

**City of Los Angeles
Department of City Planning**

GUIDE TO

**Trail and Horsekeeping
Specifications
New Construction
Private Property Easements
Public Right of Way**

Prepared by the
Foothill Trails District Neighborhood Council
Ad Hoc Trails Committee
February 20, 2004

NEED FOR TRAILS & GREENWAYS SPECIFICATIONS

On October 15, 2002, The City Council Planning and Land Use Committee (PLUM) Chair, Councilman Ed Reyes of Council District 1 and Committee member Wendy Greuel came to the Sunland-Tujunga Municipal Building to hear testimony on equestrian issues. That meeting was attended by a crowd of over 300 people (Room Capacity) wishing to voice their support to keep the rural and equestrian heritage alive in Los Angeles. That meeting also clearly reflected that an assessment district plan to pay for trails was clearly favored over the "horse license" method currently in effect.

In March of 2003 Members of the Foothill Trails District Neighborhood Council, homeowner groups, trail users and equestrian groups, began to research sources of available information on Recreational Trails and Greenways within the City of Los Angeles. There is no comprehensive documentation of trails, construction, specifications or mapping of trails within the City of Los Angeles. Each Council District has some mapping of trail networks, but no specifications for trail construction or a trails manual were located.

In February 2004, Foothill Trails District Neighborhood Council (FHTDNC) has completed this document which proposes specifications for natural surface recreational trails and linear passive parks (greenways) within the City of Los Angeles. The recommendations and specifications for trails and greenways are drawn from research on approaches by other municipalities. Similar guidelines and a Master Plan for trails into a greenways have qualified other local municipalities for matching grant funds from a variety of Federal and State sources not available to single use projects. Other cities have used a system of greenways to connect park facilities.

Greenways can be an economical way in which to enhance park/resident ratios. Studies show trails and passive recreational activities rank very high among our stakeholders. A number of trail & health-based partnerships have identified three important factors in encouraging people to be more physically active: safety, enjoyment and access.

FHTDNC urges Citywide adoption by the Planning and Engineering departments for the inclusion of these standards into code as a public works improvement which is an essential step in establishing a trail network and funding through a master plan process.

Respectfully,
Mary Benson, Chairman
Ad Hoc Trails Committee
Foothill Trails District Neighborhood Council

Specifications and Considerations
Trails and Greenways
in Recreational Areas and Infill Subdivisions
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INTRODUCTION

The Environmental Element of the City of Los Angeles General Plan (Adopted September 2001) states that the North East San Fernando Valley is an area that will preserve the rural and equestrian heritage of the City of Los Angeles. While envisioning agricultural and equestrian preservation, guidelines and areas need clearer definition. Remaining natural patches of pristine habitat and large properties are under intense pressure to be developed. The possibilities of acquiring land sufficient to create an interconnected area of preservation is becoming more difficult. A specific plan is essential to conserve the resources in this district.

The primary purpose of this document is to provide clear guidelines and specifications for the incorporation of trails and greenways' within the framework of Community Plans, Conservation Plans, and Recreational Development . These guidelines are offered to help optimize benefits in the urban wildland interface for subdivisions and developments.

Of equal importance is the standardization of definitions and the terminology used. Standardization will facilitate communication and understanding between City Departments. Adoption of this document will assist the City, as well as developers, to more effectively communicate with County, State & Federal agencies, with the public at large and each other .

SCOPE

ZONES THAT ALLOW EQUINE KEEPING(see Table 1)

Open Space

OS

Agricultural Zones

A1, A2 See LAMC for definitions and regulatory requirements.

Suburban Zones

RA Residential Agricultural See LAMC for complete definitions and regulatory requirements.

RE Residential Estate See LAMC for complete definitions and regulatory requirements

RE40, RE20

USE DISTRICTS THAT REQUIRE TRAIL ELEMENTS(see Table 1)

Supplemental Use District K Equine Keeping

See Ordinance 157144 See LAMC for complete definitions and regulatory requirements

SPECIFIC PLANS THAT REQUIRE TRAIL ELEMENTS

SAN GABRIEL VERDUGO MOUNTAINS SCENIC PRESERVATION SPECIFIC PLAN EFFECTIVE 2-08-2004

GENERALIZED SUMMARY OF ZONING REGULATIONS
CITY OF LOS ANGELES

ZONE	USE	MAXIMUM STORIES	HEIGHT FEET	FRONT	REQUIRED YARDS SIDE	REAR	MINIMUM PER LOT	AREA PER DWELLING UNIT	MINIMUM LOT WIDTH	PARKING REQUIRED
OPEN SPACE										
OS	OPEN SPACE Parks-Recreation Facilities-Nat'l Resource Preserves- Water Conservation areas-Landfills- marine & ecological preserves <i>ADD - Greenway</i>									
AGRICULTURAL										
A1	AGRICULTURAL One-Family Dwellings-Parks Playgrounds Community Centers-Golf Cottages-Truck Garaging Extensive Agricultural Uses			25 FL Maximum 10% Lot Width			5 Acres	2-1/2 Acres	300 Ft.	Two Spaces Per Dwelling Unit
				20% lot depth	3 FL minimum	25% lot depth				
			45 Ft.	25 FL max.		25 FL max.	2 Acres	1 Acre	150 Ft.	
A2	AGRICULTURAL A1 see									
RA	SUBURBAN Low Density Agricultural Uses Family Living			10 FL- plus 1 FL- 3 Stories- less than 70 FL width 10% lot width 3 FL min.			17,500 Sq Ft (1)	17,500 Sq Ft (1)	70 Ft. (1)	Two Covered Spaces Per Dwelling Unit

Revised "limited agricultural"

UNIFIED COMMUNITY DEVELOPMENT DEPARTMENT OF ZONING REGULATIONS
CITY OF LOS ANGELES

ZONE	USE	MAXIMUM STORIES	HEIGHT FEET	FRONT	REQUIRED SIDE	REAR	MINIMUM PER LOT	AREA PER DWELLING UNIT	MINIMUM LOT WIDTH	PARKING REQUIRED
ONE FAMILY RESIDENTIAL										
RE40	RESIDENTIAL ESTATE									
RE20	One-Family Dwellings		45 Ft.	20% lot depth	10 Ft min plus 1 Ft-3 stories	25% lot depth	40,000 Sq Ft (1)	40,000 Sq Ft (1)	80 Ft (1)	
RE15	Parks Playgrounds Community Centers Truck Gardening			25 Ft. Max	10 Ft max 10% Lot Width 5 Ft. min- plus 1 Ft. 3 stories	25 Ft. Max.	20,000 Sq Ft (1)	20,000 Sq Ft (1)	80 Ft (1)	Two Covered Spaces Per Dwelling Unit
RE11					5 Ft., less than 50 Ft. width 3 Ft min		15,000 Sq Ft (1)	15,000 Sq Ft (1)	80 Ft (1)	
RE9					5 Ft., less than 50 Ft. width 3 Ft min		11,000 Sq Ft (1)	11,000 Sq Ft (1)	70 Ft. (1)	
RS	SUBURBAN One-Family Dwellings- Parks- Play grounds- Truck Gardening			20% lot depth 25 Ft. Max.	5 Ft., less than 50 Ft. 10% Lot Width 3 Ft.	20 Ft. Min.	9,000 Sq Ft (1)	9,000 Sq Ft (1)	65 Ft. (1)	
R1	ONE FAMILY DWELLING									
R1	R1: Less		45	20% lot depth 20 Ft. Max.	Minimum Plus 1 Ft. 3 stories	15 Ft. Min.	7,500 Sq Ft	7,500 Sq Ft	70 Ft.	
RU	One Family Dwellings- Parks Play grounds		30	10 Ft.	3 Ft.	10 Ft.	5,000 Sq Ft	5,000 Sq Ft	50 Ft.	Two Covered Spaces Per Dwelling Unit
RZ										
RZ 2.5	RE: DENTAL ZONE SIDE VA 1		45	10 Ft. Min.	None(3) or 3 Ft. plus 1 Ft.- 3 stories	None(3) or 15 Ft.	2,500 Sq Ft	2,500 Sq Ft	30 Ft. w/ driveway, 75 Ft. w/o driveway	Two Covered Spaces Per Dwelling Unit

ZONE	USE	MAXIMUM STORIES	HEIGHT FEET	FRONT	REQUIRED YARDS SIDE	REAR	MINIMUM AREA PER LOT/UNIT	MINIMUM LOT WIDTH	LOADING SPACE	PARKING REQUIRED
(SL)	SUBURBAN RESIDENTIAL ZONE Commercial Shipping Narrow Front Fishing Recreation									
(F)	COMMERCIAL IMPROVEMENT CLASSIFICATION Alternative means of Effecting Zone Changes and Securing Improvements (M): No Subdivision or Dedication are involved									

SUPPLEMENTAL USE DISTRICTS:

Established in conjunction with Zone(s)

G- Surfing Mining

O- Oil Drilling

RPD- Retail Planned Development

K- Equine Keeping

CA- Commercial and Aircraft

SPECIFIC PLAN ZONES

CW- See Central City West Specific Plan, Ord. No. 166,703, eff. 4-3-91

PV- See Playa Vista Specific Plan, Ord. No. 160,523, 165,638 & 165,639 eff. 2-26-85 and 3-26-90

OX- See Oxford Triangle Specific Plan, Ord. No. 162,509, eff. 7-31-87

See *5601 SGP - See Ord No 2004*

RESIDENTIAL FOOTNOTES

- "H" Hillside or Mountainous Area designation may alter these requirements in the RA-H or RE-H Zones, subdivisions may be approved with smaller lots, providing larger lots are also included. Each lot may be used for only one single-family dwelling. See minimum width and area requirements below.
- See Section 12.17.5 B.1 of this Zone Code.
- See Section 12.17.5 C.4 of the Zone Code.
- For two or more lots, the interior side yards may be eliminated, but 4 Ft. is required on each side of the grouped lots. See Section 2.09.5C of Zone Code.
- Sec. 12.17.5 B.1 Dwellings considered as accessory to industrial use only (warehouse or caretaker including family).

ALL C... See Ord No 2004

DEFINITIONS

ACCESS BARRIER

An obstruction specifically designed to restrict unauthorized motorized vehicles from trails.

AMERICANS DISABILITIES ACT (ADA)

Federal Law that stipulates requirements for facilities used by disabled. Administered federally as well as by the Commission on Disabilities for the City of Los Angeles.

"K" OVERLAY

Supplemental Use District established in conjunction with zoning codes for the City of Los Angeles

NEW SUBDIVISION WITH "K" OVERLAY ¹

Subdivision consisting of 3 or more lots. Generally constructed within zones RA, RE and A(1) or (2) with a "K" overlay. Requirements include trails, horsekeeping pad and vehicular access to pad for each unit.

TRAIL ²

For the purpose of this document- Generalized term indicating an unpaved surface or pathway for public use. May not be used interchangeably with TRAIL EASEMENT. May not be used interchangeably with TRAIL TREAD. Specifications must refer to TRAIL EASEMENT, TRAIL TREAD OR LANDSCAPE ELEMENTS WITHIN TRAIL EASEMENT.

EQUESTRIAN TRAIL

Generalized term referring to unpaved tread surface. Usually restricted to non-vehicular use because of safety considerations. Other uses beside equines are hiking, jogging, dog-walking, bird watching, photography and wildlife observation.

EQUINE

Horse, mule, donkey or pony used for recreation and transportation. Not considered pets.

EASEMENT

Section of land granted by a land owner for a specific purpose or use.

TRAIL EASEMENT

That easement which contains a trail tread and a landscape element. Designed for the purposes of recreation and/or transportation. Easement must consider more than tread width to be deemed of recreational value.

TRAIL TREAD

That part within a trail easement that is maintained clear and free of vegetation for the purpose of access/passage. Asphalt and/or Concrete are prohibited in equestrian zones.

TRAIL SYSTEM

Network of trails which is contiguous in nature and link multiple sites to adjacent land owners, parks and trailheads.

MULTI-USE TRAIL ³ (Multipurpose trail)

Trail designed for use by equestrian, pedestrian and non-motorized vehicular traffic that meets ADA requirements. Constructed in lieu of required concrete sidewalks.

RECREATIONAL TRAIL

Trail designed for equestrian, pedestrian and non motorized vehicle use. Does not meet ADA requirements.

CLASS-A TRAIL

A recreational trail that does not allow vehicles. Restricted to pedestrian/equestrian use and is natural in appearance. Does not meet ADA requirements.

¹ See Appendix on Equestrian Lot Configuration

² TRAIL, as used in other documents, may refer to paved tread. The word "trail" should never be used when surfaces are paved with asphalt or concrete.

³ Recommend adoption of this definition so as to conform more closely to state and federal definitions. Definition will enhance the City's ability to qualify for state and federal grant funds. Minimum easement width for qualification as a Recreational Trail is twenty (20) feet.

SINGLE TRACK TRAIL

A Class-A Trail with a narrow tread width that limits traffic to single file.

OFFICIAL EQUESTRIAN TRAIL⁴

Existing trail that is established under legal easement (in public domain) and that is designated for future dedication.

