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## Chapter 4. Visitor Trail Facilities and Amenities

Trail facilities support and enhance the experience of trail users and include trailheads, staging areas, overlooks, trail camps, displays, benches, signage, and other structures. This chapter identifies elements to be considered when planning for and managing trail facilities.

### 4.1. General Principles and Guidelines

The installation of support facilities should be done with an eye toward maintaining the harmony of the environment while providing the necessary services and visitor convenience intended by the amenity. Environmental constraints are important elements that ultimately influence the location and size of a facility. Consultation with professionals and specialists when planning and designing these facilities is highly recommended. Making sure that special needs and design requirements are met will result in a highly functional facility with fewer problems. Facilities must be functional and accessible, without requiring extensive maintenance. The location and materials selected for a facility should be unobtrusive and fit into the environment to the extent possible. Facilities should not alter natural drainage patterns, and ground disturbance should be minimized to reduce the potential for erosion.

### 4.2. Trailheads

A functional trailhead must have enough space to accommodate vehicle parking and other visitor services for the amount of use anticipated. (See Photo 4.1.) Inadequate facilities can lead to resource degradation and compromised user health and safety. It can be difficult to determine the amount of use expected on a new trail. Even existing trails can present challenges since visitors have established patterns of behavior that are difficult to change. For existing trailheads, user counts are gathered to determine parking demand. If the level of visitor use is unknown, it is always better to plan for more usage than less.

Some elements to consider when developing a trailhead include:

- Vehicle parking. Parking should be sufficient to meet the existing or anticipated need. In some cases, parking may be intentionally limited to keep trail usage within a designed carrying capacity. However, insufficient parking can also lead to illegal parking and associated public safety concerns and resource damage. Any parking lot must include a safe ingress and egress to an existing road system.
- Restrooms. Restroom requirements depend on a variety of factors, including level of anticipated use, anticipated length of stay by users, regulatory constraints, environmental factors, proximity to other restrooms, and availability of utilities.
- Informational signage. Consider what information should be provided to ensure safe enjoyment of the park. Such information may include trail maps and conditions, accessible amenities, interpretive panels, or health and safety warnings.

- Miscellaneous visitor amenities. Drinking fountains, picnic tables, hitching posts, water troughs, and shade ramadas may also be desired for visitor health and enjoyment.
- Accessibility. All facilities must be accessible to the extent possible. Even if the trail is not accessible, the concept of universal access (i.e., designing for all visitors) should be applied to all visitor facilities.
- Special amenities. Depending on the amount and type of use, trailheads may require special facilities. For example, trailheads for equestrian trails should have sufficient room for vehicles hauling trailers and loading livestock, as well as hitching posts and water troughs. Pavement and large rock surfaces are not suitable for equestrian use, even if soil conditions would benefit from a paved surface. Crushed rock makes an excellent surface for equestrian use, especially when these materials are blended with native soil. If providing water for equestrian use, separate potable water facilities are required for riders.



**Photo 4.1 – Example of a Trailhead**

### **4.3. Overlooks**

Trails often access a variety of scenic viewpoints. (See Photo 4.2.) Improvements to overlooks on a trail should be in keeping with the natural environment and kept to a minimum, to support use and not interfere with the user experience. The size of an overlook is dictated by the level of anticipated use by visitors and the physical and resource limitations of the site. Popular overlooks need substantial space and may require considerable infrastructure development. Avoid locations that cannot accommodate the level of anticipated use. If the site is not large enough to accommodate the level of visitation it receives, encroachment into undeveloped areas will occur and resources may be impacted. Moreover, once an encroachment develops, it is difficult to control and even more difficult to reverse.

Amenities typically found at overlooks include:

- **Barriers** - Barriers may be necessary to define the overlook space, ensure visitor safety, and keep people out of sensitive areas. Barrier material and configuration should fit into the natural setting.
- **Benches** - A place to sit and enjoy the setting is extremely important to trail users at overlooks. Benches should be placed out of the trail and the normal flow of visitors to the site, and should not interfere with the prime viewing area. Accessible-compliant benches are preferred.
- **Displays** - If the overlook warrants interpretive information, displays should be located outside of the view shed. Accessible-compliant displays should be provided.
- **Telescopes** - Telescopes and binoculars provide a different perspective and can enhance the visitor's experience. Telescopes should not distract from the view shed and should be compliant with accessibility standards.

Overlooks surrounded by vegetation may require regular maintenance to protect the view shed. Vegetation can also be used to help frame the view, screen other development, or to establish a barrier that can prevent user encroachment outside of the overlook.

Native species should be used to complement the surrounding environment. Rock work and site grading techniques can be employed in rocky areas to achieve visual compatibility of an overlook with the surrounding area.



**Photo 4.2 – Examples of Overlooks and Viewpoints**

#### **4.4. Visitor Information and Signage**

The primary location for disseminating public information about a park or trail is at the trailhead. Relevant information is provided through brochures and signage. Information along the trail itself is mostly interpretive, regulatory, or wayfinding (directional and distance information).

#### 4.4.1. Displays

Displays are graphic exhibits designed to inform trail users. (See Photo 4.3.) Regardless of the display type, it should be placed in compliance with accessibility standards. (See Chapter 8, *Accessible Trail Design*, and California State Parks Accessibility Guidelines.)

Information communicated by displays can be simple or complex. For multiple concepts and a great deal of information, the manner of presentation must be carefully considered. Most trail users look at a display for quick information and are not interested in spending long periods of time reading text. Large, complex displays are appropriate at trailhead locations, whereas succinct interpretive information should be available along the trail.

Signage on the trail should be small so as to not distract from the trail experience. In open settings, displays are kept low to prevent disruption of the view. In heavily vegetated areas, taller displays may be acceptable.



**Photo 4.3 – Example of Displays**

#### 4.4.2. Maps

Displays at a trailhead should include as much information as possible including the location of the trail and trailhead relative to the trail system, trail length and difficulty, connector roads and trails, overlooks and unique features, and visitor amenities, such as restrooms and visitor centers. Additional information regarding up-to-date trail conditions, special rules or regulations, and emergency contacts should also be provided.

As an alternative or in addition to a map display, a trail brochure can be made available for users. This brochure can provide supplemental information and a map. Published trail brochures, guides, and maps give basic trail information as noted above. Publishing trails maps on the internet is another way to communicate

information. This medium offers the greatest flexibility in providing updates to conditions or changes in the trail system.

#### 4.4.3. Signage

Signage is one of the most important parts of a trail system. Typically, signage with the trail name and often trail distance are placed at the beginning or end of a trail and trail intersections. Directional signage or a route marker should be used when the trail's direction is not obvious or may be confused with other trails and should be placed where all users can see it, either on approach from the parking area or at the beginning of the trail where all users pass. Interpretive signage may be installed to identify special features but should not detract from the trail experience.

Regulatory or safety signage is only used as needed to ensure the safety of the visitor. Boundary signage should also be placed where trails cross a boundary onto land administered by another agency. Accessible trails also have signage requirements (see Chapter 8, *Accessible Trail Design*); however, do not sign excessively. A few signs properly worded and strategically placed serve trail users better and maintain a quality experience.

A signage plan that dictates the size and types of trail signage should be developed for the entire trail system of a park unit. Signage should conform to the Department's Sign Handbook. Common signage brings continuity to a trail system and is easier for users to understand. Consistent design elements in interpretive displays also help establish an identity for a trail system. Because regulatory signage is often prescribed by law, it cannot be customized and may clash with rustic-style trail signage. Therefore, usage of regulatory signage should be heavily scrutinized, keeping in mind that signs may "inform" but cannot "enforce".

### 4.5. **Barriers**

Both subtle and obvious types of barriers can be used to direct or control trail users and to guide the visually impaired.

#### 4.5.1. Rock Walls

A rock wall defines an area such as a trailhead or overlook and/or protects users from a trail hazard. Barrier walls should be no higher than 42 inches or meet accessibility guidelines as required. Low walls (17 to 18 inches) are also effective barriers and can be sat upon. At trailheads, a single boulder of 36 inches or more can bar vehicles without barring trail use. A single rock barrier should be set in the ground to a depth of approximately one-third of its diameter so that it appears permanent. Combining low rock walls with a pipe railing is an effective long-term barrier that requires minimal maintenance. (See Photo 4.4.)



**Photo 4.4 – Example of a Rock Wall**

#### 4.5.2. Fences

Fencing may be placed on or near a trail to manage trail use, particularly in high-use areas or areas with sensitive natural or cultural resources. Occasionally fences are also left behind from a historical use or former boundary.

The split rail wood fence is commonly used in trail applications. (See Photo 4.5.) These fences range in height from 18 inches (single rail) to 42 inches (four to five rails). Low rail barriers (single horizontal member) are an effective barrier to vehicles and symbolic barrier for pedestrians while being visually unobtrusive.



**Photo 4.5 – Examples of Fences**

Fencing on equestrian trails or in equestrian staging areas should be placed high enough off the ground to avoid creating a trip hazard for horses. The finished height is adequate to eliminate the reasonable possibility of a horse jumping over the fence. Fencing material for equestrian applications should be wood, composite, concrete, plastic, or metal pipe and never barbed wire, which can result in injury to the animal.



## 4.6. Stiles

A stile can be used to allow a pedestrian to cross a linear barrier such as a fence. It comes in two basic types: a step-over design for hiking trails and a pass-through design for at-grade crossings. The US Forest Service and Beneficial Designs also have designed a stile for accessible trails.

