Lead/TR QE Setting Guidelines

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 Regionals 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, including:

- 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.

NEW for the '24-'25 season:

An L2 waiver is no longer required for QEs this season, although it is recommended that an L2 or greater acts as head setter. If an L2 or greater is not available, the head setter should review the QE setting guidelines. **As a reminder, all members of the routesetting team are required to have routesetter memberships.**

Prior to beginning routesetting:

Confer with the RC team and decide on Category Stacks/climbing sessions for each stacking. 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: U13-M (Male) + U13-F (Female) = 72 climbers total, recommend placing them in different sessions during the comp day.
- Size of gym/area dedicated to the competition
    - All routes in any given session must be independent and able to be climbed and belayed simultaneously.

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

- Modified Redpoint: 3 to 5 routes per category
- Isolation: 2 or 3 routes per category
- Flash: 2 or 3 routes per category
- Classic Redpoint **(NEW)**: A minimum of (20) routes in total are set.

For Modified Redpoint, Isolation or Flash Formats, routes can be “shared” and/or categories can be “stacked” to optimize the number of routes at Youth and Collegiate QEs. For Classic Redpoint, all routes are shared between categories.

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

- Routesetting schedule to be determined by the Head Routesetter in conjunction with Host Facility
- An experienced maintenance team available throughout each round of competition in order to perform any maintenance or repairs
- A minimum of 3 meters of lateral space for each route (we recommended that you budget 3 rope lines per comp route)
- Three (3) assistant routesetters for the duration of routesetting (at least one capable of setting quality V10s and 5.13s)
- 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.
- The 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 used, they must be verified to not be associated with any athletes as a coach, teammate or having any contact with any competitors prior to the start of the competition.
    - All forerunners are considered part of the Routesetting team and should have an USAC Routesetter membership (regardless of age). Rulebook sec 3.13, 3.13.5, 3.13.6 for details.
    - See the YOUTH FORERUNNER Policy below

Competitor Considerations

- For each category you will want to consider:
    - Height
    - Reach
    - Experience
        - **Regarding experience**: It's important that competitors have some level of success. Approaching the QE by setting for the top 25% of the field is an issue. It would be better overall to have ties in the top 5, and not in the 10-15th places. However, we still encourage setting for the goal of no ties, but accommodating the low end of the field can result in ties in the top end and USA Climbing accepts that as a result.

NEW - Age Categories: The International Federation of Sport Climbing (IFSC) member federations voted to approve a shift in IFSC age categories starting in 2025. Please read the email sent August 2024 to USAC membership.

Refer to the following table when setting. The average height and reach ranges represent approximately 95% of youth competitors. There may be exceptions on either side of the data range. Please work with your Regional Coordinators to identify those exceptions[1] and average climbing grades specific to your region.

Category	Ages	Avg Height & Reach		Grade Range	
		Height (in.)	**Reach***(in.)	**Boulder**	**Lead/Top Rope**
U13-F	11 or younger	47-60"	58-75"	V1 - V6	5.8/10 - 5.12/13
	12 yr olds	52-66"	65-84"	V2 - V6	5.8/10 - 5.12/13
U13-M	11 or younger	47-60"	59-76"	V1 - V6	5.8/10 - 5.12/13a
	12 yr olds	52-65"	63-84"	V2 - V6	5.9/10 - 5.12/13a
U15-F	13 yr olds	52-66"	65-84"	V2/3 - V7/9	5.9/10 - 5.13/13bc
	14 yr olds	56-68"	70-86"	V2/3 - V7/9	5.9/10 - 5.13/13bc
U15-M	13 yr olds	52-65"	63-84"	V2 - V7/9	5.9/10 - 5.13a/13bc
	14 yr olds	56-72"	70-92"	V3 - V7/9	5.9/10 - 5.13a/13bc
U17-F	15 yr olds	56-68"	70-86"	V3/4 - V8/9	5.10/10a - 5.13a/13bc
	16 yr olds	58-69"	72-88"	V3/4 -V8/9	5.10/10a - 5.13bc
U17-M	15 yr olds	56-72"	70-92"	V3/4 - V8/10	5.10/11 - 5.13bc

[1] The ranges presented are based on approximately 1000 actual USAC youth competitor responses to height/reach survey data collected from 2022-2024 using former category designations of JR, A, B, C, D. Age ranges have been included to indicate shifts in new category designations for the 2024-2025 season (U13, U15, U17, U19, U20).