UNOFFICIAL TRAIL⁴

Undeveloped trail over private property that is not dedicated. May or may not have a prescriptive easement .

DEDICATED TRAIL⁴

A trail that has been legally ascribed as an official and public easement and that is designated on Community Plans for the City of Los Angeles. Recorded on County Assessors tract map. Some Community Plans that currently contain dedicated trails include Sunland-Tujunga-Shadow Hills and Sun Valley-LaTuna Canyon and Chatsworth and Sylmar.

UNDEVELOPED TRAIL

In current use as a trail, but not dedicated or officially mapped or noted on any plan, public or private.

NON-PUBLIC EQUESTRIAN TRAIL

See definition for Unofficial Trail.

UNIMPROVED TRAIL

See definition for Undeveloped Trail.

DESIGNATED TRAIL

See definition for Unofficial Trail

IMPROVED TRAIL

See definition for Dedicated Trail

EXISTING TRAIL

A trail in current use of variable width. May or may not be dedicated.

NEW TRAIL

A dedicated trail constructed to standards required for new developments and which adds mileage to the dedicated trail system.

REPLACEMENT TRAIL

A trail that has been relocated and dedicated as a result of activity that has usurped the existing trail route.

TRAIL CONTINUITY

A concept by which trails are linked for the purpose of providing uninterrupted loops and uninterrupted access to a trail network.

PARK

Open space designated for recreational public use. zoned OS.

GREENWAY

A term coined by the Trust for Public Land. Landscaped linear park or wildlife corridor that is at least 20 feet in width. Ultimately connecting to other open spaces forming a network. Must contain a trail with acceptable trail tread in trail areas. Trails in "K" zones must never be of asphalt or concrete. Landscaping and contours may vary from natural indigenous habitats (i.e. oak woodland) to conventional turf and non-native ornamentals.

TRAILHEAD

Entrance to trail or trail network. Location where Access Barriers may be installed.

STAGING AREA

Provides a clear, open space for off street parking and turn-around for truck/trailer vehicles averaging 50 feet in length. Provides access to trailhead. Should not be paved with asphalt or concrete, aggregate surfaces allowed.

COVENANT AGREEMENT

Trail easements on private property dedicated under a recorded covenant to guarantee public access. (similar to beach access)

⁴ For complete definition, specifications and maps see San Gabriel/Verdugo Mountains Scenic Preservation Specific Plan.

ROCKY TERRAIN

Rocks or gravel exceeding $\frac{3}{8}$ inch in diameter in the trail easement or greenway.

SWITCHBACK TRAIL

A climbing trail that contains a design element which makes a flat turn, then leaves in another direction. A single trail may contain several switchbacks to limit trail slope.

DITCHING Material pushed up in mounds at the side of the trail by earth moving equipment during construction or maintenance.

GENERAL PLANNING CONSIDERATIONS

Trails are an essential design element in Equestrian Communities. New projects must take into account the following aspects of trail design.

- Continuity
- Siting
- Engineering
- Protection of Public Use
- Completion & Performance
- Landscaping

CONTINUITY

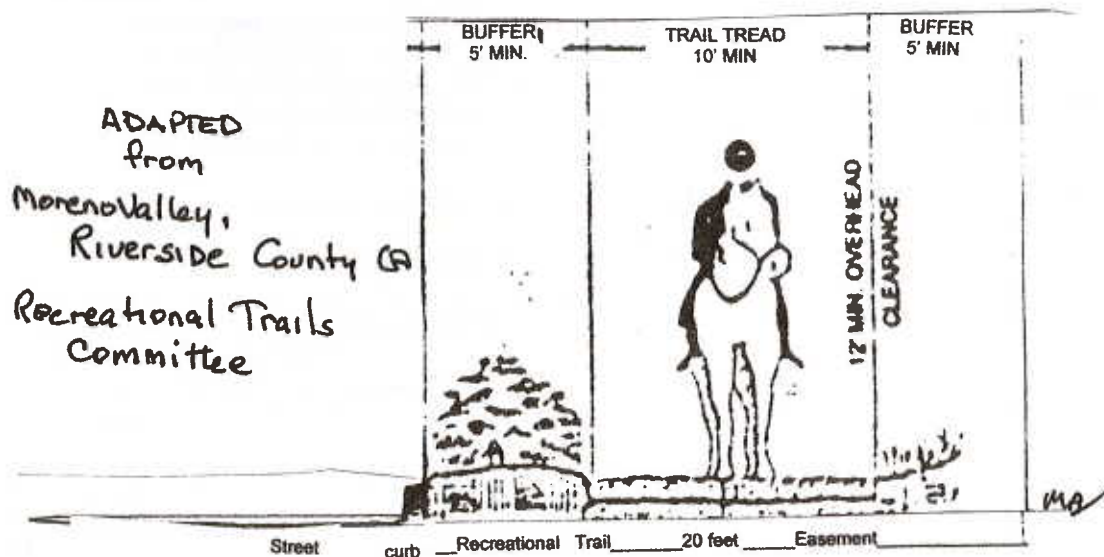
Council District Planning Deputies can refer individuals from Neighborhood Councils, Home Owner Associations, Horse Clubs and/or the Sierra Club to assist in locating existing trails that may be affected.

Coordinated planning among parties with responsibility for building trails and the public who use and enjoy trails is important to promote the goals of resource protection and recreation. Proposed trails must be open to the public and connect with existing (or future) trail systems including, but not limited to National Forest Service trails, National Park Service (NPS) trails, California Department of Parks and Recreation (CDPR) trails, the Santa Monica Mountains Conservancy trails (SMMC) Scenic Corridor Official trails, Scenic Corridor Non-Public Trails, Los Angeles County Parks and Recreation Department trails, City of Los Angeles Department of Recreation and Parks and the Rim of the Valley Corridor trail, utility easements or other local community Trail systems.

SITING

Finished trails should always be accessible for the benefit of every homeowner within a subdivision and to the public. Trails outside subdivisions should be connected to trails within the subdivision.

Trail easements must be included in grading and lot plans, similar to public streets or alleys to insure, adequate room is provided for their installation. (Equestrian) Trails are intended to allow for both riding and hiking use. Developers are encouraged to provide staging areas. Developers should consider making trails as an element of a 20' wide greenway.



Features of Trails sited at the rear or along the side of individual lots

- More convenient access by horses. Horses are generally stabled at the back of the property.
- Trails along the backs of properties are more natural. They can be part of a greenway, common area, or wildlife corridor.
- On hillside projects, trails can often be built within required grading cut.
- Trail construction need not meet ADA requirements.
- Trails can be used as a landscape maintenance road in common areas.
- Trails can provide a fire break or emergency access.



"THE TRAILS" EQUESTRIAN ESTATES
City of Simi Valley
Ventura County California
Photo by Julie Morris



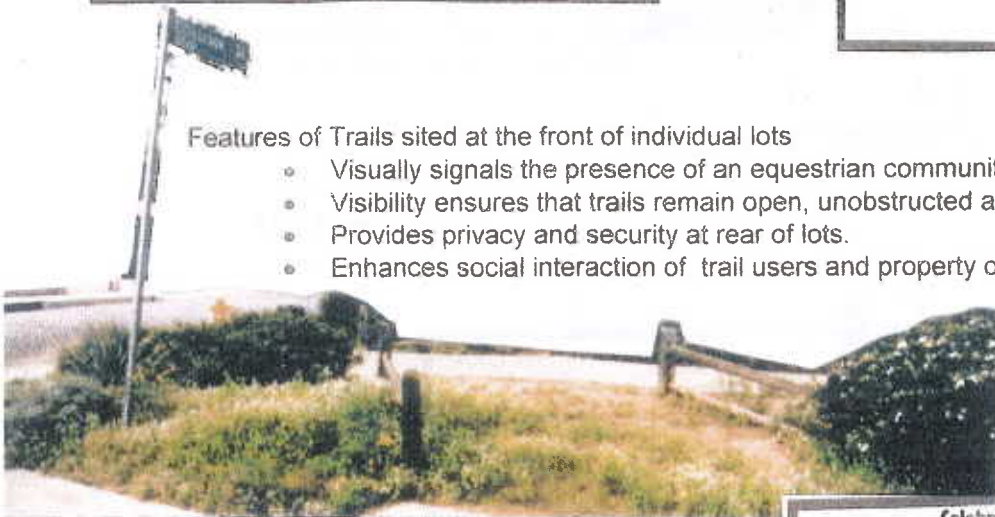
Stonhurst Ave Streetscape 14' Trail Easement
City of Sun Valley Los Angeles, County California
Photo by Julie Morris



"THE TRAILS" Equestrian Estates
Streetscape 22' Trail Easement
City of Simi Valley Ventura, County California
Photo by Julie Morris

Features of Trails sited at the front of individual lots

- Visually signals the presence of an equestrian community.
- Visibility ensures that trails remain open, unobstructed and prevents encroachment.
- Provides privacy and security at rear of lots.
- Enhances social interaction of trail users and property owners.



Celebrook Street near Whostland
Private owner equestrian easement
Shadow Hills-Sunland Los Angeles, County California
Photo by Julie Morris

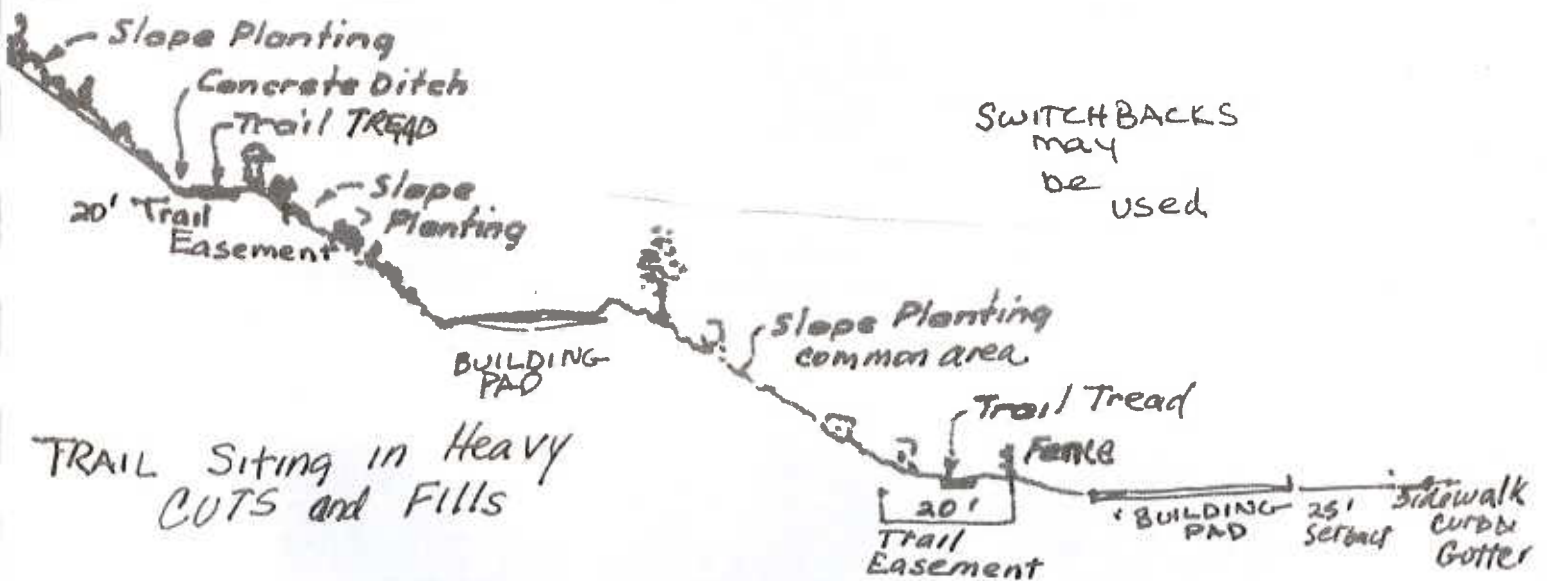
Engineering

Trail construction is a combination of locations/options. Trails provide functions similar to alleys, sidewalks or wildlife corridor/nature paths. In order to achieve the goals of the Environmental Element in The Los Angeles General and separate Community Plans, open space and preservation of the natural terrain must be retained. Project Engineers must recognize that both the Los Angeles General Plan and separate Community Plans for the City of Los Angeles place special emphasis on preserving the Environmental Element of the Los Angeles General Plan.

Grading

The application for a grading permit must include

- Indicating location of existing trails impacted by the project or subdivision. Existing trails must be shown on grading plans.
- Trail systems interrupted by subdivision must be reconnected so there are no missing links at project completion.
- Trails must be engineered so as to promote their use and permanence.
- New trails must be engineered with less than a 50% grade or 6% transverse slope. If the site location slopes more than 50%, then switchbacks are required.



TRAIL Siting in Heavy CUTS and Fills

- Minimum for any trail easement must be twelve (12) feet in width.
- Trail tread maximum is 10 feet in width. (Width between rails is never less than 10 feet)
- Trail easements located above or below grade level are preferable. Locate away from street traffic where possible.

