InterTribal Sinkyone Wilderness

Plan for Limited Public Access

Prepared for

InterTribal Sinkyone Wilderness Council

by

Natural Resources Services

A division of

Redwood Community Action Agency

May 31, 2004

(Cover Photo courtesy of Traci "Bear" Thiele)

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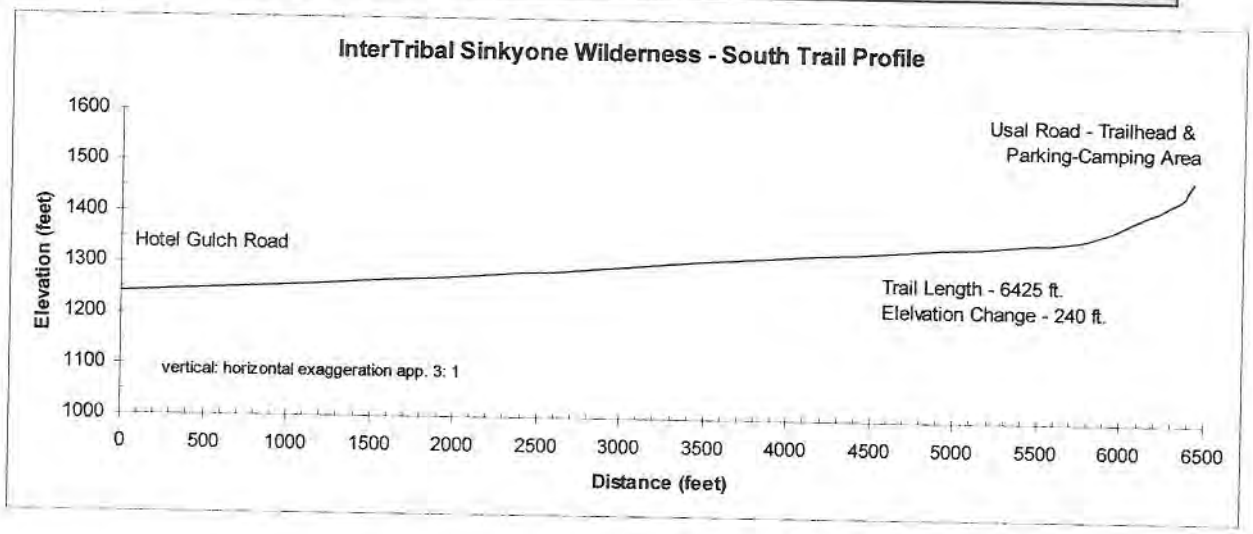
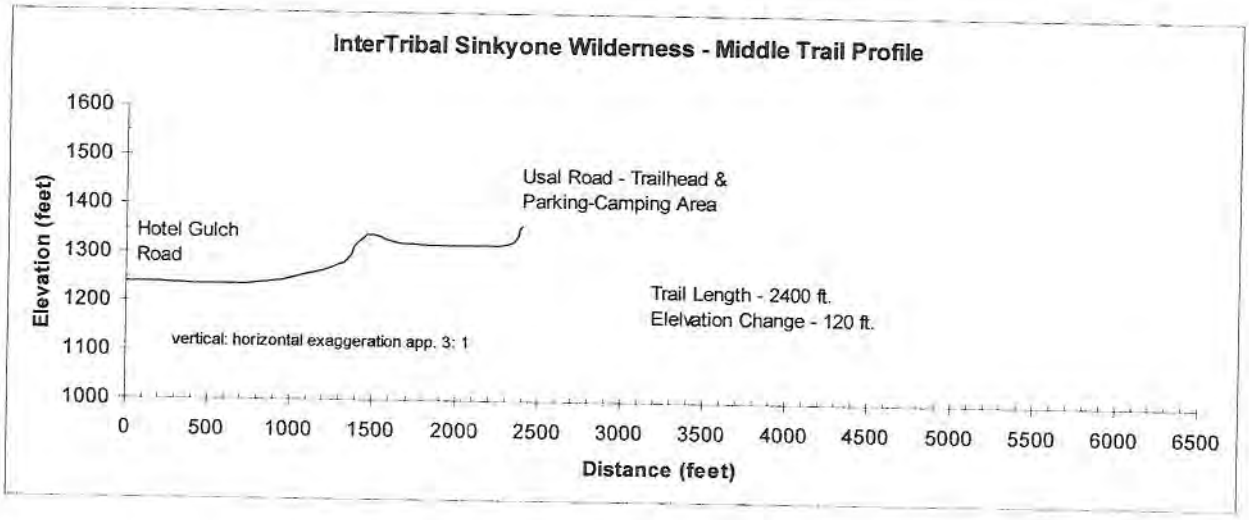
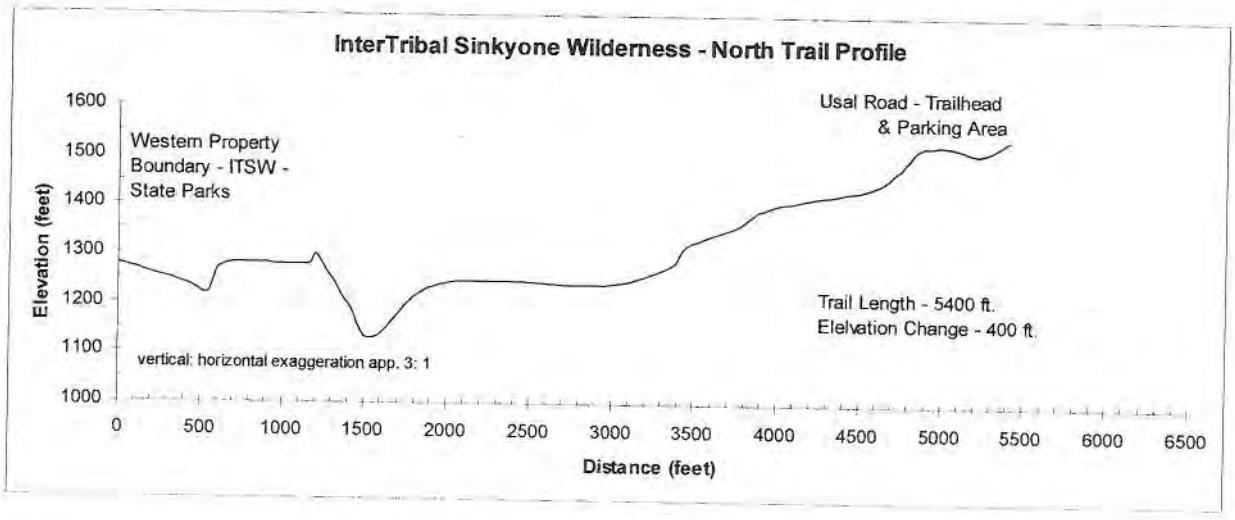




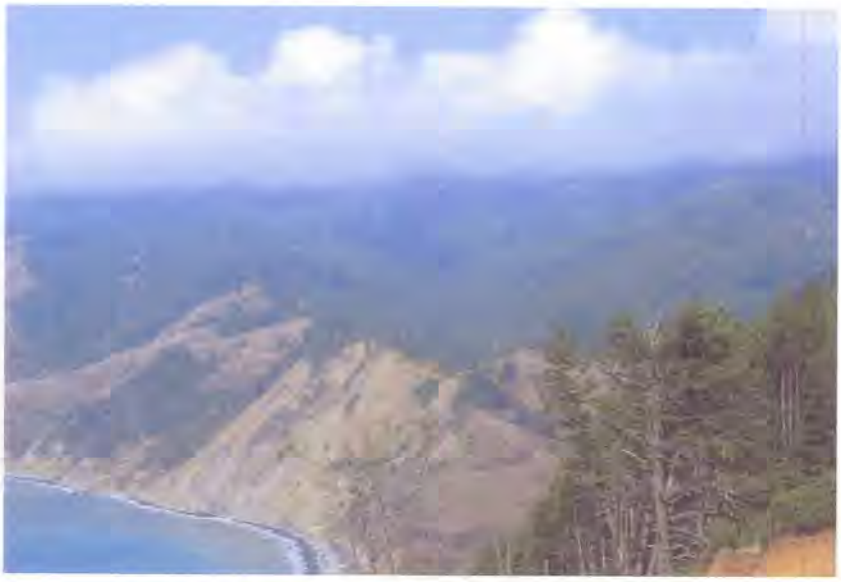


INTRODUCTION

Under contract with the InterTribal Sinkyone Wilderness Council (Council), the Natural Resources Services (NRS) division of Redwood Community Action Agency (RCAA) has completed the InterTribal Sinkyone Wilderness Limited Public Access Plan (the Plan). The Council is a nonprofit consortium comprised of twelve federally-recognized Northern California Indian tribes, including the member tribes Cahto, Coyote Valley, Hopland, Pinoleville, Potter Valley, Redwood Valley, Robinson, Round Valley Tribes, Scotts Valley, and Sherwood Valley. Supporting tribes include Hoopa Valley and Trinidad. Funding for production of the Plan is provided by the California State Coastal Conservancy, Lannan Foundation, and **blue**, the Adventure Lifestyle Magazine.

The Plan is in concept form and incorporates three trail and facility planning field reviews and an addendum field review of the trail area known as the North Trail. Field reviews and Plan development occurred between May 20th 2002 and March 1st 2004.

The Plan provides trail, parking, and camping area concepts and details for three public access corridors, referred to in the Plan as the South, Middle, and North Trail areas. Included in the Plan is information pertaining to the development of facility features including parking areas, campsites, toilets, signage, facility locations, and access barriers.



South Trail drainage, center-top of photo. Photo by RCAA-NRS

The plan discusses impacts on trail routes caused by watershed disturbances (logging roads and landings) and describes soils, terrain, slope steepness, trail beginning/end points, trail length, trail difficulty, and elevation changes. Although descriptions of planning areas in the Plan appear repetitive, important details vary from planning area to the area, and from one plan feature to the next. In addition to planning concepts and details, the Plan also presents recommended procedures for implementation and related cost estimates.

All final Plan components will need to comply with the California Environmental Quality Act (CEQA) and other applicable environmental regulations prior to and during implementing the project construction phase.

Implementation of the Plan will require a flexible approach regarding placement of some project elements, how those elements are to be implemented, and what they will look like in the end. This approach is called the "as built" process, a process commonly employed by public trust land managers in rural facility development. The as built process provides for modification of planned elements and features just prior to, and during, the implementation phase of a project to insure the best possible outcome.

The importance of securing experienced project coordination and supervision cannot be over-emphasized. The plan is developed to a sufficient level of detail for implementation by contractors, or similarly qualified entities, familiar with facility development of this kind.

OBJECTIVES

The objective of the Plan is to identify trail routes and make recommendations for the development of parking area and camping area facilities for use by Council members and the general public. The Council was intimately involved with the planning. The Council reviewed field review reports and draft plans and provided input to RCAA throughout the planning process. By allowing for Council review and input at each phase of the field review, the Plan has been developed to meet Council management objectives, including the provision of limited public access on three specified trail routes across the InterTribal Sinkyone Wilderness (ITSW) between Usal Road and Sinkyone Wilderness State Park.

COUNCIL PARAMETERS AND PREFERENCES

Research was guided by parameters and preferences specified within the Council-RCAA contract agreement, by Council responses to field review reports and draft concept plans, and by other Council directives. Listed below are both general and facility-specific parameters and preferences as guided by these documents and related correspondence.

GENERAL

- All plan features shall be subject to final determination and approval by the Council.
- Any and all trails and related facilities may be temporarily closed to the public at times to be determined by the Council.
- Publicly accessible trailheads and associated parking and camping areas shall be adjacent to each other.
- Areas on Council property identified by the California Natural Diversity Database (CNDDB), and other sources recognized by the Council, as having occurrences of Rare and Endangered Plants and Animals, shall be avoided and left undisturbed.

- Cultural resources (identified by the Council) on Council property shall be avoided and left undisturbed.
- Selective transplanting of native vegetation located in construction zones shall occur prior to construction wherever practical.

TRAILS

- All trails shall be the shortest practical distance between Usal Road and Sinkyone Wilderness State Park.
- All trails shall be equestrian accessible for the Council with only the Middle Trail equestrian accessible to the public on a limited basis.
- All trails shall be located within approximate alignments approved by the Council.
- Trail planning shall be conducted in advance of watershed and/or road decommissioning analysis.
- Trail placement within existing road corridors shall have preference over new trail construction.
- Trail placement on segments of road that have experienced erosion, or may be subject to future erosion, is acceptable if those segments are addressed through future treatment and/or road-to-trail conversion.
- Modifications to trail alignments shall be made by the Council where necessary to avoid cultural resources; rare, threatened, and endangered plant and animal species; unstable soils; and to make use of opportunities to better facilitate drainage and improve routing after initial clearance of brush and debris.
- Trees over 10" dbh (diameter at breast height) shall be preserved according to the terms and conditions of the Council's property conservation easements.
- Spring sites in approved locations shall be identified for development.

PARKING AREAS

- Tree removal shall be minimized according to the terms and conditions of the Councils property conservation easements.
- Parking areas shall be no larger than ¼ acre (approximately 11,000 sq. ft.).

CAMPING AREAS

- Campsites shall number no more than five at the South Trail trailhead and three at the Middle Trail trailhead. No campsites shall be located in the North Trail area.
- Five picnic tables shall be located at the South Trail camping area and three picnic tables shall be located at the Middle Trail camping area.
- No accommodation for camp fires shall be made.
- One toilet facility shall be provided at each of the South and Middle trail parking/camping areas.
- Potential spring sites are to remain undeveloped.

METHODOLOGY

The Plan employs planning methods commonly associated with rural parking, camping, and wildland trail developments. The development process utilized maps, air photos, and rare and endangered plant and animal databases. The methodology involved ongoing discussion with the Council regarding trails, parking, camping, cultural resource issues, and preferences for associated facilities, features, and types of usage. As part of this process, the Council provided data relating to trails and facilities and helped assess project feasibility. The Council conducted the cultural resource assessment for the Plan.

TOPOGRAPHY, SOILS, AND VEGETATION DESCRIPTIONS

LOCATION AND TOPOGRAPHY

The ITSW is located approximately 10 air miles north of Fort Bragg, and 12 air miles west of Garberville. The ITSW is a 3,845-acre holding in a landscape configuration approximately seven miles long and one mile wide, with a significant narrowing in the middle (see Figure 1). The ITSW property is bounded on the north, west, and south by the 7,250-acre (approximate) Sinkyone Wilderness State Park (SWSP) and on the east by Hawthorne Timber Company's approximately 55,000+ acre "Usal Unit". The ITSW eastern boundary (approximately 12 road miles) is defined entirely by Mendocino County Road #431 (Usal Road). The Hotel Gulch Trail defines the boundary between Council land and the SWSP for approximately 1/3rd of the southern portion of the ITSW. Access to the ITSW is via Usal Road off State Highway 1, from Leggett (to the east) or Fort Bragg (to the south). From the north, the access is by Usal Road, via the Four Corners area off the Redway to Briceland road (Garberville to Redway to Whitethorn to Four Corners). The Usal Road is an unimproved dirt road. The distance from the junction of the Usal Road and Highway 1 to the trailhead area of the South Trail is approximately nine miles.

SWSP and upslope ITSW. Photo courtesy of Traci "Bear" Thiele

The ITSW property is situated on the west facing slope of the first ridge system from the Pacific Ocean. Several small coastal streams, both year-round and seasonal, begin in the ITSW and flow across SWSP before reaching the ocean. The topography is moderately steep to very steep with slopes ranging from 20% to 80%. Elevations range from 350' to 1900'. Rainfall averages 53" per year with extremes of up to 125" per year. Landslides and soil disturbances occur throughout the ITSW with past timber harvesting activities being the primary cause (sources: EDR and Council).

SOILS

Soils are primarily Alfisols derived from sandstone and shale of the Franciscan assemblage. The DeHaven-Hotel soils series covers much of the northern half of the Sinkyone Wilderness as well as being located in other areas of the property. Ornbaun-Zeni and Yellowhound-Kibesillah soil series are distributed throughout the property. The soils are predominantly gravelly loams and loams. Runoff is moderate to high, and the erosion hazard is generally high under bare soil conditions. (United States Department of Agriculture, Natural Resources Conservation Service, 1994).

VEGETATION TYPES

Vegetation of the ITSW is dominated by mixed evergreen forest and brush. Forest cover is primarily hardwoods and conifers. Hardwoods consist primarily of tanoak, madrone, wax myrtle, red alder, big leaf maple, and giant chinquapin. Conifers are dominated by redwood and Douglas fir, with Douglas fir dominant on drier sites. Brush and shrubs include blue blossom ceanothus, coyote bush, manzanita, California huckleberry, thimbleberry, and salmonberry. Sword fern is the most abundant herbaceous species. Also included in the understory are redwood sorrel, hedge nettle, and bracken fern. (Forsburg, 1986; Harper and Baldwin, 1993; Pacific Forest Trust staff, 1995; ITSWC, 2004). Exotic plants include, but are not limited to, French broom and pampas grass.

Access Plan Overview

For familiarization with the planning process, some project overview information is provided. The overview summarizes the planned characteristics of each trail, parking, and camping area.

Trails: South, Middle, and North

All three trails are located on terrain affected by industrial timber management practices (last conducted in the early 1980's). All three trails shall be single-track trails (narrow). Following is a summary description of the trails (note that distances are on-the-ground walking distances):

- At just over 1.2 miles long, the South Trail is of moderate length (for the ITSW). The trail links Usal Road with Hotel Gulch Road to the west. The trail is low-to-moderate gradient and equestrian accessible for Council management only. The trail has good feasibility for connection to the Lost Coast Trail in the SWSP.
- At just under one-half mile long, the Middle Trail is relatively short. The trail links Usal Road to a location just east of the Hotel Gulch/ Wheeler Trail junction, providing a partially road-based access corridor to SWSP, Wheeler Camp, and the Lost Coast Trail. The trail is low gradient and equestrian accessible for the Council, and equestrian accessible for the public at the discretion of the Council.
- At just over 1 mile long, the North Trail is presently of moderate length. The trail connects Usal Road to the boundary between the ITSW and the SWSP. Ultimately, the trail will be longer, linking Usal Road to a point near Bear Harbor in Sinkyone Wilderness State Park. The trail is low-to-moderate gradient and equestrian accessible for Council management only. North Trail planning on SWSP will be completed by State Parks personnel in consultation with the Council.

Individual trail routes are described under each planning area in two ways. First, there is a "General Trail Routing Description and Existing Conditions" section indicating the nature of the terrain, roads, and water crossings encountered. Second, there is a "Trail Plan" section for purposes of trail routing and the provision of detailed construction-related information.

Parking: South, Middle, and North

All parking areas are located on a combination of old landings and haul roads. Parking areas are to be relatively basic facilities appropriate to providing access to a wilderness environment.

- The South and Middle Trail parking areas are small, being defined by existing surface area, vegetation, topographical constraints, and Council preferences. The South and Middle Parking areas could potentially benefit from limited expansion of the existing parking areas. This could be accomplished through the removal of additional brush and small trees, as deemed appropriate by the Council. The parking areas are to be surfaced with rock and gated. The parking areas include toilet facilities, garbage receptacles, signage, and access control barriers.
- The North Trail parking area is very small, being defined by topographical constraints and Council preferences. The parking area is to be surfaced with rock and gated at its western end. The parking area includes signage and access control barriers.

Camping: South, Middle, and North

The South and Middle camping areas are located on and/or along skid roads and old landings to be converted to parking areas. Camping areas are to be simple facilities with tent sites, picnic tables, and access paths.

- The South Trail provides five campsites. These sites are located adjacent to the parking area on the west side. All five sites have picnic tables.
- The Middle Trail provides three campsites. These sites are located adjacent to the parking area on the west, south, and east sides. All three sites have picnic tables.
- No camping is provided nor allowed at the North Trail.

SOUTH TRAIL FINDINGS: TRAIL, PARKING, CAMPING

The trailhead and associated parking and camping areas are to be located south of and adjacent to Usal Road (Mile Marker 9) in the northeast quarter of the northeast quarter of Section 16, T23N, R18W. The trail route heads in a west-southwesterly direction from these coordinates, ending at Hotel Gulch Trail in the northeast quarter of the northwest quarter of Section 16, T23N, R18W.

TRAIL

Trail routing occurs on a combination of roaded and unroaded terrain. Beginning at the parking area, located approximately at mile marker 9 on Usal Road, the trail exits the south-east portion of the parking area and proceeds through dense forest with patches of thick understory brush in a southeasterly direction for approximately 350 feet and then turns west. The terrain in the upper trail is of moderate to steep cross slopes (15%-70%). Trail routing occurs on a combination of unroaded ground and skid road segments. Approximately 1,100' from the parking area, the trail heads south for approximately 1,700' and enters a landing near a convergence of upslope and downslope skid roads. In the process of researching potential trail routes, old skid roads were researched. Several Class III stream crossings were discovered on these old skid roads. Some of these Class III crossings have failed or are prone to failure.

South Trail end-point, Hotel Gulch Road, photo by RCAA-NRS

Beginning at the landing at approximately 2,800' from the parking area, the trail enters the road-based segment, undulating and meandering down and across the hillside in a generally south-southwesterly heading. The road varies between 10' and 20' in width, descends at an average gradient of 10% in an undulating fashion, and drains through a combination of waterbars, insloping to draws, and outsloping.

The terrain through which the road travels is heavily forested and of moderate to steep cross slopes (30%-80%). Multiple skid roads intersect the road at ridgeline, draw, and Class III stream crossing points.

The road-based segment is in generally stable condition and moderately to heavily vegetated with brush, hardwoods, and conifers. Road failure (a slump of approximately 300 cu. yds.) has occurred in one location approximately 200 feet north-northeast of the Hotel Gulch Trail. A number of other locations along the road-based segment of trail show evidence of some potential for fillslope and Class III stream-crossing failure. The likelihood for large failures, however, appears to be low.

Fill slope separation, indicated by tension cracks, occurs in a number of places along the road. Separation is occurring due to factors including overly-steep fillslopes, maturation of trees located near the top (thus weighting) the fillslope, upslope runoff, and lack of road maintenance. Waterbars are placed with only moderate frequency and effectiveness. Cutbank sloughing, and associated forest debris buildup, has narrowed portions of the road to under 10' in width. The South Trail terminates at the Hotel Gulch Trail, approximately ½ mile east of Timber Point.

PARKING

The approximate surface area of the parking area is 5,000 sq. ft. The area is pear-shaped, stable, generally level, and drains to the south at a 1% to 3% gradient through its centerline. Ponding occurs on the west end during and after rainfall. Perimeter vegetation is dominated by second and/or third growth redwood, Douglas fir, madrone, tan oak, white thorn, deer brush, blue blossom, manzanita, and exotic pampas grass. Notable skid roads head off the landing in four locations: the east, the southeast, the west, and the northwest.

South Trail Parking Area; photo by RCAA-NRS

CAMPING

Camping is presently unavailable. Campsites could be developed to the west of the parking area. There is no potable water on site.

BIOLOGICAL DATA

A review of the California Natural Diversity Database (CNDDB) has revealed no occurrences of rare or endangered species at the South Trail parking, camping, and trail locations.

SOUTH TRAIL PLAN

TRAIL DATA SUMMARY

(All data is approximate)

Trail start point:	South Trail Parking area, Usal Road mile marker 9
Elevation – start point:	1,480'
Trail end point:	Hotel Gulch Trail
Elevation – end point:	1,240'
Elevation difference:	240'
Direction of travel:	South-southwest
Trail difficulty level:	Moderate
Total trail length:	6,425' (1.22 miles / 1.96 km)
Road-based trail segments:	3,625' (0.69 miles / 1.11 km)
Skid road/new trail segments:	2,800' (0.53 miles / .85 km)

Trail Plan

See Figure 1

The trail is planned as a low- to moderate-use hiking trail with minimal equestrian use for Council trail maintenance and management purposes only.

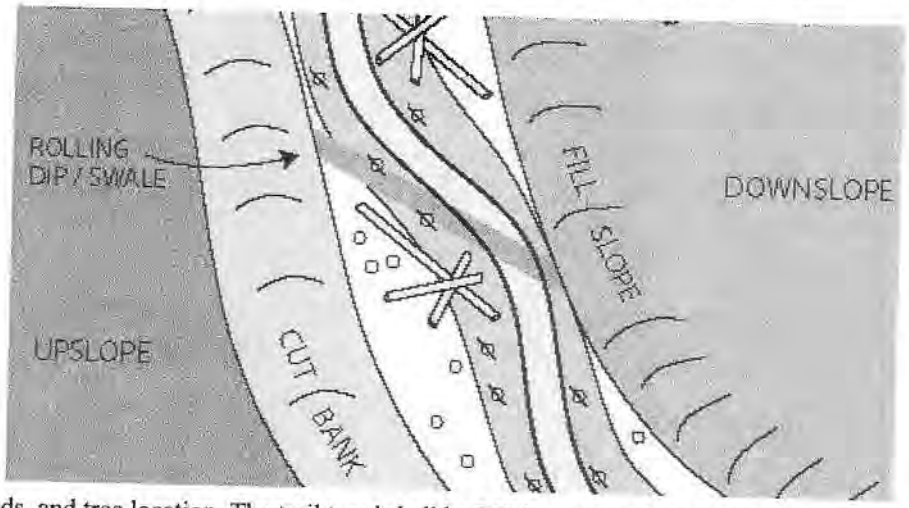
The trail is low- to moderate-gradient (5%-15%) with a number of 15% to 35% "pitch grades" (short sections of steeper terrain). The pitch grades are dictated by existing road features, i.e., where it is impractical to climb tall cutbanks and/or reroute the trail. Steeper routing is dictated by a number of factors, including: the desire to limit switchbacks, the steep road and skid-road trail gradients on which portions of the trail are based, the trail's low- to moderate-use potential, the trails designation as a hiking trail with limited equestrian use, and the Council's preference for the shortest practical trail across the ITSW.

