



Bouldering QE Setting Guidelines

The following document is intended to guide setters in the execution of setting and running USA Climbing Qualification Events (QE's) in both Lead/TR and Bouldering disciplines. These are ever changing and evolving as new challenges arise and are dealt with. They are not an all-encompassing document but intended to supplement the setter's prior knowledge and abilities.

Purpose of a QE

Keep in mind the purposes of QEs when setting for an event. Much of the discussion below is intended to steer setters towards setting for these events. Strictly speaking, the purpose of QEs is to differentiate competitors for Regional qualification. Ideally, we want the "best" (or "best performing") competitors to qualify for Regionals. Beyond qualification for Regionals, there are other secondary purposes for having QEs, some of which include:

- QEs should prepare competitors for the style of climbing they will see at Championship Events.
- QEs should be accessible to novice competitors yet provide challenge for elite competitors.
- QEs should be fun! Sure, not everyone will always have their best / most fun day, but we want to make sure that most competitors have a great time when they attend QEs.

Prior to beginning routesetting:

Confer with the RC team and decide on Category Stacks and climbing sessions. Some factors affecting category stacks will be:

- Number of athletes per category signed up
 - If there are more than 50 per stack, it is recommended to break that stack into different sessions
 - - Ex: MYD+FYD = 72 climbers total, recommend to place them in different sessions during the comp day.
- Size of gym/area dedicated to the competition
 - If possible, all boulders in any given session could be independent and able to be climbed simultaneously.

For Youth and Collegiate QEs, boulders can be "shared" and/or Categories can be "stacked" to optimize the number of boulders required. The Format options:

- Modified Redpoint: 6-10 boulders per category
- Onsight: 4 boulders per category

Modified Redpoint commonly used stacks or sessions include:



- Example 1: 8 boulders per category stack, total of 40 boulders. This could also be 6 boulders or 10 boulders for totals of 30 and 50 respectively.
- Stacks for this would look like:

FYD	FYC	FYB	FYA	MYA
stacked, all same boulders with difficulty tweaks				
MYD	MYC	MYB	FJR	MJR

- Session 1: FYD, FYC, FYB, FYA, MYA
- Session 2: MYD, MYC, MYB, FJR, MJR
- In this example, the A and JR categories will climb the same boulders (MYA and MJR/FYA and FJR) so they need to be in separate “heats”
- In general, these stacks would be all crossed over for gender (MYD to FYD) and may only require a difficulty tweak, but not absolutely) other than MYA/MJR and FYA/FJR that would share the same set of boulders for each stack, therefore putting them in different heats.
- Example 2: 8 boulders per category stack, for a total of 32 boulders. This option requires more tweaking between heats and is more complicated from a routesetting sense but COULD be advantageous as you can watch and assess difficulty more during Session 1 and make intelligent planned tweaks if needed between heats.
 - Session 1: FYD, FYC, MYC, FYB, MYB
 - Session 2: MYD, FYA, FJR, MYA, MJR
 - In this example, more complicated with more tweaking required between heats.

FYD	FYC	MYC	FYB		MYB	
tweak			tweak		tweak	
MYD			FYA	FJR	MYA	MJR

- FYD tweak to MYD; 8 boulders
- FYC/MYC stacked in the same heat (numbers of athletes permitting); 8 boulders
- FYB tweak to FYA/FJR; 8 boulders
- MYB tweak to MYA/MJR/ 8 boulders

The Host Facility, according to the host agreement and rules, must provide the following:

- Routesetting schedule to be determined by the Chief Routesetter in conjunction with Host Facility.
- An experienced maintenance team is available throughout each round of competition in order to perform any maintenance or repairs
- Three (3) assistant routesetters for the duration of routesetting (at least one capable of setting quality V10’s and 5.13’s)
- At least two forerunners the day before the event (at least one capable of climbing 5.13). These two forerunners are in addition to the routesetters the Host Facility provides.
- Five (5) full days shall be allocated for the competition’s routesetting



- Host Facility is responsible for stripping all necessary walls of holds and cleaning them prior to the first scheduled routesetting day. These holds are to be made available to the routesetters and they must provide unimpeded access to the competition areas during the routesetting dates.
- Host Facility will allow shared use of its routesetting tools and supplies for the duration of routesetting (ladders, power tools, hardware, etc.)
- Alterations to the climbing wall (including but not limited to holds, volumes, placards, set screws, etc.) used during the competition may, at the sole and exclusive discretion of Host Facility, remain at the conclusion of competition, and any such alterations are the responsibility of Host Facility to leave or remove for Host Facility's normal business operations. USA Climbing will have no responsibility for alterations to the climbing wall after the conclusion of the final round of competition.
- Forerunners, if to be used must be verified that they are: Not associated with any athletes as a coach, teammate or having any contact with any competitors prior to the start of the competition.

