract shall be awarded to the Company determined to be the best qualified to provide the services required under this RFP and the best value to the State.

2.13 GRATUITIES

The laws of Iowa provide that it is a felony to offer, promise, or give anything of value or benefit to a State employee with the intent to influence that employee's acts, opinions and judgment or exercise the discretion with respect to that employee's duties. Evidence of violations of this statute will be turned over to the proper prosecuting attorney.

Note: The State provides reimbursement to its employees for their transportation, lodging, meals, and miscellaneous expenses that are deemed necessary.

2.14 CONFLICTS BETWEEN TERMS

DAS reserves the right to accept or reject any exception taken by a prospective Company to the terms and conditions of this RFP. Should a prospective Company take exception to the terms and conditions required by DAS, the Firm's exceptions may be rejected and the entire Proposal declared non-responsive. DAS may elect to negotiate with the Company regarding contract terms or the contents of the Firm's Proposal.

2.15 IOWA STATUTES AND RULES

The terms and conditions of this RFP, the resulting contract, or activities based upon this RFP shall be construed in accordance with the laws of Iowa.

2.16 COSTS FOR PREPARATION OF PROPOSALS

No payments will be made to cover costs incurred by any Company in the preparation or the submission of this RFP, nor for any other associated costs.

2.17 NEWS RELEASES

News releases or other materials made available to the public, the Firm's clients, or potential clients pertaining to this procurement or any part of the Proposal shall not be made without prior written approval from DAS.

2.18 MISCELLANEOUS

2.18.1 DAS reserves the right to accept or reject any part of any Proposal, and to accept or reject any or all Proposals without penalty.

2.18.2 DAS reserves the right to waive minor deficiencies and informalities if, in the judgment of DAS, the best interests of the State of Iowa will be served.

2.18.3 DAS reserves the right to make a written request for additional information from a Company to assist in understanding or clarifying a Proposal. Any information received shall not be considered in the evaluation of the Firm's Proposal if it materially alters the content of said Proposal.

Section 3 – CONTRACT TERMS AND CONDITIONS

3.1 ELEMENTS OF CONTRACT

- 3.1.1** No contract relationship is created or implied by DAS from the acceptance of a proposal or an interview with a company in response to this RFP.
 - 3.1.2** No contract relationship is created or implied by DAS from the acceptance of a proposal or an interview with a company in response to this RFP.
 - 3.1.3** The proposed form of contract between the Company and the State will be a revised Consensus Doc 803, which will be modified to include the following:
 - 3.1.3.1** Incorporation, by reference, of this Request for Proposal and subsequent addenda and the Proposal submitted by the successful Firm in response to this RFP.
 - 3.1.3.2** Professional liability insurance in the amount of \$2 million will be required. See Exhibit A – Sample Insurance Certificate.
 - 3.1.3.3** The proposed project fee, start dates, and scheduling of the selected Firm’s services shall be established during negotiations.
 - 3.1.3.4** *Iowa Code* Section 8.47, The Accountable Government Act, requires that the terms and conditions of service contracts shall include the following:
 - 3.1.3.4.1** The amount or basis for paying consideration to the party based on the party’s performance under the service contract.
 - 3.1.3.4.2** Methods to effectively oversee the party’s compliance with the service contract.
 - 3.1.3.4.3** Methods to effectively review performance of a service contract.
 - 3.1.3.5** Other terms, mutually agreeable to the State and the Firm, may be developed during negotiations with the selected Firm.
- Other contract forms, as mutually agreeable, may be utilized as appropriate for additional services directly associated with this project.
- 3.1.4** This RFP does NOT establish a statewide contract.

Section 4 –REQUIREMENTS

All services to be provided by the Firm shall take into account the following assumptions:

4.1 MINIMUM FIRM QUALIFICATIONS

- 4.1.1 Firms, other than Sole Proprietorships and General Partnerships, shall be registered with the Office of the Iowa Secretary of State.
- 4.1.2 The selected Firm shall have sufficient, qualified staff to deliver the services needed. Per Chapter 26 of the Iowa Code regarding construction bids: A governmental entity shall have an engineer licensed under chapter 542B, a landscape architect licensed under chapter 544B, or an architect registered under chapter 544A prepare plans and specifications, and calculate the estimated total cost of a proposed public improvement.
- 4.1.3 The selected Firm shall have the resources and capabilities and the commitment to complete the required work in an efficient and timely manner, within the time period specified/negotiated.
- 4.1.4 DAS reserves the right to require proof of a submitting Firm's financial stability.
- 4.1.5 Failure to adhere to these instructions may be grounds for a Firm's Proposal to be found non-compliant with requirements of this RFP, and may be cause for rejection of the Proposal.

4.2 PROPOSAL CONTENT

Please do not exceed 10 MB on the file size of your proposal. The Proposal shall consist of the following elements in the order given below, and shall be limited to thirty (30) single pages or less, not including dividers, cover page, or resumes:

- 4.2.1 Letter of Transmittal/Statement of Interest including understanding and compliance with all requirements in this RFP (note section 4), email address for contact person, and acknowledgment of any addenda.
- 4.2.2 Executive Summary of the Proposal.
- 4.2.3 Response to all things in Sections 1 (1.1-1.3) and Section 4.
- 4.2.4 Company information regarding Organizational Stability, and Financial Strength (or provide Bank or Accountant reference).
- 4.2.5 Overview and Discussion of Offered Services including Approach and Methods (reference Section 1).
- 4.2.6 Estimated fee total, hourly rates, and anticipated hours by position per Section 1.1(8).

Section 5 – PROPOSAL EVALUATION, SELECTION, AND AWARD

5.1 EVALUATION PROCEDURES

- 5.1.1** Proposal packages will be opened by the Issuing Officer and the names of all Companies who submitted Proposals will be released upon request.
- 5.1.2** The Issuing Officer will review the proposals for compliance with the RFP instructions/requirements.
- 5.1.3** The Issuing Officer will retain non-compliant Proposals.
- 5.1.4** Copies of proposals determined by the Issuing Officer to be compliant with the RFP will be evaluated.
- 5.1.5** Evaluation criteria is shown in 5.2.2
- 5.1.6** All answers provided to the questions asked in this RFP are subject to verification. Misleading answers shall be grounds for disqualification at any stage in the procurement process.
- 5.1.7** DAS reserves the right to make a written request for additional information from a prospective Company to assist in understanding or clarifying a Proposal.
- 5.1.8** The Companies with the highest scoring Proposals may be selected for interviews.

5.2 SELECTION PROCEDURES

- 5.2.1** A Selection Committee will be formed to evaluate all compliant proposals. The committee's size and membership will be determined at the sole discretion of DAS.
- 5.2.2** Criteria for evaluating the proposals:
 - 5.2.2.1** Qualifications (experience and expertise of staff assigned for similar projects), firm's capabilities and financial stability.
 - 5.2.2.2** Approach and Proposed Methods.
 - 5.2.2.3** The Firm's proposed schedule with respect to the State's needs.
 - 5.2.2.4** Stipulated Fee, hourly rates, and anticipated hours by position per Section 1.1(8).
 - 5.2.2.5** Interviews (optional)

5.3 AWARD OF CONTRACT

- 5.3.1** After selection, DAS will meet with the Firm for the purpose of negotiating an Agreement that is acceptable to both parties. In the event that the parties do not achieve an acceptable agreement, DAS reserves the right, at its sole discretion, to negotiate with other RFP respondents.
- 5.3.2** Should the above process not result in a contract, DAS will re-evaluate relevant issues and take appropriate follow-up action.

RFP 950300-01 Attachment A



State of Iowa - Iowa Department of Administrative Services State of Iowa - WRC CDC Freezer Building Envelope

9503.00 Freezer Site Investigation

Status: Completed

Reported By: Karl Kaufman

Date Of Report: 10/22/2025

Systems Reviewed

The freezers at the Central Distribution Center for the Woodward Resource Center were reviewed on 10/17/25 due to concerns about frost formation on the interior of the freezers, visible daylight from the interior of the freezers, and the potential bowing / displacement of freezer wall panels. The current "freezer" is an amalgamation of 3 different freezers designed in 1978, 1982, and 2001. They are referred to throughout this report as Freezer 1, Freezer 2, and Freezer 3, respectively (see image below). The focus of the investigation on 10/17 was the freezer wall panels. The roofs of the respective freezers were reviewed on 1/7/26. Testing was conducted on the north wall panels of Freezer 1 & 2 on 2/9/26 to identify if moisture was the underlying cause of the previously identified thermal anomalies. While extensive cracking of the concrete slab was noted in freezer 1, the concrete work was not systematically reviewed.

