A ROLLING ROCK STONE FIELD GUIDE

How to Install & Maintain Natural Stone

Setting, pointing and caring for stone so it lasts generations

FOR MASONS · HARDSCAPERS · AND THE CLIENTS THEY SERVE

EST. 1955

ROLLING ROCK STONE

GRIT · STEADINESS · CARE

Quarried, fabricated & delivered from Boyertown, Pennsylvania since 1955

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HOW TO USE THIS GUIDE

Natural stone is one of the few building materials that improves across generations — but only when it is set and cared for the way its nature demands. This guide covers both: how to install it right, and how to keep it right.

It is written for the crews who do the work — masons, hardscapers and landscape contractors — and for the clients who will own and maintain the result. The principles are field-tested and definitive. The structural specifics — footing design, load paths, engineered backups — are deliberately pointed back to your local codes and a licensed engineer, because protecting the project sometimes means knowing exactly where our expertise ends and theirs begins.

READ THIS BEFORE ANYTHING ELSE

Nothing in this guide substitutes for local building codes, manufacturer installation instructions for adhered systems, or the judgment of a licensed engineer on any structural application. When those speak, they win.

1 The Partnership Behind Every Wall

A stone wall is the product of two hands. The producer pulls the highest-quality semi-finished material from the earth with grit, care and steadiness. The installer turns that raw geology into architecture. Neither can do the other's job, and pretending otherwise is how projects fail.

> *"Remember, stone can be neither good nor bad. Stone can do nothing. The ability to create a finished product lies in the talented hands of a person called a stone mason."*
>
> **— Agostino Giuseppe Vinci**

That is why the single highest-leverage decision on any stone job is **who sets it**. A qualified stone mason contractor is someone who can demonstrate, through completed work, the skill to satisfy the people who hired them. Choose that person on their portfolio, not on the lowest bid — the mason's hand is the final stage of production.

2 Before the First Stone

Plan and permit

Confirm local building codes for the application before ordering. Any structural, load-bearing use — stone bearing primary load without an engineered backup — requires explicit authorization from a licensed engineer. Sort this first; it can change the material itself.

Order for continuity

Because coverage per ton is subjective and varies with stone, pattern and mason, estimate generously and add a contingency. Ordering the full quantity in one release keeps you within a consistent band of the earth and leaves repair stock in reserve.

Blend from multiple pallets

> **FIELD NOTE — PULL FROM SEVERAL CRATES AT ONCE**
>
> Natural stone varies in color, texture and size by nature. A mason who draws from **several pallets simultaneously** and mixes as they set will distribute that variation evenly across the whole elevation. Working one pallet to exhaustion before opening the next is how you end up with visible "bands" where the character shifts. Blend as you go.

3 Foundations & Substrates

The two installation families need fundamentally different support. Match the base to the method.

Full-bed building stone

- **A dedicated footing / foundation** sized to carry the real mass of full-thickness stone (a full-bed veneer runs roughly 3–6" thick). Foundation design is an engineering question — confirm it against code and, where required, an engineer's spec.
- **Wall ties** anchoring the stone facing back to the structural backup at the intervals your code and system require.
- **Lintel and shelf support** at openings and transitions, so the stone's weight is carried, not hung on adhesion.

Adhered thin stone veneer

- **A sound substrate** — cementitious backer unit (CBU), existing masonry, or a properly prepared wall assembly — rated to carry the veneer's (modest) weight.
- **Moisture management** — the water-resistive barrier, flashing and drainage details called for by the veneer system's manufacturer and by code. On exterior walls this is not optional.
- **Follow the adhered system's instructions** for lath, scratch coat, setting bed and bonding — they are specific to the product and they govern.

> **SPEC CHECK**
>
> A **building stone veneer** only supports its own weight and requires an engineered backup. **Structural, load-bearing stone** is a different thing entirely and needs a licensed engineer's sign-off. If you're unsure which one the drawing calls for, stop and confirm before you pour anything.

4 Setting the Stone

Setting is where the semi-finished material becomes a wall. It is judgment work — reading each piece and placing it for both structure and eye.

Read the stone before you set it

- **Cleft & bedding.** The natural split creates the depth of the reveal. A deep cleft changes how the stone beds and dictates how you'll later point it — so it has to be considered as the piece goes in, not after.
- **Shape & dress to fit.** Because thickness and size arrive as a range, the mason shapes and dresses pieces to set one cleanly on the next as the vertical wall rises.

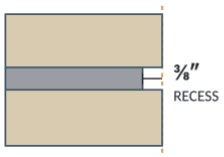
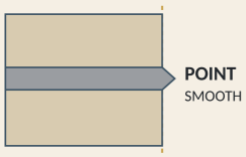
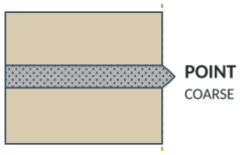
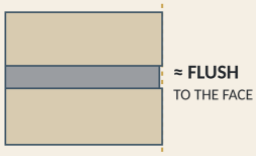
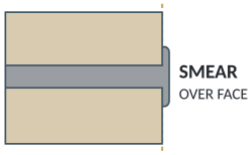
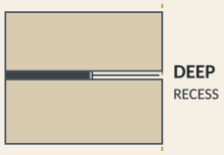
Distribute for balance

A master ensures a balanced distribution of size, shape and color so the finished wall never looks bottom-heavy or poorly scaled. Larger pieces and heavier color are worked across the whole field, not clustered. This is the difference between a wall that looks composed and one that looks dumped.