Drainage and optimizing the use of old haul and skid roads were the primary consideration in trail placement. Some haul road and skid road segments are relatively flat and/or have little or no cross-trail gradients. As a result, muddy trail conditions may arise during wet weather or heavy use in damp

conditions. Equestrian use may further exacerbate muddy conditions. The construction of drainage features will facilitate drainage and allow the trail to dry out, which should reduce the duration of muddy trail conditions. A treatment alternative is to harden the tread by applying a layer of crushed rock or gravel. However, the projected equestrian use levels for this trail, mostly for intermittent maintenance, suggest that surface hardening is unnecessary at this time. To maintain the integrity of the trail tread, equestrian use shall be limited and monitored to determine the need for surface hardening and/or increased use-restrictions.

The trail routing process eliminated many hillslope drainage issues through the incorporation of undulations and outsloping of the trail tread. The identification of new drainage features, including swales, waterbars, and rolling dips, best occurs immediately prior to, and during, construction. The clearance of vegetation will expose the need for improvements to, or relocation of, existing drainage features and the need for more drainage features such as waterbars. The routing description of this trail is broken into components: "Road-based Trail" and "New Trail Construction." For the South Trail in particular, trail segments located on skid roads (as opposed to haul roads) are treated as New Construction because the skid roads along the trail bare greater similarity to un-roaded ground due to a long build up of forest debris.

Road-Based Trail:

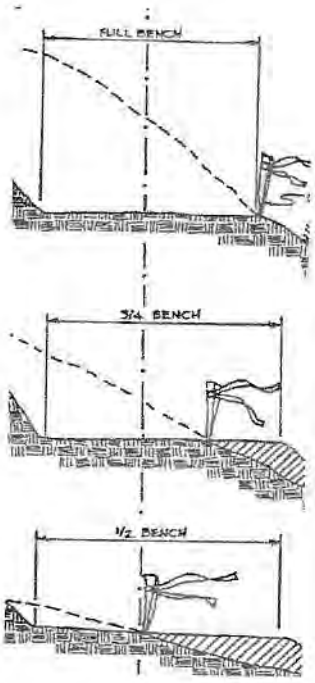


The trail shall be located within the existing road corridor. Trail placement within the corridor- left, right, or centerline- varies according to road condition, drainage needs, and tree location. The trail tread shall be 36" in usable width, meander mildly over the road surface, and occur within an overall construction corridor up to 12' in width. *See Typical #1 and the smaller-scale drawing, above.* The road corridor is up to 20' wide in places, hence the reference to a 12'-maximum "construction corridor." Except for drainage purposes, the road surface and vegetation outside the 12' wide trail will stay undisturbed, wherever possible. Construction includes brush removal, tree removal (under 10" dbh), and trail "bench-cutting" across steeper cross-slopes where needed. Selective transplanting of native vegetation by the Council shall occur wherever practical. The tread surface shall be existing soils.

Trail construction shall be conducted by a combination of small equipment and hand labor. Hand labor shall clear brush and, as needed, trees under 10" dbh to make room for both the trail and the addition of drainage features. Brushing debris unneeded for defining the trail shall be transported by hand and spread

in the adjacent forest. Selective transplanting of native vegetation by the Council shall occur wherever practical. A small bulldozer (or Swecko) with a six-way blade and hand labor shall enhance and/or construct the trail and drainage features. Drainage structures shall employ self-maintaining design concepts. This does not preclude the need for inspection and periodic maintenance. Upon completion of trail grading, a portion of brushing debris generated during clearance can be placed to narrow the finished trail corridor to the prescribed tread or brushing specification width. This brushing debris also serves as mulch to curb raindrop impact erosion, run-off erosion, and facilitates vegetative regeneration. Woody-debris shall be placed, as needed, adjacent to the trail corridor in a natural-looking fashion to steer pedestrian traffic along the trail corridor and serve as barriers to discourage access into the adjacent forest.

New Trail Construction



New trail construction occurs both on and off skid roads. The trail shall meander and mildly undulate across the hillslope, be 24" in usable tread width, and occur within an overall construction corridor up to 8' wide (dictated by equestrian clearance requirements). Partial- and full-bench cuts shall be employed to obtain the optimum level of trail stability. *See Typicals #2 & #3 and the smaller-scale drawing, at right.*

Hand labor is the prescribed method of construction. The trail corridor shall be brushed and cleared of vegetation and forest litter. Woody-debris shall be removed from the immediate trail tread location and adjacent downslope area. The use of a Grip Hoist (brand name of a heavy duty hand winch) and related equipment (cables, straps, hooks, etc.) can be of particular benefit in the removal of small trees from the trail corridor. Construction and excavation shall be accomplished with hand tools. The new trail shall be outsloped between 5% and 20% for drainage. Where outsloping is neither possible nor adequate due to existing terrain features, rolling dips shall be employed *(See Typical #20)*. Selective transplanting of native vegetation shall occur wherever practical.

The South Trail connects to the existing Hotel Gulch Trail (identified on the USGS map as "Hotel Gulch Road"). The South Trail can be connected with the Lost Coast Trail via a .1 mile (or less) section of new trail off Hotel Gulch Trail. If undertaken, this potential new trail section would be planned by State Parks, in consultation with the Council.

Signage

Planned signs are as follows:

- Up to ten (10) 3.85" wide x 5'6" tall, carsonite, Rockart (or similar brand) trail marking posts with 3" square trail I.D. decals and directional decals in areas where the trail route may not be obvious for some user groups, i.e., at road and skid road junctions, corners, breaks-in-slope. *See Typical #4.* The posts shall be installed 18" to 24" into the ground with a Marking Post Driver (available from the supplier). The exact location of the marker posts shall be determined by the Council upon completion of the trail.
- One 12" tall x 36" wide trail/road junction sign made of painted 1/8" thick aluminum. The sign is attached with two 3/8" diameter x 5" long bolts to a single 4" x 4" x 6'-7' long steel post set 30" in the ground with tamped rock/soil backfill. *See Typical #5.* (Optional: for improved stability, the 4" x 4" post can have two re-bar pins, ½" diameter x 8"+ long, placed in pre-drilled holes located near the posts bottom end.) The sign shall be placed near the Hotel Gulch Trail and South Trail junction at a location of the Council's choosing. Recommended postings are laminated 8.5" x 11" ITSW Map #1, 8.5" x 11" regulation page, an arrow icon pointing out trail direction, and information that identifies the distance to important trail and/or road junctions, such as the Lost Coast Trail, etc.
- At any additional locations identified by the Council, install signage (one or more of the above bulleted sign types) stating pertinent information (mileage, regulations, etc.) regarding related trail and/or road junctions, such as the Lost Coast Trail, and the Council's property use restrictions, etc. Actual signage type and size shall be determined by the Council based on the number of sign postings desired.
- All signage shall incorporate the Council's logo.
- See "Signage" under "Parking Area Plan", below, regarding informational kiosk placement at the trailhead. Trail use information shall include posting of a "Pack it in, Pack it out" garbage policy.

Parking Area Plan

See Schematic "A": South Trail Parking and Camping

The parking area shall use the existing dimensions rather than expanding the parking area by removing brush and small diameter trees, as per the Council's preference.

Parking Area features addressed here include an entry gate, surfacing and drainage, parking barriers, garbage receptacles, signage, toilet facilities, and the location, specifications, materials, and construction methodology associated with each. Note that some barrier features, signage, and garbage plan elements are

cross-referenced under the "Camping Area Plan" and that the schematic does not include exact locations of trees under 10" dbh and/or brush species.

Following are features associated with the parking area:

Gate

Usable Usal Road width is presently 19' at the parking area access point. The planned location of the gate is set back an additional 4' from Usal Road, bringing usable road width up to 23' for improved turning capability. The gradient of Usal Road varies between 0% and 5% for up to 100' either side of the gate, with no drainage run-off entering future Council facilities.

Gate type: steel, heavy duty, 14' long x 3" diameter box tubing with a locking sleeve device. *See Typical #6 and photo at right.* The two gate posts are steel 6" x 6" square box tubing set in 2' diameter by approximately 3' deep concrete footings. *See Typical #7.* The gate shall be painted upon installation as pre-painted gates lose paint during loading, transport, unloading, and installation. The gate itself shall have a 2' length of 5/8" chain, or similar, welded to a spot that matches the location of the gate post.

The gate shall swing inward, locking to a 5" diameter x 6' long steel gate post (capped), with an eyebolt, set into a 2' diameter by approximately 2' deep concrete footing. *See Typical #8.* (Note: Typical #8 is a bollard. See "Parking Barriers", below, for specifications. A gate post uses the same specifications as the bollard except concrete is used instead of earth & rock fill). The gate locks to the eyebolt on the post via the 2' section of 5/8" chain and a padlock.

Surfacing and Drainage

A rocked surface is needed to improve the surface stability of the parking area in wet weather conditions.

Prescription:

- Limb and/or clear relevant vegetation by hand (with selective transplanting of vegetation by the Council wherever practical).

- The parking area surface shall be cleared of refuse and organic debris with a backhoe and by hand, and graded by a grader or box scraper (backhoe attachment) to facilitate drainage (see drainage specifications, next bulleted item, and the attached "Schematic A").
- Areas requiring fill material shall be watered and compacted with a roller prior to rocking.
- Drainage shall be directed to the centerline of the parking area, draining off the landing in a southerly direction via a beveled swale through the trees. This 6"-12" deep x 3'-4' wide swale shall be up to 20' in length and end in a rocked energy dissipation structure (apron of 6" rock, 5' wide and up to 5' in length), located just past the landing's break-in-slope. *See Typical #9.* Depending on winter drainage volume and velocity, a waterbar or swale may be needed to convey water across the trail (crossing the slope below the parking area). All drainage features shall be constructed during the initial grading phase of the parking area and be completed with parking area surfacing and compacting.
- Surfacing shall consist of up to 6" of crushed and compacted ¾" rock (road-base or similar). Volume of rock ~ 93 cubic yards (.5' in depth x 5,000 sq. ft. in surface dimensions). Rock shall be shaped by a grader or box scraper, watered, and compacted by roller.

Parking Barriers

There are two types of barriers - those preventing access and those protecting facility features.

Recommended barriers:

- Two-ton barrier boulders shall be placed on either side of the gate. Boulders will be placed with a maximum 12" spacing between them for up to 25' to the east and 75' to the west of the gate. The number of boulders total approximately 30 (exact number of boulders shall be determined just prior to and/or during construction based on boulder size and quality, and upon clearance of vegetation and debris).
- Two-ton boulder barrier(s) to limit trail access shall be placed at two locations: 1) at the trailhead, and 2) to limit access to Campsites #2 (also refer to Camping Area Plan, next section).
- Approximately ten (10) 2-ton boulder barriers to limit trail access to campsites #3 and #4.
- Steel barrier posts (bollards) shall be installed to protect the vault toilet and garbage receptacle: three 5" diameter x 6' long steel posts, with caps, approximately 6' apart, painted, set in 2' diameter x 2' deep highly compacted fill footings. *See Typical #8.* The locations of these posts on Parking Area plans are approximate; actual post location shall be determined after the installation of the CXT Toilet.

Garbage Receptacles

One 32-gallon 'Hid-A-Bag' garbage can shall be located adjacent to the vault toilet. The garbage receptacle shall be bolted to a concrete mounting pad constructed on site. *See Typical* #12. Garbage receptacles are also described under the Camping Area Plan.

Signage

Recommended signs are as follows:

- Kiosk: Pre-fabricated redwood kiosk with a 36" x 40" display area at the trailhead. Recommended postings include: ITSW information and contacts; a basic 8.5" x 11" plan view (existing schematic minus most of the text) of the South Trail parking/camping area; final Council-developed and -approved trail, parking, and camping regulations; an 11" x 17" ITSW Map; a greater area map including Sinkyone State Park and adjacent roads (to be developed and provided by the Council); an arrow icon indicating trail direction; and Council/Sheriff/CDF/State Parks/County Roads Dept. contact information. *See Typical #11 and photo, at right.*

- ITSW-facility identification sign: Metal sign located near the gate, facing Usal Road. Sign shall indicate ITSWC property and other immediately relevant information (as determined by the Council) that fits the sign's approximate 18" wide x 12" tall dimensions. Sign shall be posted on approximate 7' long x 2.37" wide steel post with two (2) U-bolt brackets assemblies. Post shall be set into approximate 12" wide x 30" deep concrete footing. *See Typical #19*
- Although technically not signage, strips of reflector tape serve as structure safety and awareness features and shall be located on the gate, signs, and barriers subject to damage by motor vehicles.

Toilet Facilities

The Plan includes one 1,000-gallon capacity CXT Gunnison model ADA-accessible vault toilet, 8'6" wide by 14'7.5" long. *See Typical #13 and photo, at right.* The toilet requires the excavation of a pit for the 4'deep x 6'7" long x 6'6" wide sub-surface vault. The toilet shall include a Marine Package (providing increased protection from coastal influences), a privacy latch, and toilet paper dispenser and shall accommodate disabled

persons. The specific location of the toilet on the Parking Area plan is approximate; the actual location will dictate the location of barrier posts and garbage receptacles. Note that the toilet requires periodic maintenance and waste removal (by contracted pumper truck).

Camping Area Plan

See Schematic "A": South Trail Parking and Camping

Camping Area features addressed here include actual campsites, campsite pathways, access barriers, garbage facilities, signage picnic tables, and the location, specifications, materials, and construction methodology associated with each. Note that some barrier features, signage, and garbage plan elements are also cross-referenced under the "Parking Area Plan" and that *Schematic A* does not include the exact locations of trees under 10" dbh and/or brush species.

Campsites

Five individual campsites up to 200 sq. ft. each in size are planned. All campsites are within 75' of the parking area perimeter. A skid-road departure point, located in the southwest corner of the parking area, blocked with rock barriers, and noted as "skid road," is used as a reference in describing the location of the following campsites:

South Trail area, campsite #1 (before clearing), photo by RCAA-NRS

- Campsite #1: (pictured at right) located approximately 20 feet southwest of the parking area.
- Campsite #2: located approximately 50 feet west-southwest of parking area on an old the skid - road.
- Campsite #3: Located on a knoll approximately 110 feet (trail distance) southwest of the parking area.
- Campsite #4: Located at another, smaller, skid road location approximately 30 feet west-northwest of the parking area.
- Campsite #5: Located approximately 60 feet west-northwest of the parking area on an old skid road.

Campsites shall be limbed and cleared by hand of brush, forest debris, and composted soil (where relevant) with selective transplanting of native vegetation by the Council occurring wherever practical. At approximately the center-point, tent areas shall be 6"+ raised, crushed shale pads, mildly crowned for drainage. *See Typical #14.* Pads shall be watered and compacted by a Vibraplate (portable gas-powered compactor) or similar device. Note that additional clearance of brush and/or small trees is likely required for campsite maneuverability and placement of picnic tables.

Campsite Pathways

Pathway corridors shall be 5' wide and cleared of brush and forest debris. Raised pathways will be built as per a drainage "needs assessment" conducted during construction and after brush/debris removal. If determined to be of benefit, raised pathways will be 24" in width and will consist of compacted 4"+ thick crushed-shale tread, mildly crowned for drainage. *See Typical #14.* (Raised pathways are included in the Cost Estimates). Brushing and/or adjacent forest debris shall be used to narrow pathway corridors, where needed, i.e., where pathways are located on wider skid roads.

Barriers

Protection barriers prevent vehicle access to campsite areas, some of which are located on skid roads.

- A single 2-ton boulder barrier shall be placed at the access point to campsite #4.
- Approximately ten (10) 2-ton boulder barriers shall be placed to the north and south of the campsite #5 access point. Actual layout of the barriers needs to be determined after the clearance of brush and pampas grass.

Garbage Receptacles

As previously mentioned, the garbage receptacle for campers is the same receptacle as that described under the Parking Area Plan: One 32-gallon 'Hid-A-Bag' garbage can will be located adjacent to the vault toilet. *See Typical #12 and photo at right.*

Signage

Recommended are flexible, 3.85"wide x 5'6" tall, carsonite, Rockart (or similar brand) marking posts. These marking posts shall be located adjacent to each campsite (or at campsite pathway entry points). Marking posts shall have the following decal stickers (as per individual campsite needs). *See Typical #4*

- Campsite numbers 1, 2, 3, 4, and 5.
- "No Fires" decal (pictured, at right).
- Directional arrow (as needed based on Council-determination of final signpost location).

Picnic Tables

Each of the five designated campsites will contain a 6-foot long Redwood picnic table (with 3" planks and associated hardware). *See Typical #15 and photo, at right*. Where drainage appears inadequate, tables shall be raised on extended campsite pads or separate pads. This is to be determined during construction. Tables (pictured at right) shall be anchored to buried 4-cubic foot concrete blocks with 3' to 8' of 3/8" to 1/2" diameter chain (or similar): one chain-end padlocked to the table, the other chain-end secured to a 10"-12" eye bolt. Concrete shall be mixed by hand and poured on site. As mentioned under "campsites", previous page, additional clearance of brush and/or small trees is recommended for camper maneuverability and placement of picnic tables.

Exhibit 2: Access Plan

SOUTH TRAIL PARKING & CAMPING

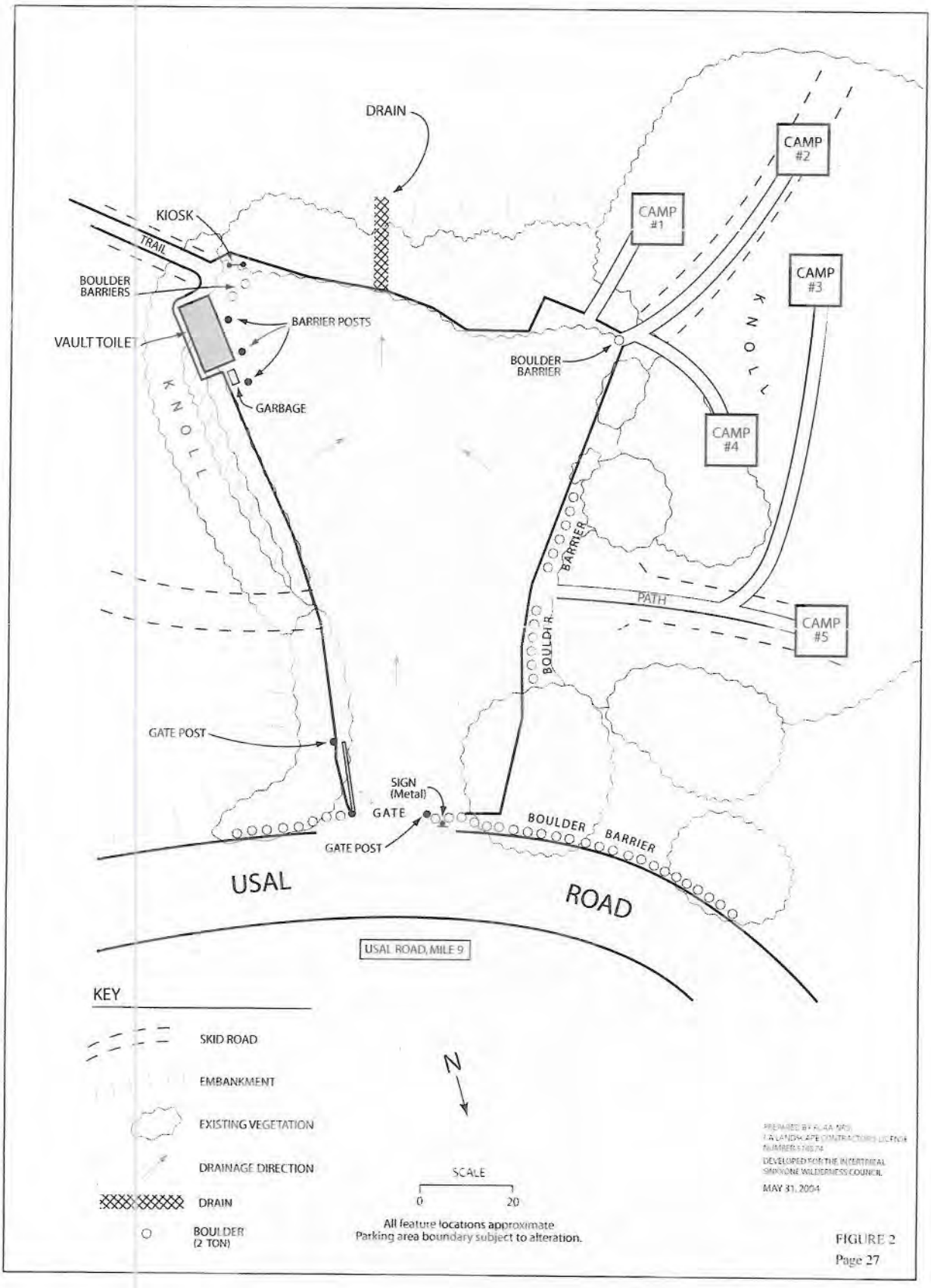


FIGURE 2

MIDDLE TRAIL FINDINGS: TRAIL, PARKING, CAMPING

The trailhead and associated parking and camping areas shall be located south of, and adjacent to, Usal Road (Mile Marker 11, entrance pictured at left) in the southwest quarter of the northeast quarter of Section 8, T23N, R18W. The trail heads in an overall west-southwesterly direction from these coordinates and ends near the Wheeler Trail/Hotel Gulch Trail junction in the northwest quarter of the northeast quarter of Section 8, T23N, R18W.

Usal Road at Middle Trail access point, photo by RCAA-NRS

TRAIL

Trail routing occurs on a combination of roaded and

unroaded terrain off the parking area

The road-based trail segment departs from the south-southwest corner of the parking area (center-left of photo, at right). Road-based portions of the trail are in stable condition and moderately- to heavily-vegetated with brush, conifers, and hardwoods. The road varies between 10'-20' in width and travels at very low to low gradients (0% to 15%) between Usal Road and Wheeler Road (identified hereafter in the Plan as the "Wheeler Trail"). The road has only a few obvious drainage

Trailhead location, center-left of Parking Area, photo by RCAA-NRS

features (waterbars). One Class II stream (very low gradient and spring fed) is crossed approximately 375' from the parking area. The terrain through which the road-based trail travels is of low to moderate cross-

slopes (10%-60%). The westernmost 1,000' of trail includes sections that are mildly through-cut and/or flat and poorly draining.

PARKING

The approximate surface area of the parking area (pictured previous page) is 3,600 sq. ft. The area is roughly rectangular in shape, stable, and drains to the southwest corner at a 2% to 10% gradient (see photo, previous page). A poorly constructed and poorly maintained swale on Usal Road contributes moderate amounts of water to the parking area. Perimeter vegetation is dominated by Douglas fir, manzanita, madrone, redwood, tan oak, ceanothus, and wax myrtle. A notable skid road heads off the landing in a south-southeasterly direction.

CAMPING

Camping is presently unavailable. With development, limited campsite opportunities exist to the west, south, and east side of the parking area. There is no potable water on site.

BIOLOGICAL DATA

A review of the California Natural Diversity Database (CNDDB) has revealed no occurrences of rare or endangered plants or animals at the Middle Trail parking, camping, and trail locations.

MIDDLE TRAIL PLAN

TRAIL DATA SUMMARY

(All data approximate)

Trail start point:	Middle Trail Parking area, Usal Road mile marker 11
Elevation – start point:	1,360'
Trail end point:	Hotel Gulch Trail / Wheeler Trail Junction
Elevation – end point:	1,240'
Elevation difference:	120'
Direction of travel:	West-southwest
Trail difficulty level:	Easy difficulty
Total trail length:	2,400' (0.45 miles / 0.73 km)
Road-based trail segment length:	2,100' (0.40 miles / 0.64 km)
Skid road/new trail segments length:	300' (0.06 miles / 0.09 km)

Trail Plan

See Figure 1

The trail is planned as a low- to moderate-use hiking trail. The trail is planned for some equestrian use for Council trail maintenance and management purposes. At the Council's discretion, the trail will have limited equestrian access for the public

The trail is low-gradient (0%-10%) with two short pitch grades up to 25% dictated by existing road features. Similar to the South Trail, the identification of site-specific drainage features is to occur during construction by the builder. (See South Trail "Trail Plan".)

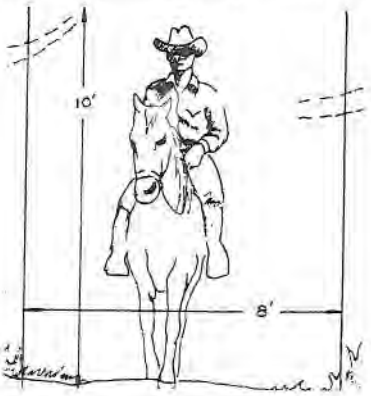
Note: The current trailhead location of the Middle Trail, at the junction of Usal Road and the Wheeler Trail, is approximately 1/4 mile south of the new, planned, Middle Trail trailhead. The Wheeler Trail is distinguished by a locked red gate. Approximately the first ½ mile of the trail is within the boundary of the ITSW. The Wheeler Trail continues into State Park property and down to the Wheeler (Wolf Creek) campsites located along the Lost Coast Trail. Upon re-locating the trailhead and the first part of the trail corridor of the Middle Trail to its new location further north along Usal Road, the Council will close to the

public the first segment of the existing Wheeler Trail that is located within ITSW property (as per Council communication).

Road-Based Trail:

Trail placement shall be located within existing road corridors. Trail placement -left, right, or centerline- varies according to the road condition, drainage needs, and tree location.

