

STANDARD DETAIL NO. 643

RIDING AND HIKING TRAIL

DESIGN STANDARDS

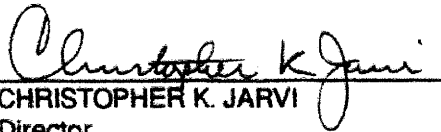
CITY OF ANAHEIM

1992

The purpose of these standards is to assist developers and others in the design and construction of a Riding and Hiking Trail System in the City of Anaheim. It is recognized that because of the varied topography in Anaheim it may not always be possible or practical to follow these standards exactly. All trail designs, including alternatives to these standards, shall be approved by the Public Works - Engineering Department and the Parks, Recreation and Community Services Department.

All costs of design and construction of Riding and Hiking Trails shall be borne by the Developer.

APPROVED BY:



CHRISTOPHER K. JARVI
Director
Parks, Recreation and Community Services
Department



GARY E. JOHNSON
Director
Public Works - Engineering
City Engineer

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TRAIL STANDARDS

<u>Dimensions:</u>	Easement width:	10' - 20' (depending upon trail type and location; subject to City discretion)
	Tread width:	3' minimum to 10' maximum (depending upon topography and subject to City Approval)
	Horizontal clearance	10'
	Vertical clearance	10'

The basic width of a riding and hiking trail easement shall be 10'. However, where the easement abuts or flanks developed or developable land, the easement shall be widened to 20' with the outer 5' on each side reserved as a buffer. The tread width shall be as wide as possible, but no narrower than 3' (see Exhibit A). For stabilizing or widening of the trail, a railroad tie or log retaining wall will be constructed as shown in Exhibit A, if necessary. A 10' x 20' staging area easement at all roadway crossings, both sides, shall be dedicated with the riding and hiking trail easement.

<u>Grades:</u>	Up to 7% maximum straight run
	10% for distance no greater than 500'
	20% for distance no greater than 200'

NOTE: Long hills or grades greater than 20% shall be negotiated by using switchbacks of 10% grade or less and/or terrace stepping (see Exhibit B). Additional easement width may be needed for switchback areas.

<u>Drainage:</u>	Trail drainage shall be disposed of in a manner so as to minimize erosive forces of the run-off. If soil conditions permit, it may be possible to "inslope" the trail toward the hill and drain for short distances in a trail side ditch. However, soil conditions may require that the trail run-off "outslope" away from the hill and sheet off of the trail rather than being concentrated in a ditch.
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Soil Material reports, approved by the Public Works - Engineering Department, shall be required to determine the best method of

disposing of run-off. Costs for the reports shall be borne by the Developer.

Pipe or box culverts shall be used to transmit large quantities of run-off across the trail. Water bars or grade dips, as illustrated, may be used for a small amount of run-off or to prevent longitudinal rutting of the trail. All drainage facilities, including energy dissipators, shall be designed to have sufficient capacity for the watershed they drain and shall be of a color and design aesthetically compatible with riding and hiking activities and adjacent architecture.

Where a trail crosses concrete or asphalt drainage devices or open concrete channels, a wooden bridge shall be constructed. Bridge details shall be submitted to the Public Works - Engineering Department for approval concurrent with the grading plan.

Grading:

All grading and cut and fill slope construction shall comply with the City of Anaheim Grading Ordinance. The trail tread shall be graded smooth and free of weeds, stumps, roots, debris and rocks. Cut/fill joins at daylight lines shall have curvilinear transitions that blend smoothly into the natural terrain. Loose material that may slide onto the trail from above shall be removed and all surplus excavated material shall be removed and disposed of outside the easement. No landscaping, irrigation and/or other improvements shall be installed within the actual trail tread area, except as shown on the approved trail improvement plan.

Safety:

Adequate sight distance for vehicle operators, hikers and equestrians shall be provided at street or highway crossings. A 10' x 20' staging area shall be provided on the trail at every roadway crossing. Staging areas shall be graded to the same percentage of slope drainage, consistent with the adjacent trail.

Road signs designating upcoming trail crossings shall be provided according to the Caltrans Traffic Manual (Exhibit C).

Signage:

Trail signs are intended to facilitate the use of the trail and may include, but are not limited to: trail identification, directional, warning and regulatory signs.