Drawings for the 2001 and 1982 additions are available along with roof replacement drawings from 1994 that are primarily focused on the warehouse. Little information is available regarding freezer 1. The drawings for freezer 2 reference 4" urethane panels from Bally while the drawings for freezer 3 include shop drawings from Master-Bilt Refrigeration Solutions showing 5" panels.

General Site Conditions

The formation of frost on the interior was reviewed and documented below with detail observations for the specific freezers (e.g. 1-FA addresses frost formation at location A in Freezer 1 while 2-FC addresses frost formation at location C in Freezer 2). Please see the image below for the specific locations within each freezer. Additional conditions / concerns are documented in a similar fashion without the use of "F" in the naming convention. Finally, concerns that are not location specific, but apply to the individual freezers themselves are also included in the detailed observations at the end of the wall section of the report.

Ambient conditions during wall review (10/17/25): Outdoors 58% RH @ 77F, Warehouse 63% RH @ 72F, Freezer (2) 65% RH @ -3.7F

Ambient conditions during roof membrane review (1/7/26): Outdoors 55% RH @ 54F with clear sky conditions

A similar nomenclature for roof membrane observations is used (i.e. 1-RA3 addresses the 3rd thermal anomaly noted on the roof of Freezer 1 while 2-RI1 addresses the 1st instance of ice below the roof membrane at Freezer 2). The same freezer numbering used for walls is used for roofs and all roof concerns begin with 'R' (e.g. RH, RI, RA). Where a hole in the roof membrane was noted, RH is used. These areas may include ice (as indicated by the noise made when walking over these areas) or not. Where ice was noted, but a hole in the membrane was not, the concern is indicated using 'RI'. Where a thermal anomaly was indicated using the thermal

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imaging camera, but neither a hole nor ice (as indicated / identified above) was noted, the concern was noted by 'RA'. Recommendations for all locations with holes, ice, and thermal anomalies are included in the first instances of each of these (i.e. 1-RH1, 1-RI1, and 1-RA1 respectively). Finally, concerns that are not specific, but apply to the individual freezers or multiple locations are also included in the detailed observations at the end of the report.

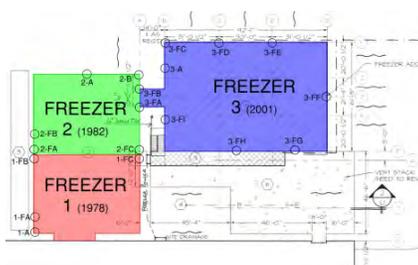
Note: Thermal images in this report include a box in the upper left corner indicated the temperature at the center of the image (white cross-hairs), the maximum temperature (at red cross-hairs), and the minimum temperature (at blue cross-hairs). The colors auto-scale across the temperature range and as a result the same color does not represent the same temperature in each image.

Recommendations

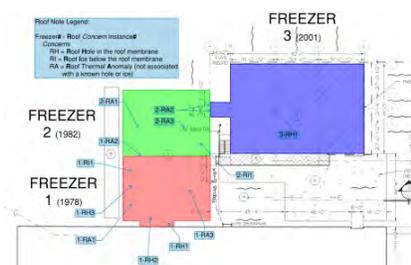
Recommendations are included in the detailed observations below, but testing supports that moisture within the panels is the reason for the thermal anomalies. In addition to moisture, carried by air migrating through the panel joints, a network of voids within the foam making up the panels is believed to be the path for moisture into the system. Because removing the moisture from the panels while in service would require an extensive amount of time for the ice to sublimate, it is clear that sealing the joints around the panels would not address the thermal anomalies / inefficiencies in the short term, but it is not clear if attempting to seal the joints on the exterior would reduce the formation of new ice at a slower rate, or whether this would be a cost effective to attempt (see Observation 21 below). Consulting a freezer manufacturer / freezer design specialist may provide options in addition to replacement of panels noted below. A manufacturer likely has options to help balance the air / moisture infiltration at the doors and their operability.

Note: Moisture flow is from higher to lower gradient (i.e. wet to dry, higher vapor pressure to lower vapor pressure). The vapor pressure is almost always higher on the exterior of the freezers due to their low temperature. Water vapor is addressed with non-permeable or very low vapor permeable products. They must be installed to create a continuous air barrier since air movement can transfer significantly more moisture than vapor diffusion through materials. These products (e.g. roof membranes, continuous sheets of metal, etc.) should be located on the exterior (warm side of the enclosure). Vapor permeable components to the interior of this continuous air and vapor impermeable layer provide a benefit of allowing the assembly to dry. Multiple vapor impermeable layers within an assembly are not advantageous and should be avoided where possible.

Images



Freezer Observation Locations.jpg



Roof Observation Locations.jpg



Site Freezer Plan.jpg

**State of Iowa - Iowa Department of Administrative Services
State of Iowa - WRC CDC Freezer Building Envelope**

OBSERVATION: SOR-1-001

Status: Published

Reported On: 10/23/2025

Asset:

Reported By: Karl Kaufman

Recommended Action:

Description

1-A: Daylight was previously noted coming in between the joints in the panels. Spray polyurethane foam (ccSPF) has been installed in the joints in the meantime. Foam in the joint extends to roughly 7' above the base slab. There are some thermal anomalies (see below), but the joint appears relatively well sealed.

Images



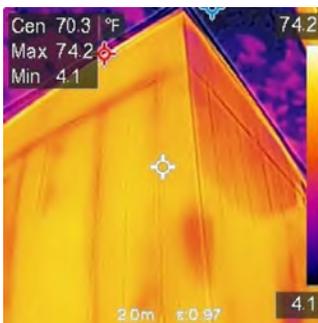
WRS Cold Storage - 20251017 - 012.JPG



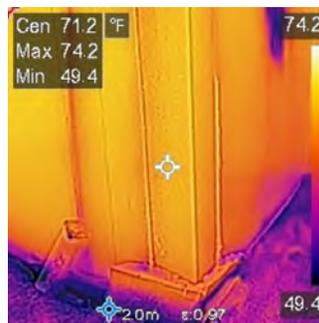
WRS Cold Storage - 20251017 - 165.JPG



WRS Cold Storage - 20251017 - 166.JPG



WRS Cold Storage - 20251017 - IR - 031.JPG



WRS Cold Storage - 20251017 - IR - 033.JPG

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OBSERVATION: SOR-1-002

Status: Published

Reported On: 10/23/2025

Asset:

Reported By: Karl Kaufman

Recommended Action:

Description

1-FA: Frost has formed on the interior in the vicinity of the positive/negative pressure relief port in the northwest corner (NWC) of freezer 1. It is not clear how well sealed the frame around this penetration is sealed, but frost would be expected at this location given the nature of the pressure relief port.

No remedial action is recommended at this location at this time.

Images



WRS Cold Storage - 20251017 - 015.JPG



WRS Cold Storage - 20251017 - 168.JPG



WRS Cold Storage - 20251017 - 169.JPG



WRS Cold Storage - 20251017 - IR - 169.JPG



WRS Cold Storage - 20251017 - IR - 171.JPG

State of Iowa - Iowa Department of Administrative Services State of Iowa - WRC CDC Freezer Building Envelope

OBSERVATION: SOR-1-003

Status: Published

Reported On: 10/23/2025

Asset:

Reported By: Karl Kaufman

Recommended Action:

Description

1-FB: Frost and ice has formed at the ceiling in the northeast corner (NEC) of freezer 1. The joint between freezer 1 and freezer 2 as well as the adjacent wall-to-roof panel joint are suspect. IR imaging supports that there is considerable heat transfer at these locations. Exterior IR imaging indicates thermal anomalies addressed at the end of this report.

Images



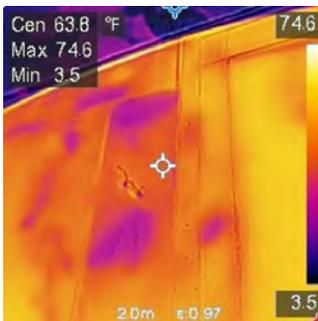
WRS Cold Storage - 20251017 - 018.JPG



WRS Cold Storage - 20251017 - 171.JPG



WRS Cold Storage - 20251017 - 174.JPG



WRS Cold Storage - 20251017 - IR - 063.JPG



WRS Cold Storage - 20251017 - IR - 175.JPG

State of Iowa - Iowa Department of Administrative Services
State of Iowa - WRC CDC Freezer Building Envelope

OBSERVATION: SOR-1-004

Status: Published

Reported On: 10/23/2025

Asset:

Reported By: Karl Kaufman

Recommended Action:

Description

1-FC: The SEC of freezer 1 was not accessible due to product being stored in that area. Finish issues and joints on the exterior were indicative of uncontrolled air movement across the panel.

