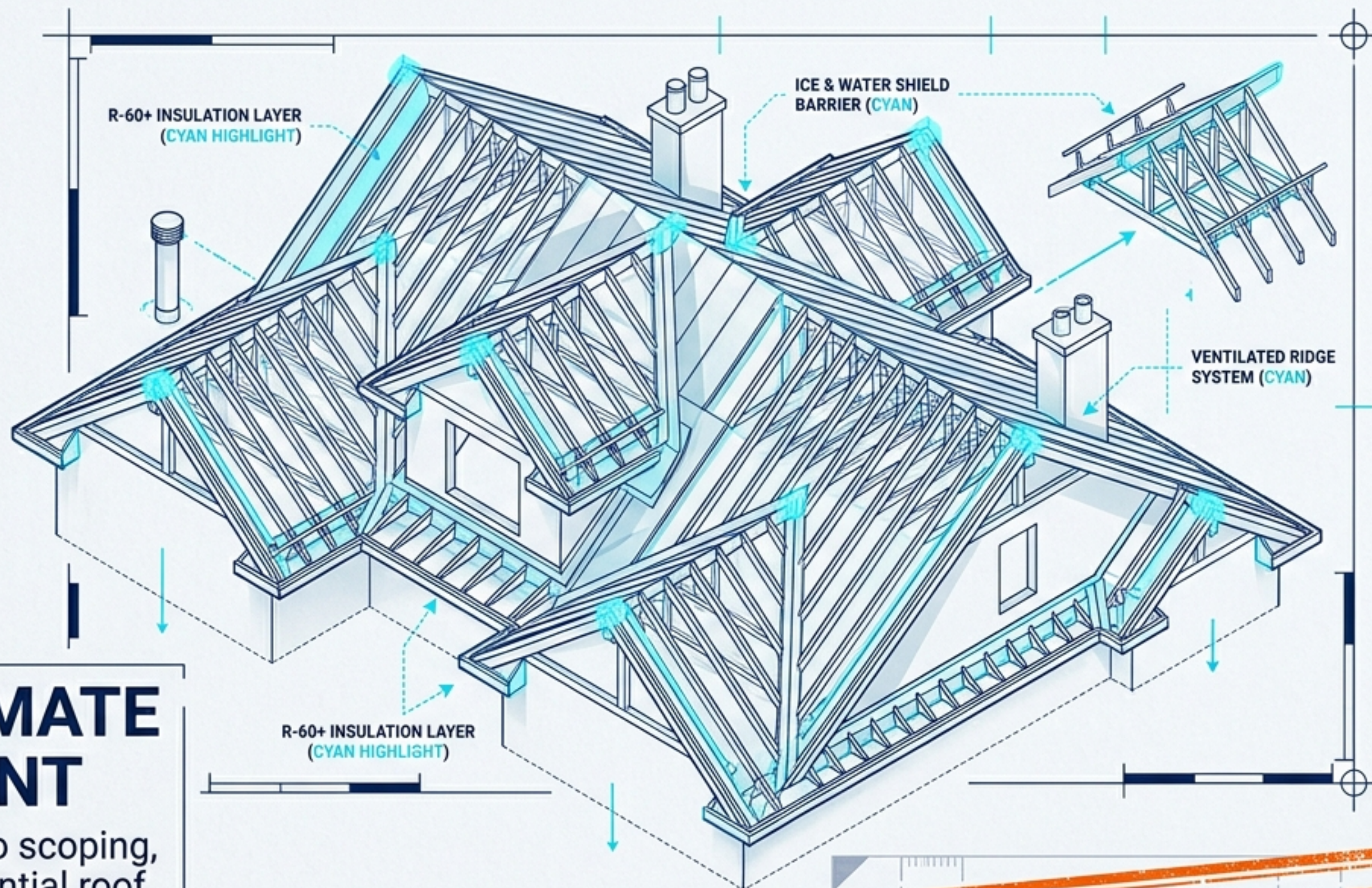


# WINTER TECH



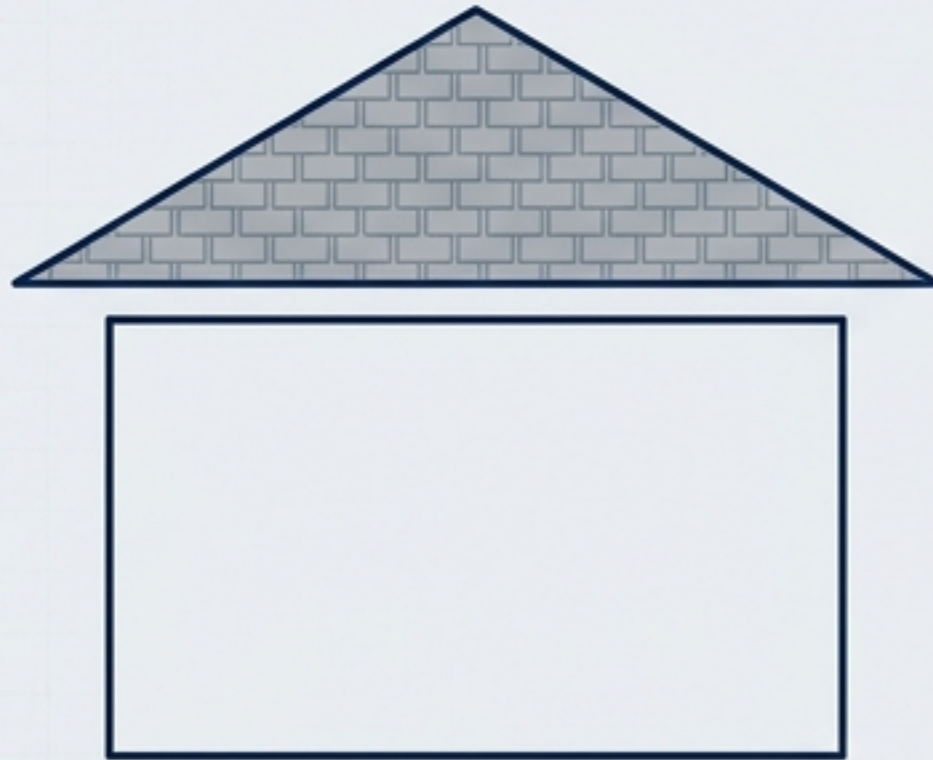
## THE COLD-CLIMATE ROOF BLUEPRINT

An expert diagnostic guide to scoping, vetting, and executing residential roof systems in Minneapolis & St. Paul.

Q1 2026 // MPLS-ST. PAUL ED.