Building

Trail development should be indicated in application for a building permit

- Trail tread area should provide 12 feet of vertical clearance and 8 feet of horizontal clearance
- Obstructions
All types of discretionary obstructions are prohibited within the trail tread. Obstructions include, but are not limited to, mailboxes, flagpoles, real estate signs, sprinkler controls, rocks, fences, planter boxes, benches, buildings, trash bins, bushes and trees and retaining walls.
Every effort should be made to minimize obstructions required for city services ie. manhole covers, utility poles or vaults, swales, drains, support wires and stakes and culverts. These obstructions should be covered or coated with a non slip treatment, Such as Traffic® non-skid surface as used by Verizon and DWP.

Checks/ Inspections

There will be 3 inspections.

- Subdivision Site Plan Check
Trail easement must be indicated to check for obstructions and compliance with width specifications.
- Grading inspection
Trail easement must be staked and inspected at the time of grading inspection. Trails must meet specifications for the type of trail being constructed.
- Final Inspection
Finished trail tread must be inspected and a maintenance plan in place prior to issuance of Certificate of Occupancy.

Protection for Public Use

Trails must be dedicated and recorded on tract map "as built" after completion and before final inspection. Transfers of ownership of any easements must be recorded prior to issuance of Certificate of Occupancy.

Completion & Performance

Trail completion bonding should be a separate line item in projects. A trail should be constructed to remain useable after a 10 year storm rated event. Trails which wash out or erode within one year must be replaced at the original builder's expense. Trail systems interrupted by project development/subdivision must be reconnected so there will be no missing links at project completion. In the event that a trail is relocated it must be re-recorded for trail dedication at the new location.

Landscaping

Easement space outside of the trail tread must be landscaped. This buffer will keep trail surface materials from migrating onto paved surfaces. Swales can also help prevent sedimentation overflow from reaching storm drains.



**Recommended Specification additions to
Section 12.03 Building Code**

SPECIFICATIONS

Greenways

THE CONSERVATION FUND defines greenways as a nationwide system of corridors that are protected, public and private land established along rivers, stream valleys, ridges, abandoned railroad corridors, utility rights-of-way, canals, scenic roads or other linear features. They are valued for their aesthetic beauty and easy access to "decompress" from competitive activities. They link recreational, cultural and natural features, provide pathways for people and wildlife, protect forests, wetlands and grasslands, and improve the quality of life for everyone. Mt Morris, in western New York state has a 90-mile multi use trail and natural resource corridor.

Where Used

Linear corridors integrating various areas. Popular as walking and fitness venues and community gardens. Often link disconnected parks and wildlife areas. Often contain a historic element such as historic trails or migration routes.

Restrictions:

Must be zoned for recreational or open space use. No motorized vehicles. Must have a trail element within "K" special use districts.

Width

Designed with a minimum width of 20 feet

Landscaping

Must be landscaped appropriately for area, including native materials in habitat areas.

Fencing

Not required

Signage

No motor vehicles



Trails

Multi use Trail: (Multi-purpose Trail)

Where Used:

- Allows use by disabled.
- Where conditions do not allow a separate trail for equestrians, or
- Where a developer exercises an option for a trail in lieu of a sidewalk as a streetscape improvement.
- Designed for multiple types of users.

Restrictions: Must be ADA compliant. No motorized vehicles.

Tread Construction: Tread is approximately 10 feet in width, natural, permeable, non-slip surface for all users. Surface is compacted and stabilized to comply with the American Disabilities Act (such as compacted Decomposed Granite topped by crusher fine limestone totalling eight (8) to twelve (12) inches in depth. Soil Stabilizers should be environmentally safe (such as Road Oyl®) and subject to City Engineer's approval. No asphalt, concrete or gravel components. No Material larger than 3/8 inch in diameter is to be used as surface material. Optimum transverse grade 2% in flat areas 4% on hillsides.

Fencing Height: Fence height shall never be taller than 50% of the measured width of the trail easement regardless of other specifications. In all cases, fencing will be 42" and installed between street and trail when posted vehicle speed limit exceeds 30mph. There shall always be fencing on the street side of the trail when the posted. Railing height may also be lowered for purpose of visibility at intersections.
Signage: "No Motor Vehicles"



ABOVE
Sunland Boulevard 20ft Trail Easement
in lieu of Sidewalk
Shadow Hills County of Los Angeles CA
Photo by Julie Morris

BELOW
"The Trails" Equestrian Estates Streetscape
22' Trail Easement with landscape buffer
City of Simi Valley Ventura County, CA
Photo by Julie Morris

Recreational Trail (aka Riding Trail, Bike Trail, Equestrian Trail, Hiking Trail):**Where Used:**

- Between and through subdivisions, parks and along public streets. Recorded easement of trail dedication for public use. Prefer trail surface continue across driveways. Trail tread begins 5 feet or more away from improved streets or other paved roads or paths.
- Differs from Multi-use trail in its more diverse locations, construction and fencing options.
- Includes pre existing trails which will not be disturbed by projects.
- Where a sidewalk exists on the opposite or same side of an improved street.

Restrictions: Optimized for recreational use. (Does not have to meet ADA requirements) No motorized vehicles. Users may be restricted for safety purposes.

Tread Construction: Compacted 6-12" decomposed granite or crusher fine limestone, turf or native materials. Surface shall be durable, flexible, non-slippery and compacted enough to support use. Gravel or rocks exceeding 3/8 inch in diameter must be screened and removed to a depth of 8 inches. Asphalt, concrete or gravel surfaces of any kind are prohibited. Trail tread width between 8 and 10 feet.

Width: Easement minimum (to meet federal and state recreation definition) is twenty (20) feet. Trail tread between 8 and 10 feet

Landscaping: Same as Multi Use Trail

Fencing: same as Multi Use Trail when required to separate users from paved sidewalks or streets. In other areas, fencing not required.

Fencing Height: Same requirements as Multi Use Trail.

Signage: Locate sign at trailhead or intersection in trail network

"_____Recreational Trail" (It is suggested that trails be named similar to private streets.)



"The Trails" Equestrian Estates Streetscape
 22' Trail Easement with landscape buffer
 Note that trail surface continues across driveway
 Note setback and trees between residence & trail
 City of Simi Valley Ventura County, CA
 Photo by Julie Morris

Sylmar Recreational trail along Los Angeles County Flood Control Channel
Provides access and Linkage between to Stetson Ranch and Rim of the Valley sections in City of
Sylmar Los Angeles County, CA



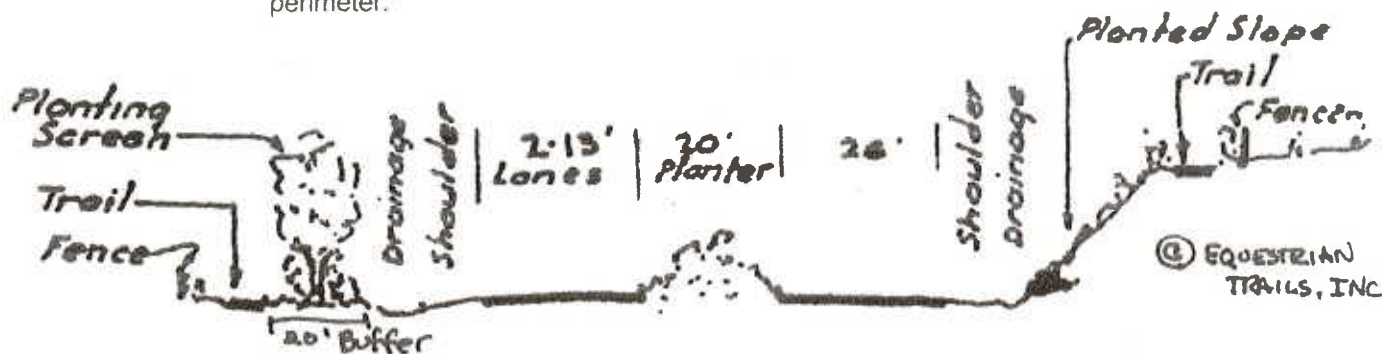
Gladstone entrance west of Polk Street
Flood Control Trail Easement
Note step-over access barrier
Sylmar County of Los Angeles CA
Photo by Julie Morris

Looking Down the trail
Flood Control Trail Easement
Sylmar Los Angeles County, CA
Photo by Julie Morris

Class A Trail: (aka. Foot Path, Animal Trail, Cow Trail, Shortcut Trail, Nature Trail, Special Purpose Recreational Trail)

Where Used:

- At least 10 feet away from street through private property or at development perimeter.



Along Parkways at Grade

- Installed to maintain continuity and access to existing trails.
- Used in greenways and open space where natural paths are more desirable.
- Used in steep terrain or on heavy cuts & fills where a greater than 50% grade requires installation of switchbacks.
- Class A trails are to be used in habitat conservation areas.
- Trails must not be located where they cross or run nearer than 7 feet to culverts or walls where trail will easily wash out.

Restrictions: Riding and hiking use only. No vehicles. No mechanized equipment used in maintenance. Limited use for construction.

Tread Construction:

- **Single track trail maximum tread width 4 feet.**
Whenever possible, the ground surface and the natural sod in the trail tread area shall be undisturbed by construction. The sole exception will be the case of rocky terrain where soil will be excavated to a depth of 8" and replaced with decomposed granite or crusher limestone. Transverse slope must be between 2 to 6%. This will prevent erosion and reduce maintenance. On hillside sections, where a switchback is necessary, a shelf for the trail tread will be required. In constructing trails of this type, the general practice should be to form the tread by first removing all litter and vegetation; then, build the trail up rather than cutting down. Litter and vegetative matter should then be scattered over the fill slope to help prevent erosion and return the natural appearance.
- **Slope Construction:** Remove all loose rocks in the trail tread along cut banks. Remove rocks and logs from top of cut banks and round off top of cut banks. In fill areas, remove vegetative matter and litter from ground surface to a depth of 3 to 6 inches before placing fill. Concrete drainage swales crossing trails must be below ground and covered.

Width: Easement width must be increased to 20 feet. Trail Tread width will be as indicated by conditions and installed only to widths that will permit easy passage and provide an open trail during all weather conditions. (from 2to8 feet)

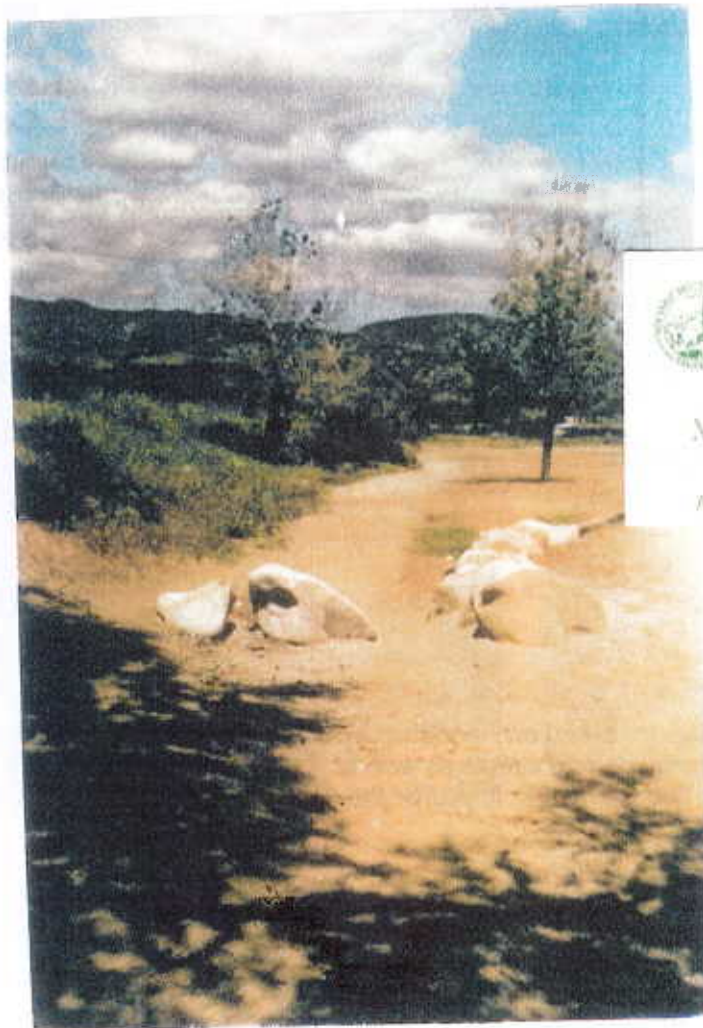
Landscaping: Concrete swales crossing trails must have a bridge or other device (enclosed culvert) installed so as not to obstruct trail. Vegetation in space above tread surface will be cut to grade level but not removed, or located so that an area of at least 8 feet wide and 12 feet in height will be free of obstructions. Maintenance by mechanized vehicles is prohibited. (Figure 14)

Fencing: Fencing not required.