The trail tread shall be 36" in usable width, meander mildly over the road surface, and occur within an overall construction corridor up to 12' in width. *See Typical #1.* Construction includes brush removal, tree removal (under 10" dbh), and bench cutting across steeper cross-slopes where needed. Tread surfacing will be of existing soils. It is recommended that the trail be monitored and surface hardening occur with placement of crushed and compacted shale, or similar, if usage impacts exceed the capacity for portions of the trail to drain or maintain reasonable shape/ walkability in wet conditions. Due to its short length and road access from both beginning and end points, the Middle Trail will remain a relatively easy candidate to surface harden at a later date.



Trail construction shall be conducted by a combination of small equipment and hand labor. Hand labor shall clear brush and trees under 10" dbh to make room for both the trail and the addition of drainage features. A portion of brushing debris will be transported by hand and spread in the adjacent forest. Selective transplanting of native vegetation by the Council shall occur wherever practical. A small bulldozer (or Swecko) with a six-way blade and hand labor will enhance drainage features and/or construct road drainage structures. Drainage structures, i.e., swales, rolling dips, waterbars, outsloping, shall employ self-maintaining design concepts. This does not preclude the need for inspection and periodic maintenance. Upon completion of trail grading, a portion of brushing debris generated during clearance can be placed to narrow the finished trail corridor to the prescribed tread or brushing specification width. This brushing debris also serves as mulch to curb raindrop impact erosion, run-off erosion, and facilitates vegetative regeneration. Woody-debris shall be placed, as needed, adjacent to the trail corridor in a natural-looking fashion to steer traffic along the trail corridor and serve as barriers to discourage access into the adjacent forest.

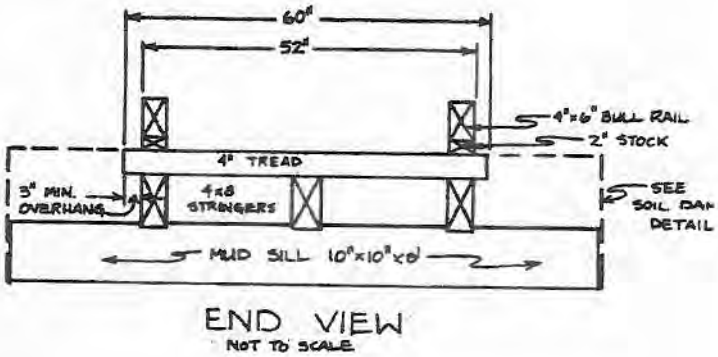
New Trail Construction

New trail construction will occur off haul roads and skid roads. Dictated by equestrian clearance standards (pictured, at right), the trail will be 24" in useable tread width and occur within an overall construction corridor up to 8' wide. Partial- and full-bench cuts will be employed to obtain the optimum level of trail stability. Similar to road-based construction, trail tread can be surface hardened in the future as-needed. *See Typicals #2 & #3*

Hand labor is the prescribed method of construction. The trail corridor shall be brushed and cleared of vegetation and forest litter and woody-debris removed from the immediate trail tread location and adjacent downslope area. Note that the use of a grip hoist and related equipment (cables, straps, hooks, etc.) can be of particular benefit in the removal of small trees from the trail corridor. Construction and excavation shall be accomplished with hand tools.

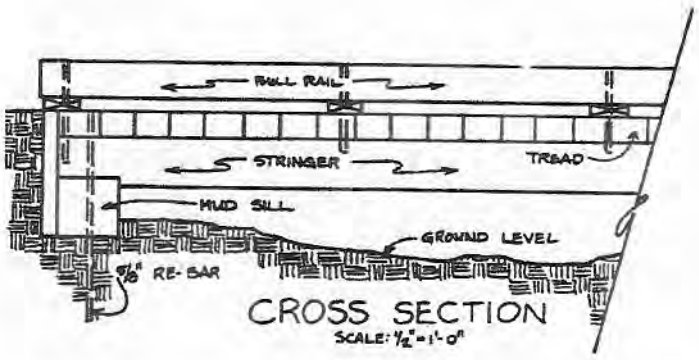
New trail shall be outsloped between 5% and 20% for drainage. Selective transplanting of native vegetation by the Council shall occur wherever practical.

The Middle Trail connects to the Wheeler Trail /Hotel Gulch Trail junction.



Water Crossing Structures

A puncheon structure is recommended for the impaired Class II crossing. Recommended is a 12' span with two 10" x 10" x 5' mud sills, three 4" x 8" stringers, 4" x 60" wood decking planks, and 4" x 6" bull rails (optional, raised 2" off the deck with intermittent spacers). The puncheon shall be built with redwood. Sills shall have 1/3rd of their depth set into the ground and be secured with 5/8" diameter x 5' long rebar pins. Stringers shall be secured to the sills with 5/8" wide x 18" long rebar pins (or similar). Decking shall be secured with #50-60 galvanized nails. Soil dam planks, a minimum of 3" thick, shall butt up to the sills, stringers, and decking on either end of the structure. Ramps shall be constructed of earth, compacted, and surfaced with crushed shale or gravel (as needed). *See Typical #16 and above drawing.*

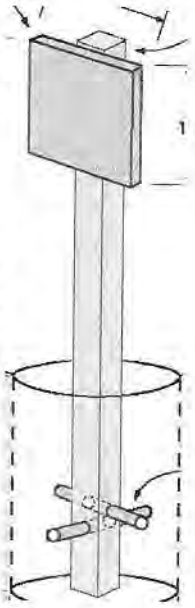


Signage:

Planned signs are as follows:

- Up to five 3.85" wide x 5'6" tall, carsonite, Rockart (or similar brand) trail marking posts with 3" square trail identification decals (stickers) and directional decals in areas where routing may not be obvious for some user groups, i.e., at road and skid road junctions, corners, breaks-in-slope. *See Typical #4.* The posts shall be installed 18" to 24" into the ground with a Marking Post Driver (available from the supplier). The exact location of the marker posts shall be determined by the Council upon completion of the trail.

- One 12" tall x 36" wide trail/road junction sign (1/8" thick aluminum, painted). The sign shall be attached with two 3/8" diameter x 5" long bolts to a single 4" x 4" x 6'-7' long steel post (set 30" in the ground with tamped rock/soil backfill). *See Typical #10 and scaled-down version, at right.* (Optional: for improved stability, the 4" x 4" post can have two re-bar pins, ½" diameter x 8"+ long, placed in pre-drilled holes located near the posts bottom end.) The sign shall be placed near the Hotel Gulch Trail and Wheeler Trail junction, at the Middle Trail end-point, facing east. Recommended postings are a laminated 8.5" x 11" ITSW Map #1, 8.5" x 11" regulation page (finalized by the Council), and an arrow icon pointing out trail direction.



- Three (3) 12" tall x 9" wide trail/ road junction signs (1/8" thick aluminum, painted, on a steel post). *See Typical #10.* The sign shall be attached with two 3/8" x 5" bolts to a single 4" x 4" x 6'-7'steel post (set 30" in the ground with tamped rock/soil backfill). (Optional: the 4" x 4" post can have two ½" diameter x 8"+ long re-bar pins placed in pre-drilled holes near the bottom of the post for improved stability.) Signs shall be placed at three separate (3) locations. The sign at the junction of the Middle Trail and Usal Road facing west on the Usal Side will read as per Council provided wording - *See Typical #18.* The other signs, at the junction of the Middle Trail and Usal Road, and near the junction of the Middle Trail and the Hotel Gulch Trail, will read as per Council provided wording *See Typical #17*

- At any additional locations identified by the Council, install signs (one or more of the above bulleted sign types) stating pertinent information (mileage, regulations, etc.) regarding related trail and/or road junctions, such as the Lost Coast Trail, and the Council's property use restrictions, etc. (actual sign type shall be at the Council's discretion based on the volume of sign postings desired).

- All signage shall incorporate the Council's logo.

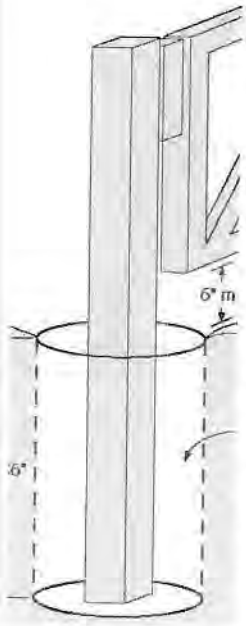
- See "Signage" under "Parking Area Plan", below, regarding informational kiosk placement at the trailhead. Trail use information shall include a "Pack it in, Pack it out" garbage policy.

Parking Area Plan

See Schematic "B": Middle Trail Parking and Camping.

The parking area shall use the existing dimensions rather than expanding the parking area by removing brush and small diameter trees, as per the Council's preference.

Parking Area features addressed here include an entry gate, surfacing and drainage, parking barriers, garbage receptacles, signage, toilet facilities, and location, specifications, materials, and construction methodology associated with each. Note that some barrier features, signage, and garbage plan elements are cross-referenced under the "Camping Area Plan" and that the schematic does not include exact locations of trees under 10" dbh and/or brush species.



Following are features associated with parking:

Gate:

Usable Usal Road width is presently 17' at the parking area access point. The planned location of the gate is set back an additional 3' from Usal Road, bringing usable road width up to 20' for improved turning capability. The gradient of Usal Road varies between 10% and 13% for up to 100' either side of the gate.

Gate type: steel, heavy duty, 14' long x 3" diameter box tubing with a locking sleeve device. *See Typical #6.* The two gate posts are steel 6" x 6" square box tubing set in 2' diameter by approximately 3' deep concrete footings. *See Typical #7 and scaled-down version, at left.* The gate shall be painted upon installation as pre-painted gates lose paint during loading, transport, unloading, and installation. The gate itself shall have a 2' length of 5/8" chain, or similar, welded to a spot that matches the location of the gate post.

The gate shall swing outward, locking to a 5" diameter x 6' long steel post (capped), with an eyebolt, set into a 2' diameter by approximately 2' deep concrete footing. *See Typical #8.* (Note: Typical #8 is a bollard. See "Parking Barriers", below, for bollard specifications. A gate post uses the same specifications as the bollard except concrete is used instead of earth & rock fill). The gate shall lock to the eyebolt on the post via the 2' section of 5/8" chain and a padlock.

Surfacing and Drainage

A rocked surface is needed to improve the surface stability of the parking area in wet weather conditions.

Prescription:

- Limb and/or clear relevant vegetation by hand (with selective transplanting of vegetation by the Council occurring, wherever practical).
- The parking area surface shall be cleared of refuse and organic debris with a backhoe, assisted by hand labor as needed, and graded by a grader or box scraper (backhoe attachment) to facilitate drainage (see drainage specifications, next bulleted item, and the attached "Schematic B").
- Areas requiring fill material shall be watered and compacted with a roller prior to application of rock surfacing.
- Drainage shall be directed to the southwest corner of the parking area, draining off the landing in a south-southwesterly direction via a swale through the trees and brush. The 12"-24" deep x 3'-4' wide swale shall be up to 80' in length and end in a rocked energy dissipation structure (apron of 6" diameter rock, 5' wide and up to 5' in length), located just past the landing's break-in-slope. *See Typical #9.* Depending on winter drainage volume and water velocity, a waterbar or swale feature may be needed below the parking area to convey water across an abandoned haul road. All drainage features shall be constructed during the initial grading phase of the parking area and be completed with parking area surfacing and compacting.
- Surfacing shall consist of up to 6" of crushed and compacted ¾" rock (road-base or similar). The volume of rock needed is approximately 70 cubic yards (.5' in depth x 3,600 sq. ft. in surface area). Rock shall be shaped by a grader or box scraper, watered, and compacted by roller.

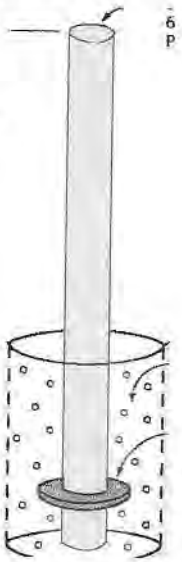
Parking Barriers

Barriers are of two types - those preventing access and those protecting facility features.

Recommended barriers:

- Two-ton barrier boulders will be placed on either side of the gate. Boulders will be placed with a maximum 12" spacing between them for up to 20' to the west and 50' to the east of the gate. Approximately 24 boulders will be needed (exact number of boulders shall be determined just prior to and/or during construction based on boulder size and quality, and upon clearance of vegetation and debris).
- One 2-ton boulder barrier to prevent vehicle entry shall be installed at the trailhead to limit access to the trail. The trail access area has a large log blocking one side. This log can be moved and replaced following construction, or removed altogether by the Council.

- Steel barrier posts (bollards) shall be installed to protect the vault toilet and garbage receptacle: three 5" diameter x 6' long steel posts, with caps, approximately 5' apart, painted, set in 2' diameter x 2' deep footings. Footing fill material should include rock and be highly compacted. *See Typical #8 and scaled-down version, at right.* The locations of these posts on Parking Area plans are approximate: actual post location shall be determined after the installation of the CXT Toilet.



Garbage Facilities

One 32-gallon 'Hid-A-Bag' garbage can shall be located adjacent to the vault toilet. The garbage receptacle shall be bolted to a concrete mounting pad constructed on site. *See Typical* #12. Garbage receptacles are also described under the Camping Area Plan.

Signage

Recommended signs are as follows:

- Kiosk: Pre-fabricated redwood kiosk (36" x 40" display area) at the trailhead. Recommended postings include: ITSW information and contacts; a basic 8.5" x 11" plan view (existing schematic minus most of the text) of the Middle Trail parking/camping area; final Council-developed and -approved trail, parking, and camping regulations; an 11" x 17" ITSW Map; a greater area map including Sinkyone State Park and adjacent roads (to be developed and provided by the Council); an arrow icon indicating trail direction; and Council/Sheriff/CDF/State Parks/County Roads Dept. contact information. *See Typical #11*
- ITSW-facility identification sign: Metal sign located near the gate, facing Usal Road. The sign shall indicate ITSWC property and other relevant information (as determined by the Council) that fits the sign's approximate 18" wide x 12" tall dimensions. Sign shall be posted on approximate 7' long x 2.37" wide steel post with two U-bolt brackets assemblies. Post shall be set into approximate 12" wide x 30" deep concrete footing. *See Typical #19*
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Toilet Facilities

The Plan includes one 1,000-gallon capacity CXT Gunnison model ADA-accessible vault toilet, 8'6" wide by 14'7.5" long. *See Typical #13.* The toilet requires the excavation of a pit for the 4'deep x 6'7" long x 6'6" wide sub-surface vault. The toilet shall include a Marine Package (providing increased protection from

coastal influences), a privacy latch, and toilet paper dispenser and shall accommodate disabled persons. The specific location of the toilet on the Parking Area plan is approximate; the actual location will dictate the location of barrier posts and garbage receptacles. Note that the toilet requires periodic maintenance and waste removal (by contracted pumper truck).

Camping Area Plan

See Schematic "B": Middle Trail Parking and Camping

Camping Area features addressed here include actual campsites, campsite pathways, access barriers, garbage facilities, signage, picnic tables, and the location, specifications, materials, and construction methodology associated with each. Note that some barrier features, signage, and garbage plan elements are also cross-referenced under the "Parking Area Plan" and that *Schematic B* does not include the exact locations of trees under 10" dbh and/or brush species.

Campsites

Three individual campsites up to 200 sq. ft. each in size are planned. All campsites are located within 100' of the parking area:

- Campsite #1: located approximately 100' south-southeast of the trailhead (approximately 50' past the first turn in the trail) on a skid road.
- Campsite #2: (pictured at right) located approximately 20 feet from the south end of the parking area.

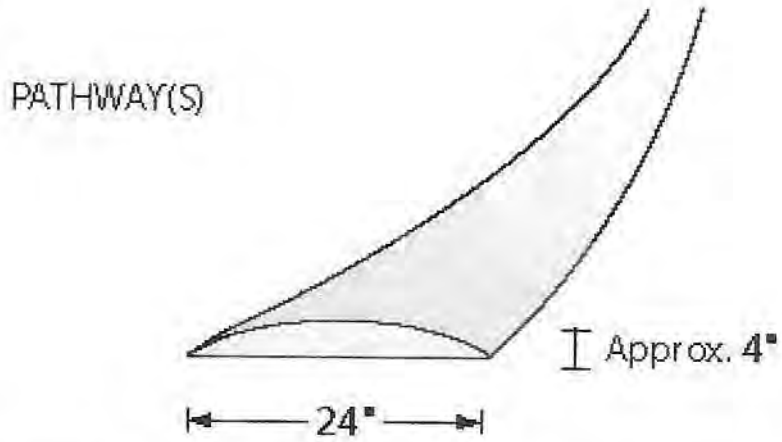
Middle Trail area, Campsite # 2 (before clearing), photo by RCAA-NRS

- Campsite #3: located approximately 20 feet from the northwest side of the parking area near the gate. Campsites shall be limbed and cleared by hand of brush, forest debris, and composted soil (where relevant) with selective transplanting of native vegetation by the Council occurring wherever practical. At approximately the center-point, tent areas shall be 6"+ raised, crushed shale pads, mildly crowned for drainage. *See Typical #14.* Pads shall be watered and compacted by a Vibraplate (portable gas-powered compactor) or similar device. Note that additional clearance of

brush and/or small trees is likely required for campsite maneuverability and placement of picnic tables.

Campsite Pathways

Pathway corridors shall be 5' wide and cleared of brush and forest debris. Raised pathways will be built as per a drainage "needs assessment" conducted during construction and after brush/debris removal. If determined to be of benefit, raised pathways will be 24" in width and will consist of compacted 4"+ thick crushed-shale tread, mildly crowned for drainage. *See Typical #14 and smaller-scale version, above.* (Note that raised pathways are included in the Cost Estimates). Brushing and/or adjacent forest debris shall be used to narrow pathway corridors, where needed, i.e., where pathways are located on wider skid roads. Approximately 50' of pathway leading to campsite #1 also serves as the beginning of the Middle Trail. The remaining 50' of pathway for campsite #1 may benefit from the placement of a drainage swale somewhere along its length. This need will be determined by the Council during construction.



Barriers

Protection barriers prevent vehicle access to campsite areas, some of which are located on skid roads.

- One or two, 2-ton boulder barrier shall be placed at the access point to campsite #1. (This barrier also serves to prevent vehicular access to the Middle Trail.)

Garbage Receptacles

As previously mentioned, the garbage receptacle for campers is the same receptacle as that described under the Parking Area Plan: One 32-gallon 'Hid-A-Bag' garbage can will be located adjacent to the vault toilet. *See Typical #12*

Signage

Recommended are flexible, 3.85"wide x 5'6" tall, carsonite, Rockart (or similar brand) marking posts. These marking posts shall be located adjacent to each campsite (or at campsite pathway entry points). Marking posts shall have the following decal stickers (as per individual campsite needs). *See Typical #4*

- Campsite numbers 6, 7, and 8.
- "No Fires" decal (circle with slash on fire picture)
- Directional arrow (as needed based on Council-determination of final signpost location).

Picnic Tables

Each of the three designated campsites will contain a 6-foot long Redwood picnic table (with 3" planks and associated hardware). *See Typical #15*. Where drainage appears inadequate, tables shall be raised on extended campsite pads or separate pads. This is to be determined during construction. Tables shall be anchored to buried 4-cubic foot concrete blocks with 3' to 8' of 3/8" to 1/2" diameter chain (or similar): one chain-end padlocked to the table, the other chain-end secured to a 10"- 12" long eye bolt. Concrete shall be mixed by hand and poured on site. As mentioned under "campsites" above, additional clearance of brush and/or small trees is likely required for camper maneuverability and placement of picnic tables.

Exhibit 2: Access Plan

MIDDLE TRAIL PARKING & CAMPING

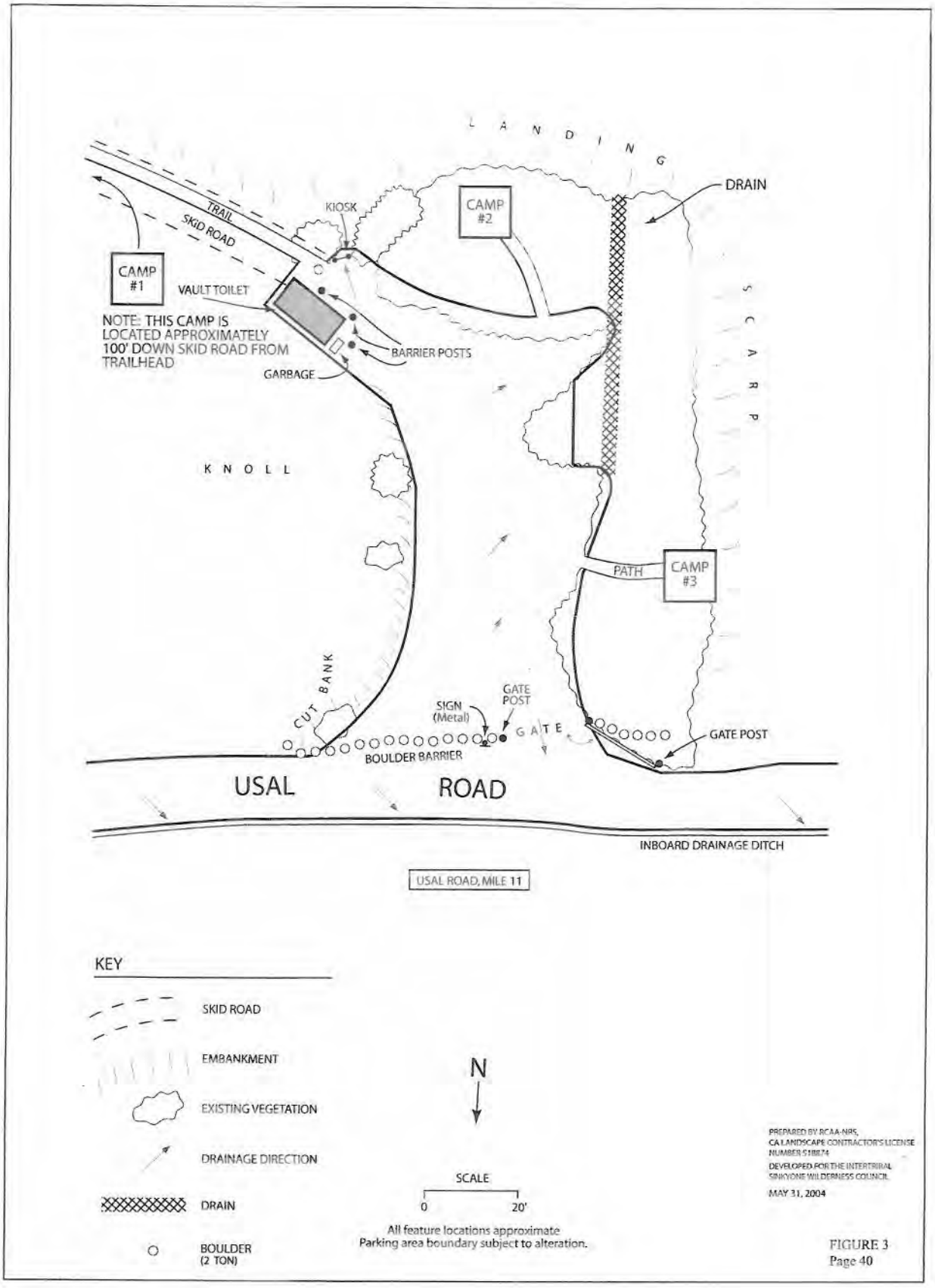


FIGURE 3
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NORTH TRAIL FINDINGS: TRAIL AND PARKING

The trailhead and associated parking area will be located west of and adjacent to Usal Road (Mile Marker 16.75) in the northeast quarter of the southwest quarter of Section 19, T24N, R18W. This location is just west-southwest of the "Kenny Site", indicated on the USGS 7.5 minute Bear Harbor quadrangle. The trail route heads in a west-southwest direction, presently terminating at the State Park's boundary in the southwest quarter of the southwest quarter of Section 19, T24N, R18W.

North Trail parking area, photo by RCAA-NRS

TRAIL

Trail routing occupies an abandoned haul road, indicated as "Jeep Trail" on USGS maps. The trail will continue onto Sinkyone State Park property, terminating in the vicinity of Bear Harbor where it will intersect the Lost Coast Trail near the ocean.

North Trail area, photo by RCAA-NRS

The road varies between 12' and 20' in width and drops at very low to moderate gradients (up to 15%). The road is moderately- to heavily-vegetated (pictured at left), including ceanothus (mostly dead and downed), grasses, small hardwoods and conifers, and exotic broom. The terrain is of moderate to very steep cross-slopes (60% to 90% on average). The road meanders and undulates across the hillslope, draining through a combination of inboarding to ditch-relief waterbars, inboarding to draws (including some draws with partially- and fully-blocked culverts), and outsloping. Road construction exposed multiple springs

along its length. A number of road sections are mildly through-cut. Vertically-placed skid roads (running straight up and down the slope) intersect the road on the uphill side, mostly where the road intercepts ridgelines. Other skid roads traverse the slope diagonally, both above and below the road. Large landings, up to 100' in width, can be found at various road and ridgeline-intercept points.

The road is in generally stable condition with segments of it bench-cut well into rock substrate. For the road's length, the approximate ratio of material cut from the bank, and deposited as fillslope through the road construction process, is as follows:

- 15% of road length is 9:1, cutbank: fillslope.
- 25% of road length is 4:1, cutbank: fillslope.
- 40% of road length is 1:1, cutbank: fillslope.
- 20% of road length is 1:4, cutbank: fillslope.

