



April 2026 Webinar

Asphalt Driveway Snow Melt: Planning to Completion

WELCOME & INTRO

Your Product Expert

Mary



20 years Radiant Heating Expertise

WarmlyYours Sales Manager

Residential & Commercial Radiant Project Management

Problem-solver and customer advocate

Your Tech Expert

Scott



17+ years Radiant Heating Expertise

WarmlyYours Engineering Team

24/7 Technical Support Specialist

Tech Tip Video Series

Quick housekeeping:

- Questions go in the Q&A panel—we'll tackle them at the end
- Recording + resources will be sent soon after our session
- Reward coupon for attending will be sent to you by Julia (Owner)

The Asphalt Advantage

⚡ Electric, Not Hydronic

Electric cables withstand 464°F+ asphalt pour temps. PEX tubing cannot — it melts.

🔧 Zero Maintenance

No boilers, no pumps, no valves. Install it and forget it.

📋 Today's Agenda

Zoning, Controls, Sensors, Sequencing, Common Mistakes & Troubleshooting.



Site Planning + Zoning Fundamentals

The Math of Melting

Standard output is **50 watts per square foot** — but the WarmlyYours **SmartPlan** calculates all amps, volts, and ohms automatically. No guesswork needed.

Drainage & Slope

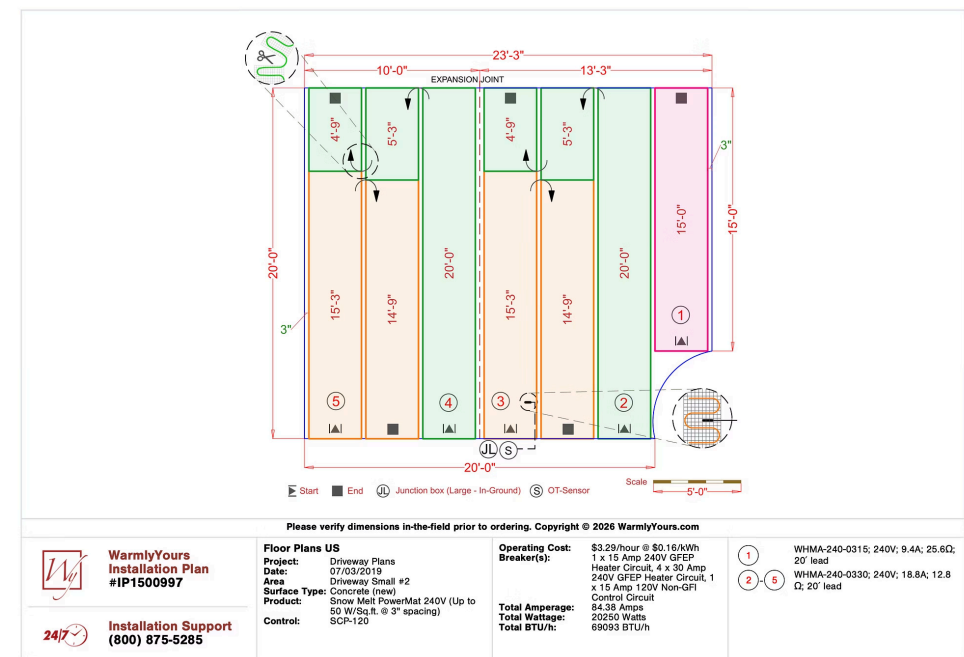
A minimum **2% slope (¼" per foot)** or crown is mandatory to prevent meltwater from pooling and refreezing at the edges.

Manage the Runoff Edges

You want the meltwater to fully exit the driveway surface before it refreezes, preventing a dangerous ice border from forming right where the homeowner steps off the asphalt.

Start with a SmartPlan

Always submit a dimensioned drawing to WarmlyYours first to map cold leads, junction boxes, and start/stop points precisely.