### 4.6.1. Step-Over Stiles

The simplest stile design is the step-over, which incorporates two vertical posts with a single rail. Typically, the posts are placed 18 inches apart and the rail is fastened between the posts at 18 inches above the trail grade. This stile provides an opening wide and low enough for a hiker to cross over, but too narrow and high for stock or off-road vehicles. (See Photo 4.6 and Figure 4.1.) The width may be altered to prohibit or allow bicycles. The step-over stile should be located where a fence or natural features, such as a steep bank, bluff, tree, and impenetrable brush, can be incorporated into the design to prevent users from going around the stile.

The stair step-over stile consists of two cutout stringer stairways and a platform. The stairways are a minimum of 3 feet wide and connect to a platform that is a minimum of 3 feet above trail grade. The platform has a minimum size of 3 feet by 2 feet. (See Photo 4.7 and Figure 4.2.) Hikers can step up and over this barrier but stock and off-road vehicles cannot. This configuration is commonly used to cross a fence without modifying the existing fence line. Railings are required because of the height of the structure. (See Chapter 20, *Railings*.)



***Photo 4.6 - Step-Over Stile***



***Photo 4.7 - Stair Step Over Stile***

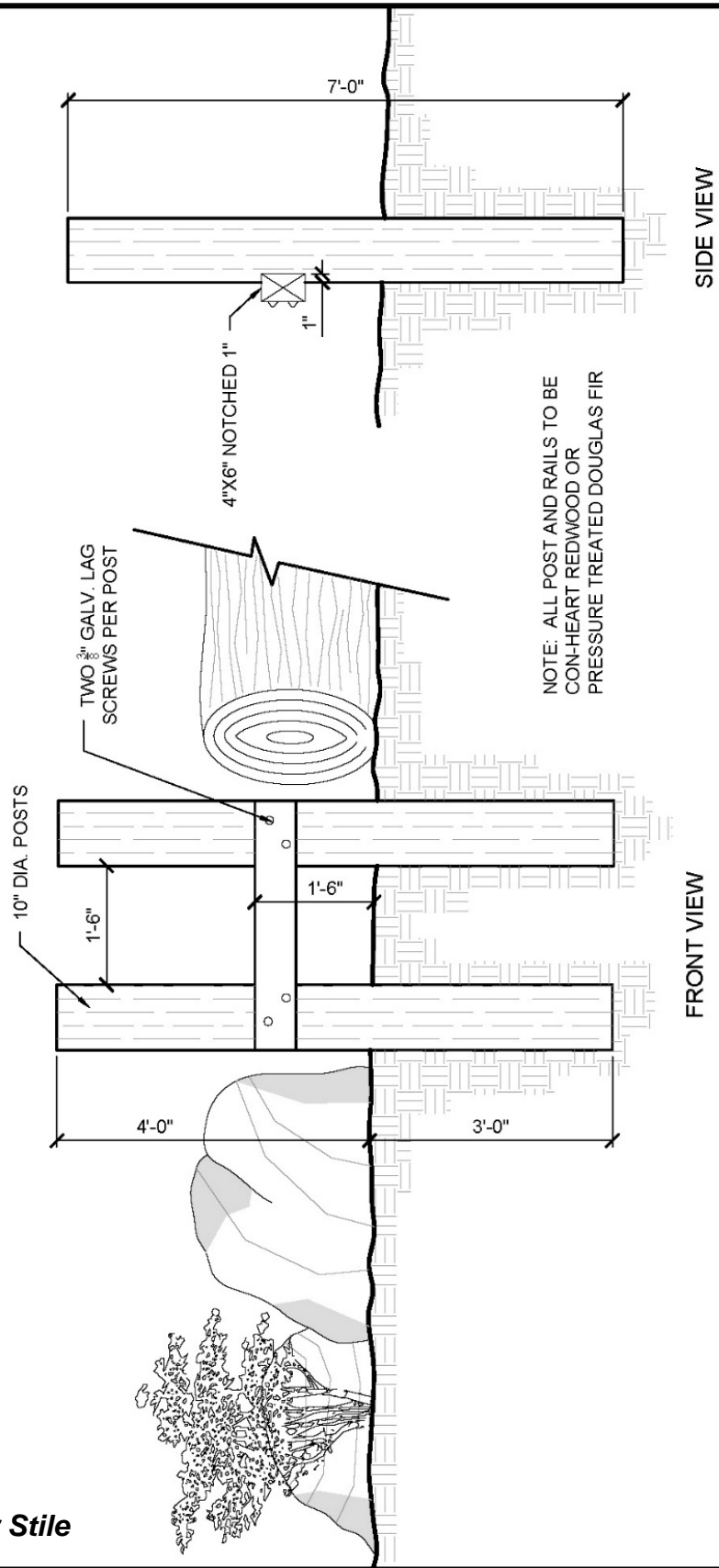


Figure 4.1 - Step Over Stile



STEP OVER STILE  
CALIFORNIA STATE PARKS

NOT TO SCALE

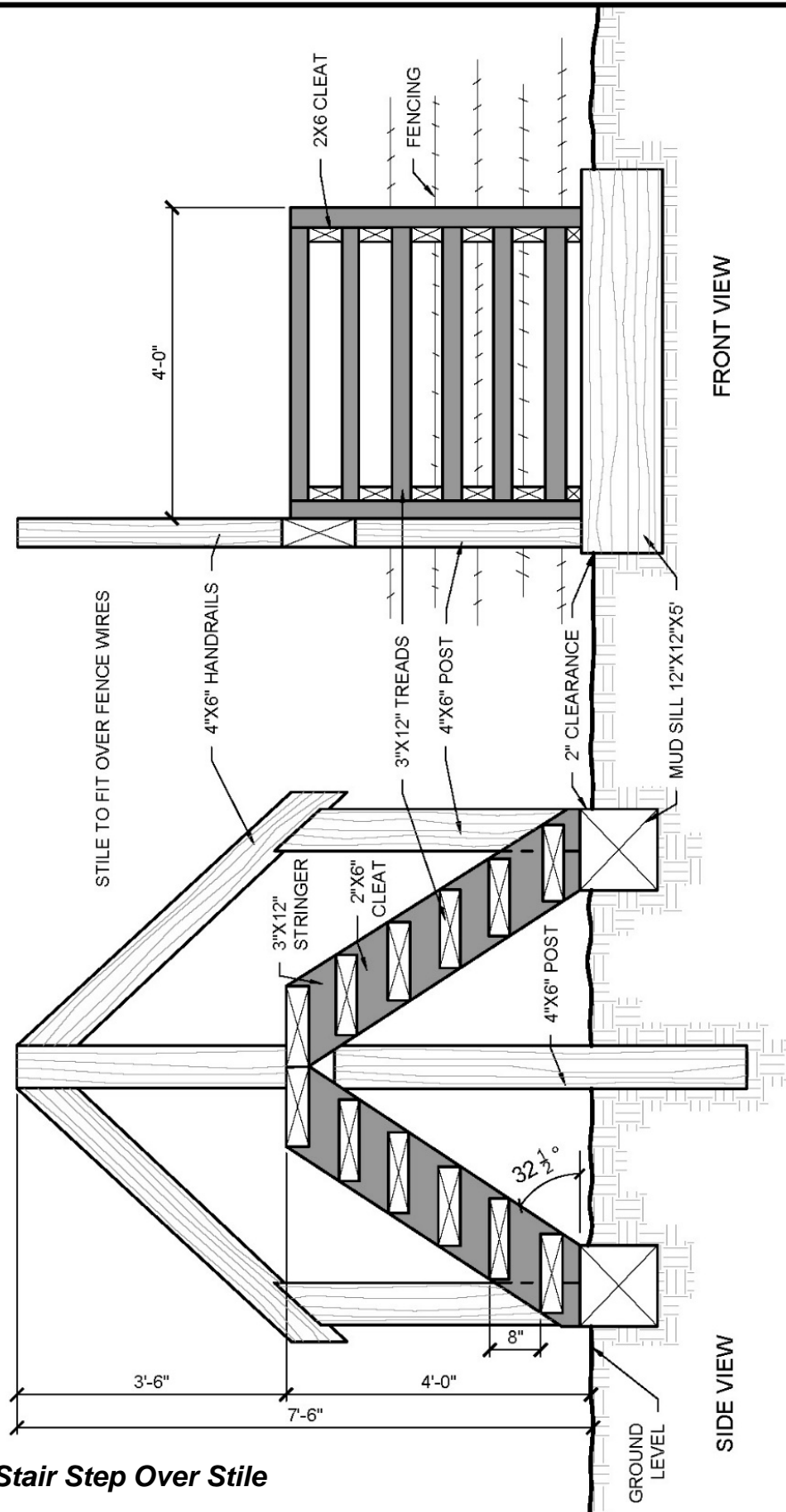


Figure 4.2 - Stair Step Over Stile



STAIR STEP OVER STILE  
CALIFORNIA STATE PARKS

NOT TO SCALE

#### 4.6.2. Pass-Through Stiles

A pass-through stile allows hikers, equestrians, and bicyclists to pass through at grade but prohibits off-road vehicles. (See Figure 4.3.) Posts are placed 5 feet apart to provide an opening for users to pass. A log or “step-over” barrier is placed in front of the opening between the two posts. Three logs, 18 inches in diameter are placed parallel to the opening, with a 30-inch landing in between. They are placed 4 inches into the ground and anchored with pipe or rebar. Two additional logs are placed perpendicular to these logs, across the ends, and pinned 4 inches into the ground. All five logs have a finished height of 14 inches above trail grade.