Average cut-bank height is over 10'. Some of the more significant bench cuts have resulted in cut-bank heights in excess of 20'. Due to inherent slope steepness in places, much of the cut material generated has departed the road prism area and remains out of range of decommissioning equipment unless ramps are constructed for access.

The road has experienced notable erosion in five distinct locations:

- Two locations are at Class III stream crossings (with CMP's: one of which is pictured below)

Typical North Trail partly failed crossing, photo by RCAA-NRS

- Three locations are fill-slope washouts including: a cut-bank landslide, an inboard ditch failure, and a landing fillslope slump (pictured below).

North Trail slump, photo by RCAA-NRS

The two Class III crossings and the fillslope slump, caused by a drainage structure failure, require treatment. The Class III crossings have 24" corrugated metal pipes (CMP). Present loss of material from the crossings varies from approximately 70 cu. yds. to 300 cu. yds. per crossing. Most of the material likely to erode at either site has already departed the fill-prism. However, bank stability along the road will continue to be a problem until treated and through-passage will be limited to foot traffic (and equestrian access by the Council as needed for management purposes).

PARKING

Parking is presently unavailable. A parking site with capacity for 2 vehicles has been identified. The location is the Jeep Road junction with Usal Road. *See North Trail Parking and Usal Road.*

BIOLOGICAL DATA

A review of the California Natural Diversity Database (CNDDB) has revealed no conflicts at North Trail parking and trail locations.

NORTH TRAIL PLAN

TRAIL DATA SUMMARY

(All data approximate)

Trail start point:	North Trail Parking area, Usal Road mile marker 16.75
Elevation – start point:	1,540'
Trail end point:	State Park boundary (State Park link to Lost Coast Trail)
Elevation – end point:	1,280' (State Park boundary)
Elevation difference:	260'
Direction of travel:	West-southwest
Trail difficulty:	Moderate
Road-based trail:	5,400' (1.02 miles / 1.65 km - ITSW segment)

Trail Plan

See attached Figure 1. (Note that Figure 1 does not include depiction of a trail-segment alignment though the SWSP.)

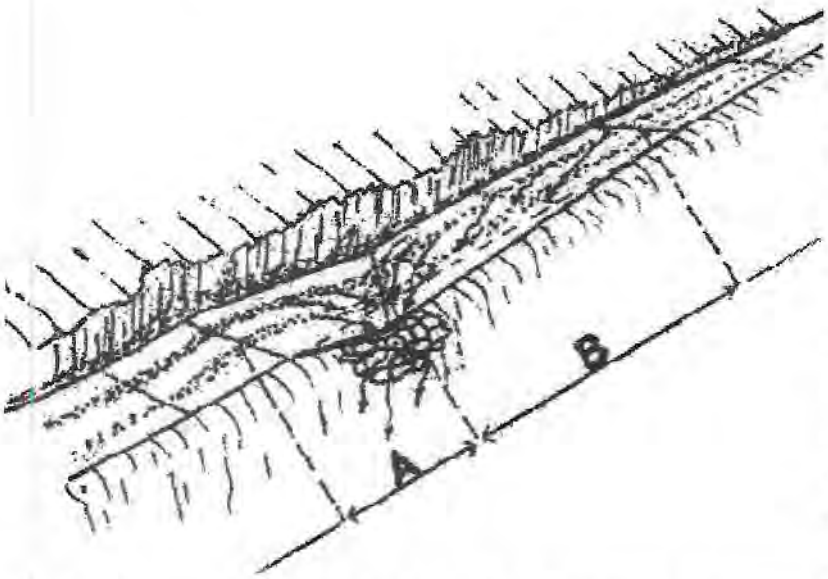
The trail is planned as a low- to moderate-use hiking trail. The trail is planned for minimal equestrian usage (for Council trail maintenance and management purposes only). The trail is planned as "trail-on-road" in a manner that best maintains the potential for future equipment access for watershed restoration, road decommissioning, or more complete road-to-trail conversion. This segment of trail travels from Usal Road west-southwest to the SWSP boundary.

Road-based Trail

The trail gradient remains the same as the road gradient, with some reductions to pitch grades occurring at easily addressed locations. Finished trail tread shall mildly meander over the road surface, and be approximately 36" wide in finished width. Trail width shall occur within an overall construction corridor approximately 12'-wide, with actual construction-corridor width dictated by equipment access needs. Trail routing shall take advantage of opportunities for drainage and avoid less stable fillslope areas and/ or slumps.

Tread surfacing shall be of existing soils unless noted otherwise. As the road may be needed for future equipment access, some sections of road will require some surfacing and drainage upgrades. Treatments will also include improvements to stream crossings and fill failure sites for equipment passage and erosion control.

Trail construction shall be conducted by a combination of heavy equipment, including an excavator, a bulldozer, and possibly a backhoe with a box scrapper, or a grader, and hand labor. A vibratory roller and water is required for compaction in areas treated for drainage or otherwise significantly disturbed. Present road characteristics, i.e., inboarding, outsloping, and through-cut sub-segments, will remain in effect to reduce trail development costs and leave open the opportunity for any future watershed treatment. Hand labor and equipment shall clear brush, small trees, and woody debris to make room for both trail and drainage feature placement. Selective transplanting by the Council shall occur wherever practical. If needed, residual brushing-related debris can be spread in the adjacent forest. A bulldozer with a six-way blade and hand labor will upgrade and/or construct road drainage features (swales, rolling dips, waterbars). *See Typical #20, and scaled-down version, below,* and road maintenance guidelines, i.e., State Parks, Forest Service, etc.



Drainage features shall employ self-maintaining design concepts wherever possible. This does not preclude the need for regular inspection and periodic maintenance. Upon completion of trail grading, and possibly in conjunction with the withdrawal of equipment, a portion of brushing debris generated during clearance shall be placed on the road bed to reduce the finished trail corridor to the prescribed tread width. This brushing debris also serves as mulch to reduce raindrop impact erosion on freshly exposed soils, and run-off erosion, and facilitates vegetative regeneration. At the Councils discretion, larger-scale woody-debris can be placed at various angles adjacent to the trail corridor to serve as more significant barriers to unauthorized or larger vehicles (note that this larger material may need to be cleared for any future vehicle and/or equipment access).

Road treatment shall include the conversion of two Class III stream crossings (including removal of old pipes) to rocked ford/swale features. *See Typical #21.* Crossing #1, with a fill volume of approximately 620 cu. yds., is approximately 900' west of Usal Road. Crossing #2, with a fill volume of approximately 325

cu. yds., is approximately 2,900' west of Usal Road (note that heavy brush prevents an accurate measurement of trail distances and map-based mapping generally proved inaccurate).

As described below, the two crossings shall be treated, i.e., partially excavated, the CMP's removed, the crossings reshaped as large swales, and rocked:

Both crossings shall be reshaped following the excavation of the CMP and fill-prism material required to create appropriate (i.e., natural) drainage characteristics. Excavated CMP's shall be transported out of the area and disposed. Excavated crossing material shall be placed at up- and down-trail locations, adjacent to the cut-banks, and shaped and compacted for stability by equipment. The immediate drainage channels shall then be rocked with approximately six inches of compacted 3" rock in a beveled configuration (approximately 20' wide x 100' long). This rocked surface shall also extend outward as trail hardening, on either side of each channel, in a configuration approximately 15' wide x 75' long. This pathway hardening creates stability for passage of heavy equipment. As some portions of the rocked pathway will be a mild through-cut leading into the channels, the pathway shall outslope at a 10% pitch with water running to adjacent, beveled ditchlines that empty into the drainage channels. From the crossings' breaks-in-slope downward, the residual fillslope material shall be armored with aprons of mixed 12"-24" diameter rip-rap in configurations approximately 30' long x 50' wide (actual dimensions to be determined during construction).

A partially failed swale/ fill crossing, located between the two Class III sites, requires treatment. Due to a loss of road prism material downslope, equipment shall excavate a portion of the cut-bank (approximately 20-30 cu. yds.) to widen the trail. The existing swale shall be reshaped and rocked with 300 sq. ft. of six inch-deep 3"-minus rock. The fillslope area just below the break-in-slope shall be stabilized with 12"-24" rip-rap (approximately 150-250 sq. ft of surface area).

Future plans for the North Trail include a segment of trail through SWSP, ending near Bear Harbor. The exact routing shall be determined by State Parks personnel in concert with the Council.

Signage

Planned signs are as follows:

- Up to ten 3.85" wide x 5'6" tall, carsonite, Rockart (or similar brand) trail marking posts with 3" square trail I.D. decals and directional decals in areas where routing may not be obvious for some user groups, i.e., at road and skid road junctions, corners, breaks-in-slope. *See Typical #4.* The posts shall be installed 18" to 24" into the ground with a Marking Post Driver (available from the supplier). The exact location of the marker posts shall be determined by the Council upon completion of the trail.
- One 12" tall x 36" wide trail/road junction sign (1/8" aluminum, painted). The sign is attached with two 3/8" diameter x 5" long bolts to a single 4" x 4" x 6'-7' long steel post (set 30" in the ground with tamped rock/soil backfill). *See Typical #5.* (Optional: the 4" x 4" post can have two

½" diameter x 8"+ long re-bar pins placed in pre-drilled holes near the bottom of the post for improved stability.) The sign shall be located at the ITSW-State Parks boundary. Recommended postings are laminated 8.5" x 11" regulation page (finalized by the Council), an arrow icon pointing out trail direction, and information that indicates that the trail has terminated (until the State Parks trail segment is completed).

- Upon completion of the State Parks segment of trail, placement of additional trail and directional arrow signage indicating the Lost Coast Trail.
- At any additional location identified by the Council, install signage (one or more of the above bulleted sign types – *see Typicals #5, #10, and #19*) stating pertinent information (mileage, regulations, etc.) regarding related trail and/or road junctions, such as the Lost Coast Trail, and the Council's property use restrictions, etc. Actual signage type and size shall be decided by the Council.
- All signage shall incorporate the Council's logo.
- See "Signage" under "Parking Area Plan", below, regarding informational kiosk placement at the trailhead. Trail use information shall include "Pack it in, Pack it out" garbage policy for the trail *and* parking area.

Parking Area Plan

See Schematic "C": North Trail Parking

The Parking Area features include a trail entry gate for Council use, surfacing and drainage, parking barriers, signage, and location, specifications, materials, and construction methodology associated with each.

Gate:

The gate will be placed at the southwest end of the parking area for trail access purposes. Note that the first 50' to 100' of trail could be used as over-flow parking for the Council. If desired for additional parking, this stretch of trail should be cleared, graded, and cleared of debris.

Gate type: steel, heavy duty, 14' long x 3" diameter box tubing with a locking sleeve device. *See Typical #6.* The two gate posts are steel 6" x 6" square box tubing set in 2' diameter by approximately 3' deep concrete footings. *See Typical #7.* The gate shall be painted upon installation. The gate itself shall have a 2' length of 5/8" chain, or similar, welded to a spot that matches the location of the gate post (see below).

The gate shall swing inward, locking to a 5" diameter x 6' long steel gate post (capped), with an eyebolt, set into a 2' diameter by approximately 2' deep concrete footing. *See Typical #8.* (Note: Typical #8 is a bollard. See "Parking Barriers", below, for specifications. A gate post uses the same specifications as the

bollard except concrete is used instead of earth & rock fill). The gate is to lock to the eye bolt on the post via the 2' section of 5/8" chain and a padlock.

Surfacing and Drainage

A rocked surface will be needed to improve surface stability in wet weather conditions.

Prescription:

- Limb and/or clear relevant vegetation by hand (with selective transplanting of vegetation by the Council occurring wherever practical).
- The parking area surface shall be cleared of refuse and organic debris with a backhoe, and by hand, and graded by a grader or box scraper (backhoe attachment) to facilitate drainage (see drainage specifications, next bulleted item, and the attached "Schematic C").
- Areas requiring fill material shall be watered and compacted with a roller prior to rocking (another option for compaction is to use a vibraplate due to the relatively small surface area).
- Drainage shall be provided by a swale running through and across the parking area. This drainage feature also drains a short section of Usal Road: *See Typical #20* (note that the swale is a hybrid of the drainage diagram). The 6"- 12" deep swale will end in a rocked, energy dissipation structure (3" to 6" rock), just past the parking areas break in slope.
- Surfacing shall consist of up to 6" of crushed and compacted ¾" rock. Volume of rock = 11 cubic yards (.5' x 450 sq. ft.). Rock shall be shaped by a grader or box scraper, watered, and compacted by a roller (or a vibraplate).

Parking Barriers

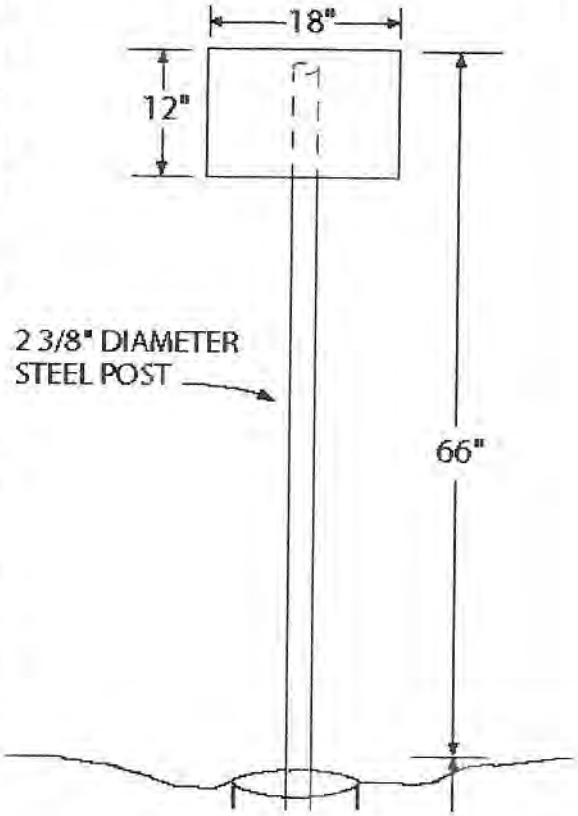
Barriers are of two types: Those preventing access and those protecting to facility features.

- Up to three 2-ton boulder barriers, closely spaced, shall be located on the southeast side of the gate.
- Up to three bollard barrier posts shall be located adjacent to the gate on the northeast side. The posts shall be 5" diameter x 6' long steel posts, spaced approximately 18" apart, painted, with caps, set in 2' diameter x 3' deep concrete footings.

Signage

Recommended signs are as follows:

- Kiosk: Pre-fabricated Redwood kiosk (36"x 40" display area) at the trailhead. Recommended postings include: ITSW information and contacts; final Council-developed and -approved trail and parking regulations; an 11"x 17" ITSW Map; a greater area map including Sinkyone State Park and adjacent roads (to be developed by the Council); an arrow icon indicating trail direction; and Council/Sheriff/CDF/State Parks/County Roads Dept. contact information, and "pack-it-in, pack-it-out" garbage policy. *See Typical #11*



- ITSW-facility identification sign: Metal sign located near the gate, facing Usal Road. *See Typical #19 and smaller-scale drawing, at right*. Sign shall indicate ITSWC property and other immediately relevant information (as determined by the Council) that fits the signs approximate 18" wide x 12" tall dimensions. The sign shall be posted on an approximate 7' long x 2.37" wide steel post with two U-bolt brackets assemblies. Post shall be set into approximate 12" wide x 30" deep concrete footing.

- Although technically not "signage," strips of reflector tape serve as structure safety and awareness features and shall be located on the gate and signs/barriers subject to damage by motor vehicles.

Exhibit 2: Access Plan

NORTH TRAIL PARKING

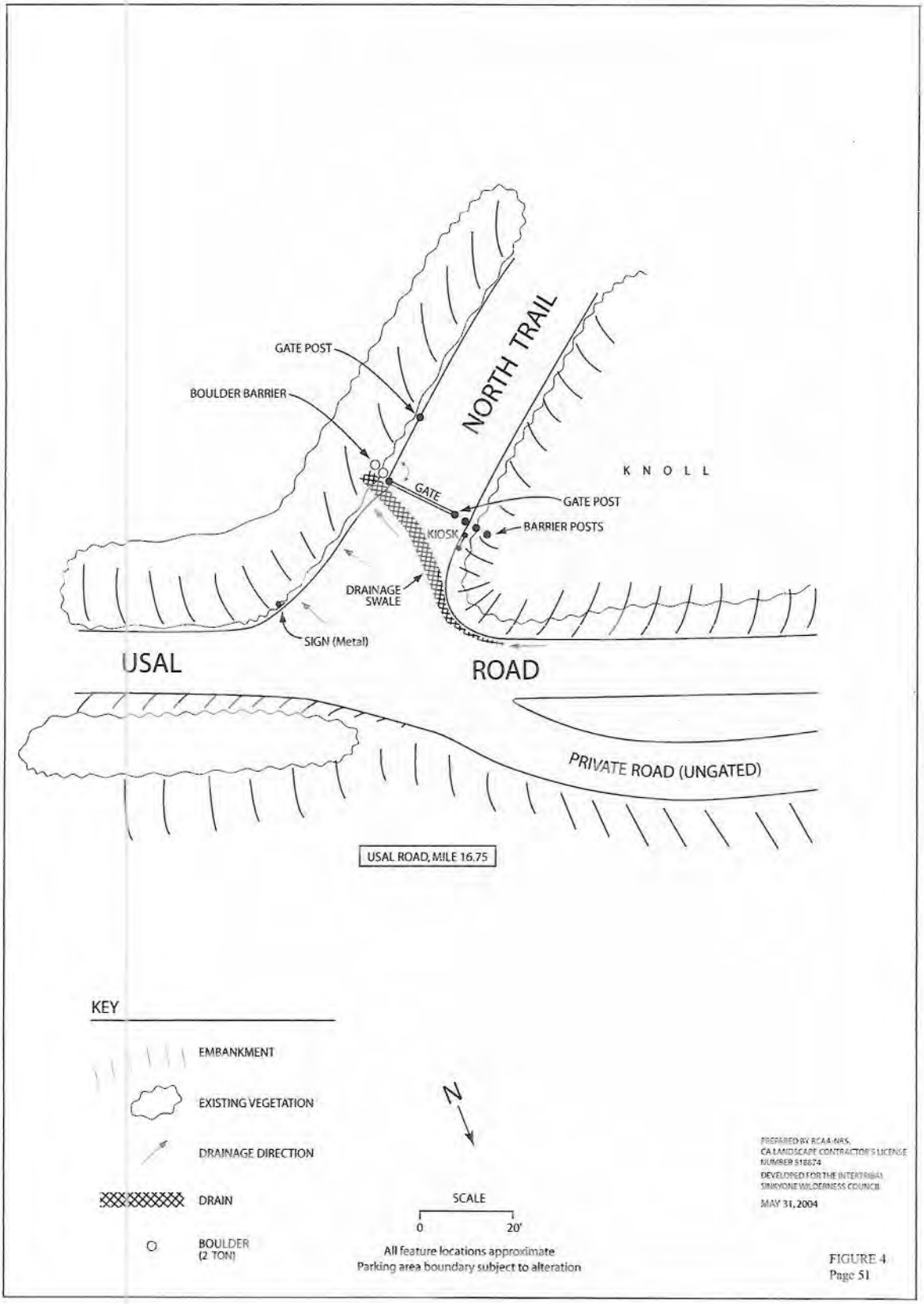


FIGURE 4
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The As-Built Process

The "as-built" process allows for on-site decision making and modification of plan elements during implementation. In the case of the ITSW, modifications may be based on a variety of factors, including a need to avoid cultural resources; endangered, threatened, and rare plant and animal species; and unstable soils, all of which might be revealed after the clearing of brush and debris. Other factors include the need to make use of natural features to better facilitate drainage, or to take advantage of a better grade and/or terrain that is revealed after the clearing of brush and debris. In addition, the as-built process allows trail builders to respond to drainage needs discovered through preparation and/or excavation, and to make changes to better fit the needs and desires of land managers, and to accommodate unforeseen circumstances. The location of a number of trail drainage features (swales, waterbars, and rolling dips) is best decided during implementation, assuming that an experienced trail builder or designer is on-site and supervising the implementation. This allows for appropriate location of drainage features as they relate to each other and to other drainage issues, hillslope instabilities, or other sensitive areas on the landscape. As trail clearing of brush, downed wood, and debris occurs, the shape of the land is fully revealed and drainage features can be shaped and spaced appropriately to facilitate drainage and assure that drainage outlets are not directed to erosion prone or otherwise sensitive areas.

Road-To-Trail Conversions, Watershed Planning, and County Road

The Council has indicated that in conjunction with State Parks, it is contemplating possible eventual road-to-trail conversions of the Hotel Gulch Trail and the Wheeler Trail. Both routes are popular public access routes for hiking and equestrian use. The entire length of the Hotel Gulch Trail serves as the boundary between the ITSW and SWSP for the southernmost portions of both properties. The Council notes that the only allowed vehicular use of these routes is by the Council and State Parks for the purposes of management, patrolling, and restoration activities.

All trail routes should be assessed within a watershed assessment of the entire ITSW. The watershed assessment will identify access routes needed for the treatment of old logging roads and stream crossings. After treatment of those roads and crossings has been completed, road and trail conversions can be completed on the road-portions of the trail routes. This would reduce costs for trail construction and avoid damaging trails by re-entering them with heavy equipment during the implementation of watershed restoration activities.

The County of Mendocino is responsible for maintenance of Usal Road (County road #431). According to the County, Usal Road is situated upon an easement approximately 40' in width. This easement interfaces with proposed Council Parking Areas found within the Plan. It is recommended that the Council contact the

Mendocino Department of Transportation (located at 340 Land Mendocino Drive, Ukiah, CA 95482) to secure an encroachment permit application and, as needed, either proceed with an approved permit, or negotiate with the County regarding any issues that may result from the implementation of the Plan. In addition, some surface rocking of Usal Road, for 100' on either side of the South and Middle Trail parking Areas, would benefit campers and trail users by reducing dust created by vehicular traffic on Usal Road.

PRESCRIBED REGULATIONS AND MONITORING & MAINTENANCE PROGRAM

With the development of a public access management plan, the Council is taking the next step towards the development of programs and/or procedures including facility monitoring, maintenance, regulation, and law enforcement. As programs and procedures of this kind are critical components of any land holding subject to public access, their development can be a highly personalized process based on the preferences of land-managers and their constituency. The Council has provided some regulation-related signage to date. *See Typicals #17 and #18.*

Federal, state, and local agencies, all long-standing land management entities, have developed significant amounts of written material and information for management purposes, including that for day- and night-usage regulations and the monitoring & maintenance of facilities and the surrounding environment. The regulations, procedures, and related programs of these entities are developed in concert or as an outgrowth of their mandates, mission statements, and capabilities. For example, regulations are often based on both law enforcement and maintenance capabilities. These two management efforts are usually ascertained and set based on a combination of existing levels of visitor use, projected levels of visitor use, and available funding. Ascertaining fee-for-use rates for camping facilities can be a further outgrowth of these two management efforts. As can be seen, all of these management efforts and related costs require detailed assessment and coordination to be successful.

Due to these complexities, RCAA is providing cursory recommendations only, to assist the Council in taking the next steps in developing ITSW facility and access regulations.

REGULATIONS

Following are recommended regulations on Trails, Parking Areas, and Camping Areas.

Trails

- No Hunting/No Firearms.

- No camping: day-use only.
- No littering: pack-it-in, pack-it-out.
- No Bicycles.
- No motorized vehicles of any kind.
- No fires at any time.
- Stay on the trail at all times.
- No removal of vegetation or animals.

Parking Areas

- No Hunting/No Firearms.
- No camping: day-use only.
- No littering.
- No fires at any time.
- No wood cutting.
- No removal of vegetation or animals.
- Park to the side of the Parking Area: do not block traffic.

Camping Areas

- No Hunting/No Firearms.
- No littering.
- No fires at any time.
- No wood cutting.
- No removal of vegetation or animals.
- No motorized vehicles of any kind.
- Day use allowed.
- Maximum stay: 3 days.
- Camping in designated sites only: maximum 1 tent per site.

MONITORING

Upon completion, all trail, parking, and camping facilities shall be monitored by the Council.

Monitoring shall be based on:

- Priority needs as identified by the Council,
- Available funding,
- Council staffing levels and personnel capability (including knowledge and experience regarding trail maintenance, parking area maintenance, and camping area maintenance). Law enforcement capability may be a consideration as well in regards to maintenance (see the following paragraphs regarding this consideration),
- Access to maintenance and/or patrol-capable vehicles and associated equipment, and
- Any other Council priorities.

For public safety and to protect the trails and facilities from degradation during the rainy season, it is recommended that all facilities experience restricted access during wet weather months. This policy might manifest as limited Council access and no public access between November 1st and May 1st, depending on rainfall and saturation of soils. This recommendation for seasonal restriction can help maintain the integrity of Usal Road—a road known to suffer damage during wet weather driving.

During dry weather, it is recommended that some type of law enforcement visit each parking/camping area on a weekly basis. For maximum efficiency, law enforcement personnel could also serve as maintenance personnel, carrying an appropriate tool compliment and engaging in basic maintenance duties, including inspection of all facility features such as gates, toilets, kiosks, campsites, drainages, etc. In addition, garbage receptacles could be emptied and toilets cleaned and restocked as needed.

If law enforcement and maintenance of parking and camping facilities are to remain separate, it is recommended that maintenance inspections and servicing occur initially every other week, adjusting as needed to either every week, or every three weeks, depending on use levels and impacts. Usage within the first year may be lighter than following years: awareness of new facilities can take time to be noticed and/or entered into local and regional guides, maps, etc.

