TRAIL PLAN
and
Environmental Assessment

1985

Cuyahoga Valley
National Recreation Area

TRAIL PLAN

AND

ENVIRONMENTAL ASSESSMENT

Cuyahoga Valley National Recreation Area

MAY, 1985

Recommended: _____ Superintendent, Cuyahoga Valley — 6/4/85 Date

Approved: _____ Regional Director, Midwest Region — 6/21/85 Date

National Park Service
United States Department of the Interior

graphics by

Laboratory for Cartographic and Spatial Analysis

University of Akron

Akron, Ohio

FINDING OF NO SIGNIFICANT IMPACT

ENVIRONMENTAL ASSESSMENT

TRAIL PLAN

Cuyahoga Valley National Recreation Area

Ohio

The National Park Service has prepared an environmental assessment addressing the impacts of implementing a comprehensive Trail Plan at Cuyahoga Valley National Recreation Area. The proposed action is described in detail on pages 15-70 of the combined Trail Plan/Environmental Assessment, to which this Finding is attached. Alternatives considered, including both different alignments and different use emphases, are described on pages 109-113. The assessment has been reviewed resulting in the following conclusions:

1. The proposals, individually or cumulatively, do not constitute actions which normally require preparation of an environmental impact statement (40 CFR 1502.3; 516 DM 6, Appendix 7.3). The actions are not categorical exclusions within the contemplation of 40 CFR 1501.4 and 1508.4.

2. The proposals will not have a significant (40 CFR 1508.27) effect on the human environment. Negative environmental impacts which could occur are minor and temporary in effect. No potentially significant adverse impacts on public health, public safety, rare or endangered species, sites or districts listed in or eligible for listing in the National Register of Historic Places, or other unique characteristics of the Region have been identified. No highly uncertain or controversial impacts, unique or unknown risks, cumulative effects, or elements of precedence will occur. Implementation of the actions will not violate any Federal, State, or local law.

Based on the foregoing, it has been determined that implementation of the proposal will not constitute a major Federal action which will significantly affect the quality of the human environment and that an environmental impact statement is not required and will not be prepared.

6/21/85
Date

Regional Director, Midwest Region

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INTRODUCTION

The Cuyahoga Valley National Recreation Area (CVNRA) was authorized in 1974 by Public Law 93-555 to preserve and protect "for public use and enjoyment the historic, scenic, natural, and recreational values" of the Cuyahoga Valley. The General Management Plan, which guides future development of the recreation area, states:

> Cuyahoga's proximity to the metropolitan areas of Cleveland and Akron/Canton adds weight to its importance as a recreational resource, for if properly planned and developed, this park can serve as the primary recreational attraction in the northeastern Ohio region. (There are five million people within an hour's drive and a total of about 15 million within a 300 mile radius or one tank of gasoline.)
>
> It is essential that people have general open areas to explore and otherwise enjoy as well as developed facilities such as trails and picnic areas. Public access to these open, undeveloped lands is therefore crucial.
>
> The overall concept for management and development of Cuyahoga is that of resource preservation for compatible recreational use. The visitor-use concept for the national recreation area stresses the expanded use of existing facilities - ranging from primitive hiking trails to golf courses - as well as the opening of additional use areas to encourage people to disperse throughout the park and seek new recreational settings. Proposals are intended to promote uses that harmonize with the Valley landscape and to provide opportunities that generally cannot be duplicated in the more urbanized surrounding region. Numerous recreational activities will be accommodated - hiking, biking, horseback riding, spontaneous recreation such as kite flying and impromptu concerts.

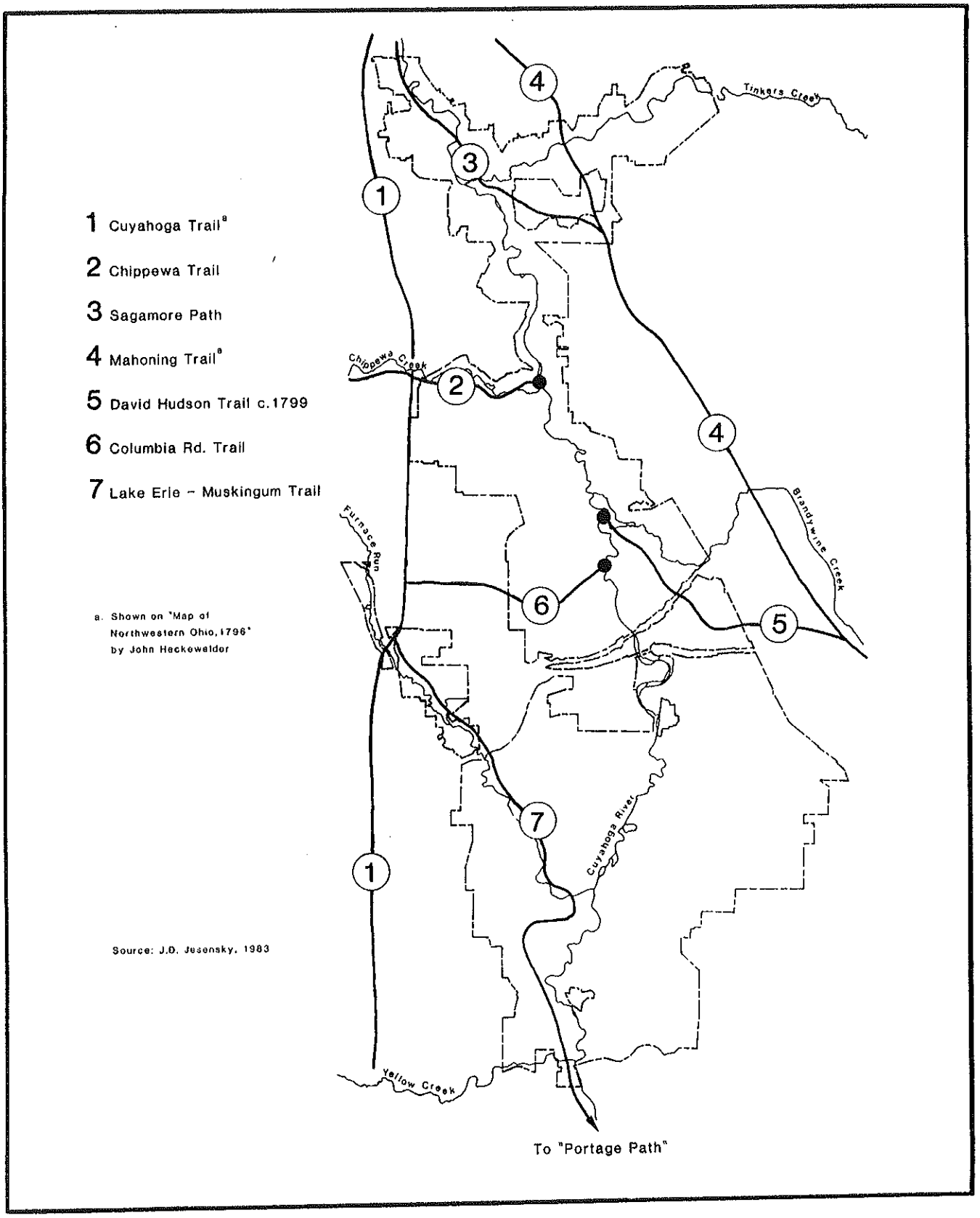
PARK ENVIRONMENT

The Cuyahoga Valley is a glacially-carved valley, ringed with Paleozoic sandstone and shale formations at the higher elevations. Numerous tributaries form a complex of intricate ravines, some of which feature waterfalls over the harder rock layers. The glacial soils are generally clayey and unstable: most are poorly drained, although there are pockets of almost pure sand and gravel.

The plant and animal communities reflect the interaction of man and nature that has been evident since early settlement just after 1800. The intricacy of the topography is further divided into a mosaic of old fields, wood lots, farm fields, suburban settlement, and forests. The dominant forest community is oak-hickory-beech, with sycamore-box-elder-ash in the floodplains. Canadian Hemlock thrives on north and east facing ravine walls. The recreation area is rich in history. Ten thousand years of prehistoric settlement have been documented -- archeologically significant sites are numerous. Since 1800 the valley has been surveyed, settled, farmed, timbered, mined, and developed in various ways. Trails can capitalize on this diversity. Several historic trails are well known and will be so noted when opened for public use: these include the David Hudson Trail and the Mahoning Trail.

Trail development in such an environment will often need to include stabilized treadways and small bridges. Layout must be done carefully to avoid erodable or slumping areas. To the extent possible, existing access lanes, old roads, and other stabilized or disturbed alignments will be used to minimize the impacts to natural and cultural features. Trails will be located so as to feature access to scenic vistas, ponds, historic sites, forested areas, and outstanding, non-fragile plant communities.

An environmental assessment of the projects proposed in this plan is found in Appendix E.



CVNRA TRAIL PLAN

United States Department of the Interior

National Park Service

HISTORIC TRAIL ROUTES

644	60,083
CVNRA	OCT. 84

NORTH

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MILES

VISITOR-USE PATTERNS AND PLANNING HISTORY

Public recreational use of the Cuyahoga Valley dates from before 1900. Over the years, several thousand acres were incorporated into the Cleveland Metroparks System (CMS) and the Akron Metropolitan Park District (AMPD). Hiking and horse trails have been an integral part of park development in the valley since the 1930s. About 1970, an abandoned railroad bed was opened as a Bike and Hike trail along what is now the recreation area's eastern boundary and jointly managed by both metropolitan park agencies.

Planning for the Cuyahoga Valley National Recreation Area began well before its authorization in 1974. Feasibility studies by the State of Ohio culminated in a 1975 report by the consultants Mosure-Fok and Syrakis, Inc. That document formed the basis for the General Management Plan of 1977 which illustrated a conceptual trail system for hikers and horseback riders. However, that plan made no specific allowance for bicycling or cross-country skiing. It did include an off-road vehicle (ORV) area which is carried forward into this plan.

Bicycle trails have been an integral part of transportation planning for the recreation area, illustrated in two documents: the 1981 Transportation Study by Parsons, Brinckerhoff, Quades, and Douglas, Inc., and the 1983 approved Transportation Plan. Recommendations from the latter document coordinate closely with this plan. In recent years the Cleveland Metroparks System has embraced the concept of "All-Users Trails" for joggers, bikers, hikers, and other means of ever-changing non-motorized recreation technologies.

By 1982, over 4 million visits were made within the recreation area's boundaries to its many attractions, such as Blossom Music Center, Hale Farm and Village, Porthouse Theater, the four golf courses and two ski areas, three scout camps, the Buckeye Trail, and the Cuyahoga Valley Line steam train excursion. That year, the CMS Brecksville Reservation alone received over 1,000,000 visitors. Magnitudes of trail use, however, have not been well documented. Observations indicate that use is a function of weather -- with peak use occurring on warm spring and fall weekends. Winter trail use depends upon snowfall. Since most of the recreation area's visitors come from nearby metropolitan areas, they can respond immediately to good weather for visiting the park. Providing dispersed passive recreational opportunities (such as these trails) is a key to dealing with wide fluctuations in visitation.

In 1981, the CVNRA Citizen Advisory Commission was invited by the Superintendent to develop a trail plan to flesh out the intent of these previous recommendations and plans. The Commission organized interested citizens and representatives of various outing organizations in the Cleveland-Akron area to develop trail recommendations with the help of appropriate recreation area staff. The field work and recommended actions were made by subcommittees of hikers, horseback riders, bicyclists, and cross-country skiers. Additional input was received from joggers, carriage drivers., sleigh operators, dog-sled drivers, canoeists, and other specialized trail users. After an intensive 2-year effort, these recommendations were submitted to the recreation area staff in 1983 and form the foundation of this plan.

In 1983, park staff compiled a Land Protection Plan to discuss the most appropriate means of protecting significant natural and historic resources in the almost 740 non-Federal land tracts within the legislated boundary. Some of those protection strategies were based upon the Citizen Trail Committees' recommendations for trail locations.

The large current and anticipated public demand for this trail system is indicated by several factors. Area metropolitan park units are inundated to capacity by trail users during peak weekends fall and spring. Ohio's state parks (most of which are much further from population centers than CVNRA) are the most visited in the Nation. Inquiries from hikers, skiers, horseback riders, and dogsled racers about expanded facilities continue to increase. And as the recreation area's presence becomes well known, regional and national visitor demand for a variety of recreational opportunities will increase.

A recent statewide recreational needs study (Ohio DNR, 1980) states, "The most critical recreation facility deficiencies in Ohio exist in the Cleveland metropolitan area." The need for additional off-road vehicle (ORV) courses is listed as the highest need. For Akron and Cleveland areas, specific deficits are shown (0% indicates no additional facilities needed; 100% means need is completely unmet):

Activity	Cleveland Area	Akron Area
Horseback	39%	48%
ORV	57%	35%
Downhill Skiing	59%	13%

During the recommended management actions, the following statement was made: "The federal government should emphasize opportunities for quality hunting, hiking, camping, and other extensive recreation activities." This Plan is an attempt to meet some of these recreational needs.

CONSTRAINTS AND OPPORTUNITIES

The natural and cultural features of the recreation area offer both constraints and opportunities for trail development. These include:

Opportunities

a. Scenic overlooks, outstanding views, ponds, quiet forest settings, and other destinations
b. Existing trails (105 miles)
c. Usable utility rights-of-way
d. Areas of slight soils limitation and/or ridge edges
e. Available bridge crossings
f. Available sewer, water, and parking for trailheads

Constraints

a. Areas of cultural resource sensitivity
b. Critical natural resource areas such as wetlands and habitats of rare or endangered species
c. Scenically degraded areas
d. Unavailable lands (private ownership or easements and life-estates)
e. Areas of fragile and unstable soils which are subject to erosion and slumping -- often associated with steep ravines.

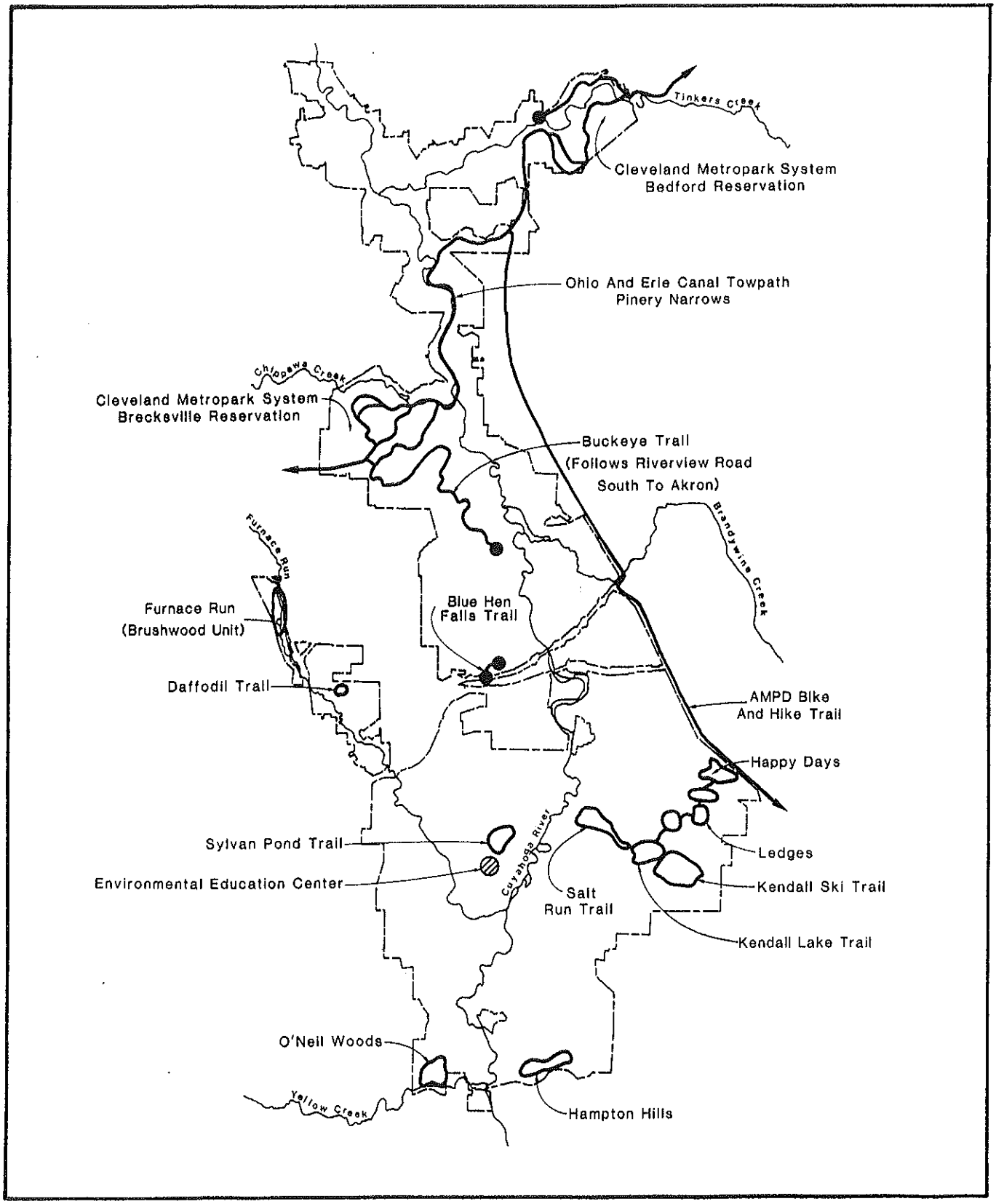
All of these factors were mapped during the planning process -- however those maps are too detailed and cumbersome for inclusion in this document. They are available for inspection at the recreation area offices.

EXISTING TRAILS

As recreation facilities and park lands have been developed in the Cuyahoga Valley, a number of trails have appeared. Principally these are associated with the Cleveland and Akron Metropolitan Parks or Virginia Kendall Park. (In addition to those listed, a variety of informal horse trails, forest roads, and utility rights-of-way provide trail opportunities for those willing to explore them.)

Name	Type	Length (in miles)	Management
Bike and Hike Trail (Outside NRA)	Multi-Use	(22)	CMS and AMPD
Brecksville Reservation	Horse Trails	18	CMS
Bedford Reservation	Horse Trails	17	CMS
Brecksville Reservation	Hiking[1]	16	CMS
Bedford Reservation	Hiking[2]	8	CMS
Hampton Hills	Hiking	5	AMPD
Ledges/Octagon Area Trails	Hiking	5	NPS
Bedford Reservation	Multi-Use	5	CMS
Deep Lock Quarry	Hiking[3]	5	AMPD
Brecksville Reservation	Multi-Use	4	CMS
Happy Days Trail	Cross-Country Ski & Hiking	4	NPS
Kendall Lake Trails	Hiking	4	NPS
Kendall Ski Trail	Cross-Country Ski & Hiking	3	NPS
Pinery Narrows	Horse & Hiking[4]	3	CMS
Furnace Run Trails	Hiking	3	AMPD
O'Neill Woods	Hiking	2	AMPD
Sylvan Pond Trail	Hiking	2	NPS
Blue Hen Falls Trail	Hiking	1	NPS
		105 miles	TOTAL inside CVNRA

1. Includes 6.5 miles of Buckeye Trail.
2. Includes 6.3 miles of Buckeye Trail.
3. Includes 3.0 miles of Buckeye Trail.
4. Includes 3.0 miles of Buckeye Trail.



CVNRA TRAIL PLAN

United States Department of the Interior

National Park Service

644	60,105
CVNRA	OCT. 84

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MILES

EXISTING TRAILS

GUIDELINES

Each type of trail has special requirements. Yet many factors are common to all trails and are outlined here to emphasize their importance.

Resource Protection

By law the National Park Service must protect the natural and cultural resources within its park areas. Trails may provide access to features which can withstand visitation, but certain habitats, natural features, archeological areas, ruins, and other features must be protected. Unrestricted access to those points is avoided. Each of the trail uses in this plan involves some means of non-motorized movement. Hence an extensive system of recreation is proposed which will discourage the consumption of fossil fuels, keep noise at current levels or below, and not contribute additional air pollution. These benefits reflect CVNRA planning policies and NPS Management Policies.

Variety of Experience

Each type of trail user, no matter what skill or ability level, is interested in a variety of different experiences: long vistas, or enclosed passages; closed canopy, or open fields; level ground, and rolling or steep hillsides. Discovery is the key note to successful trail use - and the artful juxtaposition of contrasting trail experiences raises it to a high level.

Variety of Purpose

People use trails for a wide variety of purposes, such as:

a) getting away from the stress of the city
b) seeking solitude and communing with nature
c) studying nature
d) taking photographs
e) having a family outing
f) fostering group fellowship
g) exercising
h) practicing for competitions or endurance

Therefore a successful trail system will feature a variety of recreational opportunities, experiences, and destinations. Directions must be clear so that each person can follow the way to that experience which will meet his or her needs and expectations.

Variety of Ability

For each kind of trail use, some people are beginners, others are advanced, and most users fall somewhere in between. A satisfying trail system offers varied opportunities for each group, allowing for advancement and challenge.

Cyclists, for example, can generally be divided into two categories: casual and experienced. The first group includes families on outings and Sunday cyclists. The second includes riding groups, long-distance tourers, and racers. The former prefer shorter distances, will arrive at the recreation area by car, prefer a safe, relatively flat course away from traffic, and often require restrooms and equipment rental. The experienced cyclists are more self-sufficient, less destination-orientated, travel faster, and want access to long, challenging routes.

Horseback riders can be similarly classed. Except for nearby horse owners, all riders will need horse-van trailheads and/or rental livery services. Short, easy loop trails should be provided for beginners, and special programs initiated for handicapped or therapeutic use.

The cross-country ski system should also serve all kinds of skiers. Each trail area ideally, will provide a small open area for beginners, warm-ups, and instruction, plus various trails designed to accommodate different skill levels from beginner to intermediate to advanced. In addition, at least one long-distance competition racing course is desirable.

Of all groups, hikers come in the greatest variety. However, their needs and abilities are most easily met by minimal construction. Clear directions are the key to matching the appropriate trail to each user. Short nature trails, paved loops, and other special trails allow the elderly and physically disabled to enjoy the area's scenic features.

Safety

No one wants to get lost, break a limb, or have other unpleasant experiences while using trails. Safety appears at all stages: during trail placing and layout, during construction, during use, and during maintenance. Conflicts, such as crossings and intersections with vehicles must be minimized. Joggers and cyclists do not mix well, unless there is plenty of room. Horses and hikers are not both compatible on the same narrow trail. Cross-country skiers find deep footprints on their trails hazardous. Safe placement keeps trails (except Class II and III bike lanes) away from cars. Safe construction includes handrailings, warning signs of hazards, and clear directions at junctions with other types of trails or roads (with clearly marked destinations and distances). Safe trail operations are enhanced by regular ranger patrols, be they on foot, horseback, or bicycle. From time to time, local interest groups, or NPS staff, should offer clinics to train those interested in safe hiking, biking, horsemanship, jogging, and skiing. These sessions set a standard for courtesy and help promote trail safety.

TRAIL LAYOUT

Distance

Each type of trail use moves at a different speed. For an hour's or a day's use, each requires different lengths to provide a challenging and satisfying experience:

type	average speed	recommended distances per day	
		beginner	advanced
hiking	2-3 mph	¼-2 miles	10-20 miles
x-country ski	3-5 mph	1-5 miles	15-20 miles
horseback	5-15 mph	3-5 miles	20-30 miles
bicycling	10-25 mph*	up to 20 miles	60-100 miles

* Maximum design speed should be 30 mph.

Length of time

Some hikers or cyclists travel all day, and some may embark on a trip of many days, yet most park users generally come for a few hours or at most, half a day.

Trail Pattern

For each type of trail use, loops of varying sizes have the advantage of returning to the trailhead (and car or sources of rental equipment). Yet connectors, and long-distance linear routes allow flexibility by linking together separate trail areas forming larger loop routes.

type of trail	recommended size of loop trail
bicycling	4-20 miles
horseback	2-10 miles
x-country ski	2-12 miles
hiking	1-5 miles

Cross-country skiing lends itself to loops, fanning out from a "ski center" where equipment and warming are available. Hiking trail loops can vary in size from a short interpretive nature trail (or scenic "quiet way") to an all-day trip.

Multi-use recreation trails are desirable when there is a need to consolidate users to one corridor and minimize resource damage. However, such a trail, to accommodate bikes and pedestrians together must be at least 8, or better, 10 feet wide. The Ohio & Erie Canal towpath suggests such a use since its original width was 10 feet. A narrower trail will be neither satisfactory nor safe when shared, except when seasonal differences (such as on a cross-country ski loop) allow different types of users to use the same trail in different times of the year.

Destinations

Both loops and through-trails may have destinations: scenic overlooks, historic buildings or ruins, groves of trees, springs, waterfalls, visitor activity areas, or even a distant trailhead. Without points of interest, a trail is dull. Each trail's special combination of features gives an unique character to the trail, often suggesting a name. In certain cases, observation platforms, small towers, or discreet vista clearings will greatly enhance these points of interest.