Climate-Specific Engineering



ASHRAE Regional Data

Localized snowfall, wind speed, and record low temps are factored into every system design — no guessing.



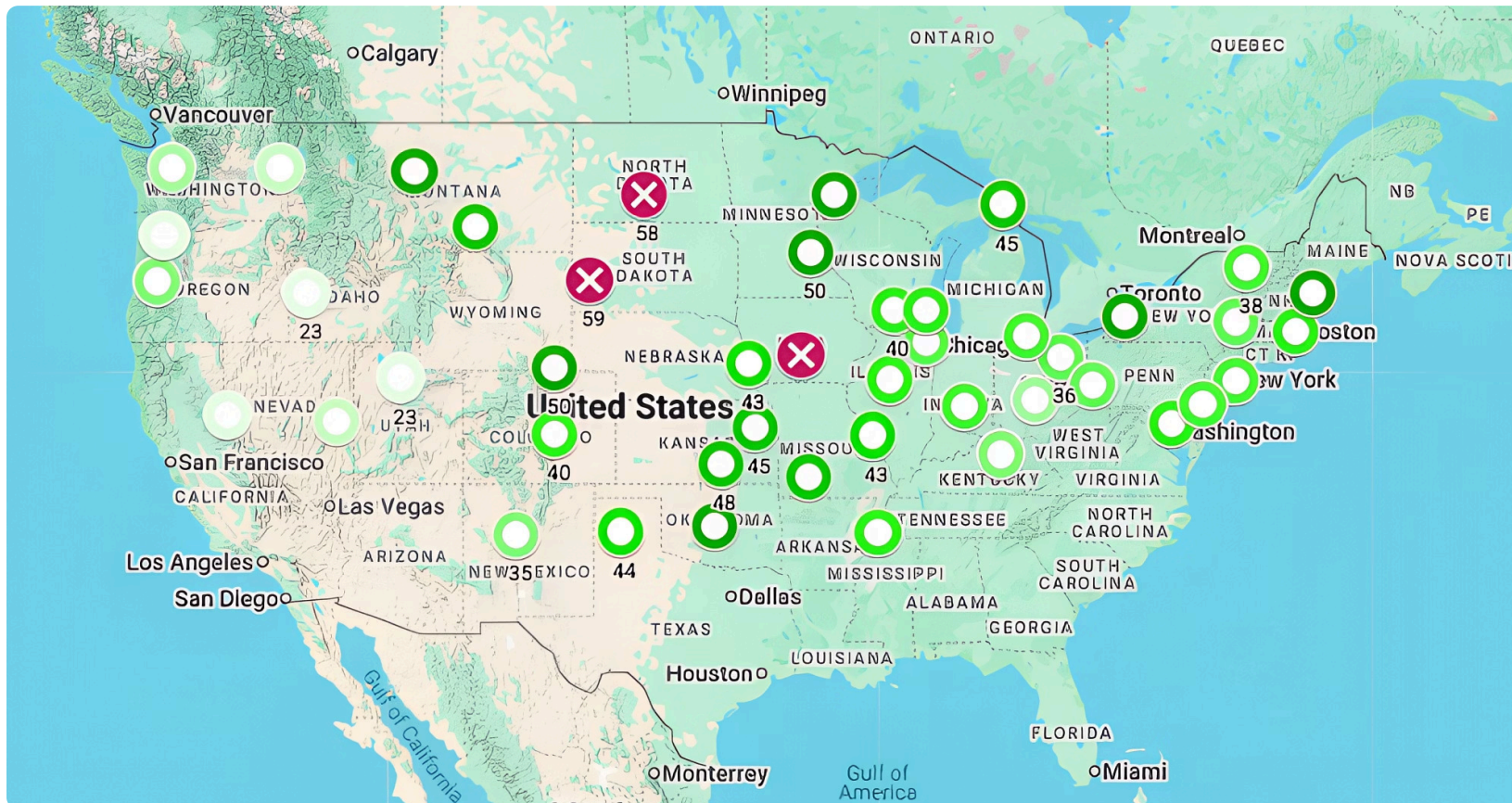
Geo-targeted Mat Spacing

The SmartPlan calculates exact center-to-center spacing to hit precise BTU/wattage requirements for each zip code.



