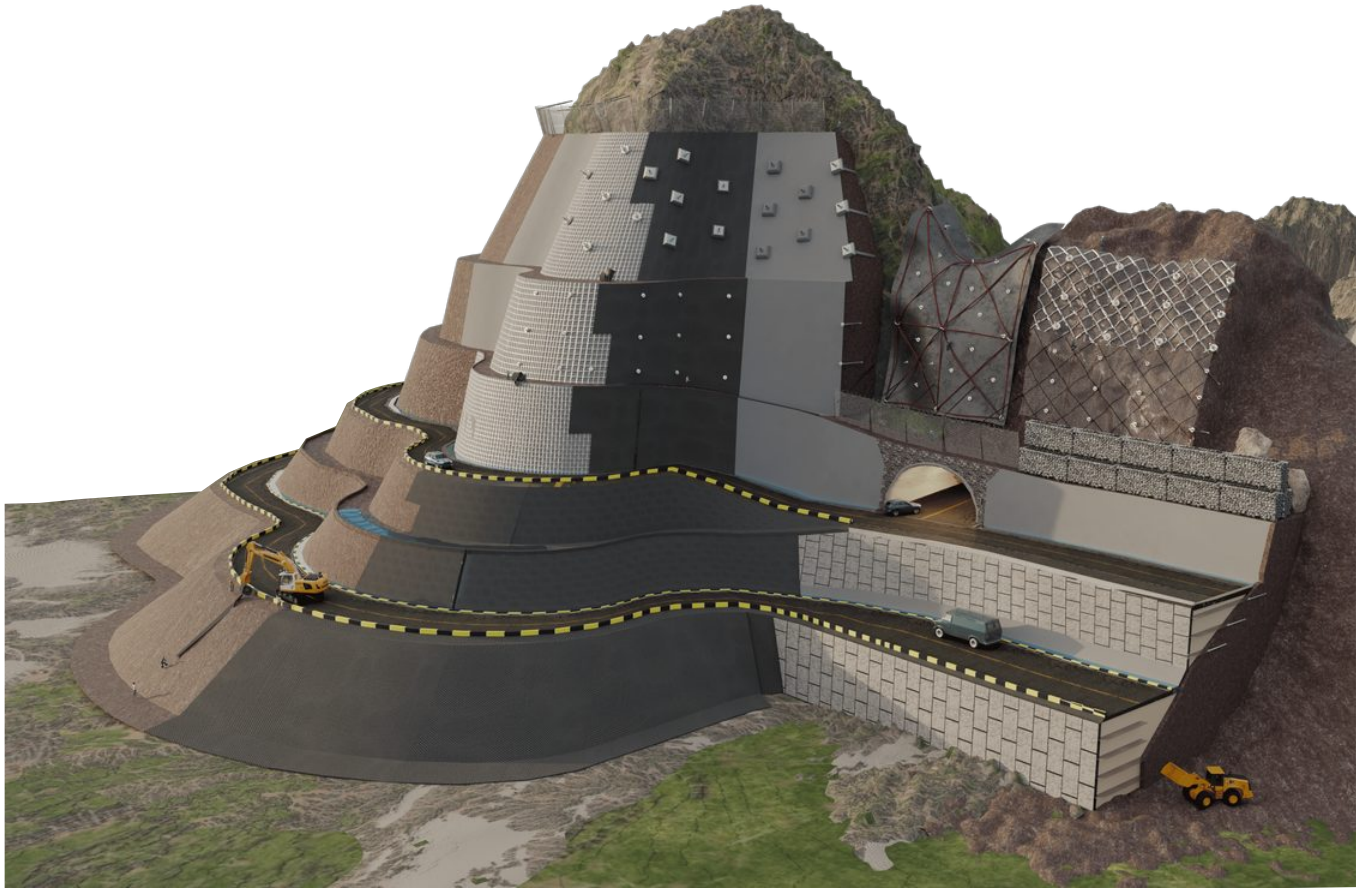
CONSTRUCK SLOPE

The Complete SPaaP® Line for Slope Protection



Sustainable, economical, performance driven solutions for every slope

This brochure introduces the full ConstruckSlope® family ready-to-install SPaaP® systems that standardize slope needs into reliable kits. From shallow embankments to steep rock cuts and active rockfall zones, ConstruckSlope® offers the widest range of options to match risk, climate, and budget.