> **FIELD NOTE**
>
> Step back often. The wall is read from ten feet away, not from the trowel. Frequent distance checks catch scale and color clustering while they're still easy to fix.

5 The Art of Pointing

Pointing — the finish of the mortar joint — is the mason's signature. It is not just a binder; it is a design element powerful enough to make a new wall read as 18th-century or as sharply contemporary. Choose it deliberately.

Joint	Profile (side view)	On the wall	How it reads & notes
Raked			Recessed ~3⁄8"; crisp shadow line & reveal that emphasizes texture and depth. The industry standard for decades; the default choice.
Ridge (Style A)			Struck to a point, slightly proud of the face; smooth, clean, tailored and even. Standard mortar elements; higher labor than raked.
Ridge (Style B)			Pointed, with a coarser historic texture. Grittier mortar to match older stonework; higher cost.
Full / Flush			Nearly flush; a uniform look with less shadow. Edges visible up close. Reads older & monolithic from a distance.
Overgrout / Barn-Dash			Mortar is filled past the joint and smeared across the edges of the stone face. Softens the stone pattern; reads rustic and aged.
Dry Stack			Stones fit tightly and the mortar is deeply recessed, so joints nearly disappear. High skill; needs much more stone to fill the field. See the warning below.

Profiles are schematic and not to scale.

LIABILITY WARNING — EXTERIOR "DRY STACK"

A true **dry-stack joint** on any exterior project carries real risk, and the user accepts all responsibility for its performance and structural integrity. It demands a high skill level and significantly more raw material. Do not specify it on an exterior wall casually, and document that the client understands the responsibility.

6 Landscape Installations

Stonescaping is the strategic modification of a landscape with permanent stone. Its whole appeal is longevity — stone doesn't rot like timber or crack and degrade like a poured pad; it matures. A few application notes:

Flagstone patios & walkways

The functional heart of most stonescapes. Set on a properly prepared, well-draining base so water moves through rather than pooling and freezing. Because cleft flagstone varies in thickness, the base and setting bed do the work of bringing the walking surface to plane — another place skill shows.

Wallstone & dry-stacked walls

Natural wallstone gives the longevity of a structure that can stand for generations without synthetic binders. On any exterior dry-stack, mind the liability note in Section 5 and confirm the structural approach for retaining applications.

Boulders & grade

Boulders provide permanent grade retention that reads as though it grew from the earth — a durable alternative to systems that rot or fail on a twenty-year clock. Placement and burial depth are the craft here. Boulders can also be used individually or in groups as accents of natural outcroppings in planting beds and landscapes.

Heavy steps

Large pieces cut to a full rise are a one-time investment in a permanent landing, far more durable than surfaces that scale and pit in harsh freeze-thaw weather. Set them dead-level and bear them fully.

> **VERIFY COMPLIANCE**
>
> Whatever the landscape element, ensure the installation meets local building codes and uses an engineered backup or engineer's authorization wherever the structure calls for it.

7 Making It Last

Durability in the Northeast comes down mostly to one contest: water versus stone across the freeze-thaw cycle. Understand that, and maintenance becomes simple.

The physics, briefly

Water that soaks into porous stone and then freezes expands, and that internal pressure is what spalls and degrades a surface over years. Denser, lower-absorption stone gives the water less to work with — which is exactly why the density and absorption numbers in the selection guide matter, and why the right stone choice is the first act of maintenance.

Routine cleaning

For most stone, routine cleaning is genuinely low-effort: water and a mild soap handle the great majority of dirt and staining. Gentle and regular beats aggressive and occasional.

> **THE SO WHAT?**
>
> A correctly chosen, well-set, gently cleaned stone surface is a multi-generational asset whose value increases over time. Almost all of that outcome is decided by choices made before and during installation — maintenance mostly just protects what good selection and good setting already earned.

8 The Golden Rules of Care

Most permanent damage to natural stone comes from a short list of avoidable mistakes. Give this page to the client.

> **NEVER USE ACID OR CHEMICAL CLEANERS**
>
> Natural stone is a mix of diverse minerals that react **unpredictably** to chemical agents — often causing permanent staining, surface degradation or structural failure. Because the reaction can't be controlled, **the user accepts all risk for the permanent results that follow their use.** When in doubt, water and mild soap only.

- **Mind de-icing salts and pool chemistry.** Chlorides from de-icing salt and pool chlorine can react with some stone over time. Rinse exposure where practical and avoid piling de-icing salt on stone surfaces.
- **Own the dry-stack risk.** For any exterior dry-stack application, the user accepts responsibility for performance and structural integrity. Specify it with eyes open.
- **Clean gently and often.** Water and mild soap, regularly, will keep genuine stone looking its age — which, for natural stone, is a compliment.
- **When structure is in question, call the engineer.** Not a suggestion — a rule. It is the cheapest insurance on the whole project.

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CARE · GRIT · STEADINESS

Set it right, care for it simply, and it will outlast all of us.

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