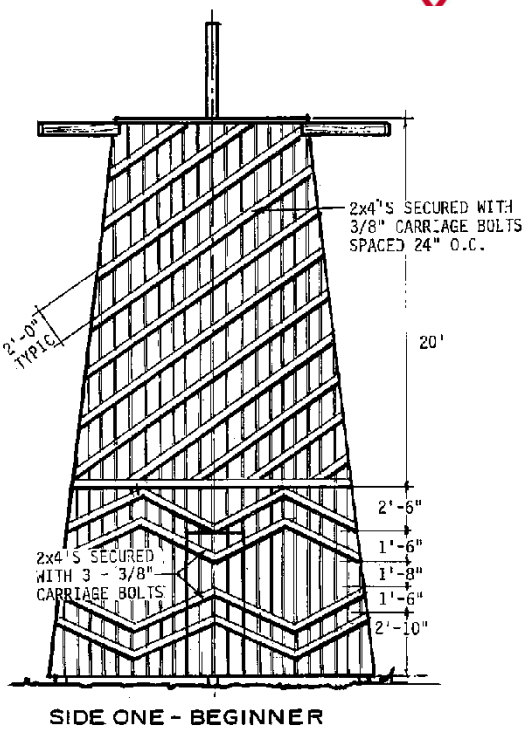
CLIMBING TOWERS

Introduction: Climbing entered the Scout program in the early 1980s. Since that time continuous advancements in equipment, techniques and practices have been made. Towers provide a controlled facility to practice climbing and rappelling. The current versions of "Topping Out," "Climbing/Rappelling National Standards" and other related documents must be consulted on all technical and safety matters. This document is intended to assist with planning and developing facilities related to a climbing tower.

One of the earliest documents relating to climbing and rappelling was "Camping Sparklers, Vol. 1 No. 2, Rock Climbing and Rappelling Issue" published in 1982. This pamphlet included a Design Standard for a three-sided, 16-foot tall practice tower. This Design Standard was revised in 1988 to illustrate a four-sided, 30-foot tall practice tower with an internal ladder and Chimney Climb. There are several towers of this design still in use at camps today.



30' Climbing Tower, circa 1995

Climbing Tower, Sid Richardson Scout Ranch
Longhorn Council, Fort Worth Texas

Current Designs: By 1999 the standard design had been revised again and depicted a four-sided tower with internal stairs, storage and an upper deck (31 foot elevation) covered with a roof structure. This current design meets the general needs of a Scouting program. However towers can be made in various heights and configurations, but they should be designed to meet your current needs and those of the foreseeable future. Some programs you may consider are:

- Climbing Merit Badge
- Teaching "Climb on Safely"
- Instructors Tower Training
- "Free Climbing" programs
- Other users such as local school or JROTC programs

Design and Construction: Once the need is defined, a design may be developed. Although Engineering Service or other local sources may be used to define the program and illustrate a concept, Standard CC-1 in the appendix of the National Camp Accreditation Program requires that the tower be built to Association for Challenge Course Technology (ACCT) installations standards. The ACCT establishes and promotes the standard of care and measure of excellence that defines professional practice and effective challenge course programs. ACCT develops, refines and publishes standards for installing, maintaining and managing challenge courses, provides forums for education and professional development and advocates for the challenge course industry. Because of the height of the structure, foundation issues and other life safety issues, the design of climbing walls and towers will require assistance from a professional designer familiar with local codes and these BSA standards. Construction should be accomplished by someone familiar with ACCT standards as well. After completion the tower will be periodically inspected.

Special Site Considerations: Beyond the technical aspect of the tower's construction and the climbing and safety requirements as defined by local codes and BSA policy, there are a number of other special considerations that should be addressed in the planning stage.

- **Location:** Ideally the tower should be located close to the main camp, but off the beaten path. The tower will be a strong attraction to wandering Scouts or other visitors, so a slightly remote location will reduce the risk of trespassing. However this location should be on a route visited daily by the ranger or other camp staff in order to keep an eye on the facility.

- **Security & Fencing**: Depending on the location and configuration of the tower, fencing may be required to protect it from trespassing while the tower is not in use. Some camps use 6-foot or 8-foot chain link fence and others build solid walls around the climbing area to provide climbing walls. While additional climbing walls are nice, allowing spectators to see the program may also be a desired.

- **Ground Cover:** The areas directly below fixed belays on climbing and rappelling towers see a lot of foot traffic. A good ground cover may be required to keep the areas in useable condition. Some options include pea gravel, shredded bark or other materials.

- **Pavilions, Water and Toilets:** Programs at climbing towers typically last more than an hour. For that reason you will want to provide amenities such as shade, drinking water and toilets. A pavilion or large fly may be convenient for conducting instruction before climbing as well.

