EAGLE COUNTY CLIMBING COALITION

A North American Grading Framework for Via Ferrata

A conceptual framework for describing route difficulty

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PUBLIC DRAFT | SEPTEMBER 2026

Why a North American framework is needed

Via ferrata is growing rapidly in North America, but the language used to describe route difficulty has not developed at the same pace. Some routes use European letter or number systems. Others use green, blue, and black symbols borrowed from skiing. Many are described only as beginner, intermediate, or advanced. Each approach can be useful within a particular route or operation, but the terms do not consistently mean the same thing from one location to another.

The result is fragmentation. A grade may tell a climber how one route compares with others at the same site without allowing a meaningful comparison with a route elsewhere. A single overall label can also conceal important differences. A short, steep route; a long, moderate route; and an easy route in a highly exposed position may receive the same general classification even though they ask very different things of the person climbing them.

This paper proposes a common framework built from notation already familiar to North American climbers. Its central claim is that a useful grade should allow a person to understand three distinct features before starting a route: the scale of the outing, the

difficulty and physical demand of the movement, and the degree of exposure they will experience.

Existing via ferrata grading systems

There is no single European grading language. Several established systems are used, sometimes beyond the regions where they originated. The Austrian scale associated with Kurt Schall generally runs from A through E, with F used for the most extreme modern routes. The Hüsler system uses K1 through K6. The French and Italian systems use descriptive alpine grades such as F, PD, D, TD, and ED, although their definitions and applications are not identical.

The Italian system is the most explicitly multidimensional. In addition to an overall grade, it provides separate ratings for technical engagement, physical engagement, exposure, and environment. In 2016, the International Climbing and Mountaineering Federation (UIAA) adopted the Italian scale as its international via ferrata standard because of that completeness.

These systems are established and useful where readers understand their conventions. The challenge in North America is not that European grades are invalid. It is that several different systems appear here without one shared convention, while many prospective users have little experience with any of them.

The theory of a useful grade

A climbing grade is not a measurement in the scientific sense. It is a compact model of an experience: a small amount of notation intended to help one person anticipate terrain they have not yet encountered. Its value depends less on perfect objectivity than on whether it communicates the right distinctions consistently enough to support comparison and judgment.

The first principle of this framework is that each symbol should perform one function. When length, movement difficulty, physical demand, exposure, and environmental seriousness are compressed into one overall label, the grade may remain simple but becomes less informative. Two routes can receive the same composite grade for entirely different reasons. Separating the major dimensions preserves those differences without requiring a long description every time a grade appears.

The second principle is to borrow before inventing. A familiar climbing grade carries more than a definition: it carries the accumulated calibration created by years of use, comparison, and disagreement. Existing North American notation should therefore be retained wherever it answers the question at hand. New notation is justified only where

the existing language leaves out information that materially changes the user's experience. In this framework, exposure is that missing information.

Building on North American climbing notation

North American climbing already separates different kinds of difficulty. The Yosemite Decimal System describes the technical and physical difficulty of climbing movement. The National Climbing Classification System uses Roman numerals to describe the scale and commitment of an outing. Protection ratings such as R and X communicate a different issue again. These components work together because each answers a different question.

This pattern has deep roots. The modern Class 5 subdivisions of the Yosemite Decimal System were developed at Tahquitz Rock in Southern California in the early 1950s, then spread through Yosemite and across the continent. As new forms of climbing developed, North American practice generally retained familiar notation where it remained useful and added new notation where a genuinely different question had to be answered. Sport climbs continued to use YDS. Bouldering developed the V scale. Aid, ice, mixed climbing, commitment, and protection each received notation suited to their particular demands.

Via ferrata can follow the same approach. Two existing components can be carried over directly: commitment and movement difficulty. A third component is needed for exposure.

Why exposure needs its own symbol

Within conventional climbing, exposure has generally remained connected to technical difficulty, commitment, and accumulated experience. Reaching a position high above the ground ordinarily requires some prior development of movement skill, judgment, and familiarity with exposed terrain. Neither the Yosemite Decimal System nor the National Climbing Classification System describes exposure directly, but the relationship among these factors has historically allowed exposure to remain implicit.

Via ferrata breaks that relationship. Fixed protection and constructed features can make technically straightforward passage possible through positions of sustained and substantial exposure. A person with little or no climbing experience may therefore encounter, on a first route, a degree of exposure that a climber would ordinarily reach only after considerable experience. The technical grade can describe the movement, and the commitment grade can describe the scale of the outing, but neither necessarily describes the experience created by the position itself. Once exposure is separated from the factors

that previously helped predict it, it must be stated independently.