CST-SLOPE-BRO-00003

CONSTRUCK SYSTEMS & TECHNOLOGY
Research and Development | Design | Manufacturing | Geotechnics



Why ConstruckSlope®

We built ConstruckSlope® around a simple idea: **make slope work predictable**. Each system combines tested components, clear details, and a repeatable method. That means faster delivery, consistent quality, and fewer surprises in the field—without giving up engineering rigor or sustainability.

At a glance

- End-to-end portfolio for embankments, steep slopes, rockfall, and drainage.
- Components selected to relevant **ASTM** test methods and integrated as kits.
- Permeable, drainage-first designs to avoid pore pressure build-up.
- Lower embodied carbon than conventional rigid facings.

SPaaP®: Slope Protection as a Product

The innovation

Traditional slope works are one-off projects: bespoke drawings, mixed suppliers, variable results. **SPaaP® flips that model** by turning slope protection into standardized products—each with pre-matched layers, anchorage logic, drainage pathways, and installation methods. Think of it as moving from custom fabrication to an engineered product line.

Why this matters

Products scale reliability. With SPaaP®, the same kit that works beside a highway cut can be deployed on a rail corridor or a mine haul road—with minor, documented options. That repeatability compresses design time, stabilizes costs, and makes outcomes predictable.



A Mountain of Solutions

Erosion Control — Shallow Slopes

- **ConstruckSlope® CemWrap Basic** (embankments)
- **ConstruckSlope® CemWrap Plus** (<70 shallow mountain slopes)