- **Maintenance:** As with all camp facilities the tower and grounds will require maintenance and this should be considered when budgeting and designing the tower. Current standards require an inspection once every two years.

Tower Design Considerations: There are several issues that recent experience brought to our attention. Although local experiences may vary depending on the details of your council's program and character of your staff, the following are some detail you may wish to consider:

- It is necessary to provide a set of stairs to climb to the top of the tower rather than a system of ship's ladders.

- Providing adequate lighting inside and outside the tower may allow for night time programs

- Commercial handholds should be used instead of holds made from lumber. Commercial holds are more tactile, durable and can be relocated and reused.

- Chimney Climbs inside the tower are very challenging, but get little use. Some councils have omitted these and provided interior climbing routes.

- Climbing walls adjacent to climbing towers provide a good focused activity for Scouts waiting their turn at the climbing program.

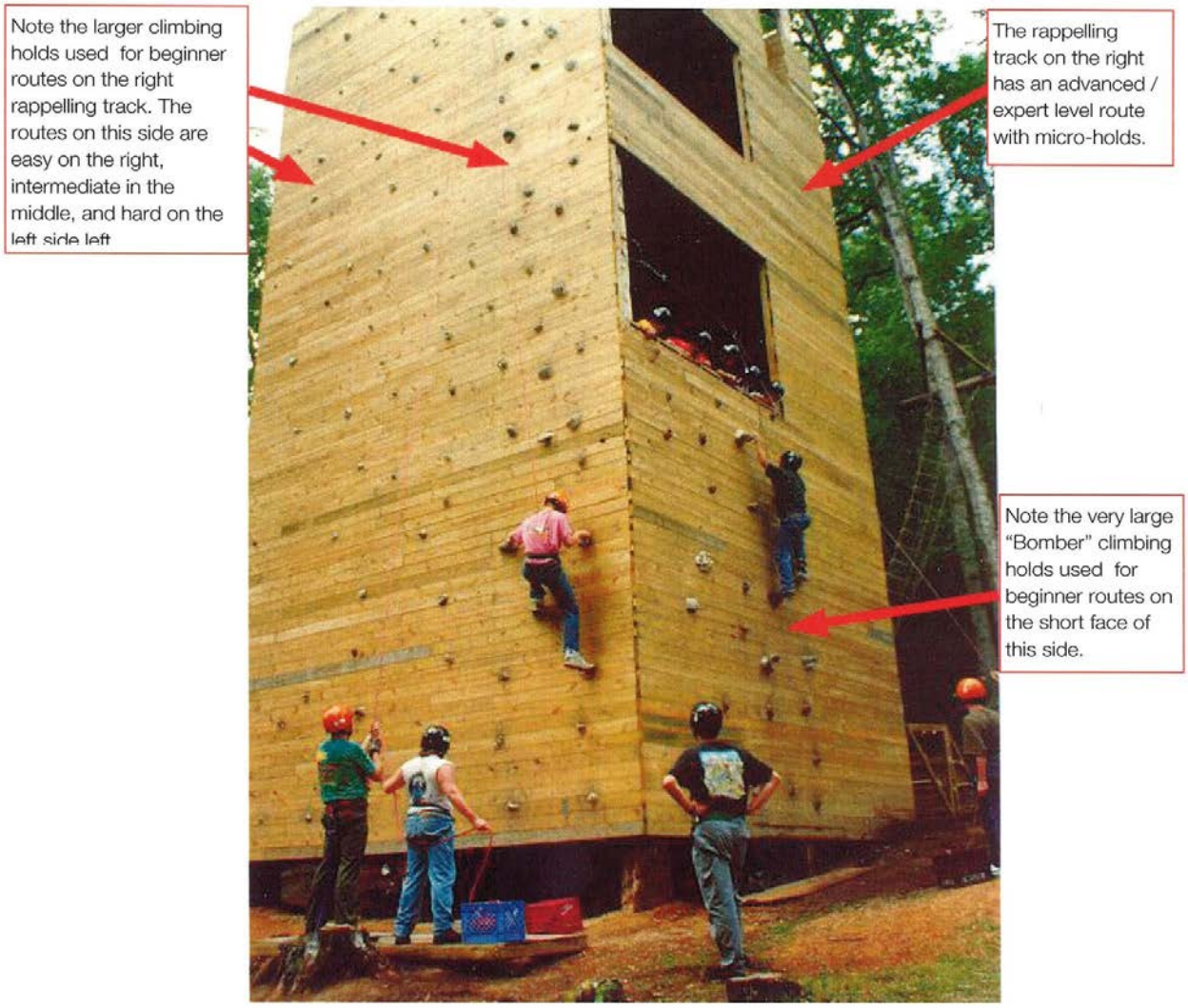
Illustration of tower design in “Topping Out”

Tower Illustrations: The following are examples of various sizes and configurations of climbing towers at council camps.