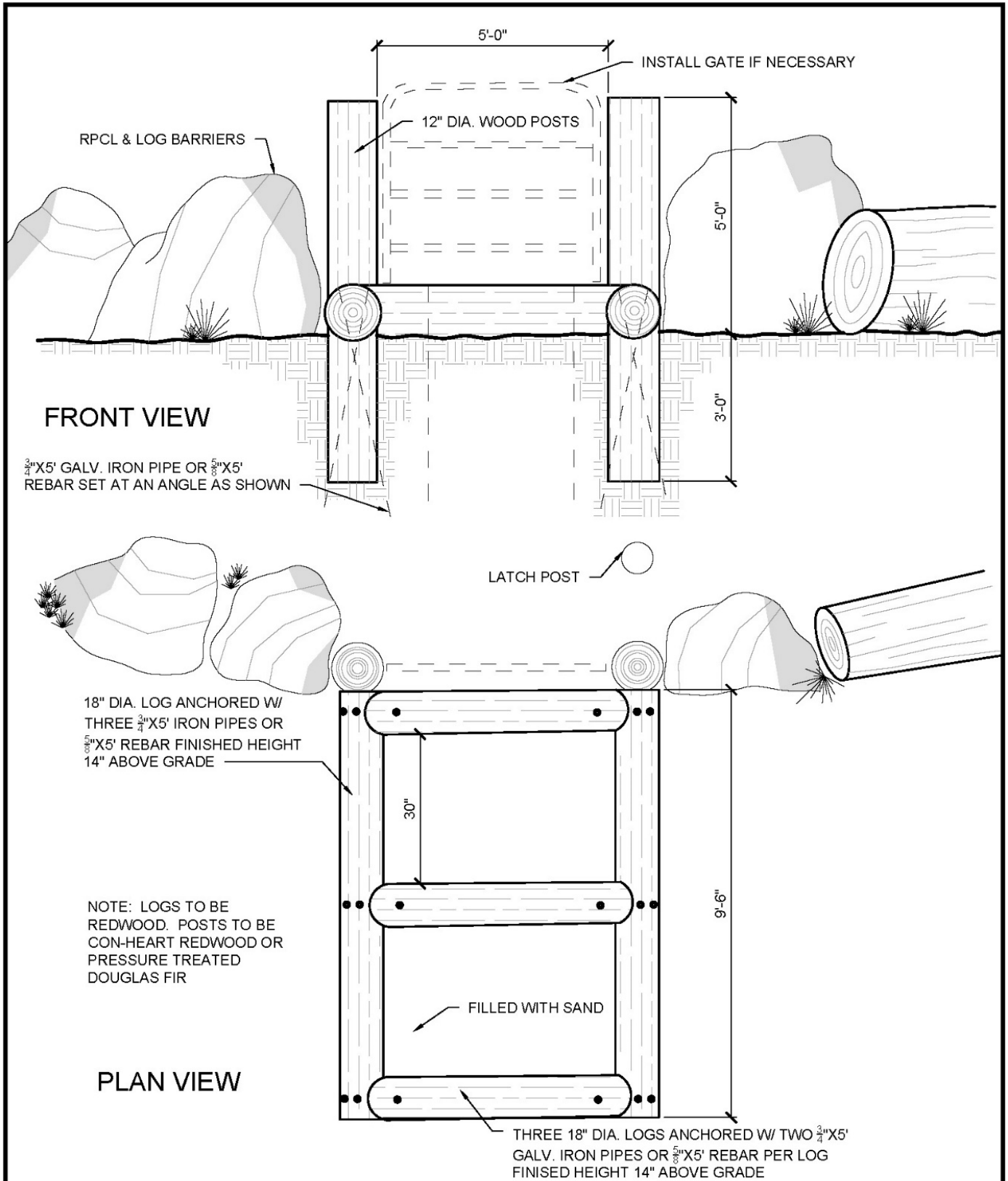
The 30-inch landing between the three front logs provides the spacing necessary for stock to step over. Similarly to wooden and rock steps, this spacing enables stock to have half of its body on a landing at a time. The tread for these landings consists of sand or a soft mix of soil and aggregate, which provides stock with sure, comfortable footing.

Incorporating a gate into this design is optional to control unwanted livestock. A self-closing stock gate with a lever latch can be mounted between the two posts. The lever is located at the top of the gate, so that a rider on horseback can open it easily. A latching post is provided to hold the gate open when multiple riders or pack strings pass.

Another pass-through design is a “walk through maze” stile. This design uses posts and rails installed closely together in a zigzag pattern. The narrow opening and short distance between posts prevent cattle, horses, and vehicles from passing through this stile. (See Photo 4.8 and Figure 4.4.) A similar walk through maze design, the “chicane,” is wider to provide access for people using mobility assistive devices. (See Photo 4.8 and Figure 4.5.)



**Photo 4.8 - Walk Through Maze Stile (left) and Walk Through Maze (“Chicane”) Stile (right)**

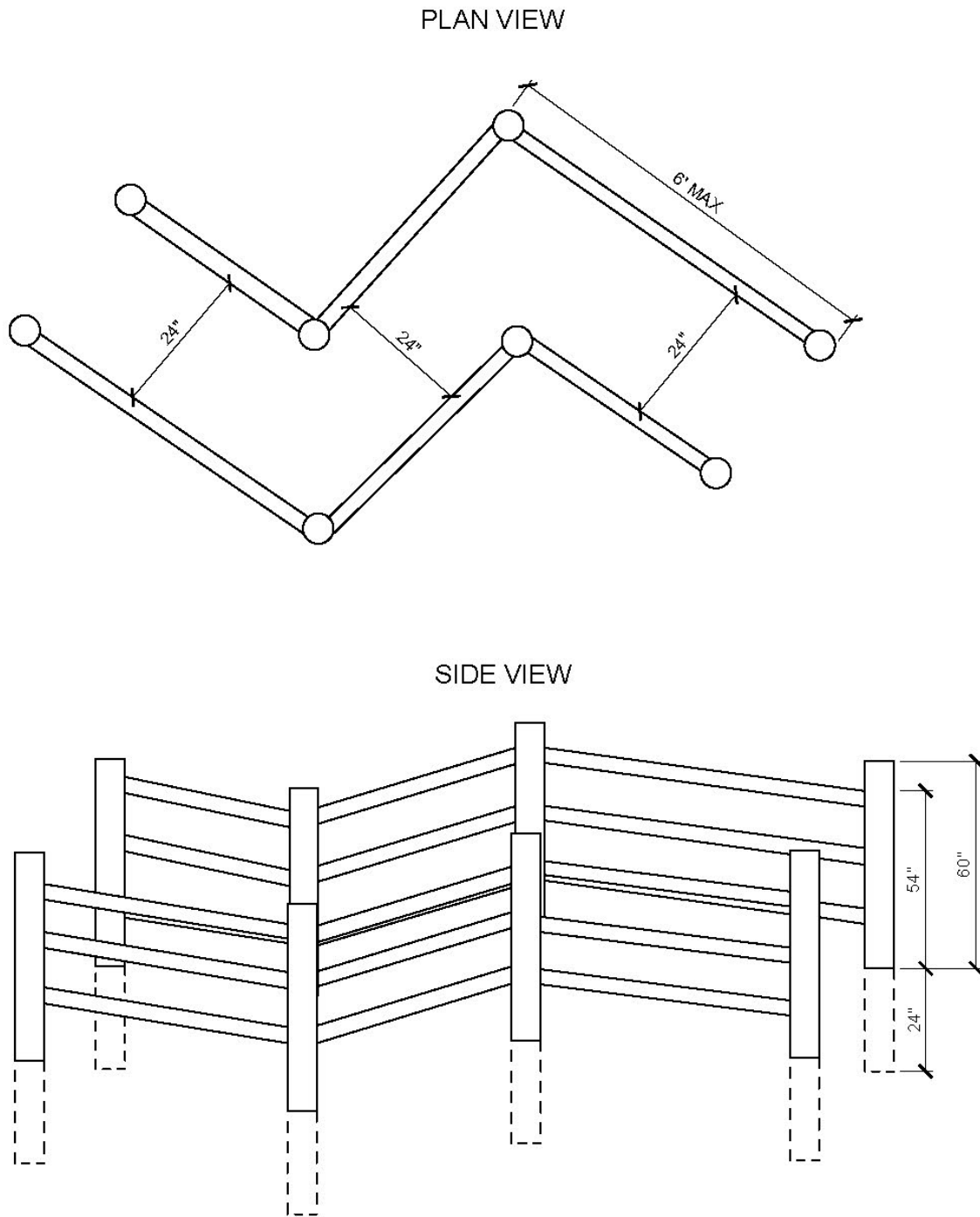


**Figure 4.3 - Pass Through Stiles**



**PASS THROUGH STILES**  
CALIFORNIA STATE PARKS

NOT TO SCALE



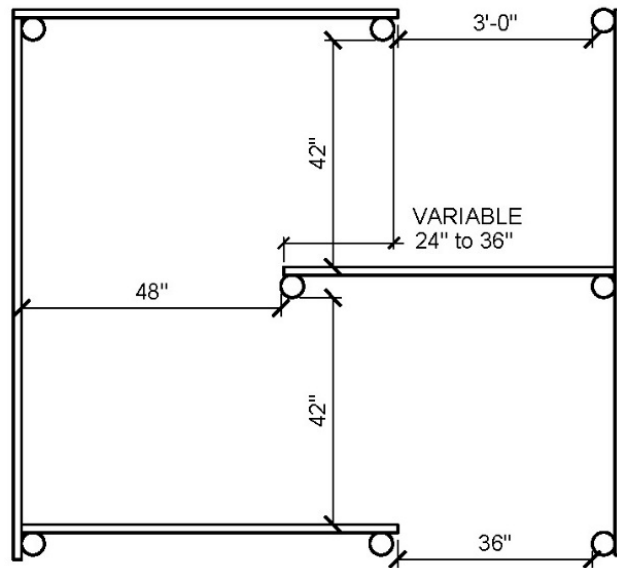
**Figure 4.4 - Walk Through Maze Stile**