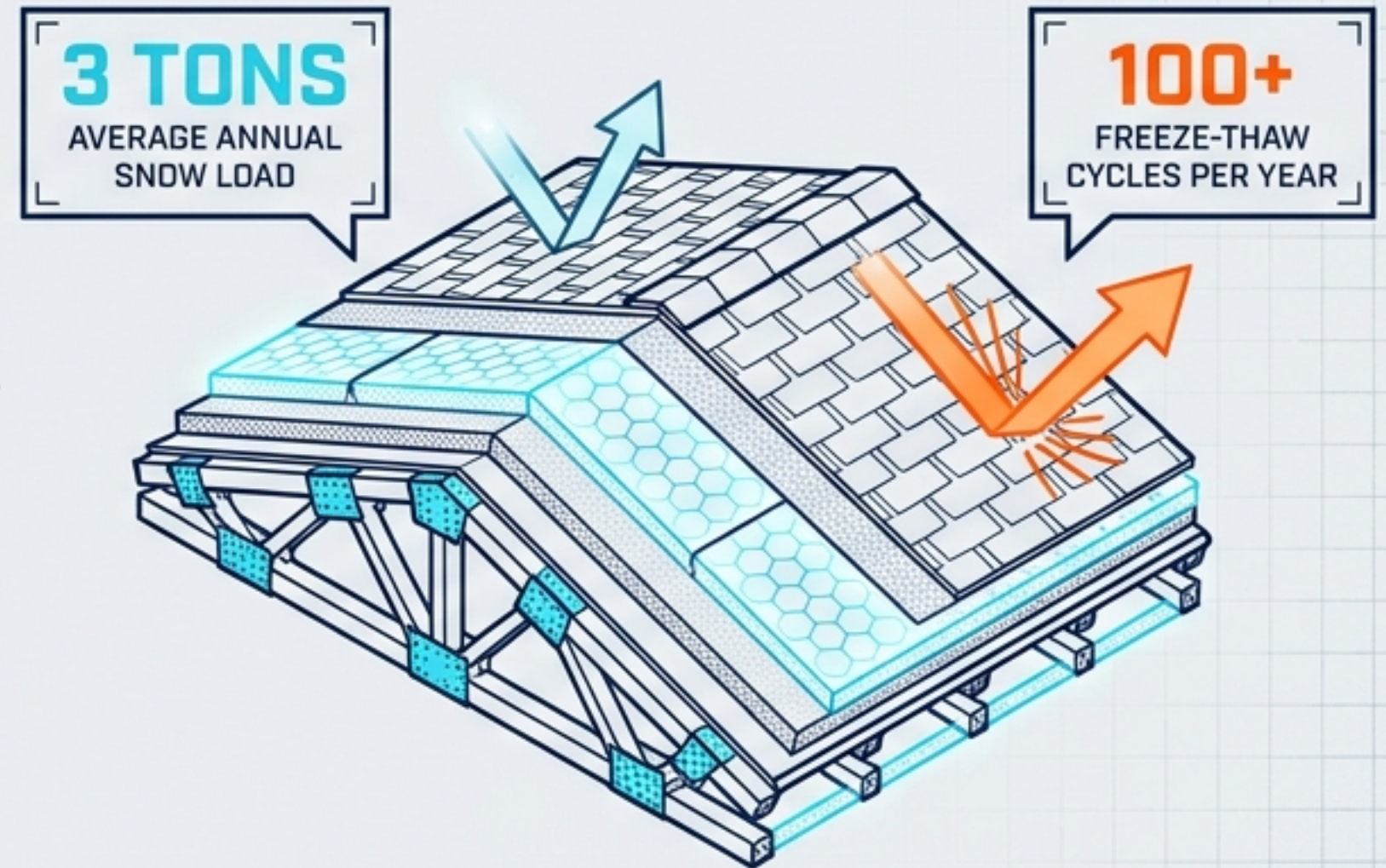
# WINTER TECH: A ROOF IS NOT A LID. IT'S AN ENVELOPE SYSTEM.

## COMMODITY MINDSET



Comparing bids based only on cost-per-square-foot and shingle color. Treating the roof as a static cosmetic layer.