Sealing the expansion joint and joints between panels in this area is recommended.

Images



WRS Cold Storage - 20251017 - 176.JPG



WRS Cold Storage - 20251017 - 297.JPG



WRS Cold Storage - 20251017 - IR - 181 edited.jpg



WRS Cold Storage - 20251017 - IR - 182.JPG

State of Iowa - Iowa Department of Administrative Services
State of Iowa - WRC CDC Freezer Building Envelope

OBSERVATION: SOR-1-005

Status: Published

Reported On: 10/23/2025

Asset:

Reported By: Karl Kaufman

Recommended Action:

Description

2-FA: There is a significant amount of frost and ice on the ceiling in the NWC of Freezer 2. A joint along the west wall separates Freezer 2 from Freezer 1. The joint is covered by a metal plate on the exterior; however, the metal plate is bowing out from the wall (~5/8"). A zip-tie could be inserted in the joint behind the plate below the roof (~4"). Sealant joints in this area have also deteriorated & zip-ties could be inserted ~2.5" before encountering resistance. The 4" panels are believed to have a tongue & groove configuration that limits the zip-tie penetration while allowing air to move freely. Ice is visible on the exterior at the bottom of the panel.

The poorly sealed construction joint between freezers as well as between panels is likely responsible for ice & frost at 1-FB, 2-FA, & 2-FB. Removal of the exterior plate & resealing of the construction joint as well as resealing of the panel joints is recommended.

Images



WRS Cold Storage - 20251017 - 019.JPG



WRS Cold Storage - 20251017 - 024.JPG



WRS Cold Storage - 20251017 - 026.JPG

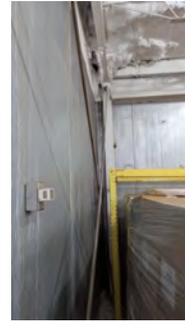
**State of Iowa - Iowa Department of Administrative Services
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WRS Cold Storage - 20251017 - 185.JPG



WRS Cold Storage - 20251017 - 193.JPG



WRS Cold Storage - 20251017 - 194.JPG



WRS Cold Storage - 20251017 - 196.JPG



WRS Cold Storage - 20251017 - 199.JPG



WRS Cold Storage - 20251017 - 201.JPG



WRS Cold Storage - 20251017 - 260.JPG



WRS Cold Storage - 20251017 - 262.JPG



WRS Cold Storage - 20251017 - 264.JPG

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WRS Cold Storage - 20251017 - 268.JPG



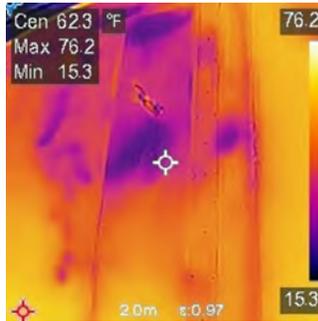
WRS Cold Storage - 20251017 - 271.JPG



WRS Cold Storage - 20251017 - 274.JPG



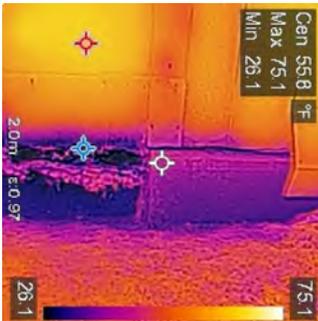
WRS Cold Storage - 20251017 - 277.JPG



WRS Cold Storage - 20251017 - IR - 065.JPG



WRS Cold Storage - 20251017 - IR - 069.JPG



WRS Cold Storage - 20251017 - IR - 073.JPG



WRS Cold Storage - 20251017 - IR - 183.JPG



WRS Cold Storage - 20251017 - IR - 185.JPG

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OBSERVATION: SOR-1-006

Status: Published

Reported On: 10/23/2025

Asset:

Reported By: Karl Kaufman

Recommended Action:

Description

2-FB: Frost and ice has formed immediately east of 2-FA in freezer 2. This is likely a result of deteriorated panel joints.

Resealing the panel joints in this area is recommended.

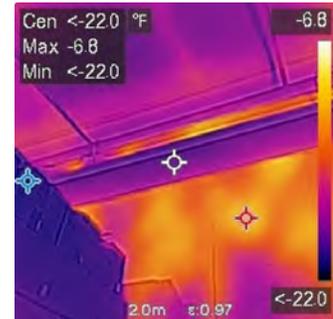
Images



WRS Cold Storage - 20251017 - 192.JPG



WRS Cold Storage - 20251017 - 200.JPG



WRS Cold Storage - 20251017 - IR - 187.JPG

OBSERVATION: SOR-1-007

Status: Published

Reported On: 10/23/2025

Asset:

Reported By: Karl Kaufman

Recommended Action:

Description

2-A: While frost & ice had not formed at the door on the east facade of freezer 2, the deteriorated finish support long term uncontrolled air movement between the interior & exterior. The frame of the door is not flush with the panels and suspected of obscuring poorly sealed joints.

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Images



WRS Cold Storage - 20251017 - 041 edited.jpg



WRS Cold Storage - 20251017 - 053.JPG



WRS Cold Storage - 20251017 - 057.JPG



WRS Cold Storage - 20251017 - 062.JPG



WRS Cold Storage - 20251017 - 063.JPG



WRS Cold Storage - 20251017 - IR - 197.JPG

OBSERVATION: SOR-1-008

Status: Published

Asset:

Recommended Action:

Reported On: 10/23/2025

Reported By: Karl Kaufman

Description

2-B: The panel at the SEC of freezer 2 has been damaged. Despite the damage, the associated thermal anomalies were minimal.

Installing a watershedding patch is recommended to reduce the exposure of the panel insulation to water.

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Images



WRS Cold Storage - 20251017 - 067.JPG



WRS Cold Storage - 20251017 - 068.JPG



WRS Cold Storage - 20251017 - IR - 101.JPG

OBSERVATION: SOR-1-009

Status: Published

Asset:

Recommended Action:

Reported On: 10/24/2025

Reported By: Karl Kaufman

Description

2-FC: Frost is apparent at the ceiling in the SWC of freezer 2. This is located at the connection between freezer 1 and freezer 2. Deterioration in the finish and large joints in the panels support uncontrolled air leakage similar to the north side of the freezer 2.

Images



WRS Cold Storage - 20251017 - 143.JPG



WRS Cold Storage - 20251017 - 227.JPG



WRS Cold Storage - 20251017 - 297.JPG

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WRS Cold Storage - 20251017 - 298.JPG



WRS Cold Storage - 20251017 - 303.JPG

OBSERVATION: SOR-1-010

Status: Published

Asset:

Recommended Action:

Reported On: 10/24/2025

Reported By: Karl Kaufman

Description

3-FA: Freezer 3 is connected to Freezer 2 by a corridor. Frost and ice have formed on the west (and east) side of the corridor where the new panels of freezer 3 abutted the existing panels of freezer 2. In addition to a source of heat at the intersection of the 2 walls, the intersection of the wall of freezer 3 and roof of freezer 2 is unusually warm.

Images



WRS Cold Storage - 20251017 - 226.JPG

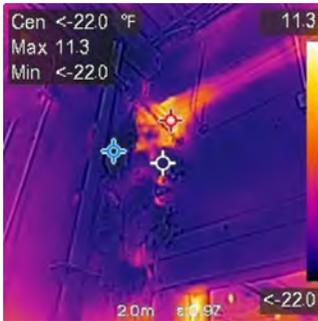


WRS Cold Storage - 20251017 - 306.JPG



WRS Cold Storage - 20251017 - 307.JPG

State of Iowa - Iowa Department of Administrative Services State of Iowa - WRC CDC Freezer Building Envelope



WRS Cold Storage - 20251017 - IR - 217.JPG

OBSERVATION: SOR-1-011

Status: Published

Asset:

Recommended Action:

Reported On: 10/24/2025

Reported By: Karl Kaufman

Description

3-FB: Frost and ice have formed at the east (& west) walls of the corridor that connects freezer 3 to freezer 2. There are thermal anomalies along the length of this wall and moisture is apparent low on the exterior wall. All are indications of uncontrolled air flow. A zip-tie could be passed roughly 6" toward the interior at the base (greater than the indicated 5" panel thickness).