Signage: Posted at trail heads Vertical 4x4 post for signage, marked or engraved "Riding/Hiking Trail". Posted at least at each access point of trail. "RIDING AND HIKING only no vehicles beyond this point"



Hansen Dam
Staging Area near Ree Center
Note landscaping
Lake View Terrace County of Los Angeles CA
Photo by Julie Morris



Trail and Staging
Area design by



STEPHANIE LANDRIGAN, AISC
LEAD LANDSCAPE ARCHITECT
(626) 955-4100

**MOUNTAINS RECREATION AND
CONSERVATION AUTHORITY**
A joint powers agency of the Santa Monica Mountains Conservancy

Hansen Dam near Clybourn & Foothill
Trail to Kagel Canyon and Doc Larson Trail
via Little Tujunga Creek
Lake View Los Angeles County, CA
Photo by Julie Morris

TRAIL EASEMENT ELEMENTS

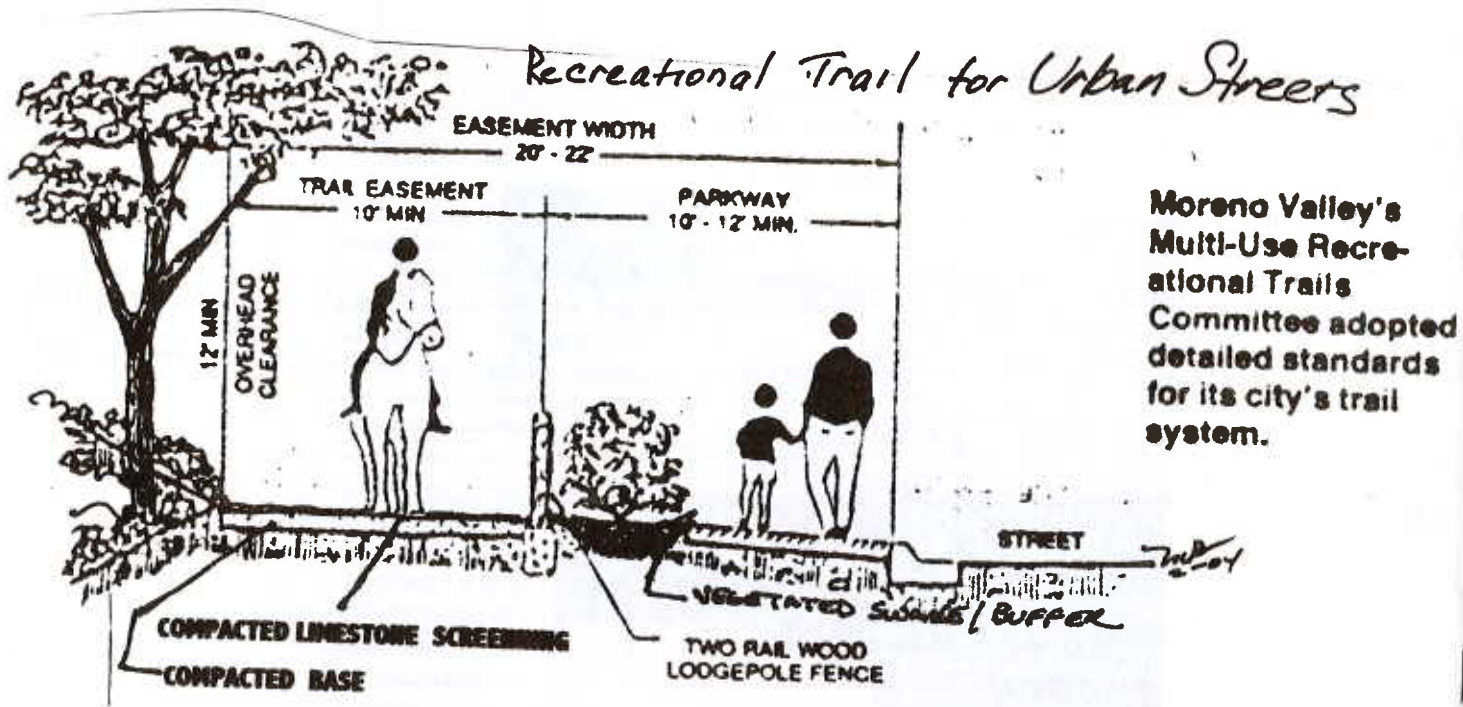
Landscaping

Shade Trees and Bushes

Landscaping should include trees to optimize shade across the trail during the hottest part of the day. Landscape buffers should be designed outside trail tread. Landscaping enhances the natural element and enjoyment for all trail users. It provides a natural barrier and screens views from the trail.

Where trails run East/West landscape buffer should be located and trees planted on the North side of trail.

Where trails run North/South landscape buffer should be located and trees planted on the West side of trail. Preference should be given to California Native trees. Horizontal tree limbs must be pruned up 12 feet to keep trail easement free of branches. No California Pepper or palm trees are to be planted in trail easements.



Vegetative Buffers

There should be a swale (or berm) and landscaped buffer between the trail tread and the curb. This will keep sediment from streets as well as adding desirable screening between the trail tread and the street. Improves the division between traffic and trail.

Fencing and Natural Barriers

Fencing should be used sparingly. This enhances the natural experience. The primary purpose of fencing is to prevent encroachment into the trail easement. Visible fencing also serves to alert motorists when trails are in the proximity of streets. Fencing helps identify the route of trails in urban tracts. Fencing should never be taller than 50% of the width of the trail easement. Fencing should always be located outside of the trail tread. Fencing should not interfere with the maintenance of swales or trail tread and should be placed at the outer edge of any trail easements. Fencing over 30" in height should always have a second rail to prevent ponies from ducking under a high top rail. Fencing should be smooth along the top to prevent injuries.



ABOVE: Hansen Dam Aquatic Center Day Trail

Lake View Terrace

Los Angeles County, CA

BELOW LEFT: Hansen Dam Equestrian Center Perimeter Trail,

Lake View Terrace,

Los Angeles County CA

BELOW RIGHT: "The Trails" Equestrian Estates,

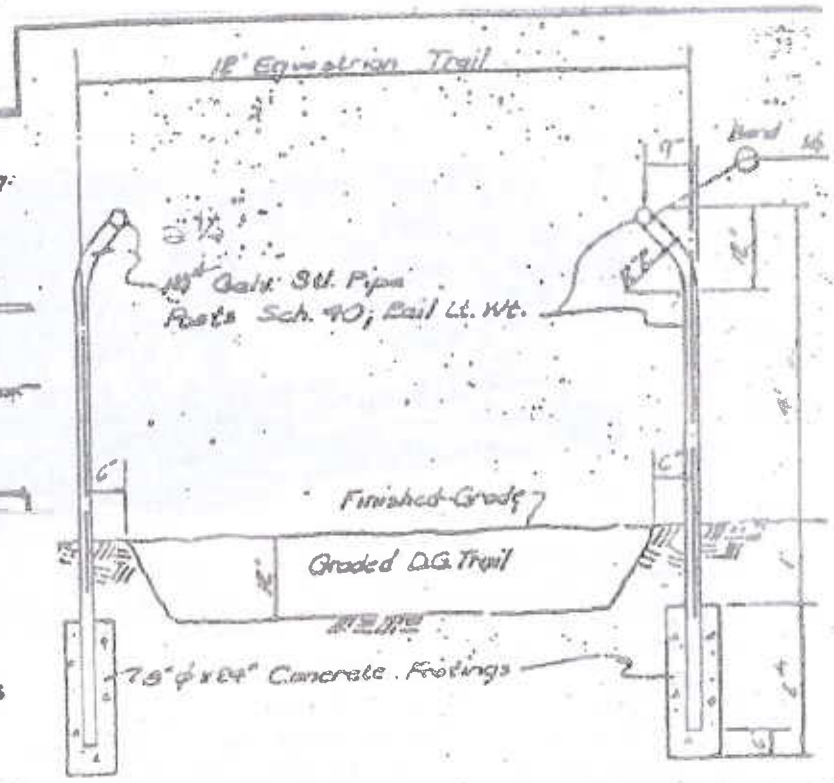
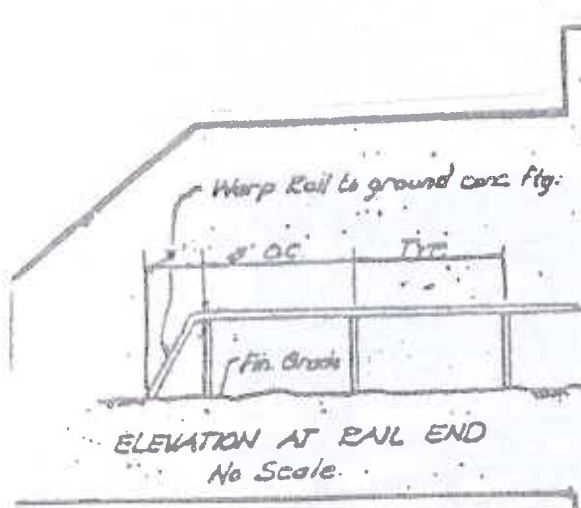
Simi Valley

Ventura County CA

photos by Julie Morris



CITY OF LOS ANGELES
DEPARTMENT OF PLANNING AND DEPARTMENT OF ENGINEERING
1980 EQUESTRIAN TRAIL STANDARD SPECIFICATIONS



NOTE

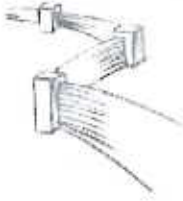
48" Height of single rail is to tall -
Allows dogs, small children, ponies
and bicycles to pass under rail.
Horizontal rail allows rider's leg to be
Squashed between horse and rail.
Pipe diameter is too small.

EQUESTRIAN TRAIL
NO SCALE

ORIG. SIGNED BY J. BREITBART 12-15-80



Warp Rail Stonehurst Equestrian Streetscape Sun Valley, Los Angeles County CA
Photo by Julie Morris



Fencing

Woodcrete® Rail fences features a rugged wood grain texture on all sides of the posts and rails, including the distinctive post tops.

The traditional beauty of the system makes it ideal for estates and ranches, bridle trails, homes, golf courses, parks and livestock corrals. Although uniform integral color is standard, once installed, the fence can be easily painted.

Steel reinforced rails and posts will not deteriorate and the system is safe from horse chewing and termites. Woodcrete® Rail Fence is available in two, three and four rail heights.



3 rail trail fence along parkway



3 rail fence corral at Home Depot



2 Rail fence with Spring flowers



Equestrian 2 rail trail fence



White rail barrier fence



3 rail pasture fence

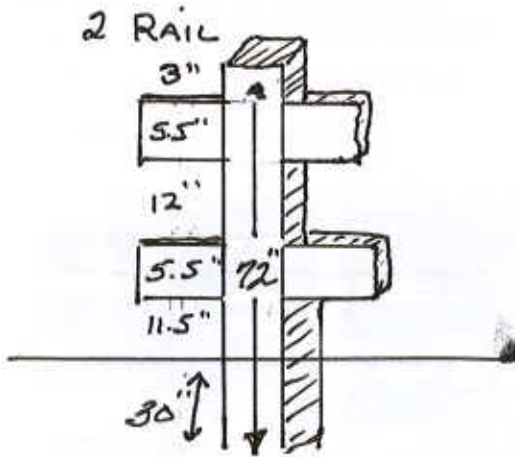
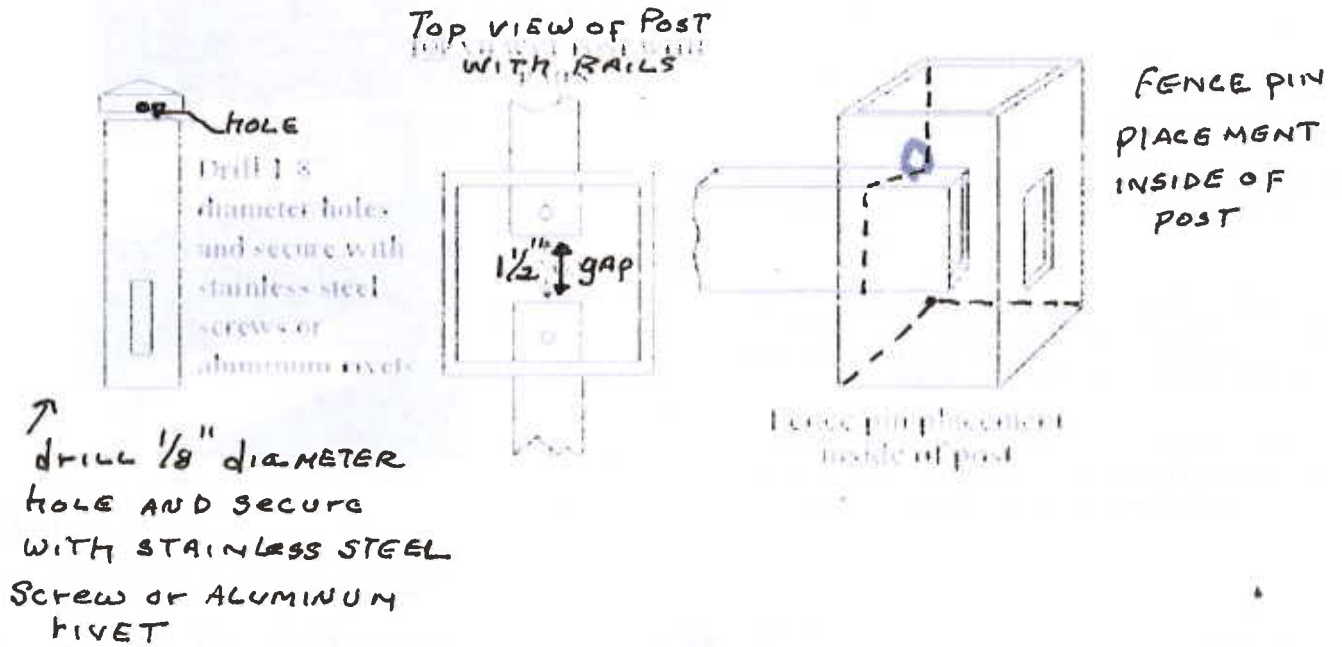