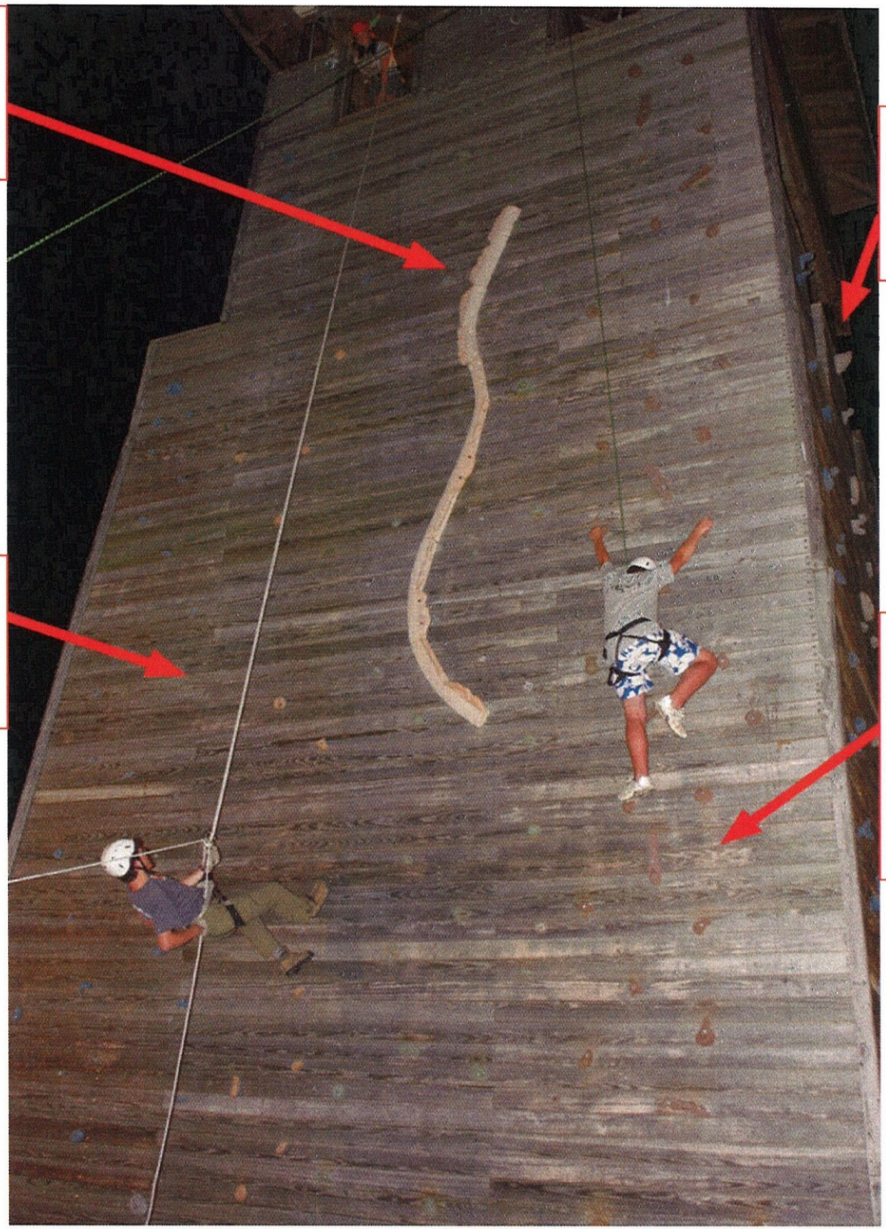
Climbing Tower, Northern Star Council, St. Paul, Minnesota features overhangs, roofs, and multiple climbing structures that allow climbers to practice a wider range of moves that they might use when climbing on real rock faces.