The idea of rating exposure is not new. European via ferrata systems already account for it, and the Italian/UIAA system treats exposure as a distinct part of the grade. What is new is expressing that information within a North American framework. The proposed exposure symbol carries an established idea into familiar climbing notation because, in via ferrata, technical difficulty and commitment no longer reliably communicate the exposed position a participant will encounter.

The three part grade

COMMITMENT | TECHNICAL AND PHYSICAL DIFFICULTY | EXPOSURE

EXAMPLE

III 5.7 E3

Symbol	Question answered	Meaning
III	What kind of outing is this?	Overall time and commitment: approach, descent, remoteness, retreat, and environmental seriousness.
5.7	How difficult is the movement?	Hardest movement and physical demand on rock, rungs, ladders, or cable.
E3	How exposed will it feel?	The intensity and duration of exposure, separate from movement difficulty and commitment.

Commitment

The first symbol is the Roman numeral from the National Climbing Classification System. It describes the route as an outing rather than any single move. Length, time, remoteness, environmental seriousness, and the difficulty of retreat all contribute.

For via ferrata, commitment is considered portal to portal: from the point where the outing begins until the climber returns to a practical exit. This includes approach and descent because they materially affect the day a participant is undertaking. A short ca-

bled section reached by a long approach is not the same commitment as an equally short section beside a road.

The numeral remains separate from technical difficulty. A long, easy route may carry a higher commitment grade without implying difficult movement. Exit points also matter. A route that allows participants to withdraw at several locations is less committing than one that becomes unavoidable beyond a certain point.

Technical and physical difficulty

The second symbol is a Yosemite Decimal System rating. It describes what the movement asks of the climber and is assigned according to the hardest section of the route. The grade encompasses both the technical problem and the physical engagement required to complete it.

The system is substrate neutral. Movement may occur on natural rock or fixed hardware, including rungs, ladders, or the safety cable itself. The material does not make the movement automatically easy or convert it into aid climbing. A steep or overhanging sequence on widely spaced rungs can require substantial technique, strength, body positioning, and endurance, and its grade should reflect that demand.

Using YDS gives North American climbers a familiar point of reference while giving first-time participants a scale they can continue to use if they move into more traditional forms of rock climbing. As with all climbing grades, ratings will develop through use, comparison, and community consensus rather than through precise measurement alone.

Exposure

The third symbol is an exposure rating, shown with the letter E. It answers a question that neither commitment nor technical difficulty answers directly: what position will the route place the climber in?

Exposure includes the drop beneath the route, wall angle, available stance, visibility of the space below, the degree to which the climber's body is suspended over open terrain, and how long that position continues. A single exposed step is different from remaining in an equally exposed position for an extended period. Duration therefore matters alongside intensity.

Exposure is experiential and cannot be reduced to height alone. A protected traverse, a narrow ledge, an overhanging ladder, and a cable bridge may affect people differently even at the same height. The purpose of the E rating is not to claim perfect objectivity. It is to create a consistent place for builders and users to communicate an experience that

is central to via ferrata but easily lost inside a composite difficulty grade.

Weather, altitude, remoteness, and retreat difficulty remain part of commitment rather than exposure. Likewise, the presence of a continuous safety cable does not eliminate exposure. It manages the consequences of the position; it does not change the position itself.

How the components work together

Because the three symbols are independent, routes that look similar under a single color or letter can be distinguished clearly. A short athletic route may have a low commitment grade and a high technical grade. A long route with straightforward movement may have a higher commitment grade and a modest technical grade. A route can be physically easy yet receive a higher exposure rating because it remains above open space for an extended period.

The route-level technical and exposure ratings represent the most demanding portions of the route, although those portions may occur in different places. More detailed route descriptions can identify where the difficulty and exposure occur and should also publish practical information such as estimated time, approach, descent, escape points, and environmental hazards.

Why not use a single color or letter

Green, blue, and black symbols are familiar and easy to recognize, but they ordinarily combine several considerations into one relative label. That works best within a closed trail network where users compare routes at the same location. It is less effective for comparing routes built by different organizations in different terrain.

Most European via ferrata scales also present a principal overall grade. Some provide additional detail, especially the Italian/UIAA system, but they use notation that many North American readers have not yet learned. The proposed framework preserves the useful idea of separate dimensions while expressing them in the climbing language already established on this continent.

Status of the proposal

This framework is a proposal rather than a finished standard. The Eagle County Climbing Coalition will use it to describe its own routes and publish the reasoning behind the assigned grades. The definitions and calibration will improve as more routes are

compared and more builders, guides, climbers, and first-time participants contribute experience.

No climbing grade is perfectly objective. A useful system succeeds when it separates the questions users actually need answered, applies its terms consistently, and becomes more reliable through shared use. This proposal is intended as a practical starting point for that process in North American via ferrata.

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