Trail Environment

Besides seeking destinations, most trail users are out to enjoy the experience along the way. Solitude, scenery, and variety are desired by everyone. (Only the rugged, long-distance hikers, horseback riders, or cyclists are willing to forfeit some of these pleasures to travel roads and settled areas in order to achieve the long distances they desire). Highlands, oldfields, woods, and stream sides each have special appeal. The floodplain levees of the Cuyahoga River offer ideal opportunities for a quiet water-oriented experience when the river is not in flood.

In certain cases, historic road or trail alignments can be used for bikes or hikers. They often provide the best grades and most interesting vegetational edges. Old roads are also well-suited for horse use, providing a more durable, time-tested base than fresh-cut trails. For skiing, shaded or north-facing slopes are preferred for snow retention. The spatial factors of a trail which appeal to the senses are curvature and grade. A well designed trail meanders both horizontally and vertically. Dead straights or levels easily become boring, while crooked, sudden turns or taxing grades, are no fun.

type	optimum range of gradient	minimum curvature
bicycling	1% to 8%	90 ft radius
x-country ski	1% to 25%	16 ft radius
hiking	1% to 30%	5 ft radius
horseback	2% to 30%	10 ft radius

Short grades can be much steeper, if adequate run-out space is provided at the bottom for bicycles and skiers. Curves on bike trails should be widened up to 4 ft. for "leaning out". Courses for advanced users should feature challenging gradients.

Treadway

Each type of trail has specific requirements for enjoyable use:

type	optimum width	overhead clearance	optimum surface
bicycling	8-12 ft *	9½ ft	smooth asphalt, or fine compacted limestone screenings
horseback	4-6 ft *	12 ft	bank-run gravel, dirt, leaf litter
skiing	6½-8 ft	11 ft	grass, free of stumps & obstructions
hiking	2-4 ft	8 ft	dirt, leaf litter, grass

* widening and banking at curves desirable for passing

Each type must be well drained to minimize erosion, undermining, standing water, wet shoes, or early snowmelt. This can be achieved in different ways depending on terrain:

a) crowned paved trail (bikeways and multi-use)
b) water bars (horse & hiking trails)
c) puncheon (hiking)
d) gravelled surface (hiking)
e) rock box or stepping stones (hiking)
f) side ditching and culverts (all types)
g) stiles (hiking and ski)

Once built, if wetness or stickiness becomes a problem, trail hardening or crowning should be installed before further damage occurs. Good trail layout can greatly reduce the need for drainage structures. Horseback riders enjoy shallow water crossings. The other types require bridges of some sort. Hikers can often get by with wide logs or stepping stones. Skiers need a bridge wide enough to pass each other, unless the trail is a one-way loop. In that case a 3- to 4-foot wide bridge is satisfactory. They prefer a surface that does not grab their poles.

Special trails for the physically disabled should provide easy gradients (½% - 5%), have a wide (4' - 5'), smooth surface - preferably paved, railings where necessary, and be clearly marked with directions and points of interest. Braille or electronic messages can be especially helpful.

Connections

Within the Cuyahoga Valley, certain trails already exist and are well known, such as the north-south Buckeye Trail and loop trails in various units of the Cleveland Metroparks System and Akron Metropolitan Park District. On the east side of the valley runs a 25-mile Bike and Hike Trail along a former railroad line. The Boy Scouts of America have established a 10-mile Order of Arrow Trail near Peninsula, using existing trails and roads. Part of the 25,000 mile Bikecentennial Maine-to-Iowa Trail connects the Bedford and Brecksville Reservations of the Cleveland Metropark System. New trails in the valley are carefully connected to these existing and area-wide facilities. Appropriate signs at intersections, and coordinated maps or directions by all jurisdictions involved will guarantee that "the whole is greater than the sum of the parts". Other connections are planned between major visitor attractions, such as Hale Farm and Village, Happy Days Visitor Center, and the Canal Visitor Center (Locktenders House); these attractions then are able to double as trail destinations and/or trailheads.

Intersections

When trails intersect other trails or roads, directions and distances should be given so users are not confused. If motorized vehicles are to be denied access, special stiles or barriers may be necessary. Where a multi-use trail branches into several single-use trails, each type must be clearly indicated. Intersections are also an excellent place to warn of hazards of difficult stretches ahead, so that users may choose an alternate route.On bicycle and ski trails, widened intersections help promote safety.

Trails for the Physically Disabled

To provide a worthwhile recreational experience to the widest variety of users, NPS is pledged to install facilities for the physically disabled. Such trails should be barrier free, relatively level and smooth, wide enough for wheelchairs and walkers, and provide access to enjoyable scenic features. Standards for such trails are found in Building Without Barriers for the Disabled (Harkness and Groom, 1976) and A Guide to Designing Accessible Outdoor Recreation Facilities, (1980).

Trails specifically designed for disabled persons are not detailed in this plan. However, all those shown as "multi-use" will easily accommodate such persons. Other short existing or proposed loop trails are ideal for upgrading to be used by the disabled, such as the Kendall Lake Trail, Kendall Ledges Trails, access to the Octagon Shelter, and the Brandywine Falls Trail. In time, additional specialized trails can be installed at almost any of the proposed or existing trailheads.

Things to Avoid

To optimize trail use, certain conditions should be avoided. Dumps, hazardous abandoned structures, or other severely disturbed areas, especially visible in winter, detract from a scenic experience. Wet areas create problems year-around for all types of users -- or if used, lead to deterioration of the trail surface and create trail "braiding", lessening the experience: snags, small stumps, and other obstructions can be serious safety hazards to skiers, bikers, and horses.Overuse creates crowding and deterioration of the trail surface.

SUPPORT FACILITIES

Signs, markers, and blazes are critical parts of any trail system. The Recreation Area's Sign Plan includes traffic directionals, bulletin boards, and trailhead signs. Each trailhead, trail loop, and connecting trail will have a distinct name and be so labelled. Trail markings will be standardized and simple, using color-coded tree blazes or "croquet-stick" markers. Trail names, destinations, and distances will be indicated at intersections. Trail signs will be of routed wood, with incised, painted characters. A trial set of such signs is being installed throughout the Kendall Ledges area in 1985.

A great variety of support services are possible for trail users. Off-road parking lots, water, and signs are a minimum. Restrooms, warming shelters, equipment rental, stores, refreshment stands, phones, first-aid stations, overnight hostels, bulletin boards, bikeracks, camping areas, and maps may all be desired to some degree. In general, more advanced and experienced trail users are more self-sufficient than beginners or groups.

All users must be able to obtain maps which accurately show the trails, the key points of interest, restrooms, and connections to trail facilities in nearby areas. These maps should be available at visitor information centers, as well as principal trailheads. Brochures are also needed stating NPS regulations and trail safety advice.

Trailheads will be strategically located so that each can give access to several separate trails. Trailheads serving horses should allow space for horse trailers to maneuver and be parked. Parking areas serving competition courses need space for overflow parking to accommodate peak crowds. Large-scale parking lots may be used in the future to accommodate shuttle buses. Ski trailheads must be served by all-weather roads that are plowed in winter. Trailheads should contain all-weather bulletin boards with maps, notices, regulations, and a brochure box of materials describing the nearby trail opportunities. These maps will give distances, estimated travel time, and major hazards. Restrooms and public phones are desirable as conditions permit. Along the Cuyahoga River, trailheads may also serve as canoe access points and have flood guages indicating historic and future flood levels. Bike racks will be located at all bicycle destinations and points of interest.

Small trail-side campsites (2-5 tentsites) may be installed alongside long distance trails, such as the Buckeye Trail. These should be at least one mile from the nearest road crossing and include adequate sanitary facilities.

Trailheads vary in size depending on the area and number of trails served. Small dispersed parking areas are preferred over large concentrated ones. At each, one will find drinking water, trash receptacles, and appropriate furniture, such as ski racks and waxing benches for skiers or vandal-proof bike racks that support the frame (and allow locking of both frame and wheels). Some are best incorporated as part of an existing visitor use area -- using one parking area for many purposes.

Small trail-side campsites (2-5 tentsites) may be installed alongside long distance trails, such as the Buekeye Trail. These should be at least one mile from the nearest road crossing and include adequate sanitary facilities.

Commercial services, such as refreshments, will be kept to a minimum. They are best located in association with a major visitor use area, such as an historic village or special events area. Equipment rental and livery services are already available near the recreation area. Several overnight hostels, most likely located in historic buildings, will enable individuals and groups to spend several days at a time exploring the trails.

At this time no new horseback facilities -- such as show grounds or rental stables -- are recommended since the economics of concession-run facilities of this type are not attractive to entrepreneurs. If at some future time such features are desired, there are several prime locations associated with the Wetmore Horse System.

MAINTENANCE

The trail experience is easily damaged by erosion, fallen trees, broken glass, missing signs, or vandalism. Wise trail layout, vandal-proof signs, and easily patrolled trailheads, all help reduce maintenance needs. Trails and signs should be inspected annually in the fall so that repairs can be made before the next visitor season. Cross-country ski trail repairs, especially, should be made in the fall. Bridges, steps, retaining walls, and other critical construction items should be repaired as soon as possible so that whole lengths of trail do not become unusable. A natural, least-disturbance character should prevail on all trails. Horse-mounted and pedestrian rangers should patrol the trails regularly to promote visitor safety and provide periodic trail investigations -- this is most helpful immediately after storms. Trailheads should be so designed to allow rangers to easily determine how many users are still on the trail. Erosion is a constant problem throughout the Cuyahoga Valley. Trails will be closed if soil conditions so indicate.

THE PLAN

OBJECTIVES

The preceding guidelines can be summarized into the following twelve objectives. Following the presentation of the component trails and other features, the achievement of these objectives is discussed in the Conclusion.

1. Provide a wide variety of trail experiences for the wide variety of users, experience levels, and interests of the diverse publics served by the recreation area.
2. Build and use trails in a non-consumptive manner compatible to valley resources.
3. Provide visitor access to points of scenic interest, such as ponds, views, ruins, and unusual vegetation communities; with quality trail experiences for the handicapped visitor.
4. Disperse visitor use.
5. Provide a sense of remoteness to balance the stress of nearby urban life.
6. Construct trails, to the extent possible, for use in all types of weather.
7. Avoid visitor conflicts and promote safety.
8. Avoid sensitive cultural and natural resources.
9. Take advantage of existing disturbed corridors, such as utilities and road traces, to minimize resource damage.
10. Provide clearly understood directions, signs, and blazes to minimize confusion and disorientation.
11. Help complete area-wide trail network, much of which is already in place in adjoining communities or park lands.
12. Minimize long-term maintenance.

OVERVIEW

Using the Citizen Trail Committee's recommendations, the CVNRA staff laid out a complete network of desired trails in priority order. Of these, the top 20 are included in this plan -- with a target year of completion by 1995. Future trails (listed on page 84) can be constructed as appropriate after that date.

When completed according to this plan, the trails of the Cuyahoga Valley will form a network over 240 miles in length. All types of non-motorized users will be accommodated (with a special course provided for off-road motorcycles and snowmobiles). The existing linear trails (such as the Bike and Hike Trail from Bedford to Kent) and loop trails (in the various metropark units) will be joined together by long distance linear trails (such as the Ohio and Erie Canal Towpath Trail). In addition a variety of loop trails will augment those already in use.

The central spine of this system is the Ohio and Erie Canal Towpath Multi-Use Trail, which will run the entire length of the recreation area along this historic canal route, paralleling the Cuyahoga River. Additional spine trails include Class II bike trails along Riverview and Akron-Peninsula Roads. Lateral connectors occur north of and parallel to Highland Road, and parallel to S.R. 303. Future laterals are planned for Tinkers Creek, Wheatley, and Snowville Roads. Connecting to these spine and lateral trails will be a wide variety of loops and connectors giving access to the valley's more remote scenic features.

The multi-use trails are the most easily adapted to users -- such as joggers, dog-sledders, and carriage drivers -- not directly involved in formulating this plan. They could also be accommodated in the highland trail loops at Oak Hill, Wetmore, and High Meadow Farm. Carriage rides are also suitable for roads and trailheads connecting to Hale Farm and Village.

PRIORITIZED LIST OF TRAILS

The following types of trails are defined as follows:
Multi-use: 6 ft. to 10 ft. wide trails, with appropriate drainage, and hard surface bridges to accommodate hiking, walking, bicycling, cross-country skiing, and all other types of non-motorized trail use, including the handicapped. Class I bike trails are similar, but designed primarily for bicycles.

Class II bike: 3 to 4 ft.-wide paved shoulder, separated from adjoining roadway by wide white line. Construction may involve regrading, widening bridges, and moving roadside swales. Under certain circumstances (when state law and weather conditions allow) snowmobile use of Class II bike lanes could be possible.

Class III bike: on-road bicycle trails designated with appropriate signs.

Ski hike: 8 ft. wide earth and grass trails laid out primarily for cross-country ski use, but graded and surfaced for hiking use in warm weather months.

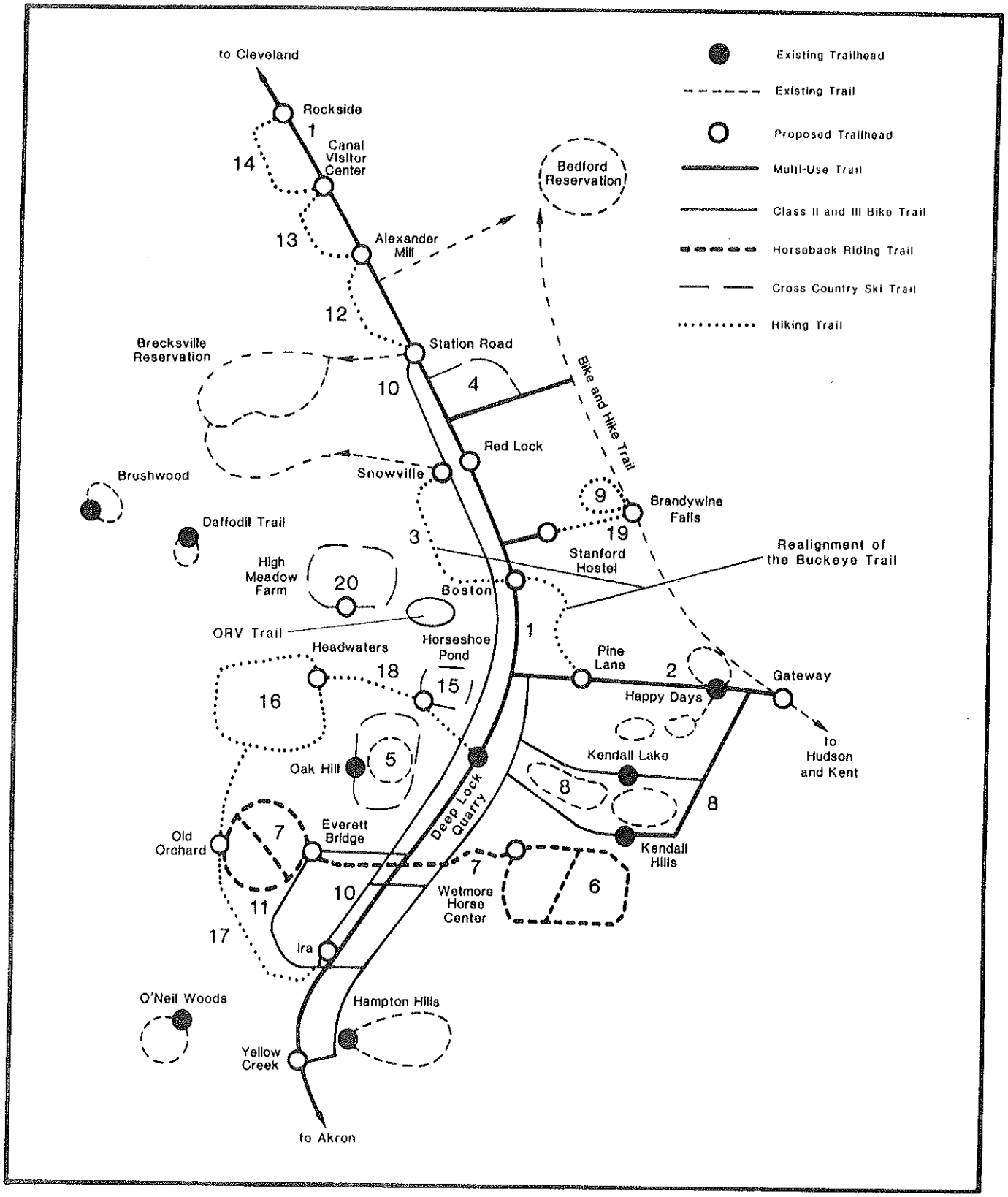
Horseback: 5 ft.-wide earthen trails graded to minimize erosion and provide a well-drained, durable surface in all weathers.

Hiking: 2 to 4 ft.-wide earthen or gravel trails designed only for foot traffic. Areas where heavy use is anticipated may be wider and feature gentler gradients.

priority	name	type	length (in miles)
1	Towpath Trail	multi-use	19.2
2	Gateway Trail	multi-use	3.1
3	Columbia Trail	hiking	4.4
4	Old Carriage Trail	multi-use	1.4
		ski/hike	3.1
5	Plateau Trail	ski/hike	6.2
6	Wetmore Bridle Trail System	horseback	7.1
7	Riding Run Bridle Trail and Connector	horseback	8.3
8	Kendall Loop Trail	multi-use	4.0
		Class II bike	4.1
9	Brandywine Falls Trail	hiking	1.2
10	River Corridor Bike Trails *	Class II bike	19.4
11	Hale Farm Bike Loop	Class I bike	0.6
		Class III bike	2.1
12	West Rim Trail - South Section	hiking	3.9
13	West Rim Trail - Central Section	hiking	2.2
14	West Rim Trail - North Section	hiking	4.3
15	Tree Farm Trail	ski/hike	3.1
16	Furnace Run Trail	hiking	4.2
17	Old Orchard Trail	hiking	5.8
18	Sunrise Trail	hiking	2.1
19	Stanford Trail	hiking	1.1
20	High Meadow Farm	ski/hike	4.2
			115.1

* Includes parts of Riverview, Akron-Peninsula, Bolanz, Ira, and Bath Roads.

Each of these trails is discussed and mapped on the following pages.



CVNRA TRAIL PLAN

United States Department of the Interior
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PROPOSED TRAILS

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not to scale

Most of the following maps are at a scale of 1" = 2000', and north is towards the top of the page (unless otherwise shown.) The "U.S. Boundary" indicates the legislative boundary of the recreation area, not the actual current Federal ownership. Trails are ranked by length and cost in Appendices B and C, respectively. Detail maps of trailheads are shown in Appendix I, starting on page 81. Large-scale maps showing all proposed and future trails are available at the recreation area offices for review.

1. Towpath Trail

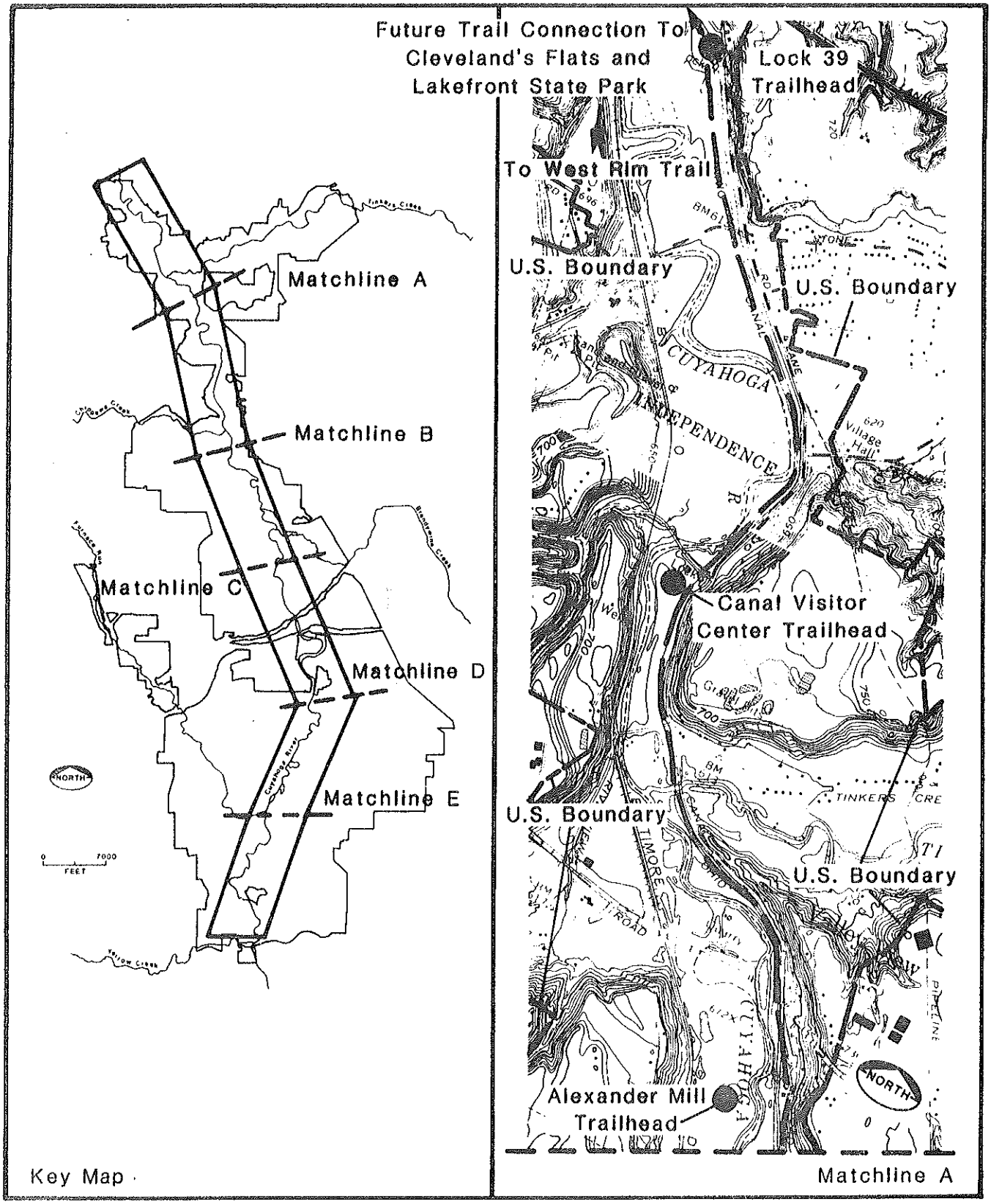
The remains of the Ohio and Erie Canal form the single most significant and extensive historic feature within the recreation area. Once part of a state-wide system of canals linking Cleveland, Akron, Portsmouth, Columbus, Cincinnati, and Toledo, this portion of the canal reflects a now vanished era.

Numerous structures are associated with the canal and help in evoking the past: the various locks and aqueducts, the Locktenders House, Alexanders Mill, and the Boston Company Store. The towpath itself is a historic man-made structure; parts are listed as a Natural Landmark and/or part of the National Register of Historic Places. Its use as a trail is a compatible modern use which still leaves room for mule-drawn canal boat rides while opening to public enjoyment the scenic canal corridor. Similar canal parklands, such as the Chesapeake and Ohio Canal in Maryland, are popular and valuable recreational facilities.

As a historic structure, the towpath will be restored to its original 10-foot wide, compacted aggregate and clay surface. In areas where the river or other disturbances make such restoration impossible, (as in Stumpy Basin or south of Lonesome Lock), an alternate alignment or decking is needed to provide continuity. The towpath portion of aqueducts will be replaced over the Cuyahoga River at Peninsula and over Furnace Run at Everett.