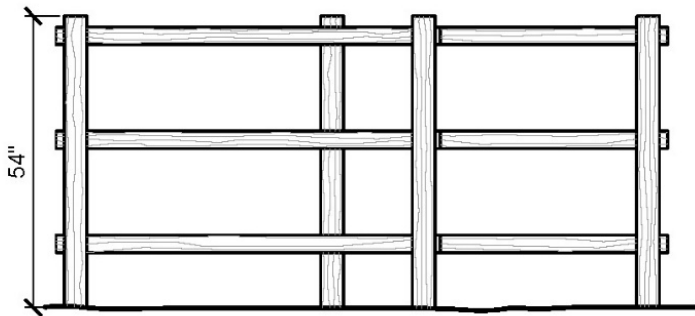
**WALK THROUGH MAZE STILE**

CALIFORNIA STATE PARKS

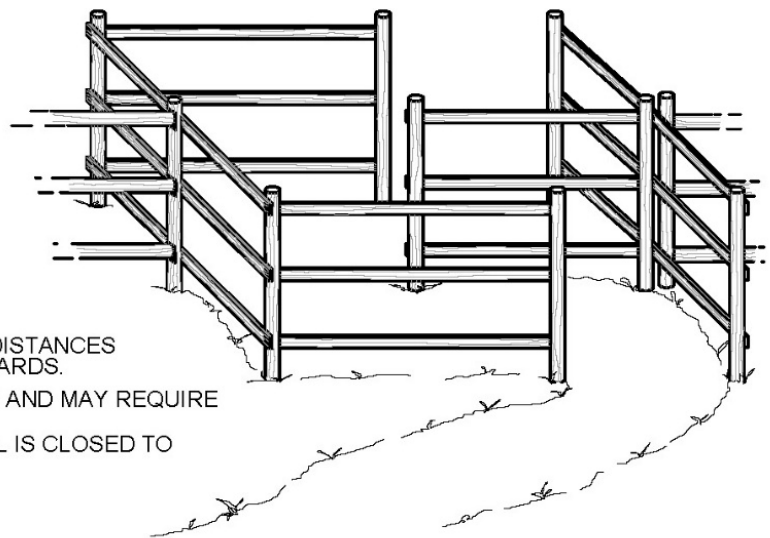
NOT TO SCALE



PLAN VIEW



ELEVATION VIEW



NOTES:

- 1 INSIDE DIMENSIONS ARE MINIMUM CLEAR DISTANCES REQUIRED TO MEET ACCESSIBILITY STANDARDS.
- 2 THESE DRAWINGS ARE TYPICAL DRAWINGS AND MAY REQUIRE MINOR MODIFICATION FOR INSTALLATION. SIGNAGE MAY BE CONSIDERED WHEN TRAIL IS CLOSED TO ATVS AND MOTORIZED TRAFFIC.

**Figure 4.5 - Walk Through Maze Stile (Chicane)**



**WALK THROUGH MAZE STILE (CHICANE)**

CALIFORNIA STATE PARKS

NOT TO SCALE



## 4.7. Gates

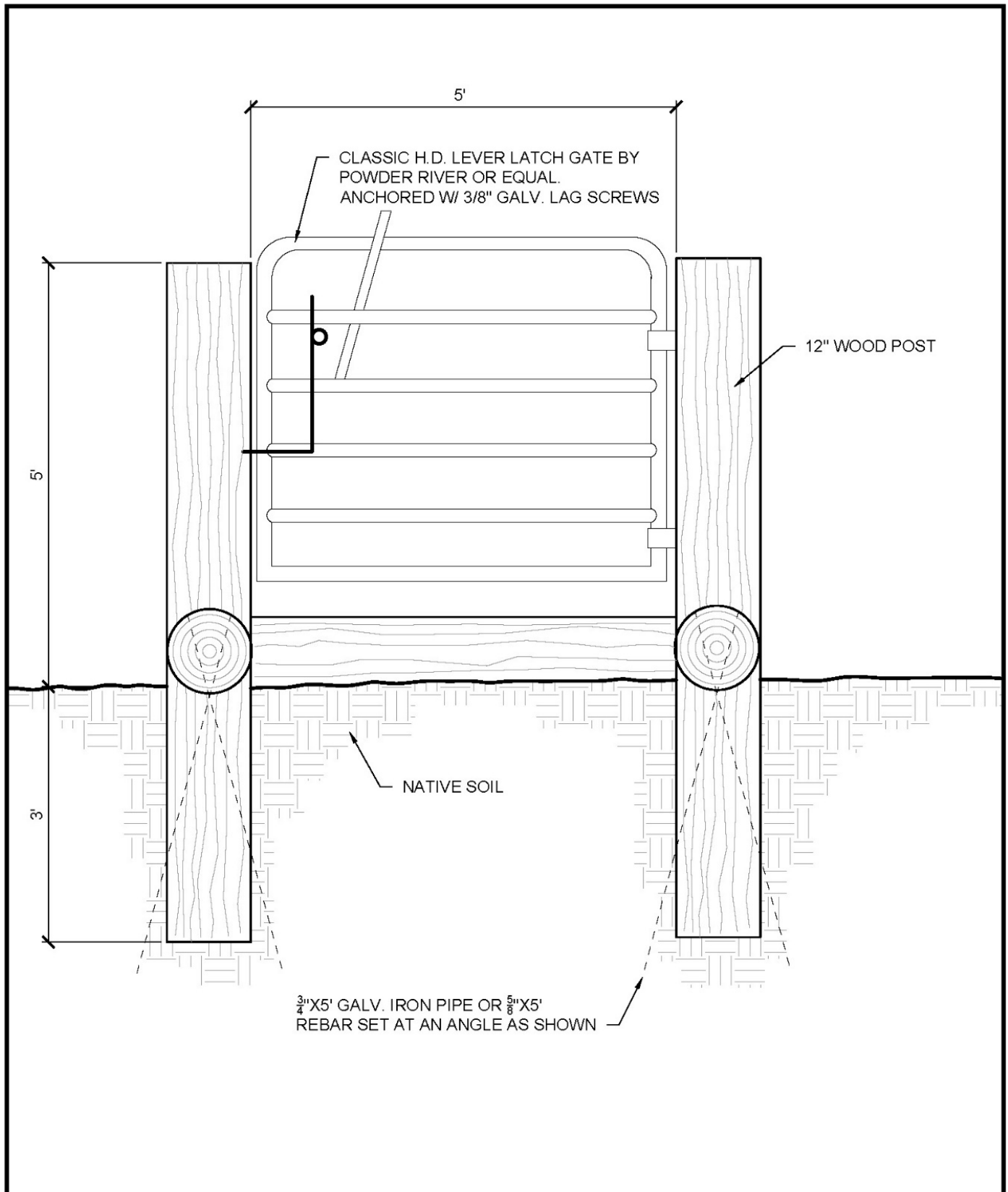
Gates are another alternative for crossing fence line barriers that can allow trail users and livestock to pass but limit motor vehicle access. A self-closing stock gate with a lever latch mechanism can ensure that no gate is left open. (See Figure 4.6.) The lever is located at the top of the gate, so that a rider on horseback can easily work it without dismounting. A latching post is also provided to hold the gate open when multiple riders or pack strings pass. There are a variety of gate designs that also provide access for visitors with mobility assistive devices. (See Photos 4.9 and 4.10 and Figures 4.7, 4.8, 4.9, 4.10, 4.11, and 4.12.) These gate designs should be utilized when hiker, biker, and equestrian use is appropriate but motor vehicle access is prohibited.



