

# Investigation & Repair of Hot Floor & Condensate Line Leak

Prepared By: Heather Rivera, Interim Maintenance Director

Date: December 8, 2024

## Summary of Issue

On Friday, November 22, Deborah Sloan first alerted me to a significant concern regarding the floor in the middle school hallway leading to the cafeteria ([Attachment 1: Text Message from Deborah Sloan](#)). Students working on the floor noticed it was "hot", prompting further inspection. Upon investigation, I confirmed the area at the base of the inclined white-tiled section, adjacent to the janitorial room, was noticeably warm.

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## Initial Observations and Assessment

- November 22: I confirmed the floor temperature was abnormally high and noted that the warmth correlated with the boiler running. I inspected the pipe rising from the floor in the janitorial room and found it also warm to the touch, leading me to suspect either the steam supply line or condensate return line.
  - November 25–26: Without immediate access to a thermal thermometer, I monitored the area daily by touch and observed that the heat was not worsening initially.
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## Escalation and Thermal Inspection

On Wednesday, November 27, I met with Joe Arntz from HMC, who used a thermometer to confirm the floor temperature reached 148.2°F in some spots. ([Attachment 2: HMC Service Report\\_085583](#); [Attachment 3: Initial Temperature Reading](#)) Given the high temperature, I immediately barricaded the area using cones and caution tape to prevent students and staff from entering the affected zone ([Attachment 4: Photo of Initial Barricade](#)).

- Continued monitoring revealed the heat was spreading toward the opposite wall by Friday, November 29. As a precaution, I placed two tables over the affected section to prevent accidental contact. ([Attachment 5: Photo of Revised Barricade](#))

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## Investigation and Repair

On December 2, Tyler Lambert from HMC arrived to trace the pipes. The investigation revealed a leak in the underground condensate return line, not the steam supply as initially suspected.

### Plan of Action:

- Abandoning the underground line was not feasible.
- The team decided to jackhammer the concrete floor, excavate the trench, and replace the leaking condensate pipe.

HMC technicians began repairs on Friday, December 6, after students had left for the day to minimize disruption. ([Attachment 6](#): HMC Service Report\_086177)

### Work Performed (Dec 6–7):

- Excavated the affected section of the floor using a thermal scanner and concrete saw. ([Attachments 7-9](#): Photos of Area Floor Opened Up; [Attachment 16](#): Photo of Depth of Concrete Over Old Pipe)
- Replaced the compromised pipe, which had multiple pinholes ([Attachments 10-15](#): Photos of Damaged Pipe).
- Installed new Schedule 80 piping with extra-heavy welded fittings to ensure durability. ([Attachment 17](#): Photo of New Pipe)
- Insulated the new pipe with fiberglass and an aluminum jacket for protection against future damage. ([Attachment 18](#): Photo of New Pipe with Insulation)
- Refilled the trench, poured concrete, and prepared the area for the flooring crew ([Attachments 19-21](#): Photos of Completed Area).

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## Temporary and Permanent Flooring Plan

Following completion of the repair work:

- The concrete has set, and we have placed cardboard securely taped to the floor to prevent any tripping hazards.
- Don with Midland will arrive Monday, December 9, to replace the cardboard with adhesive mats. These mats will provide a safer, more suitable, and aesthetically appealing solution until the permanent tile replacement is completed.

- KV Flooring has already been on site to meet with me and develop a plan to install the new tiles over Christmas break. This timeline will allow our custodial team sufficient time to prime and wax the floors before students return from break.
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## **Completion and Outcome**

By Sunday, December 8, the repairs were fully completed, the system was tested, and the boiler was operating properly. The floor was restored to safe conditions, and the hallway was reopened with minimal long-term disruption.

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## **Acknowledgments**

This project, while extensive, was completed within a two-week timeframe from first notice to full resolution. The diligence of HMC technicians and careful monitoring ensured:

- Minimal disruption to classes and student movement.
  - A safe environment maintained through continuous barricading and monitoring.
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## **Attachments**

1. Text from Deborah Sloan
2. HMC Service Report\_085583
3. Initial Temperature Reading
4. Photo of Initial Barricade
5. Photo of Revised Barricade
6. HMC Service Report\_086177
7. Photo of Holes in Pipe
8. Photo of Holes in Pipe
9. Photo of Holes in Pipe
10. Photo of Holes in Pipe
11. Photo of Holes in Pipe
12. Photo of Holes in Pipe
13. Photo of Area Floor Opened Up

14. Photo of Area Floor Opened Up
15. Photo of Area Floor Opened Up
16. Photo of Depth of Concrete Over Old Pipe
17. Photo of New Pipe
18. Photo of New Pipe with Insulation
19. Photo of Area Floor Closed
20. Photo of Area Floor Closed
21. Photo of Area Floor Closed

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If you have any further questions or require additional details, please let me know.

Respectfully,

Heather Rivera  
Interim Maintenance Director