Exact Operating Costs

Every quote shows the exact projected operating cost. Use online estimators to show homeowners local utility rate comparisons on the fly.



Coverage Strategies for Amperage Limits

Full Coverage

Heats the entire surface. Ideal for smaller driveways or homes with high-amperage electrical panels.

Tire Tracks

Two 2-ft & 3-ft wide heated lanes aligned to the vehicle's wheelbase. Drastically reduces electrical load while maintaining safe driveway access.

Hybrid Approach

Full coverage near the garage apron, transitioning to tire tracks down to the street — the best of both worlds.



Snow Melt Power Usage

Total power draw (**Amps**) depends on three variables:

- **Wattage:** Constant 50W per sq. ft. (PowerMat)
- **Voltage:** Usually 240V AC
- **Total Area:** The variable size of your project

Example Calculation

For a **350 sq. ft.** concrete patio:

**The formula is (50 W/sq. ft. x area of 350 sq. ft.) / V (240V) = Amps, so
17,500 / 240V = 72.9 Amps**

Kildeer, IL — Optimized Tire-Track System

1

The Problem

A long asphalt driveway in a harsh-winter climate needed to stay clear — without maxing out the home's electrical panel.

2

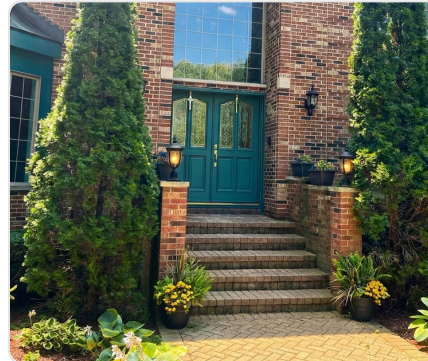
The Solution

A **Tire-Track Layout** — two 2-ft heated tracks aligned to the vehicle wheelbase, embedded directly in the asphalt.

3

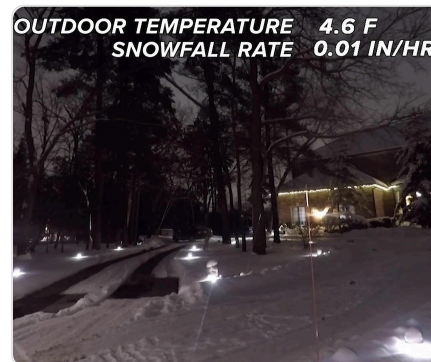
The Result

Dramatically lower amperage and operating costs, with fully shovel-free, ice-free access all winter long.

 WarmlyYours.com 

Kildeer's Optimized Tire-Track Snow M...

See how WarmlyYours installed an energy efficient electric radiant snow melting syste...

Size: **338 sq.ft.**Voltage: **240V**Wattage: **15,018 W**Amps: **62 A**Flooring: **Asphalt (new)**Cost/hr *: **\$1.59** www.warmlyyours.com 

Tire Tracks Snow Melt: Driveway Heati...

Watch a WarmlyYours heated driveway system combat winter storms. Tire track sno...

Mahwah, NJ — Large-Scale Hybrid Approach

01

The Problem

A 1,230 sq ft driveway in New Jersey — powering the entire surface simultaneously would have overloaded the electrical panel.

02

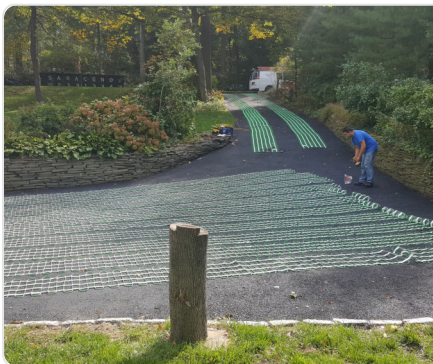
The Solution

The **ZoneBraker** control system split the driveway into manageable zones, heating one section at a time without panel strain.