Erosion Control — Steeper Slopes

- **ConstruckSlope® Plus**
- **ConstruckSlope® Plus Green**

Heavy-Duty Slope Stabilization

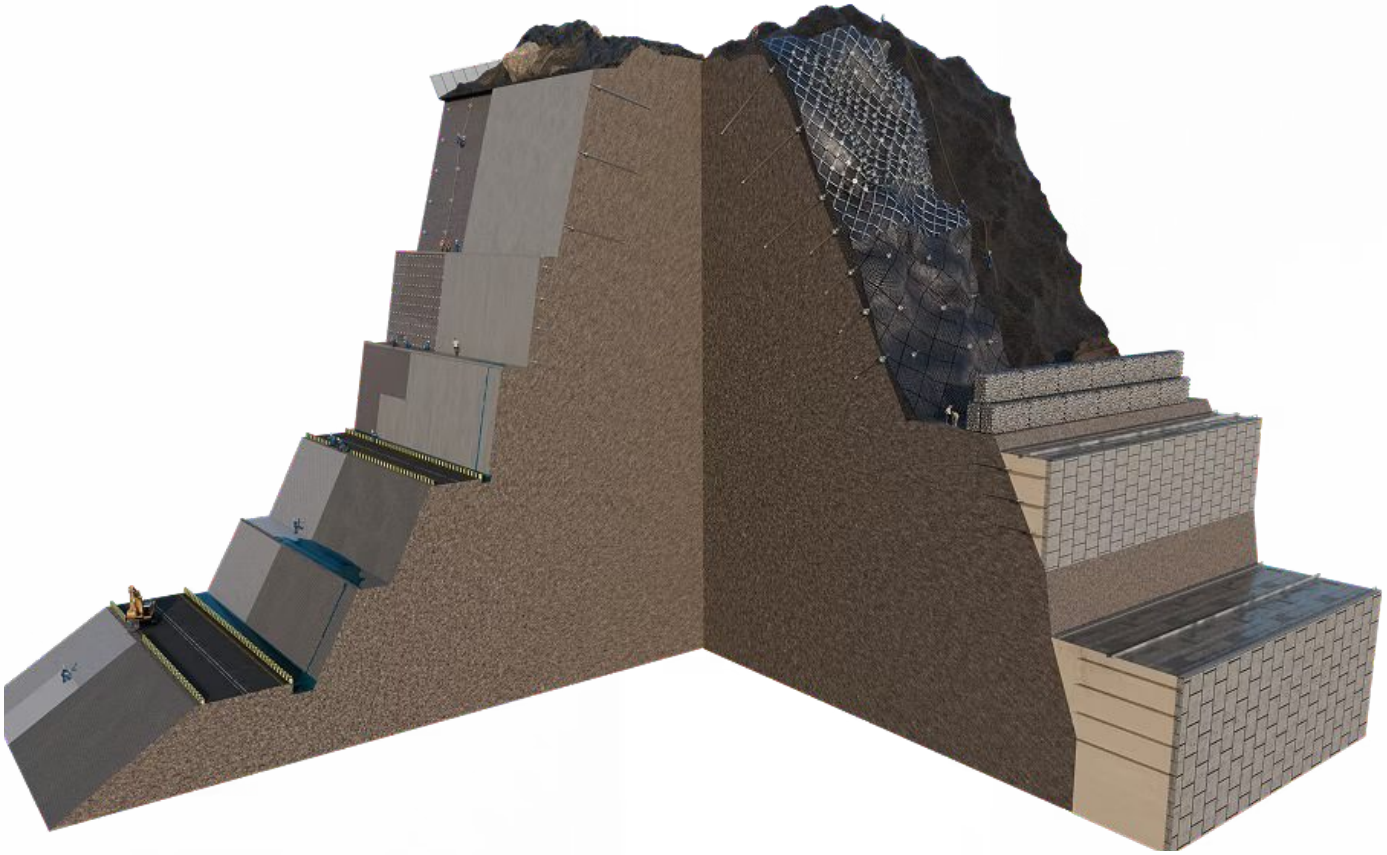
- **ConstruckSlope® Extreme**
- **ConstruckSlope® Ultimate**
- **ConstruckSlope® CemRockWrap Basic**
- **ConstruckSlope® CemRockWrap Plus**

Geohazard Mitigation (Rock Weathering & Passive Protection)

- **ConstruckSlope® RockWrap Basic**
- **ConstruckSlope® RockWrap Plus**
- **ConstruckSlope® RockPanel**
- **ConstruckSlope® RockBarrier** (1000/2000/3000/5000 kJ)
- **ConstruckSlope® RockGabion**
- **ConstruckSlope® FlexGabion**

Water Drainage & Channel Lining

- **ConstruckSlope® CemWrap Ditch/Canal**
- **ConstruckSlope® Berm**



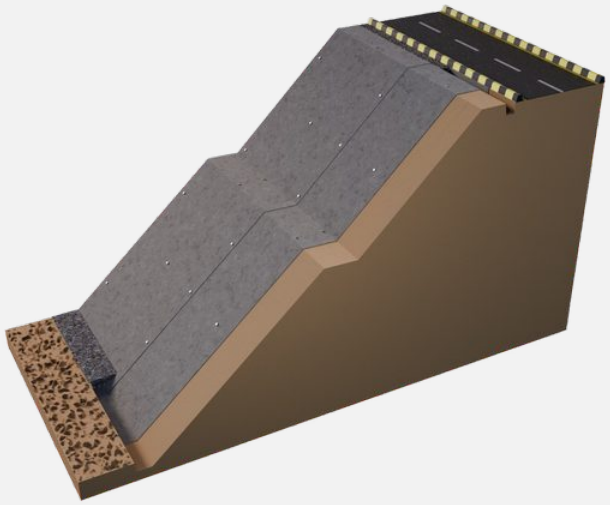


Erosion Control (Shallow Slopes): CemWrap® Basic & Plus

ConstruckSlope CemWrap Basic and CemWrap Plus are advanced erosion-control systems engineered to replace traditional rip-rap and shotcrete methods. Factory-validated cementitious composite wraps for shallow gradients. CemWrap builds a thin, durable skin that resists rainfall/runoff erosion while keeping the slope permeable. Using the world's strongest and longest-lasting GCCMs called Construck CemWrap, ConstruckSlope CemWrap aims to redefine the future of erosion control.