Category	Ages	Avg Height & Reach		Grade Range	
		Height (in.)	**Reach***(in.)	**Boulder**	**Lead/Top Rope**
U13-F	11 or younger	47-60"	58-75"	V1 - V6	5.8/10 - 5.12/13
	12 yr olds	52-66"	65-84"	V2 - V6	5.8/10 - 5.12/13
	16 yr olds	60-74"	75-96"	V3/4 - V8/10	5.10/11 - 5.13bc
U19-F	17 yr olds	58-69"	72-88"	V3/4 - V9/10	5.10a/11 - 5.13a/13bc
	18 yr olds	57-70"	68-92"	V3/4 - V9/10	5.10a/11 - 5.13a/13bc
U19-M	17 yr olds	60-74"	75-96"	V4 - V9/10	5.10a/11 - 5.13bc
	18 yr olds	60-76"	76-99"	V4 - V9/10	5.10a/11 - 5.13bc
U20-F	19 yr old	57-70"	68-92"	V3/4 - V8/10	5.10a/11 - 5.13a/13bc
U20-M	19 yr old	60-76"	76-99"	V4 - V9/10	5.10a/11 - 5.13bc

The ranges presented are based on approximately 1000 actual USAC youth competitor responses to height/reach survey data collected from 2022-2024 using former category designations of JR, A, B, C, D. Age ranges have been included to indicate shifts in new category designations for the 2024-2025 season (U13, U15, U17, U19, U20).

*Toe to hand

- 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 route (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.
- 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 terrains. 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.

Format Rules

For Lead/Top Rope, routes have no starting position and no marked starting holds.

- Placards for specific routes can be on the wall near the start, but they should not specifically mark the start and should be out of the way of feet and hands.
- Any placards should be attached to the wall at the end of a flash of tape marking scored holds.

Modified Redpoint (See Rulebook 7.8.3)

- There is a limit of three (3) to five (5) routes assigned to each category, with each category having the same number of routes assigned.
    - A route may be assigned/shared in more than one category.
    - There may be a mix of lead and top rope routes set for U17, U19 & U20 categories (ie. 2 TR + 2 Lead or 1 TR + 2 Lead).
    - U13 & U15 categories must be Top Rope only.
    - **NOTE: While a given route can be a Lead route in one session and a Top Rope route in another session, it can only be one or the other within a single session.**
- Routes have six (6) to twelve (12) numbered scored holds in addition to the TOP scored hold or Protection Point.
    - There must be a clearly discernible order to the scored holds.
        - Routes are not required to all have the same number of numbered scored holds.
    - The scored holds on a route shall be marked with a flash of tape, and the tape should be connected to a numbered placard indicating the scoring number of the hold. The markings shall be done in such a way as to indicate, without the need for a Topo, which holds are scored holds and their order.
        - More scored holds lead to better separation, fewer ties, and overall competitor satisfaction. More scored holds begin to function like a points-per-hold route, which aids in creating separation in scores.
    - **Lead:** The TOP tag is placed near the last Protection Point (anchor, quickdraw, or cold shut). Finishing a route means clipping the final Protection Point.
    - **Top Rope:** The TOP tag is placed at the end of a flash of tape marking the final hold. Finishing a route means controlling the TOP hold.
        - Run a flash of tape from the anchor point to the TOP tag.