Rail fence on a walking trail



Rail fence with decorative column

MECHANICAL Properties ASTM # Typical Values Density (lbs/cu. In) D792 0.023-0.028
 Compression (psi @ 0.4") D695 3000 - 3100 Tensile (psi) D638 2100 - 2600 Flexural Strength
 (psi) D790 4000 - 5000 Tangent Modulus (psi) 216,000 - 222,000 Coef Thermal Expansion
 (in/in/deg F) D696 0.00007 Vicat Softening Point (F) Chevron Chemical 150 - 160 (F) Brittleness
 Point (F) Chevron Chemical (-100) - (-104) (F)



Curbside Gutter/apron Street

42" RAIL HEIGHT FOR MAJOR HIGHWAYS

Access Barriers

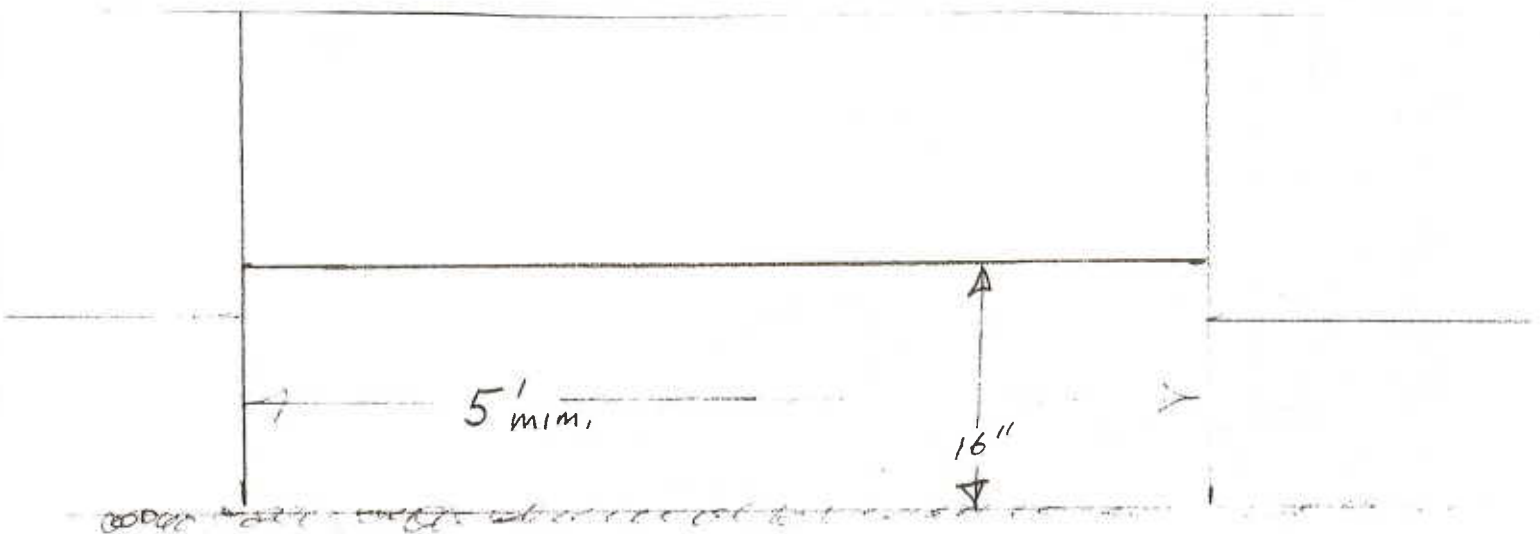
Access points at trailheads may require a barrier installed to discourage motorized vehicles from entry. Vehicles on Class A trails are becoming an increasing safety problem. LAMC should be amended to cite operators of these vehicles as if they were operating on a sidewalk. Only a removable barrier will allow access for emergencies and maintenance.

Option 1- Horizontal pipe 16" above grade (at top of pipe) across width of opening. Use a hinged or removable design, where tread is wide enough, to facilitate trail maintenance operations or allow passage by authorized emergency vehicles. Pipe should be at least 4" in diameter. Class A trails - NO VEHICLES BEYOND THIS POINT. Permanently welded trail barriers make access to trails impossible for maintenance equipment. Barriers should not be such that there must be an unsightly "access road" in addition to the trail tread. See Access Barriers (Figure 1)

Option 2- County of Los Angeles Park & Recreation Design (Ref 11-14-73) See Access Barriers (Figure 2)

Option 3 – Maze . See Access Barriers (Figure 3)

Figure 1



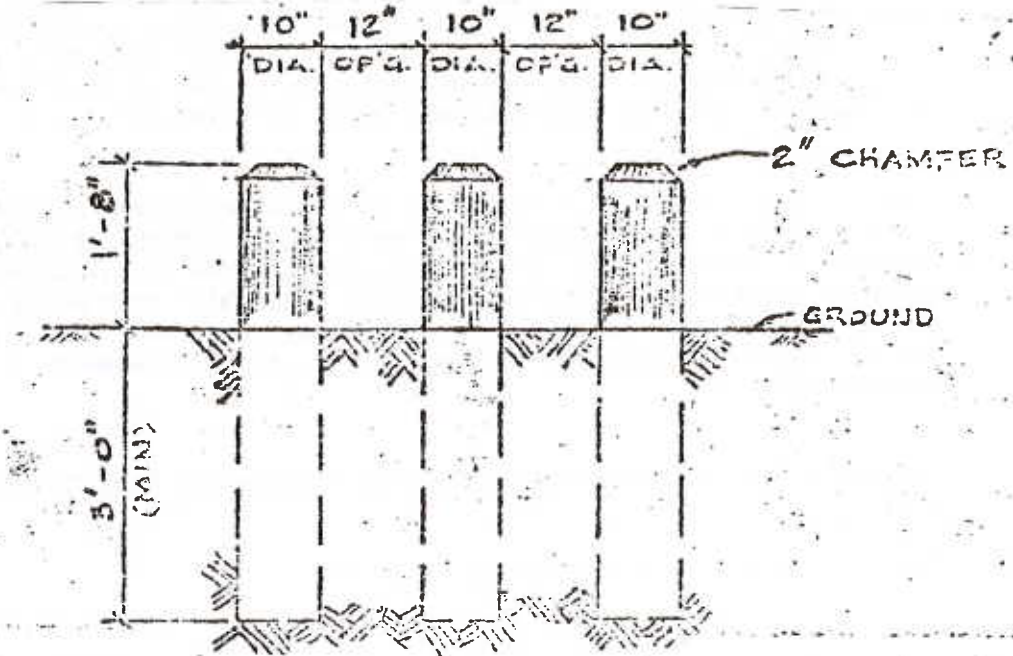
Top of step over bar to the ground should be 16". The opening should be a minimum 5' wide. If the opening is 10' or more the step over bar should be hinged or removable for maintenance vehicle.

Figure 2

PLANNING DIVISION
 DEPARTMENT OF
 PARKS & RECREATION
 COUNTY OF LOS ANGELES

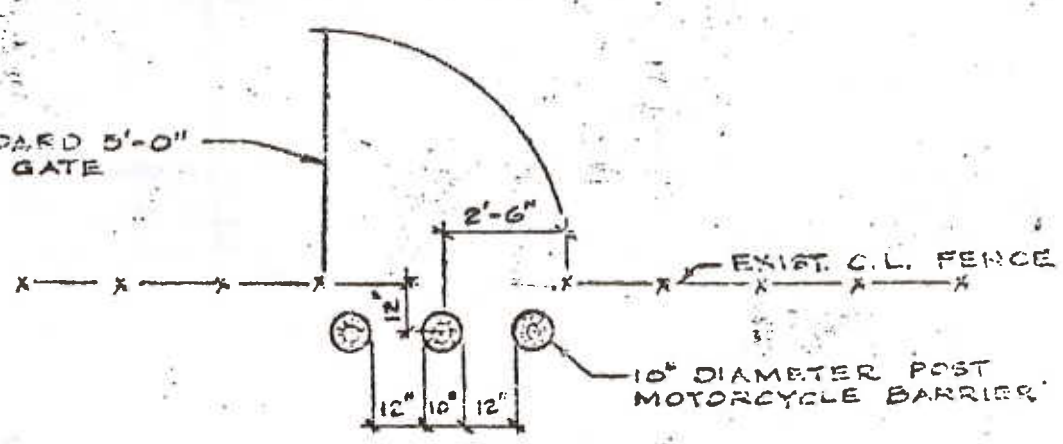
MOTORCYCLE BARRIER
 AT EQUESTRIAN
 ENTRANCE

DATE 11/14/
 DRW. NO.



MOTORCYCLE BARRIER DETAIL

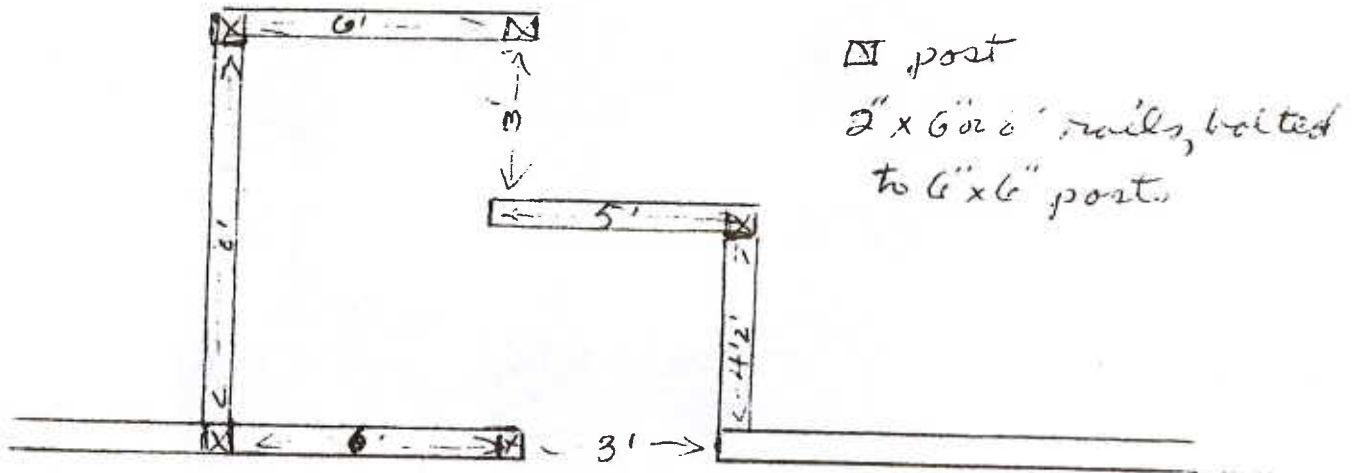
SCALE: 1/2" = 1'-0"



MOTORCYCLE BARRIER PLAN

SCALE: 1/4" = 1'-0"

Access Barriers
Figure 3
Maze Type Motorcycle Barrier



Signage and Markings

Signage is a vital element in the development of the trails. Trail signs and route markers, which local trail builders can use to identify their trail as part of a City Trail Network should be made available. Trail markers need not be elaborate.



Trails that are officially registered as part of the Trail system and operational are strongly encouraged to post signage on their trail. It is important to note, however, Trail signage should only be posted on operational trails that already have regulatory signage posted.

Signage Height requirements in Equestrian Zones

Special considerations must be made in regard to signage locations and clearance heights in equestrian communities. Signs installed over trails located next to streets and freeways in Los Angeles must respect the minimum trail clearance requirement. Bureau of Street Services, CalTrans and DOT need to be informed that any and all freeway signs located across trail easements must be installed with a minimum height clearance of 10-12feet.

Crossings**Bicycle Path Crossings/Intersections**

Signs shall be placed on each side of the crossing to warn bicyclists. The preferred treatment when a trail crosses a paved bicycle path is for the bike path to be interrupted and the dirt surface of the trail to continue across the bicycle path. This visually alerts

the bike rider that there is a crossing and he must slow down. A less desirable treatment would be the installation of crosswalk striping and speed bumps on the bike path.

Street Crossings/Intersections

Road Crossing shall have painted crosswalk striping and warning signs. Street should be marked "Horse Crossing" in K zones. In the case of signal lights with pedestrian activated traffic control, an equestrian button shall be installed so a mounted rider can reach the button.

