Coastal Zone
Information
Center

TROUT RUN
RECREATIONAL ACCESS
TO
LAKE ERIE

FEASIBILITY
AND
DESIGN STUDY

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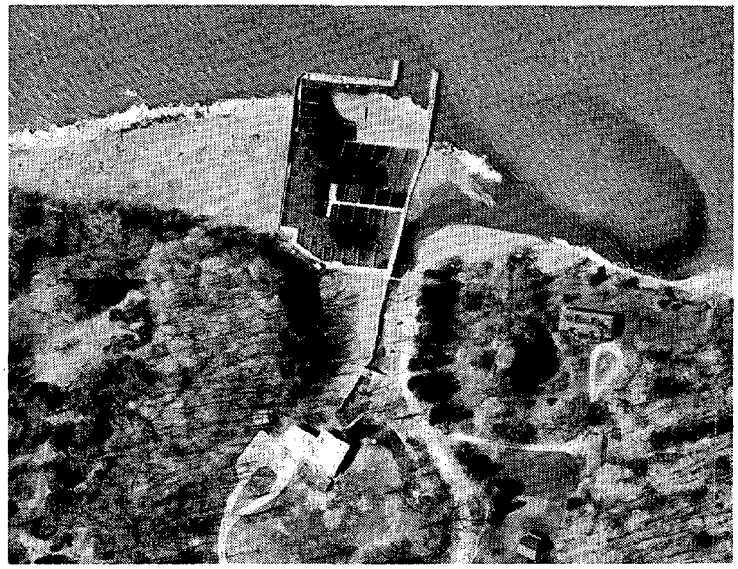

AS PART OF THE IMPLEMENTATION OF THE
PENNSYLVANIA COASTAL ZONE MANAGEMENT PROGRAM
NOVEMBER 1985

Pennsylvania Coastal Zone Management Program

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Funded and Coordinated
...rough Department of Environmental Resour-
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...rtment of Planning.

PREPARED FOR:
FAIRVIEW TOWNSHIP
PREPARED BY:
URBAN ENGINEERS, INC.

AUTHENTICATED
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INFORMATION
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GV191.42.P4T76 1985 c.3

TROUT RUN

RECREATIONAL ACCESS

TO

LAKE ERIE

FEASIBILITY AND DESIGN STUDY

Prepared For:

FAIRVIEW TOWNSHIP

Board of Supervisors

Albert B. Chorney, Sr. Chairman
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Kenneth L. Traut

Prepared By:

URBAN ENGINEERS, INC.

The preparation of this report was funded and coordinated through the Pennsylvania Department of Environmental Resources, Office of Resources Management, Bureau of Resources Management, Division of Coastal Zone Management and the Erie County Department of Planning.

NOVEMBER 1985

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I. INTRODUCTION

The Fairview Township Supervisors, in appreciation of the problems of Trout Run and desirous of providing additional recreational opportunities to the residents of the Township, entered into an agreement on February 6, 1985, with the County of Erie to conduct a feasibility and design study for the provision of recreational access at the confluence of Trout Run and Lake Erie.

The purpose of this study is the selection of a suitable site based on physical criteria including topography, soils and land use; formulation of a development plan based on constraints inherent in the site, as well as, user needs; and finally, presentation of an implementation plan incorporating all phases of the project from site acquisition through construction and maintenance of the facility.