03

The Result

Fully automated, heavy-snowfall management — proving even the largest driveways can be effectively heated when properly zoned.

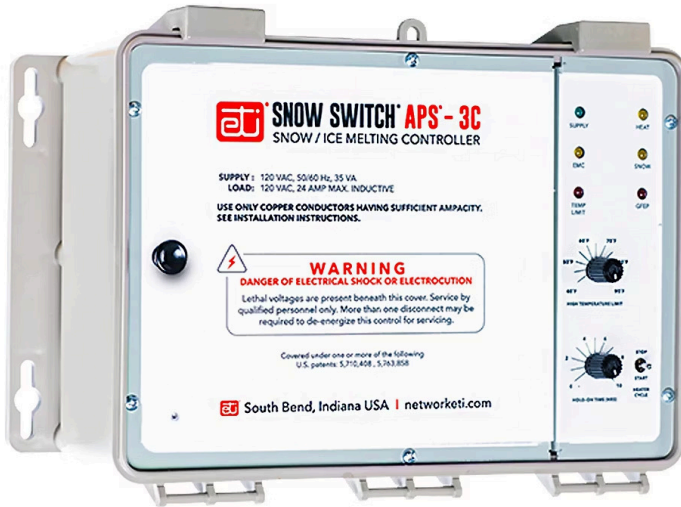
[WarmlyYours.com](#)

A Shovel-Free Season: Mahwah, NJ Dri...

Project Showcase: A 1,230 sq. ft. custom heated driveway in Mahwah, NJ. Learn how...

Size: **1,230 sq.ft.**Voltage: **240V**Wattage: **55,500 W**Amps: **231 A**Flooring: **Asphalt (new)**Cost/hr *: **\$11.10**

Control Strategy & Overtemp Sensor



Premium Control

#1 recommendation for asphalt. Includes a **high-limit temperature sensor** to prevent overheating and asphalt softening.



ZoneBraker

ZoneBraker for panel-level zoning.

The Snow Event + After-Run Secret

The system **must run 4-8 hours after snow stops** to fully evaporate water and prevent dangerous black ice formation.

Sensor Placement Strategy

● Slab Sensor

Must be placed in a **separate conduit between the heating cables** — never directly on top of them. This ensures accurate asphalt temperature readings, not cable-surface readings.



☁️ Aerial Sensor

Detect precipitation and falling ambient temperatures to trigger the system automatically. **Avoid "snow shadow" locations** such as under eaves or overhangs where they may not detect actual precipitation.