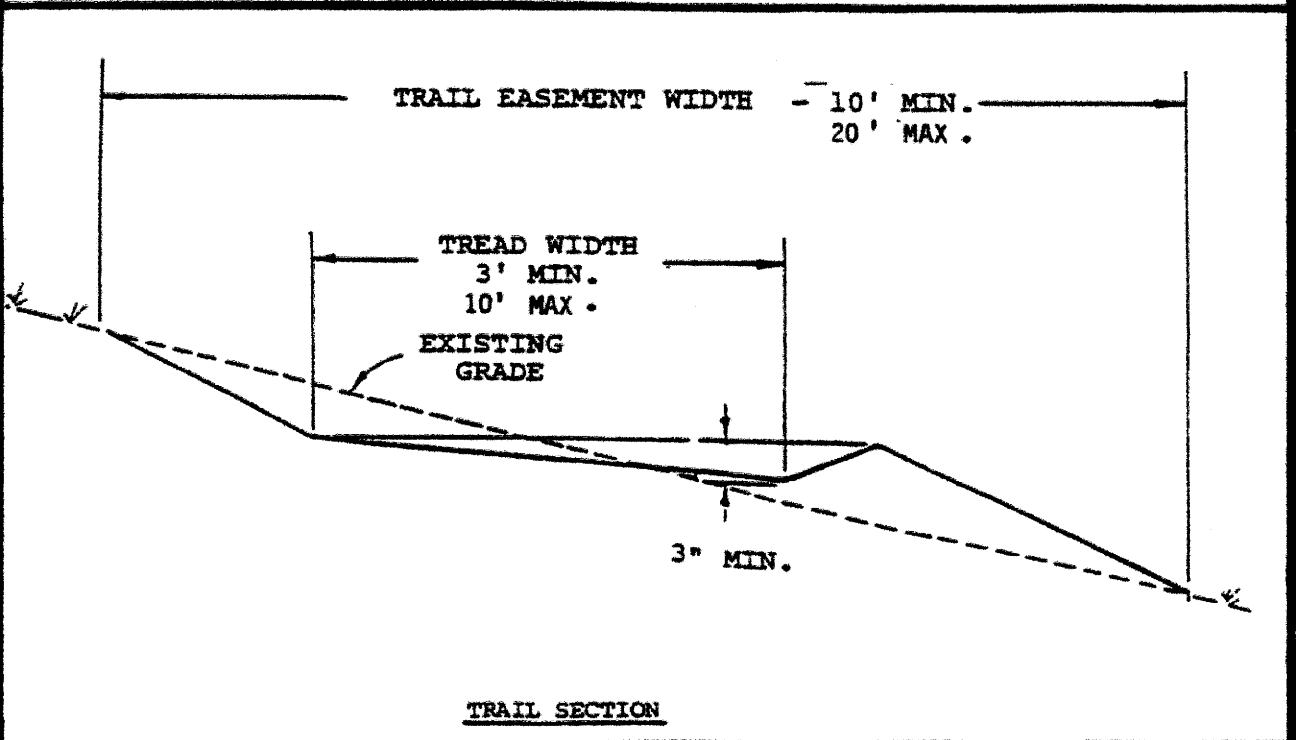
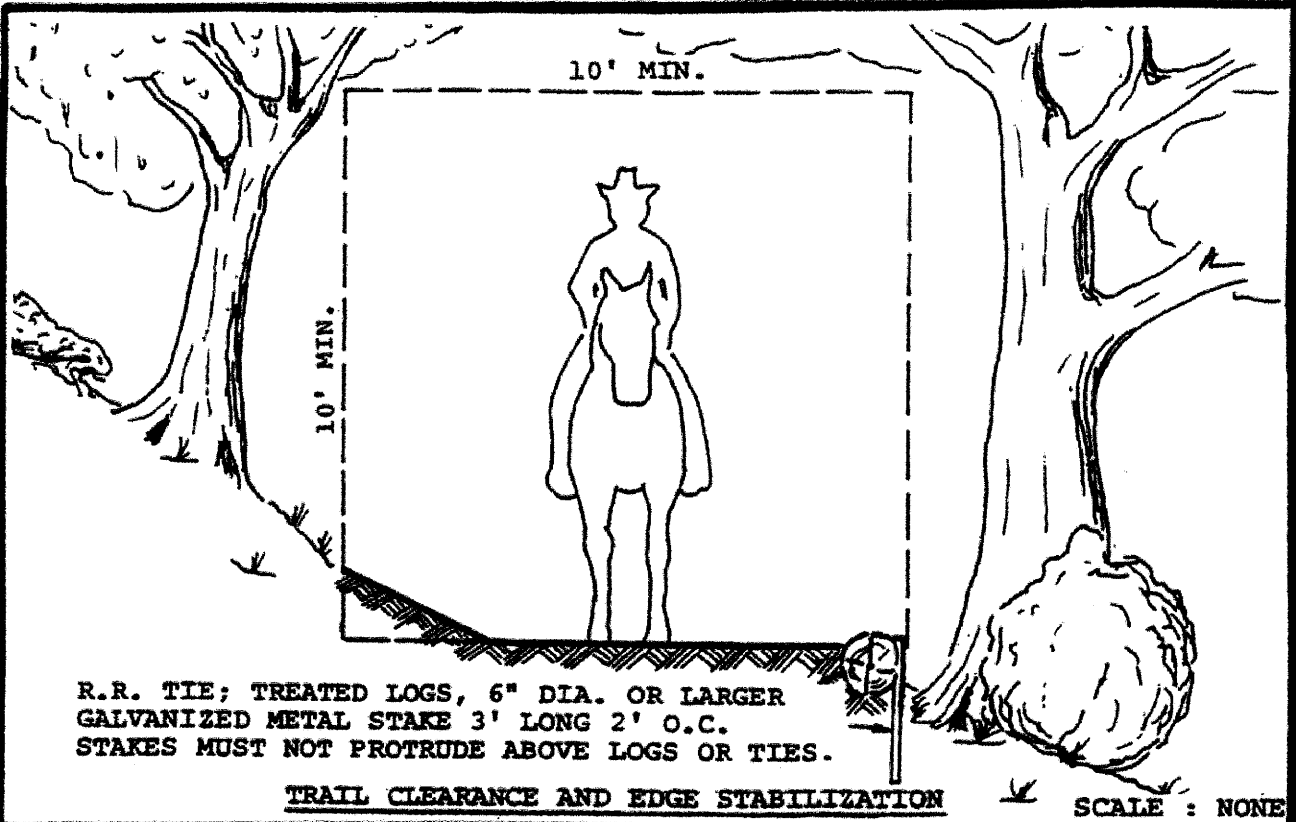
Identification signs shall be placed on all new trail development as determined by the Public Works - Engineering Department and the signs will generally be placed at the beginning and end of a trail, at intersections with other trails and/or service roads, and at regular intervals on trails more than 1/2 mile in length. Signs shall conform with details in Exhibit D.