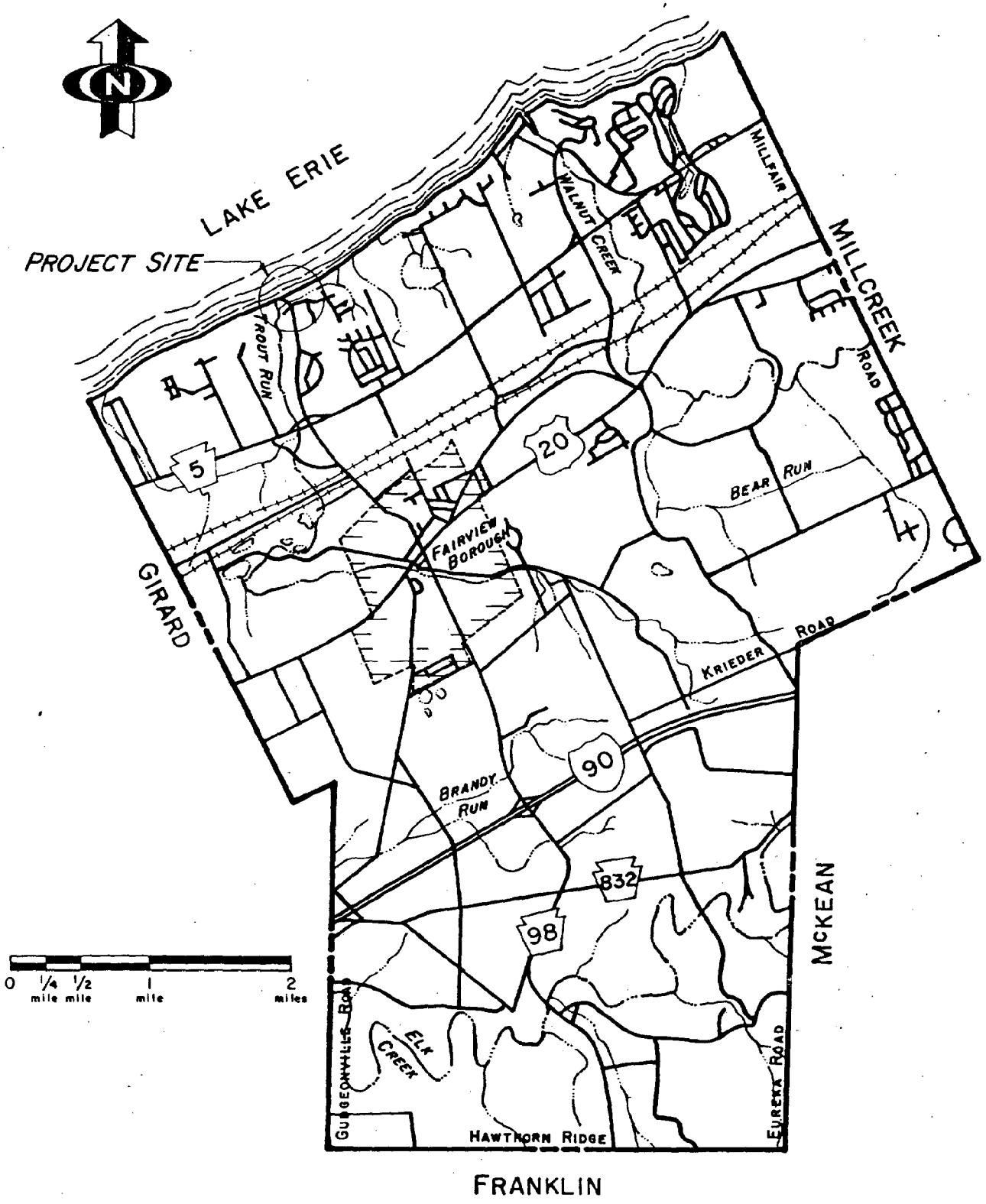
II. NEEDS ANALYSIS

Background

1968 marked the introduction of salmon stocking to the Pennsylvania waters of Lake Erie. In the short time since the Pennsylvania Fish Commission initiated the stocking program, the pursuit of the salmonids has steadily grown and became a major recreational attraction for the area. The annual fall spawning runs, in particular, draw ever increasing numbers of local and regional fishermen.

Trout Run, in Fairview Township,(Plate 1) is one of many streams along the Lake Erie shoreline suffering from the rapid rise in popularity of salmon fishing and the dearth of planning and facilities necessary to manage the influx of large numbers of sportsmen.

A report, entitled "Lake Erie Angler and Boater Use and Angler Harvest Survey" prepared in 1982 under the auspices of the Coastal Zone Management Program and the Pennsylvania Fish Commission, indicates Trout Run was the destination for 41,420 angler trips in the year starting June, 1981. Only Walnut Creek and the Erie Public Dock exceeded Trout Run in yearly angler usage. More significant, perhaps, is the fact that Trout Run had the highest single monthly angler trip rate on Lake Erie within Erie County with 27,140 in the month of October. On a peak day, 800 anglers used the mouth of Trout Run as their fishing hole.