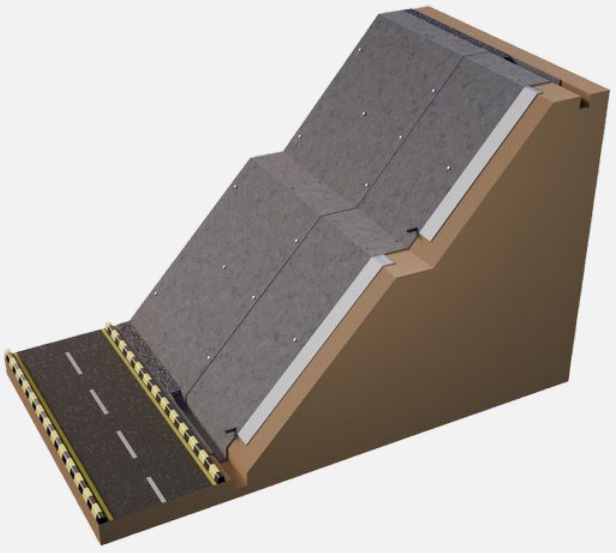
CemWrap® Basic — for embankments

- Thin cementitious wrap over filter-stable geotextiles
- Controls sheet erosion on highway and rail embankments
- Compatible with hydroseeding or gravel mulch where required
-



CemWrap® Plus — for shallow mountain slopes

- Heavier wrap and anchorage density for higher rainfall and wind exposure
- Better surface armor against rills and shallow slips
- Same install logic; upgraded fasteners/anchors





Erosion Control (Steeper): Plus & Plus Green

ConstruckSlope® Plus

ConstruckSlope Plus is the world's first SPaaP® for protecting non-vegetative mountain cut slopes that's both sustainable and long-lasting. A multilayer reinforced-facing system for steeper slopes that stabilizes the face, evacuates water, and protects against erosion. High-strength geogrid, continuous face drainage, and simple crest/toe anchors deliver reliable performance near corridors and structures.

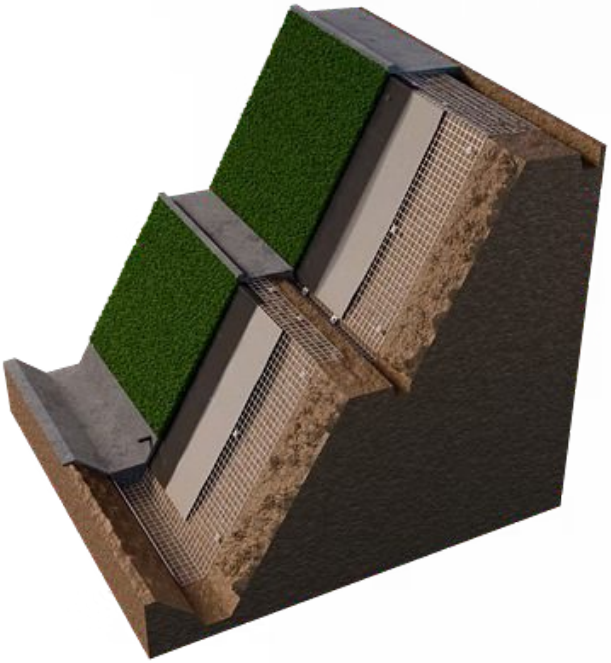
ConstruckSlope® Plus Green

ConstruckSlope® Plus Green combines the structural resilience and drainage efficiency of ConstruckSlope Plus with a sustainable vegetative finish. A 12 mm engineered growth layer (ConstruckOrganic™) and a TRM foster rapid plant cover. Gravity drip at the crest feeds a wicking fabric to spread water by capillary action - efficient even in arid regions.