Within the first year to two years of development, trails should be inspected for windfall trees, soil slumps, landslides, signage condition, and drainage issues/problems every one to two months or after large rain and/or wind events. Newly constructed trails undergo a settling and "seasoning" period with soils and surrounding vegetation subject adjustment. One inspection in mid-spring and one in mid-summer is usually adequate. Indications of any unauthorized "trails of use" (side trails developing due to users "exploring" or missing turns in the trail) and any other unauthorized land uses should be noted as part of the trail monitoring process. All notable trail-related issues should be recorded in a trail log and marked on a map to best coordinate future maintenance or treatment efforts.

MAINTENANCE

Upon completion, all trail, parking, and camping facilities shall be maintained based on the outcome of monitoring and related inspections of individual features and structures.

Trails

Similar to trail construction, good trail maintenance abilities result from of years of hands-on field work conducted under the auspices of experienced supervision. Of benefit to both new and experienced trail workers, supervisors, and managers, are State Parks, Forest Service, National Park Service, and Bureau of Land Management trail manuals and guidelines. Although these manuals and guidelines differ based on respective agency mandates, landscape characteristics, and type and degree of trail usage, they represent a compilation of approaches and techniques effective in protecting the resource and facilitating a quality experience for the user. The manuals and guidelines are also recommended in assisting the Council in the development of its own site-specific trail maintenance standards, specifications, and work schedules.

After a review (monitoring) of trails and trail corridors for potentially hazardous slumps and landslides, windfall clearing is typically the first maintenance activity. On the Northcoast, windfall clearing is usually accomplished upon passage of inclement weather (late Spring). Windfall clearing is traditionally followed by maintenance tasks, including those related to trail drainage, the clearing of slumps, signage, and brushing.

General maintenance tasks for trails include the following:

- **Windfall clearing**: Windfall clearing can be a challenging undertaking. Trees and/or larger limbs can fall in a diversity of angles, patterns, and volumes, presenting a hazardous environment requiring the skills of good sawyer or teams of sawyers and swampers (sawyer assistants who clear away cut logs, limbs, and brush). Downed trees and limbs should be cut back as per brushing specifications. Hanging limbs and/or hanging windfall trees (termed "widow makers") should be cleared. Note that woody debris can mobilize downslope when cut, hence workers and/or trail users should be kept out of downslope portions of trail during clearing procedures.
- **Brushing:** The periodic "brushing out" of trails (removal of vegetation growing in and into the trail corridor) is dependent on vegetation type, volume, and brushing specifications. Some trail managers like to brush only once every ten years, cutting vegetation back up to 15' either side of the trail centerline. Generally speaking (for single-track trails), brushing commonly occurs every 2 to 5 years to maintain a corridor approximately 4' either side of centerline, or, with trails located on steeper cross-slopes, 3'-4' on the downhill side of the trail and 6'-7' on the uphill side of the trail. For road-based trails, allowing brush and or trees to grow into the old road corridor, until it reaches single-track specifications, is encouraged as long as regular vehicle access is not required.

- **Drainage** (new trails): Trails should retain a 5% to 20% outslope for drainage. Based on the type & degree of usage over the years, and maintenance capability and frequency, trail tread and drainage patterns may develop differently than planned with some drainage flows concentrating and negatively impacting the trail tread and/or downslope environment. In this instance, drainage flows may need to be diverted with the development and placement of additional drainage features such as swales, dips, water bars, and fords.
- **Drainage** (road-based trails): As mentioned previously, the scale of road-based drainage features should be adequate for most drainage needs following Trail-on-Road conversion. However, clearing of woody debris, brush, and sediment is required on a periodic basis and with diligence can often be performed with hand tools. As road-based sections of trail, particularly the South Trail and North Trail, presently exist as terrain- and drainage-disturbances on the landscape, those sections remain subject to potential re-entry by heavy equipment for any significant maintenance needs or watershed treatment.
- **Signage** (trail markers): Replacing "trail" and "directional arrow" decals and, replacing damaged or missing carsonite (or similar) posts.
- **Signage** (trail junction and Council property information signs): Updating regulations, notices, maps, etc. and replacing damaged parts and/or signs.
- **Trails of use** (etc.): Unauthorized trails of use and/or campsites should be blocked and/or rehabilitated and revegetated.

Recommended Trail Tools and Equipment (for both construction and maintenance): First aid kits, hard hats, gloves, safety glasses, cell-phone and/or 2-way radios, leather boots, full-size 4x4 truck, small chain saws (with 16" to 24" bars), large chainsaws (with 28" to 36" bars), chainsaw-related maintenance tools, supplies, and safety equipment, grip hoist & related chains, straps, cables hooks, spare parts, etc. (as needed), limbing saws, pole saws, loppers, shovels, McLeods, pick-maddox, pulaskis, single-bit axes, rock bars, sledge hammers, tool files, extra handles and handle wedges, small tool box (small hammer, wrenches, pliers, screw drivers, utility knife, spare nuts/bolts, etc.), fire extinguisher, clinometer, notebook, maps, 100' field tape, flagging, small water filter, and any other tools and equipment specific to the trail(s) being worked on.

Also recommended is the development of a comprehensive safety plan. This includes conducting regular weekly safety meetings (approximately 1 hour per week), daily "tailgate" safety meetings (approximately 10 minutes per day); an evacuation strategy and procedures; and a communication and procedures strategy in the event of an accident.

Parking Areas

General maintenance tasks for parking areas include inspection and servicing of the following:

- **CXT toilet facilities**: Cleaning, stocking, pumping, and, as needed, painting the interior, repairing broken fixtures, and removing inappropriate objects from the holding tank. Equipment and supplies include general toilet-related cleaning supplies, a well equipped tool box, and, as needed, paint and brushes (to touch up scrapes, scratches, etc., or obliterate graffiti), spare parts and/or fixtures likely to be vandalized, and a retrieving tool for holding tank objects. The CXT toilet supplier can be contacted in conjunction with ordering and/or installation regarding additional details and supply lists. Note that toilet management requires potential exposure to bodily fluids and foreign substances and all appropriate safety precautions should be taken to avoid contact.
- **Hid-a-Bag garbage receptacles**: Removal and replacement of garbage bags, related cleaning, and, as needed, painting, and repair of the bag-access latch. Equipment and supplies include replacement bags, cleaning supplies, and a well-equipped tool box. The Hid-a-Bag supplier can be contacted in conjunction with ordering and/or installation regarding additional details and supply lists.
- **Gates**: Lubricating hinges/locking mechanism, painting, and adjustments to swinging component due to sagging. Maintenance includes the inspection and lubrication of the lock (sold separately). Equipment and supplies include lubrication, painting supplies, and a well-equipped tool box. The gate supplier can be contacted in conjunction with ordering and/or installation regarding additional details and supply lists.
- **Kiosks**: Maintaining air-flow vents (between plexiglass and backboard), hinges, lock, and postings themselves (including periodic replacement and updating). Maintenance workers should be prepared to deal with vandalism of plexiglass during maintenance rounds by carrying spare sheets of plexiglass and tools to replace it. The alternative is to wholly remove the damaged plexiglass and maintain weather-resistant postings (laminated). The drawbacks to this can be that postings are removed and/or damaged, leading to the need to maintain a supply of those replacement postings most likely to disappear, i.e., maps (with regulation-related postings more likely to be damaged). Equipment and supplies include lubrication, postings, and a well-equipped tool box. The Kiosk supplier can be contacted in conjunction with ordering and/or installation regarding additional details and supply lists.
- **Signage** (welcome sign, metal, near gate): Repair and/or replace as needed. Includes reapplying reflector tape to bollards, gate, and other hard surfaces subject to potential impact by motor vehicles.
- **Bollards**: Painting and/or replacement. At some point bollards or gate posts may be physically damaged by vehicles. Degree of damage will dictate a range of maintenance, from painting to complete replacement. Fill may need to be re-tamped and concrete removed and replaced. Equipment and supplies include painting supplies, concrete, and a well-equipped tool box. Note that bollards are custom-made by iron work or machine shops.
- **Boulder Barriers**: Re-adjusting and/or replacing. Although uncommon, boulder barriers may be shifted by vandals or trespassers to facilitate unauthorized vehicle access. In this instance, minor re-adjustments *might* be performed with a rock bar (steel leveraging tool). Depending on barrier location

and orientation, a 4-wheel drive truck and a chain might be able to assist with adjustments. However, a backhoe is likely required due to the size of the barriers (2-ton). Note that, although boulder barriers are large, vandals or trespassers might have the benefit of multiple persons and/or vehicles in moving a boulder barrier while a maintenance crew may consist of only one or two people and one vehicle. Equipment and supplies include one- to two-rock bars, shovels, two twenty-foot long x 3/8" to ½" diameter tow-chains with hooks, a well-equipped tool box, and a full-size 4-wheel drive vehicle. A backhoe big enough to move 2-ton boulders may be needed.

- **Surfacing** (parking area): For minor disturbances to surfacing, i.e., from excessive spinning of vehicle wheels, temporary maintenance may include re-filling of ruts with surface material and hand compaction. For larger ruts, or to more completely restore surface quality and characteristics, water and hand compaction with a gas-powered compactor may be in order. For these smaller hand-treatments, it is of benefit to establish a 5 to 10-cubic yard pile of surfacing material during initial project implementation from which to replace lost material. For full-scale maintenance and/or upgrades, the parking area needs to be re-shaped by a box-scraper or grader and compacted. This includes the potential re-introduction of truckloads of fresh surfacing material. Most damage will occur to parking areas due to a combination of wet weather and vehicle traffic. Once a rut begins and traps water, continued vehicle traffic can exacerbate surfacing displacement through the softening of sub-surface material, hydraulic processes, and sheet flow.
- **Drainage**: Clearing of debris and excess sediment build-up within the length and breadth of the drainage structure. For small-scale debris blockages and sediment filling, clearing can be done by hand. For larger build-ups, more significant drainage disturbances, a backhoe may be required. In that instance, re-grading and/or re-compaction may be also required. Most types of likely parking area drainage issues can be dealt with by hand: it is ultimately a matter of effort and time required to shovel and otherwise remove sediment and/or debris. Retaining a consistent downward gradient of 2% or greater is important to prevent pooling of water and sediment deposition. Any energy dissipation structure at the end of the drainage requires inspection and potential clearing and, in extreme cases, reconstruction or addition of rock.
- **Brushing**: Clearing of windfall trees, brush, and limbs and periodic brushing and limbing to maintain adequate clearances for users and vehicles. Limbs should be pruned cleanly back near their bases and brushing debris should be distributed well back into the surrounding forest, being careful to avoid building up large piles of woody debris that could become fuel for wild fires.

Recommended Parking Area Tools and Equipment (for maintenance): first aid kits, safety/evacuation/communication plan (similar to that mentioned under "Trail Tools and Equipment"), hard hats, gloves, safety glasses, cell-phone and/or 2-way radios, leather boots, full-size 4x4 truck, small chain saws (with 16" to 24" bars), loppers, hand-limbing saws, pole saws, shovels (both round and square-head),

McLeods, tamping bars, carsonite post pounders, wheelbarrows, tool files, solvents (for paint and other surface treatments), brooms, dust pans, small water tank (20 gal) and hose/pump assembly (optional for toilets), 5-gallon buckets (for some cleaning supplies), and other tools, materials, and supplies under the above listed and bulleted facility features (CXT Toilet, Hid-a-Bag garbage receptacles, etc.). Other tools, equipment, and supplies may be needed for longer-term maintenance needs, i.e., a portable generator, electrical saws, drills, etc. For larger-scale maintenance and/or repair needs to surfacing, drainage, and CXT toilets, securing the services of contractors may be required.

Camping Areas

General maintenance tasks for Camping Areas include inspection and servicing of the following:

- **Picnic tables**: Clearing debris, retightening nuts/bolts, and as needed, replacing excessively damaged wood.
- **Signs**: Replacing camp "#" and "tent" decals, and replacing damaged or missing carsonite, or similar, posts.
- **Campsite pads and pathways**: Clearing debris and reshaping and re-compacting surface materials used in construction.
- **Drainage**: Maintaining the through-flow of any water that may build up in and around developed pathways and camping pads. This is mostly accomplished via design and as-built construction processes, i.e., providing dip- and or swale-type features in areas where observation shows that water may concentrate.
- **Brushing**: Clearing of windfall trees, brush, and limbs and periodic brushing and limbing to maintain adequate clearances for users and vehicles. Limbs should be pruned cleanly back near their base and brushing debris distributed well back into surrounding forest, being careful to avoid building up large piles of woody debris that could become fuel for wild fires.

Recommended Camping Area Tools and Equipment (for maintenance): See "Parking Area Tools and Equipment."

In 2004, the estimated cost of recommended tools are as follows: Note: - all items are based on Ben Meadows or Forestry Suppliers Catalogues unless otherwise noted; price does not include sales tax or shipping; prices are subject to change - consult the latest catalogue for current prices.

Item	low end	high end	notes
Safety Items:			
First aid kits	$56.80	$390.00	
Hard hats (with ear protection and eye screen)		$34.50	
Gloves - nylon; per pair:	$2.70		
leather or leather/ cloth combination	$4.00	$6.90	$5.80 for an adequate pair
Safety goggles	$2.10	$21.50	$15.20 for a good set with ventilation to reduce fogging
Boots	$50.00	$350.00	good quality leather boots are about $200
Water filter	$30.00	$60.00	
Communications Items:			
Cell phone	$0.00	$100.00	variable, depending on special offers; plus monthly charges
2-way radios	$29.00	$320.00	each; $79 each buys a good quality two-way radio
Power Tools:			
chain saw - 24 inch bar	$289.00		
chain saw - 16 inch bar	$730.00		
pole saw	$700.00		
Hand Tools:			
loppers	$30.00	$174.00	$174 model cuts up to 2-inch diameter branches
limbing saw	$15.95	$43.00	$43 saw has 21" blade
pole saw	$30.00	$88.20	$30 saw has 30-inch handle; $88.20 has 18-foot handle
tamping bar		$100.00	not available through catalogue- consult local hardware store
wheelbarrow	$50.00	$120.00	$100 buys a heavy duty all steel wheelbarrow
flat file	$7.00	$15.00	$10.95 for a good coarse flat file
chain saw files (per dozen)	$15.00	$20.00	
pick-maddox	$25.50		
pulaski	$37.70		
single bit axe	$19.80	$28.00	
Survey/ layout Tools:			
clinometer	$106.00	$143.00	
100-foot tape	$32.30		
flagging	$0.90	$1.65	per roll price; $0.90 requires buying minimum of 144 rolls
field notebook	$4.00	$10.00	Rite-n-Rain pocket books
Cleaning/ maintenance Tools:			
push brooms	$13.90	$26.50	
kitchen broom	$4.00	$10.00	not available through catalogue- consult local hardware store
buckets (5 gallon plastic)	$4.00		not available through catalogue- consult local hardware store
20 gallon water tank	$40.00		not available through catalogue- consult local hardware store

Maintenance Estimates

Trail Maintenance Review (all trails)

Two trail review surveys to assess trail condition and maintenance needs are recommended per year for each of the three trails – one in mid Spring, the other in early Fall.

Estimated time required – 1 person x 2 days per year

Trail Maintenance – Windfall Clearing & Brushing

Maintenance needs depend on the severity of winter storms (wind speed) and on the amount of windfall. The following estimates offer a range, with the low end estimate applying to years with few wind storms or storms without high wind velocities, and the high end estimates applying to years with either severe wind storms or a number of low magnitude wind storms.

During years one and two (after construction), the estimated time per year is:

South Trail – 2 people x 1-5 days

Middle Trail – 2 people x 1-3 days per year

North Trail – 2 people x 1-5 days per year (may also need heavy equipment)

For years three and thereafter, the estimated time per year is:

South Trail – 2 people x 1-3 days

Middle Trail – 2 people x 1+ day per year

North Trail – 2 people x 1-3 days per year (may also need heavy equipment)

Parking Area Maintenance

The recommended schedule for parking area maintenance is one person making one visit per week during the trail-open season, assuming there is no significant vandalism. Estimated maintenance for each parking area is:

All Trailhead Parking areas - .25 to .5 day each per week = .75 to 1.5 day total per week

Camping Area Maintenance

The recommended schedule for camping area maintenance is one person making one visit per week during the trail-open season, assuming there is no significant vandalism. Estimated maintenance for each camping area is:

South Trail Camping Area - .25 - .5 day each per week

Middle Trail Camping Area - .25 - .5 day each per week.

ENVIRONMENTAL ANALYSIS

The California Natural Diversity Data Base (CNDDB) was consulted for occurrences of threatened and endangered species. The review has turned up no conflicts on the South Trail/ Parking/ Camping location, the Middle Trail/ Parking/ Camping location, or the North Trail/ Parking location.

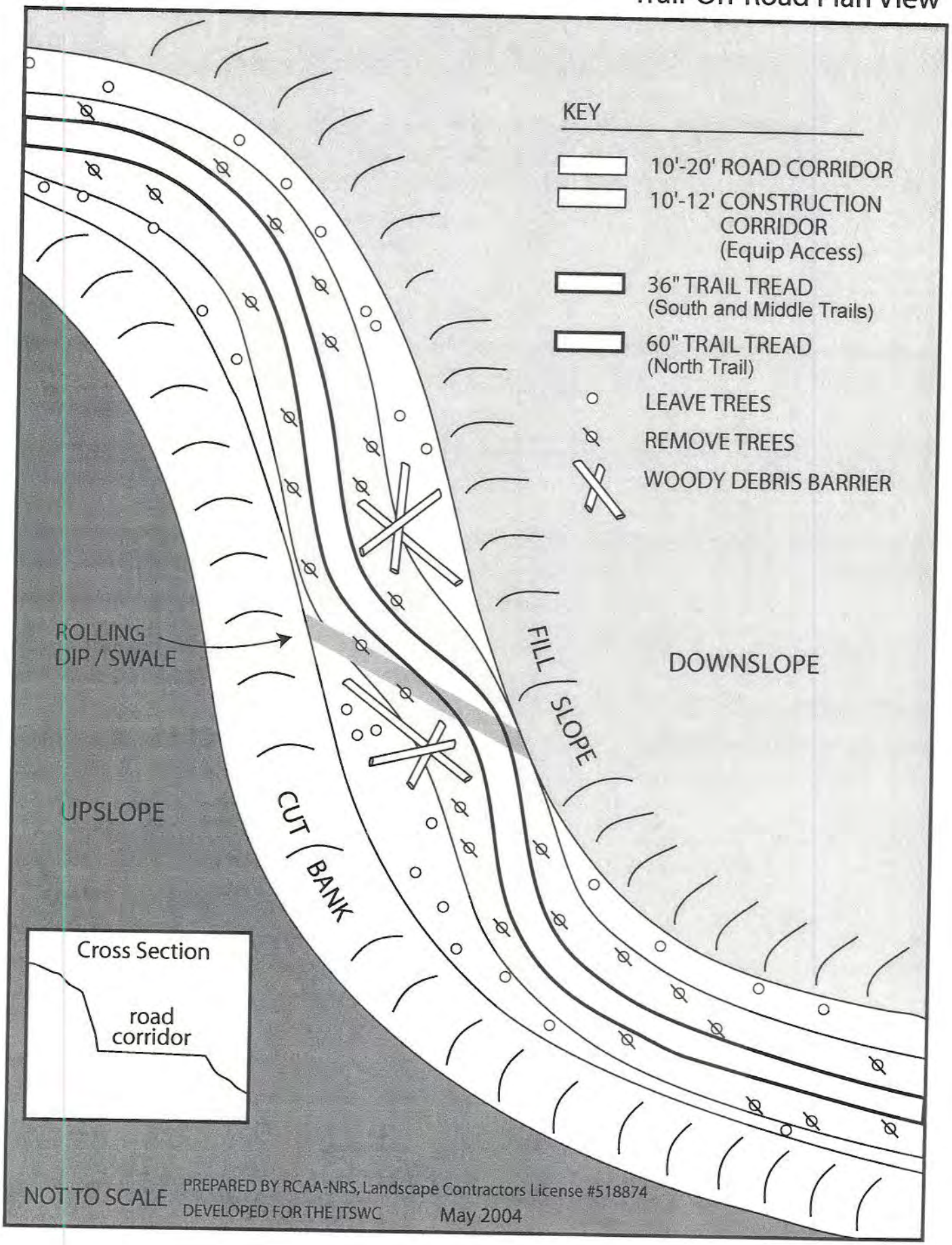
A California Environmental Quality Act (CEQA) "Initial Study" checklist has been prepared and is included as Appendix IV.

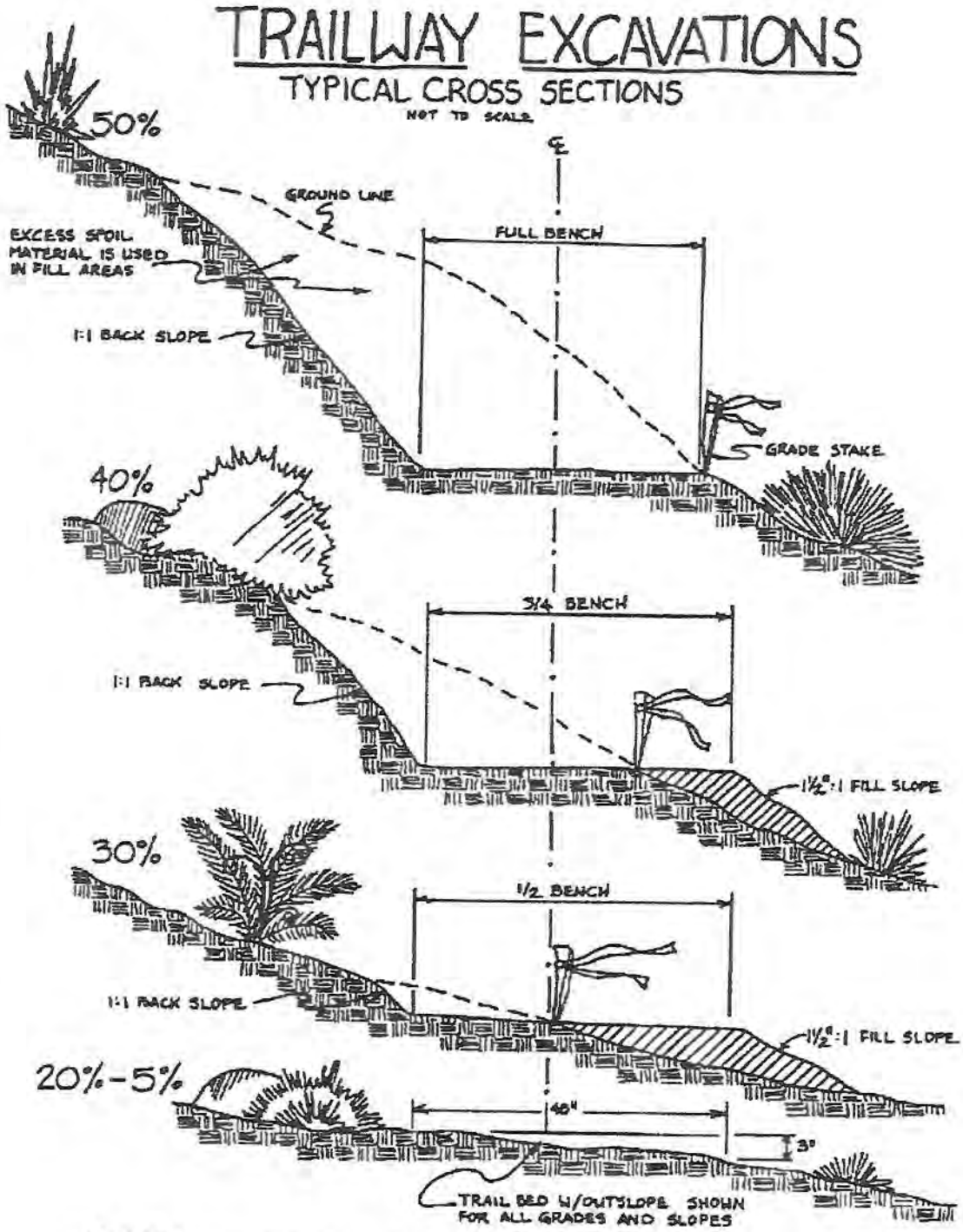
APPENDIX I TYPICALS

Attached on subsequent pages are typical drawings of Plan features and facilities. Many, but not all, of these typicals can be found in various locations and in smaller-scale format within the body of the Plan.