FAIRVIEW TOWNSHIP

URBAN ENGINEERS, INC.

SITE LOCATION PLAN
TROUT RUN ACCESS AREA

PLATE I

Trout Run is also the only significant Lake Erie ice fishing area outside of Presque Isle Bay.

A Pennsylvania Department of Transportation traffic study, conducted in February, 1984, produced a daily vehicle count of 1,450 for the northernmost section of Avonia Road. As only 137 homes are served by this stretch of Avonia Road, the numbers indicate the drawing power of the lakeshore even in the dead of winter.

The locality around the mouth of Trout Run is experiencing problems in the areas of traffic control, primarily due to the lack of parking facilities; trespassing, as most of the land is privately owned; litter management; and potentially, public health because sanitation facilities are not generally available.

In addition to the necessity of providing services for the sportsmen, Fairview Township is in need of public recreation sites and the Lake access at Trout Run can provide the foundation for a desirable multi-use recreational development.

The dominating recreational facilities in Fairview Township are the golf courses with two of the three belonging to private clubs. The Colony Pool and Tennis Club is also private. Publically owned recreational facilities in Fairview Township are limited to the Walnut Creek Access Area and Strucheon Park along Elk Creek.

The Walnut Creek Access Area, owned and operated by the Pennsylvania Fish Commission, has been provided with a marina,

used for docking space on a transient basis; restrooms; boat launching ramps; and parking areas. Fishing, from the shore of Lake Erie and the banks of Walnut Creek, is the main recreational activity.

Strucheon Park is used for picnic outings and has no major activity related development. The Fairview School District provides the bulk of the public access recreation in the township at the 4 facilities it operates. Six privately owned camps or campgrounds round out the Fairview Township recreational site inventory.

Area Lake Access Sites

The majority of the recreational sites west of Presque Isle are private and generally camp oriented. The public facilities are popular and well-used.

The westernmost Erie County public recreation facilities are Raccoon Creek Park and Eagley Park both located in Springfield Township. Both parks have picnic grounds and general recreational activities. In addition, Eagley Park has a small boat launch ramp.

Elk Creek is one of the three streams most heavily impacted by the growth in popularity of salmon fishing. The area around the mouth of the creek currently houses a private boat ramp, camp ground and public restrooms. An extensive development plan is envisaged for Elk Creek including channel improvements and docking facilities.

WESTERN ERIE COUNTY
LAKE ACCESS
RECREATION SITES

Park	Location	Ownership	Acreage	Facilities
Pebble Beach Campground	Old Lake Road	Private	2.39	Camping Sites
Raccoon Creek Park	Elmwood Rd. and Old Lake Rd.	Erie County	194.1	Beach, picnic tables, camping, fishing, general purpose field.
Eagley Park	Eagley Road	Springfield Township	10.34	General purpose field, picnic tables, small boat ramp.
Camp Lambec	Eagley Road	Presbyterian Church	920	Cabins, dining hall, various recreation activity areas.
Camp Judson	Holliday Road	Northwestern Baptist Associates	115.07	Cabins, dining hall, recreation areas.
Camp Fitch	Ables Road	Youngstown, OH YMCA	233.44	Cabins, pool, horseback riding, volleyball.
Elk Creek Access Area	Mouth of Elk Creek	Girard Township (leased)	22	Fishing, boat ramp (private) restrooms.
Lake Erie Community Park	E. Park Dr.	Girard Township	111	Camping, picnic tables, kitchen.
Camp Eriez	Allegheny Rd.	Private		
Camp Sherwin	West Lake Rd.	YMCA - Erie		
Flower's Marina	Avonia Road	Private		Marina, fishing.
Camp Notre Dame	Eaton Road	Private		
Walnut Creek Access Area	Manchester Rd.	PA Fish Commission		Marina, boat ramps, fishing.
Manchester Beach	Manchester Rd.	Private		Beach
Powell Beach	Powell Ave.	Private		Boat Ramp
Kelso Beach	Kelso Dr.	Private		Beach

Lake Erie Comunity Park, near Elk Creek, is picnic and camping oriented. Walnut Creek Access Area is geared to providing primarily boat related services including launching and docking facilities. Fishing is also a major activity at Walnut Creek.