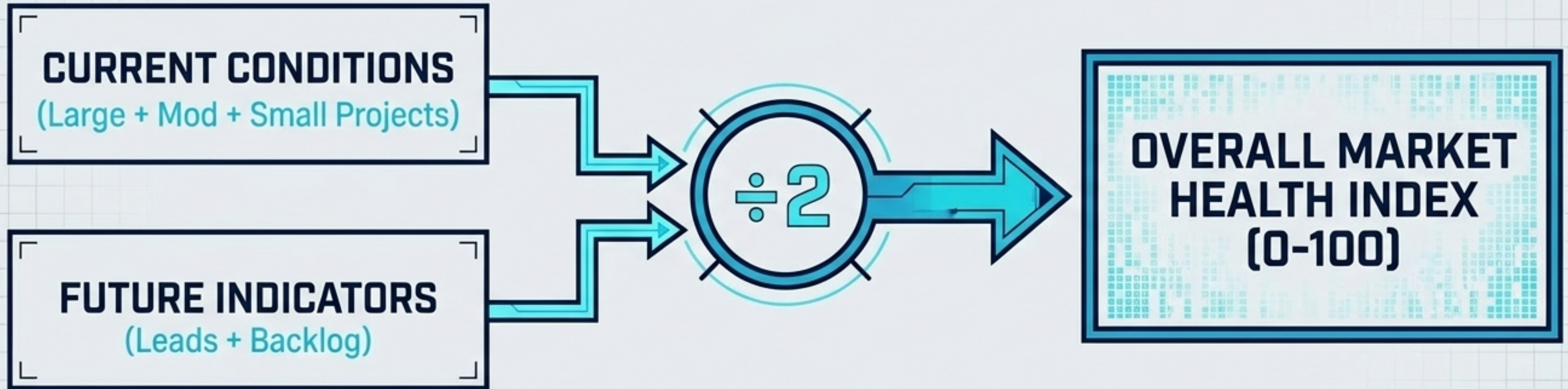
## SYSTEM MINDSET



Designing a dynamic shield built to handle specific regional extremes. The load path for water is as critical as the load path for structure.

# WINTER TECH: THE 2026 REMODELING MARKET CLIMATE

Understanding the NAHB/Westlake Royal Remodeling Market Index (RMI) methodology to gauge contractor availability. An index over 50 indicates high demand.