Typical #1

Trail-On-Road Plan View

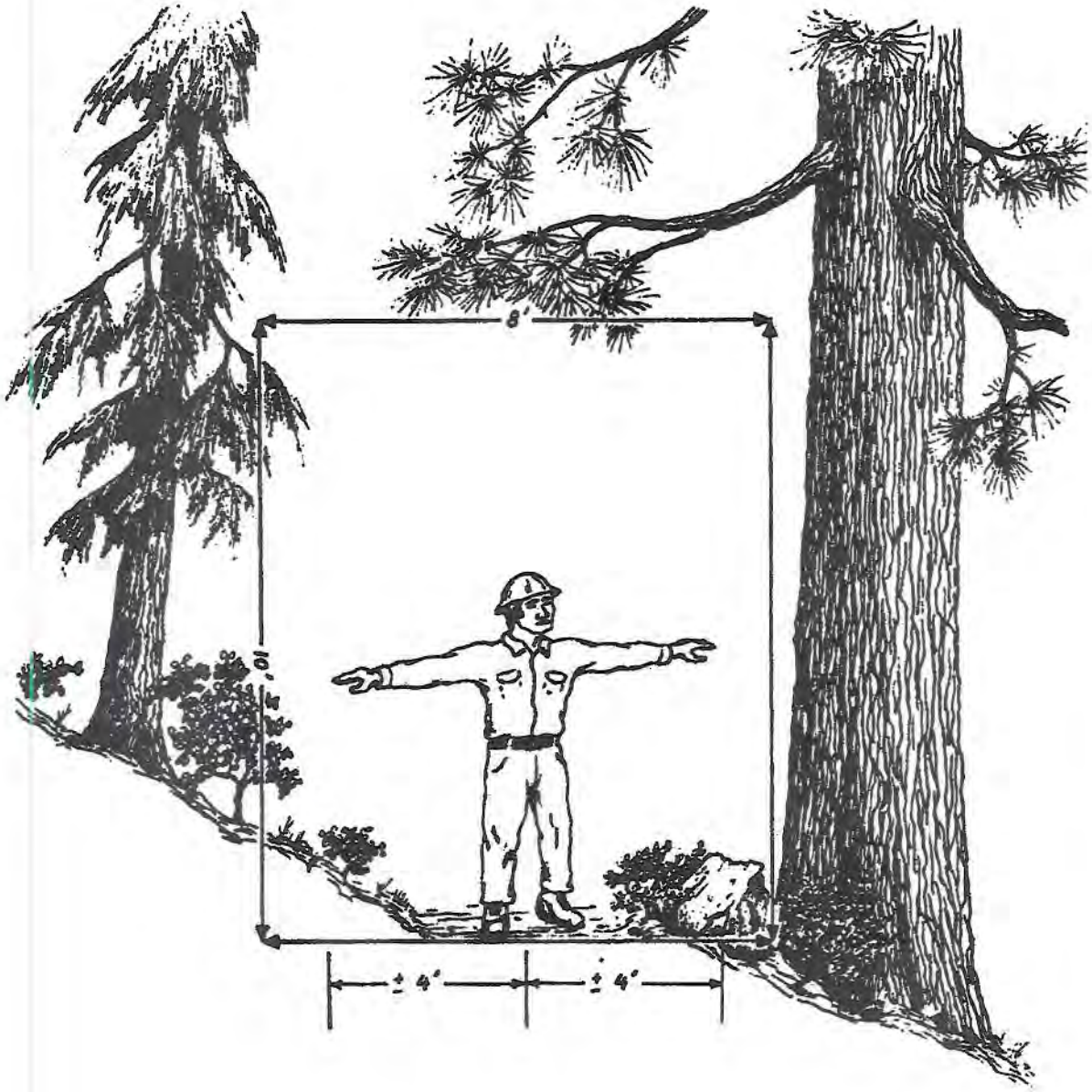




SOURCE:
KLAMATH TRAILS MANUAL
CALIFORNIA STATE PARKS
1993

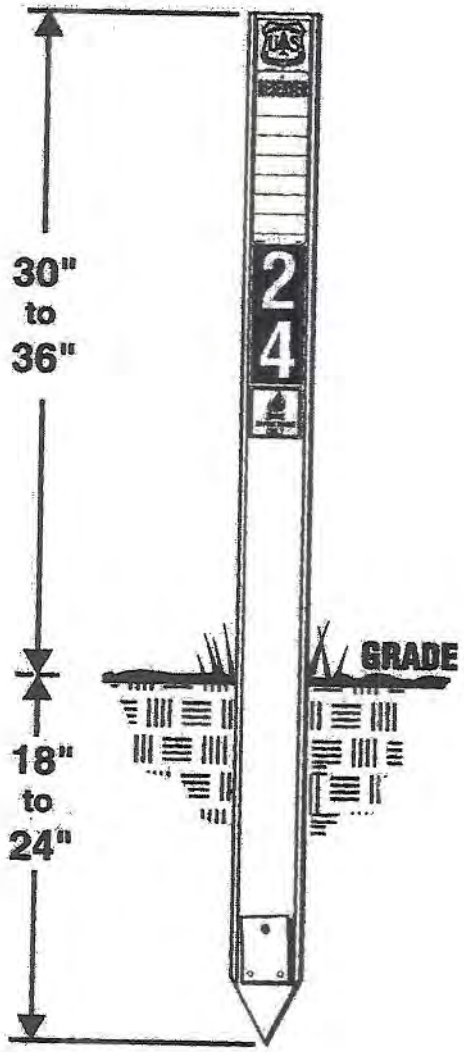
Typical #3 Trail Brushing Specifications: Hiking and Equestrian Trails

The Trail Corridor



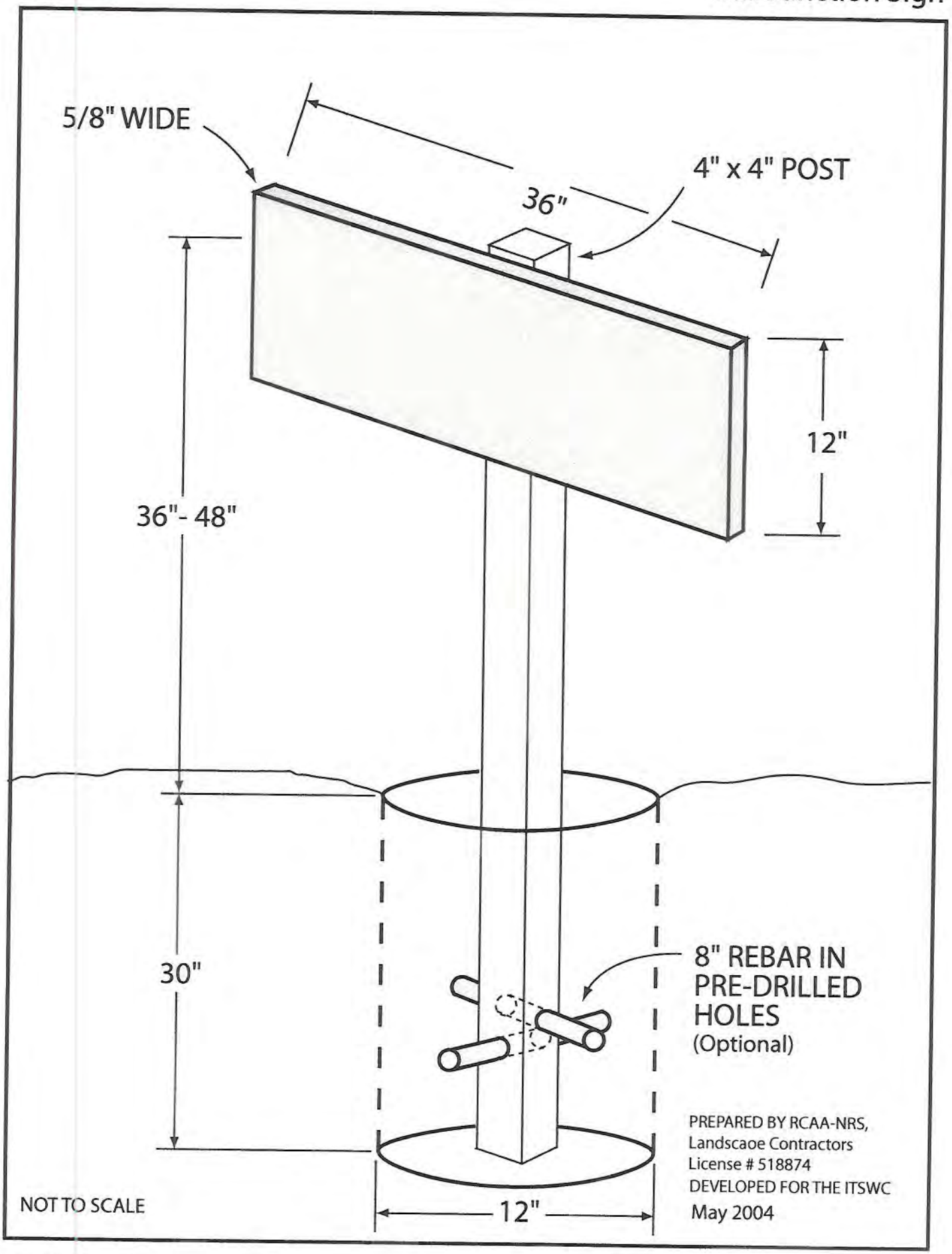
SOURCE:
TRAIL HANDBOOK: SEQUOIA AND KINGS CANYON
NATIONAL PARK SERVICE
1989

Typical #4 Trail and Campsite Marking Post with Decal Options



SOURCE:
ROCKART CATALOG
2003

Typical #5 Trail Junction Sign



Typical #6

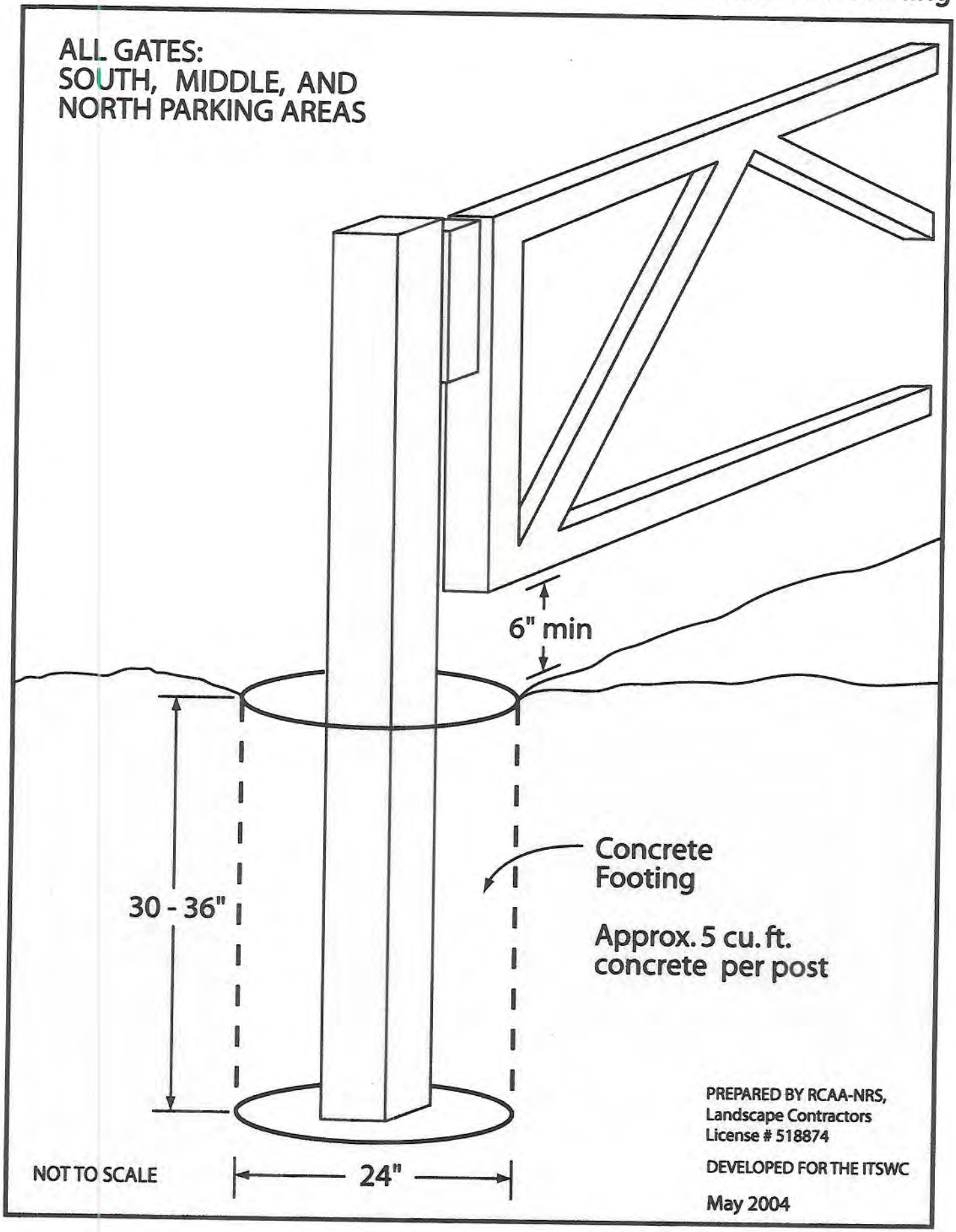
Gate

All Gates: South, Middle, and North Parking Areas

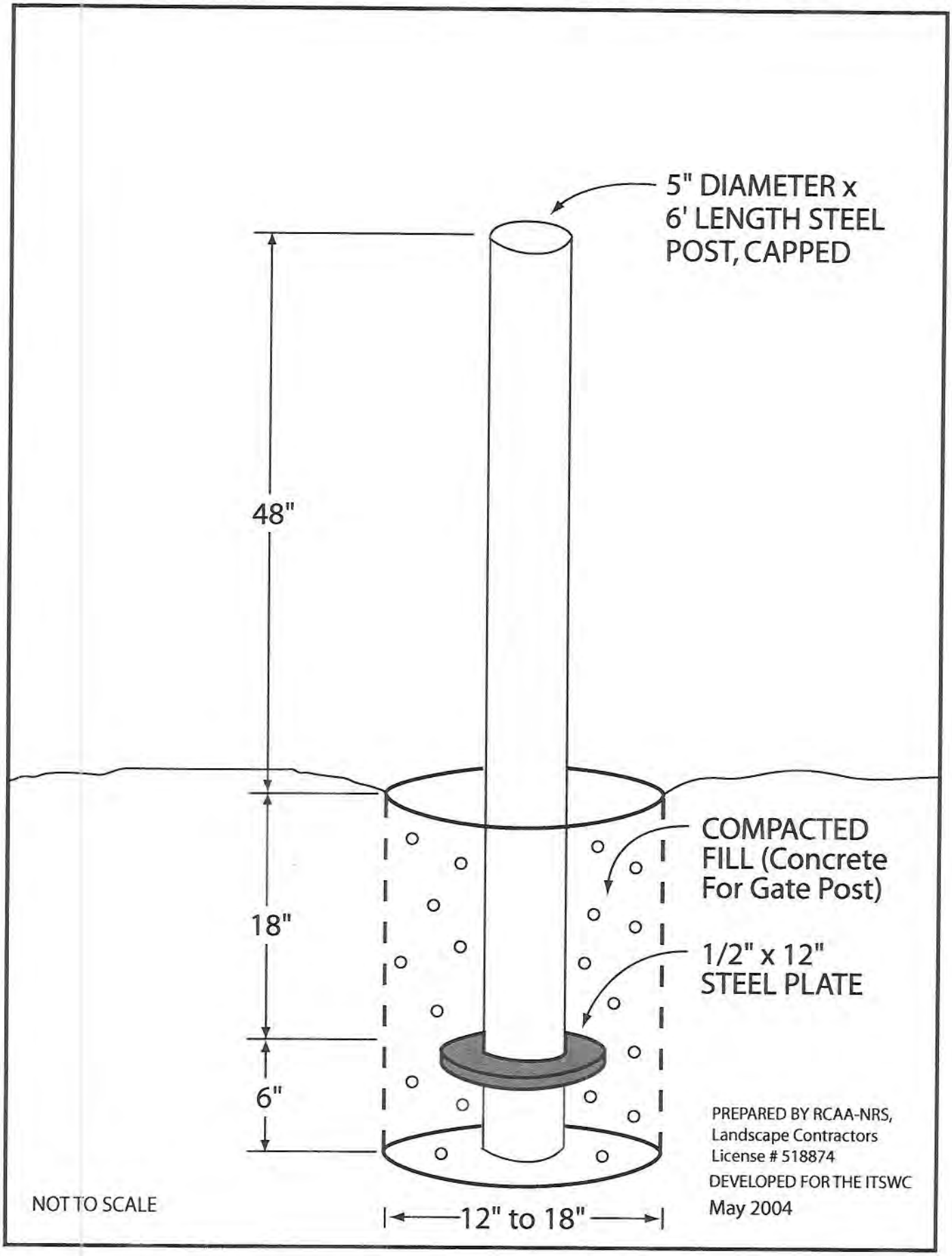
SOURCE:
SONOMA COUNTY PROBATION CAMP CATALOG
1993

Typical #7

Gate Post Footing



Typical #8 FIXED BOLLARD (GATE POST)

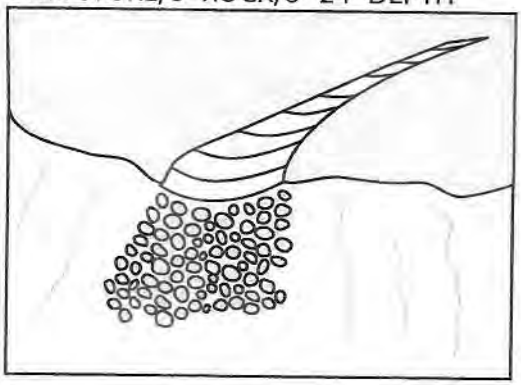


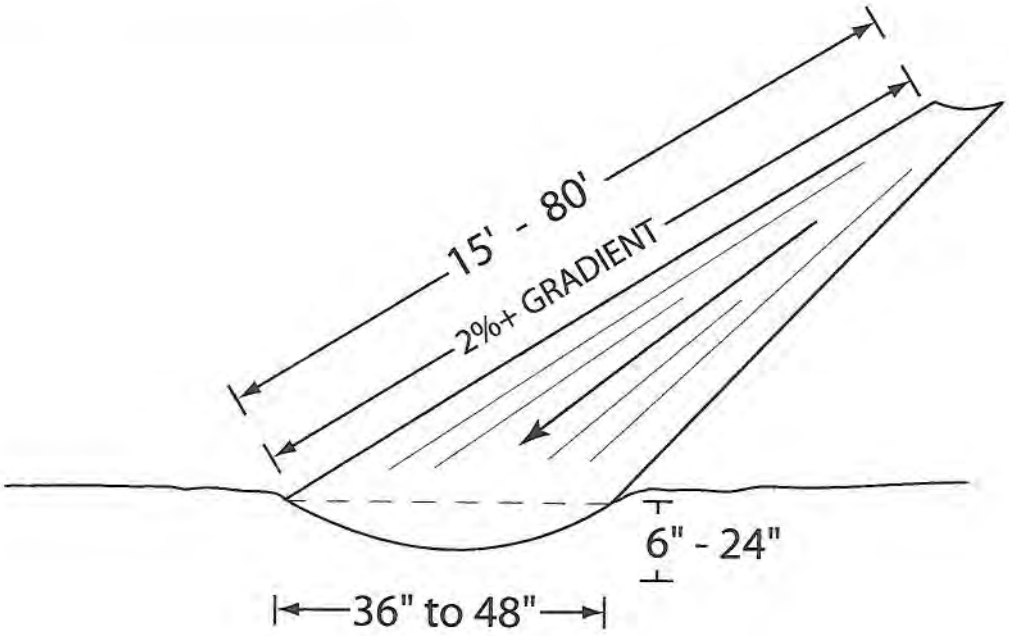
Typical #9

Beveled Drainage Ditch

SOUTH AND MIDDLE PARKING AREAS

ROCKED ENERGY DISSIPATION
STRUCTURE, 6" ROCK, 6"-24" DEPTH



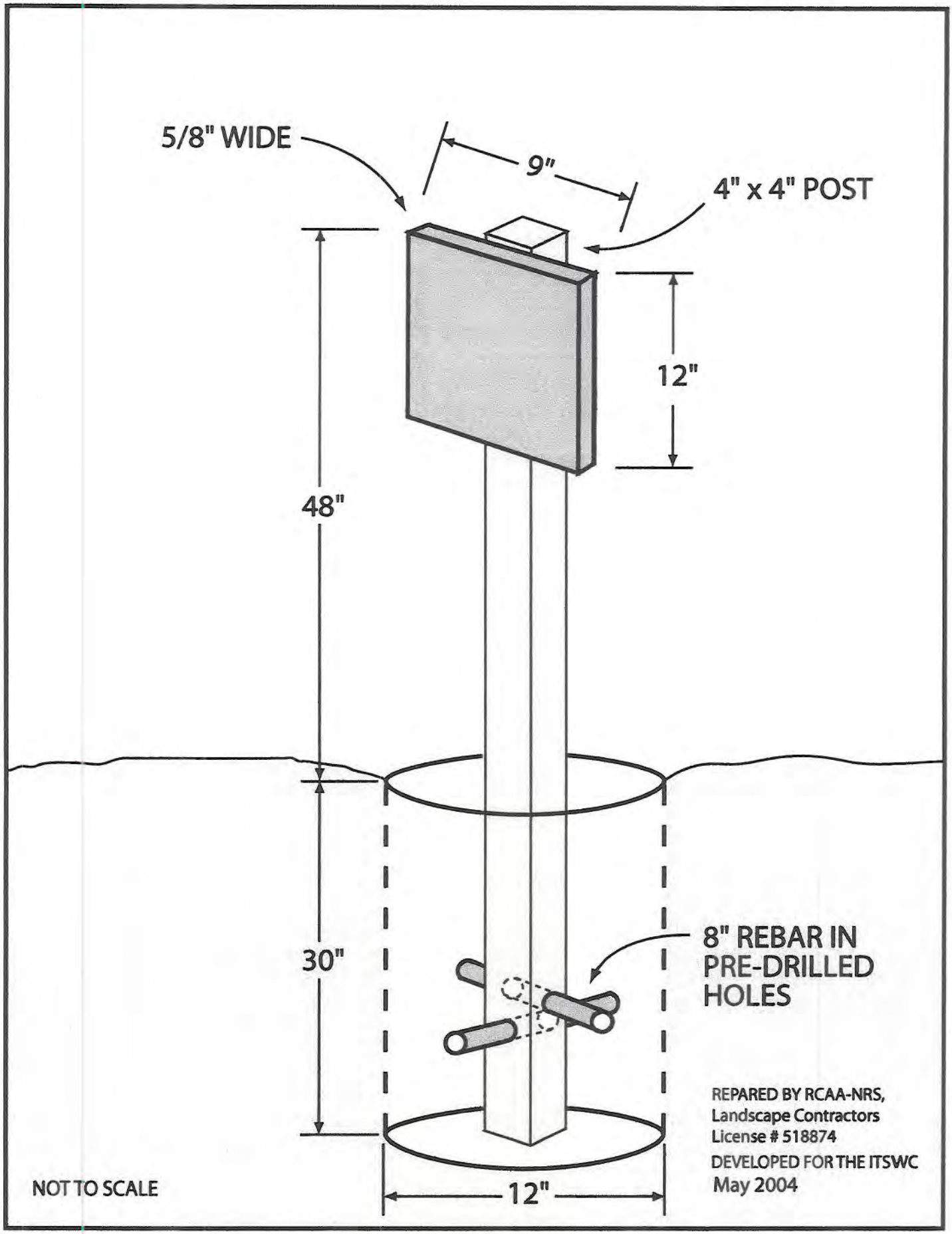


NOT TO SCALE

PREPARED BY RCAA-NRS,
Landscape Contractors
License # 518874
DEVELOPED FOR THE ITSWC
May 2004

Typical # 10

Trail Junction Sign



Typical #11

2-Sided Kiosk Display

SOURCE:
SONOMA COUNTY PROBATION CAMP CATALOG
1993

Typical #12

Hid-A-Bag Garbage Can

SOURCE:
HAUL-ALL CATALOG
1992

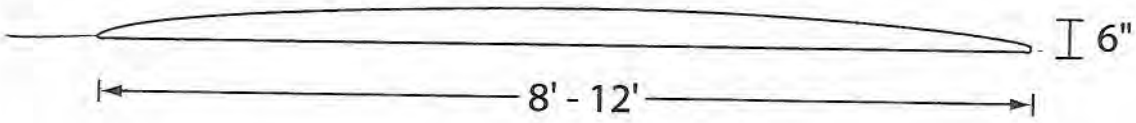
Typical #13

CXT Gunnison Vault Toilet

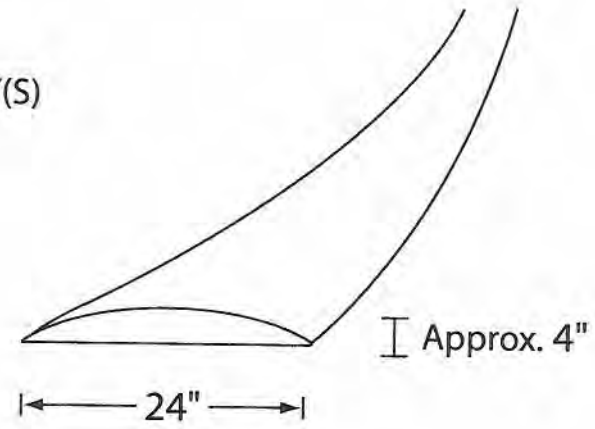
SOURCE:
CXT CATALOG
1992

Typical #14 Elevated Campsite Pad and Pathways

CAMPSITE PAD (cross section)



PATHWAY(S)