Grades

Climbing grades may not be the best way to express difficulty regarding “comp climbs.” That’s particularly true of boulders set for Championship Events. Climbing grades are also subjective. They vary a bit from gym to gym and region to region. That said, grades are a relatively common language that we can all use to express some notion of difficulty. This guide refers to grades to describe what our athletes are capable of, and to express the concept of progressive difficulty.

Remember that, as routesetters, you are setting for a field of youth athletes. Regardless of how one measures the difficulty of a climb, it is important to think about the difficulty and feel of a climb from the perspective of the youth athletes who will be climbing that problem / route. For example, how will FYB climbers feel about an open handed sloper on an overhang that might feel “easy” to an adult routesetter? Matches that feel difficult to an adult routesetter might be much easier to Youth D/C climbers, who typically have smaller hands

With the modified redpoint or onsight format, the grades of the boulders don’t need to be a standard goal across the country, but they should be specific to the area, and region that you are in.

A good starting point is to take a grade spread from past regional competitions and add to that. For example, if the grade spread at a Regionals was for FYD and MYD from V4-V7, adding MAYBE one harder, and then 3 on the lower end would work well. That would look like this:

- V2, V2, V3, V4, V5, V6, V7, V7 or V8

Work with the RC team from your region to obtain this information and present to your setting team prior to starting the setting process. The biggest goal with grades is to ensure that the majority of the grades that are set for a category target the majority of the climbers abilities, with some on the lower and upper end of that to allow for the new and experienced climbers to be challenged as well.

Competitor Considerations

- For each category you want to consider:

- Height
 - Reach
 - Experience
- Set at least one boulder or route that will challenge National-level competitors. National-level competitors won't have any trouble qualifying for Regionals, but they are traveling / paying to attend QEs too. Having an appropriately challenging boulder / route helps them to have more fun and get more value out of the QE. These competitors typically need practice onsighting / flashing than they do with projecting. An easy way to challenge National-level competitors is to add moves that require good timing, precision, coordination, or complex movement, rather than using traditionally "hard" rock climbing moves. This approach allows climbers of all abilities to learn, with the expectation that it will probably take non-National level competitors many more attempts to succeed.
 - Set at least one boulder (and part of a route) that will be accessible to novice climbers. The focus for every QE routesetting crew should be on the low and middle ends of the field where things are usually the most competitive. That said, there should be a climb that everyone could top. Low zones can really help novice climbers have fun on routes that are otherwise too difficult.
 - Set most boulders / routes to target separating the bulk of the competitors that fall into the average skill level. The above two points are intended to ensure that the most skilled and least skilled competitors aren't left out of the QE experience. That said, most boulders / routes are really for competitors in the fat part of the bell curve.
 - Set boulders / routes on a variety of terrain. Don't just set "hard" problems on overhang, and "easy" problems on vertical terrain. Give each category climbs on each kind of terrain that your gym provides.

Zone-only (1 Zone) vs LowZone+Zone (2 Zone) Boulders

- The rules allow for a boulder to have only a Zone (1 Zone), or to have both a LowZone and a Zone (2 Zones), in any category for the QE
- If using a LowZone:
 - Moves between the start and LZ must be equal in difficulty across all boulders that have LZ
 - Moves between the LZ and Zone must be equitable across all boulders in the category/round
 - If a boulder in a category/round has a single Zone, the moves to that single Zone must be equitable to moves on other boulders in the category/round from the LZ to the Zone
 - Making these sections as equal as possible is important for separation, and not skewing the "value" of a boulder with a single Zone.
- In general, if a mixture of 1 and 2 Zone boulders is to be used, an equal number of each is best, and if that is not possible (some boulders don't have a place to logically place a LZ) skewed towards less 2 Zone boulders will help combat the instance where an athlete earns 5 LZ and is beaten by an athlete earning only 1 Zone.
- The LZ is weighted as less valuable in the scoring system than a Zone.
- At QEs, there should be some boulders with 2 Zones for all categories.
 - A goal of the QE is indeed to create separation and rank, but also to be inclusive for all climbers. This could be the first in-person competition for many climbers. The goal isn't



to make sure every competitor gets a top, but everyone should be able to at least start almost all the boulders, hopefully even have something on their score card (LZ/Zone).

- Set with increasing difficulty as the climber progresses. This aids with separation, saving TOPs for the most skilled climbers. There should be a progression along the boulder / route where each segment is at least as hard as the segment before. For example, the LZ to Z moves should be at least as difficult as the Start to LZ moves. Some ways to achieve this kind of progression are to add lower percentage dynamic or coordination moves, using slightly more difficult static moves, or using complex movement or positioning.
- Use low zones for bouldering events. Low zones are great for aiding in differentiation between climbers, and for making climbs accessible (feeling of success) to novice climbers. Low zones are highly recommended for most, if not all, QE climbs.