Of particular relevance to this study is the Flower Marina located on the west side of Trout Run. Privately owned and operated, this marina provides slips for approximately 60 small craft, as well as, fishing from its piers.

III. PROPOSED SITE

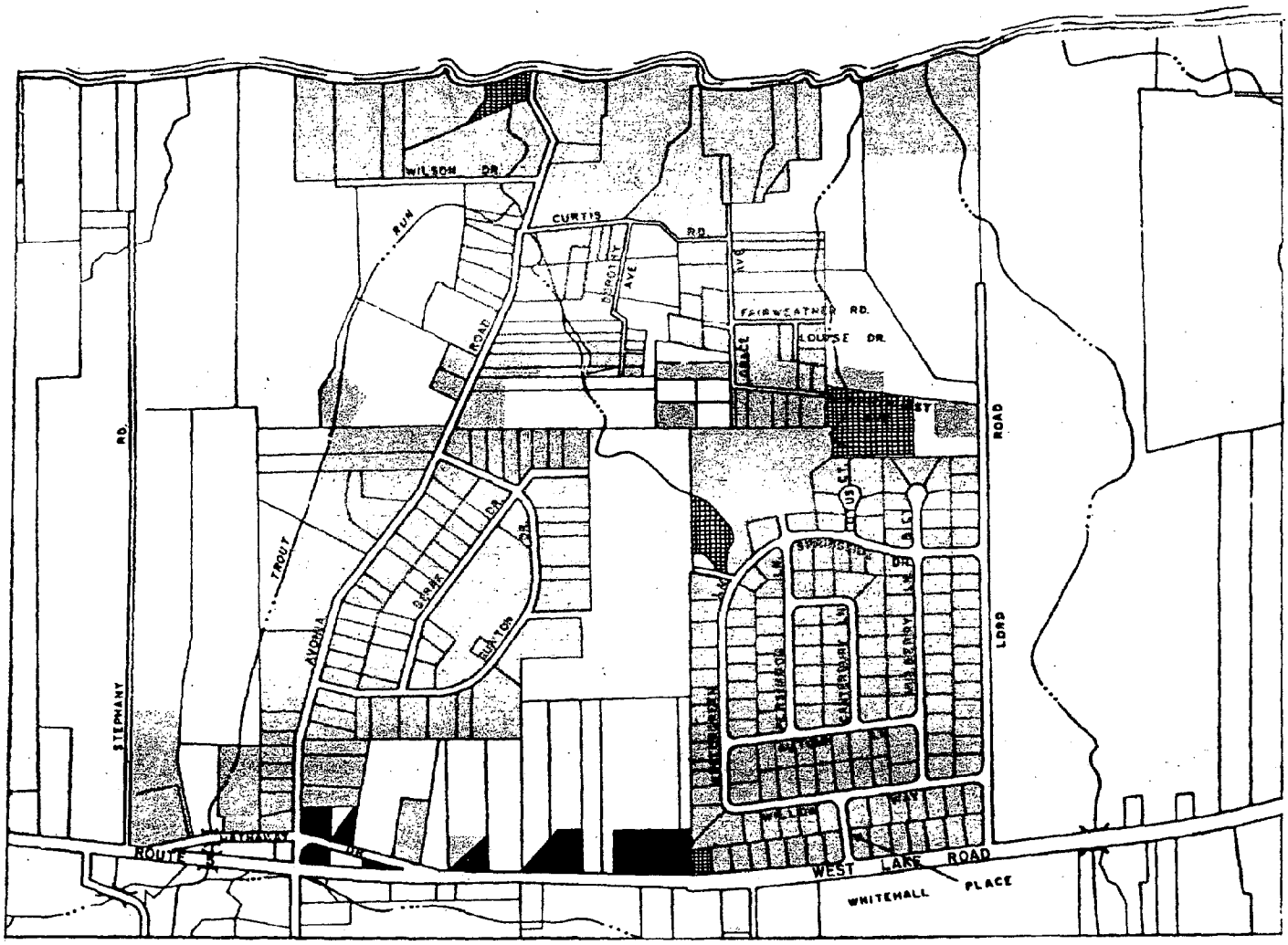
Area Description

Western Erie County public lake access sites tend to be located at the mouths of various streams i.e., Raccoon Creek Park, Elk Creek Access Area, and Walnut Creek Access Area. The proposed development of Trout Run is no exception. This development pattern is due primarily to two circumstances: first, the streams are popular fishing spots and second, physical access to the lake is easier at the streams. Generally, the lakeshore topography consists of a small beach backed by a 30 foot or higher bluff. The streams have eroded a channel through the bluff and, as a consequence, have provided easier access to the lake.

The accompanying Land Use Map shows the existing land use pattern for the area around the proposed site between Lake Erie and Route 5 along Avonia Road and Trout Run (Plate 2). The area is predominately residential with some commercial development adjacent to Pennsylvania Route 5 a primary east-west arterial roadway.

As noted earlier, the land at the mouth of Trout Run is privately owned with the exception of the Avonia Road right-of-way. Evaluating the lots in the vicinity on the basis of suitability for the development of a multi-use recreational facility results in the selection of the land on the east side of the mouth of Trout Run currently owned by Leo J. Brugger, as the most desirable site for acquisition.

LAKE ERIE



RESIDENTIAL

PUBLIC / INSTITUTIONAL

RETAIL COMMERCIAL

EXISTING LAND USE

AVONIA ROAD AREA
NORTH of RT. 5
FAIRVIEW TOWNSHIP
ERIE, PENNSYLVANIA

PLATE 2

Site Description

The Brugger property is a 3.1 acre site made up of three distinct land forms: bluff, a moderately sloping center section and the shoreline, (Plate 3).

The bluff extends along the eastern and southern sides of the site with heights of from 10 to 50 feet and a steep 15-30^{o} slope. The majority of the property slopes toward the lake at a moderate 5% grade. The beach varies from approximately 20 to 50 feet in width and is backed by a 8 foot high bank in the north-east corner.