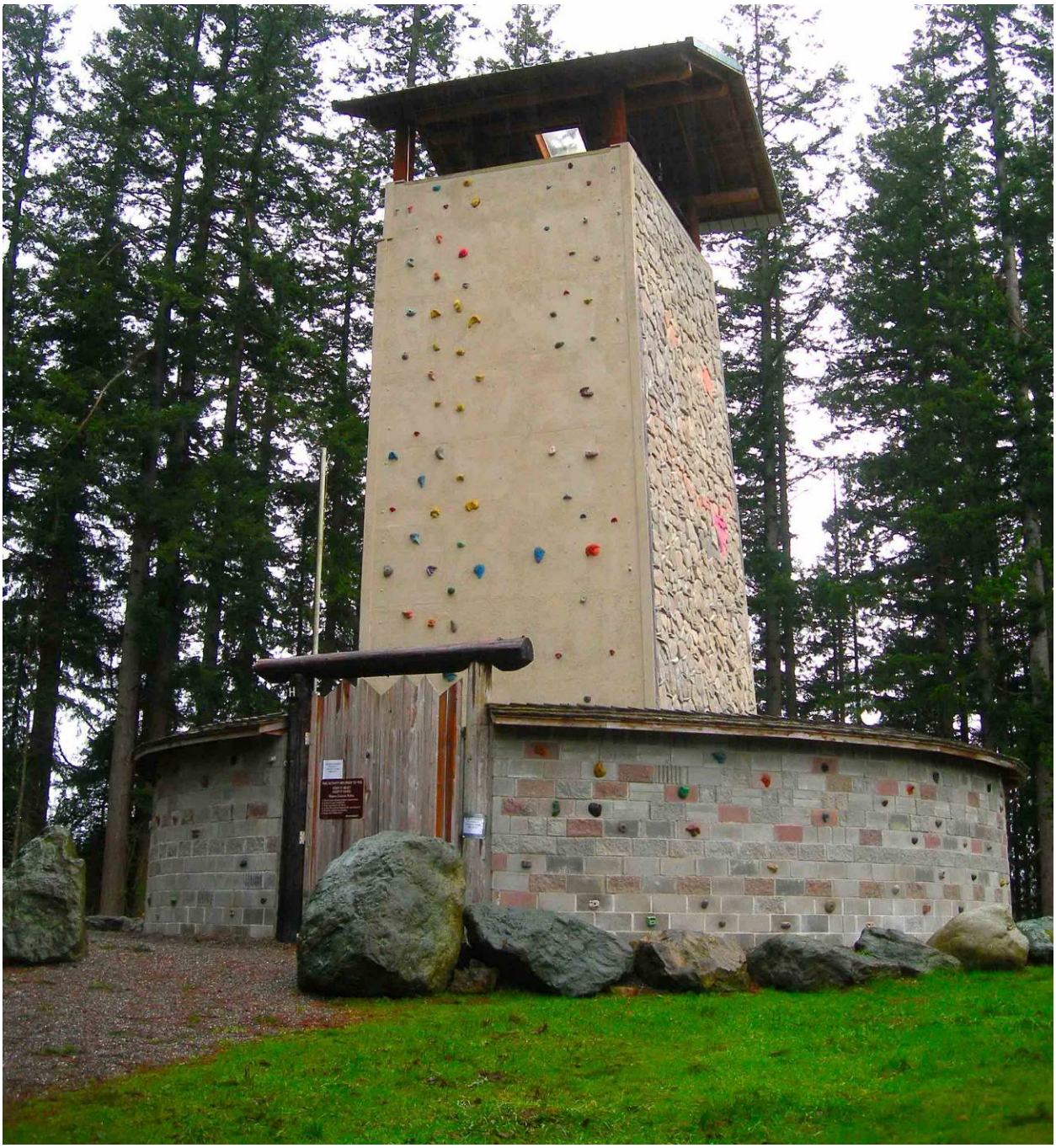
Note the use of multiple colors in the artificial holds. This increases the versatility of the facility and allows skilled instructors to incorporate multiple levels of climbing difficulty into one surface. Beginners and intermediates can use all of the holds on a route. Instructors can also challenge their Scouts to try more difficult routes by using only the holds of one or two specific colors.

Climbing Tower, Camp Powhatan, Blue Ridge Mountains Council, Roanoke, VA
An early tower built in 1990 featuring several new ideas, including wide standard staircases, large open floors at each level, and industry-standard climbing holds on every possible climbing surface.



Climbing Tower, Sid Richardson Scout Ranch, Longhorn Council, Fort Worth, TX
Another view of the tower built in 1995 with vertical board tracks for rappelling. The tracks have since been removed and replaced with climbing holds of varying difficulty to increase the versatility of the facility. Note also the light from the outdoor flood lights mounted on the security fence to enable night climbing. A sound system allows staff and Troops to add music to their climbing programs if desired.





Climbing Tower at Camp Comer, Greater Alabama Council, Birmingham, Alabama

Note the use of climbing holds on the outside security wall to enable its use as a complete horizontal route for Scouts in traverse.

References:

COPE and Climbing Standards (located in the Appendix of the National Camp Accreditation Program)

Climb On Safely, No. 20-099B

Topping Out, No. 32007

Guide to Safe Scouting, No. 34416D