Parts of the towpath are already designated as a National Recreation Trail. The towpath becomes the "spine" of the recreation area, linking together 9 trailheads which also give access to most of the area's other loop and connector trails, as well as canoe access to the Cuyahoga River. In addition it helps link the Bedford and Brecksville Reservations of the Cleveland Metroparks System, forming a piece of Cleveland's noted "Emerald Necklace" of park land. Those trailheads, from north to south, are as follows:

Lock 39
Canal Visitor Center (Locktenders House)
Alexanders Mill
Station Road
Red Lock
Boston
Deep Lock Quarry
Ira
and Yellow Creek



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1 TOWPATH TRAIL

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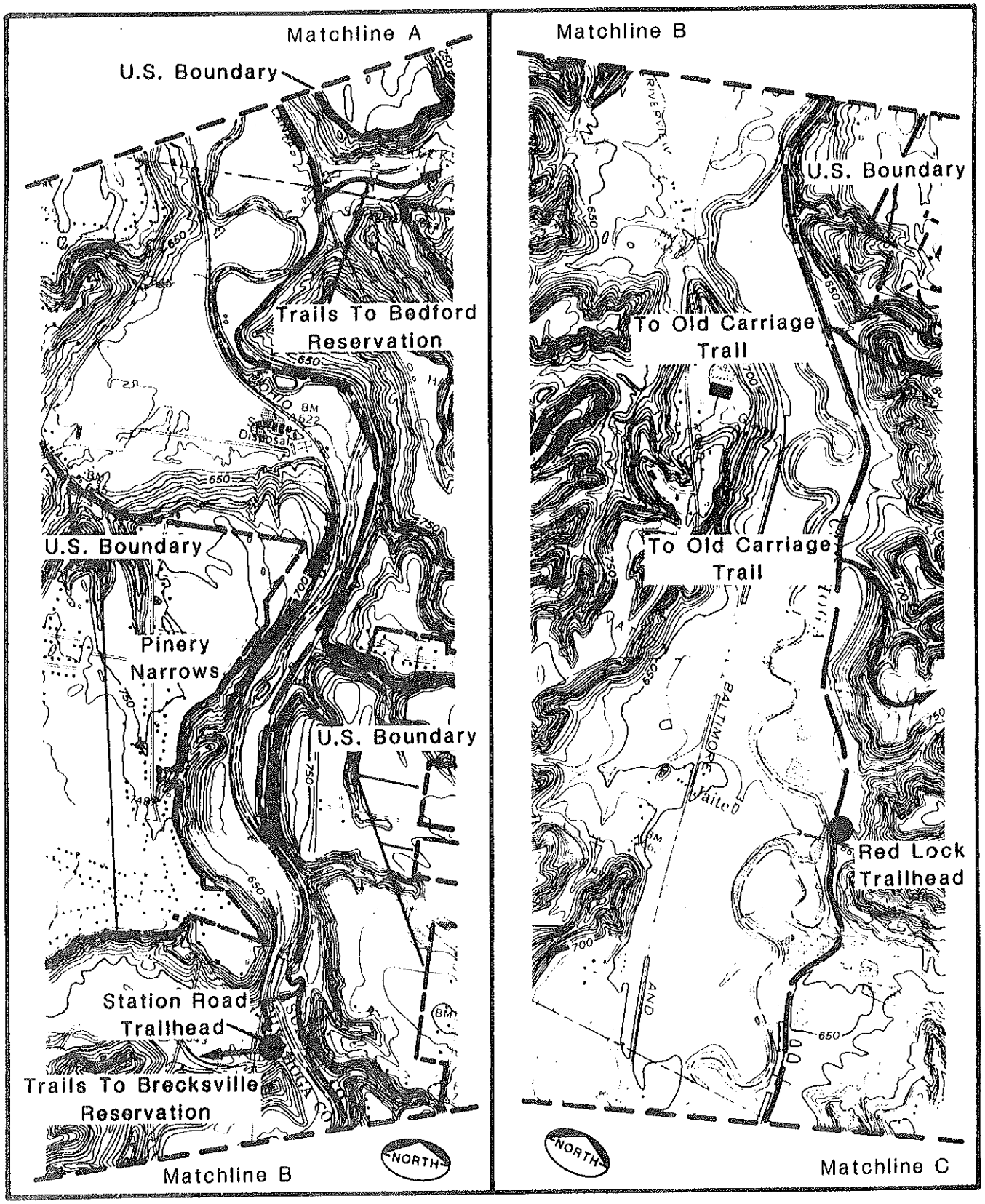
Including both extensive restoration and trailhead facilities, this top priority trail is the single most expensive trail feature proposed in this plan. However, it will provide access for thousands of people simultaneously, using any non-motorized means of travel (except horses), to enjoy this scenic corridor. The Towpath opens up access to the river, the canal structures, and associated habitats to strollers, handicapped persons, and a wide variety of other visitors. (A future parallel horse trail, the Valley Bridle Trail, will provide horse access between the northern and southern halves of the recreation area.)

In addition to the towpath and aqueduct restoration, other construction items are necessary to make this trail fully usable. These include two crossings under the Cuyahoga Valley Line Railroad; road crossings at Stone, Hillside, Fitzwater, Highland, Boston Mills, Bolanz, Ira, and Bath Roads (featuring unobtrusive barriers to discourage motor vehicles from coming on the towpath); bridges across the canal at Lock 39, opposite Sagamore Road (for horses and hikers), and at Ira trailhead; and short connecting access trails to Station Road, to S.R. 303 in Peninsula, to Deep Lock Quarry parking, and to the Ira Trailhead. Where the towpath is now used as a road (such as the entrance to the Jaite Mill), means must be found to ensure safe passage of both motorists and trail users. From Ira to Bath Roads, Riverview Road now covers the canal, so a Class I Multi-Use Trail will be built to one side. Through wetlands, such as Stumpy Basin, alternate routes and/or boardwalks should be considered.

Federally-funded construction cannot begin on all but a mile of the trail (already in Federal ownership) until title is passed from the State of Ohio to the Federal Government. In addition, several other parties currently have an interest in parts of the Canal corridor: the Cleveland Metroparks System, the Akron Metropolitan Park District, Kent State University, and the U.S. Steel Company -- and their permission and cooperation must be obtained before contruction can begin. Construction of the towpath trail within the rights-of-way of Interstate 80 (the Ohio Turnpike) and 271 may require special arrangements since those highway rights-of-way are considered outside the recreation area's boundaries. Once permission from ODOT and the Turnpike Commission has been received, the construction there could be funded and built by private or state donation. Once completed, this entire towpath trail would be eligible for becoming a National Recreational Trail.

When completed, this "spine" of the recreation area will not only tie together numerous visitor facilities, scenic areas, and historic sites, but also has the potential to become a recreational link to both Cleveland and Akron. The towpath extends north from the recreation area to the Flats within sight of Cleveland's downtown. This canal corridor could be protected by the Ohio State government (current owner) or by the Cleveland Metroparks System as an historic, recreational link. Although the canal corridor running south from the recreation area to Akron's Cascade Park is only a ruin, the opportunity still exists to create a recreational link, even though although commercial and utility development threatens the area. The National Park Service endorses all efforts to make these metropolitan links a reality.

Most of the trailheads along the Cuyahoga River will also provide canoe access and portage points. As the Cuyahoga River water quality improves, the entire length within the recreation area will be designated the "Lower Cuyahoga Canoe Route", using the adjoining trailheads for access. At the dams near S.R. 303 and S.R. 82, short portage trails will be developed to promote safe passage.



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1 TOWPATH TRAIL

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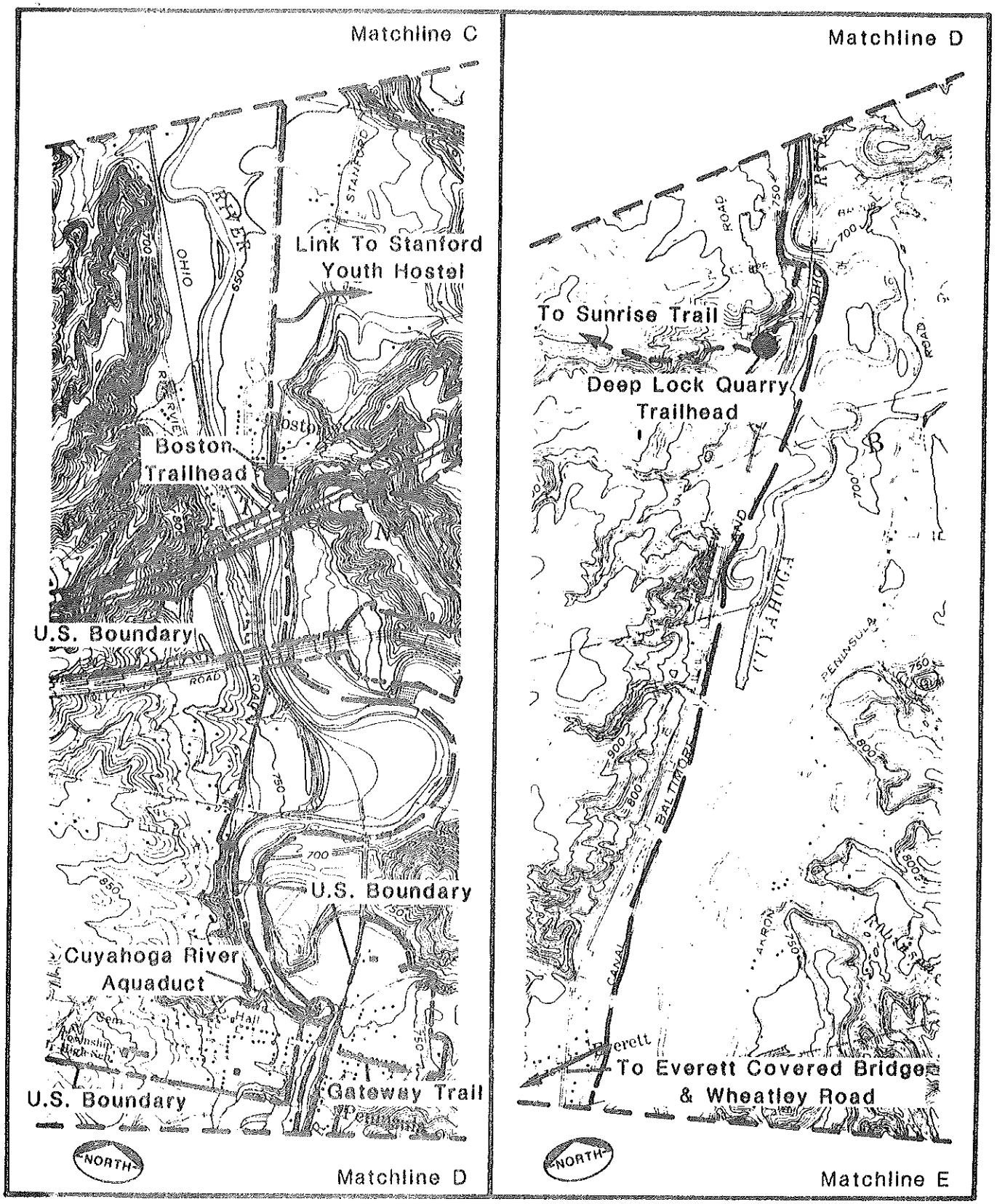

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1 TOWPATH TRAIL

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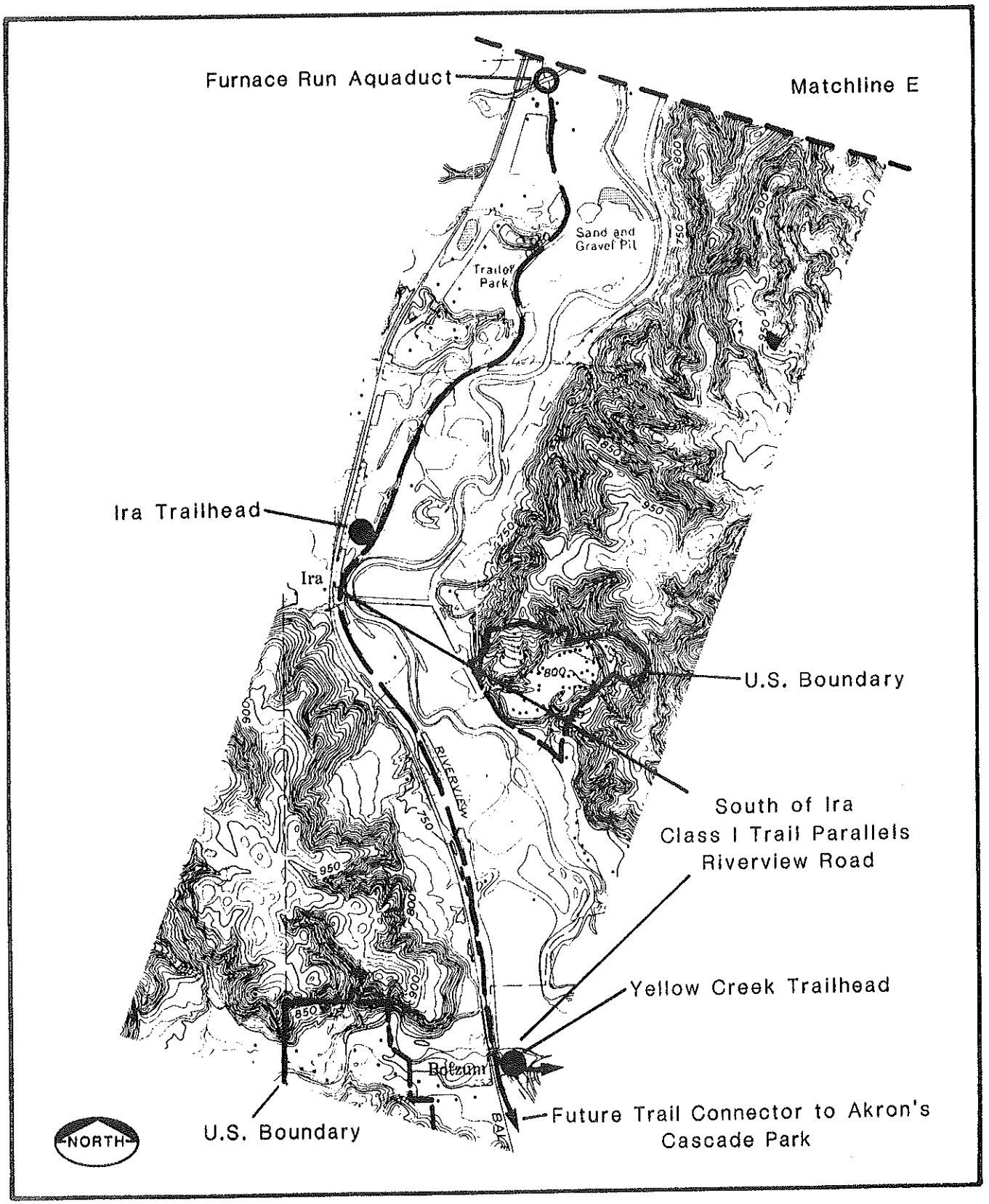

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1 TOWPATH TRAIL

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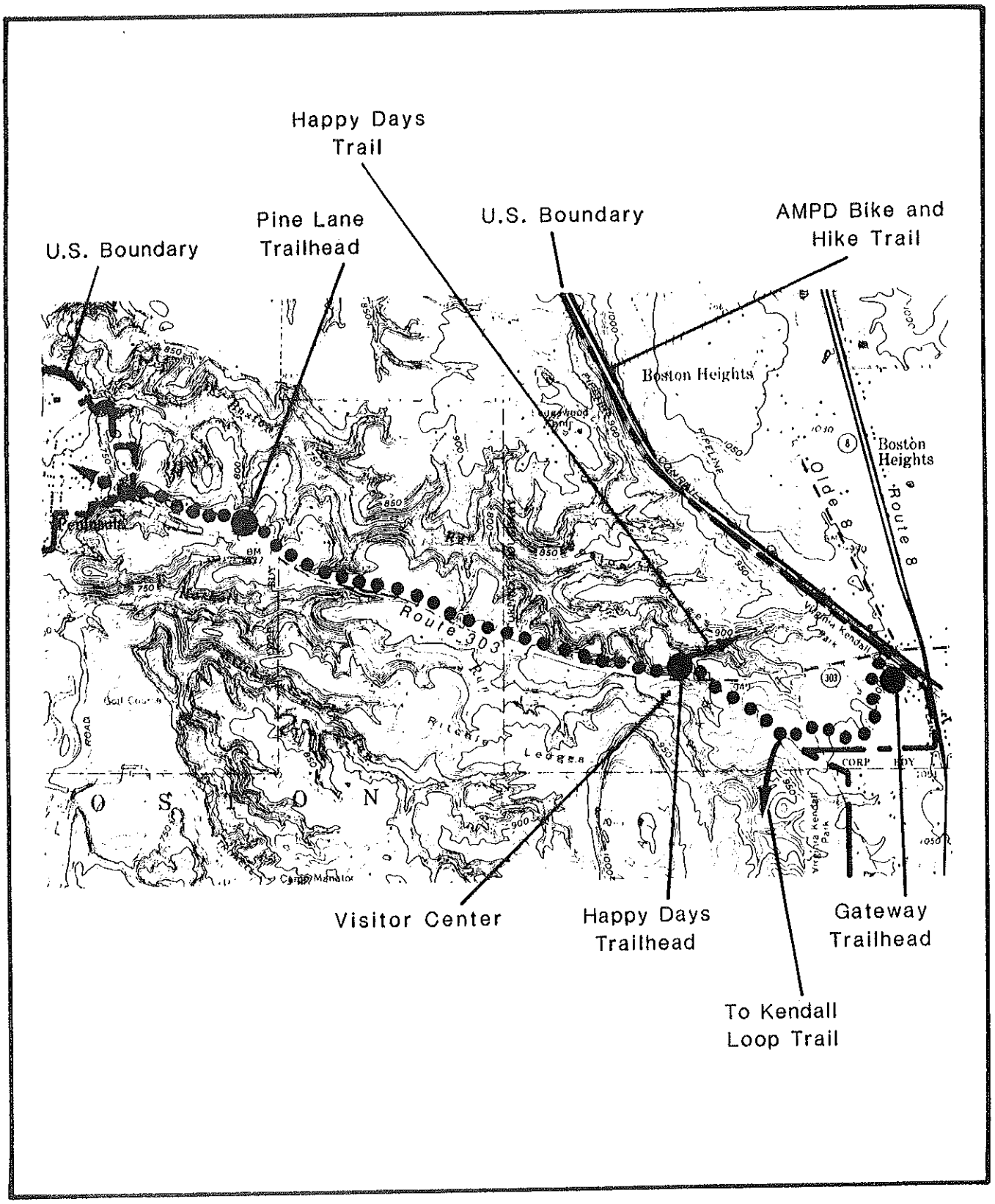
2. Gateway Trail

Although State Route 303 is not designated as a "scenic road" in the area's recently approved Transportation Plan, its direct linkage of the AMPD Bike and Hike Trail to the Happy Days Visitor Center and Peninsula strongly suggests use by a wide variety of trail users. Noticeable bicycle traffic along 303 today reinforces this linkage.

Steep topography and fast traffic suggest a trail separate from the roadway. The proposed alignment takes advantage of two old roads at the east and west ends (Barlow Road and Pine Lane). In between it skirts behind fields and hedgerows, paralleling the highway. Along fill embankments timber decking will be needed: similar to bicycle trail decks paralleling the George Washington Memorial Parkway in Alexandria, Virginia. One highway crossing of S.R. 303 is planned at the entrance of the visitor parking lot near the Happy Days Visitor Center. Two other trailheads serve the trail: "Pine Lane" and "Gateway". The eastern one-half mile of the trail serves double duty as a connection from the Bike and Hike Trail to the various trails in nearby Virginia Kendall Park. Since cross-country ski use is anticipated here, the paved surface should be as smooth as possible, relatively flat while still draining well, and be colored so as not to induce snow melt. Completion of the western end will require repair of the brick pavement of "Old 303" (Pine Lane) descending to the village of Peninsula. At the eastern end an earthen or timber ramp is required to allow bicycle, ski, foot, and handicapped access from the trailhead to the existing Bike and Hike Trail -- excavation must be minimized to avoid several underground pipelines.

The AMPD-operated Bike and Hike Trail (which follows a former New York Central rail line) is actually owned by the Ohio Edison Company and lies immediately east of the recreation area boundary from S.R. 8 north to Brandywine Road. To protect this important recreational corridor, the legislated boundary of the recreation area should be moved to its eastern edge.



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2 GATEWAY TRAIL

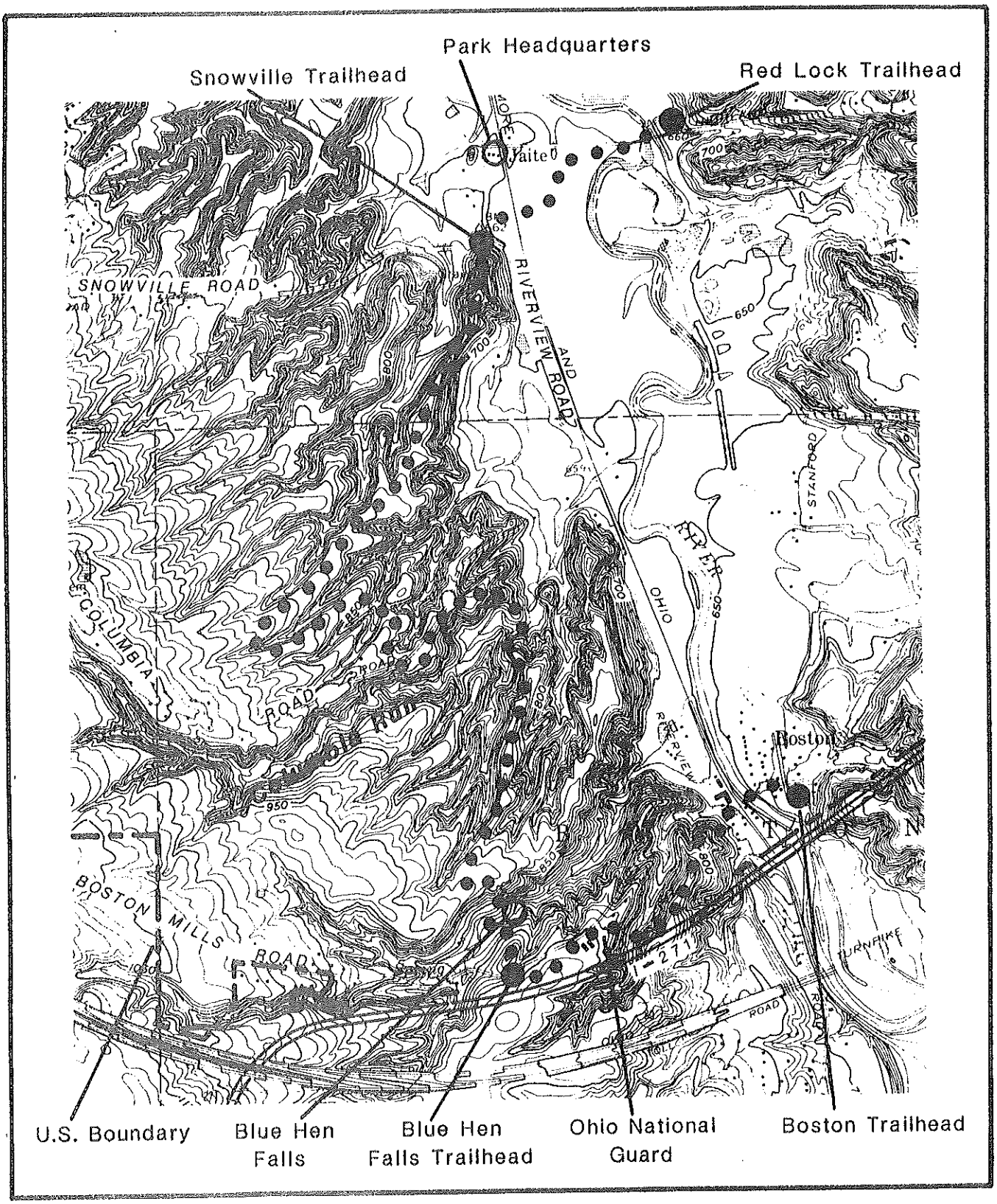
3. Columbia Trail (Official segment of Buckeye Trail)

This primitive hiking trail was explored and flagged by the Buckeye Trail Association (BTA) as part of a proposed off-road alternate to Riverview Road. The BTA will construct and maintain the trail which will be open to all interested hikers. It is being built with the permission of the National Park Service, the Akron Metropolitan Park District, and the Ohio National Guard (all of which have ownership along the alignment).

This trail explores a series of ridges and ravines capitalizing on several old trails and road traces which follow the ridges. The two most significant features are Blue Hen Falls and the scenic, hemlock-laden lower Columbia Creek. The uplands feature old fields and second-growth forests, while the ravines are characterized by mature oak-beech-maple association. Wildflowers are abundant. The bed of Columbia Creek falls over picturesque terraces of shale and sandstone.

The streams are small enough that bridges are not necessary. However, several of the steepest slopes may require stairs or retaining walls.

The off-road alignment of the Buckeye Trail through the entire recreation area has been generally determined. The Columbia Trail crosses the Cuyahoga River, passes through Boston and terminates at the proposed Boston Trailhead. (An additional parking area is located on the east side of Riverview Road across from the Boston Mills ski area.) The off-road alignment of the Buckeye Trail will continue on to Pine Lane Trailhead on a series of ridges and ravines east of Stumpy Basin. From there, it turns west to Peininsula where it picks up the Towpath Trail south.