Images



WRS Cold Storage - 20251017 - 066.JPG



WRS Cold Storage - 20251017 - 074.JPG



WRS Cold Storage - 20251017 - 075.JPG

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WRS Cold Storage - 20251017 - 077.JPG



WRS Cold Storage - 20251017 - 079.JPG



WRS Cold Storage - 20251017 - 225.JPG



WRS Cold Storage - 20251017 - IR - 213.JPG



WRS Cold Storage - 20251017 - IR - 215.JPG

OBSERVATION: SOR-1-012

Status: Published

Asset:

Recommended Action:

Reported On: 10/24/2025

Reported By: Karl Kaufman

Description

3-A: The panels along the north facade of freezer 3 have been dented and punctured. It is not clear that these are currently causing problems, but sealing the holes is recommended to avoid moisture saturation of the insulation and deterioration of the thermal performance.

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Images



WRS Cold Storage - 20251017 - 085.JPG



WRS Cold Storage - 20251017 - 089.JPG

OBSERVATION: SOR-1-013

Status: Published

Asset:

Recommended Action:

Reported On: 10/27/2025

Reported By: Karl Kaufman

Description

3-FC: Frost and ice are present at the ceiling in the NEC of freezer 3. The extent of frost and ice formation is less than some other areas. Thermal imaging of the exterior supports that a conduit (or area around the conduit) into one of the junction boxes may not be sealed.

Review and sealing of the penetrations through the panels at this location is recommended.

Images



WRS Cold Storage - 20251017 - 085.JPG



WRS Cold Storage - 20251017 - 092.JPG

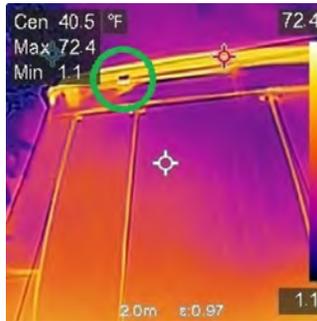


WRS Cold Storage - 20251017 - 229.JPG

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WRS Cold Storage - 20251017 - 232.JPG



WRS Cold Storage - 20251017 - IR - 125 edited.jpg

OBSERVATION: SOR-1-014

Status: Published

Asset:

Recommended Action:

Reported On: 10/27/2025

Reported By: Karl Kaufman

Description

3-FD & 3-FE: There is a small amount of frost and ice build up around each of the structural supports along the east wall of freezer 3. Panel joints are slightly offset in some locations around the building, but these offsets do not necessarily coincide with performance deficiencies. The path for air and moisture infiltration at these locations is not apparent and may be obscured by the gutter. Access from the interior was also limited by pallets and product being stored.

Images



WRS Cold Storage - 20251017 - 096.JPG



WRS Cold Storage - 20251017 - 099.JPG



WRS Cold Storage - 20251017 - 237.JPG

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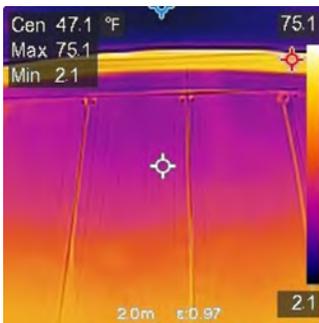
WRS Cold Storage - 20251017 - 238.JPG



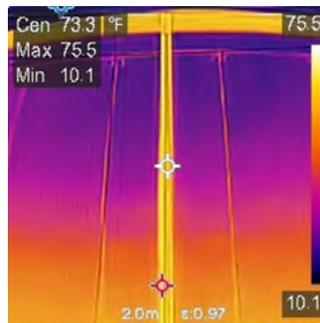
WRS Cold Storage - 20251017 - 239.JPG



WRS Cold Storage - 20251017 - 240.JPG



WRS Cold Storage - 20251017 - IR - 131.JPG



WRS Cold Storage - 20251017 - IR - 133.JPG

OBSERVATION: SOR-1-015

Status: Published

Asset:

Recommended Action:

Reported On: 10/27/2025

Reported By: Karl Kaufman

Description

3-FF: A significant amount of frost and ice has built up around the door on the south side of freezer 3. Zip-ties could be inserted at various locations around the perimeter of the door. Condensation was apparent on the exterior at the sill, and daylight was visible from the interior.

A more effective method of sealing the door against uncontrolled air and moisture flow is recommended. The concern for ice and frost buildup and the seals that would manage this must be balanced with door operation.

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Images



WRS Cold Storage - 20251017 - 101.JPG



WRS Cold Storage - 20251017 - 104.JPG



WRS Cold Storage - 20251017 - 106.JPG



WRS Cold Storage - 20251017 - 244.JPG



WRS Cold Storage - 20251017 - 245.JPG



WRS Cold Storage - 20251017 - 246.JPG

OBSERVATION: SOR-1-016

Status: Published

Reported On: 10/27/2025

Asset:

Reported By: Karl Kaufman

Recommended Action:

Description

3-FG: There is a significant amount of frost and ice build up above and on the south side of the sliding doors on the west wall of freezer 3. While the head and north jamb of the doors are unusually warm when viewed from the interior, the unusually cold temperatures at the head and south jamb when viewed from the exterior are more consistent with the frost and ice formation locations.

Sealing these doors to better manage uncontrolled air and moisture flow is recommended. The sealing of these locations must be balanced with door operations. Consulting a freezer manufacturer may be prudent.

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Description

Note: The cool temperatures indicated on the panels above the door on the exterior IR image are a reflection of the cool sky due to the emissivity of the metal panels, not conductive heat losses as seen around the door frame.

Images



WRS Cold Storage - 20251017 - 247.JPG



WRS Cold Storage - 20251017 - 248.JPG



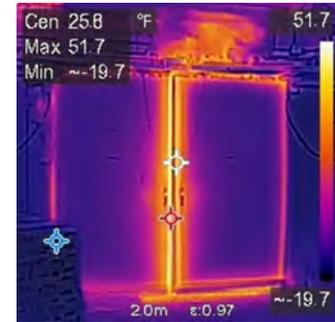
WRS Cold Storage - 20251017 - 253.JPG



WRS Cold Storage - 20251017 - 287.JPG



WRS Cold Storage - 20251017 - 289.JPG



WRS Cold Storage - 20251017 - IR - 241.JPG



WRS Cold Storage - 20251017 - IR - 245.JPG



WRS Cold Storage - 20251017 - IR - 261.JPG

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OBSERVATION: SOR-1-017

Status: Published

Reported On: 10/27/2025

Asset:

Reported By: Karl Kaufman

Recommended Action:

Description

3-FH: Frost has formed around one of the refrigerant lines penetrating the west wall of freezer 3. It appears that the insulation and protective wrap on the exterior has deteriorated.

Reviewing and resealing all the penetrations in addition to the one noted is recommended.

Images



WRS Cold Storage - 20251017 - 254 edited.jpg



WRS Cold Storage - 20251017 - 255.JPG



WRS Cold Storage - 20251017 - 293.JPG

OBSERVATION: SOR-1-018

Status: Published

Reported On: 10/27/2025

Asset:

Reported By: Karl Kaufman

Recommended Action:

Description

3-FI: Frost and ice are forming around the positive / negative pressure relief port the north wall. While there is ice on the curb-to-panel transition, this does not appear to be a source of infiltration, but rather moisture coming from the penetration above. While it is not clear how well sealed this penetration is, frost formation around the pressure relief port is not unexpected.

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Description

No remedial action is recommended at this location at this time.

Images



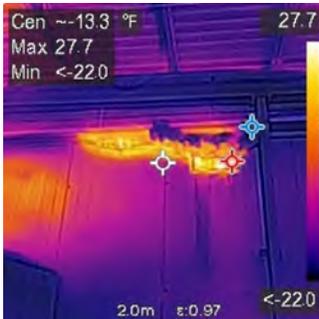
WRS Cold Storage - 20251017 - 233.JPG



WRS Cold Storage - 20251017 - 235.JPG



WRS Cold Storage - 20251017 - 296.JPG



WRS Cold Storage - 20251017 - IR - 219.JPG



WRS Cold Storage - 20251017 - IR - 221.JPG

OBSERVATION: SOR-1-019

Status: Published

Asset:

Recommended Action:

Reported On: 10/27/2025

Reported By: Karl Kaufman

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Description

Panel Joints - Offset: The face of the freezer panels are not flush across the joints and there is an offset in many cases. A sampling of the offset was made from the ground, but offset joints were visible above those that were readily accessible. Sampled offsets ranged from 1/4" to 7/16". The offset joints were common to all three freezers, but did not directly correlate with thermal anomalies identified with the IR camera.