Flash Format

- For flash format, 2 or 3 routes per category can be set.
    - All categories must have the same number of routes.
    - Competitors may have one attempt per route.
    - Competitors may be in the facility and watch each other climb.
    - The climbing period is 5 or 6 minutes as determined by the JP in consultation with the Head Routesetter.
- A video recording of the route being demonstrated must be continuously played in the warm-up area no later than 60 minutes before the start of the round or published online at least two hours before (preferred 12 hours before). Rule 7.6.1.
- Rules mandate a minimum of 20 minutes between an athlete's attempts on their routes.
- Flash formats may also use No-Earlier-Than (NET) start list times, which means that competitors would not start their attempt of a climb before the specified time on the start list but may start after. **If NET start times are used, the Regional Coordinators/JP/HJOs for the event would make that decision and provide information as necessary.**

Isolation

- For Isolation format, 2 or 3 routes per category can be set.
    - All categories must have the same number of routes.
    - Competitors are given an observation period of 4 to 6 minutes per route (per JP).
    - Competitors are escorted from Iso and climb their routes in sequence, with two rest periods between each route.

Classic Redpoint (Rulebook 7.8.2)

- A minimum of twenty (20) routes in total should be set, though this minimum may be waived by Sport Discretion (Rule 1.9.2).
    - A route may be designated for lead climbing OR Top Rope climbing; not both.
    - Competitors have the goal of completing the highest value routes, where each route has a unique value.
    - Each route will be worth a specific number of points based on that route's anticipated rating/difficulty. See Table 7-3 in Rulebook section 7.8.2 (d) for the points value table.
    - Scores are 0 for attempts or TOP for a top.
    - A competitor's final score is based on their top 3 completed routes.

Photo of Lead TOP Note that the tape flash extends to the anchor point, not the final hold. If a route changes between sessions from a Top Rope route to a Lead route (or vice versa), the TOP placard may need to be changed to ensure that it (and any tape) is placed appropriately for the upcoming session.	
Photo of Top Rope TOP Note that the tape flash extends from the final hold, not the final protection point. The Rope will still run through the final anchor on TR but the scorable hold as the TOP will be marked.	

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

- Red/black tape
    - Red tape: The climber can smear, toe hook arete, heel hook arete, etc. past the tape but cannot use any Artificial Holds and Structures (typical use: red box around down-climb jugs).
    - Black tape: The climber cannot touch any part of the wall or any Artificial Holds and Structures past the tape. Past the tape is 100% out of bounds.
    - Minimize the use of tape. It should be primarily used for safety.
    - No use of red or black tape for any other purpose.
- Keep things simple for competitors
    - Have a simple rule for volumes:
        - All volumes/structure on

        - Volumes only on if have hold of matching color
    - Set monochromatic routes, unless for Isolation. If not monochrome, this needs to be communicated to athletes in the rules meeting
- Flow (Modified and Classic Redpoint)
    - Spread out the location of hardest routes for each category. Consider wall space and the number of available lanes.
    - Please make a best effort to avoid setting more than one route per lane.
        - End-of-session attempts may occur, creating long lines in a lane.
        - Make your best effort to avoid setting routes for overlapping categories when using one route for multiple categories in a session.
    - Consider making a map of the gym indicating where the routes are located.
- Warm up space
    - Take into account the number of competitors moving through the facility and allocate an area where they can warm up appropriately.
- Bolts and quickdraws already on the climbing surface do not need to be removed for a QE. However, make best efforts to remove or clip back those that may obstruct or complicate scoring a route.
- Make sure that climbing two routes simultaneously does not cause interference, unless they are in different sessions.
- Safety holds: On a Lead route, the Head Routesetter may rule that a Protection Point must, for reasons of safety, be clipped from a particular hold (a “Safety Hold”) or earlier, in which case such hold(s) and the relevant Protection Point(s) shall be clearly marked with a blue cross and pointed out during the route observation.
- **For TOP ROPE** - Please see Rule 3.1.15 for recommendations concerning pre-tied ropes with carabiners (See Figure 3-1).