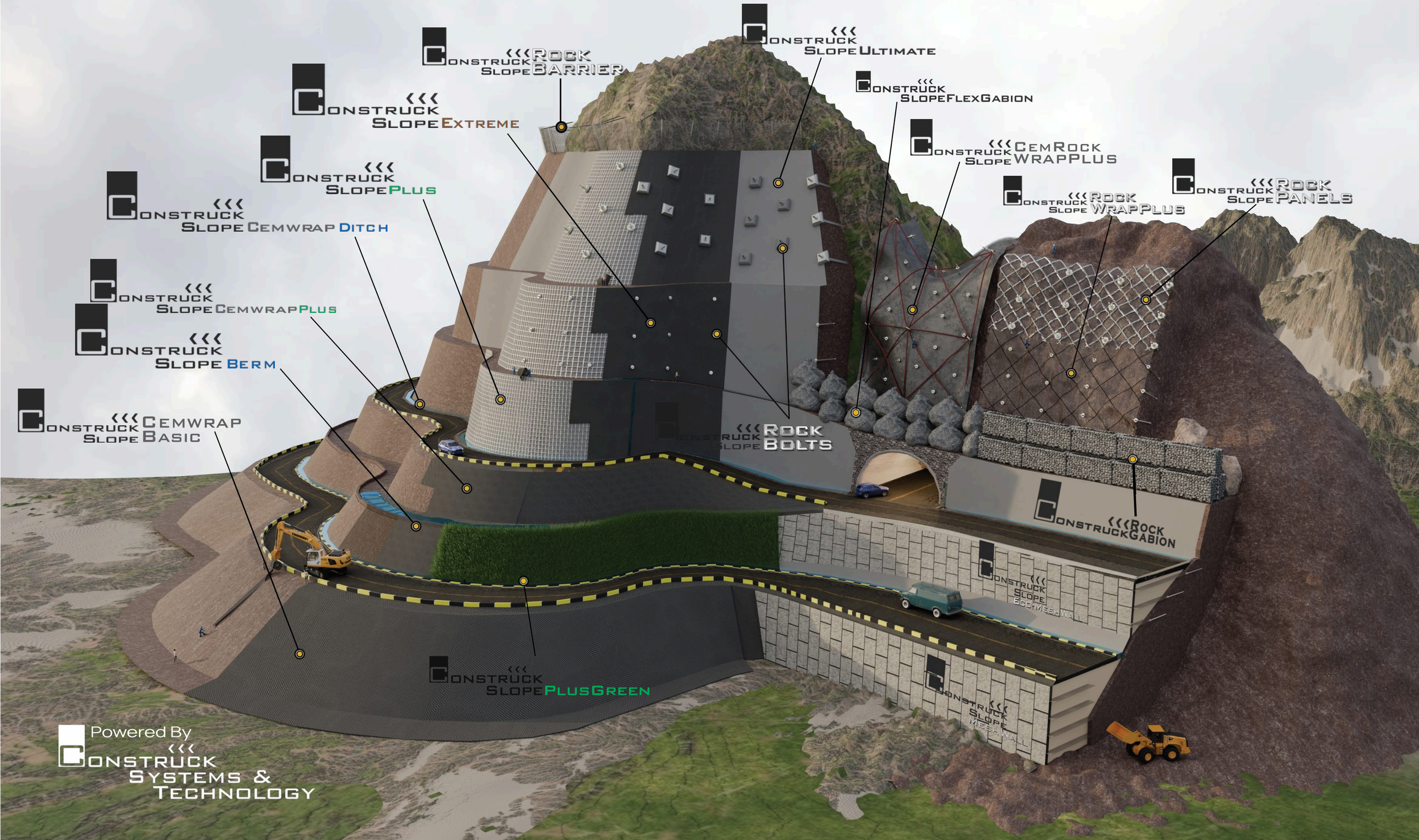
Why choose these

Natural or engineered finishes, low whole-life cost, and fast installation with predictable outcomes.