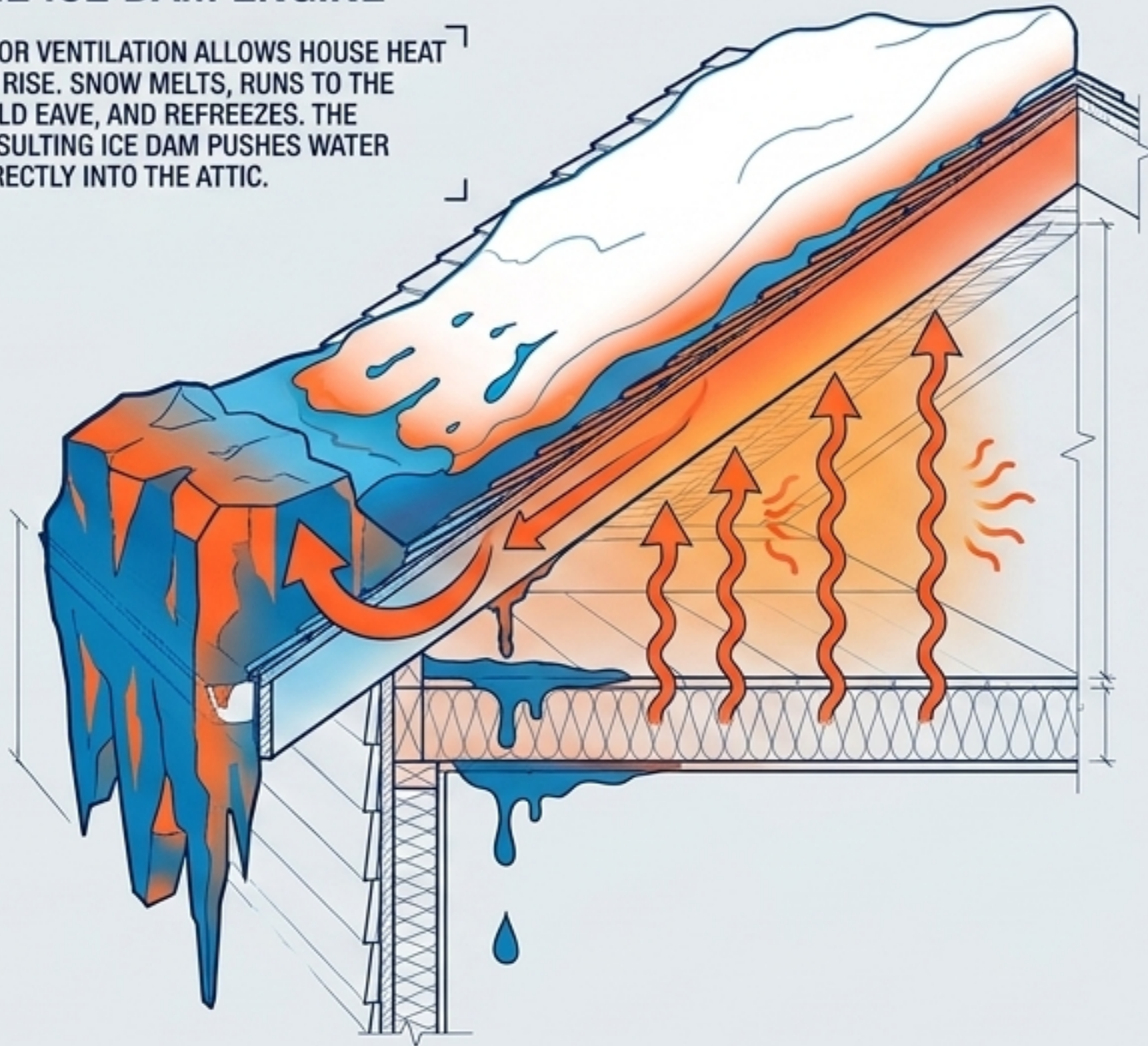


Highly skilled crews carry significant backlogs. Finding the right contractor requires strategic