Starts, Zones/LowZones, Finishes, and Marking

- Starts
 - Every boulder must have a 4-Point start, with START placard and 4 flashes of tape as noted below.
 - Competitors **cannot** touch/use any non-start hold or structure/volume to establish the start.
 - Competitors **are** allowed to touch/use the wall to establish the start
 - Be careful marking the start as holds on a volume. If the volume is not marked as the start, touching/using the volume (e.g. with finger tips, heel of the palm) is not allowed.
- Video of Starts and Start positions: <https://www.youtube.com/watch?v=mDz4Puu-wt8&t=1s>
- Zones/LowZones
 - ZONE or LOWZONE placard with 1 flash of tape as noted below.
 - Instead of marking a difficult to Control (difficult to judge) hold as a Zone/LowZone, consider marking the next hold as the Zone/LowZone.
 - The Zone/LowZone holds do not need to be a crux.
 - If a crux is a move that is difficult to control but the next move is easy to control, it is often better to designate the next hold to be the Zone/LowZone.
 - This clarity in judging results in high consistency of judging.
- Finish/Top
 - TOP placard with 1 flash of tape as noted below.
 - A single hold or a single volume (maybe with additional objects mounted on it).
 - not a box around an area of the wall.
 - Avoid top-out finishes (they are allowed, but should be avoided)
- Tape flash / placard guidelines
 - Make sure flashes of tape are clear, and do not interfere with the climbing process
 - E.g. make sure tape isn't where a competitor may put their hand or foot.
 - Have one flash of tape connect the placard with the hold/structure.
 - E.g. use flash to connect single START placard with one of the start holds

- Starts and Tops use same color of tape
 - Recommendation: all boulders in a Category use the same color for Start and Top.
- Zone/Lowzone use color of tape *that is different than used for Starts and Tops*
 - Recommendation: all boulders (at least all boulders in a Category) use same color for Zone & LowZone
- Starts/Zones/LowZones/Finish is any base object marked with a flash of tape as well as all objects attached to that base object.
 - Objects that are “touching” are *NOT* a single hold. (See “Myths” section below)
- Labeling Climbs
 - Each climb needs a unique number
 - Number climbs sequentially based on floor layout (e.g. clockwise from one boulder to the next, around the bouldering area) – do not number them by the easiest to hardest.
- Labeling Lanes
 - Use a placard at the top of the wall centered in a series of lanes to mark “Lane 1”, “Lane 2”, ...
- C/D height
 - 8’ rule
 - Lowest point of the body cannot be past 8’ or 2.5m.
 - Suggest using an 8’ ladder to slide it around under the area where those boulders are to check.

Other Considerations (Red/Black Tape, Structures/Volumes, Flow, Interference)

- Red/black tape
 - Red tape: can smear, toe hook arete, heel hook arete, etc. past, but cannot use any structures, volumes or holds. (typical use: red box around down-climb jugs)
 - Black tape: cannot touch any part of the wall or any hold/structure/volume past the tape. Past the tape is 100% out of bounds.
 - Minimize use, primary for safety only
 - No use of red or black tape for any other purpose.
- Keep things simple for the athletes
 - Have a simple rule for volumes:
 - all volumes/structure on
 - volumes only on if have hold of matching color
 - Set monochromatic boulders, unless for on-sight-but if not monochrome, needs to be communicated to athletes in a rules meeting
- Flow (Modified Redpoint)
 - Spread out the location of hardest boulders for each category
 - end of session projecting occurs, and creates long lines in a particular lane.
 - Try and avoid setting hard boulders for a category overlapping

- consider this when using one boulder for multiple categories in a session
 - Consider making a map of the gym and where the boulders are located
- Make sure climbing two boulders simultaneously does not cause interference, unless:
 - They are in the same lane and therefore only one of them is in use at any one time.
 - They are in different sessions.
- Eliminated boulders
 - JP can eliminate a boulder (e.g. doesn't adhere to the rules)

Scoring Module Implications

- Document the following, for input to the scoring module
 - Which category each climb is for
 - What color is the climb
 - If any boulder in a round has an LZ, then the scoring module will treat all as such. It won't affect the results but it will show a LZ on the scoring output

Myths

- MYTH: "A volume is an extension of the wall."
 - FACT: The rules treat the climbing surface (wall) very differently than a structure (volume).
 - For a QE, volume rules can either be on for all boulders, or on; only if they have a corresponding hold of the color of the boulder on them.
- MYTH: "Two holds touching are considered the same (a single) hold."
 - FACT: the only time two objects are related are when one object (e.g. a hold) is mounted onto another object (e.g. a structure/volume). The rule regarding touching a start-blocker hold does NOT imply that the start-blocker hold is a starting hold.

Resources

[LINK to Videos](#)

- Bouldering Rules
- Bouldering Scoring
- Bouldering Starts
- Bouldering Control

Link to all relevant placards:

<https://usaclimbing.org/about/resources/competition-resources/>