**Photo 4.9 – Kissing Gate**



**Photo 4.10 - Road Closure Gate with Wheelchair Access**

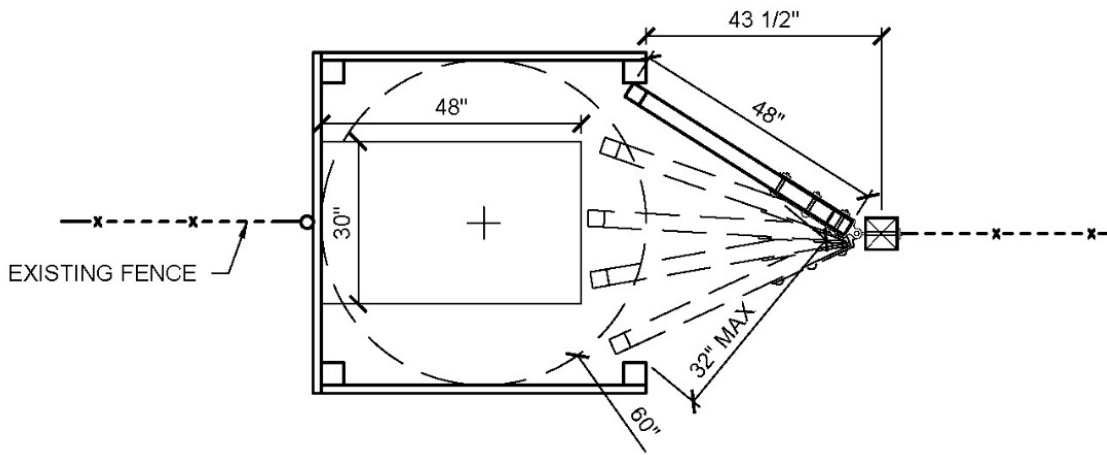
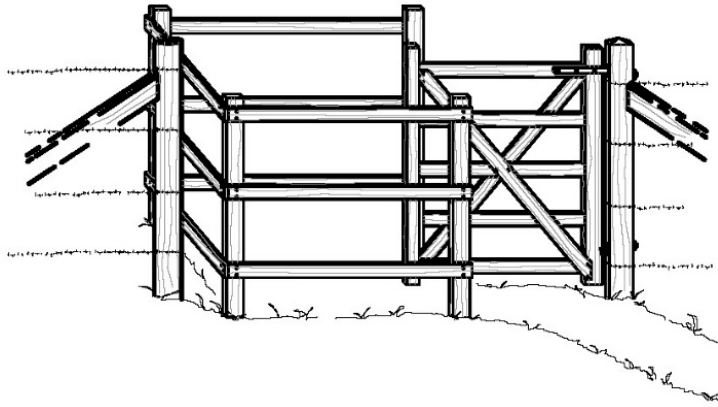


**Figure 4.6 - Equestrian Gates**

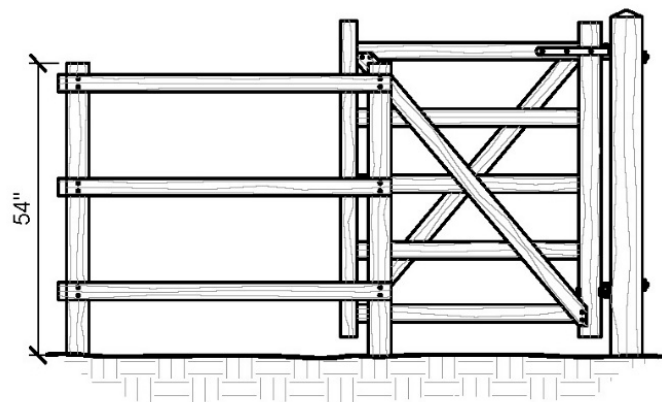


**EQUESTRIAN GATES**  
**CALIFORNIA STATE PARKS**

NOT TO SCALE



PLAN VIEW



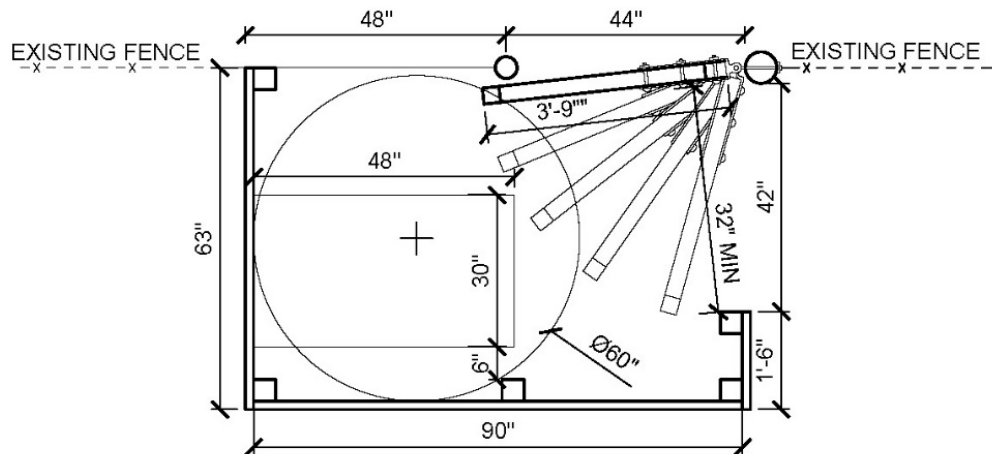
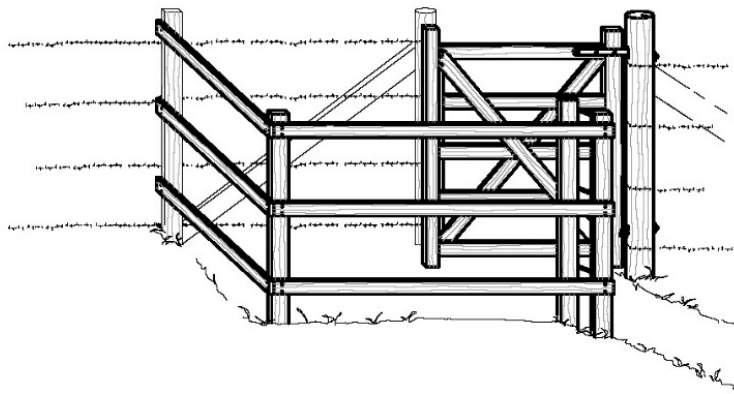
FRONT VIEW

Figure 4.7 - Kissing Gate

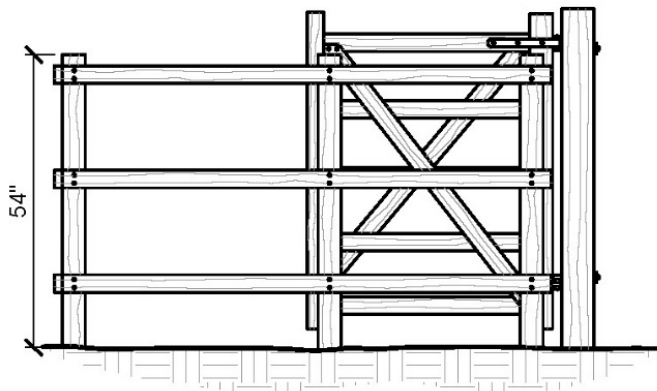


KISSING GATE  
CALIFORNIA STATE PARKS

NOT TO SCALE



PLAN VIEW



FRONT VIEW

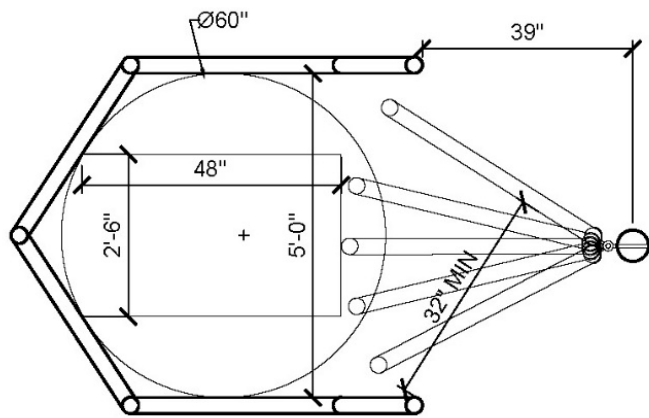
Figure 4.8 - Kissing Gate (Modifying an Existing Gate)

KISSING GATE (MODIFYING AN EXISTING GATE)

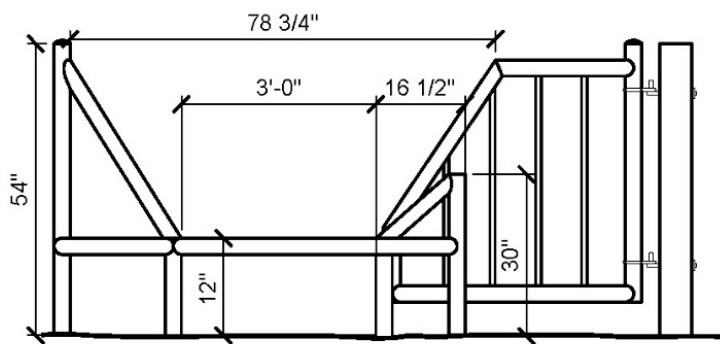
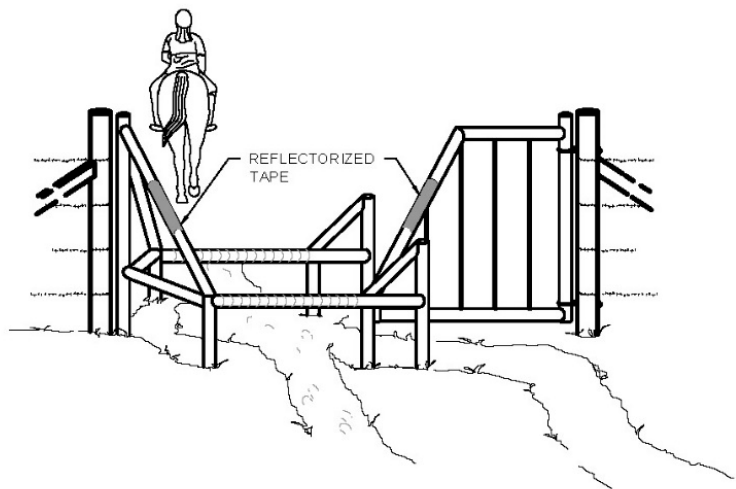
CALIFORNIA STATE PARKS