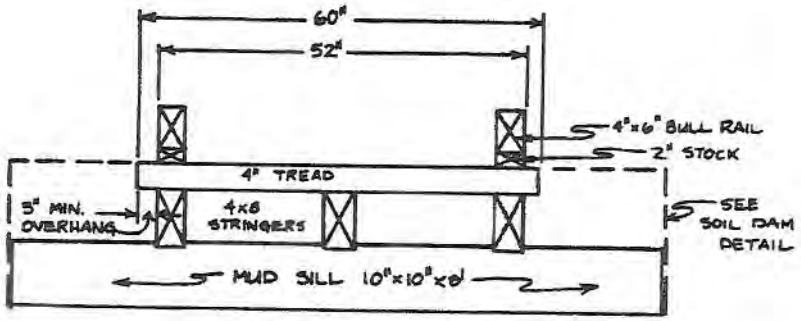


NOT TO SCALE

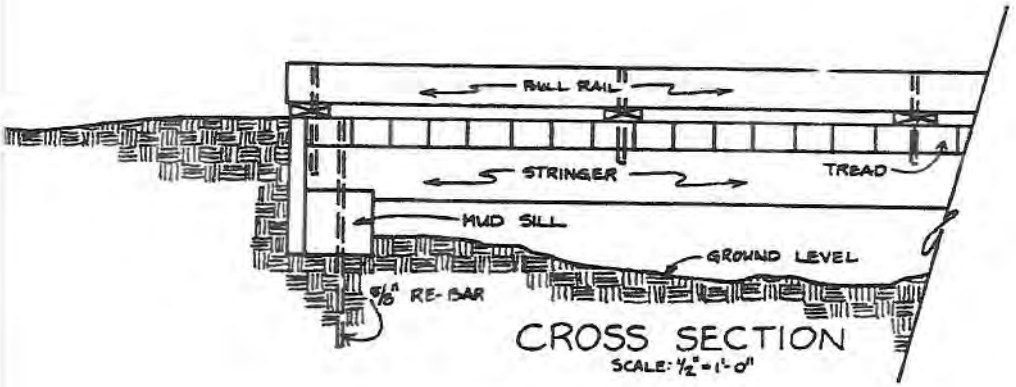
PREPARED BY RCAA-NRS,
Landscape Contractors
License # 518874
DEVELOPED FOR THE ITSWC
May 2004

SOURCE:
SONOMA COUNTY PROBATION CAMP CATALOG
1993

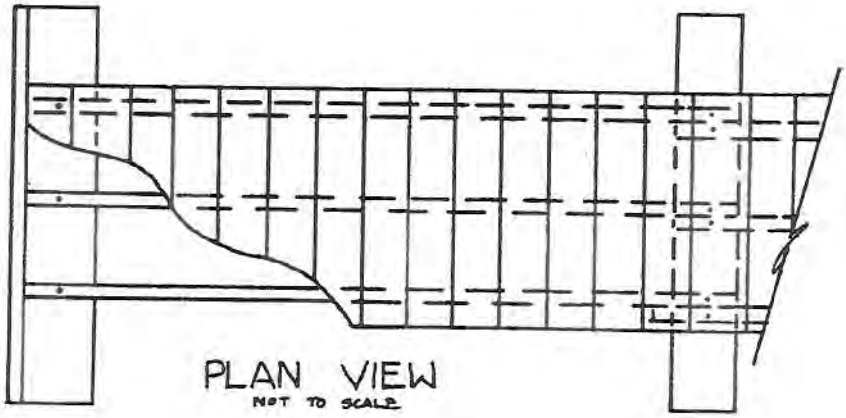
TYPICAL EQUESTRIAN PUNCHEON



END VIEW
NOT TO SCALE



CROSS SECTION
SCALE: 1/2"=1'-0"



PLAN VIEW
NOT TO SCALE

SOURCE:
KLAMATH TRAILS MANUAL
CALIFORNIA STATE PARKS
1993

Wheeler Trail
Final Upper Section

A General Public Access Trail
For Pedestrian and Equestrian/Llama Use Only

____ Miles (____ Km) to the Usal Road/Wheeler Trail Junction

**The First ____ Mile (____ Km) of the Wheeler Trail-
From this Point (Hotel Gulch Trail/Wheeler Trail Junction) East to
The Usal Road/Wheeler Trail Junction-
Traverses Private Property Under Ownership of the
InterTribal Sinkyone Wilderness Council (ITSWC)**

Use of this Property is Exclusively for ITSWC Member Tribes

**General Public Access on this Final Upper Section of the Wheeler Trail
Is Restricted to the Existing Trail Corridor**

**Leaving the Existing Trail Corridor for any Reason
Constitutes Trespassing and is a Violation of
ITSWC's Private Property/Ownership Rights**

**Pursuant to California Penal Code Section 602.8 and to
California Fish and Game Code Section 2061, it is Unlawful to Enter
Or to Cross Over this Property Without the Express Written
Permission of the InterTribal Sinkyone Wilderness Council**

All Violators will be Prosecuted to the Fullest Extent of the Law

**Absolutely No Motorized Vehicles or Bicycles Allowed
Beyond this Point, Except for Authorized Management Vehicles**

**InterTribal Sinkyone Wilderness Council
A Consortium of Federally-Recognized California Indian Tribes
P.O. Box 1523 Ukiah, CA 95482 (707) 463-6745**

Wheeler Trail
Trailhead

A General Public Access Trail
For Pedestrian and Equestrian/Llama Use Only

____ Miles (____ Km) to the Sinkyone Wilderness State Park Boundary
____ Miles (____ Km) to the Hotel Gulch Trail/Wheeler Trail Junction

The First ____ Mile (____ Km) of the Wheeler Trail-
From this Point (Usal Road/Wheeler Trail Junction) West to
The Hotel Gulch Trail/Wheeler Trail Junction-
Traverses Private Property Under Ownership of the
InterTribal Sinkyone Wilderness Council (ITSWC)

Use of this Property is Exclusively for ITSWC Member Tribes

General Public Access on this Final Upper Section of the Wheeler Trail Is Restricted to the Existing Trail Corridor

Leaving the Existing Trail Corridor for any Reason Constitutes Trespassing and is a Violation of ITSWC's Private Property/Ownership Rights

Pursuant to California Penal Code Section 602.8 and to California Fish and Game Code Section 2061, it is Unlawful to Enter Or to Cross Over this Property Without the Express Written Permission of the InterTribal Sinkyone Wilderness Council

All Violators will be Prosecuted to the Fullest Extent of the Law

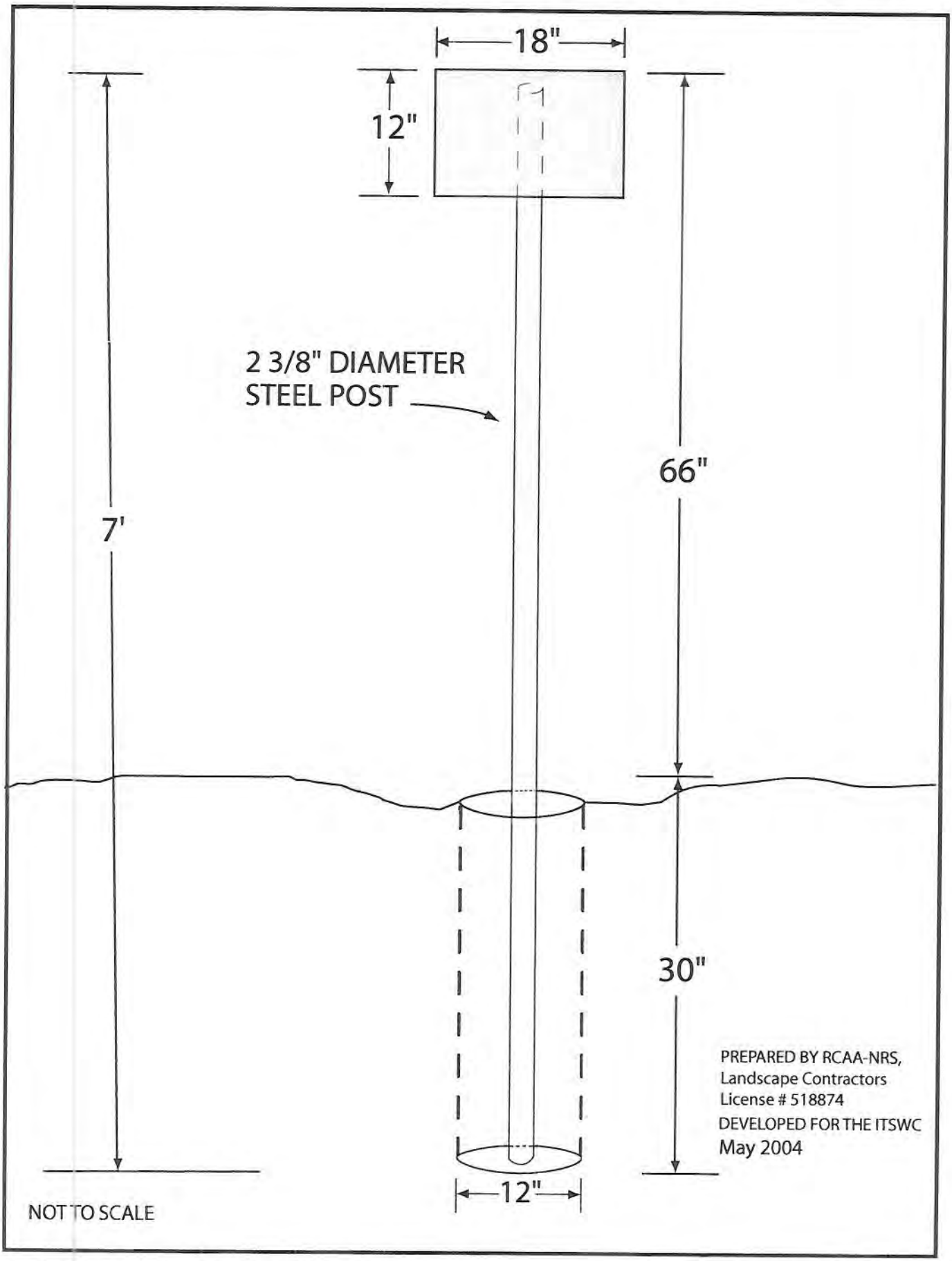
Absolutely No Motorized Vehicles or Bicycles Allowed Beyond this Point, Except for Authorized Management Vehicles

No Parking Allowed Beyond this Point
Parking is Allowed Only Along the Side of the Usal Road

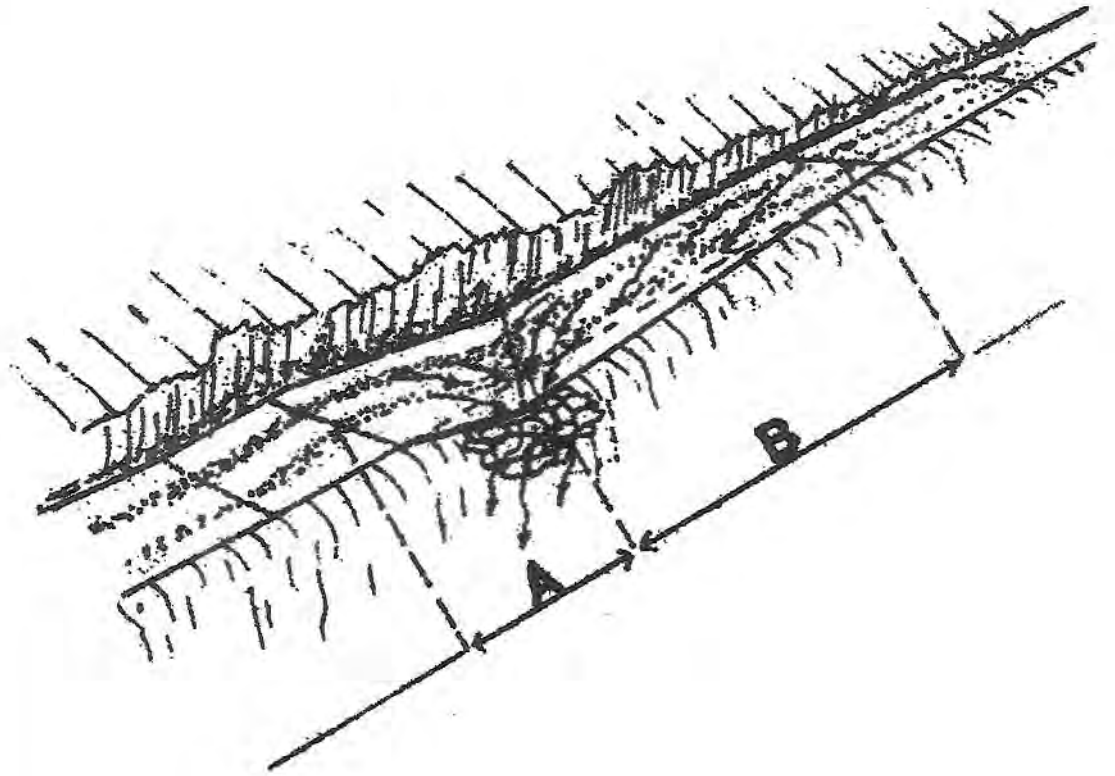
Do Not Block this Roadway or this Gate
Violators' Vehicles will be Towed at Owners' Expense

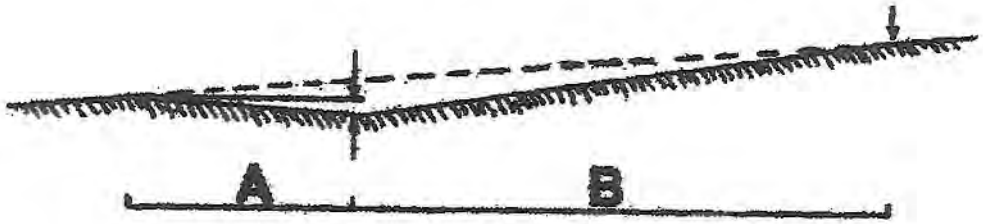
InterTribal Sinkyone Wilderness Council
A Consortium of Federally-Recognized California Indian Tribes
P.O. Box 1523 Ukiah, CA 95482 (707) 463-6745

Typical # 19 Parking Area I.D. Sign (Metal)

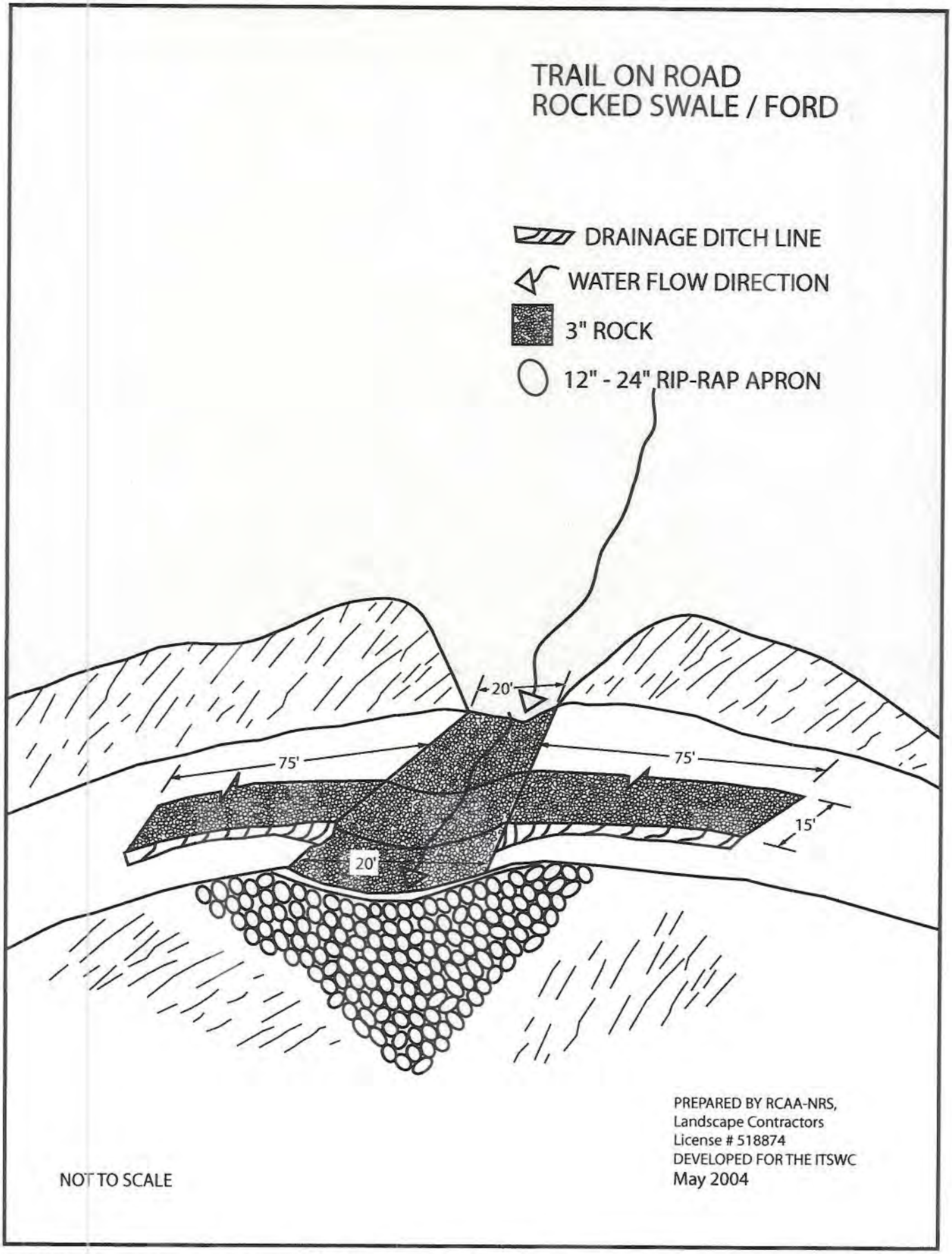


Typical # 20 Drainage: Trail-On-Road, Rolling Dip





SOURCE:
HANDBOOK FOR FOREST AND RANCH ROADS
PACIFIC WATERSHED ASSOCIATES
1994


TRAIL ON ROAD
ROCKED SWALE / FORD
DRAINAGE DITCH LINE
WATER FLOW DIRECTION
3" ROCK
12" - 24" RIP-RAP APRON
20'
75'
75'
15'
20'
PREPARED BY RCAA-NRS,
Landscape Contractors
License # 518874
DEVELOPED FOR THE ITSWC
May 2004
NOT TO SCALE

APPENDIX II PHOTOS

SOUTH TRAIL - TRAIL

Trail Photo #1: Road-based trail

Trail Photo #2: New trail

SOUTH TRAIL – PARKING AREA

Parking Photo #1: Looking toward trailhead

Parking Photo #2: Looking toward access point

SOUTH TRAIL – CAMPINGAREA

Camping Photo: Campsite #1

Camping Photo: Campsite #2

SOUTH TRAIL – CAMPING AREA

Camping Photo: Campsite #3

Camping Photo: Campsite #4

SOUTH TRAIL – CAMPINGAREA

Camping Photo: Campsite #5

Middle Trail - Trail

Trail Photo #1: Mid-trail

Trail Photo #2: Trail end-point

Middle Trail – Parking Area

Parking Photo #1: Looking towards trailhead

Parking Photo #2: Entire parking area

MIDDLE TRAIL – CAMPING AREA

Camping Photo: Campsite #1

Camping Photo: Campsite #2

Middle Trail – Camping Area

Camping Photo: Campsite #3

North Trail – Trail

Parking Photo#1: Parking area and trailhead

Parking Photo #2: Parking area access (to left) and Usal Road

Trail Photo #1: Road-based trail corridor

Trail Photo #2: Slump

North Trail – Trail

Trail Photo #3: Class III stream crossing failure

APPENDIX III COST ESTIMATES

The following pages contain cost estimates for trail construction. Estimates are based on 2004 costs, using a crew with similar experience as that of an RCAA-NRS Trail Crew, including supervision. Cost estimates for labor and materials are subject to change based on when implementation occurs, proximity of vendors, applicable labor laws and interpretation of labor laws, and other unforeseeable factors that may arise.

The first page is the combined costs for all trails and facilities. The next eight pages are estimates broken down by trail (North, Middle, South) and by Parking Area, Camping Area, and Trail Construction. Since there is no camping at the North Trail, no cost estimate for camping area development was prepared.

Combined Cost Estimate - North, Middle, and South Trails				
Note: This estimate, presented in 2004 dollars, is based on RCAA costs and approach to Trail construction.				
All material and cost information are estimates based on 2004 prices, actual cost at time of construction may vary.				
Equipment estimates do not include delivery charges				
Labor and equipment estimates reflect prevailing wage rates current in 2004				
Type	**Hour(s)**	**Day(s)**	**Unit Cost**	**Totals**
Labor:				
Project management	168		$ 55	$ 9,240
Project Supervisor	1072		$ 50	$ 53,600
Laborers	2760		$ 40	$ 110,400
OPERATING EXPENSES				
Equipment:				
D4 bulldozer w/6-way blade	120		$ 120	$ 14,400
Backhoe/Box Scraper	124		$ 120	$ 14,880
Excavator	24		$ 175	$ 4,200
Vibraplate		10	$ 50	$ 500
Roller	36		$ 70	$ 2,520
Water Trailer		10	$ 100	$ 1,000
Trucking	331		$ 75	$ 24,825
Vehicles:				
Crew-cab 4x4 pick-up truck		77	$ 75	$ 5,775
10-passenger van		39	$ 100	$ 3,900
Camping:				
Camping per diem		479	$ 30	$ 14,370
Tool Use Fees :				$ 15,250
Signage/Features/Materials:		**Number**	**Unit Cost**	
Kiosk		3	$ 775	$ 2,325
Gate		3	$ 900	$ 2,700
Barrier Posts (bollard/gate)		13	$ 150	$ 1,950
Rock Barriers (2-ton)		135	$ 18	$ 2,430
Rock Surfacing		151	$ 12	$ 1,812
Misc materials/hardware				$ 1,270
3"-minus rock (cu. yrds.)		125	$ 9	$ 1,125
12"-24" rip-rap rock (cu. yrds.)		105	$ 18	$ 1,890
Carsonite trail posts		46	$ 20	$ 920
Trail junction sign, 12"x36"		3	$ 220	$ 660
Trail junction sign, 9"x12"		3	$ 200	$ 600
CXT Toilet		2	$ 17,000	$ 34,000
Hid-a-Bag Garbage Receptacle		2	$ 550	$ 1,100
Shale rock		20	$ 24	$ 480
Concrete		64	$ 5	$ 320
Picnic Tables		8	$ 375	$ 3,000
Puncheon structure		1	$ 750	$ 750
Subtotal Materials				$ 57,332
SUBTOTAL				$ 332,192
Admin/Overhead				$ 31,790
Total				**$ 363,982**

South Trail: Trail Construction Estimate						
Note: This estimate, presented in 2004 dollars, is based on RCAA costs and approach to Trail construction.						
All material and cost information are estimates based on 2004 prices, actual cost at time of construction may vary.						
Equipment estimates do not include delivery charges						
Labor and equipment estimates reflect prevailing wage rates current in 2004						
Type	**No. of**	**Hours**	**Days**	**Unit Cost**	**Totals**	**Notes**
Labor:						
Project management	1	44		$ 55	$ 2,420	ordering materials, scheduling + logistics, invoicing, communications
Project Supervisor	2	176		$ 50	$ 17,600	project set-up and oversight
Laborer	6	160		$ 40	$ 38,400	hand labor
OPERATING EXPENSES						
Equipment:						
D4 bulldozer w/6-way blade	1	32		$ 120	$ 3,840	debris clearence and drainage work
Backhoe	1	32		$ 120	$ 3,840	debris clearence and drainage work
Vehicles						
Full-size 4x4 pick-up truck	1		22	$ 75	$ 1,650	project set-up, tool/equip/crew transport
10-passenger van	1		20	$ 100	$ 2,000	
Camping:						
camping per diem			164	$ 30	$ 4,920	
Tool Use Fees (estimated):			20	$ 250	$ 5,000	chainsaws, fuel, griphoist, other handtools
Signage/Features/Materials						
Carsonite trail posts	10			$ 20	$ 220	intermittent trail marking posts
Trail junction sign, 12"x36"	1			$ 220	$ 220	aluminum sign on steel post; location: Council / State Parks boundary
Subtotal					$ 80,110	
Admin & Overhead					$ 4,338	20% (on operating expneses only)
Total					**$ 84,448**	

South Trail: Parking Construction Estimate						
Note: This estimate, presented in 2004 dollars, is based on RCAA costs and approach to Parking Area construction.						
All material and cost information is generalized: costs may vary.						
Equipment estimates do not include delivery charges						
Labor and equipment estimates reflect prevailing wage rates current in 2004						
Type	**No.**	**Hours**	**Days**	**Unit Cost**	**Totals**	**Notes**
Labor:						
Project Management	1	16		$ 55	$ 880	project oversight, ordering materials, scheduling + logistics, invoicing, communications
Project Supervisor	1	64		$ 50	$ 3,200	project set-up, mobilization, and oversight
Laborers	3	48		$ 40	$ 5,760	hand labor
OPERATING EXPENSES						
Contract Equipment:						
D4 bulldozer w/6-way blade	1	16		$ 120	$ 1,920	debris clearence and drainage work
Backhoe/Box Scrapper	1	24		$ 120	$ 2,880	debris clearence and drainage work
Roller	1	16		$ 70	$ 1,120	compaction
Water Trailer	1		3	$ 100	$ 300	approximately 3 days on-site
Trucking	1	30		$ 75	$ 2,250	5 hrs per load 2-ton rock (barriers), RT
Trucking	1	50		$ 75	$ 3,750	5 hrs per load of 3/4" road-base surfacing, RT
Trucking	2	8		$ 75	$ 1,200	picnic table/kiosk/gate shipping, RT
Vehicles:						
Crew-cab 4x4 pick-up truck	1		7	$ 75	$ 525	for pre-project assessment, mobilization, and tool/equip/crew transport
Camping:						
Camping per diem			26	$ 30	$ 780	
Tool Use Fees (estimated):			5	$ 250	$ 1,250	chainsaws, fuel, other handtools
Signage/Features/Materials:						
Kiosk	1			$ 775	$ 775	redwood, 2-sided w/plexiglass
Carsonite posts/decals	3			$ 20	$ 60	intermittent trail marking posts
Gate	1			$ 900	$ 900	entrance gate
CXT Toilet	1			$ 17,000	$17,000	1 toilet with marine package, shipped and installed
Hid-a-Bag Garbage Receptacle	1			$ 550	$ 550	not including mounting pad: construct separetely
Barrier Posts (bollard/gate)	4			$ 150	$ 600	3 bollards for toilet area, 1 for gate in open position
Rock Barriers (2-ton)	75			$ 18	$ 1,350	at per ton rate (approximate)
Rock Surfacing	70			$ 12	$ 840	3/4" road-base rock, cubic yards
Misc materials/hardware					$ 500	
Subtotal					$48,390	
Admin & Overhead					$ 7,710	20% (on operating expneses only)
Total					**$56,100**	