A small pond is located centrally in the tract with a large frame house, garage, boat shed and several storage buildings distributed throughout the eastern portion of the site.

The lot is accessed from Avonia Road on the west and a driveway servicing the main building. Site vegetation consists of woods on the bluff slopes, part of the Avonia Road frontage and the area immediately north of the pond. The remainder of the parcel is covered with grass and scattered trees.

Soils

The site is composed to two soil types: Ottawa loamy, fine sand and Wayland silt loam. The separation line runs approximately through the pond on a north-south axis.

The Ottawa soil series consists of deep, well-drained, sandy soils whose parent material was made up of acid, lacustrine sands sorted and deposited by water. A gray, calcareous material,

generally called quicksand in the area, occurs at depths of 4 feet or more. The Ottawa soils occur on the eastern portion of the site.

The Wayland silt loam is a deep, somewhat poorly to poorly drained soil found on the flood plain of streams. The soil is derived from silt and clay sediments washed down from the upland. Due to their location on the flood plain, Wayland loams are subject to frequent flooding and have a mottled appearance common in soils subjected to varying water levels.

Based on information contained in "Erie County Pennsylvania Soil Interpretations", 1972, the two soils types present on the proposed site have the following estimated properties. Ottawa loamy, fine sand: maximum dry density of 105-116 pounds per cubic foot at an optimum moisture content of 13-16%; low shrink/swell potential and low to moderate corrosion potential. Areas of concern include erodibility of grassed waterways and caving of trench sides.

The Wayland soil series represents a soil with more problems associated with it, primarily due to the high water table and flooding potential. The corrosion potential is high to moderate. In addition, the shrink/swell potential is moderate. To complete the profile, the Wayland silt has a maximum dry density of 105-115 pcf, with an optimum moisture content of 15-20%.