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PLAN VIEW



FRONT VIEW

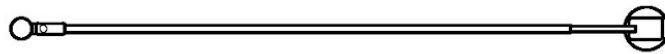
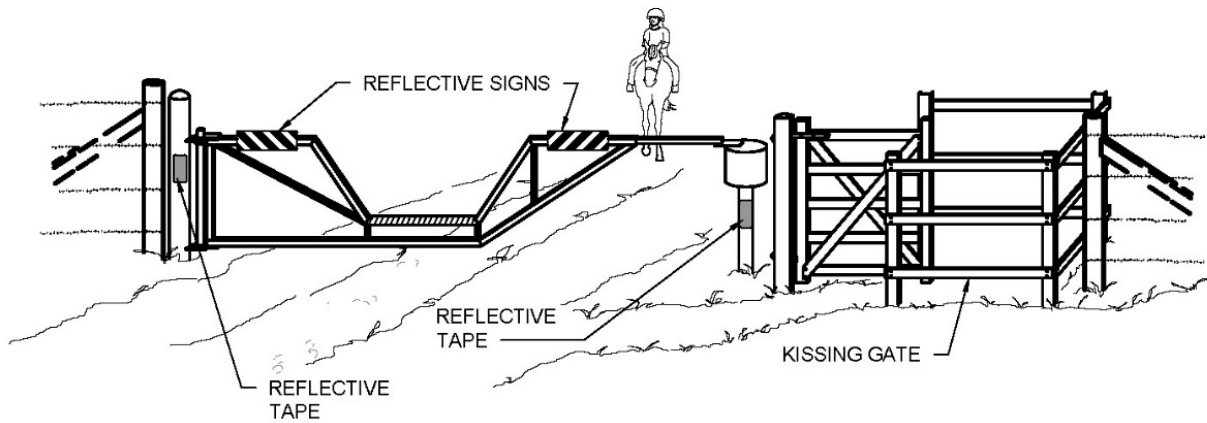
**Figure 4.9 - Horse Gate with Wheelchair Accessibility**



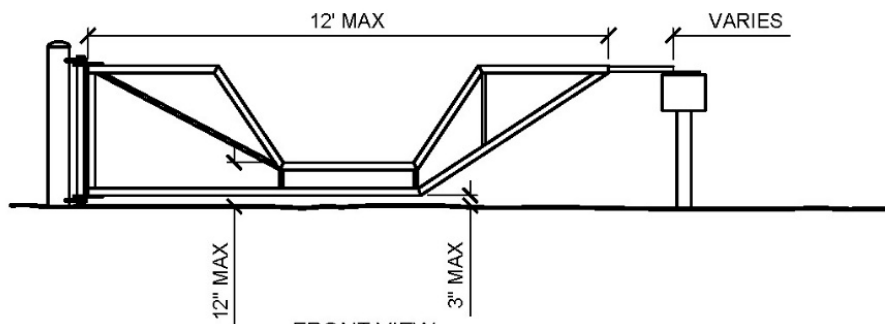
HORSE GATE WITH WHEELCHAIR ACCESSIBILITY

CALIFORNIA STATE PARKS

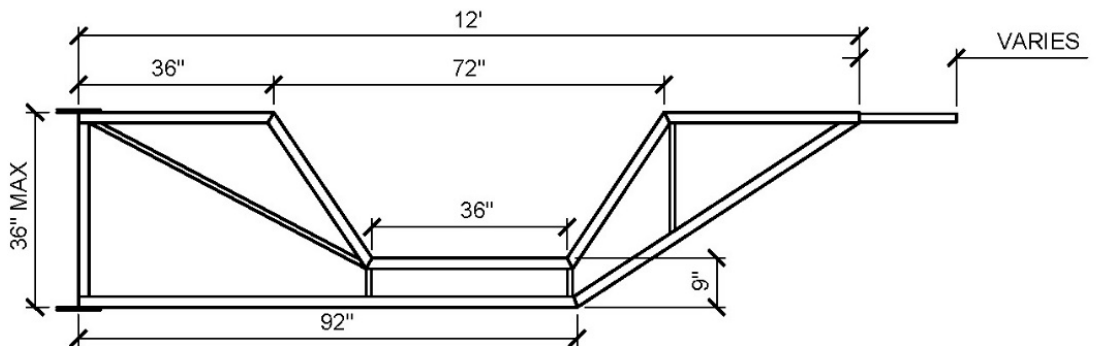
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PLAN VIEW



FRONT VIEW



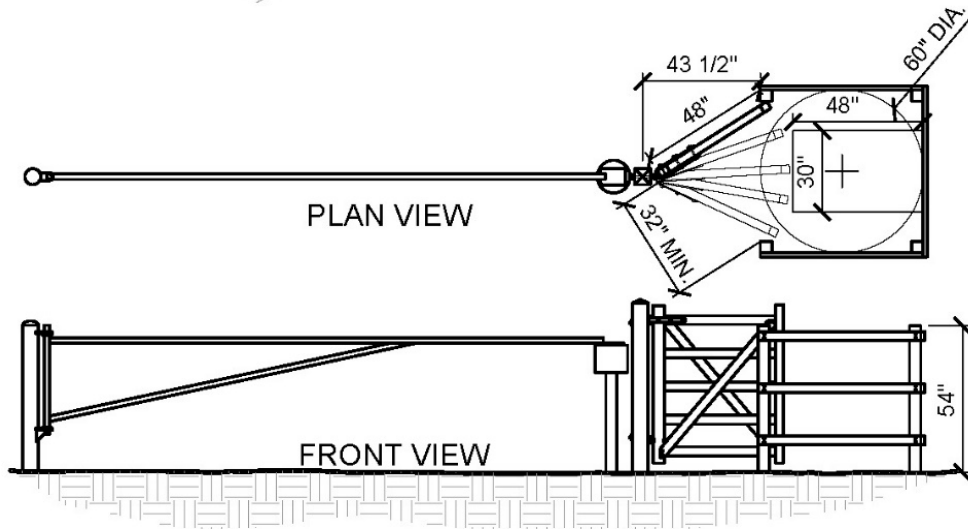
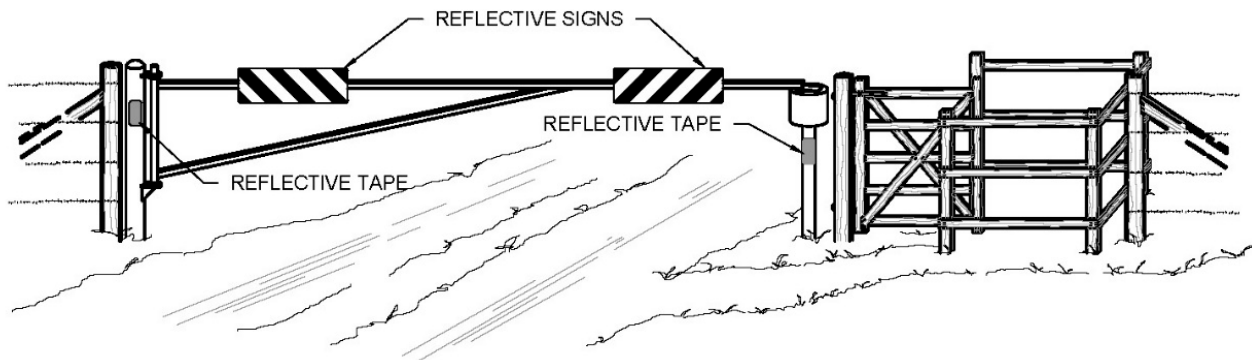
**Figure 4.10 - Road Closure Gate with Horse and Wheelchair Access**



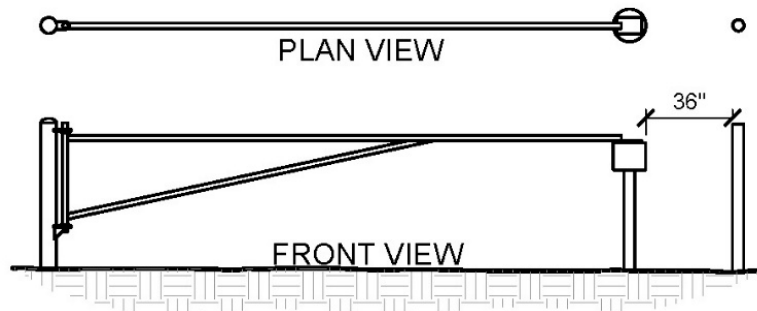
ROAD CLOSURE GATE WITH HORSE AND WHEELCHAIR ACCESS

CALIFORNIA STATE PARKS

NOT TO SCALE



ROAD CLOSURE GATE W/ KISSING GATE  
(SIGNS NOT SHOWN FOR CLARITY)



ROAD CLOSURE GATE W/ POST  
(SIGNS NOT SHOWN FOR CLARITY)