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3 COLUMBIA TRAIL

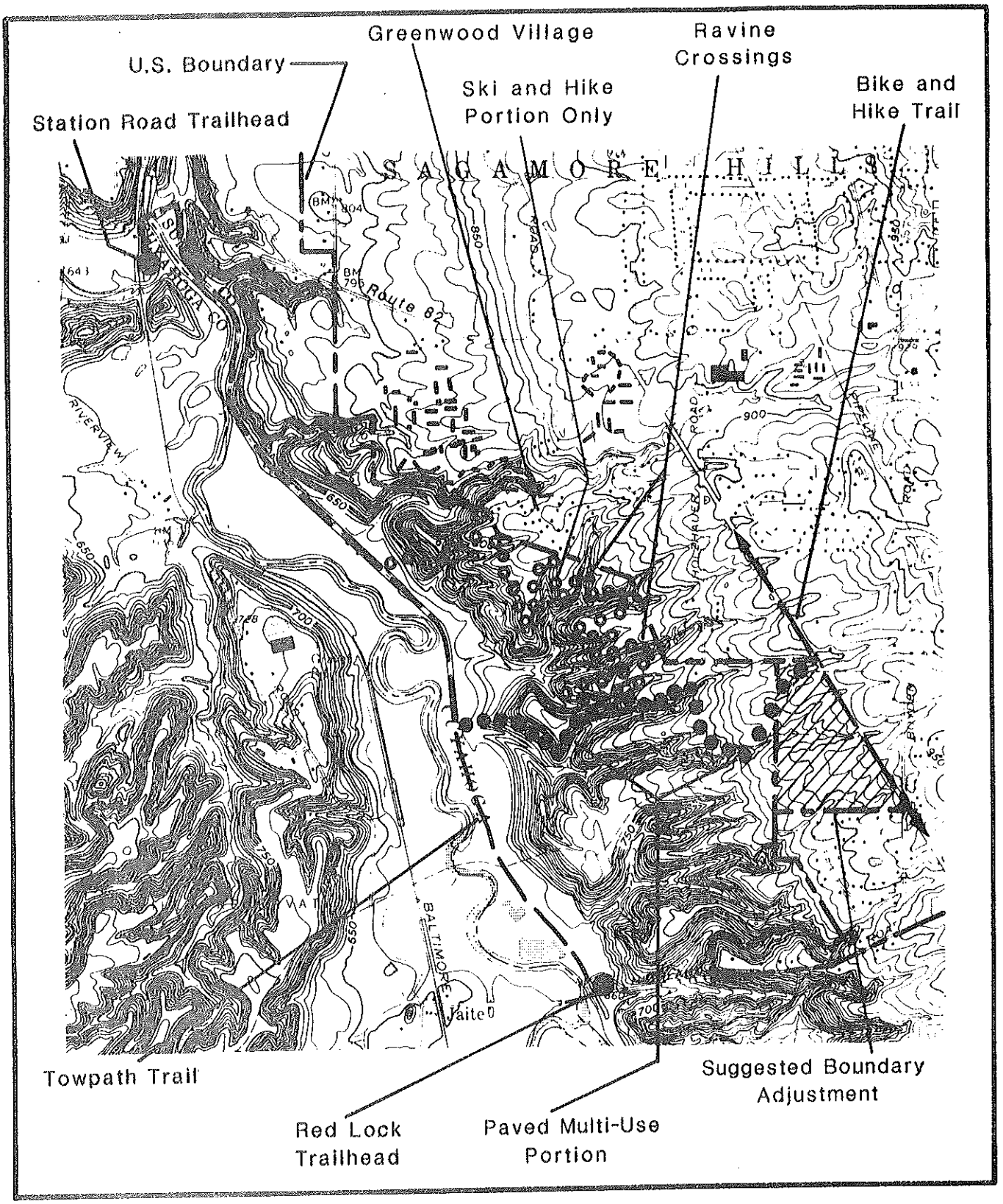
4. Old Carriage Trail

At one time the ± 800-acre Marshall Estate in Sagamore Hills contained almost 20 miles of graded carriage trails. These scenic drives followed the upland edge of a series of ravines which dropped to the Ohio and Erie Canal and the Cuyahoga River. Between 1910 and 1940, these drives were repaired and realigned, and finally abandoned about 1965 when the estate was sold for a residential development called Greenwood Village.

Today, over 4 miles of these 10-foot wide carriage trails remain, although some parts are in poor repair. Except for the heads of ravines lying outside the recreation area boundary, these trails form the basis for a scenic trail loop exploring the uplands east of the Canal Towpath Trail.

The southern side of the loop as proposed will be a paved multi-use paved trail joining the Towpath to the Bike and Hike Trail to the east: it ascends a gentle grade along an existing woods road to the carriage trails. From there east it follows these trails to the Bike and Hike Trail. Construction can only begin after permission has been received from the East Ohio Gas Company for recreational use of its pipeline easement. (To complete this trail, a minor boundary adjustment must be made to extend the recreation area east of tract 107-107.)

The rest of the loop is an earthen trail for hiking and cross-country skiing only. It follows the former carriage drives along the ravine edges. Several of the earthen culverts must be stabilized or rebuilt. Old Carriage Trail will feature three cable suspension bridge crossings (spanning 170 to 200 feet) are planned over spectacular wooded ravines in order to keep the trail within the recreation area and a comfortable distance away from adjoining condominium residential units. Two stream crossings are needed south of Holzauer Road, while at its north end the trail drops down an old road trail to the canal, and will necessitate a bridge over the canal wetlands to the towpath. This northern arm of the loop is intended only for hikers and skiers; for skiers this becomes the largest proposed touring course in the northern half of the recreation area. No immediate trailhead access is proposed for this loop. The nearest access points are "Station Road" and "Red Lock".



4 OLD CARRIAGE TRAIL

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5. Plateau Trail

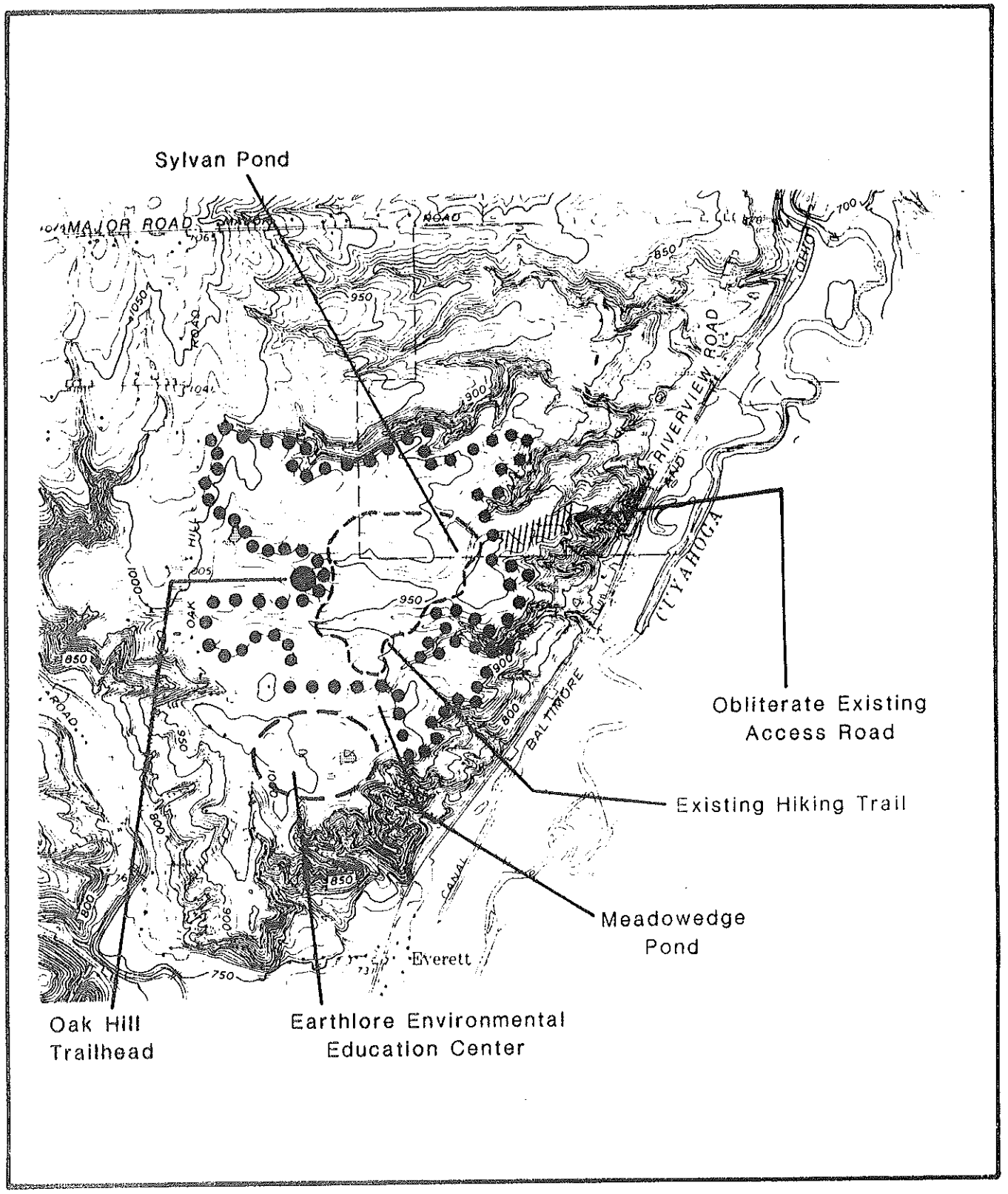
The Oak Hill plateau is the largest Federally-owned roadless area in the recreation area. A 100-car trailhead has recently been installed; the potential exists here for a top-quality 10km. (6.2 mile) competition cross-country ski course capitalizing on the rolling topography and scenic views of the plateau.

Recommended as a one-way clockwise loop for skiers, users would head north and west from the trailhead through old fields and nursery plantations to the headwaters of a long ravine. The brink of this ravine is then followed east to the edge of a steep tongue of land; the trail then turns south and eventually crosses a small stream (bridge likely here) downstream from Sylvan Pond. Continuing south, around a small knob, the trail explores headlands overlooking the Cuyahoga River. At Meadow Edge Pond the trail turns west, up on old farm road, winding back to the trailhead. Several locations suggest warming huts or rest areas at overlooks. For variety or user convenience, 2 or 3 connecting trails would enable the skier to follow several smaller loops, rather than following the full course. In warm weather, hikers could use the trail in both directions.

Several existing access points should be eliminated to reinforce the continuity and remoteness of this trail. In areas where it adjoins the Earthlore Environmental Education Center, signs will clearly indicate the ski trail.

Exact layout of the trail should seek to:
(a) maximize distance
(b) provide interesting and challenging slopes
(c) seek shaded areas (north side of evergreens) to encourage snow retention
(d) cross streams smoothly

The Oak Hill Day-Use Trailhead, when complete, will service this trail loop by providing restrooms, drinking water, and picnicking.



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5 PLATEAU TRAIL

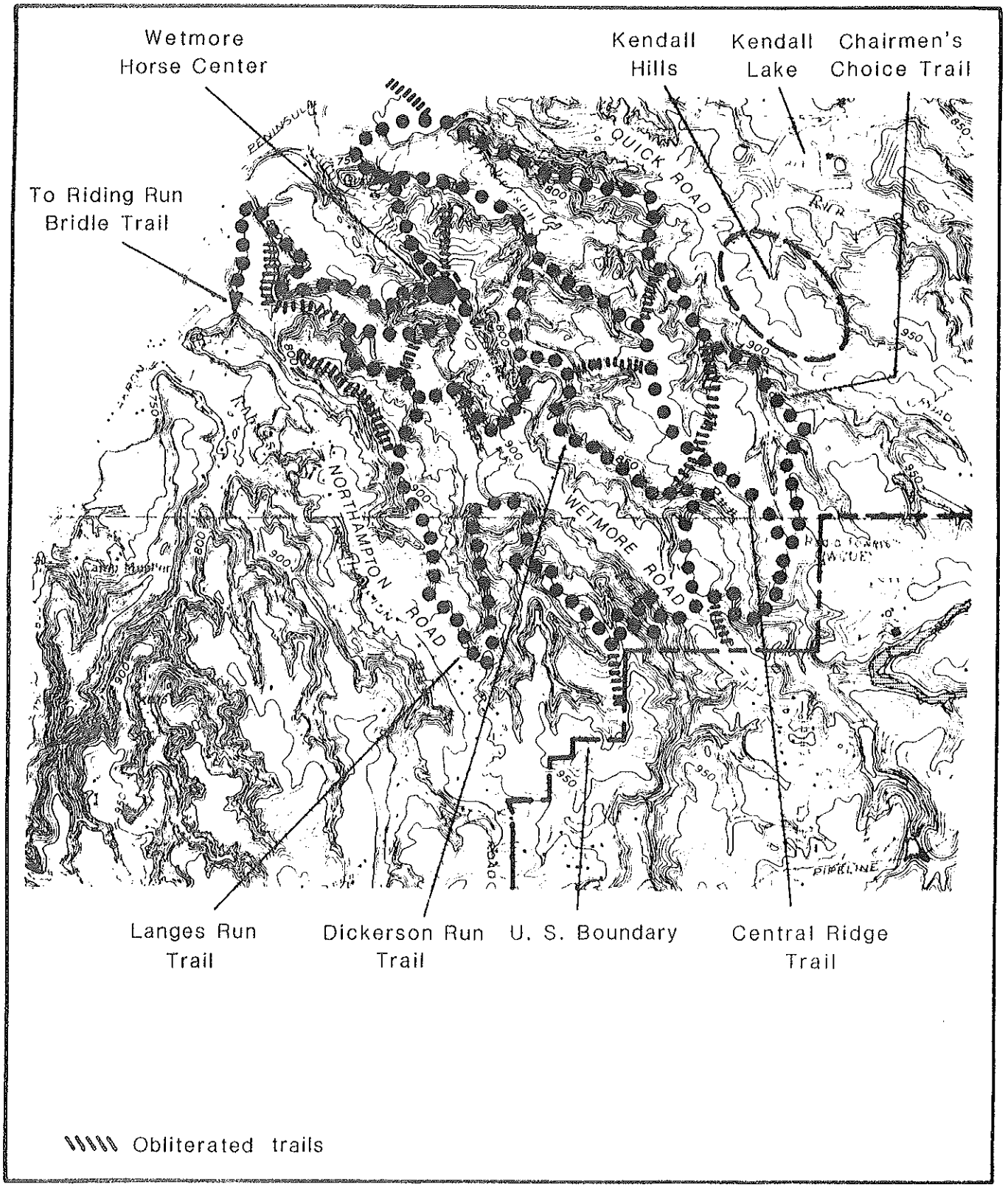
6. Wetmore Bridle Trail

Between Quick and Northampton Roads, in the recreation area's southeastern quadrant, an extensive network of some 13 miles of privately developed trails already exists. These can easily be consolidated into a scenic trail-riding experience, taking advantage of various overlooks, and the complex terrain of ridges and ravines so characteristic of the Cuyahoga Valley. The network will be simplified to minimize visitor confusion, with redundant trails obliterated. Trailhead access will be developed at an existing horse farm near the west end of Wetmore Road.

Nearby communities have a high density of horse users -- the system may be approached on horse directly or by parking a horse van at the trailhead and then riding. The trailhead farm could easily be expanded into a horse show center with space for rental or boarding stables, a mounted ranger facility, and perhaps a concession-run riding school. (Historically, this farm was the earliest horse center in the valley).

The development of these trails will require the close cooperation of the Akron Metropolitan Park District, since many of the trails cross AMPD lands. An alternative might be donation of these lands by the AMPD, consolidating all ownership for this trail system under the Federal Government.

Trail layout and construction for all horse trails must focus on resource protection by minimizing erosion and trail braiding.



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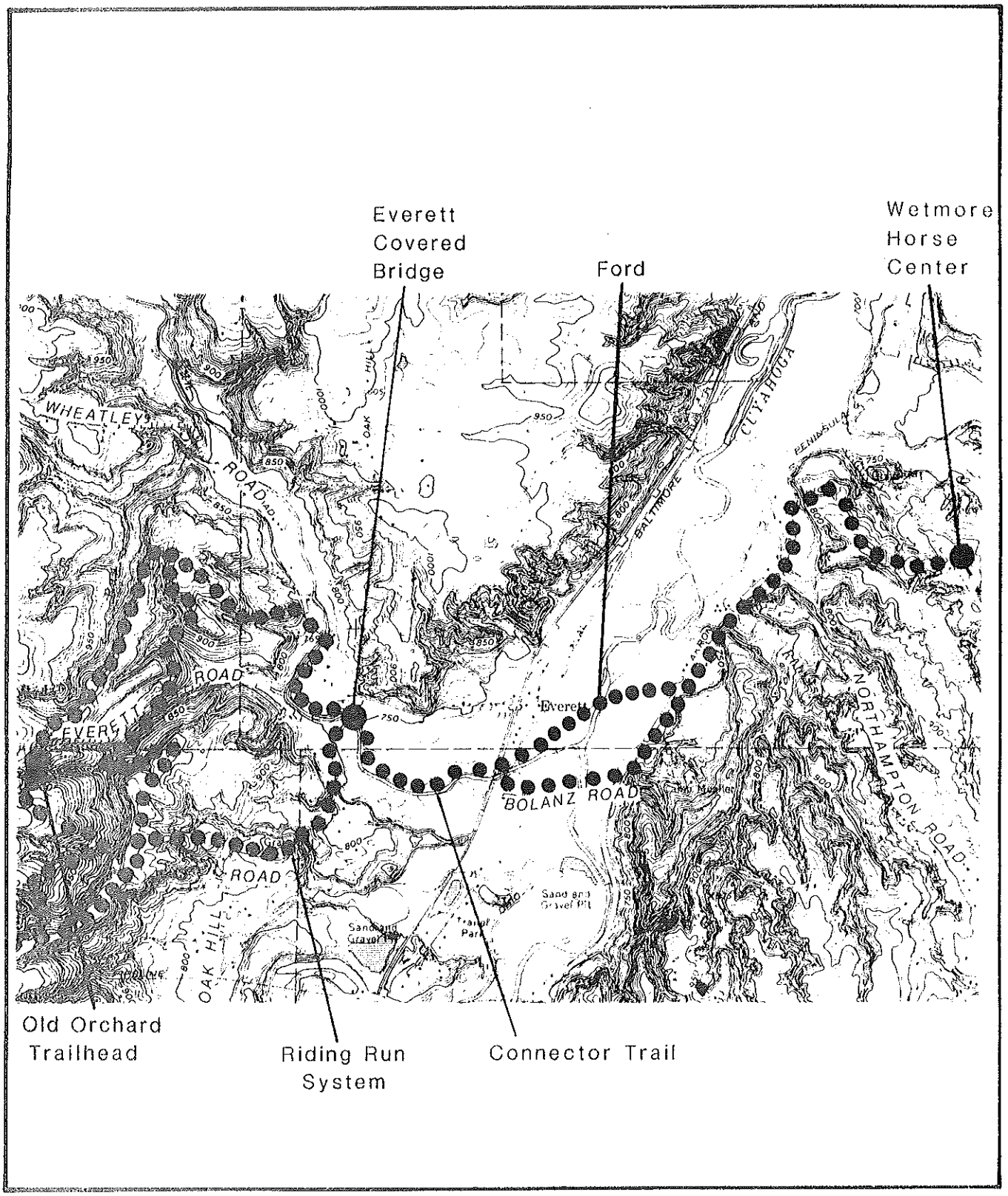
6 WETMORE BRIDLE TRAIL SYSTEM

7. Riding Run Bridle Trail (and connector)

West of Furnace Run, between Wheatley and Ira Roads, an informal network of horse trails has been developed which can easily be consolidated into a 6-mile system. Trailheads serving it are located at the Everett Covered Bridge and at Old Orchard. The east side of this system would follow Oak Hill Road south from the covered bridge to Hale Farm and Village, where it would turn northwest.

As with the Wetmore System, the development of these trails will require close cooperation with the Akron Metropolitan Park District, since about half of the trails in this network cross AMPD lands.

To join the Riding Run and Wetmore Systems, a connecting trail will follow Furnace Run to its mouth, cross the Cuyahoga River (at a ford in warm weather and across the Bolanz Road Bridge when the river is high), and use the trace and culverts of an historic road, laid out in 1832 (now parallel to and east of Akron-Peninsula Road) to the Wetmore System. This connector is the southern segment of the Valley Bridle Trail which will eventually connect the Everett Covered Bridge to the Station Road Bridge of Pinery Narrows.



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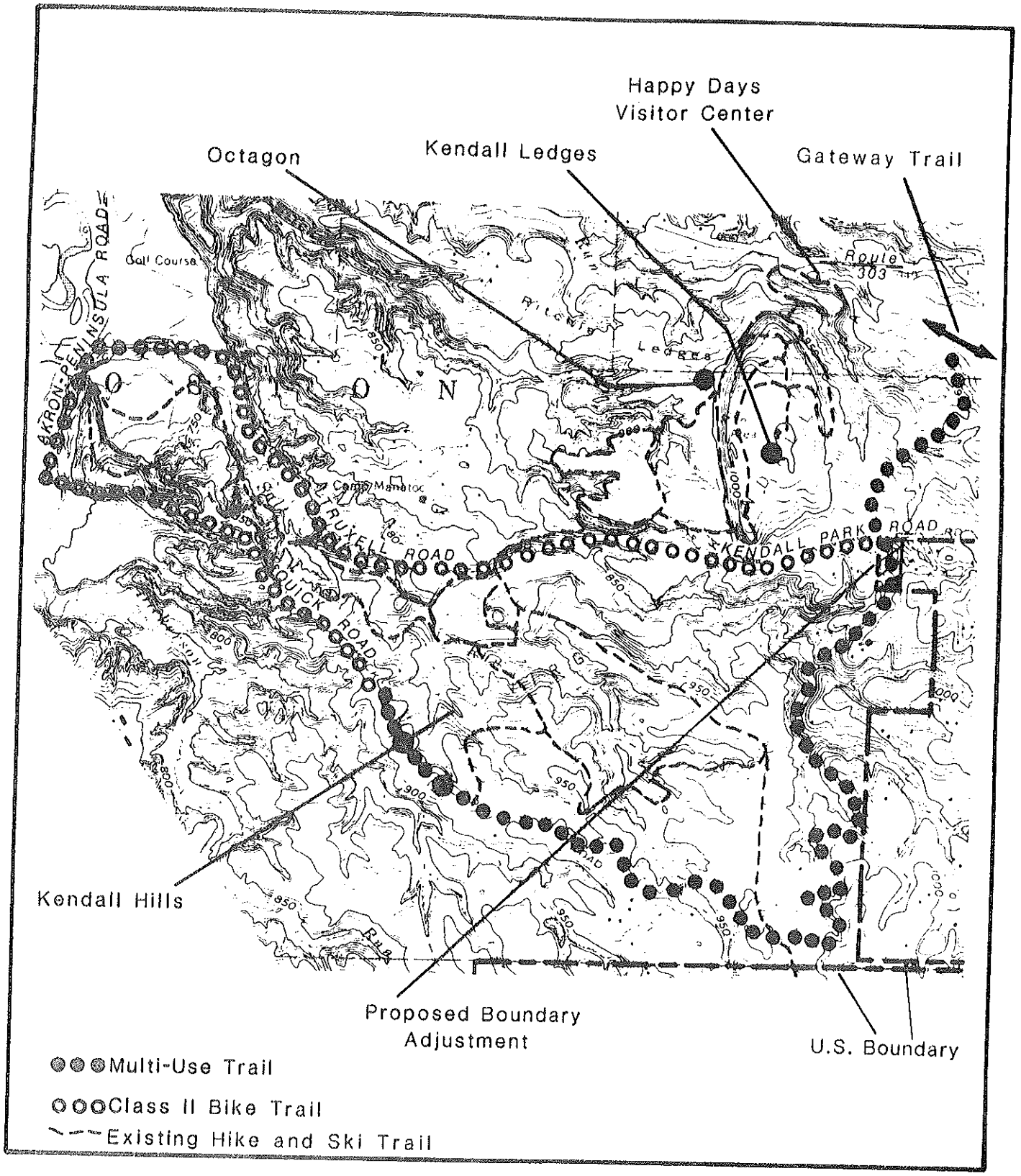
7 RIDING RUN BRIDLE TRAIL

8. Kendall Loop Trail

Combining scenic Class I (off road) trail with Class II (road shoulder) trails, this loop provides multi-use perimeter access to most of the Virginia Kendall Park facilities. Connecting to the Gateway Trail and the Bike and Hike Trail to the north, the eastern portion of this loop also provides a cross-country skiers' connection between the existing Happy Days and Kendall Hills Ski Trails (making a 10-mile course out of two separate 4-mile courses). To complete the connection, a small ski-trail link should be built between the Bike and Hike Trail and the Happy Days Ski Trail. The loop also connects to the river corridor bike trails to the west.