Other considerations for event officials

- Be mindful of belay volunteer availability.
    - Many regions struggle with volunteer recruitment. This discipline requires belayers in addition to judges. With that said, there is a wide range of experience, and vetting of individuals must be considered when assigning belayers to routes.
- Be mindful of non-experienced climbers who lead climb.
    - There has been a substantial uptick in the number of new and inexperienced lead climbers with little to no lead knowledge. It is

not unheard of for parents or competitors to think watching a YouTube video on lead climbing is preparation enough for a lead competition. **Because of this, some regions have been asking for at least one top rope route for the U17, U19 & U20 categories.** As the JP, RCs, and Belayers identify these individuals, they are redirected to the top rope route in an effort to ensure safety for all involved in the event.

- It may be necessary to ensure 3 points of contact/stable clipping position with the first 3 to 4 clips to avoid dangerous ground falls, especially for inexperienced lead climbers. This should be part of the discussions with your event organizer/RCs.

Color blind & visually impaired competitors:

(Please see expanded Color Blind & Visual Impairment Setting Guidance)

Due to the multiple colorblind conditions that exist, it is near impossible to isolate all the color conflicts for each competitor. Event Officials (JP, USAC Judge, RCs, etc.) will work with the facility and routesetters in a best effort to make these accommodations. Please see the guidance below to assist your setting goals for an event. The setting team is encouraged to make best efforts to:

- Due to the nature of how this accommodation affects setting in the field-of-play for all competitors, only the category of the competitor may be shared with event officials, including head setter. The name of the individual *may not be shared* so as not to create bias.
- For QEs it may be necessary to set more than one boulder or route per lane.
  - When there is overlap, tape with the word “CLIMB” written on it can be added to differentiate the problems.
- For competitions where boulders/routes are separate and non-conflicting/overlapping with each other, it's less likely that tape will be used. and as such in these cases we recommend that the setting team makes best efforts at avoiding setting with color holds that are the same color as the wall and use high-contrast colors between holds and the wall.
- For the upper-level championship events, boulders and routes are normally set monochromatically with each boulder or route independent of each other, in their own lane with no overlap.
  - Using tape with the word “CLIMB” could be allowed for championship events only if it doesn’t compromise the event and the Jury President and Head Setter approve.
  - If this approach is used, an example of the demarcation must be illustrated in the isolation area for all competitors to see.

- When possible and appropriate, routesetters will include additional downclimb holds to accommodate for a TBI (traumatic brain injury).

USAC Youth Forerunner Policy:

- All forerunners are considered part of the Routesetting team (regardless of age).
- All forerunners should have an USAC Routesetter membership (regardless of age).
- See Rulebook sec 3.13, 3.13.5; 3.13.6 for details.
- **Youth/Competitor Forerunners (17 yr or under):**
    1. Like adult forerunners, youth forerunners must sign up for a Non-Certified Routesetter membership and sign the Routesetter Code of Conduct
        a. Youth who are under 17 yrs old will not be able to complete Safe Sport and the Routesetter membership will stay in an "action-required" state, which is ok.
        b. The important element is that they sign the Routesetter Code of Conduct and adhere to it ensuring competition integrity.
    2. In-region/division athletes may not be used for events within their region/division regardless of their lack of participation in the competition.
    3. All interactions with the youth must be observable and interruptible per MAAPP & Safe Sport Policies.
    4. Parents must provide, in writing, consent for the youth to participate as a forerunner to the following individuals:
        a. Head Setter for the event
        b. Event Officials – Event Organizer/JP
        c. CC: athletesafety@usaclimbing.org

Scoring Module - See "Setter Instructions"

The week prior to the event, the scorekeeper should send you a "Setter Link"

- Lead/TR QE MR Checklist
- Lead/TR QE Flash/Isolation Checklist
- Lead/TR QE Classic Redpoint Checklist
- Guide for Digital Route Map Set-up
- Join the Routesetter WhatsApp Chat for scoring support.
- Contact scoring@usaclimbing.org with questions

Reference documents:

- USAC Rulebook | QE Host Agreement
- Lead/TR QE MR Judge Summary Guidance
- Lead/TR QE Flash/Isolation Summary Guidance

- Lead/TR QE Classic Redpoint Summary Guidance
- Lead/TR Regional Championship Judge Summary Guidance
- Lead/TR Divisional Championship Judge Summary Guidance
- USAC Youth Resources - Placards