Barriers: Access control barriers shall be constructed at trail entrances as per detail in Exhibit E. Exact locations will be subject to approval of the Public Works - Engineering Department.

Surfacing: Trails constructed adjacent to residences shall be surfaced with wood chips (1/2 inch size, free of palm fronds) to a depth of 4" over the entire width of the trail tread. The trail shall be graded to accept surface material. Decomposed granite (D.G.) can be substituted for wood chips. Any other deviations must be approved by the Parks, Recreation and Community Services Department.

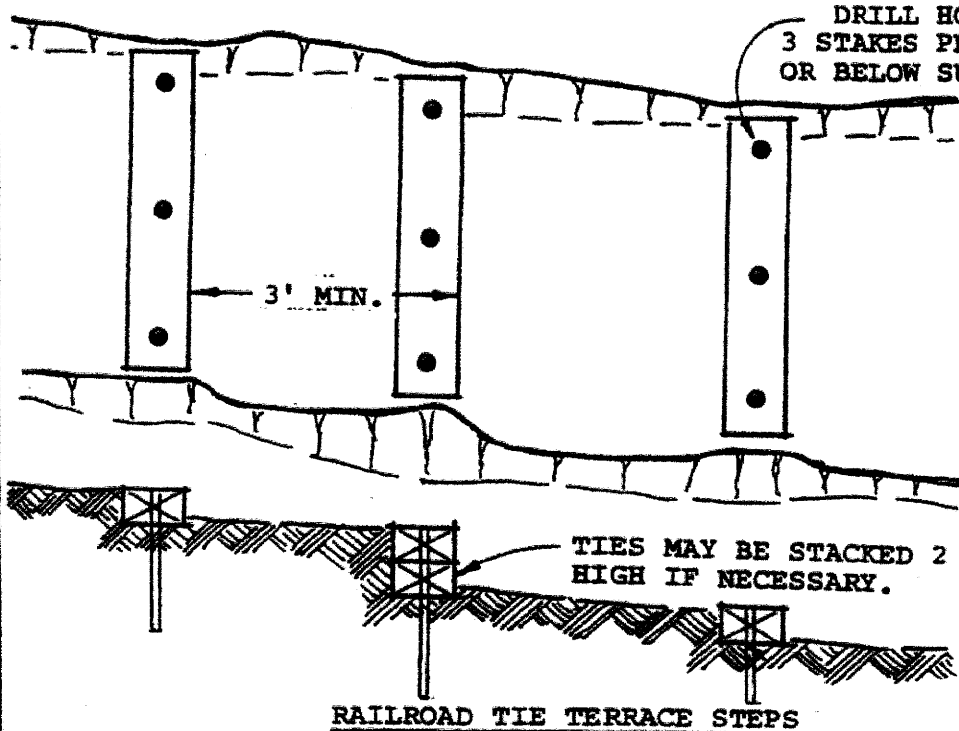
Fencing: Where trails are constructed along an existing roadway, fencing shall be constructed on the street side of the trail. Trail fencing shall also be constructed on the trail side of a drainage swale if a drainage swale is required. In most areas, Woodcrete concrete post and beams shall be constructed; however pressure treated lodgepole pine will be acceptable, as approved by the Parks, Recreation and Community Services Department. Construction details are found in Exhibits F and G.

Trail Head: Trail heads shall be dedicated and improved as required by the Parks, Recreation and Community Services Department. Trail heads are major nodes on the trail system where resting and staging areas are provided and where most rides or hikes would begin or end. Trail heads shall provide amenities such as parking, hitching posts, water, picnic facilities, shade and appropriate trail markings. They may be developed in existing or proposed parks, at other major facilities, or may be combined with private stables on a lease basis, a concession basis or other appropriate arrangements, approved by the Parks, Recreation and Community Services Department. Dedication and improvement of trail heads by Developers shall be in conformance with the conditions of the tentative tract or parcel map.



<p>CITY OF ANAHEIM</p> <p>STANDARD DETAIL NO. 643</p>	<p>DESIGN STANDARDS TRAIL CLEARANCE/DIMENSIONS RIDING & HIKING TRAIL-EXHIBIT A</p>
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STD. DETAIL RE-NUMBER 6-7-04



RAILROAD TIE TERRACE STEPS

SCALE : NONE

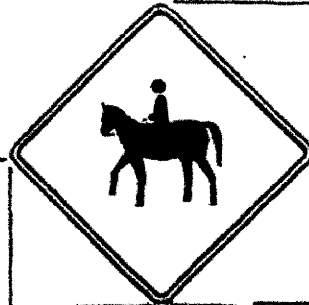
CITY OF ANAHEIM

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DESIGN STANDARDS
TERRACE STEPPING
RIDING & HIKING TRAIL-EXHIBIT B

STD. DETAIL RE-NUMBER 6-7-04

W45R 24" X 24" X .081", 12 GAUGE ALUMINUM, 6061 T6 SINGLE FACE, REFLECTORIZED LETTERS & BACKGROUND.



3'-6"

W71 or W80 SIGN

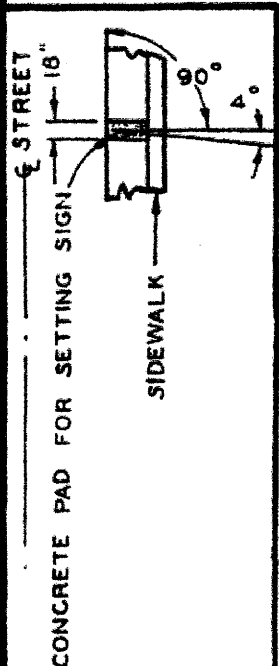


7' MIN.