Quick, Truxell-Kendall, and Akron-Peninsula Roads are all low-volume scenic park roads. Class II bicycle lanes along their shoulders can be easily installed. Numerous trailheads already exist to provide access to this system: Happy Days, Ledges, Octagon, Kendall Lake, and Kendall Hills: no new trailhead construction is proposed.

Near the crossing with Kendall-Park Road, a small boundary adjustment is recommended north of tracts 113-36 and 37 to provide a 300-foot wide buffer so that the proposed trail could be built independent from (but parallel to) an existing driveway.



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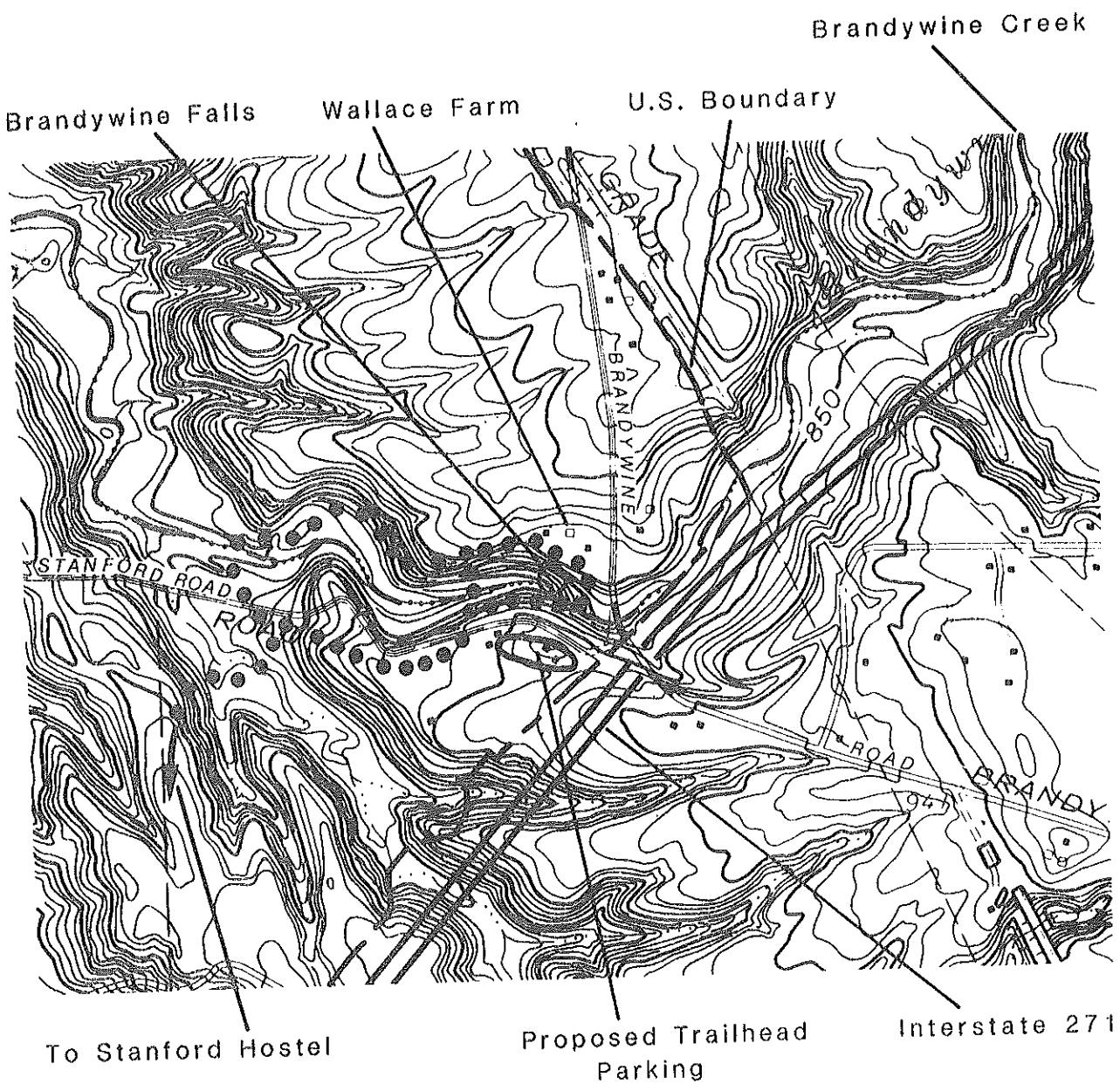
8 KENDALL TRAIL LOOP

9. Brandywine Falls Trail

Design and layout of trails near Brandywine Falls should be an integral part of the total site plan for the area. Hazards include steep rock cliffs and poor stream water quality. The falls itself is difficult to view from all but a few undeveloped overlooks.

Most likely, trailhead parking will be placed south of Stanford Road from the falls. There, a trail loop will connect to the falls, the bridges, and the gorge. Several downstream features (such as cliffs and quarries) suggest additional trails or a larger loop. Whether the loop crosses Brandywine Creek (or stays totally on the north side) has yet to be determined. A suggestion has been made to bridge the gorge 100 to 200 feet downstream from the falls to allow safe visitor viewing. Some or all of the loop could also serve as a self-guiding nature trail. The principle scenic features will be accessible to the physically disabled.

The trail and other public visitor facilities must be sited so that they do not conflict with the use of the Wallace House and Barn.



9 BRANDYWINE FALLS TRAIL

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10. River Corridor Bike Trails

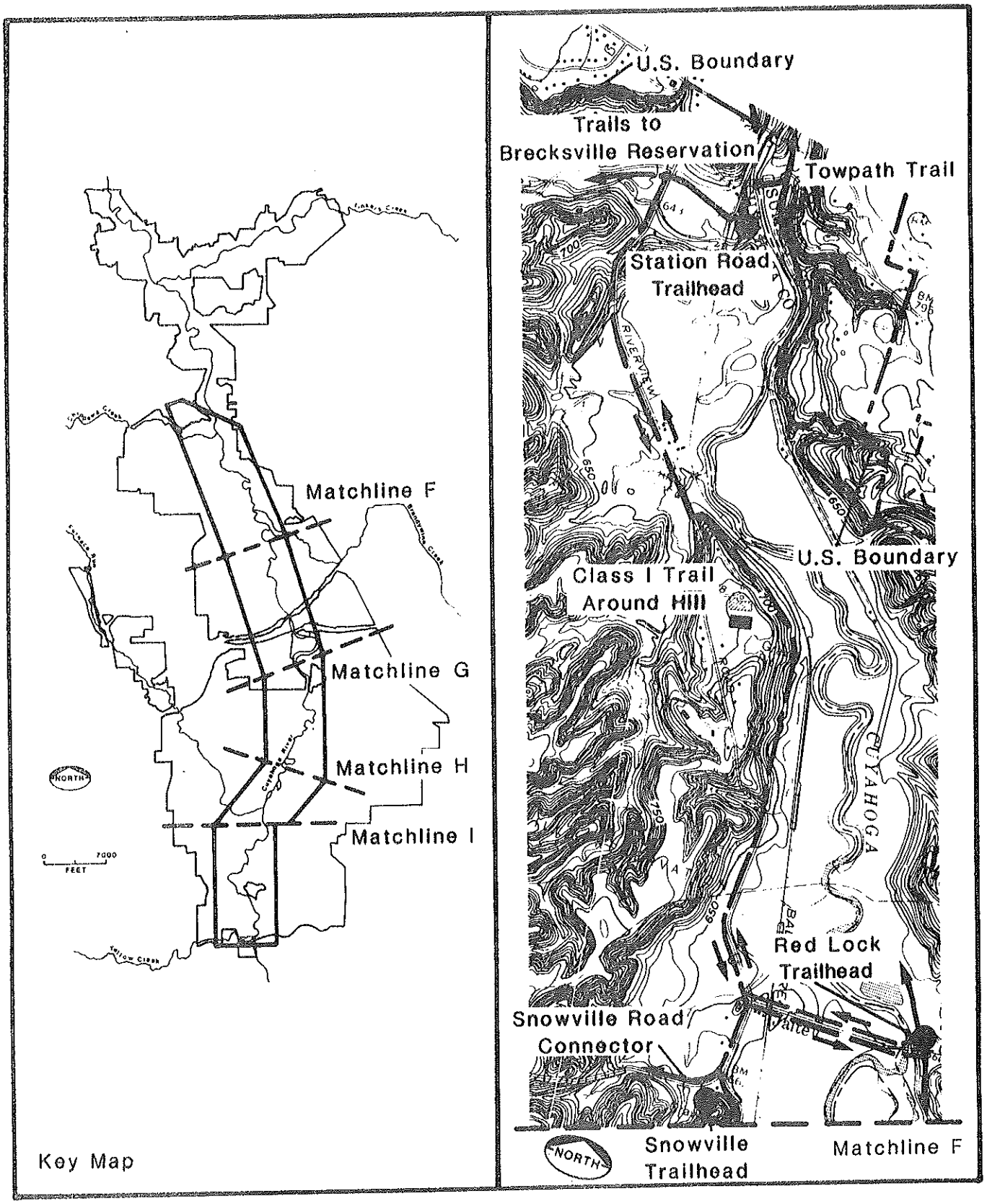
Riverview Road forms the roadway "spine" of the recreation area from State Route 82 in Brecksville south into Akron. From Peninsula south, the Akron-Peninsula (A-P) Road parallels it into Akron: Bolanz, Ira, and Bath Roads form connectors across the Cuyahoga River. Already these level and scenic roads are popular for bicycling and jogging -- on any warm weather Sunday morning, dozens of cyclists can be seen along them.

The 1983 Transportation Plan designates Riverview and A-P Road (and their connectors) as "scenic park roads." Such roads form the principal means by which visitors experience the valley's park resources. In the Transportation Plan such roads are generally recommended for additional bicycle lanes or parallel off-road trails. Given the low traffic volumes along these two roads (2,000 ADT for Riverview and 5,000 for A-P Road) one-way Class II trails will be more than adequate for anticipated future visitation. Such 4- to 6-foot wide paved shoulder lanes (separated from the existing roadways by a white striped line) will be located along the southbound side of Riverview and the northbound side of Akron-Peninsula Road, forming a set of loops between Peninsula and Bath Road. Riverview Road north of Peninsula, Bolanz Road, Ira Road, and Bath Road will have Class II lanes on both sides. Generally there is plenty of room for such lanes on existing road shoulders, although certain culverts or bridges may need to be modified. Intersections will need additional signs and signals to alert motorists of the bicycle lanes. The eastbound lane on Bath Road lies outside the recreation area -- its installation depends on the cooperation of City of Akron.

In certain places, notably just north of Jaite, the trail may best be relocated away from the road due to steep grades and/or sharp curves. The design and construction of the bicycle lanes must be closely coordinated with the repairs and improvements of these roads outlined in the Transportation Plan, including close coordination with the local and county offices having jurisdiction over these road rights-of-way. Between Ira and Bath Roads, along Riverview Road, these Class II trails may be redundant to the Class I Towpath trail there.

This extensive network of bicycle trails associated with existing roads is served by 8 trailheads, several of which also serve the Towpath Trail. These include Station Road, Snowville, Boston, Deep Lock Quarry (existing), Ira, Yellow Creek, and two at Hampton Hills (existing). Therefore cyclists will be dispersed and have a variety of options for forming long or short trips, loops, long-distance courses, linkage to the AMPD Bike and Hike Trail (returning along the Towpath), or local slow-speed scenic excursions. Pavement markings at intersections and road crossings will help promote safe traffic movements.

To optimize the usefulness of this trail network, connections through the village of Peninsula and under the rights-of-way for Interstates 80 and 271 should be negotiated, since these parts of the trail lie outside the recreation area.



CVNRA TRAIL PLAN

United States Department of the Interior
National Park Service

10
RIVER CORRIDOR BIKE TRAILS

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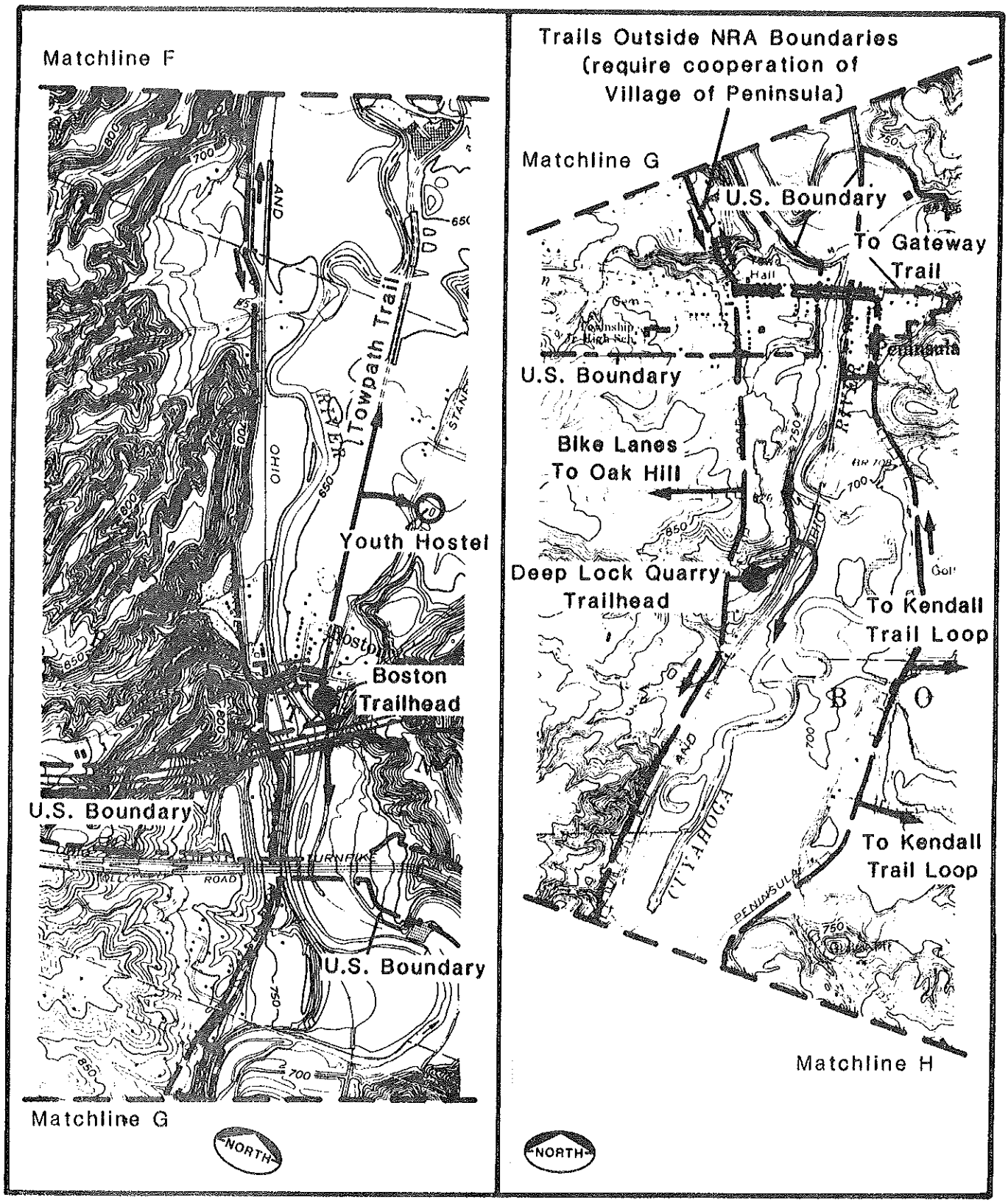
Page 1 of 3



CVNRA TRAIL PLAN

United States Department of the Interior
National Park Service

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RIVER CORRIDOR BIKE TRAILS

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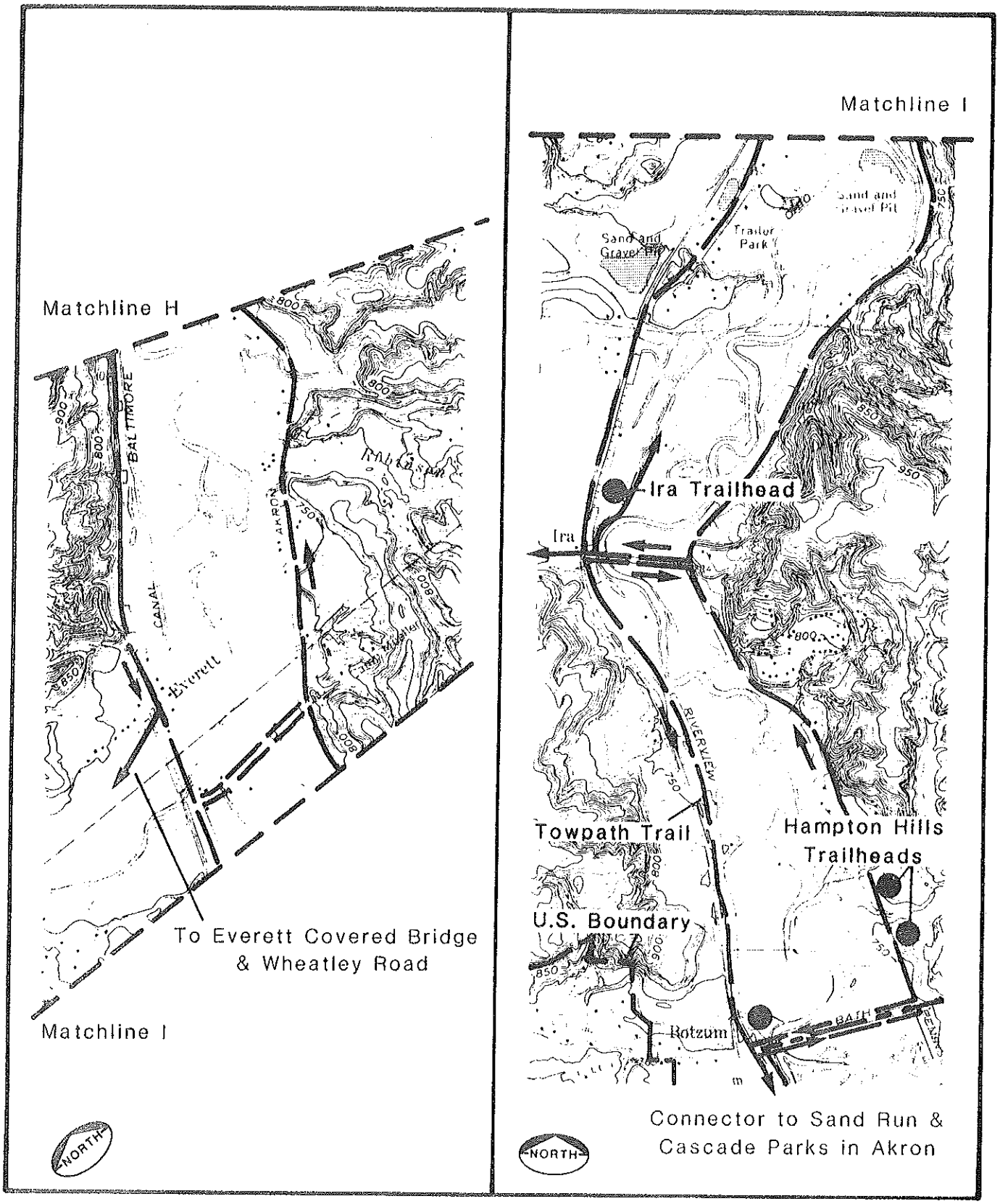

CVNRA TRAIL PLAN

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10 RIVER CORRIDOR BIKE TRAILS

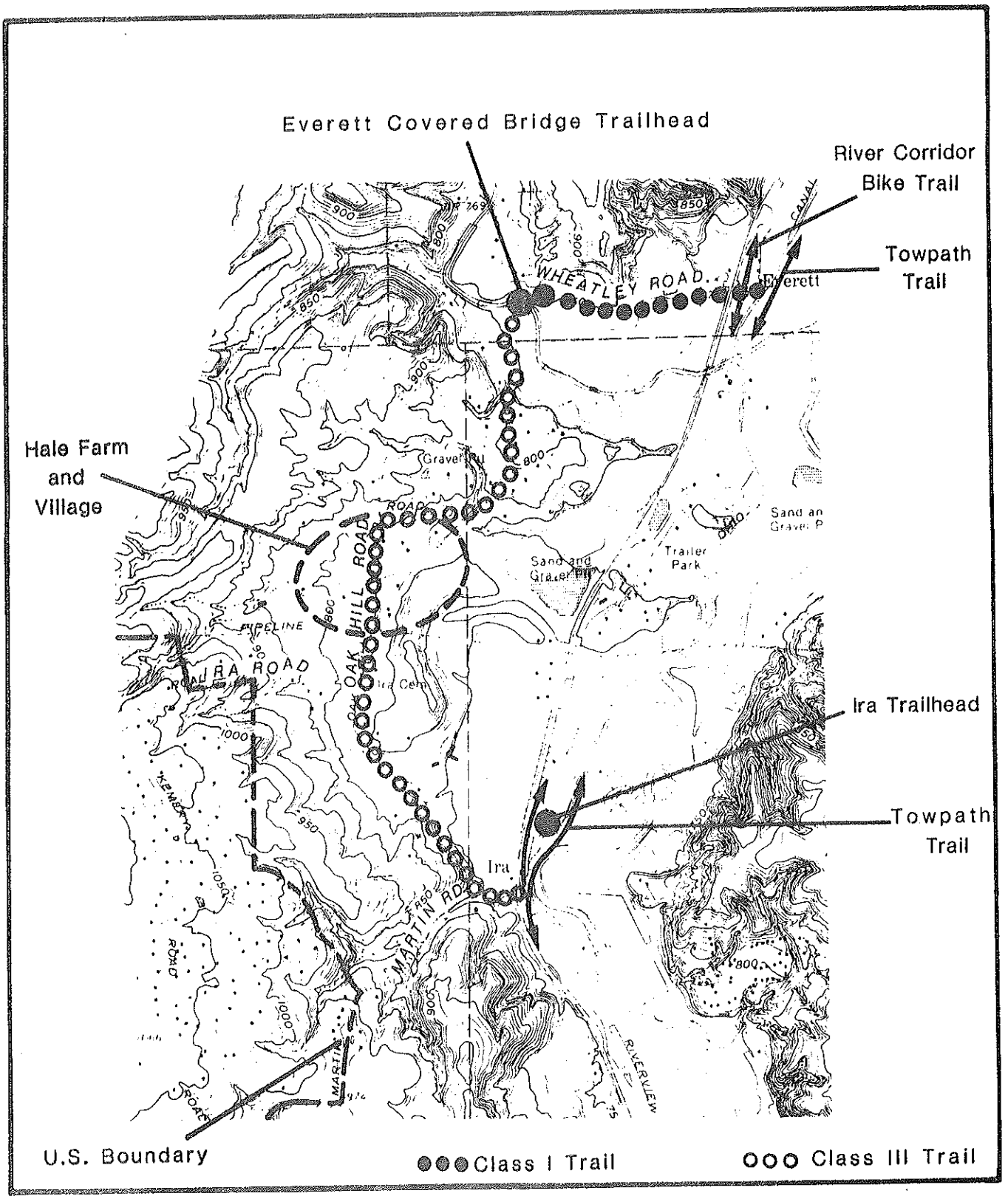
Page 3 of 3

11. Hale Farm Bike Loop

Hale Farm and Village is a unique historic property in the Cuyahoga Valley -- set aside in a small tributary valley off the main roads. When the Everett Road Covered Bridge is reconstructed, a side loop from the River Corridor Bike Trail along Riverview Road can give scenic access to the Hale Farm area for non-motorized travellers.

Along portions of Ira and Oak Hill Roads, traffic volumes are low enough to permit Class III (on-road) bicycling -- guided by appropriate signs. However, from the Everett Covered Bridge to Everett Village (and the Towpath Trail) a Class I (multi-purpose) trail is desirable to avoid conflicts along Everett Road. This alignment is currently owned by the Akron Metropolitan Park District and its construction requires their cooperation and support.

If the trail proves popular and/or if conflicts with motor traffic occur, this trail may be improved to a Class II route by paving 4- to 6-foot wide lanes on the road shoulders.