Trailheads and trail interface points

A separate type of signage is required to mark points of interface between urban/developed roadways and the trail proper. This can occur at a designated trailhead, but also where the trail crosses a roadway or interacts in any way with developed areas. The purpose of these signs is to indicate the required change in traffic, and hence behavior required of trail users. The most impressive (and most expensive) type of signs, a reflection of the importance placed on the need to switch gears at a trail/roadway intersection. The physical form of these markers should be large and contain space for several different individual signs or messages.

Trail posts used by the Wood River trail system in Blaine County, Idaho are made from either massive or laminated wood with a cross section of 12 by 6 inches and a length of from 5 to 7 feet. Each wide side of the post has up to three, 8x8 inch inserts machined into the material, into which individual sign panels are attached. Installation of the signs should be such that the wide sides of the post are facing the trail and the access road, respectively.

The signs that make up the inserts have many functions and must carry many messages in as clear and simple a way as possible. Their purpose is to achieve some of the following:

- Indicate what usage is to be tolerated on the off-road trail segment;
- Use logos to designate the identity of the trail and the trail segment;
- Describe the accepted right-of-way hierarchy in which, for example, cyclists yield to runners and both yield to walkers and hikers;
- Warn trail users that they are about to leave the trail and return to more trafficked areas;
- Indicate the distance and direction to the next segment of off-road trail;
- Provide additional cautionary signs as necessary. This symbol is recommended on all trails that are shared by equestrians and other users.



Trail Tread Materials

Of all trail elements, the tread surface is the most essential. Trail tread should be used in an engineering layout that shows the design as (1) excavated (2) raised (3) excavated with swale (4) raised with swale or over a culvert.

Acceptable materials to replace natural soil include Decomposed Granite, Crusher fine limestone, washed sand and "stone dust". Tread surface may also be turf, mulch or duff.

Surface must be compacted similar to asphalt. Compaction will

- Keep vegetation from growing
- Provide a clear route
- Allow for more economical maintenance
- Provide an improvement that will last

Trail tread materials shall never contain asphalt, concrete or crushed gravel. Rocks or stones must not exceed $\frac{3}{8}$ inch in diameter to a depth of 8 inches. Geotextile Fabric liners should be used to preserve integrity of imported tread materials.

Trail treads installed along improved streets should begin at least 4 feet away from the curb and include a swale to prevent sediments from the trail from washing into storm drains.

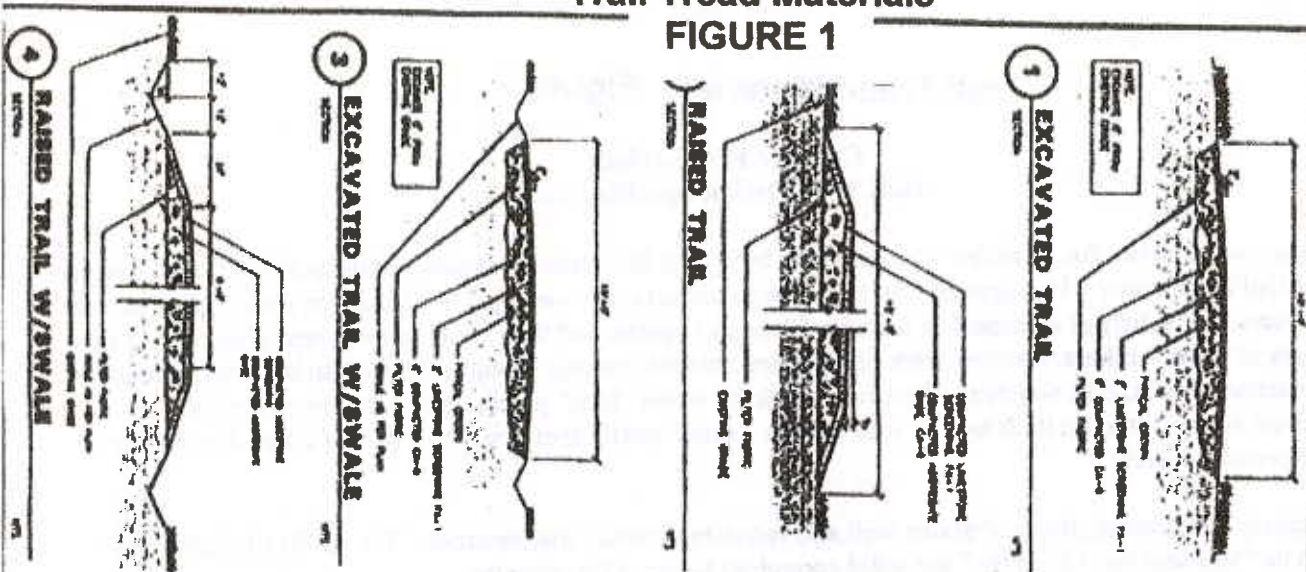
The tread should be diverted around trees with a diameter of more than 6 inches.

Figure 1 Detail from the Waterfall Glen Trail Loop System in Illinois.

Figure 2 shows Design specifications of a cross section of excavated trail.



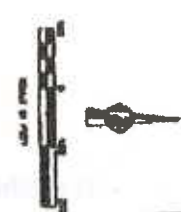
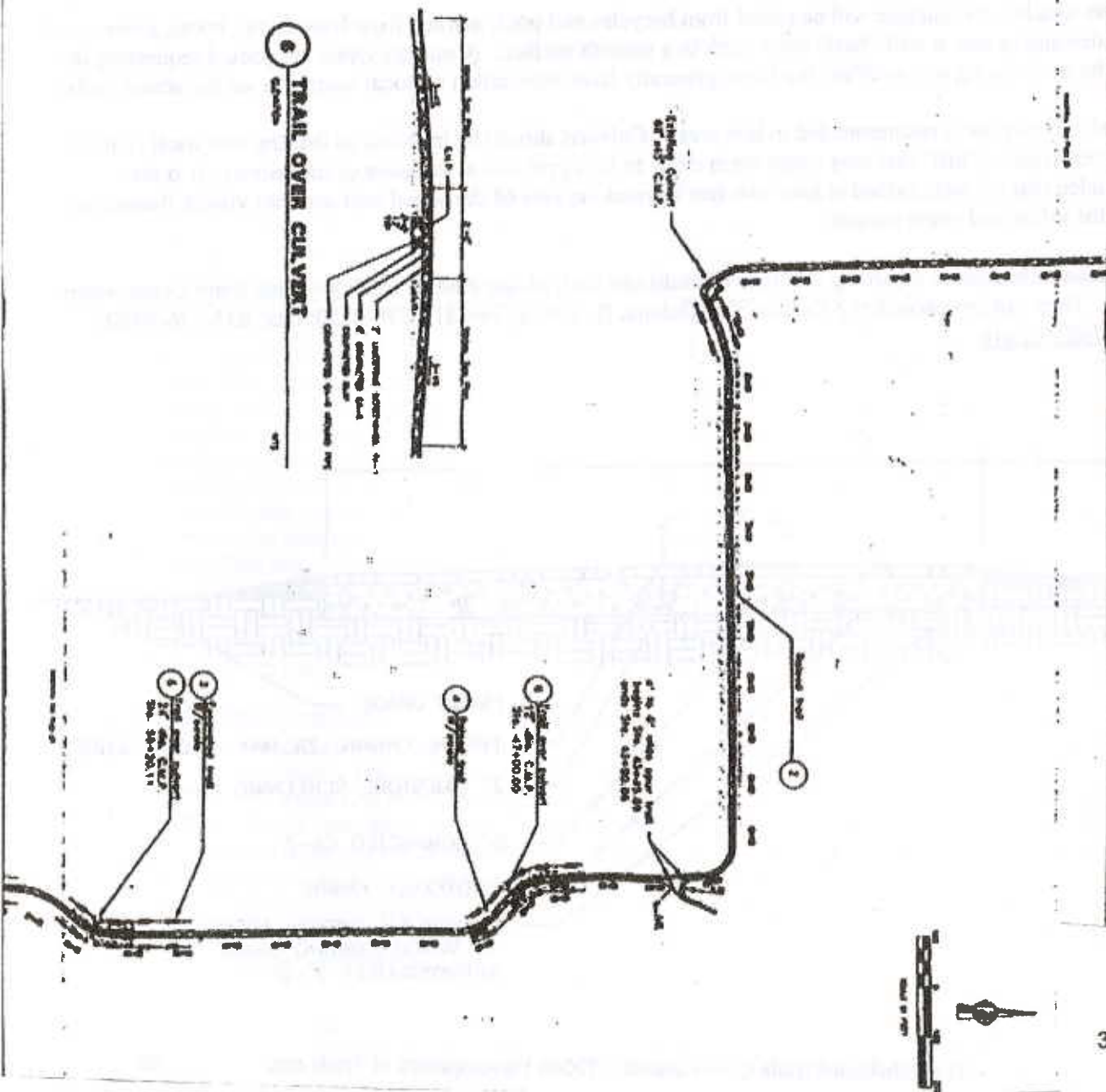
Trail Tread Materials
FIGURE 1



TRAIL LAYOUT - STA. 23+50 TO 56+50
WATERFALL GEM-COMPLETE TRAIL LOOP SYSTEM

DATE: 02/21/04
DRAWN BY: [Name]
CHECKED BY: [Name]

NO.	DATE	DESCRIPTION



Trail Tread Materials Figure 2

Crusher Fine Surface Built Trail Design Specifications

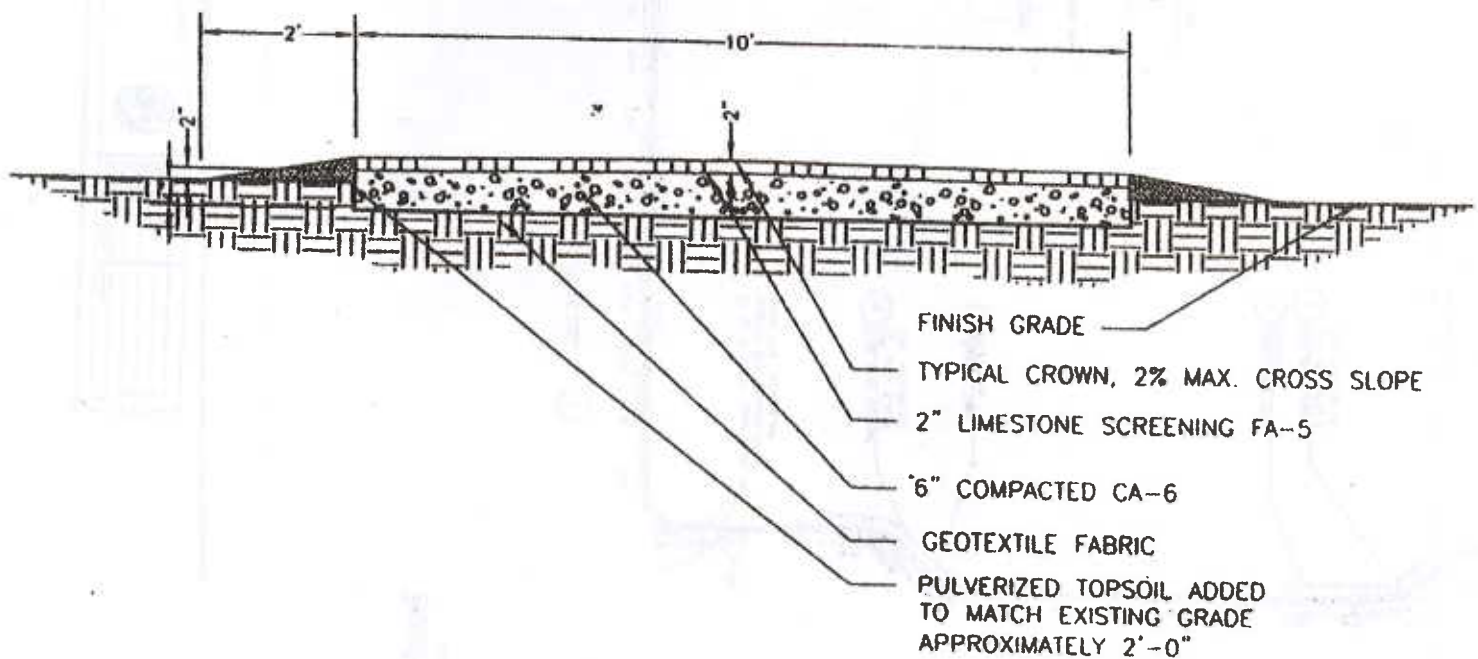
The construction sketches for a crusher fine surfaced, built trail have been provided courtesy of the Forest Preserve District of DuPage County. This type of trail has been in use on trails managed by that agency with great success for many years. This district is located in the near Chicago suburbs and their trails receive heavy shared use by a wide variety of users – hikers, families walking, joggers, serious running groups, children on bicycles, mountain bikers, horseback riders, bird watchers, fisherman trekking to the “best” places, cross country skiers, etc. No motorized use is permitted on their land or trail system. Additionally these trails are part of a flood control and wildlife greenway system.

When properly constructed, the trail drains well and requires minimal maintenance. The surface is forgiving enough to be “foot and hoof friendly,” but solid enough to be good for bicycles.