2'

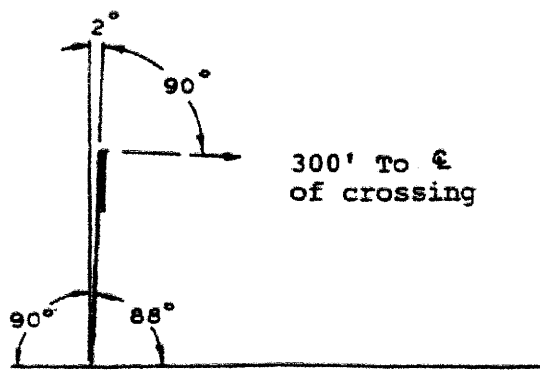
2" DIA. X 13' STANDARD WT. (0.154" WALL THICK) STEEL PIPE HOT DIP GALVANIZED.

2'-8" MIN.



PLAN

APPROX. 1' DIA. X 2'-8" P.C.C.



ELEVATION

300' To ϵ of crossing

The W45 sign shall be used in accordance with Section 21805 of the Vehicle Code, in advance of a public bridle path crossing which is frequently used. At these locations the W80, XING plate shall be mounted below the W45 sign. At locations where equestrian traffic along the shoulder is prevalent, the W45 sign may be used with W71, NEXT MILES plate mounted below. NO SCALE

Revised By

CITY OF ANAHEIM

STANDARD DETAIL NO. 643

DESIGN STANDARDS
INSTALLATION OF EQUESTRIAN CROSSING SIGNS
RIDING & HIKING TRAIL-EXHIBIT C

STD. DETAIL RE-NUMBER 6-7-04



Note: SIGN GRAPHIC FURNISHED BY CITY
FINISHED SIGN PROVIDED BY THE DEVELOPER

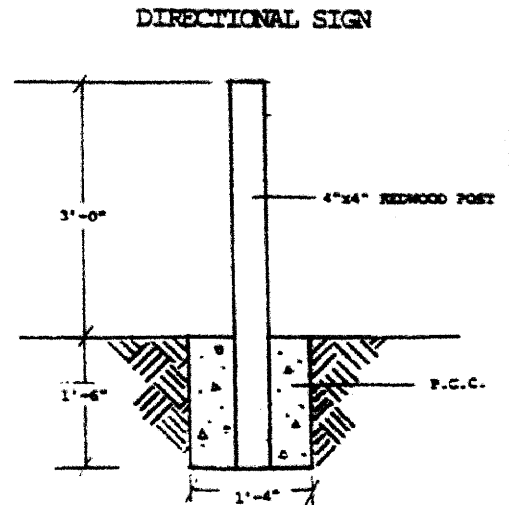
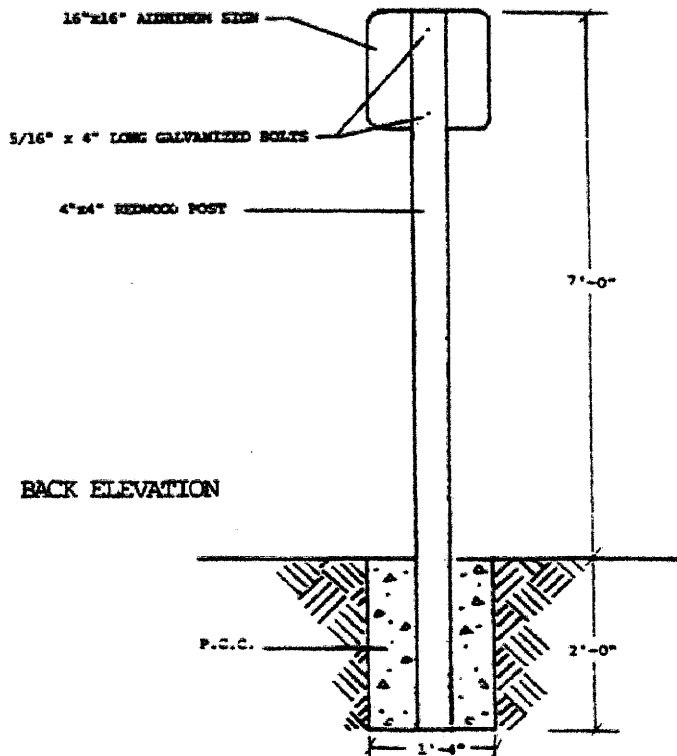
IDENTIFICATION SIGN