CVNRA TRAIL PLAN

United States Department of the Interior
National Park Service

11 HALE FARM BIKE LOOP

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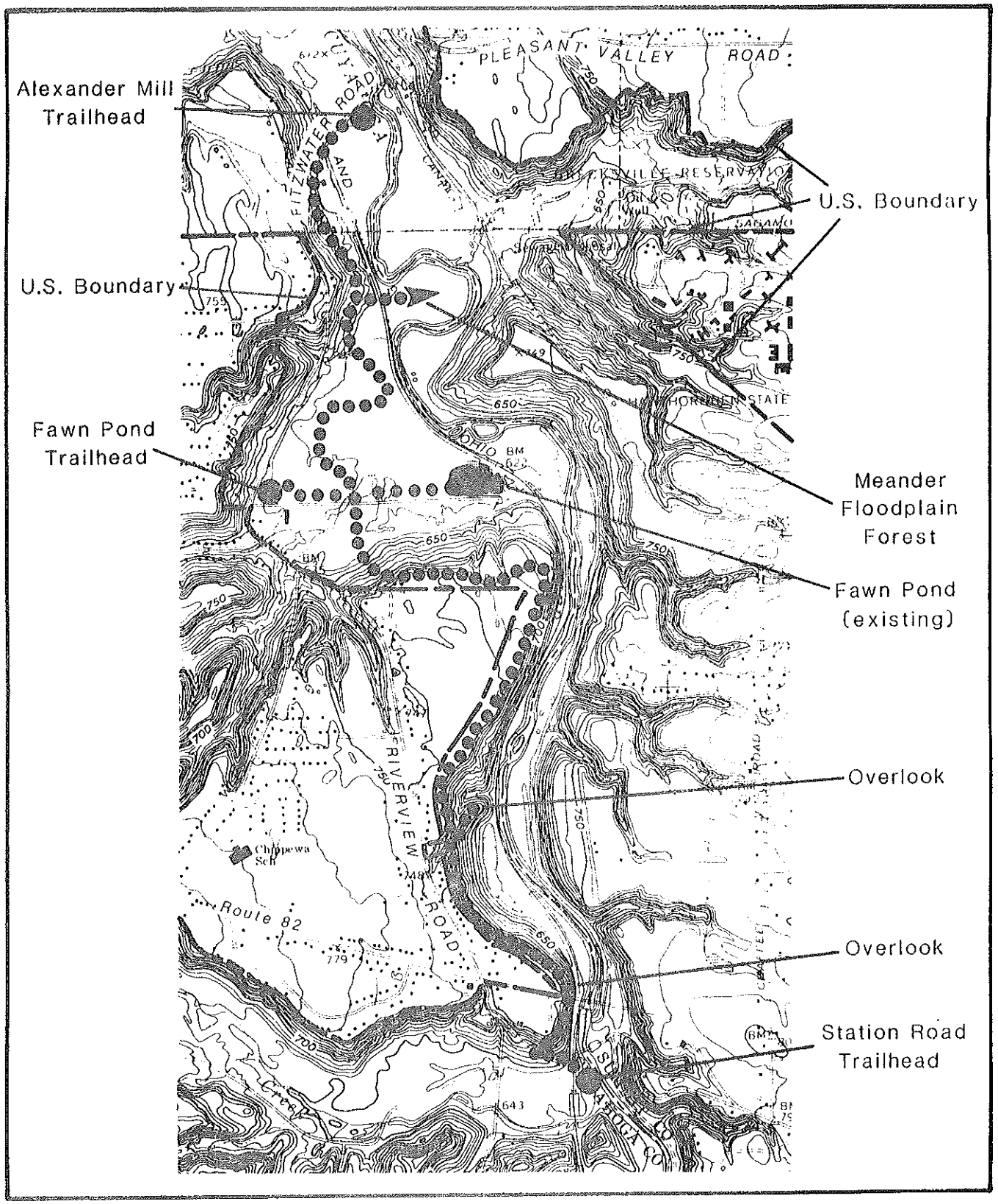
12. West Rim Trail - South Section

Joining trailheads at Station Road, Fawn Pond, and Alexander Mill, this hiking trail forms the southern section of a long-distance trail along the west side of the Cuyahoga River, in Cuyahoga County. It gives access to a variety of remote bluffs and wetlands, and can be hiked as a trail loop, using the Towpath for the return trip.

Starting at Station Road, the trail climbs a series of "benches", crossing under the dramatic Route 82 Bridge. Following the brink of the valley wall, it overlooks a series of islands and other views into Pinery Narrows. Above Brecksville Sewage Treatment Plant (soon to be abandoned and removed), the trail turns west to skirt a wide flood-storage wetland area. Here, a gravel treadway or boardwalk may be needed to make the trail usable in all weathers. This is a prime birding area. In this wetland, the trail crosses the roadbed of an east-west service road which connects the Fawn Pond Trailhead along Riverview Road to Fawn Pond. Farther north, the trail follows a series of mid-slope "benches" to the slumped remains of Fitzwater Road just west of the County Engineer's shop. The trail then descends to the Alexander Mill trailhead.

Along the bluffs, views may be enhanced by selected vista-clearing. South of Fitzwater Road, a spur trail gives access onto a typical forested river meander.

Generally this alignment crosses Federal land, or property owned by the Cleveland Metroparks System: construction would require their full cooperation and support.



CVNRA TRAIL PLAN

United States Department of the Interior

National Park Service

12 WEST RIM TRAIL (South Section)

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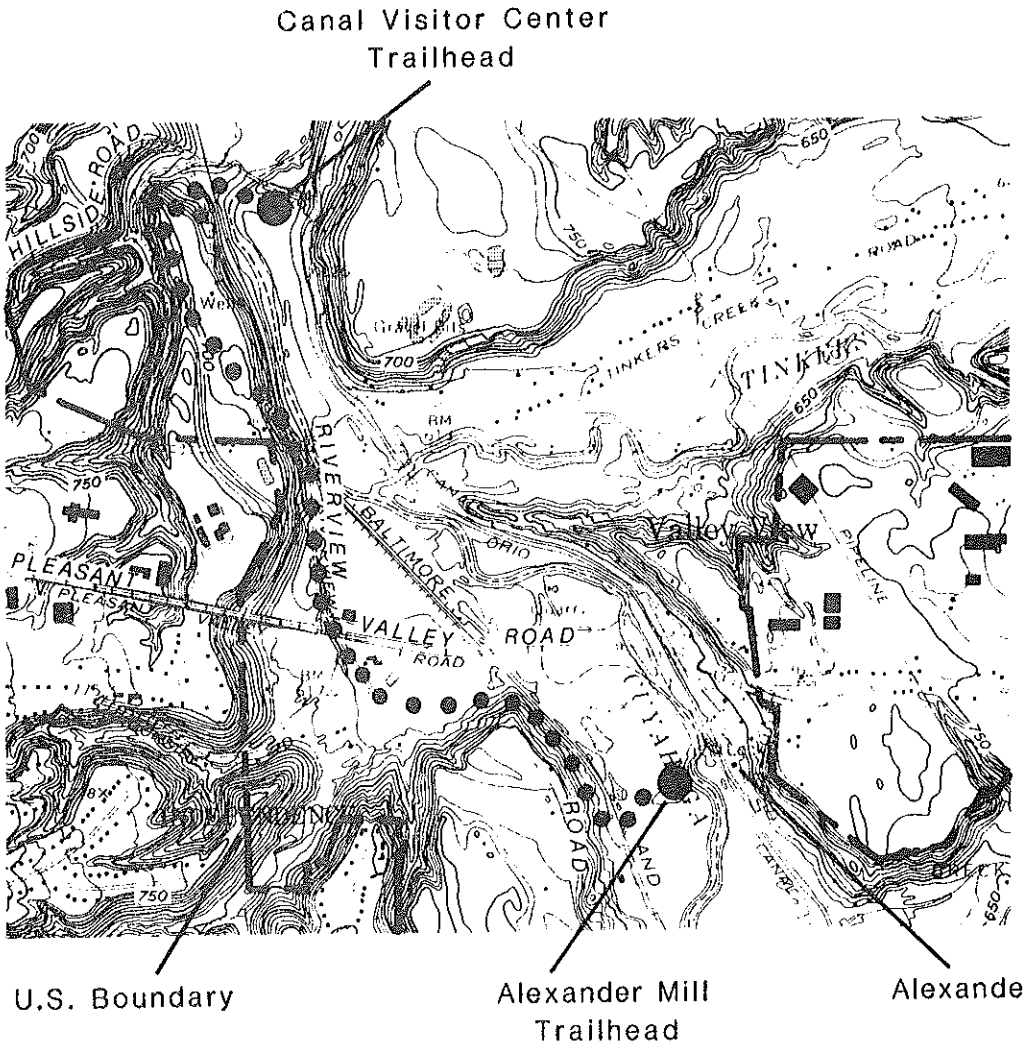
13. West Rim Trail - Central Section

Joining the trailheads at Alexander Mill and the Canal Visitor Center, this hiking trail forms the central third of a long-distance trail along the west side of the Cuyahoga River in Cuyahoga County. It joins together a variety of woodland and floodplain habitats and can be hiked as a trail loop, using the Towpath for the return trip.

Starting north from the Alexander Mill Trailhead, the trail skirts the toe-of-slope below Riverview Road, with a variety of views onto a floodplain wetland full of wildlife. Crossing under Pleasant Valley Road, the trail follows the north end of Riverview Road, now closed to through-traffic. Climbing a long ridge, there are views from the trail into the river corridor to the east and into various ravines to the west. At the north end of the ridge, the trail drops to Hillside Road and turns east across the Cuyahoga River to the Canal Visitor Center. The trail also provides excellent overlooks for observing the Cuyahoga Valley Line steam train excursion.



CVNRA TRAIL PLAN

United States Department of the Interior
National Park Service

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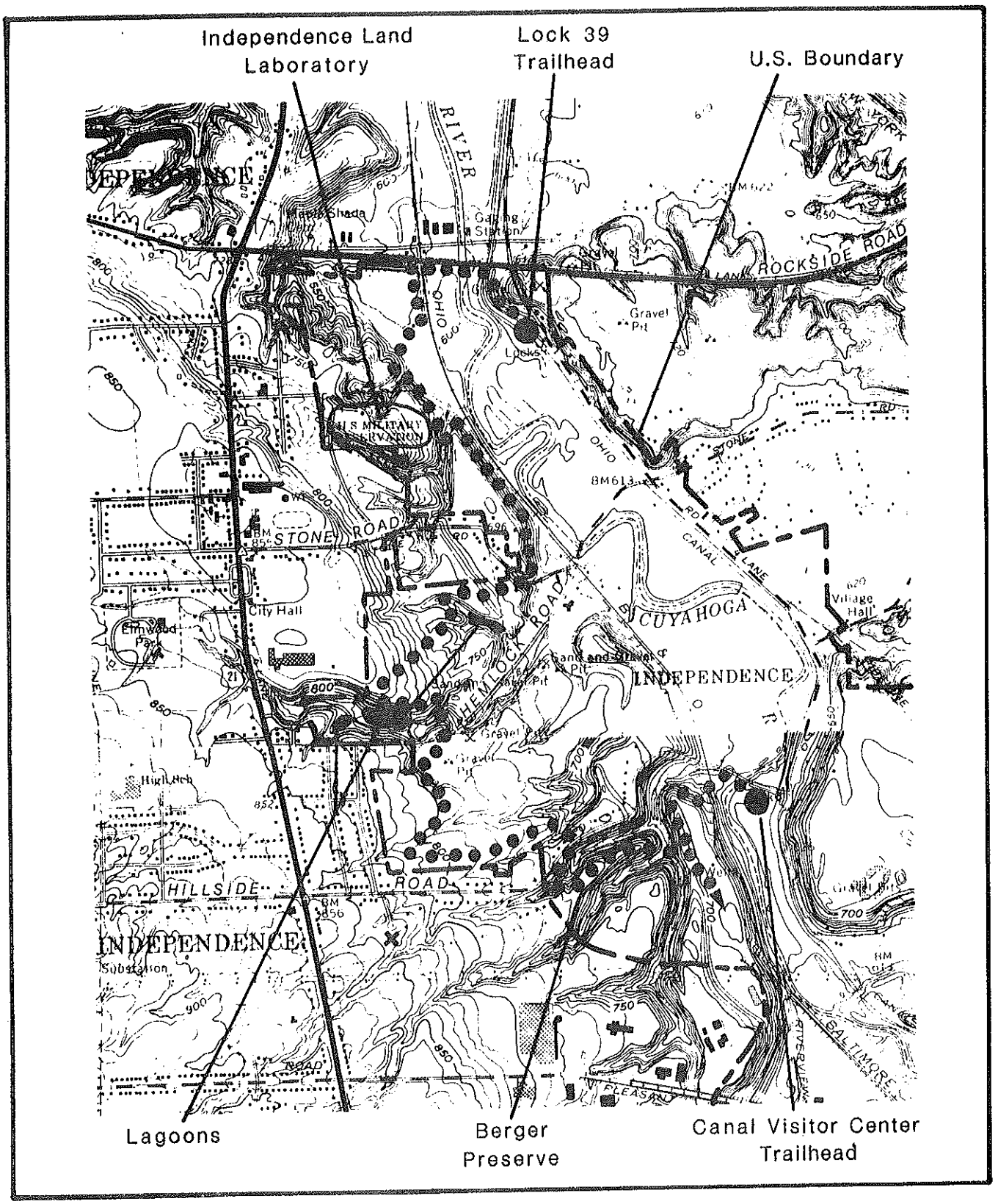
13
WEST RIM TRAIL (Central Section)

14. West Rim Trail - North Section

Joining trailheads at the Canal Visitor Center and Lock 39, this hiking trail forms the northern third of a long-distance trail along the west side of the Cuyahoga River, in Cuyahoga County. It provides access to a variety of woodlands, slope forests, successional disturbed lands, tributary ravines, and small lakes -- and it can be hiked as a loop trail, using the Towpath for a return trip.

Starting at the Canal Visitor Center, the trail crosses the Cuyahoga River on the Hillside Road bridge, and parallels Hillside west on a series of wooded ridges (providing possible access to the Cleveland Metroparks System's Burger Preserve). After turning north and crossing Hillside Road, the trail stays close to the elevation 800 contour to the west of various mined and disturbed lands. After crossing Hemlock Road, the trail follows up Hemlock Creek, passing several ponds before crossing Stone Road. From there north, the trail follows the forested slopes which look out over the Cuyahoga Valley Railroad Line and Cuyahoga River. A connecting trail looks to the nearby Independence Land Laboratory. Near Rockside Road, the trail turns east, crossing the railroad, the river, and the canal on existing road bridges.



CVNRA TRAIL PLAN

United States Department of the Interior
National Park Service

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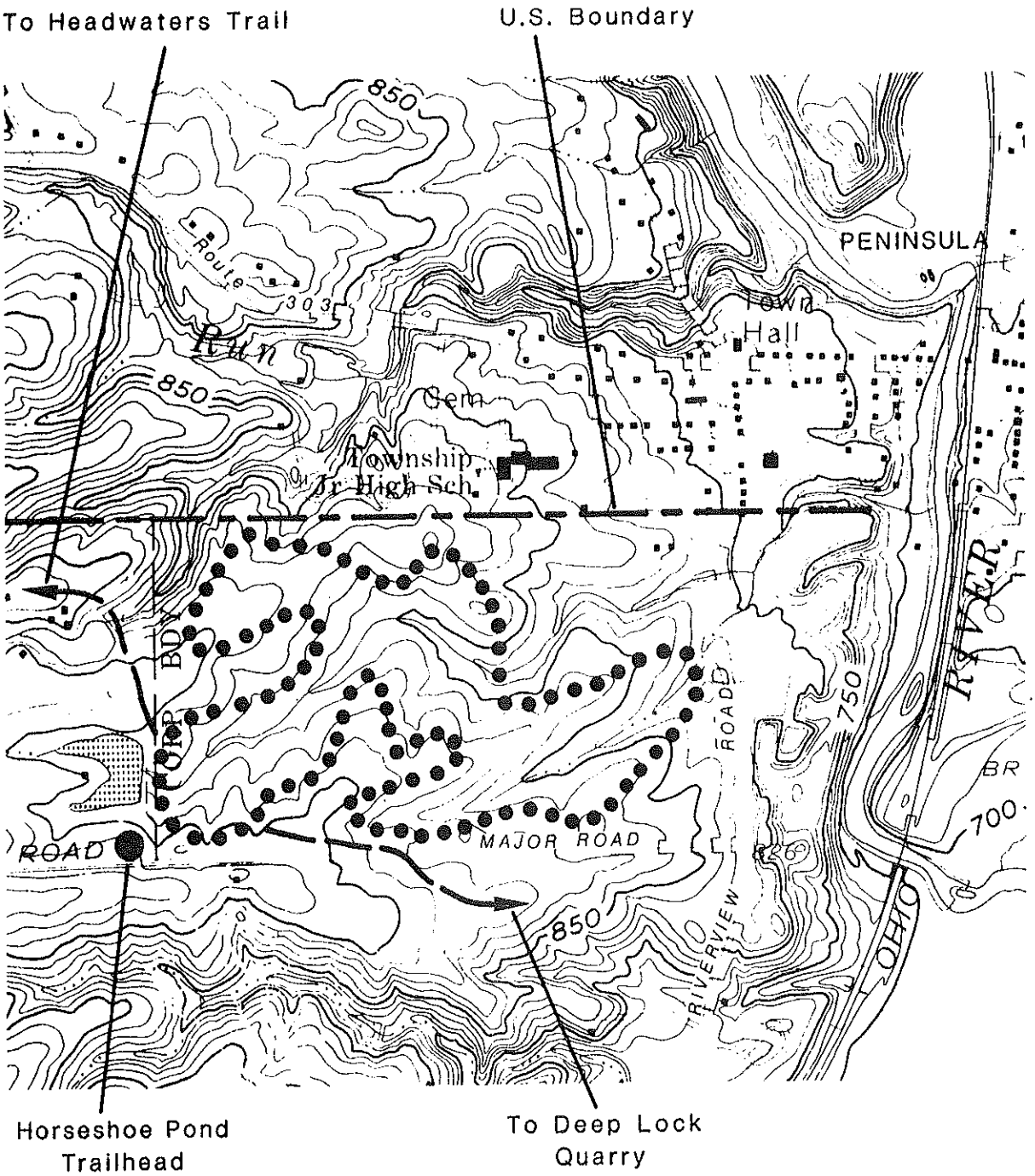
14 WEST RIM TRAIL (North Section)

15. Tree Farm Trail

At the northwest corner of Major and Riverview Roads, a large set of open fields contains a variety of evergreen stands planted over the years for sale as Christmas trees. From the higher elevations, long-distance views to the east enhance the sense of spaciousness.

Taking advantage of the rolling topography, the views, the northern edges of evergreen stands (which promote snow retention in winter), the diverse wildlife habitats, and the nearby trailhead at Horseshoe Pond -- an extensive cross-country ski course for beginners can be laid out. In warm weather months it provides access to outstanding bird watching areas.

As a beginners' ski loop, this trail complements the more challenging course at the nearby Plateau Trail. In future years, the two trails may be connected through the intervening acreage, if and when it has been acquired for the recreation area.



CVNRA TRAIL PLAN

United States Department of the Interior

National Park Service

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TREE FARM TRAIL

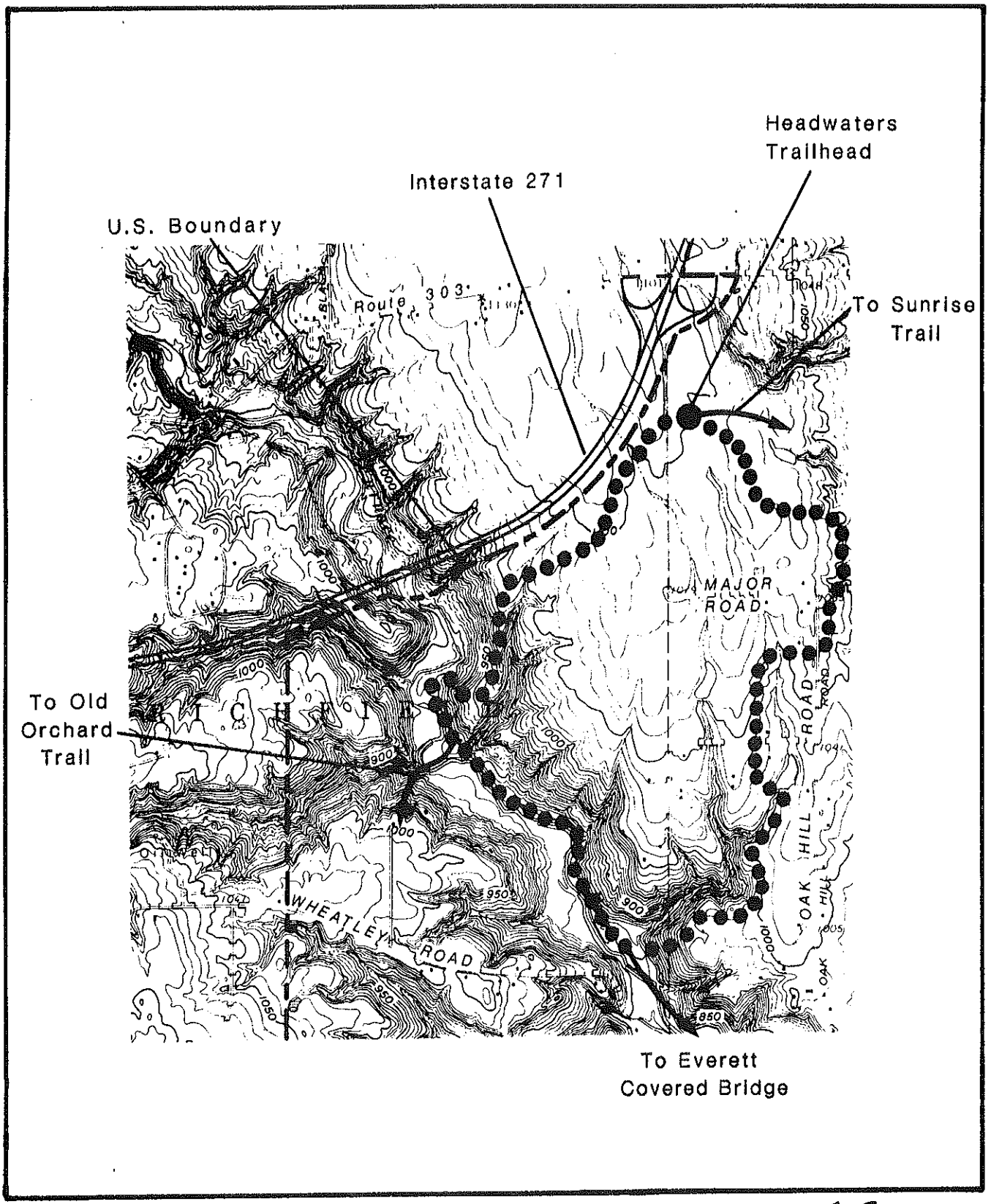
16. Furnace Run Trail

This loop hiking trail provides access from the Headwaters Trailhead on the Oak Hill plateau to the floodplain of Furnace Run 250 feet lower in elevation. Various ravines are explored, revealing rock outcroppings and the evolution of steep, short ravines typical of the Cuyahoga Valley.

The loop also joins several connector trails to more distant destinations. From its southwest edge, the Old Orchard Trail departs to the south, towards Hale Farm and Village -- and Ira. Along Furnace Run a connector joins to the Everett Road Covered Bridge, along a floodplain rich in wildflowers. From the Headwaters Trailhead, the Sunrise Trail connects east to the Towpath Trail at Deep Lock Quarry. In the future, a connecting trail will also be built northwest up Furnace Run (crossing Interstate 271) on a pedestrian overpass to join with existing AMPD trails at the Wagner Daffodil Trail and at Brushwood Lake.

The trail can be completed if lands designated in the 1984 Land Protection Plan for Federal fee acquisition are acquired -- including five rear parcels of properties fronting onto Scobie Road and several large fields along Major Road. If these lands are not acquired, at least a positive trail easement could be obtained before construction is begun.

To maximize the opportunity for contrasts along this trail, several vistas can be opened up from overlook points to both the Furnace Run and Cuyahoga Valleys.