CONSTRUCK SLOPE - A Mountain of Solutions for Slopes. Literally.



Powered By CONSTRUCK SYSTEMS & TECHNOLOGY



Heavy-Duty Stabilization: Extreme & Ultimate

The sustainable alternative to limitless concrete

When slopes get taller, steeper, or more critical, the traditional answer has been massive concrete walls, deep cut-backs, or energy-intensive regrading. **ConstruckSlope® Extreme and Ultimate replace that approach** with a high-capacity blend of geosynthetic face systems and **special steel anchor solutions**—delivering the load paths you need without hauling thousands of tonnes of concrete or burning diesel on excess excavation.

ConstruckSlope® Extreme

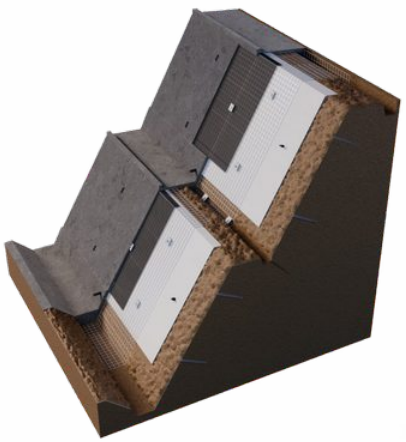
Built on the Plus logic but fitted for tougher rock and mixed ground. Uses **deeper rock bolts (up to ~6 m)** and upgraded detailing while retaining drainage-first behavior.

ConstruckSlope® Ultimate

Our highest-capacity kit for critical sites. Engineered to maintain face integrity under severe load cases approaching **global-stability failure scenarios**.

Why Extreme/Ultimate are more sustainable

- **Minimal new excavation**: Keep the existing slope geometry and stabilize in place.
- **Low-mass materials**: Geosynthetics and steel anchors ship as compact rolls and bundles—less transport, fewer crane picks.
- **Permeable faces**: Drainage is continuous, reducing repair cycles associated with rigid facings and trapped water.
- **Carbon-smart**: Replace thick concrete shells with thin, high-performance layers and targeted steel where it matters.



Unique Construck accessories for reliable load transfer

- **Engineered base plates & spreaders** that match geogrid apertures to maximize bearing and prevent stress concentrations.
- **Shear-lock berm details** that convert face tension into bench shear resistance.
- **Energy-dissipating washers/retainers** to control seating and reduce shock during tightening.
- **Corrosion-aware detailing** (coatings, isolators, caps) for long-term durability.
- **Connector sets** that couple anchors to the face reinforcement without slippage, preserving the designed load path.
- **Staged-tensioning procedures** with clear torque/elongation checks for QA/QC.





Passive Geo-hazard Mitigation with/without Erosion Control : CemRockWrap® Basic & Plus and RockWrap® Basic & Plus

Flexible, high-toughness wraps to restrain weathering rock faces. RockWrap conforms to irregular profiles, knitting loose plates and small blocks while allowing drainage. Cementitious rock wraps that combine a high-strength reinforcing layer with a cement-stabilized surface to resist weathering on steep rock faces.

CemRockWrap® Basic

- For moderate exposure; standard anchorage pattern
- Controls exfoliation and small block shedding

RockWrap® Basic

- Baseline mesh + anchors for general weathering control

CemRockWrap® Plus

- Upgraded thickness/anchors for harsher climates and higher wind
- Better durability against freeze-thaw and thermal cycling

RockWrap® Plus

- Higher-energy mesh/fasteners with reinforcement and denser anchors for more active faces

Geohazard Mitigation: RockPanel & RockBarrier®

ConstruckSlope® RockPanel

High-energy absorption panels/mesh with perimeter anchorage to **wrap and hold** discrete unstable blocks in place while the face drains.