1/4" CHAMFER
ALL CORNERS

ROUT OUT LETTERS
AND ARROW, PAINT
YELLOW



DIRECTIONAL SIGN



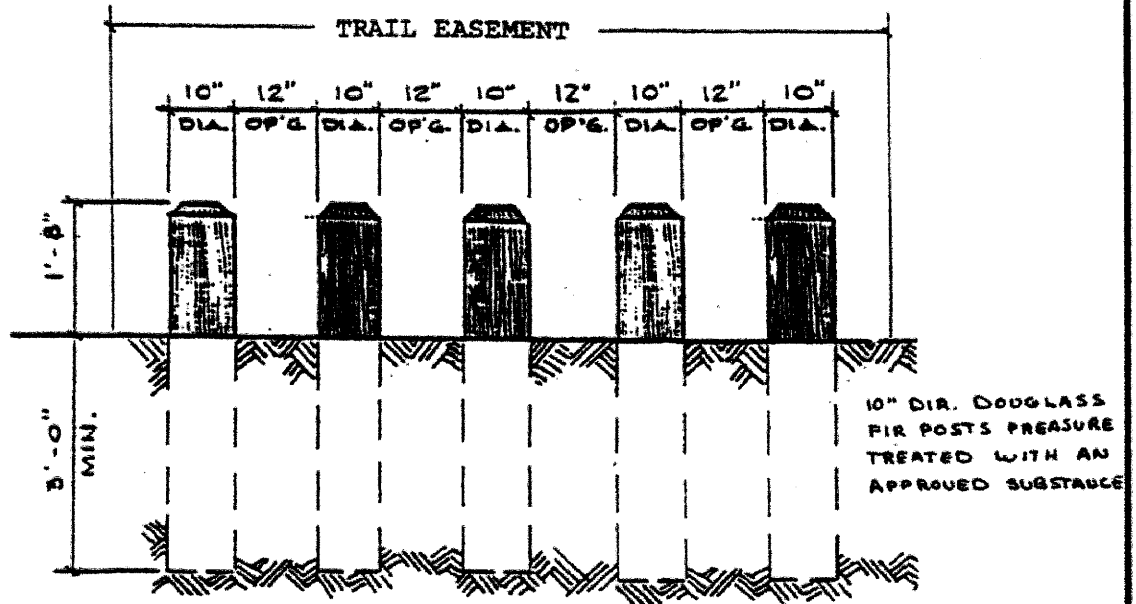
SCALE : NONE

CITY OF ANAHEIM

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DESIGN STANDARDS
SIGNAGE
RIDING & HIKING TRAIL-EXHIBIT D

STD. DETAIL RE-NUMBER 6-7-04

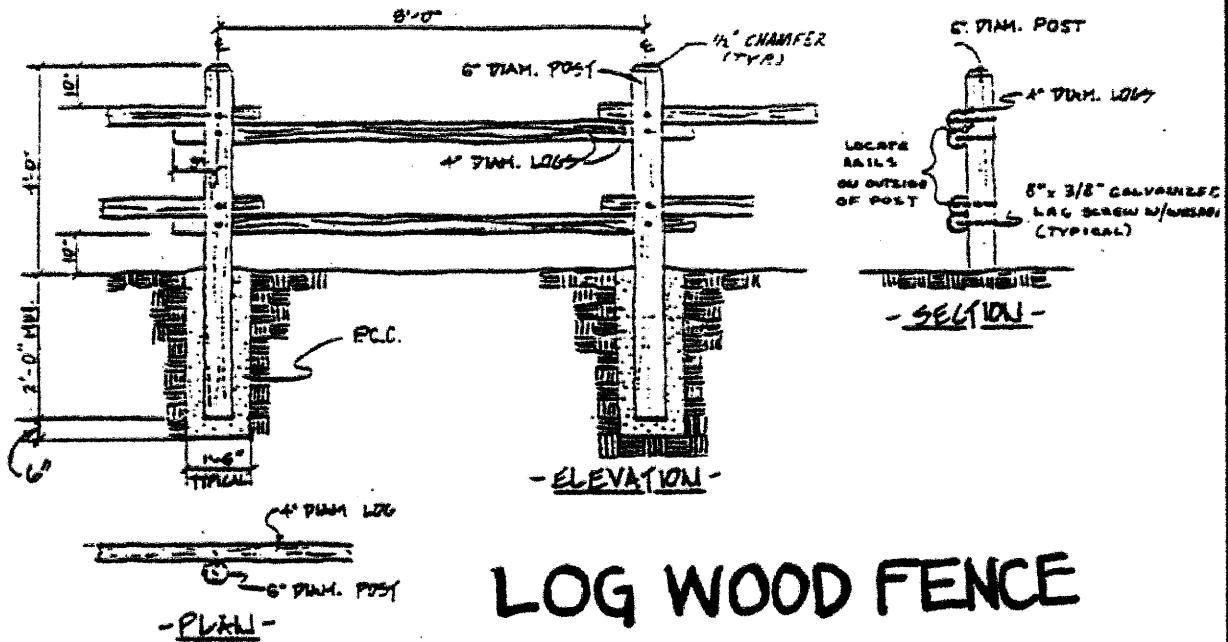


BARRIER DETAIL
SCALE: NONE

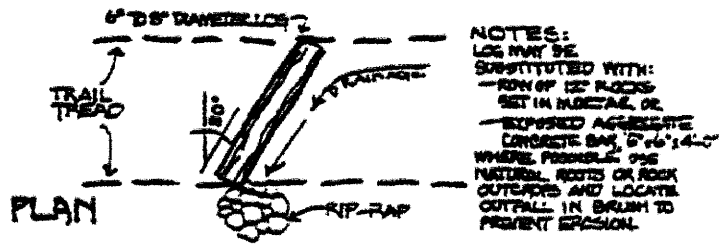
CITY OF ANAHEIM
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DESIGN STANDARDS
ACCESS CONTROL BARRIER AT TRAIL ENTRANCE