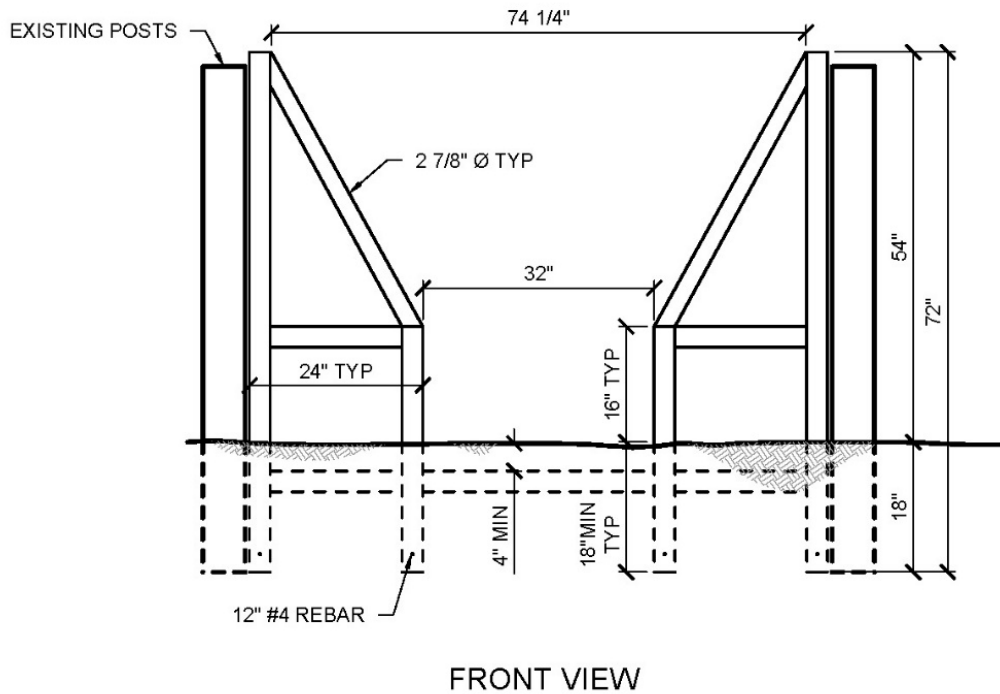
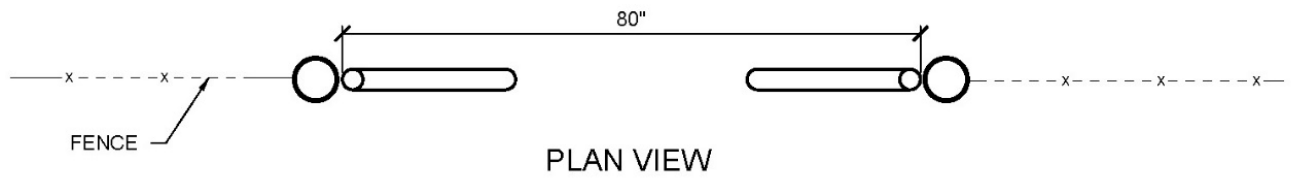
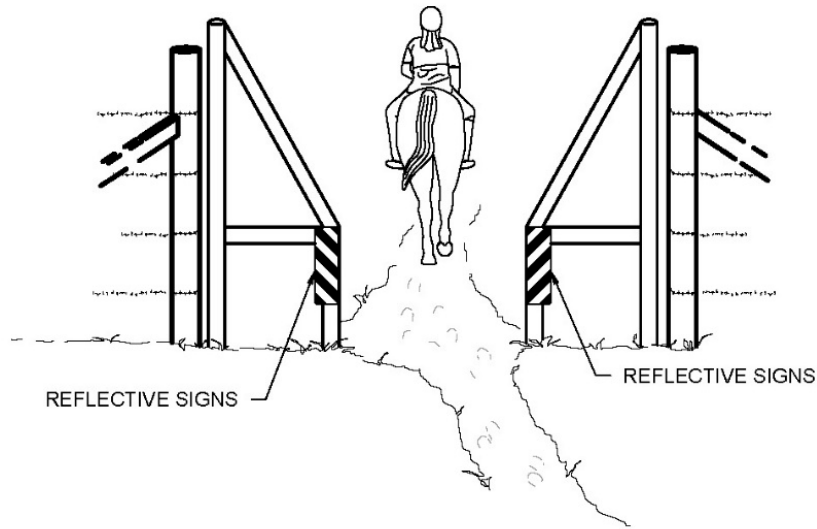
**Figure 4.11 - Road Closure Gate with Wheelchair Access**



**ROAD CLOSURE GATE WITH WHEELCHAIR ACCESS**

CALIFORNIA STATE PARKS

NOT TO SCALE



**Figure 4.12 - V Gate with Wheelchair Accessibility**



**V GATE WITH WHEELCHAIR ACCESSIBILITY**

CALIFORNIA STATE PARKS

NOT TO SCALE



## 4.8. Benches

Benches used in conjunction with trails serve a variety of purposes. At a trailhead, benches are useful for people gathering or waiting for others. Along the trail, benches can be placed at strategic intervals to provide a resting place for users. Because benches are an invitation to sit and enjoy the experience at a particular space, they are often placed where users spend more time, such as an overlook.

Despite the relatively simple nature of benches, there are a lot of available designs and materials. The suitability of a particular design is determined by its intended location. Whether built from rock, wood, dimensioned lumber, or native cut material, benches should match the aesthetics and environment where they are placed. (See Figures 4.13 and 4.14.) While there is always an opinion about a designer's choice of materials, there are common dimensions that must be followed.

Where possible, benches should comply with accessibility standards. (See Photo 4.11 and Figure 4.15.) Benches constructed using these standards are comfortable and usable by all. The final product should be of sound quality and free from splinters or rough edges. In the trail setting, natural finishes are preferred.

Placement is another element to consider. Benches should be oriented such that the experience of the setting is maximized, while providing protection from prevailing wind or sun in hot climates. Benches and tables should be placed on level ground and not interfere with the flow of trail traffic. They may need to be anchored to prevent people from moving them, but anchoring methods should be inconspicuous so as not to be a distraction.