Images



WRS Cold Storage - 20251017 - 036.JPG



WRS Cold Storage - 20251017 - 039.JPG



WRS Cold Storage - 20251017 - 083.JPG

OBSERVATION: SOR-1-020

Status: Published

Asset:

Recommended Action:

Reported On: 10/27/2025

Reported By: Karl Kaufman

Description

Panel Joints - Seals: The joints between panels appear to include a plastic bulb seal integral with the panels. These seals have deteriorated in many cases. In some cases these joints have been resealed with sealant. While product data for the installed panels is not available, a tongue and groove vertical joint between panels is suspected as a zip-tie was only able to penetrate ~1.75" before encountering resistance. The deterioration of the joint seal is prevalent at freezers 1 and 2, likely due to age and UV exposure. As with the joint offset, there is not a direct correlation between the deteriorated seals and the performance although there are examples of where the joint seal deterioration (or simply lack of seal) are the likely cause of frost and ice formation on the interior.

The bottom of the panels (where accessible) do not appear to be sealed to the slab and a zip-tie could be inserted into the joint roughly 6" (greater than the indicated 4" panel thickness) in many locations. In some instances, cold air is escaping from between the concrete curb and interior face of the insulated wall panel and finding its way out at the bottom. Moisture freezing between the metal panel and the concrete curb may be displacing the panels slightly through a process of ice jacking. While sealing the interior of the panel may prevent cold air from escaping, it may not address

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Description

exterior air / moisture finding its way to this location and freezing. Sealing the exterior of the panel to the concrete curb may limit the exterior air infiltration, but is also likely to limit drainage / drying of any moisture in the vertical panel joints that makes it way to the bottom of the panels.

Resealing the vertical joints, and potentially the horizontal joints immediately below the roof joints, with a silicone sealant (less susceptible to UV degradation) after proper substrate preparation would potentially help reduce water infiltration into the joint. There is not enough room for installation of a proper backer rod and the width is likely to be less than the 1/4" minimum indicated by sealant manufacturers. Properly sealing these location would likely involve a pre-cured silicone sheet sealed on each side of the joint.

Images



WRS Cold Storage - 20251017 - 038.JPG



WRS Cold Storage - 20251017 - 046.JPG



WRS Cold Storage - 20251017 - 048.JPG



WRS Cold Storage - 20251017 - 069.JPG



WRS Cold Storage - 20251017 - 187.JPG



WRS Cold Storage - 20251017 - 197.JPG

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WRS Cold Storage - 20251017 -
309.JPG



WRS Cold Storage - 20251017 -
310.JPG

OBSERVATION: SOR-1-021

Status: Published

Reported On: 10/27/2025

Asset:

Reported By: Karl Kaufman

Recommended Action:

Description

Panel Thermal Anomalies: Freezers 1 and 2 contain numerous cold spots (relative to adjacent areas of the panels when viewed from the exterior). On the north and south sides of the freezers, the cold spots are not isolated to the edges of the panel, nor are they necessarily in close proximity of penetrations in the exterior skin of the panel (e.g. screw holes, failed sealant joints, damage, etc.). On the east side of freezer 2, the anomalies are more closely aligned to the panel joints, which is not unexpected to some extent. The exception is the area just south of the door. This area coincides with a low point where water from the roof was observed draining during the 1/7 site visit.

These cold areas are more conductive than other areas of the panel. This could be explained by inconsistencies in the foam insulation (e.g. thickness, continuity, etc.) and/or moist insulation. Given the uniformity in the panels on the east wall of freezer 2, the manufacturing irregularities leading to inconsistencies in the foam seem less likely than moisture being trapped between the interior and exterior metal skins of the freezer panels. Holes drilled in the exterior metal skin of the panels on 2/9/26 (see testing observations at the end of this report) support moisture being the primary cause for the thermal anomalies since at least one location noted to have voids did not have thermal anomalies. It is not clear if a network of voids has contributed to the moisture in the panels, but it is likely given the relative vapor impermeability of the metal panel skin and rigid foam plastic insulation itself.

Other concerns with the freezer aside, it is not clear how the moist insulation locations could reasonably be addressed. Theoretically, drying the panels to the interior after sealing the exterior would be possible; however, the practicality of this is in question. Since the moisture would need to be in a gas form, the temperature within the freezer would need to be high enough that the moisture would be in a liquid form (hence no longer a freezer) and evaporate or in a solid form and sublimate. The latter would take a considerable amount of time and the addition of moisture through unsealed holes on the exterior (at a greater rate than sublimation is occurring) likely. While drying the existing panels is possible, it would likely entail removing them from service, and reinstalling them without addressing the underlying cause (i.e. exterior seals and voids within the foam) would result in the return of the

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Description

moisture over time. Production processes have likely changed over the last 30+ years and new panels are suspected to not have similar voids.

Note: IR photos begin at intersection of freezer 1 with the warehouse and proceed clockwise (CW) around the building with images in the range of 187-247 being the interior primarily in freezer 2 where product was not blocking the view of the wall panels. Photos 263-281 are of the south side from the intersection of the warehouse and proceeding CCW around the exterior. Freezer 3 does not have these thermal anomalies.

Images



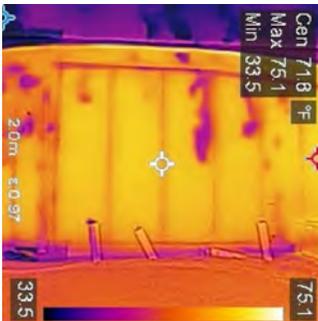
WRS Cold Storage - 20251017 - IR - 003.JPG



WRS Cold Storage - 20251017 - IR - 005.JPG



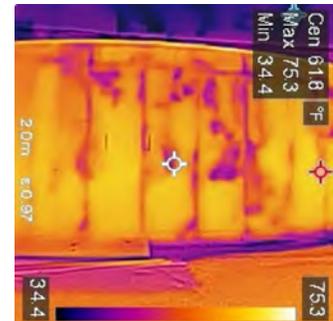
WRS Cold Storage - 20251017 - IR - 007.JPG



WRS Cold Storage - 20251017 - IR - 009.JPG

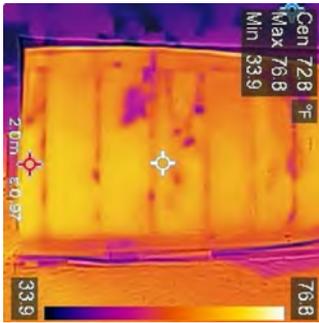


WRS Cold Storage - 20251017 - IR - 011.JPG

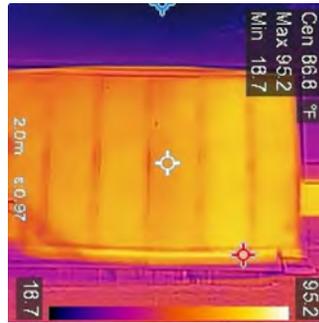


WRS Cold Storage - 20251017 - IR - 015.JPG

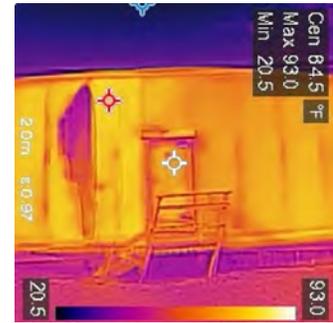
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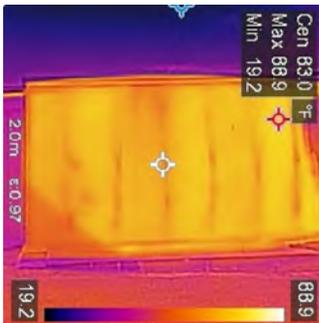
WRS Cold Storage - 20251017 - IR - 017.JPG



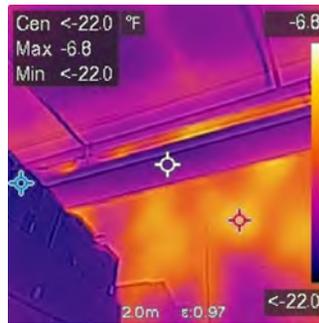
WRS Cold Storage - 20251017 - IR - 091.JPG