RIDING & HIKING TRAIL-EXHIBIT E

STD. DETAIL RE-NUMBER 6-7-04



LOG WOOD FENCE



WATER BAR TO PREVENT EROSION

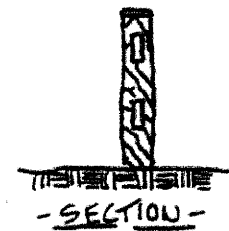
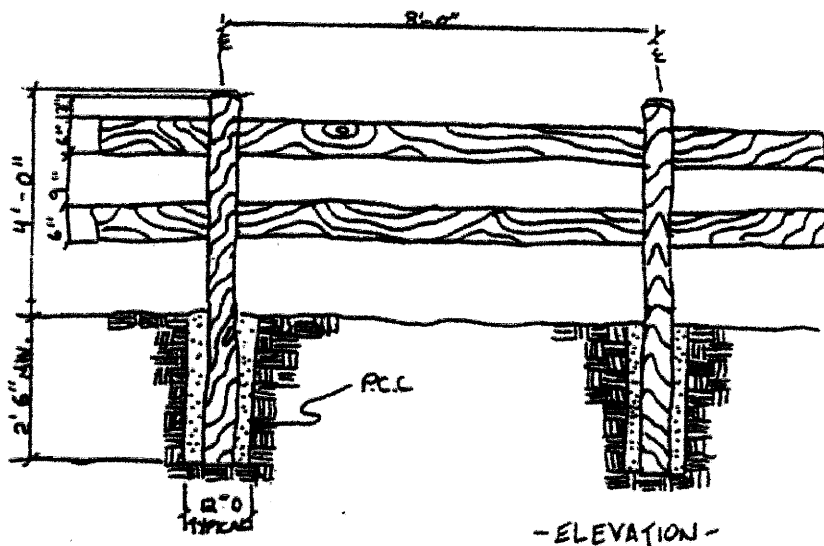
SCALE: NONE

CITY OF ANAHEIM

STANDARD DETAIL NO. 643

DESIGN STANDARDS
LOG WOOD FENCE AND WATER BAR
RIDING & HIKING TRAIL-EXHIBIT F

STD. DETAIL RE-NUMBER 6-7-04



WOODCRETE FENCE

CITY OF ANAHEIM	DESIGN STANDARDS WOODCRETE FENCING RIDING & HIKING TRAIL-EXHIBIT G
STANDARD DETAIL NO. 643	
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