During wet weather, the surface will be rutted from bicycles and pock marked from hooves and boots, however, if left untended and in use, it will “heal” itself back to a smooth surface. (Courtesy flyers are posted requesting that trails not be used during wet weather, but these generally have little effect on local users – or on the actual trails.)

The use of culvert pipe is recommended in low areas. Culverts should be installed so that the trail itself remains level and not create a “hill” that may cause wash away to be a problem at the sides of the culvert. It is also recommended that culverts extend at least two feet beyond the side of the actual trail and that visible flanges be installed for safety and water control.

For additional information regarding this type of multi use trail, please contact the Equestrian Land Conservation Resource. They can be reached at P.O. Box 335, Galena, IL 61036; Tel: 815-776-0150; Fax: 815-776-9420; e-mail: info@elcr.org.



Trail Maintenance

Responsible Parties

As a condition of the building permit, a responsible party must be established for trail maintenance. At the time of dedication a maintenance plan must exist. The original builder of the trail should be responsible for its reconstruction or replacement should it not withstand at least a 10 year storm event within 2 years of its construction. Trails are treated similarly to sidewalks or improvements within common areas of an association. Trails located within residential developments normally have specific clauses recorded in their Conditions, Covenants and Restrictions (CC&Rs).

Jurisdiction

It is recommended that the Department of Public Works, Bureau of Street Services be responsible for trails as a streetscape improvement and that the Department of Building Safety will be responsible for inspecting trails in common areas of homeowner associations.

Trail Tread Maintenance

Grooming and maintenance of Multipurpose and Recreational Trail treads should be limited to surface smoothing treatments, trash removal and filling in of minor washed out areas (potholes). A trail should never be "tilled" or "ripped" as part of maintenance. Trail surfaces should never be scraped by motorized equipment without surface material being replaced and re-compacted.

Drainage Maintenance

Proper drainage of trails is an important factor in maintenance and elimination of erosion. Surface drainage of trail tread will be accomplished by maintaining outsloping and frequent grade dips. Cross drainage may be provided by use of a transverse berm. Trails in relatively flat areas should be maintained slightly above grade.

Staging Area Maintenance

Staging (Horse Trailer Parking) areas should include trash receptacles and manure fork for removal of manure and bedding by trail users.

Specialized Equipment

Drags, screens and rakes especially designed for the purpose should be used to smooth the trail, sift out rocks and decrease tendency for washout. May be "V" shaped to collect tread material from the edges and bring it back to the center of the trail. These devices can be pulled behind small vehicles such as a tractor, golf cart, bobcat or pickup truck. Mechanized equipment must never be used to drag Single track Class A trails.

Tree Trimming and Brush Clearing

Pruning should leave all trees and brush possible, especially specimen individuals. Make sure that the overhead clearance is sufficient to permit a horseman to pass along the trail (12ft) without interference when the weight of rain bends the brush or limbs. Every effort should be made to maintain the character and the environmental value of the area. Cut off all green limbs flush with the trunk to permit the cut to heal.

No "Ditching" (material pushed up in mounds at the side of the trail) is permitted. Ditching also concentrates water in sufficient quantities to cause serious erosion. Plants growing along the edge of the trail tread should be trimmed or cut off flush with ground surface, never uprooted.

Uprooting large plants on the sides of trails causes serious erosion.

Material cleared from trails must be removed completely or a narrow tread chipper used and the chips placed outside the trail tread where their use is beneficial for weed suppression and mulch purposes. This will maintain an attractive and natural appearance. Chips which do not exceed 1/2 inch in size may be spread on the trail to discourage weeds and reduce dust and erosion.

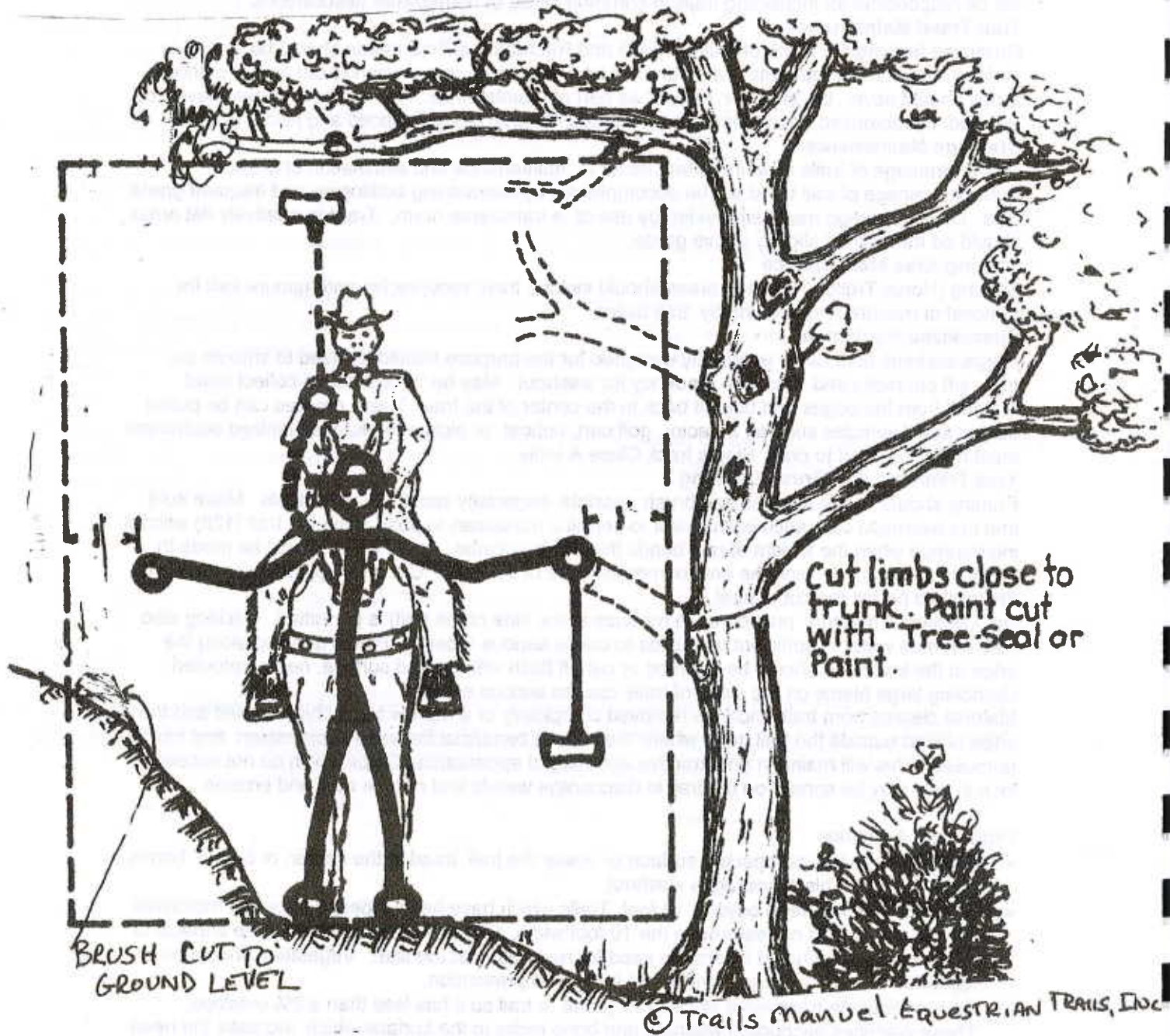
Prohibited Activities

- Do not disturb the compacted surface or lower the trail tread in the center, or create berms on each side. This encourages washout.
- Do not widen trail tread beyond 10 feet. Trails which have been widened to permit motorized vehicle use should be restored to the 10 foot width. Mitigation monies paid for the impacts of original widening should be first be used for restoration at the site. Vegetation should be replanted for natural beauty and to aid in erosion prevention.
- Do not eliminate transverse slope or re-grade a trail so it has less than a 2% outslope. These practices encourage washout and bring rocks to the surface which increase the need for more maintenance.

Work Beyond the Scope of Maintenance

A trail that cannot be meet specifications by dragging or addition of tread surface material cannot be maintained. It must be rebuilt. Rebuilding operations addressing trails with damaged tread or replacement of washed out areas are considered construction, reconstruction, betterment, replacement or restoration.

This scope far exceeds normal grooming or maintenance. Relocation of trails may be required when the original location of the trail has been destroyed by erosion. Trails relocated or removed for the benefit of another project require a permit application.



Addendum Clarification of Requirements For Developments in Equestrian "K" Districts

10 foot private access from improved street to horsekeeping area.

The purpose of this requirement is to provide vehicular access to horse keeping area. Meant to facilitate off street parking of unhitched horse trailers and large towing vehicles. Should be designed for oversized vehicles 40 feet or more in length, particularly dually, horse trailers and delivery trucks. Should be designed with no tight turns from street to horse keeping area that such vehicles cannot negotiate. (See Diagram)
Access to horsekeeping area should begin at common driveway apron (paved portion) and continue to horsekeeping area.

Driveway Configuration

See Sample Diagrams

Where Used

Private 10 foot easement, clear to the sky, should begin at driveway apron and continue without curve or bend to horsekeeping area.

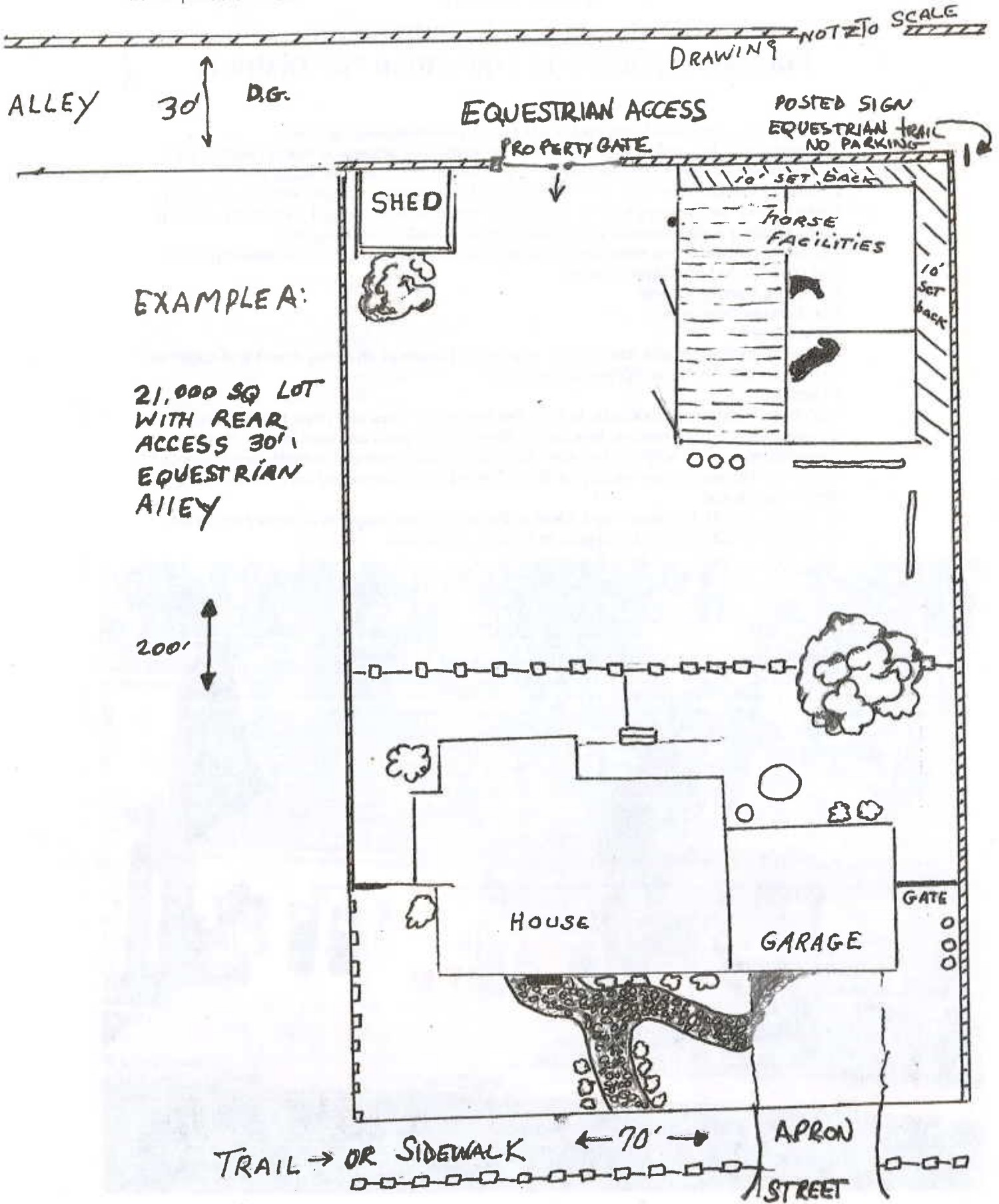
Restrictions

Prohibited obstructions include, but are not limited to, trees and other landscaping, garages, steps, utility meters, fencing, air conditioning units and pool filters. Height clearance should be "clear to the sky" to accommodate oversize vehicle requirements.

Surface: No restrictions except for the 2,000 sq ft horsekeeping area, which must remain native soil.