vetting, not just waiting for door-knockers.

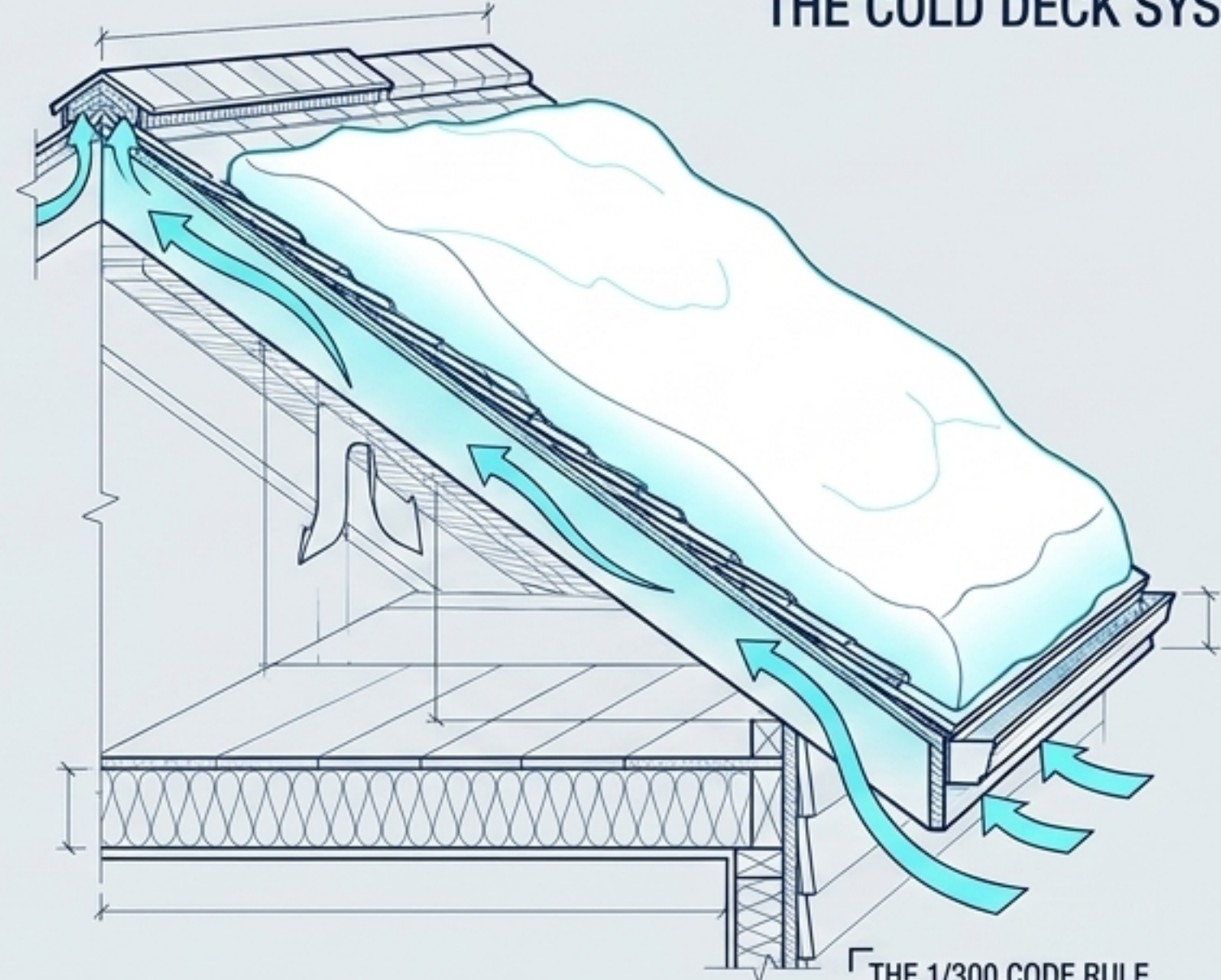
# WINTER TECH: ANATOMY OF A FAILURE VS. ANATOMY OF A SUCCESS.