CVNRA TRAIL PLAN

United States Department of the Interior
National Park Service

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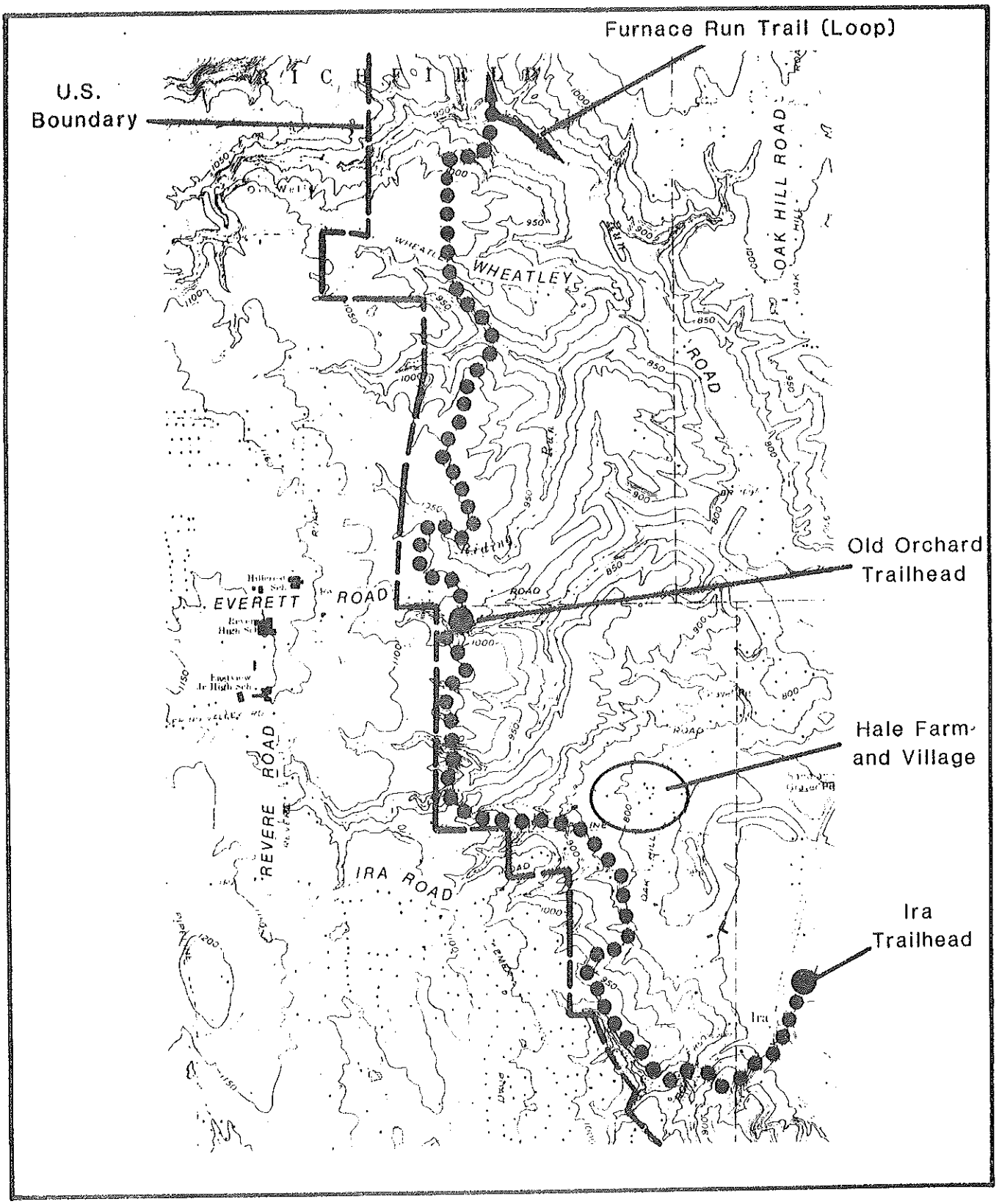
16 FURNACE RUN TRAIL

17. Old Orchard Trail

This long-distance hiking trail connects a variety of features in the recreation area's southwestern quadrant, similar to the West Rim Trail in the northwestern quadrant. With nine ascents (or descents) over 100 feet in elevation change, this trail is for the experienced hiker.

Starting at its north end (at Furnace Run) the trail comes south, requiring a bridge crossing at Furnace Run, and ascends to Wheatley Road -- crossing a complex of abandoned farm fields and evergreen plantations. Continuing south to Everett Road, the trail crosses (or skirts the headwaters of) several wooded ravines. Continuing south from Everett Road and the old Orchard Trailhead several more ravines are crossed (or skirted) until the trail turns east and descends across the wooded lands of Hale Farm and Village. The trail continues south across Ira Road to ascend a large ridge which leads to Martin Road. Here the trail turns northeast to drop towards the intersection of Ira and Riverview Roads, near the Ira Trailhead. With the Furnace Run and Sunrise Trails, this trail forms the western half of a 13-mile loop using the Towpath Trail for return.

Before construction, arrangements must be made with both the Akron Metropolitan Park District and the Western Reserve Historical Society for trail crossing agreements. This may also apply to tract 116-07 in which retention rights are held until 2003.



CVNRA TRAIL PLAN

United States Department of the Interior

National Park Service

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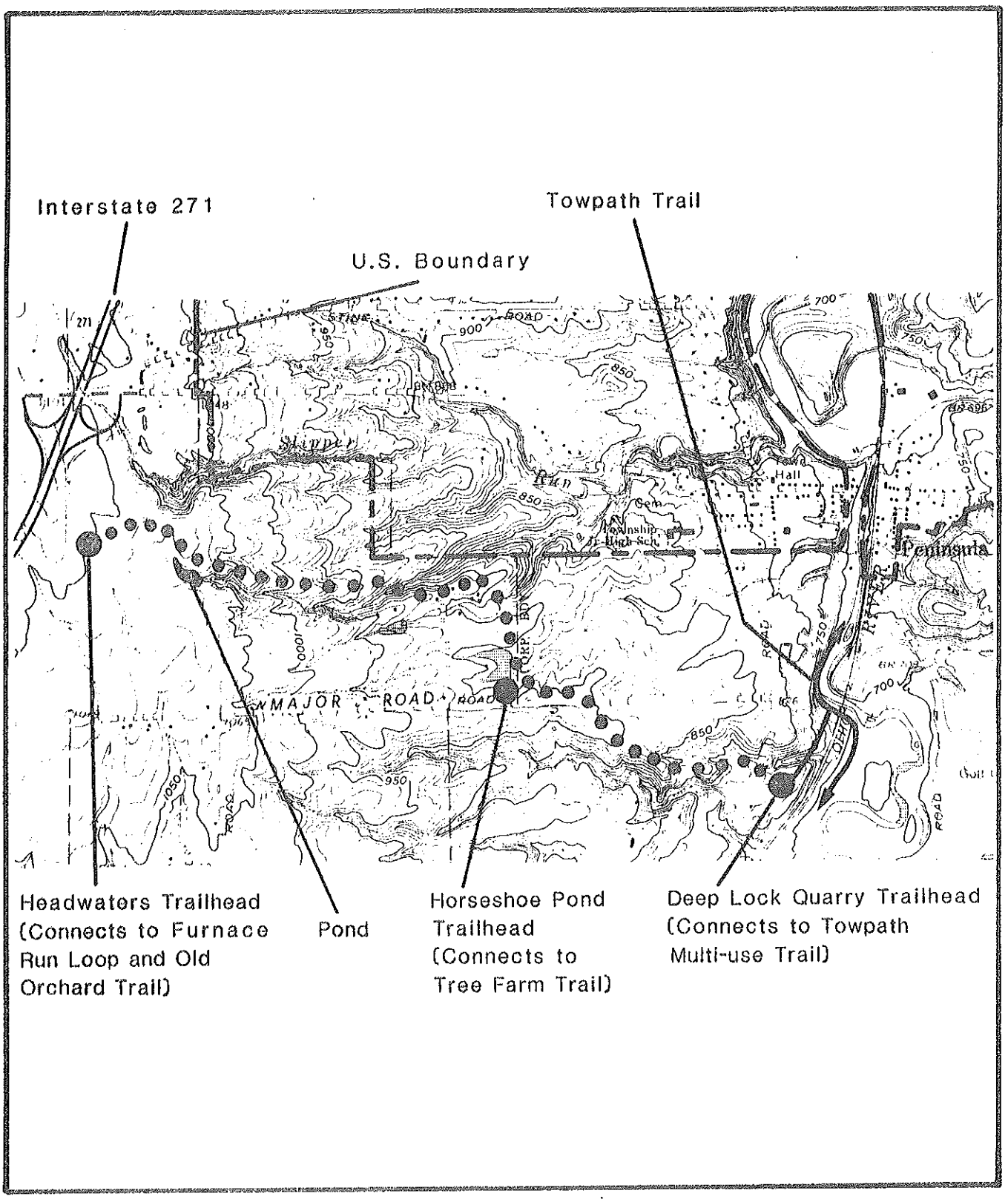
17 OLD ORCHARD TRAIL

18. Sunrise Trail

Roughly paralleling Major Road, this hiking trail connects the Towpath Trail at Deep Lock Quarry to the Furnace Run Trail at the Headwaters Trailhead. Along the way it passes by Horseshoe Pond at the Tree Farm cross-country ski loop. A variety of old fields, wooded ravines, ponds, ridges, and overlooks add to the trail's interest. It is the longest east-west hiking trail in the recreation area, forming the northern link of a 13-mile loop which (moving counter-clockwise) connects this trail to the Furnace Run, Old Orchard, and Towpath Trails.



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United States Department of the Interior

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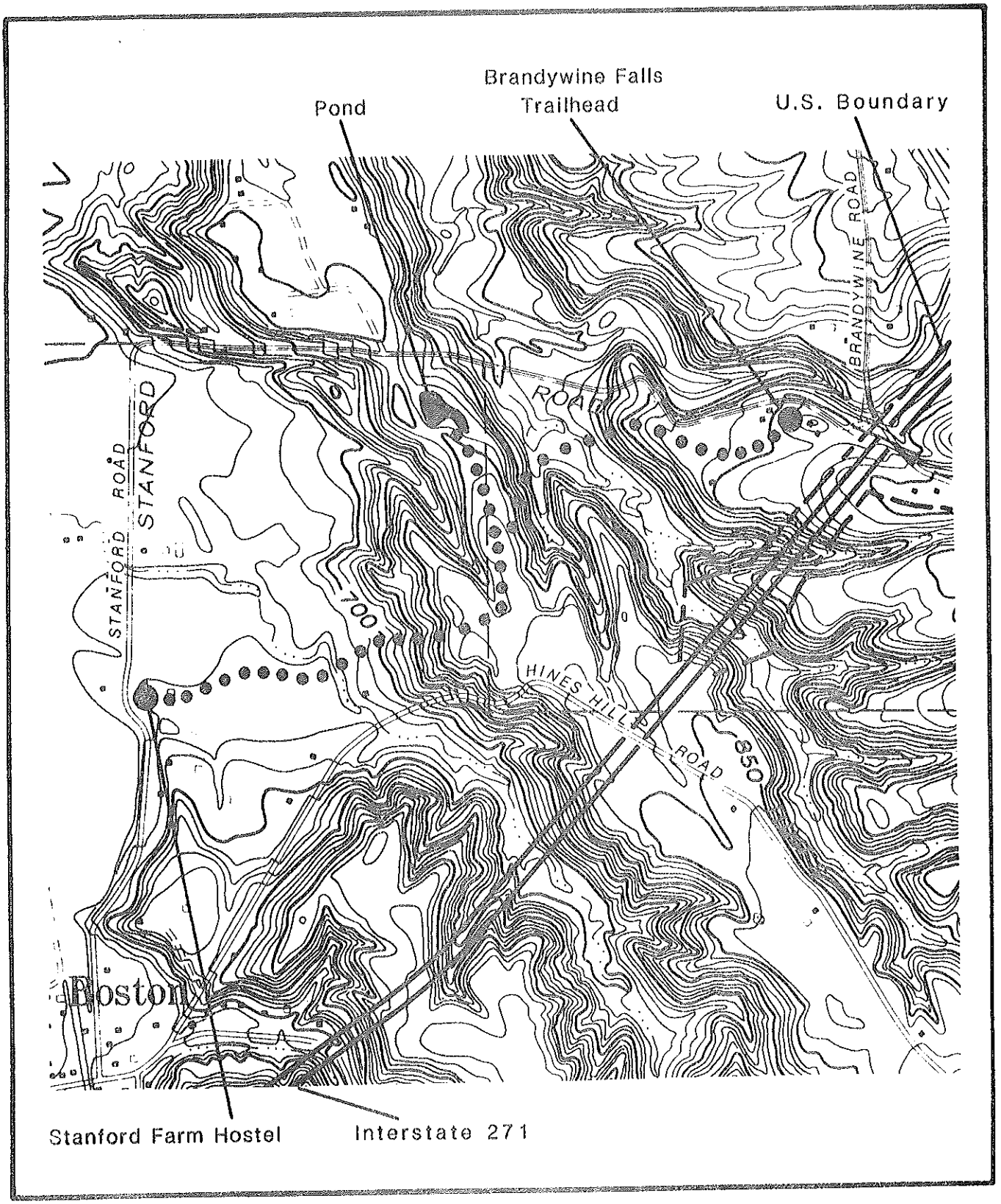
18 SUNRISE TRAIL

19. Stanford Trail

Both the Stanford Farm Youth Hostel and Brandywine Falls promise to be popular visitor attractions: this trail provides hiking access to the falls for visitors staying (or passing near) the youth hostel.

Starting at the hostel, the trail moves east along the hedgerows of several fields, crosses Stanford Run, and climbs to a long ridge top. Turning north, the trail follows what is likely to have been the David Hudson Trail (used by the first settlers of nearby Hudson, Ohio, about 1802.) Before the main trail drops to the east, a spur trail continues north to a small, secluded pond. The main trail crosses a tributary of Brandywine Creek before climbing again to the parking lot, trailhead, and visitor features at Brandywine Falls. Portions of this trail cross lands now owned by the Akron Metropolitan Park District: their cooperation and permission must be obtained before the trail can be built.



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United States Department of the Interior
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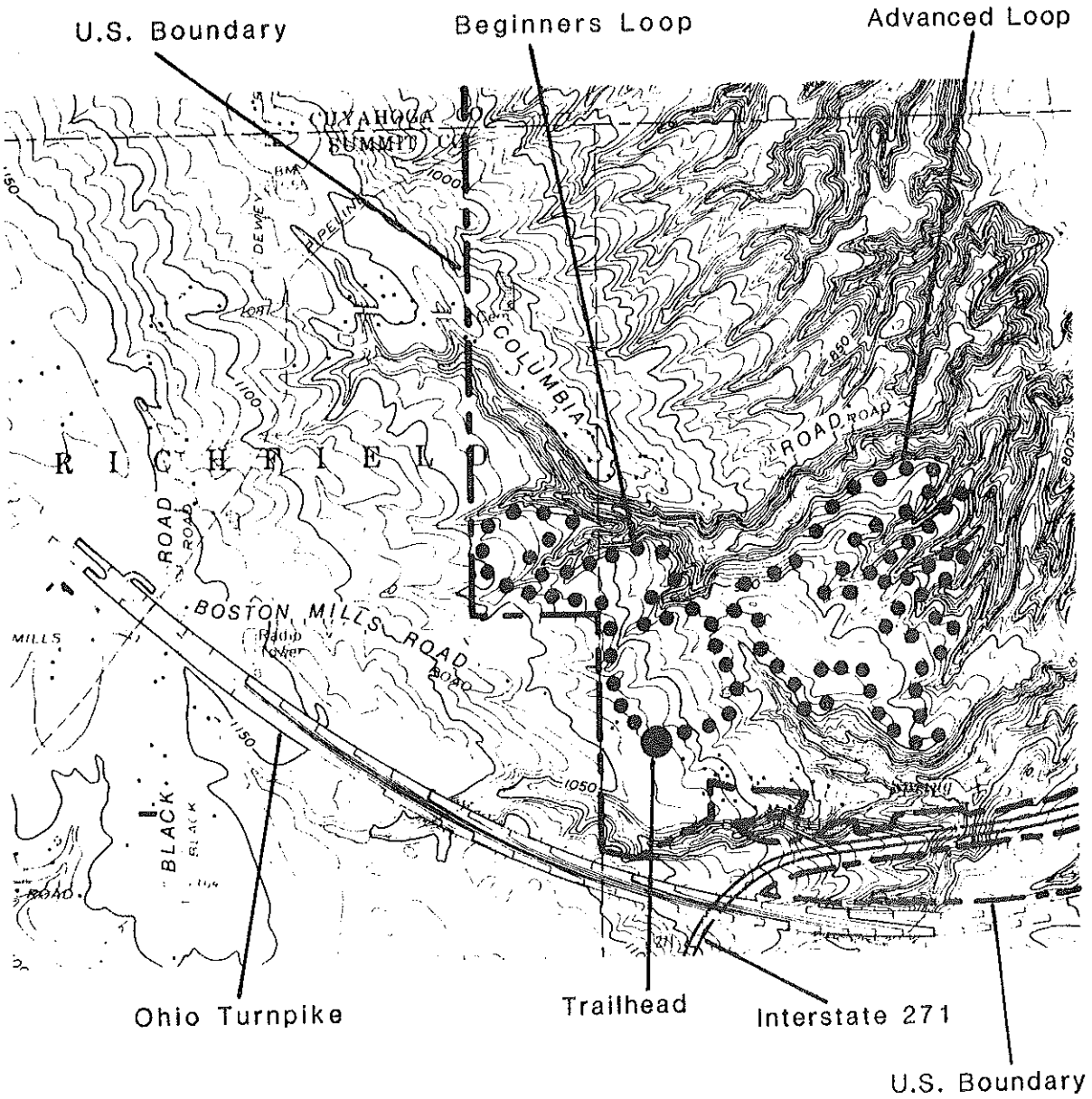
19 STANFORD TRAIL

20. High Meadow Farm

The recreational opportunities available at this upland complex of fields and wooded ridges are enormous. Since no detailed site development for this area has yet been proposed, the trails and trailhead can only be discussed conceptually.

As part of a multi-facetted day-use area, there is room here for both a beginner and advanced cross-country ski loops. At some future date a connection could be made east to the top of the ski lifts of the Boston Mills Ski Resort.

Conceivably, High Meadow Farm would provide the full range of recreational opportunities now found in the former Virginia Kendall Park -- yet capitalizing on the site's agricultural ambience. Some of the fields (especially those with long distant views to the northeast) could be made into play meadows, while others could be operated as part of a working farm. The various trails would follow the edges of the fields and explore the successional and wooded "fingers" that point towards the Cuyahoga, capitalizing on existing old fields and tree plantations, rather than disturbing mature woodlands.



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20 HIGH MEADOW FARM

SPECIAL TRAILS

In addition to the 20 projects just listed, several projects are planned for special user groups. These include off-road vehicles (ORVs), including motorcycles snowmobiles, and mountain bikes; physically disabled persons; self-guiding nature enthusiasts; and participants in programs at the Earthlore Environmental Education Center.

ORV Trail

When the recreation area was established in 1975, a 4-mile course for off-road vehicles (ORVs) was in operation north of the Happy Days Visitor Center. In 1980 that course was closed because of the noise disturbance to the center. To replace it an alternate course was shown in the approved General Management Plan. It is located north of Peninsula between Interstates 80 and 271, west of Riverview Road. After several years of resource study, plans are now underway to install such a course, capitalizing on the picnic shelter and grounds of the former Camp Onlofte. This ORV Trail is isolated from the rest of the existing and proposed trails in the valley and is masked by the high noise levels of the highways at each side. It will accommodate motorcycles, three wheel ORVs, and snowmobiles. Users will transport their machines in by truck or van; motor vehicles will be excluded from all other trails.

Self-Guiding Trails

Short, easily accessible trail loops which touch varied natural or historic resources are often ideal as self-guiding trails. Small signs, or brochures keyed to numbered stations, allow visitors to learn about the resources without staff aid. Such trails work best as adjuncts to visitor centers, campgrounds, contact stations, or trailheads. Short ones should be between ¼ and 1 mile in length -- for easy strolling; longer ones, such as the Towpath Trail, follow a theme or set of natural or historic features for many miles. Such trails should expose visitors to a variety of habitats and views. Often these trails can be combined with facilities for the disabled (discussed in the previous section). Signs for these trails are easily vandalized and are best located on loops that can be closed for repair. The draft Interpretive Prospectus for the recreation area lists the following self-guiding trails:

Trail	Principal Feature
Towpath Trail	Ohio and Erie Canal
Haskell Run Trail	Ravine Habitat
Kendall Lake Trail	Kendall Lake Edges
Ledges Trail	Rock Formation
Oak Hill Succession Trail	Old Fields
Cuyahoga River Trail	River and Floodplain Habitat
Furnace Run Trail	Floodplain Wildflowers
Brandywine Falls Trail	Dramatic Gorge
Indigo Lake Trail	Restored Quarry
Tree Farm Trail	Tree Farming
Lower Cuyahoga Canoe Route	Various Features

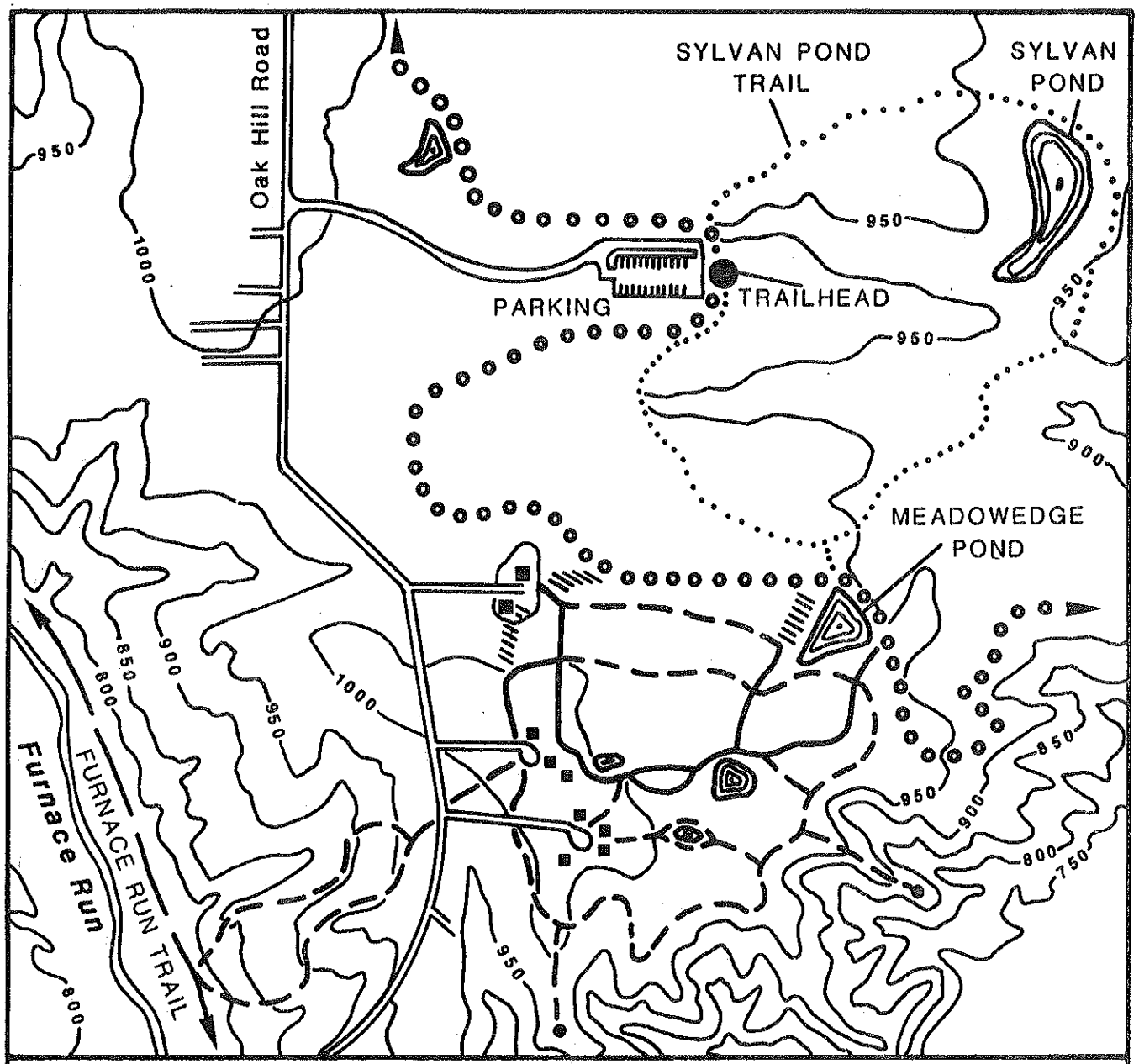
Environmental Education Center

Immediately south of the Oak Hill Day Use Area (and the Plateau Trail), a network of nature study trails has been established in association with the Earthlore Environmental Education Center. The system has evolved from several old paths and farm roads, giving access to a variety of field amd woodland habitats. The area is totally self-contained,

connecting with existing trails at only two points along the north side of Meadowedge Pond. When fully completed, this 3-mile system will provide access among the various buildings associated with the Center, connect to various habitats, and provide observation points at the ends of several ridges overlooking Everett. The trails will generally not be signed, but at the two public access points, the following notice will be posted:

ENVIRONMENTAL
STUDY AREA

Trails are
not marked



CVNRA TRAIL PLAN

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ENVIRONMENTAL EDUCATION TRAILS

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TRAIL REPAIR

Along the 18 miles of trails now maintained by NPS in the recreation area, a number of problems are found: steep eroding slopes, unsafe stream crossings, chronic wetness, and confusing directions. In certain places, minor relocations will help reduce visitor confusion or enlarge desired mileage. Most of these changes can be accomplished by volunteers or summer youth crews. These rehabilitation projects include:

Location "name"	Type	Tasks
Kendall Unit Trails		
"Pine Grove Trail"	Hiking	Relocate
"Ledges Trail"	Hiking	Consolidate, Upgrade Upper Trail for Handicapped Use
"Salt Run Trail"	Hiking	Relocate Entrance
"Kendall Lake Trail"	Walking	Upgrade for Handicapped Use
Earthlore EE Center	Hiking	Add New Trails
Oak Hill		
"Sylvan Pond Trail"	Hiking	Add Bridges and Harden Surface
Blue Hen Falls[1]	Hiking	Relocate Trailhead to South Side of Boston Mills Rd. Add Connecting Trail
Former Land Acquisition Office [2]		
"Boston Overlook"	Trailhead	Adapt Parking Lot for Use as Trailhead and Picnic Site

1. Between Blue Hen Falls and the Boston Mills Ski Resort is another waterfall: Buttermilk Falls, which lies on the Resort property. A cooperative arrangement with the Resort is desirable for visitor access to these falls.