**Photo 4.11 - Accessible Bench**

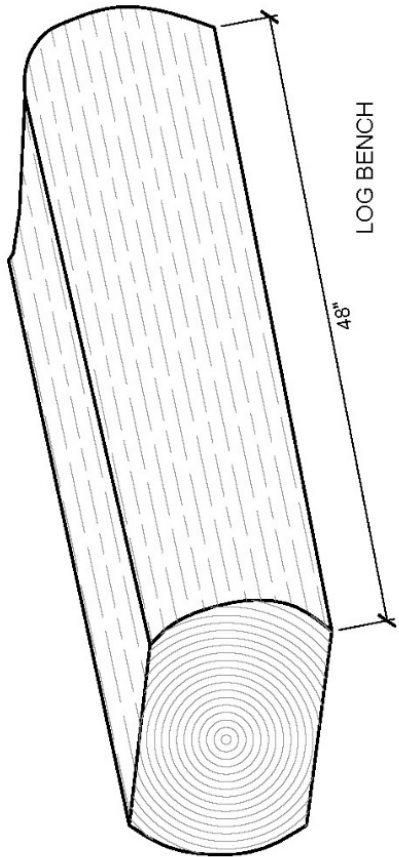
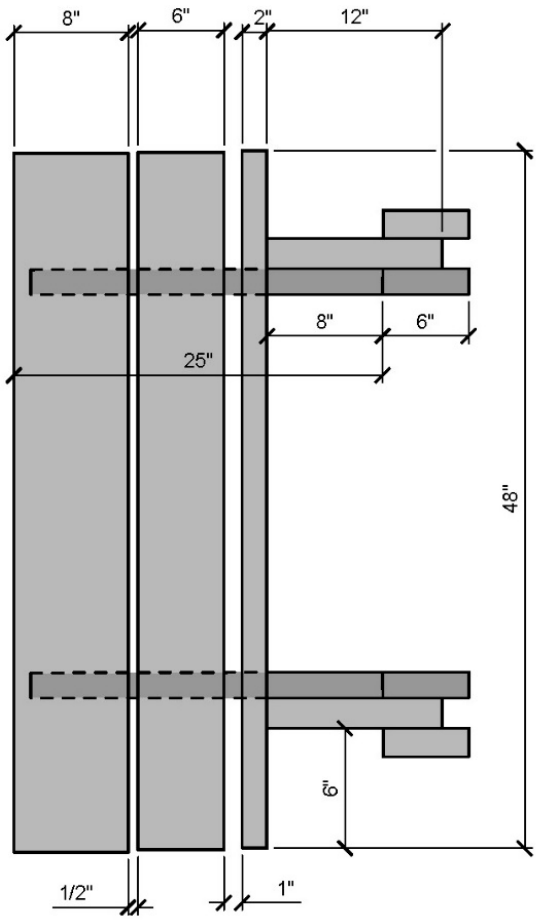
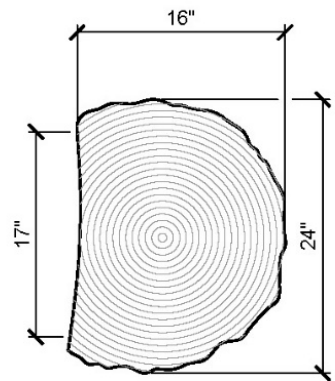
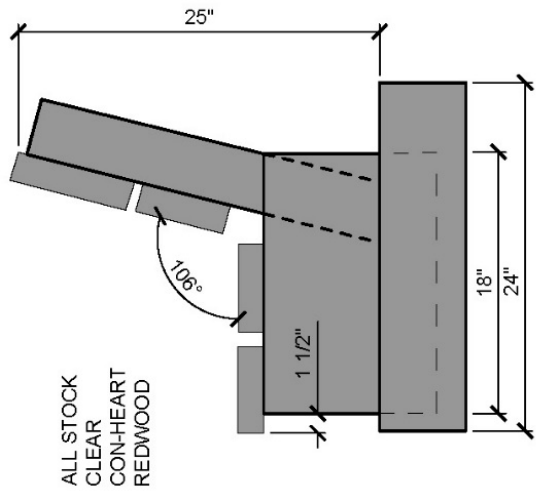
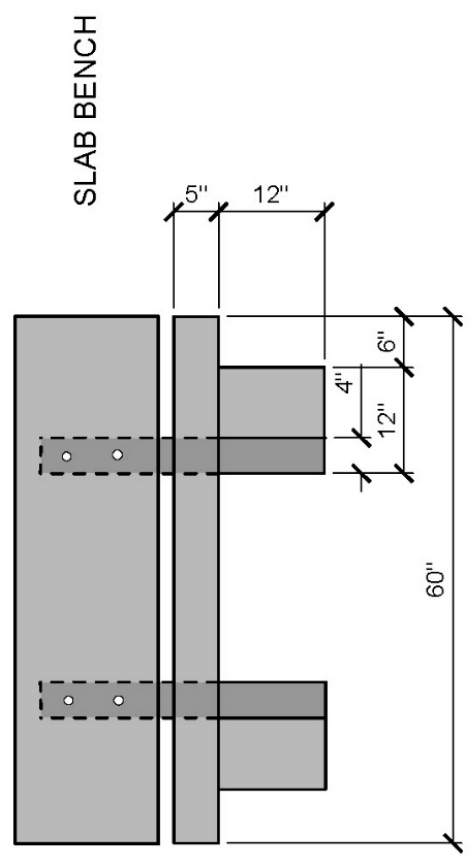
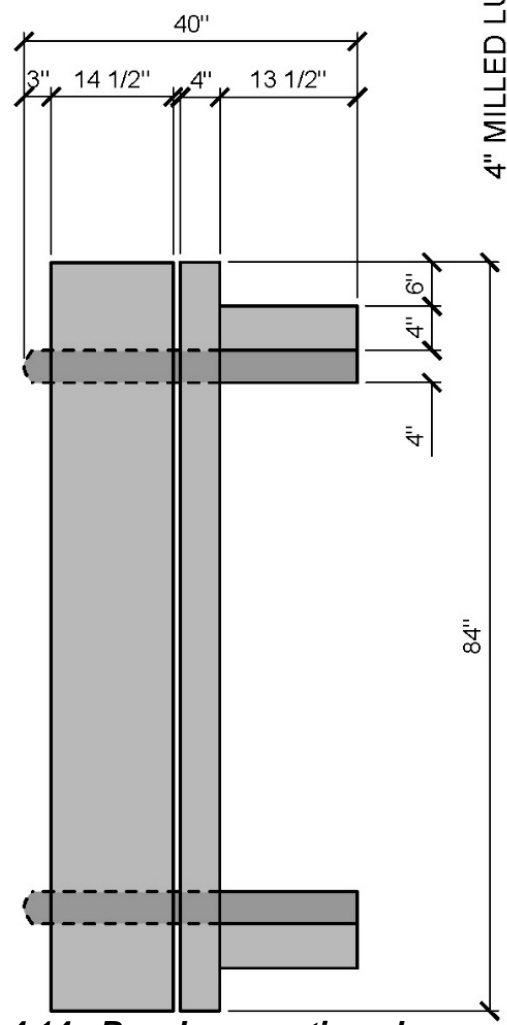
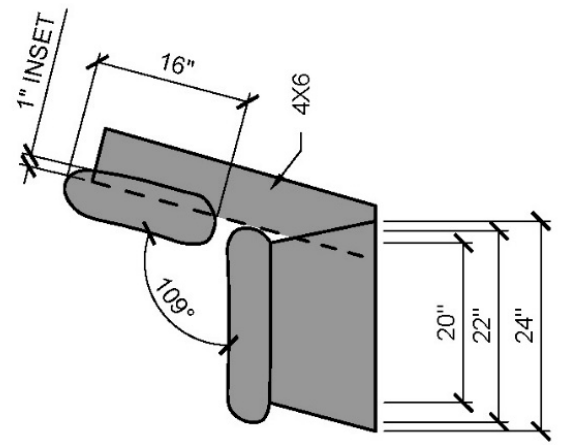
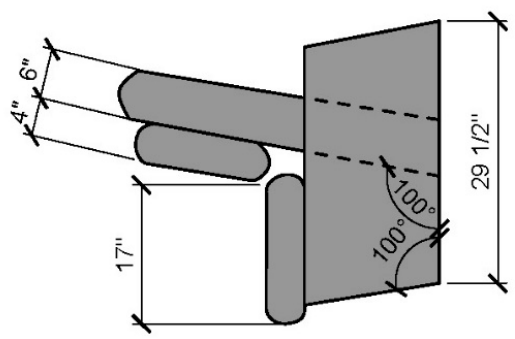


Figure 4.13 - Benches



BENCHES  
CALIFORNIA STATE PARKS

NOT TO SCALE



4" MILLED LUMBER BENCH

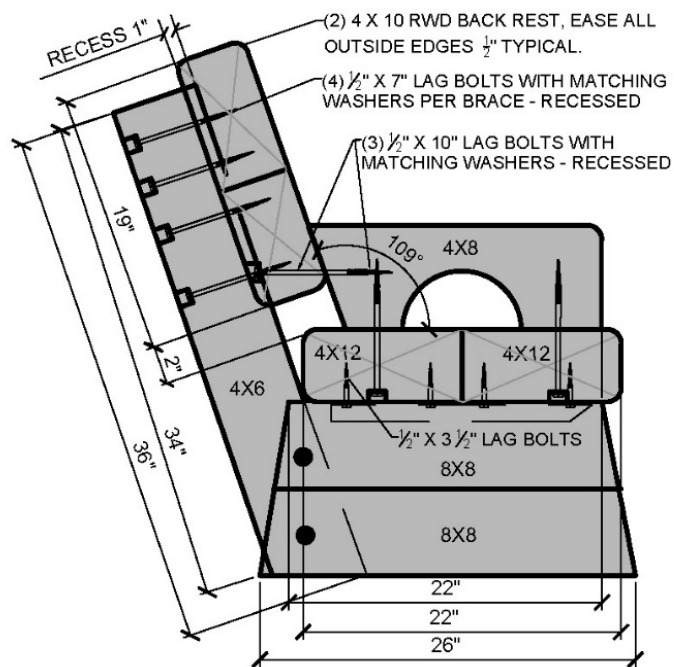
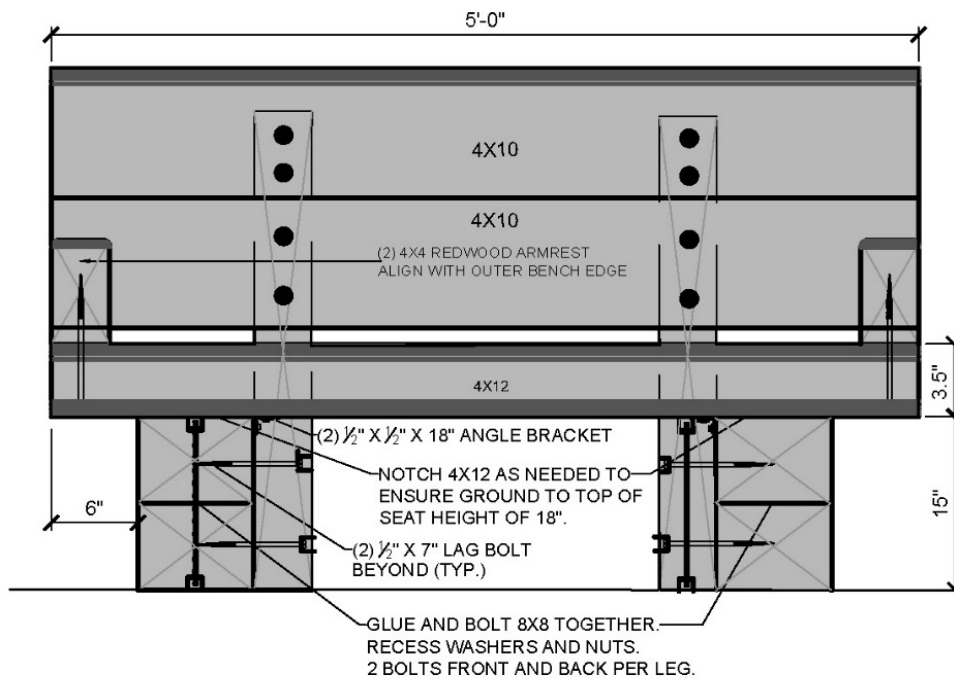
SLAB BENCH

Figure 4.14 - Benches, continued



BENCHES CONTINUED  
CALIFORNIA STATE PARKS

NOT TO SCALE



**Figure 4.15 - Accessible Benches**



ACCESSIBLE BENCHES  
CALIFORNIA STATE PARKS

NOT TO SCALE