## THE ICE DAM ENGINE

POOR VENTILATION ALLOWS HOUSE HEAT TO RISE. SNOW MELTS, RUNS TO THE COLD EAVE, AND REFREEZES. THE RESULTING ICE DAM PUSHES WATER DIRECTLY INTO THE ATTIC.



## THE COLD DECK SYSTEM



THE 1/300 CODE RULE. A PERFECTLY BALANCED SYSTEM OF SOFFIT (INTAKE) AND RIDGE (EXHAUST) VENTILATION MAINTAINS A COLD ROOF DECK, NEUTRALIZING THE ICE DAM CYCLE.

# WINTER TECH: DECONSTRUCTING THE COLD-CLIMATE DEFENSE

## Underlayment

Breathable synthetic layer covering the remainder of the deck.

## Flashing & Shingles

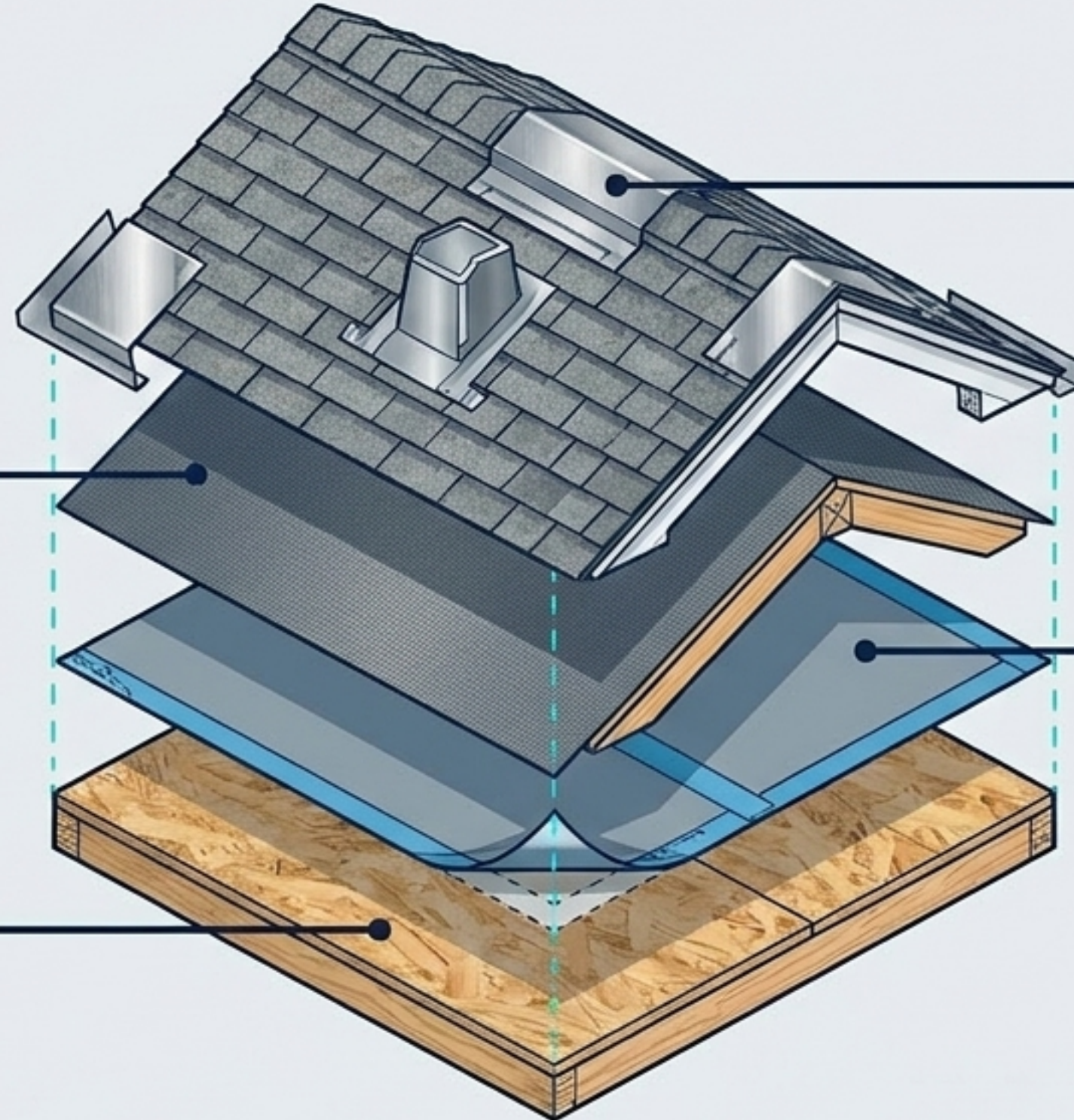
Metal step-flashing at penetrations, topped with architectural asphalt or premium materials.