ConstruckSlope® RockBarrier

Flexible post-and-net rockfall barriers rated **1000/2000/3000/5000 kJ**. Barriers intercept falling blocks and dissipate energy via nets, posts, and break-elements to protect infrastructure below.

High Capacity Containment - Above 10,000 kJ

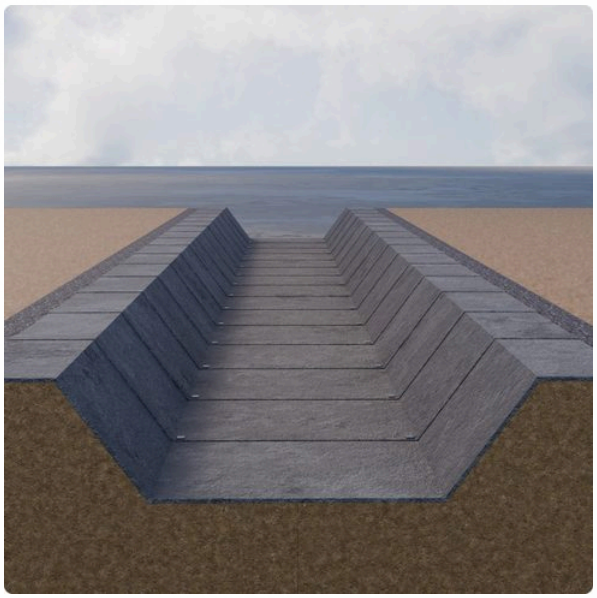
ConstruckSlope® RockGabion

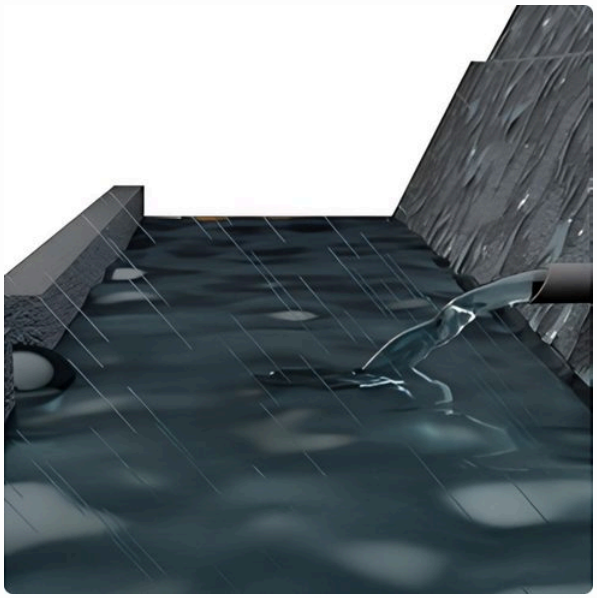
Traditional rock-filled gabion boxes forming gravity barriers that absorb and slow rockfall by mass and stone interlock.

ConstruckSlope® FlexGabion

Polypropylene gabion bags filled with rock to build **near-vertical** walls quickly. The large units interlock and develop friction for **high energy absorption** where reinforced earth walls aren't desired or access is difficult.

Water Drainage & Channel Lining





ConstruckSlope® CemWrap Ditch/Canal

A thin, cementitious lining for ditches and canals that stabilizes banks, limits erosion, and preserves hydraulic efficiency. Compatible with weeps and culvert tie-ins.

Roadside ditches, interceptor drains at the toe of slopes, mine/industrial storm channels, irrigation laterals, lined swales in urban edges.

ConstruckSlope® Berm

A kit-based drainage berm detail that provides shear-lock at slope benches, manages runoff, and creates controlled weep outlets to keep faces dry.