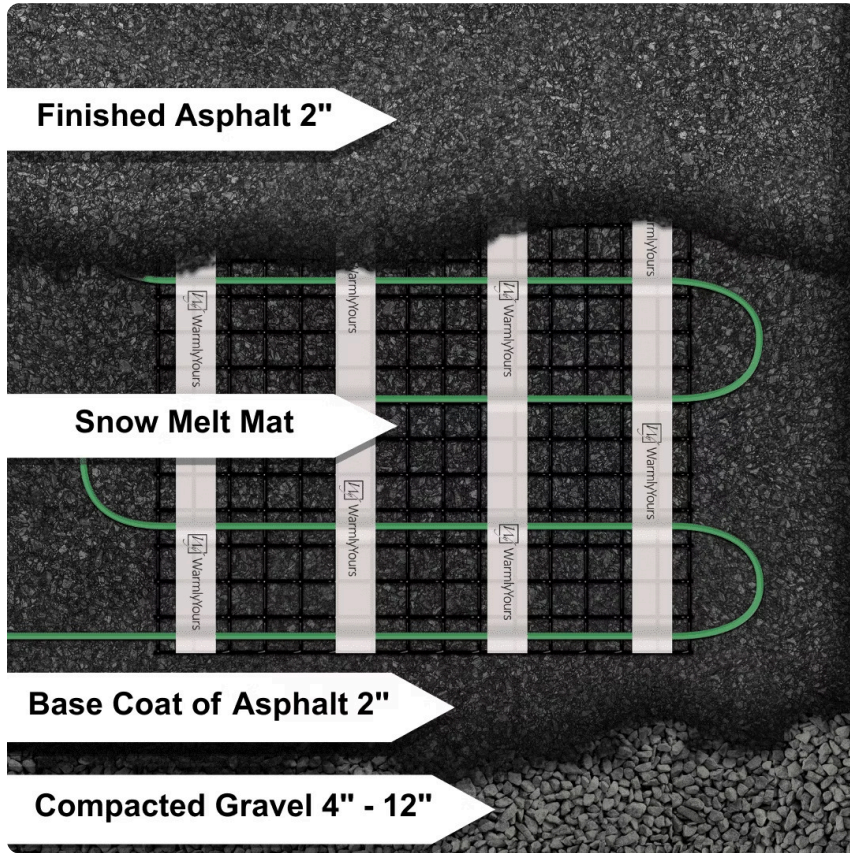
 www.warmlyyours.com



AIR-SS-2 Snow Sensor Installation Tips | WarmlyYours

Ensure your snow melting system works perfectly with these AIR-SS-2 installation tips. Learn about drainage, tube length, and waterproof seals. Watch now!

Installation Sequencing: The Cross-Section



Sub-Base

4–8 inches of compacted crushed rock or gravel — the structural foundation.



Heating Element

Snow melting mats laid out and secured directly on top of the compacted base coat.



Base Coat (Binder)

2–3 inches of asphalt, poured and compacted to create a stable bed for the heating element.



Top Coat (Surface)

Minimum 1.5", Maximum 2" layer of surface asphalt applied by hand with shovels (tape the edges!) to protect the cables during the pour.

Heavy Machinery Precautions



Use Standard Rollers with Caution

Standard rollers are used for the top coat, but contractors should minimize extremely heavy equipment directly over exposed cables.

Never Drive over exposed cables

Never place anything heavy over or on the snow mat cables.



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Tip: Skid Steer with Heating Cable



Conduit Details



Splice Placement

The factory splice does **not** go through the conduit — it must be fully embedded in asphalt, at least 4 inches outside the conduit end.



Conduit Installation

This must be done ahead of time by the electrical contractor.



Material Transitions

The transition where asphalt meets concrete — plan cable routing carefully around it.

Testing, Protection & Field Repair

1 3-Stage Megohmmeter Testing

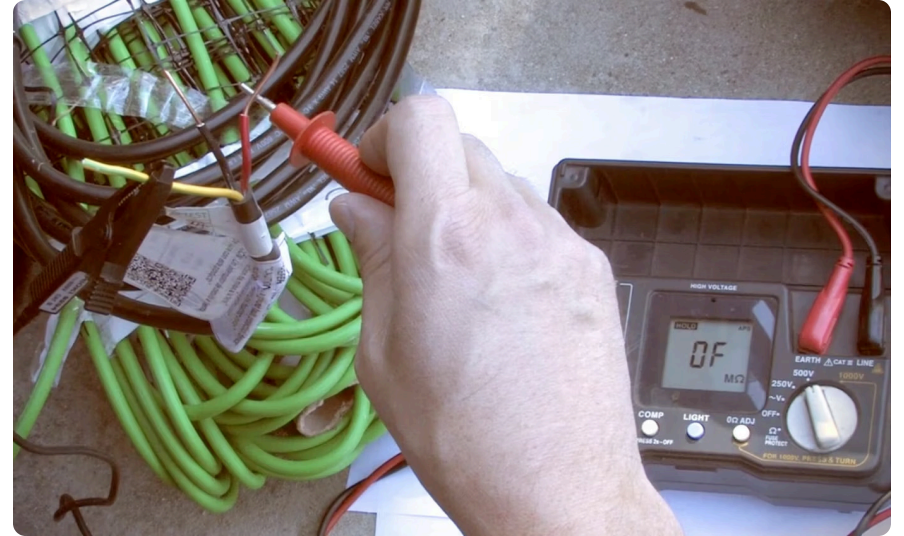
Using a 500V DC Megohmmeter, and multimeter test at unboxing, during the pour, and after completion. All three stages are **required for the 10-year warranty**.