## Ice & Water Shield

Self-adhering membrane.  
"MN Code: Must extend from eaves to 24 inches inside the heated wall line."




## Decking

Solid OSB/Plywood.  
Full tear-off is non-negotiable to inspect for hidden rot.




# 2026 Minneapolis Cost Reality Matrix

A proper 2026 roof replacement ranges from \$14,000 to \$28,000+. Based on Hennepin County prevailing wage data and material costs.

		
<b>The Uptown Bungalow</b>	<b>The Edina Two-Story</b>	<b>The Kenwood Historic</b>
<b>Specs:</b> 1,600 sq. ft., 1-layer tear-off.	<b>Specs:</b> 2,400 sq. ft., 2-layer tear-off.	<b>Specs:</b> 3,200 sq. ft., steep pitch.
<b>Scope:</b> 100 sq. ft. rotted OSB replaced, synthetic underlayment, ridge vent added.	<b>Scope:</b> Complex flashing for dormers/valleys, Class 4 impact shingles, added 2 soffit vents.	<b>Scope:</b> Chimney decking repair, copper flashing, premium historical architectural shingles.
<b>Total: \$16,500</b>	<b>Total: \$23,000</b>	<b>Total: \$31,000</b>

# WINTER TECH: SCOPE LOCKS AND PLANNED CONTINGENCIES



## SCOPE LOCK


SPECIFIC SHINGLE  
 MAKE:  MODEL:   
 COLOR:

The contract must detail exactly what is being installed. Never accept a line item that just says 'shingles.' Require make, model, color, ventilation plan, and flashing materials in writing.

VENTILATION PLAN:  FLASHING MATERIALS:

## THE UNKNOWN VARIABLE

You cannot evaluate roof sheathing until the old shingles are removed. Rotted decking is the most common mid-project change order.



	QTY	DESCRIPTION	EST. UNIT	UNIT	AMT
OSB SHEATHING	27.75	3/4" X 48" X 96"	27.75		
PLYWOOD SHEATHING	12	5/8" X 48" X 96"	12		

## THE NAHB FORMULA

For homes over 30 years old, establish a 10% to 15% budget contingency. Require a written 'per-sheet price' for OSB/Plywood replacement before signing to control costs.