WRS Cold Storage - 20251017 - IR - 093.JPG



WRS Cold Storage - 20251017 - IR - 097.JPG



WRS Cold Storage - 20251017 - IR - 187.JPG



WRS Cold Storage - 20251017 - IR - 189.JPG



WRS Cold Storage - 20251017 - IR - 191.JPG



WRS Cold Storage - 20251017 - IR - 197.JPG



WRS Cold Storage - 20251017 - IR - 247.JPG

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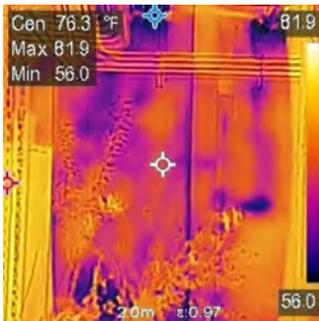
WRS Cold Storage - 20251017 - IR - 263.JPG



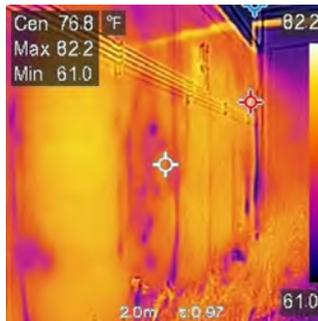
WRS Cold Storage - 20251017 - IR - 271.JPG



WRS Cold Storage - 20251017 - IR - 273.JPG



WRS Cold Storage - 20251017 - IR - 277.JPG



WRS Cold Storage - 20251017 - IR - 281.JPG

OBSERVATION: SOR-1-022

Status: Published

Asset:

Recommended Action:

Reported On: 10/27/2025

Reported By: Karl Kaufman

Description

Freezer Structure: If the resolution for the thermal anomalies noted above is replacement of the wall panels in freezers 1 and 2, it is worth noting their support structures are slightly different. The freezer roof panels are roughly 3'-10" wide, run in an north south direction supported by framing, and based on drawings are believed to be insulated metal panels covered by a roof membrane.

The roof framing for both freezers 1 and 2 runs east-west and both include girts located at the transition from the uniform height wall panels to the portion that closes off the wall with the sloped roof panel above. Freezer 1 differs from freezer 2 in that freezer 2 also includes beams along the perimeter of the north and south walls while freezer 1 appears to transfer those loads directly to the panel. This may impact the ease of replacing these panels should that be determined to be the path forward.

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OBSERVATION: SOR-1-023

Status: Published

Reported On: 01/15/2026

Asset:

Reported By: Karl Kaufman

Recommended Action:

Description

1-RH1: There is a lap in the membrane toward the south side of the connector between Freezer 1 and the warehouse. The lap is not well sealed and thermal imaging appears to indicate moisture in the assembly below the gutter on the warehouse.

Sealing all holes is recommended; however, doing so after a long warm dry period may be prudent to avoid trapping any moisture in the assembly that has made it to that location through the membrane. A thorough review and sealing of holes by a roofing contractor is recommended to ensure all locations are addressed.

Images



WRS Cold Storage - 20260107 - 057.JPG



WRS Cold Storage - 20260107 - 058.JPG



WRS Cold Storage - 20260107 - IR - 011.JPG

OBSERVATION: SOR-1-024

Status: Published

Reported On: 01/15/2026

Asset:

Reported By: Karl Kaufman

Recommended Action:

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Description

1-RH2: There are a numerous puddles of water on the roof membrane. These prohibit a meaningful thermal assessment of the roof membrane covered by the water or in the immediate vicinity impacted by the heat storage capacity of the water. At this location, the drying pattern, hole in the membrane, and thermal image support that water on the exterior has saturate components of the roof assembly interior of the membrane.

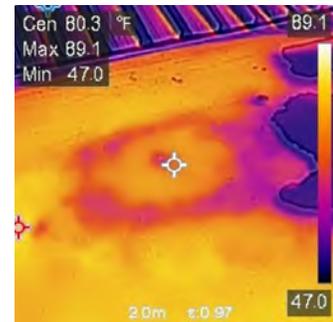
Images



WRS Cold Storage - 20260107 - 060.JPG



WRS Cold Storage - 20260107 - 061.JPG



WRS Cold Storage - 20260107 - IR - 013.JPG

OBSERVATION: SOR-1-025

Status: Published

Asset:

Recommended Action:

Reported On: 01/15/2026

Reported By: Karl Kaufman

Description

1RH3: The membrane in this area is raised due in part to ice formation and a hole in the membrane is apparent.

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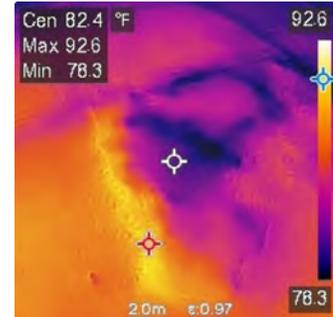
Images



WRS Cold Storage - 20260107 - 021.JPG



WRS Cold Storage - 20260107 - IR - 023.JPG



WRS Cold Storage - 20260107 - IR - 099.JPG



WRS Cold Storage - 20260107 - IR - 100.JPG

OBSERVATION: SOR-1-026

Status: Published

Asset:

Recommended Action:

Reported On: 01/15/2026

Reported By: Karl Kaufman

Description

1-R11: The sound of crunching ice was noted when walking over the raised roof membrane in this area, but no obvious hole in the membrane was noted in this area. Moisture may be migrating to this area through gaps / holes in the membrane or from the interior of the freezer.

Controlling moisture movement, whether through holes in the membrane or from the other locations around the perimeter of the freezers is recommended. Moisture movement is almost always from the exterior to the interior as the air in the freezer has little capacity for moisture storage. Paths for moisture movement should be sealed on the

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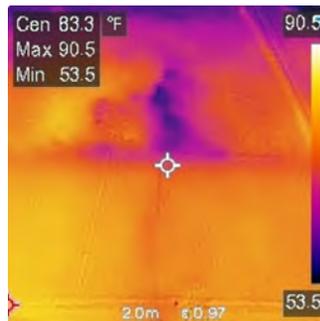
Description

exterior rather than on the interior to allow for drying (to the interior). A vapor permeable insulation (e.g. mineral wool) to the interior side of the vapor impermeable seal may reduce energy loss while allowing for drying.

Images



WRS Cold Storage - 20260107 - 022.JPG



WRS Cold Storage - 20260107 - IR - 093.JPG



WRS Cold Storage - 20260107 - IR - 094.JPG

OBSERVATION: SOR-1-027

Status: Published

Reported On: 01/15/2026

Asset:

Reported By: Karl Kaufman

Recommended Action:

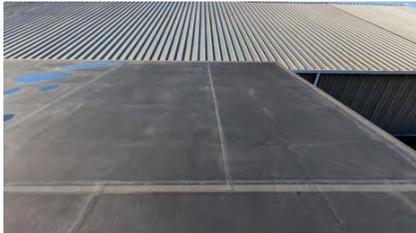
Description

1-RA1: There is a thermal anomaly in the northwest corner of Freezer 1. No hole in the membrane was obvious, but it is worth noting that the texture below the membrane is uneven. Pressure and/or long term movement of the membrane over this uneven texture may be sufficient to cause holes.

Note: The assessment of ice below the roof membrane is very subjective and relies on hearing ice crushing. While thermal anomalies may be present without moisture, resulting in heat loss / thermal inefficiency, addressing moisture in assemblies and components is critical to their longevity. Addressing the heat loss / thermal inefficiency with vapor permeable insulation (the recommended action), it may also slow the drying process. Using low or non-vapor permeable products at locations of notable heat loss is not recommended.

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Images



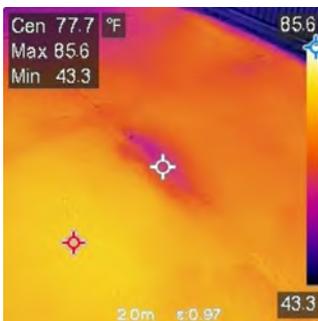
WRS Cold Storage - 20260107 - 016.JPG



WRS Cold Storage - 20260107 - IR - 021.JPG



WRS Cold Storage - 20260107 - IR - 022.JPG



WRS Cold Storage - 20260107 - IR - 065.JPG



WRS Cold Storage - 20260107 - IR - 066.JPG

OBSERVATION: SOR-1-028

Status: Published

Asset:

Recommended Action:

Reported On: 01/15/2026

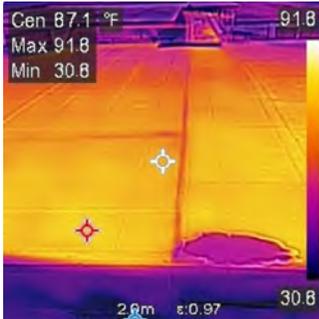
Reported By: Karl Kaufman

Description

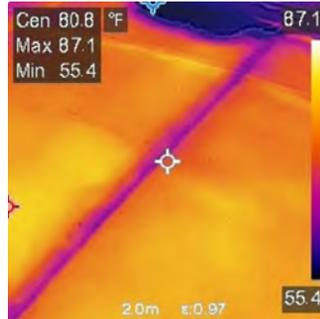
1-RA2: There is a thermal anomaly at the joint between Freezer 1 and Freezer 2. In at least 1 location it appears to follow the joint between panels adjacent to the joint between the freezers. The membrane appears to be in generally good conditions, but it is clear from ice / frost formation on the interior that moisture is finding a way into the freezers. This moisture may also be between the panel at the joints or between the panels and the roof membrane.