Width: Private 10 foot easement, clear to the sky, should begin at driveway apron and continue without curve or bend path to horsekeeping area.

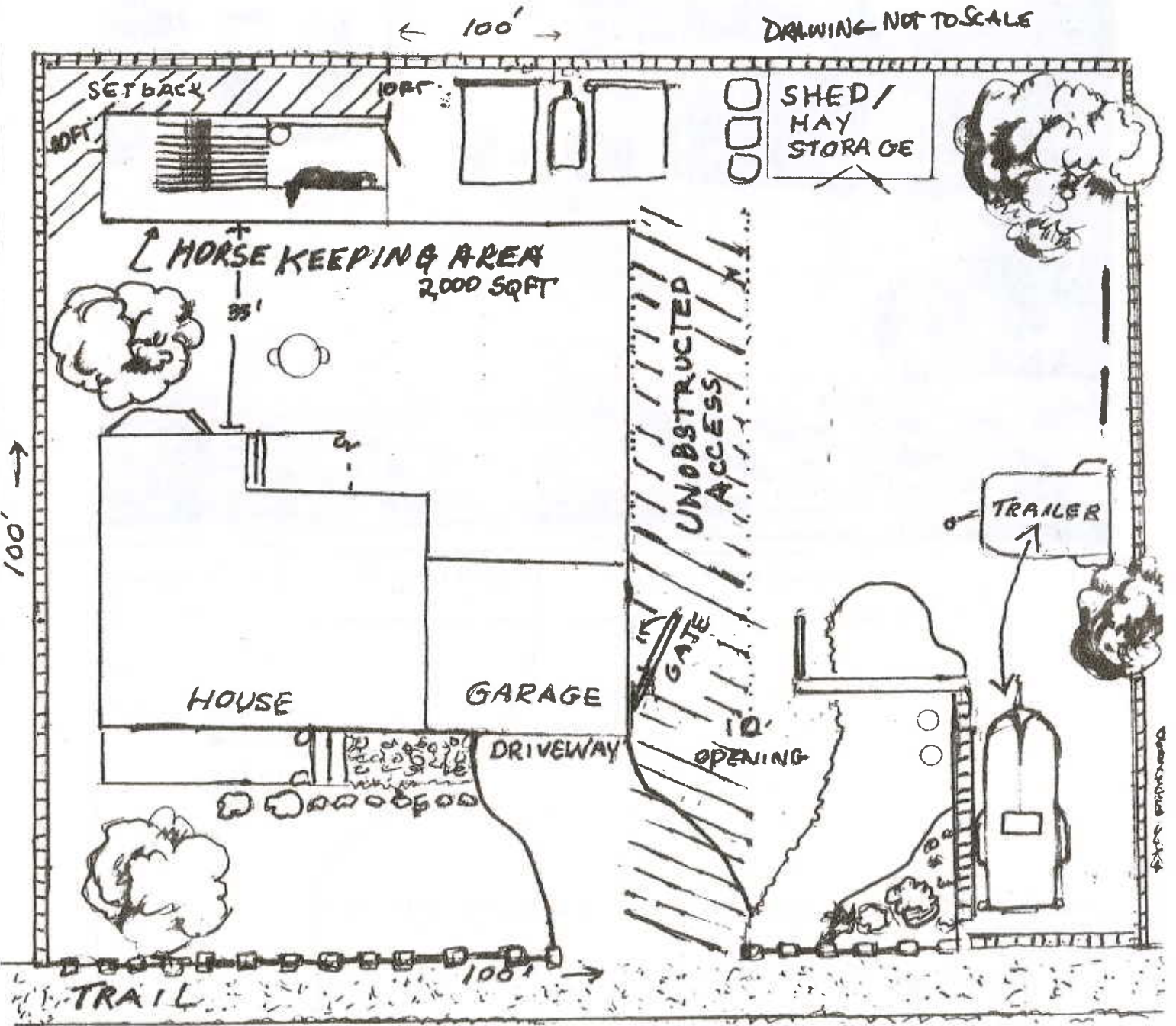


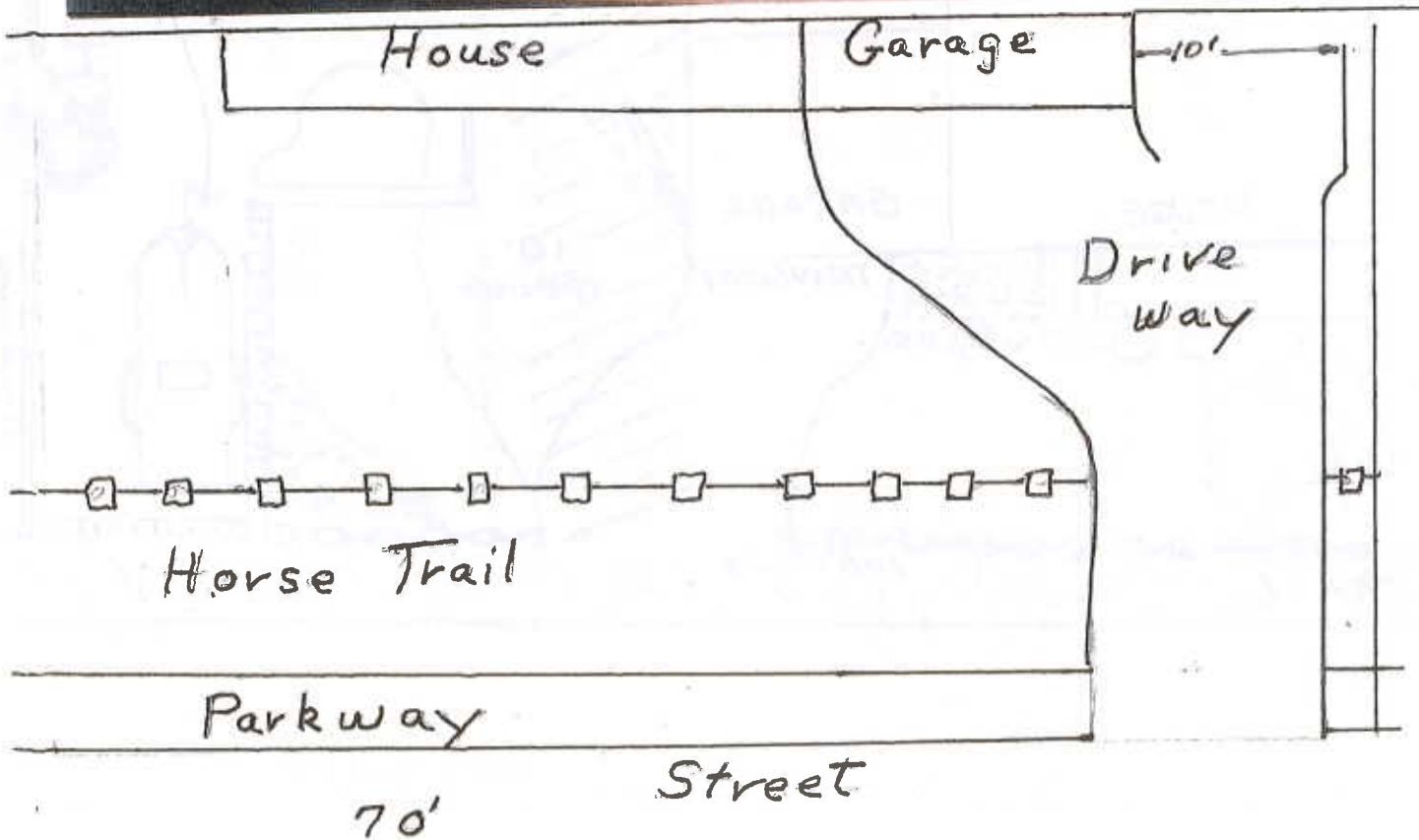
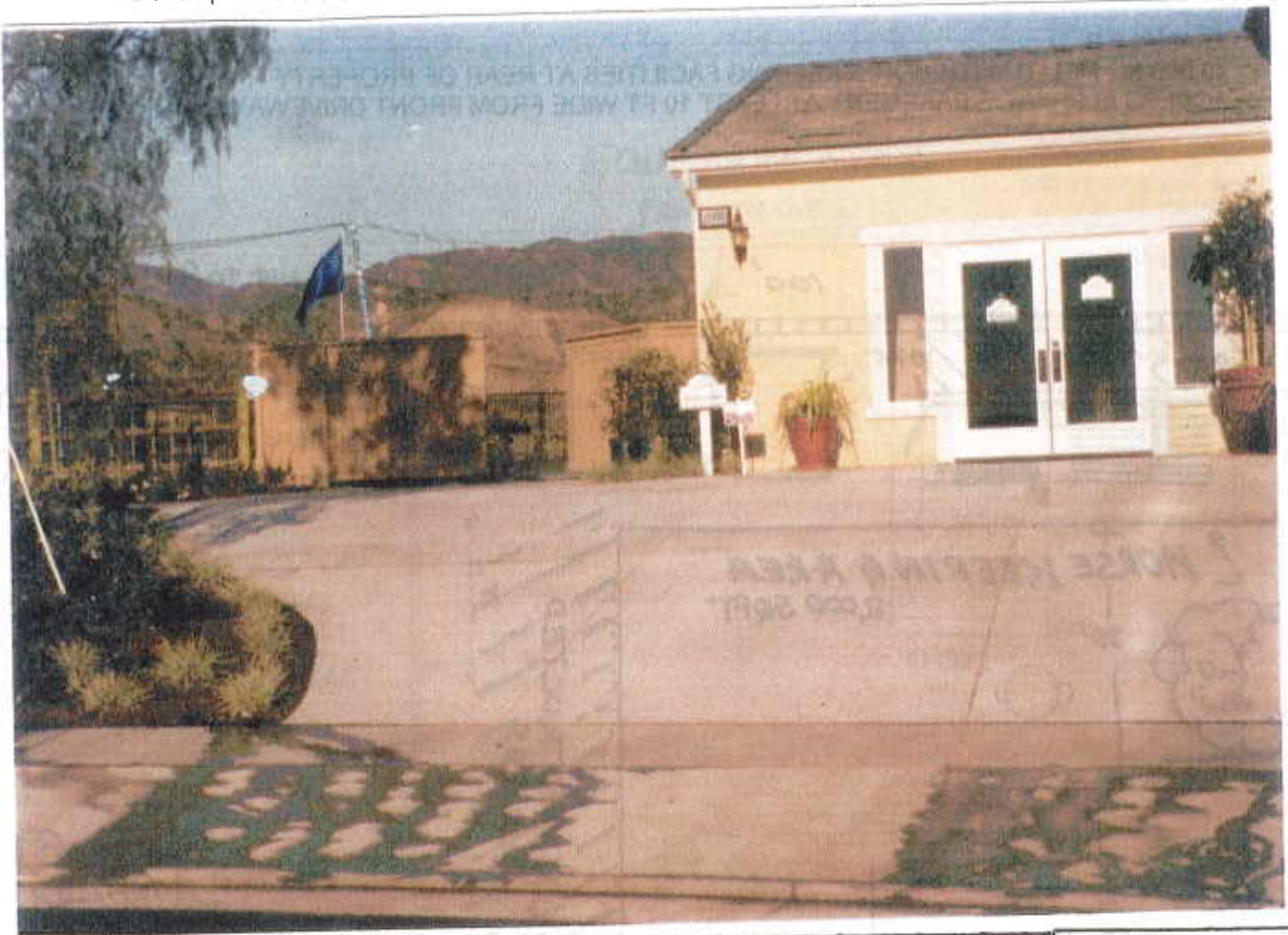


EXAMPLE B

20,000 SQ FT LOT WITH HORSEKEEPING FACILITIES AT REAR OF PROPERTY

ACCESS IS PRIVATE EASEMENT AT LEAST 10 FT WIDE FROM FRONT DRIVEWAY APRON





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AD HOC TRAIL ADVISORY COMMITTEE 1 pm **MARCH 11, 2003 to FEB 21 2004**

Name	Title	Address	Telephone	# of Hours	Type of Work	Signature
1 MARY BENSON		11870 Sheldon St	818 7675996	250	e-mail <i>marybenson.com</i>	
2 ANDREA GUTMAN		10511 Mahoney Dr S.H.	818 3535974	200		
3 KRUGER ELEKTRA		10544 Mahoney Dr S.H.	818 352 6220	20		
4 JULIE MYRRIS		11319 DRCAS AVE LANEVIEW TOWN	818 8996864	100		
5 NANCY BERNIS		10100 Maude ave Shadows Hills Ca	353 3545	50		
6 TAMMA LACKWOOD		11370 Ruggero RUE Lake View Terrace	899 5025	20		
7 CAROL ROPER		9635 LaCanada Way Shadows Hills 91040	353 5534	200		
8 CHERYL GRESUE		10336 Panrose ST La Juna dyn	91352 767 5722	20		
9						
10						

TOTAL HOURS:	860	X \$10.00 = TOTAL MATCH	\$
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1-3pm Friday
 MARCH 25-2003
 MARCH
 MARCH
 APRIL 25
 APRIL
 MAY 2

Development of Trails

Attachment A