# { 10% - 15% }

## BUDGET CONTINGENCY

	QTY	DESCRIPTION	EST. UNIT	UNIT	AMT
OSB SHEATHING	27.75	3/4" X 48" X 96"	27.75		
PLYWOOD SHEATHING	12	5/8" X 48" X 96"	12		

# The Vetting Baseline: Zero Exceptions



## Active DLI License

Verify their residential building contractor license directly through the Minnesota Department of Labor and Industry (DLI) portal.



## Dual Insurance Coverage

Require a certificate of insurance proving both general liability and workers' compensation. If a worker falls without comp, you are liable.



## Permanent Local Footprint

Physical local address, not a P.O. Box. Avoid post-hailstorm "storm chasers" who vanish when leaks start. Demand references from local jobs 1-2 years old.

# WINTER TECH: THE INTERVIEW PLAYBOOK

## 1 Who is on site?

**Listen for:** In-house W2 employees vs. a rotating crew of subcontractors. W2 crews offer consistent training and accountability.

## 2 How do you protect the property?

**Listen for:** Specific plans for siding/landscaping tarps and a guaranteed magnetic sweep for nails.

## 3 What brands do you install?

**Listen for:** Manufacturer certifications (GAF, Owens Corning, CertainTeed) which unlock superior system warranties.

## 4 What is your ventilation plan?

**Listen for:** A literal calculation to ensure intake/exhaust balance compliant with the 1/300 code rule.

## 5 How are surprises billed?

**Listen for:** A predefined per-sheet price for decking replacement.

# The Diagnostic Radar: Green Lights vs. Red Flags



**Green Light:** Detailed bid, time to review.

**Green Light:** Exact makes, models, and layers specified.

**Green Light:** Down payment is 33% or less.

**Green Light:** Requires you to pay your legal deductible.

**Tactics**

**Contracts**

**Deposits**

**Insurance**



**Red Flag:** High-pressure "sign today for a discount" tactics. Sales-driven, not craft-driven.

**Red Flag:** Vague contracts with single line items like "new roof."

**Red Flag:** Demanding large upfront deposits (Minnesota law caps down payments at one-third of the total).

**Red Flag:** Offers to "eat your deductible." This is insurance fraud and signals a fundamentally dishonest operator.

# The Minneapolis Inspection Gauntlet

## Phase 1: Permitting

The contractor must pull the permit through the City of Minneapolis. This triggers the legal inspection timeline.



## Checkpoint 1: The Mid-Roof Inspection

Occurs after ice & water shield and underlayment are down, before shingles. Inspector verifies nailing patterns and critical water barrier placement.




## Checkpoint 2: The Final Inspection

Occurs post-completion. Inspector checks shingle installation, chimney/vent flashing, and code-compliant ventilation.

## The Golden Rule

Do not make the final payment until the inspection card is signed off by the city inspector. That signature is your proof of code compliance.

# Synthesis: The Commodity vs. The System

	<b>The “Shingler”</b>	<b>The Envelope Expert</b>
Core Focus	Aesthetics and square footage.	<b>Airflow, thermal dynamics, and load paths.</b>
Scope Detail	Overlays shingles on old roofs; ignores ventilation.	<b>Demands full tear-offs, calculates the 1/300 rule, specs 24-inch ice shields.</b>
Ultimate Outcome	A \$15,000 lid that creates a <b>\$10,000 ice dam repair</b>  next winter.	<b>A resilient structural shield designed to neutralize a Minnesota winter.</b>

## Winter Tech

# Data Integrity & Methodology

Specifications, pricing aggregates, and code requirements in this playbook are derived directly from the following 2024-2026 datasets and authorities:

- Minnesota Department of Labor and Industry (DLI), Contractor Licensing Division (2026)
- City of Minneapolis Development Services, Permitting Data (2025)
- NAHB Remodeling Market Index (Q1 2026)
- International Residential Code (IRC), 2024 Edition
- Asphalt Roofing Manufacturers Association (ARMA) Installation Manual (2025)
- University of Minnesota Extension, "Preventing Ice Dams" (2024)