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Images



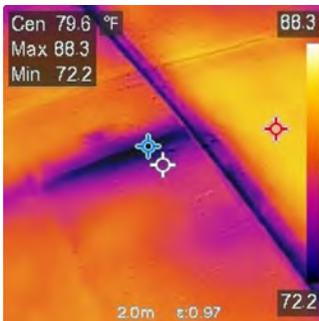
WRS Cold Storage - 20260107 - IR - 027.JPG



WRS Cold Storage - 20260107 - IR - 123.JPG



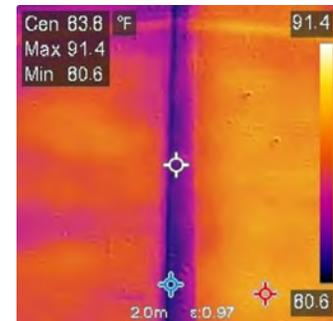
WRS Cold Storage - 20260107 - IR - 124.JPG



WRS Cold Storage - 20260107 - IR - 125.JPG



WRS Cold Storage - 20260107 - IR - 126.JPG



WRS Cold Storage - 20260107 - IR - 129.JPG



WRS Cold Storage - 20260107 - IR - 130.JPG

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OBSERVATION: SOR-1-029

Status: Published

Reported On: 01/15/2026

Asset:

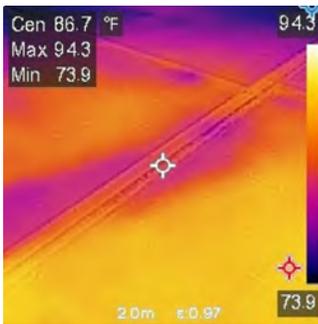
Reported By: Karl Kaufman

Recommended Action:

Description

1-RA3: There is a linear thermal anomaly that runs somewhat diagonally (not in direct alignment with the panel or membrane joints) in the south central portion of Freezer 1. There are no obvious / unusual characteristics on the surface of the roof.

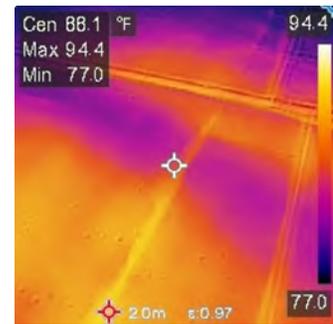
Images



WRS Cold Storage - 20260107 - IR - 071.JPG



WRS Cold Storage - 20260107 - IR - 072.JPG



WRS Cold Storage - 20260107 - IR - 101.JPG



WRS Cold Storage - 20260107 - IR - 102.JPG

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OBSERVATION: SOR-1-030

Status: Published

Reported On: 01/15/2026

Asset:

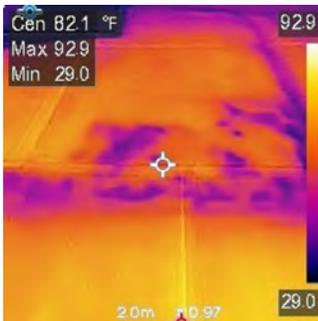
Reported By: Karl Kaufman

Recommended Action:

Description

2-R11: Ice was identified below the roof membrane in this area. The pattern of the thermal anomaly follows the panel joints in some, but not all, instances and is unlike other areas in this regard.

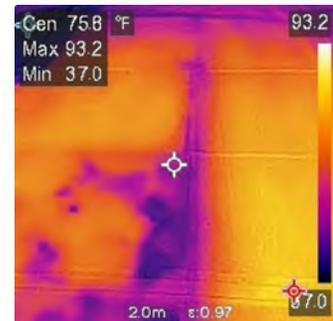
Images



WRS Cold Storage - 20260107 - IR - 001.JPG



WRS Cold Storage - 20260107 - IR - 002.JPG



WRS Cold Storage - 20260107 - IR - 109.JPG

OBSERVATION: SOR-1-031

Status: Published

Reported On: 01/15/2026

Asset:

Reported By: Karl Kaufman

Recommended Action:

Description

2-A1: The thermal anomaly at this location appears to be due to a joint between roof panels and connections. The panels are roughly 3'-10" wide and run in a north south direction, while the EPDM roof membrane sheets are roughly 10'x20' and oriented with the long direction running east west. Cover plates are apparent below the membrane at Freezer 2 and some degree of thermal bridging appears typical.

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Images



WRS Cold Storage - 20260107 - IR - 119.JPG



WRS Cold Storage - 20260107 - IR - 120.JPG

OBSERVATION: SOR-1-032

Status: Published

Asset:

Recommended Action:

Reported On: 01/15/2026

Reported By: Karl Kaufman

Description

2-RA2: Based on observations on the interior, there are clearly moisture issue where Freezer 3 connects to Freezer 3. The issues are less obvious from a thermal imaging standpoint given moisture on the membrane and the area being in shade. IR imaging support that the high roof edge may not be well sealed. It also appears that the butt joints of the wall panels are not well sealed and serve as a thermal bridge. Both roof membrane flashing and metal flashing at the connection do not appear well sealed.

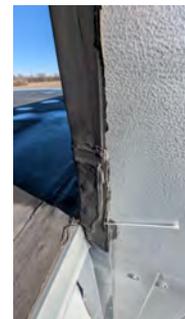
Images



WRS Cold Storage - 20260107 - 029.JPG



WRS Cold Storage - 20260107 - 032.JPG



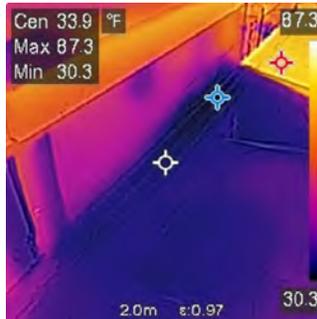
WRS Cold Storage - 20260107 -

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034.JPG



WRS Cold Storage - 20260107 - 039.JPG



WRS Cold Storage - 20260107 - IR - 141.JPG

OBSERVATION: SOR-1-033

Status: Published

Asset:

Recommended Action:

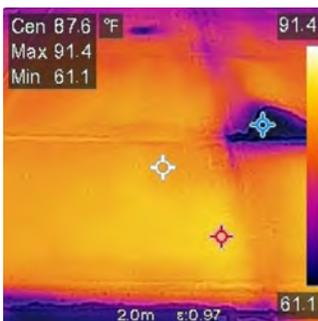
Reported On: 01/15/2026

Reported By: Karl Kaufman

Description

2-RA3: The thermal anomaly at this location appears to be a penetration through the insulated roof panel, but is distinct from and independent of the panel end fasteners noted elsewhere (2-RA1). The details of this penetration are not clear nor is the potential for improving its thermal performance. It is also not clear thermal signature also indicates moisture at this locations.

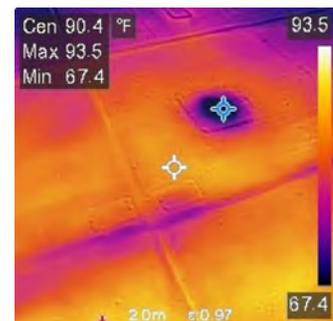
Images



WRS Cold Storage - 20260107 - IR - 153.JPG



WRS Cold Storage - 20260107 - IR - 154.JPG



WRS Cold Storage - 20260107 - IR - 173.JPG

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WRS Cold Storage - 20260107 - IR -
174.JPG

OBSERVATION: SOR-1-034

Status: Published

Reported On: 01/15/2026

Asset:

Reported By: Karl Kaufman

Recommended Action:

Description

3-RH1: A hole was noted in the membrane over Freezer 3.