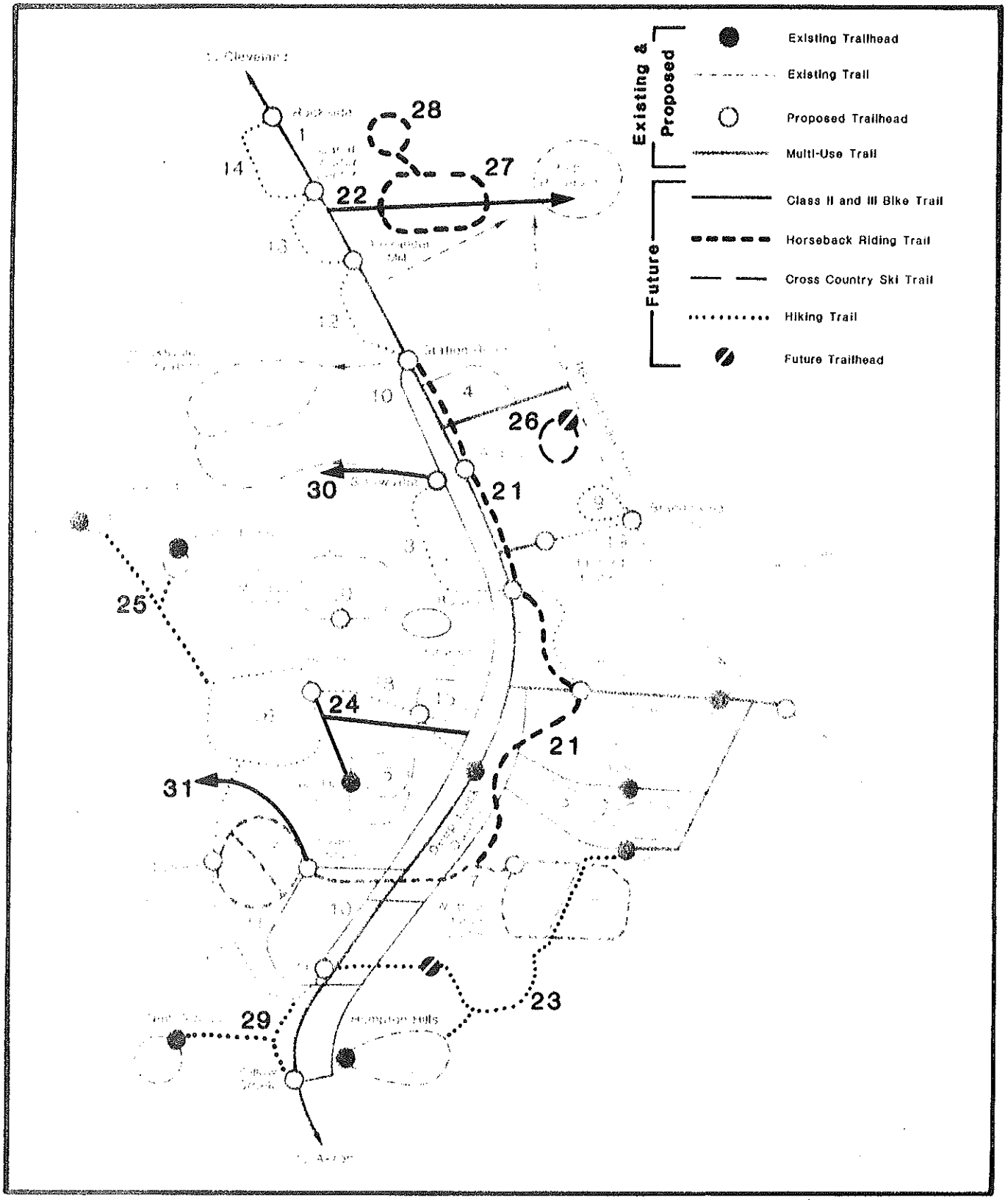
2. Although the Bike and Hike Trail is now just outside the recreation area's legislated boundary, it is considered an integral part of the valley's trail system. Using an existing parking lot for visitor use and access reduces government demolition costs while providing a visitor service at almost no cost where a proven need exists.

FUTURE TRAILS

After the 20 projects shown in this plan are completed, a number of additional connections and loops could be installed to complete the full network of trail facilities envisioned by the citizen trails committees and recreation area staff. These are listed in approximate priority order:

	Name	Type	Length in Miles
21	Valley Bridle Trail*	Horseback	10.0
22	Tinkers Creek Road Bike Connector	Class II Bike	1.8
23	East Rim Trail (Quick Road south to Ira Road and Hampton Hills)	Hiking	8.0
24	Major Road Bike Connector	Class III Bike	4.0
25	Upper Furnace Run	Hiking	4.2
26	Five Falls Trail	Ski/Hike	4.0
27	Tinkers Creek Floodplain Trail	Horseback	5.2
28	Terra Vista Loop	Horseback	2.1
29	Butterfly Cliffs Trail	Hiking	2.6
30	Snowville Road Bike Connector	Class II Bike	1.1
31	Wheatley Road Bike Connector	Class II Bike	3.0
		TOTAL	46.0 miles

*May use recently established segment of Buckeye Trail between Pine Lane and Boston Trailheads, unless soils conditions and resource impacts suggest an alternate route.



CVNRA TRAIL PLAN

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FUTURE TRAILS

TRAILHEADS AND OTHER SUPPORT SERVICES

Twenty-seven existing trailheads provide access to the valley's 105 miles of existing trails. Nineteen new trailheads are recommended to fulfill the intent of the foregoing "Guidelines" section and to provide access to the proposed trails. These trailheads vary in size, location, layout, and cost to match the anticipated uses of the various proposed trails. Winter sports trailheads are paved for easy plowing. All restrooms should provide accessibility for the handicapped. All multi-use trails, signs, and brochures should promote tact and courtesy since many types of users may be present. General locations are shown on the map of "Schematic Layout of Proposed Trails", while sketch site plans of each one are shown in Appendix A.

NEW TRAILHEADS

PROPOSED TRAILHEADS

	Name	# of Cars	# of Pull-throughs	Surface	Bus Access	Restrms	Canoe Access	Costs (1984 dollar value) Parking	Restrms & Utilities	Landscape	TOTAL
A	Station Road [1, 2]	110	20	paved	X	X	X	145,000	120,000	100,000	$ 365,000
B	(Lock #39)	20					X	20,000	0	5,000	25,000
C	Canal Museum [1]	80	10	paved	X		X	105,000	0	50,000	155,000
D	Alexander Mill [2]	50		paved	X		X	65,000	0	5,000	70,000
E	Red Lock	15	6				X	15,000	0	5,000	20,000
F	Boston [2]	50	15	paved	X	X	X	65,000	120,000	20,000	205,000
G	Ira [2]	100		paved	X	X	X	130,000	90,000	20,000	240,000
H	Pine Lane	20	10					20,000	0	5,000	25,000
I	Gateway	15		paved				25,000	0	5,000	30,000
J	Snowville	20						20,000	0	5,000	25,000
K	Wetmore Horse Center	20	20	paved		X		35,000	120,000	50,000	205,000
L	Brandywine Falls [1]	150			X	X		135,000	120,000	50,000	305,000
M	Everett Bridge [1]	30	10		X	X		30,000	90,000	10,000	130,000
N	Horseshoe Pond	30						30,000	0	5,000	35,000
O	Headwaters	80				X		75,000	90,000	40,000	205,000
P	Old Orchard	10	10					10,000	0	5,000	15,000
Q	Stanford Hostel [1]	10	5					10,000	0	5,000	15,000
R	High Meadow Farm [1]	200			X	X		200,000	150,000	50,000	400,000
S	Yellow Creek	15					X	15,000	0	5,000	20,000
											$2,490,000
T	Highland	40				X		35,000	90,000	20,000	127,000
U	Sunset Knob	30				X		30,000	90,000	10,000	130,000

[1] May be funded and built as a separate project, independent of Trail Plan.

[2] May be used as a Cuyahoga Valley Line train stop.

IMPLEMENTATION

To make this plan a reality and create an outstanding, varied, multi-modal trail system in the Cuyahoga Valley, a series of concurrent efforts must be made:

(a) Contributions of volunteer labor by trail groups and individuals to construct sections of trail.
(b) Capital projects, such as trailheads, bridges, walls, and signs, funded and installed by the National Park Service and donations by corporations and foundations.
(c) Coordinated development of the O & E Canal Towpath with the National Scenic Trail and Buckeye Trail Systems, including donation by the State of Ohio.
(d) Bikeway development as part of the Scenic Road System, either as Class I, II, or III trails.
(e) Periodic inspection, maintenance, and patrolling by both the National Park Service and competent trail associations. Areas of responsibility in these efforts must be clearly delineated.
(f) The establishment of a permanent citizen trails advisory group to help coordinate the implementation of this plan with the National Park Service, help raise money for the trails, and monitor the use and maintenance of the trails.

Detailed layout of the proposed trails will be a cooperative effort between the National Park Service and interested trails groups. Exact trails locations, signs, and support facilities should be determined only after all those involved become familiar with standard trails publications listed in the bibliography.

LAND PROTECTION AND BOUNDARY ADJUSTMENTS

In Appendix D are listed all of the non-Federal tracts affected by the proposed trails. Although most of the tracts are privately owned, most of the proposed trail mileage is across non-Federal publically held lands, such as the Akron and Cleveland Metroparks, or Ohio Canal Lands. This acquisition (or other mutual agreement) affects a little less than 1/3 the mileage of all 20 proposed projects. Half of the mileage across non-Federal lands ($\pm$ 17 miles) is associated with the towpath trail. All such acquisition, positive easement, or cooperative agreement must be concluded before trail construction can commence.

In four cases, minor boundary adjustments to the recreation area are needed to complete trails as proposed:

(a) The Towpath Trail passes under both Interstates 80 (the Ohio Turnpike) and 271 north of Peninsula. Since the rights-of-way for these highways were excluded from the recreation areas as officially mapped, the portions of the towpath in those rights-of-way are not eligible for Federally funded improvements, unless they are included in a donation of canal lands by the State of Ohio.

(b) In order for the Old Carriage Trail to connect with the Bike and Hike Trail lying east of the recreation area, an 800-foot length of the East Ohio Gas Co. pipeline right-of-way should be included in the recreation area's boundaries. At a minimum this would include a few acres; at an optimum, a 77-acre rectangle would protect a complex of undeveloped old fields and both sides of the Bike and Hike Trail.

(c) A small portion of the Kendall Loop Trail lies along the recreation area's eastern boundary immediately south of Kendall Park Road (S.R. 359). Given the current boundary, the trail would be located on a driveway serving tracts 113-41 and 113-45. If the 300-foot wide unimproved parcel immediately east of this roadway were included in the recreation area and acquired, then the Multi-Use Trail would be separated creating a scenic buffer between park facilites and nearby residences.

TRAIL AND TRAILHEAD PROJECTS BY PRIORITY

* Projects which can largely be built by volunteers and/or youth workers.

Priority	Project	Estimated Cost (in $1000s)	Associated Trailhead(s)	Trailhead Cost (in $1000s)	TOTAL COST (in $1000s)
1	Towpath Trail	1,800	A,B,C,D,E,F,G,S	1,100	2,900
2	Gateway Trail	275	H,I	55	330
3	Columbia Trail *	10	J	25	35
4	Old Carriage Trail *	180			180
5	Plateau Trail *	90			90
6	Wetmore Bridle Trail *	80	K	205	285
7	Riding Run Trail *	175	M	130	305
8	Kendall Loop Trail	555			555
9	Brandywine Falls Trail *	15	L	305	320
10	River Corridor Bike Trails	1,100			1,100
11	Hale Farm Bike Loop	60			60
12	West Rim - South Section *	50			50
13	West Rim - Central Section *	30			30
14	West Rim - North Section *	60			60
15	Tree Farm Trail *	50	N	35	85
16	Furnace Run Trail *	60	O	205	265
17	Old Orchard Trail *	80	P	15	95
18	Sunrise Trail *	30			30
19	Stanford Trail *	15	Q	15	30
20	High Meadow Farm	65	R	400	465
	TOTALS	4,780		2,490	7,270

Unit Costs For Estimates

	Rebuild Towpath	$150,000	/ mile
	Multi-Use	80,000	/ mile
	Class II Bike	60,000	/ mile
	Class III Bike	5,000	/ mile
*	Horse Trail (existing)	10,000	/ mile
	Horse Trail (new)	50,000	/ mile
*	Ski Trail	20,000	/ mile
*	Hiking Trail	15,000	/ mile

(d) Currently lying just outside the eastern boundary of the recreation area, the Bike and Hike Trail should be included within the boundary from Highland Road to S.R. 8. This 90 acre trail corridor, by Ohio Edison Electric Company and operated by the Akron Metropolitan Park District, is part of a 22-mile regional trail system. If it were removed or scenically marred, the recreation area's visual and recreational resources would be compromised.

Such minor boundary adjustments are authorized in the recreation area's enabling act (PL 93-555). A drawing, or other appropriate description, is published in the Federal Register along with an explanation and justification for the revision. After a 30-day comment period, the Secretary of Interior then has drawn a revised boundary map of the entire recreation area, showing the new boundary.

PHASING AND FUNDING

For a plan with as many elements as this one, predicting actual phasing is an impossibility. Unknowns include availability of funds and volunteers, public demand, and competition with other park priorities. This section attempts to outline the general sequence of work, breaking each trail and trailhead project into general categories of work, and spreading that work over the 10-year life of the plan. Trailhead construction is targetted for completion with the opening of the associated trails.

The following chart suggests a sequencing of trail work over the anticipated 10-year life of this plan. It attempts to keep costs relatively even each year, although the most expensive items are those associated with early phases: the Towpath Trail and large, paved parking lots. Most of the trailheads occur early since they are associated with top priority spine and multi-use trails

The expensive items (towpath restoration, paved parking, and utilities) are best suited for contract work, while the unpaved trails and gravel trailheads can be built by volunteers. If maximum use of volunteers, youth workers, and inhouse design is employed, about 30% of the costs (about $2.3 million) could be saved. Further savings can be made by aggressively soliciting private-sector donations of funds for specific, visible projects.

CONSTRUCTION AND VOLUNTEERS

Widespread and intense citizen interest in trail development in the Cuyahoga Valley greatly helped to launch this plan. Such interest, combined with a strong volunteer effort, will continue to make the plan a reality. As a direct outgrowth of this public interest, a citizens' advisory group called the Cuyahoga Valley Trails Council was established to monitor and promote implementation of this plan as well as to help construct, maintain and inspect trails throughout the Cuyahoga Valley. This group will play a key role in marshalling volunteer help to build monitor and maintain the entire trail system.

The recreation area Superintendent has the authority to approve preconstruction flagged layouts of trail, design drawings of trailhead parking lots, and other plans describing these projects. Depending upon the scope and complexity of the work, trails and trailheads will then be built by contractors, cooperating youth work crews, or volunteers. All decisions regarding layout, site program, phasing, signing, or other matters relating to the implementation of this plan will be made by the Superintendent or his/her designated representative.

Phasing of Trail Development

(a) preliminary design, preparation, acquisition
(b) layout
(c) construction

		85	86	87	88	89	90	91	92	93	94
1	Towpath	a	a	b,c	c	c	c				
2	Gateway	a	b,c								
3	Columbia	c									
4	Old Carriage	a,b,c	c	c							
5	Plateau	a,b	c	c	c						
6	Wetmore Bridle		a	b	c						
7	Riding Run Bridle			a	b	c					
8	Kendall Loop [1]		a	b,c	c	c					
9	Brandywine Falls	a	a	b	c	c					
10	River Corridor [1]		a	a	a	b	c	c	c		
11	Hale Farm Loop					a	b	c	c		
12	West Rim - South				a	b	c				
13	West Rim - Central					a	b	c			
14	West Rim - North						a	b	c		
15	Tree Farm		a,b	c	c						
16	Furnace Run			a	a	b,c	c				
17	Old Orchard				a	b	c	c			
18	Sunrise							a	b	c	
19	Stanford								a	b	c
20	High Meadow						a	a	b	c	c

[1] Closely related to FHWA - funded projects to implement CVNRA Transportation Plan.

Phasing of Trailhead Construction

(d) acquisition, preliminary design
(e) construction documents
(f) layout and construction

(NOTE: Approval of this Plan does not imply authorization or obligation of funds for the years shown.)

		85	86	87	88	89	90	91	92	93	94
A	Station Road	d	e	f	f						
B	Lock 39	d,e	f								
C	Canal Visitor Center	e	f	f							
D	Alexander Mill		e	f	f						
E	Red Lock	d	e	f							
F	Boston	d		e,f							
G	Ira		d	e	f						
H	Pine Lane	f	f								
I	Gateway	d	e,f								
J	Snowville	e,f									
K	Wetmore Horse		d	e	f						
L	Brandywine Falls			d	e	f					
M	Everett Bridge	f									
N	Horseshoe Pond		d	e	f						
O	Headwaters				d	e	f				
P	Old Orchard					d	e	f			
Q	Stanford Hostel	d	e	f							
R	High Meadow Farm							d	e	f	
S	Yellow Creek	d	d		e	f					

CONCLUSION

This Trail Plan has evolved over several years, using previous plans as a foundation. Consequently it is not presented as a series of alternatives, but as a series of refinements to achieve a valley-wide network of trails. As the plan evolved, many alternatives were examined for each project. As each is laid out and constructed, further refinements will occur. How does the plan, as described and mapped herein, meet the stated objectives?

1. Wide variety of trail experience: With multi-use paved trails, unique trails for horses, skiers, and hikers, and special trails for special populations, this plan accommodates an extremely wide group of users. All habitats are explored -- highlands, lowlands, wetlands, slopes, vistas, forests, fields, and towpath provide variety and challenge.

2. Non-consumptive construction and use: Well over half the proposed trails can be built by volunteers or youth workers by hand -- minimizing the use of machinery and fossil fuels. The heaviest construction will occur in already disturbed corridors such as the Towpath, along road rights-of-way, or in utility corridors. Parking is generally located in already cleared areas.

3. Access to scenic points of interest: Each trail highlights at least one remarkable and unusual site -- be it a vista, the Ohio and Erie Canal, a pond, a waterfall, a towering grove of trees, or a historic farm. Often the trailheads are at such a place, setting the mood for the trail. Such sites are scattered throughout the recreation area, and most will accommodate handicapped visitors to the extent feasible.

4. Dispersed visitor use: Trailheads are also scattered throughout the area, allowing visitors the opportunity to stop soon after entering the valley from any direction and use the trails. Existing trailheads are concentrated in the metropolitan park units -- the proposed ones address the gaps between those units.

5. Enhanced sense of remoteness: One aspect of the appeal of the Cuyahoga Valley is its rural contrast to nearby urbanized areas. Even so, few parts of the valley are more than ½ mile from a paved road. However, by careful design, using slopes and vegetation as buffers, the sense remoteness can be strengthened. Circuitous trails add mileage so that distances are expanded and evidence of disturbance is minimized.

6. Use in all types of weather: After 50 years' experience with trails in and around the Cuyahoga Valley, the Cleveland Metroparks System has concluded that the most satisfactory trail experience for all seasonal use is a paved, well-drained, all-users trail. This type of trail also forms the backbone of this proposed system along the Ohio and Erie Canal Towpath -- encouraging use throughout the recreation area in any type of weather. Most of the other trails reflect seasonal use, in that they have grass or earthen treads -- such treads enhance fair weather use by horseback riders and hikers. Although the cross-country ski trails are carefully designed for winter use, most of the other trails could also be skied by the advanced skier. The diversity of trails allows use throughout the year.

7. Minimum user conflicts with maximum safety: Safety must always be in the forefront of design and construction for public use. Many of the trails lie within sight of roads and other public ways. Vandalism will be discouraged by installing rugged signs and keeping trail construction simple and heavy. Horses -- which have

the greatest potential for creating hazardous encounters with other types of trail users -- are generally separated to an alternate system which others can use at their own risk. Trails designed for certain types of users will be so posted and patrolled -- if these controls are disregarded, then stiles, grates, and other types of separation barriers can be installed as needed. Radio telephones could be installed at trailheads where problems continue.

8. Sensitive resources protected: The layout of trails in this plan avoids all known habitats of rare and endangered species. Fragile floodplain ecosystems and steep slope environments are generally left unaccessed. All lands and resources within 100 feet of the 70 miles of existing trails now account for only 5% of the land within the recreation area's 32,000 acres; when fully built, this plan will raise that figure to 14%, leaving 86% of the recreation area's land base farther than 100 feet from any trail.

9. Existing roads and utility lines: Of the 115 miles of proposed trails, 58 miles (50%) will capitalize on already disturbed alignments: 26.8 miles along roads and road traces, 19.2 miles along the canal towpath, 11.6 miles along existing informal trails, and 1.0 mile using a cleared utility right-of-way. Assuming a generous average disturbed area of 20 feet in cross section for new trails, this would only affect 140 acres out of the recreation area's total of 32,000.

10. Clear directions and signs: The layout of the proposed trails attempts to minimize the number of intersections which occur away from trailheads. Such intersections will be carefully signed to give directions and distances to destinations each way. Symbols and colored routings will be minimized or totally eliminated. With trailheads dispersed over the entire recreation area, maps will be readily available within a few miles of any point. Annual inspections and careful monitoring by the NPS Sign Committee will help keep all signs and markers clear and in good repair.

11. Area-wide trail network: Various communities adjoining the recreation area have developed local trail plans. When known, these links have been incorporated into this plan which also ties in closely with the Bike and Hike Trail, the Cleveland Metropark System's All-Users Trails, the Buckeye Trail, and the National Recreation Trail now designated on part of the canal Towpath. The Towpath clearly suggests itself as the principal recreational corridor between Lake Erie at Cleveland and the interior of the state south of Akron. Internally, this plan and its future phases, ties together all existing trails within the recreation area.

12. Minimum maintenance: Many factors contribute to the long-term viability of trails: popularity and use, funding, public monitoring and support, original layout, and staff inspection. Although the layouts for new trails have been refined to seek well-drained and stable areas, in certain areas, bridges, steps, and boardwalks are unavoidable. All materials used in these construction features must be rot-resistant and difficult to vandalize. If the first trail projects to be completed require more than minimum maintenance, then the later phases of the plan should be re-examined to fit the staff and volunteers available to care for those trails already in place. Hopefully, local volunteer group interest will be great enough, that once built, all hiking and horseback trails will be largely monitored and maintained by such groups, leaving the upkeep of paved and large-scale trails to the National Park Service.

In summary, the following chart displays the trails proposed in this plan, indicating the various types of use each can accommodate. The trail-use types are arrayed along a gradient which approximates the degree of disturbance to the environment, from least (primitive hiking) to most (off-road motor vehicles). Except for certain long-distance hiking tails, all accommodate several types of users, multiplying the usefulness of each trail constructed.

USE ANALYSIS OF PROPOSED TRAILS

Trail Name	TRAIL USE TYPE										
	Primitive Hiking	"Front-Country" Walking	Cross-Country Skiing	Jogging	Horseback	Class II and III Biking	Class I Biking	Dog Sleds	Motorbikes / Snowmobiles	ATVs	Handicapped Accessibility
1. Towpath Trail		X	X	X			X	X			X
2. Gateway Trail		X	X	X			X				X
3. Columbia Trail	X										
4. Old Carriage Trail	X	X	X	X							
5. Plateau Trail		X	X	X				X			X
6. Wetmore Bridle Trail	X				X						
7. Riding Run Bridle Trail	X				X						
8. Kendall Loop Trail		X	X	X		X	X				X
9. Brandywine Falls Trail		X									X
10. River Corridor Bike Trails				X		X					
11. Hale Farm Bike Loop				X		X	X				
12. West Rim Trail - South Section	X										
13. West Rim Trail - Central Section	X										
14. West Rim Trail - North Section	X										
15. Tree Farm Trail		X	X	X							
16. Furnace Run Trail	X										
17. Old Orchard Trail	X										
18. Sunrise Trail	X	X									
19. Stanford Trail	X	X									
20. High Meadow Farm	X	X	X	X							X
21. ORV Trail									X	X	
22. Environmental Ed. Trails	X	X									