Intermediate benches on tall cuts, landfill cover terraces, rehabilitation berms on quarries and mines, and any long slope needing intermediate flow control.

Well-managed water keeps slopes stable. This group standardizes ditch, canal, and bench-drain details so flow stays in a controlled path, banks remain intact, and face elements never see pore-pressure spikes. Both solutions are productized with drawings, accessories, and simple install steps.

Sustainability, Engineering & How to Specify

Sustainability first

We minimize cement where possible, favor permeable facings, and ship lighter rolls to cut transport. Vegetated options improve micro-habitats and local climate while keeping slopes stable and dry.

Engineering you can trust

Each component is selected to **ASTM** test methods (strength, durability, hydraulics) and then integrated into system designs with clear anchorage and drainage logic. Standardization compresses delivery time and broadens adoption—so one product line can solve a **mountain of slope challenges**.

Next steps

Pick your group, share geometry and constraints, and we'll map you to the right ConstruckSlope® kit with drawings, anchor schedules, and method statements for confident delivery.



ConstruckLabs™ — R&D that powers SPaaP®

ConstruckLabs™ is the research and development arm of Construck Systems. We turn field problems into reliable products through an evidence-first workflow:

- Empirical design data from lab testing and instrumented trial sections build the baseline. Finite element & numerical modeling
- explore load paths, face stiffness, and drainage response before we ever cut ground. Tailored production uses rapid
- prototyping—3D printing, custom tooling, and small-batch component runs—to iterate quickly on anchors, meshes, and growth layers. Site deployments close the loop: we monitor real installations for deformation, drainage, and vegetation performance, then
- feed that data back into the next revision.

This cycle delivers **efficiency** (fewer redesigns, faster approvals) and **reliability** (repeatable performance, documented limits). It's how we keep ConstruckSlope® at the leading edge while reducing waste and embodied carbon across the portfolio.

Digital support

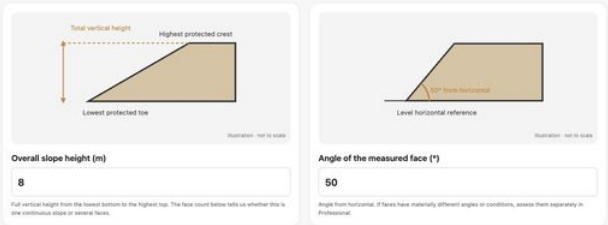
Better decisions. A stronger project.

Explore the options, strengthen the technical basis and connect the people, information and delivery behind your Construck system.

ConstruckCalc

Understand the ground. Build the technical case.

From early options to a reviewed technical basis.



Actual Quick Check interface / sample geometry.

Quick Check
A free first step into relevant systems, preliminary quantities and indicative cost.

Professional
Bring surveys, ground conditions and existing studies into a project-specific assessment.

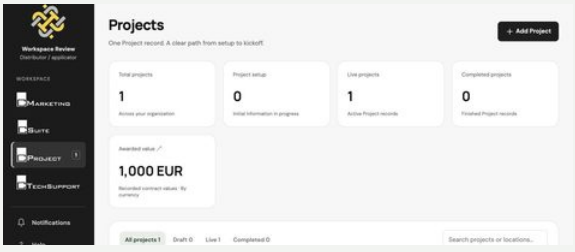
A further stability study
A project-specific stability study is included for each slope we take forward for protection.

calc.construck.me

ProjectSuite

One connected platform. Support from start to finish.

Connect expertise, teams and project information.



Actual development workspace / sample records.

Manufacturer expertise, local support
Connect technical teams and authorised local partners around the selected Construck system.

Supply and construction, coordinated
Keep technical preparation, material supply and installation quality in the same workflow.

Sustainability and handover
Relate environmental estimates to project quantities and retain useful information for the asset.

construck.me/project-suite

Quick Check is preliminary guidance. Professional assessment and support follow the agreed scope and required approvals.













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