South Trail: Camping Construction Estimate						
Note: This estimate, presented in 2004 dollars, is based on RCAA costs and approach to Camping Area construction.						
All material and cost information are estimates based on 2004 prices, actual cost at time of construction may vary.						
Equipment estimates do not include delivery charges						
Labor and equipment estimates reflect prevailing wage rates current in 2004						
Type	**No.**	**Hour(s)**	**Day(s)**	**Unit Cost**	**Totals**	**Notes**
Labor:						
Project Management	1	16		$ 55	$ 880	ordering materials, scheduling + logistics, invoicing, communications
Project Supervisor	1	72		$ 50	$ 3,600	project set-up and oversight
Laborers	3	64		$ 40	$ 7,680	hand labor
OPERATING EXPENSES						
Contract Equipment:						
D4 bulldozer w/6-way blade	1	4		$ 120	$ 480	debris clearence and drainage work
Backhoe/Box Scrapper	1	4		$ 120	$ 480	debris clearence and drainage work
Vibraplate			5	$ 50	$ 250	compaction
Water Trailer	1		2	$ 100	$ 200	approximately 2 days on-site
Trucking	1	10		$ 75	$ 750	5 hours per load, shale for camp pads/paths
Vehicles:						
Crew-cab 4x4 pick-up truck	1		8	$ 75	$ 600	pre-project assessment, mobilzation, and tool/equip/crew transport
Camping:						
Camping per diem			33	$ 30	$ 990	
Tool Use Fees (estimated):		6		$ 250	$ 1,500	chainsaws, fuel, griphoist, other handtools
Signage/Features/Materials:						
Carsonite posts/decals	5			$ 20	$ 100	carsonite (or similar) for campsites
Shale rock	10			$ 24	$ 240	cubic yards, for campsite pads & paths
Concrete	40			$ 5	$ 200	for table anchors
Picnic Tables	5			$ 375	$ 1,875	6' long, non-ADA, for 3 camping sites
Misc. materials/hardware					$ 100	for table anchors, gates, etc: chain, bolts, locks, etc.
Subtotal					$ 19,925	
Admin & Overhead					$ 1,553	20% (on operating expneses only)
Total					**$ 21,478**	

Middle Trail: Trail Construction Estimate						
Note: This estimate, presented in 2004 dollars, is based on RCAA costs and approach to Parking Area construction.						
All material and cost information are estimates based on 2004 prices, actual cost at time of construction may vary.						
Type	**No.**	**Hours**	**Days**	**Unit Cost**	**Totals**	**Notes**
Labor:						
Project Management	1	20		$ 55	$ 1,100	ordering materials, scheduling + logistics, invoicing, communications
Project Supervisor	2	80		$ 50	$ 8,000	project set-up and oversight
Laborer	6	72		$ 40	$ 17,280	hand labor
OPERATING EXPENSES						
Equipment:						
D4 bulldozer w/6-way blade	1	8		$ 120	$ 960	debris clearence and drainage work
Backhoe	1	8		$ 120	$ 960	debris clearence and drainage work
Vehicles:						
Full-size 4x4 pick-up truck	1		10	$ 75	$ 750	project set-up, tool/equip/crew transport
10-passenger van	1		9	$ 100	$ 900	
Camping:						
Camping per diem			74	$ 30	$ 2,220	
Tool Use Fees (estimated):			9	$ 250	$ 2,250	chainsaws, fuel, griphoist, other handtools
Signage/Features/Materials						
Carsonite trail posts	5			$ 20	$ 220	intermittent trail marking posts
Trail junction sign, 12"x36"	1			$ 220	$ 220	aluminum sign on steel post; location: Council / State Parks boundary
Trail junction sign, 9"x12"	3			$ 200	$ 600	aluminum sign on steel post
Puncheon structure	1			$ 750	$ 750	
Subtotal					$ 36,210	
Admin & Overhead					$ 1,966	20% (on operating expneses only)
Total					**$ 38,176**	

Middle Trail: Parking Construction Estimate						
Note: This estimate, presented in 2004 dollars, is based on RCAA costs and approach to Parking Area construction.						
All material and cost information are estimates based on 2004 prices, actual cost at time of construction may vary.						
Equipment estimates do not include delivery charges						
Labor and equipment estimates reflect prevailing wage rates current in 2004						
Type	**No.**	**Hours**	**Days**	**Unit Cost**	**Totals**	**Notes**
Labor:						
Project Management	1	16		$ 55	$ 880	project oversight, ordering materials, scheduling + logistics, invoicing, communications
Project Supervisor	1	64		$ 50	$ 3,200	project set-up, mobilization, and oversight
Laborer	3	48		$ 40	$ 5,760	hand labor
OPERATING EXPENSES						
Contract Equipment:						
D4 bulldozer w/6-way blade	1	16		$ 120	$ 1,920	debris clearence and drainage work
Backhoe/Box Scrapper	1	16		$ 120	$ 1,920	debris clearence and drainage work
Roller	1	16		$ 70	$ 1,120	compaction
Water Trailer	1		3	$ 100	$ 300	approximately 3 days on-site
Trucking	1	20		$ 75	$ 1,500	5 hrs per load 2-ton rock (barriers), RT
Trucking	1	35		$ 75	$ 2,625	5 hrs per load of 3/4" road-base surfacing, RT
Vehicles:						RCAA or similar
Crew-cab 4x4 pick-up truck	1		7	$ 75	$ 525	for pre-project assessment, mobilization, and tool/equip/crew transport
Camping:						
Camping per diem	1		26	$ 30	$ 780	
Tool Use Fees (estimated):			5	$ 250	$ 1,250	chainsaws, fuel, other handtools
Signage/Features/Materials:						
Kiosk	1			$ 775	$ 775	redwood, 2-sided w/plexiglass
Carsonite posts/decals	3			$ 20	$ 60	intermittent trail marking posts
Gate	1			$ 900	$ 900	entrance gate
CXT Toilet	1			$ 17,000	$17,000	1 toilet with marine package, shipped and installed
Hid-a-Bag Garbage Receptacle	1			$ 550	$ 550	not including mounting pad: construct separetely
Barrier Posts (bollard/gate)	4			$ 150	$ 600	3 bollards for toilet area, 1 for gate in open position
Rock Barriers (2-ton)	50			$ 18	$ 900	at per ton rate (approximate)
Rock Surfacing	70			$ 12	$ 840	3/4" road-base rock, cubic yards
Misc materials/hardware					$ 500	
Subtotal					$43,905	
Admin & Overhead					$ 6,813	20% (on operating expneses only)
Total					**$50,718**	

Middle Trail: Camping Construction Estimate						
Note: This estimate, presented in 2004 dollars, is based on RCAA costs and approach to Camping Area construction.						
All material and cost information are estimates based on 2004 prices, actual cost at time of construction may vary.						
Equipment estimates do not include delivery charges						
Labor and equipment estimates reflect prevailing wage rates current in 2004						
Type	**No.**	**Hour(s)**	**Day(s)**	**Unit Cost**	**Totals**	**Notes**
Labor:						
Project Management	1	16		$ 55	$ 880	ordering materials, scheduling + logistics, invoicing, communications
Project Supervisor	1	64		$ 50	$ 3,200	project set-up, mobilization, and oversight
Laborer	3	40		$ 40	$ 4,800	hand labor
OPERATING EXPENSES						
Contract Equipment:						sub-contractor services
D4 bulldozer w/6-way blade					$ -	
Backhoe/Box Scrapper					$ -	
Vibraplate			5	$ 50	$ 250	compaction
Water Trailer	1		1	$ 100	$ 100	approximately 3 days on-site
Trucking	1	5		$ 75	$ 375	5 hours per load, shale for camp pads/paths
Trucking	1	8	1	$ 75	$ 600	picnic table/kiosk/gate shipping, RT
Vehicles:						RCAA or similar
Crew-cab 4x4 pick-up truck	1		8	$ 75	$ 600	or pre-project assessment, mobilzation, and tool/equip/crew transport
Camping:						
Camping per diem			23	$ 30	$ 690	
Tool Use Fees (estimated):			4	$ 250	$ 1,000	RCAA or similar: chainsaws, fuel, griphoist, other handtools
Signage/Features/Materials:						
Carsonite posts/decals	3			$ 20	$ 60	carsonite, or similar, for campsites
Shale rock	10			$ 24	$ 240	10 cubic yards for campsite pads & paths
Concrete	24			$ 5	$ 120	ready-mix bags for table anchors
Picnic Tables	3			$ 375	$ 1,125	6' long, non-ADA, for 3 camping sites
Misc. materials/hardware					$ 70	for table anchors, gates, etc: chain, bolts, locks, etc.
Subtotal					$ 14,110	
Admin & Overhead					$ 1,046	20% (on operating expenses only)
Total					**$ 15,156**	

North Trail: Trail Construction Estimate

Note: This estimate, presented in 2004 dollars, is based on RCAA costs and approach to Trail construction.
All material and cost information are estimates based on 2004 prices, actual cost at time of construction may vary.
Equipment estimates do not include delivery charges
Labor and equipment estimates reflect prevailing wage rates current in 2004

Type	No. of	Hours	Days	Unit Cost	Totals	Notes
Labor:						
Project Management	1	34		$ 55	$ 1,870	project oversight, ordering materials, scheduling + logistics, invoicing, communications
Project Supervisor	2	136		$ 50	$ 13,600	project set-up (1 sup.) and oversight
Laborer	6	120		$ 40	$ 28,800	hand labor
OPERATING EXPENSES						
Equipment:						
D4 bulldozer w/6-way blade	1	40		$ 120	$ 4,800	debris clearence and drainage work
Backhoe	1	32		$ 120	$ 3,840	debris clearence and drainage work
Excavator	1	24		$ 175	$ 4,200	
Trucking	1	130		$ 75	$ 9,750	All rock for x-ings: 12"-24" rip-rap, 3"-minus
Trucking	1	12		$ 75	$ 900	gate/kiosk delivery
Vehicles:						
Full-size 4x4 pick-up truck	1		12	$ 75	$ 900	project set-up, tool/equip/crew transport
10-passenger van	1		10	$ 100	$ 1,000	
Camping:						
Camping per diem			124	$ 30	$ 3,720	
Tool Use Fees (estimated):			10	$ 250	$ 2,500	chainsaws, fuel, griphoist, other handtools
Signage/Features/Materials						
Carsonite trail posts	10			$ 20	$ 200	intermittent trail marking posts
Trail junction sign, 12"x36"	1			$ 220	$ 220	aluminum sign on steel post; location: Council / Sta
3"-minus rock (cu. yrds.)	125			$ 9	$ 1,125	armoring for stream crossing channels & slump
12"-24" rip-rap rock (cu. yrds.)	105			$ 18	$ 1,890	armoring for stream crossings & slump
Subtotal					$ 79,315	
Admin/Overhead					$ 7,009	20% (on operating expneses only)
Total					**$ 86,324**	

North Trail: Parking Construction Estimate						
Note: This estimate, presented in 2004 dollars, is based on RCAA costs and approach to Trail construction.						
All material and cost information are estimates based on 2004 prices, actual cost at time of construction may vary.						
Equipment estimates do not include delivery charges						
Labor and equipment estimates reflect prevailing wage rates current in 2004						
Type	**No. of**	**Hour(s)**	**Day(s)**	**Unit Cost**	**Total**	**Notes**
Labor:						
Project management	1	6		$ 55	$ 330	project oversight, ordering materials, scheduling + logistics, invoicing, communications
Project Supervisor	1	24		$ 50	$ 1,200	project set-up and oversight
Laborer	3	16		$ 40	$ 1,920	hand labor
OPERATING EXPENSES						
Equipment:						
D4 bulldozer w/6-way blade	1	4		$ 120	$ 480	debris clearence and drainage work
Backhoe/Box Scraper	1	8		$ 120	$ 960	
Roller	1	4		$ 70	$ 280	compaction
Water Trailer	1	8	1	$ 100	$ 100	approximately 1 days on-site
Trucking	1	5		$ 75	$ 375	5 hours per load 2-ton rock (barriers), RT
Trucking	1	10		$ 75	$ 750	5 hrs per load of 4/4" road-base surfacing, RT
Vehicles:						
Crew-cab 4x4 pick-up truck	1		3	$ 75	$ 225	project set-up, tool/equip/crew transport
Camping:						
Camping per diem			9	$ 30	$ 270	
Tool Use Fees (estimated):			2	$ 250	$ 500	handtools, etc.
Signage/Features/Materials:						
Kiosk	1			$ 775	$ 775	redwood, 2-sided w/plexiglass
Gate	1			$ 900	$ 900	entrance gate
Barrier Posts (bollard/gate)	5			$ 150	$ 750	3 bollards for toilet area, 1 for gate in open position
Rock Barriers (2-ton)	10			$ 18	$ 180	at per ton rate (approximate)
Rock Surfacing	11			$ 12	$ 132	3/4" road-base rock, cubic yards
Misc materials/hardware					$ 100	
Subtotal					$ 10,227	
Admin/Overhead					$ 1,355	20% (on operating expneses only)
Total					**$ 11,582**	

APPENDIX IV ENVIRONMENTAL ANALYSIS - CEQA CHECKLIST

Environmental Checklist

1.	Project title: InterTribal Sinkyone Wilderness Council Access Plan		
2.	Lead agency name and address: Mendocino County Planning Department, Ukiah, CA		
3.	Contact person and phone number: _____		
4.	Project location: The InterTribal Sinkyone Wilderness (ITSW) is located approximately 10 air miles north of Fort Bragg, and 12 air miles west of Garberville. The southern boundary of the ITSW is Usal Creek, located in Section 22, T23N, R 18W (USGS 7.5' Quadrangle: Hales Grove, California); the eastern boundary id Usal Road; the western boundary is the Sinkyone Wilderness State Park; and the northern boundary is located in Section 19, T24N,R18W, where the Usal Road crosses the range line between R18W and R19W. The project is the construction of 3 trails and associated facilities. The "South Trail" trailhead and associated parking and camping areas are to be located south of and adjacent to Usal Road (Mile Marker 9) in the northeast quarter of the northeast quarter of Section 16, T23N, R18W. The trail route heads in a west-southwesterly direction from these coordinates, ending at Hotel Gulch Road in the northeast quarter of the northwest quarter of Section 16, T23N, R18W. The "Middle Trail trailhead and associated parking and camping areas are located south of, and adjacent to, Usal Road Mile Marker 11 in the southwest quarter of the northeast quarter of Section 8, T23N, R18W. The trail heads in an overall west-southwesterly direction from these coordinates and ends near the Wheeler Road (Trail)/Hotel Gulch Road (Trail) junction in the northwest quarter of the northeast quarter of Section 8, T23N, R18W. The "North Trail" trailhead and associated parking area are located west of and adjacent to Usal Road (Mile Marker 16.75) in the northeast quarter of the southwest quarter of Section 19, T24N, R18W. This location is just west of the "Kenny Site", indicated on the USGS Bear Harbor 7.5 minute quadrangle. The trail route heads in a west-southwest direction, presently terminating at the State Park's boundary at the range line between R18W and R19W, in the southwest corner of Section 19, T24N,R18W.		
5.	Project sponsor's name and address: InterTribal Sinkyone Wilderness Council; P.O. Box 1523, Ukiah CA 95482		
6.	General plan designation: _____	7.	Zoning: _____
8.	Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.) The project is the construction of 3 trails (North Trail; Middle Trail; South Trail) and associated facilities in the InterTribal Sinkyone Wilderness area. The South and Middle trails will connect Usal Road on the east with Hotel Gulch Road on the west. The North Trail will connect Usal Road to the Sinkyone Wilderness State Park on the West. Trails will be mostly located on old skid roads with short sections of trail located outside of skid road corridors, in areas previously disturbed by logging activities. The area		

	was tractor logged in the past and the area has a high density of old skid roads. Associated facilities will include parking areas at each of the trails (North, Middle, and South); camping areas at the South and Middle Trails; picnic tables at the South and Middle Trail; pit toilets at the South and Middle Trails; gates at each of the parking areas (North, Middle, and South); associated display boards for posting maps and regulations; and signs with regulations and directions. Parking areas will be built at landings created during logging operations, with the exception of the North Trail which will have a parking area created on an old logging road near its intersection with Usal Road.
9.	Surrounding land uses and setting: Briefly describe the project's surroundings: To the west is the Sinkyone State Park and to the east is private timber land owned by Campbell Timber Company. The Sinkyone State Park contains the Lost Coast Trail and is managed for public recreation. Campbell Timber Company property is zoned Timber Production and actively managed for timber.
10.	Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.) 1) California Department of Fish and Game (Streambed Alteration Agreement) 2) Mendocino County Public Works Department (Encroachment Permit)

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics		Agriculture Resources		Geology /Soils	
	Biological Resources		Cultural Resources		Land Use / Planning	
	Hazards & Hazardous Materials		Hydrology / Water Quality		Population / Housing	
	Mineral Resources		Noise		Transportation/Traffic	
	Public Services		Recreation			
	Utilities / Service Systems		Air Quality			

Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

√	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____ Signature	_____ Date
_____ Signature	_____ Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

Issues:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?			√	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				√
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			√	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				√
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				√
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				√

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				√
III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?				√
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?				√
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?				√
d) Expose sensitive receptors to substantial pollutant concentrations?				√
e) Create objectionable odors affecting a substantial number of people?				√
IV. BIOLOGICAL RESOURCES -- Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and				√

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Wildlife Service?				
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?			√	
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			√	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				√
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				√
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				√
V. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in ∋15064.5?				√
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to ∋15064.5?			√	
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				√

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
d) Disturb any human remains, including those interred outside of formal cemeteries?				√
VI. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				√
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				√
ii) Strong seismic ground shaking?				√
iii) Seismic-related ground failure, including liquefaction?				√
iv) Landslides?				√
b) Result in substantial soil erosion or the loss of topsoil?			√	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				√
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				√
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available				√

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
for the disposal of waste water?				
VII. HAZARDS AND HAZARDOUS MATERIALS B Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				√
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				√
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				√
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				√
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				√
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				√
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				√
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			√	
VIII. HYDROLOGY AND WATER QUALITY				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
-- Would the project:				
a) Violate any water quality standards or waste discharge requirements?				√
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				√
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?				√
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				√
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?				√
f) Otherwise substantially degrade water quality?				√
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				√
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?			√	
i) Expose people or structures to a significant risk of loss, injury or death involving flooding,				√

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
including flooding as a result of the failure of a levee or dam?				
j) Inundation by seiche, tsunami, or mudflow?				√
IX. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?				√
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				√
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				√
X. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				√
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				√
XI. NOISE B Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				√
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				√

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				√
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			√	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				√
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				√
XII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				√
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				√
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				√
XIII. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
public services:				
Fire protection?				√
Police protection?				√
Schools?				√
Parks?				√
Other public facilities?				√
XIV. RECREATION --				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				√
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			√	
XV. TRANSPORTATION/TRAFFIC -- Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?			√	
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				√

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				√
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				√
e) Result in inadequate emergency access?				√
f) Result in inadequate parking capacity?				√
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				√
XVI. UTILITIES AND SERVICE SYSTEMS B Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				√
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				√
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				√
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				√
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the				√

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
providers existing commitments?				
f) Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs?				√
g) Comply with federal, state, and local statutes and regulations related to solid waste?				√
XVII. MANDATORY FINDINGS OF SIGNIFICANCE --				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			√	
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				√
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				√

Explanations to Responses other than "No Impact":

I. AESTHETICS -- Would the project:
a) Have a substantial adverse effect on a scenic vista? **Answer: Less Than Significant Impact** Discussion: The South, Middle, and North Trails will have parking areas created out of existing landings or roads and will have gates installed to control access. The South and Middle Trail camping areas will also have toilets, picnic tables; and sign boards for posting information and notices. All of these features will be located immediately adjacent to Usal Road. These features will alter the appearance of the existing landscape. However, there is no coastal view from any of these locations and the view is of previously logged land with

20-year old vegetation consisting of conifers, hardwoods, and brush. There will be an impact on the view shed but it is not a scenic vista and the impact will not be significant
c) Substantially degrade the existing visual character or quality of the site and its surroundings? **Answer: Less Than Significant Impact** See discussion under I a) above
IV. BIOLOGICAL RESOURCES -- Would the project:
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service? **Answer: Less Than Significant Impact** Discussion: The Middle Trail will cross a class 3 stream (dry during summer) using a puncheon. Puncheons have been designed by trail builders for use in situations such as exists at the Middle Trail stream crossing. No trees greater than 10 inches in diameter at breast height (dbh) will be removed during the trail construction or construction of any related facilities. The puncheon is designed to allow trail users to cross the stream without impacting water quality or aquatic species.
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? **Answer: Less Than Significant Impact** Discussion: The Middle Trail will cross a class 3 stream (dry during summer) using a puncheon. Puncheons have been designed by trail builders for use in situations such as exists at the Middle Trail stream crossing. No trees greater than 10 inches in diameter at breast height (dbh) will be removed during the trail construction or construction of any related facilities. The puncheon is designed to allow trail users to cross the stream without impacting water quality or aquatic species.
V. CULTURAL RESOURCES -- Would the project:
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to ∋15064.5? **Answer: Less Than Significant Impact** Discussion: The InterTribal Sinkyone Wilderness Council selected the locations of the trail and associated features in order to avoid archeological resources.
VI. GEOLOGY AND SOILS -- Would the project:
b) Result in substantial soil erosion or the loss of topsoil? **Answer: Less Than Significant Impact** Discussion: Trail and related facilities construction will entail minor excavation and fill to create trail tread, improve parking areas, create camp sites, and install toilets. Creating camp sites and trails between camp sites will entail placing a small amount of fill (less than one foot in thickness) to elevate camping pads and trails so they do not become low spots that fill with water during rain events. Drainage features such as rock-lined swales will be built into parking areas, camping areas, and trails to reduce runoff erosion and loss of topsoil. Rock lining the swales and installing energy dissipation at the outlets of constructed drainage swales will prevent soil erosion.
VII. HAZARDS AND HAZARDOUS MATERIALS B Would the project:
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? **Answer: Less Than Significant Impact** Discussion: There are no urbanized areas or residences adjacent to the project area. The InterTribal Sinkyone Wilderness Area is subject to wildland fires and the construction of the trails and related facilities will encourage

more public use, exposing users to the potential of wildland fires. However the InterTribal Sinkyone Wilderness Council will not allow any type of recreational fire use in the InterTribal Sinkyone Wilderness Area during the dry season.

VIII. HYDROLOGY AND WATER QUALITY -- Would the project:

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? **Answer: Less Than Significant Impact**

Discussion: The Middle trail stream crossing (puncheon) will be built within the 100-year flood plain. The area of the stream crossing is the headwaters of a class 3 stream (dry in summer) with a very small drainage area upstream (~ 5 acres). The creek flow at this location is very small, even in a 100 year flood. The puncheon will be installed to allow a 100-year flood to flow under and around the structure. The flow will still be contained within the 100-year floodplain. The structure will have a minimal impact on a 100-year flood which could include minor ponding upstream. However the impact is less than significant because the valley is confined and the 100-year flood will not spill out of the valley because of the puncheon, nor will the puncheon divert a 100-year flood to impact any existing structures.

XI. NOISE B Would the project result in:

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? **Answer: Less Than Significant Impact**

Discussion: Construction of trails, parking areas, and related features (toilets) will entail use of hand power tools (soil compactor, chain saws) and heavy equipment (backhoe, roller, water truck). This equipment will result in a temporary increase in ambient noise levels. However this increase will be for a short period of time during construction and possibly during maintenance activities. Outside these time periods, the project will not have an impact on ambient noise levels.

XIV. RECREATION --

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? **Answer: Less Than Significant Impact**

Discussion: The project is the creation of recreational facilities. The trails and related facilities and construction methods have been designed to minimize physical effects on the environment. The environment is a highly disturbed landscape that was subject to logging operations prior to acquisition by the ITSW Council. Trails and related facilities will be built on existing landscape disturbance features (skid roads, landings, etc.). The significant physical effects on the landscape were created by past logging operations and the proposed project will actually improve the physical environment by restoring and improving drainage which will in turn reduce soil erosion.

XV. TRANSPORTATION/TRAFFIC -- Would the project:

a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)? **Answer: Less Than Significant Impact**

Discussion: The expected use levels of the trails is low due to the remote location. The trails may cause a minor increase in traffic on Usal Road but the increase will not be significant. It should be noted that Usal Road is in extremely poor condition and that discourages use. During the rainy season, Usal Road is passable only by 4 wheel drive vehicles and even they may get stuck due to extreme ruts caused by erodable soils, poor road design (lack of adequate drainage), lack of road rock, and lack of maintenance. Use of trails will be restricted to the Dry season (May – October) and access to parking areas and trails will be controlled by gates.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE --

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to

eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? **Answer: Less Than Significant Impact**

Discussion: This project has been designed to avoid impacts to wildlife, plants, and historical or archeological resources by careful routing of trails, avoidance of areas that may contain either cultural resources or rare/ endangered plants and/ or animals, and use of existing features (roads and landings) to avoid soil disturbing activities as much as possible. By controlling the access to the parking areas and trails and by carefully planning the project to avoid sensitive areas, impacts have been reduced to less than significant.

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Figure 5
InterTribal Sinkyone
Wilderness Map
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