2 Field Repair Protocol

A "nick" caught mid-pour doesn't mean scrapping the mat. WarmlyYours provides a **factory-approved repair kit** for incidental cable damage.

3 GFEP Protection

Ground Fault Equipment Protection breakers are mandatory on all snow melt installations per NEC requirements.



Post-Install Maintenance & Life Cycle

Sealcoating Rules

Standard asphalt sealants do not affect heat transfer performance. However, the snow melt system **must remain OFF during the entire sealant curing process** to prevent blistering the fresh surface.

Salt-Free Zone

A properly running snow melt system eliminates the need for harsh chemical deicers — protecting asphalt longevity, surrounding landscaping, and nearby concrete surfaces from corrosive salt damage.



PRO Quick-Reference Summary

Detail	Requirement	Reference
Output	39 - 50 Watts per Sq. Ft.	ASHRAE / SmartPlan
Machinery	Avoid driving on exposed cables	Best Practice
Control	Over Temperature Sensor required	Product Spec
NEC Compliance	Splice embedded in asphalt; GFEP required	NEC Code
Testing	3 stages: Box, Pour, Final	10-Year Warranty

Common Planning Mistakes



Extending Cold Leads

Cold leads come in 20' lengths and **cannot be extended in the field**. Plan junction box locations before breaking ground.



Cutting the Heating Cable

The golden rule: you can cut the mesh — **never cut or shorten the heating cable itself**. This immediately voids the warranty and destroys the element.



Single-Layer Pours

Dropping cables on gravel and doing a single 3-inch pour causes cables to sink, suffer damage, or fail to heat evenly. Always install in a two-layer system.

Troubleshooting Field Issues



"It's leaving slush"

The **After-Run timer is set too short**. Increase the runtime so the system fully evaporates residual moisture after snowfall ends. Target 4–8 hours post-storm.



"It's melting unevenly"

Likely a **zoning issue**. A system divided into 3–4 zones heats sequentially — it will take 2–4× longer to clear the full driveway compared to a single-zone system.



"The system isn't kicking on"

Check for a **dirty aerial sensor** first or poorly located. Also verify the ambient temp — if it's snowing at 40°F, the system may not trigger because natural melting occurs without heating assistance.



LIVE Q&A

Now let's open it up for your questions.

CLOSE + SUPPORT

Resources Coming Your Way

Via email:

-  PDF of today's slides
-  PRO Resource: Heated Tile Substrate Compatibility & Risk Map
-  Recording of this webinar
-  PRO Reward coupon - Look for an separate email from Julia

Watch Scott's Monthly PRO How-To



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Asphalt Driveway Snow Melting I...

Tired of shoveling? Learn how to plan and install a durable asphalt snow me...

Next Webinar in the Series

May 2026 Webinar: Tile Floor Heating: System Selection & Layout Planning

Wednesday, May 27 | 1:00 PM Central

[Register now](#)

24/7 PRO technical support: 800-875-5285

Need help on a job? Call us:

-  **800-875-5285**
-  [**techsupport@warmlyours.com**](mailto:techsupport@warmlyours.com)

We'd rather help you plan the install than troubleshoot a problem later. Don't hesitate to call.