A thorough review and sealing of all holes by a roofing contractor is recommended to ensure all instances are addressed.

Images



WRS Cold Storage - 20260107 -
094.JPG

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OBSERVATION: SOR-1-035

Status: Published

Reported On: 01/15/2026

Asset:

Reported By: Karl Kaufman

Recommended Action:

Description

Freezer 3 - Miscellaneous Roof Issues: The roof membrane over Freezer 3 is white / light colored, but practically ranges from grey to black due to dirt / staining. This variability in color creates variability in the thermal images that is not indicative of the temperature, but rather the emissivity. The result is inconclusive thermal imaging. Cleaning, reviewing, and sealing any and all holes in the membrane is the recommended course of action.

There are stems from vegetation protruding from the gutter on the east side of Freezer 3 and extending above the roof. Cleaning the gutter system is recommended.

The mechanical equipment shelter roof on the west side drains onto the roof of Freezer 3 at 2 downspouts. These metal downspouts sit on the roof membrane. To prevent premature wearing of the membrane, a sacrificial membrane is recommended at the contact location.

Images



WRS Cold Storage - 20260107 - 086.JPG



WRS Cold Storage - 20260107 - 087.JPG



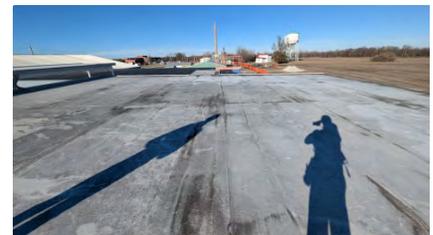
WRS Cold Storage - 20260107 - 088.JPG



WRS Cold Storage - 20260107 - 089.JPG



WRS Cold Storage - 20260107 - 090.JPG



WRS Cold Storage - 20260107 - 091.JPG

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WRS Cold Storage - 20260107 - 093.JPG



WRS Cold Storage - 20260107 - 095.JPG



WRS Cold Storage - 20260107 - 096.JPG

OBSERVATION: SOR-1-036

Status: Published

Asset:

Recommended Action:

Reported On: 02/16/2026

Reported By: Karl Kaufman

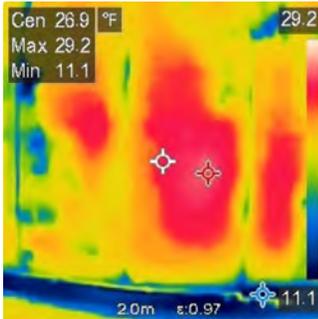
Description

Testing - Baseline: To determine if the thermal anomalies noted in the wall panels are due to moisture or another condition, a small portion of the exterior metal skin of the insulated panel was removed and the underlying rigid foam plastic insulation tested for moisture. Cellular foam plastics, like that used in the freezer panels, typically have a very low moisture content, even when submerged in water. One location where the panel was notably warm, was used to establish the Baseline condition for the foam (e.g. moisture, color, texture, etc.). This location is indicated as 'B' in the photos below with the other locations noted with a number based on the order in which they were investigated. 1 & 2 are in the north wall panels of Freezer 2, while locations 3 & 4 are in the north wall panels of Freezer 1.

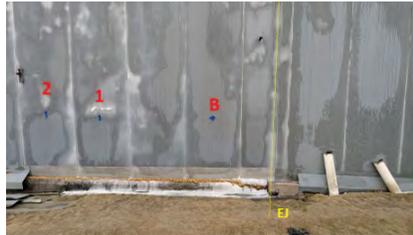
The Baseline location is located just east of the expansion joint (EJ) between Freezers 1 & 2. There is a void in the foam at this location. The foam is visible 'dry' and tested as such using the Delmhorst Navigator Pro Moisture Meter. This scale indication (e.g. dry vs. wet) is a better representation for the foam plastic than the percentage moisture content for this material. The pins went gently into the foam in a manner similar to other foam substrates tested by the reviewer. There appears to be a skin on the foam within the void and as a result it is believed to be a result of the manufacturing process.

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Images



IWRS Cold Storage - IR - 20260211 - 007.jpg



WRC Cold Storage - 20260209 - 006 edit.png



WRC Cold Storage - 20260209 - 007.JPG



WRC Cold Storage - 20260209 - 008.JPG



WRC Cold Storage - 20260209 - 009.JPG

OBSERVATION: SOR-1-037

Status: Published

Reported On: 02/16/2026

Asset:

Reported By: Karl Kaufman

Recommended Action:

Description

Testing - Freezer 2 - Locations 1 & 2: The process of drilling to remove the metal facer heated it up and melted some of the frost surrounding the holes. Nonetheless, ice was visible where the facer was removed. Unlike the Baseline location, the pins of the test meter had to be forced into the foam to get a reading. The readings register 'wet, 16.1%' and 'wet, 18.9%' at locations 1 & 2, respectively.

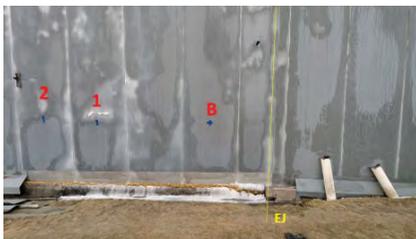
The ice noted at Location 2 is more significant than other locations drawing into question the role of the voids (as noted at the Baseline condition) in moisture migration throughout the panels. The flow of water vapor throughout the

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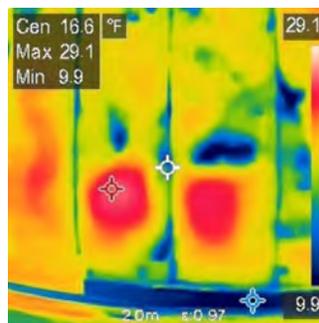
Description

year is generally from exterior to interior; however, the metal that makes up the skin of the panel is vapor impermeable. Similarly, but to a lesser extent, polyurethane foam plastic insulation is relatively vapor impermeable. This would draw into question how moisture is reaching the middle of the panel directly behind the impermeable metal facer. The reviewer believes moisture is entering at the joints of the panel system along with exterior air and migrating through a network of voids in the foam. The amount and/or extent of the moisture buildup in the panels is likely a result of this unplanned network of voids.

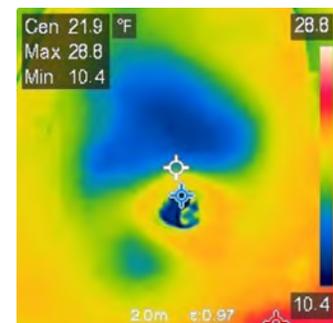
Images



A- Test locations 1 & 2 btwn tape & label



B- Central panel cold locations of 1 & 2 (R & L respec...



C- Location 2 after facer removal



D- Location 2 w/ ice visible



E- Location 1 w/ wet insulation reading



F- Location 2 w/ wet insulation reading

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OBSERVATION: SOR-1-038

Status: Published

Reported On: 02/16/2026

Asset:

Reported By: Karl Kaufman

Recommended Action:

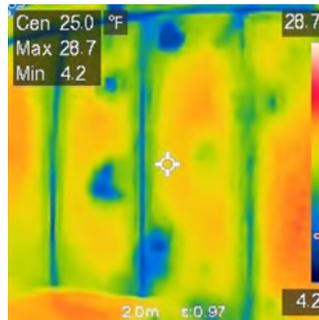
Description

Testing - Freezer 1 - Locations 3 & 4: The process of drilling to remove the metal facer heated it up and melted some of the frost surrounding the holes. Nonetheless, ice was visible where the facer was removed, although to a lesser extent than observed at location 2. Unlike the Baseline location but similar to locations 1 & 2, the pins of the test meter had to be forced into the foam to get a reading. The readings register 'wet, 13.1%' and 'wet, 16.2%' at locations 3 & 4, respectively.

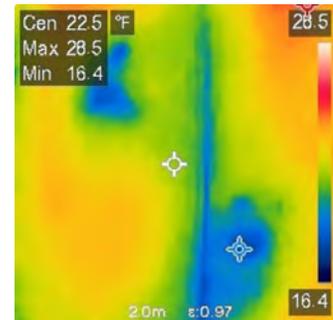
Images



A- Freezer 2 test Locations 3 & 4 (R&L respectively)



B- Locations 3 & 4 near edge & center panel



C- Locations 3 & 4 near edge & center panel



D- Location 3 w/ small amount of ice visible



E- Location 3 w/ wet insulation reading



F- Location 4 w/ wet insulation reading



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