Shoreline Condition

Bluff erosion caused by lake action is generally most severe in areas with little or no beach or at a bluff with little or no vegetation to retain the soil. The bluff east of

Trout Run is recessed well away from the lake except in the northeast corner. A sea wall protects the toe of the slope in this area. In addition, the bluff is protected by well vegetated slopes.

The beach is 20 to 50 feet wide with the narrowest point coinciding with the seawall location. An 8-10 foot high mini-bluff backs the beach in the central and eastern portions of the shore. The narrower beach and a minimal vegetation cover makes this the most erosion susceptible location within the site. Trout Run currently turns east approximately parallel to the shoreline and in high flow conditions may contribute to shoreline erosion. The northwest corner of the site is designated, by the Fairview Township Flood Insurance Study, as Zone B - 500 year storm flooded area.

Finally, the site is at the western terminus of a groin field approximately ¼ mile long. The groins average approximately 100 feet long with stabilized beach depths of 60 - 90 feet.

IV. SITE DEVELOPMENT

Level of Service

The development/experience level serving as the guide for the proposed Trout Run Access Area is secondary modern. This classification system, based on criteria developed by the Forest Service of the U.S. Department of Agriculture, encompasses user expectations and environmental modifications acceptable to these expectations.

The secondary modern classification level includes, as experience norms: a change of routine or surroundings, apparent opportunities for socializing, and provisions for convenience and comfort. The environmental modifications acceptable to this class of user include the following: The site heavily modified but natural; some facilities designed strictly for convenience and comfort; roads and trials artificially surfaced; and some programming services provided.

Proposed Facilities (Plate 4)

Traffic Control

The present access route, Avonia Road, is 20 feet wide with a 30 foot wide turnaround at the north end. The parking available is limited to on-street parking along Avonia Road. During the seasonal salmon runs, traffic assumes the role of a major irritant at best and a safety hazard at worst.

To help alleviate this situation, the majority of the site will be utilized for parking and access. The existing pond, which has turned septic will be filled to provide additional

parking area. The entrance to the parking lot will be via a 16 foot wide, 1-lane access road meeting Avonia Road near the location of the existing driveway. North of the entrance road, Avonia Road will be one-way south-bound throughout most of the year. With the traffic flow pattern envisioned, the parking lot will function as a large loop turnaround. During the off season, a cul-de-sac turnaround can be formed from a portion of the new parking lot and the north end of Avonia Road. This will enable maintenance costs to be reduced during periods of minimal usage. 106 spaces are planned with 10 foot wide parking stalls being utilized in order to facilitate the loading and unloading of fishing tackle and picnic supplies. The elimination of on-street parking and control of the traffic flow should alleviate the most pressing problem at the site.

Sanitation Facilities

The lack of sanitation facilities is the next problem addressed. The need for restrooms is met by remodeling the existing house to contain restrooms and bathhouse facilities. The increase in user load will make the existing sewage disposal system inadequate and Health Department approval for an expanded on-site system is questionable, therefore, alternates have to be considered. Two approaches are presented here.

A lift station could be provided to pump the sewage to a leach field location at the top of the bluff suitable for sewage disposal. The leach field could be eliminated in the event municipal sewers are provided. This approach involves the lease or purchase of ground for the leach field and easements for the pipe run. Although costly, the suggested method

is similar to that utilized by the Flower Marina located adjacent to the proposed access site.

The second alternate is the provision of sewage holding tanks on-site. This approach has a lower construction cost but requires regular servicing by a contractor to remove the accumulated wastes. The cost estimate presented later in this report is based on the lift station approach.

Recreation Facilities

The presence of a large, well located building on the site serves to make other uses; which may not have been cost justifiable if a building had to be constructed, feasible. Used in conjunction with the swimming beach, the building could serve as a beach concessions center providing food, lockers, chairs, umbrellas, balls and sundry paraphernalia.

Alternately, a restaurant or bait/tackle shop could occupy all or part of the facility. The restaurant, in particular, could utilize the large porches for very pleasant open air seating in fair weather.

Finally, indoor recreation encompassing a wide range of active and passive activities including: arts and crafts, billiards and board games, as well as, activities considered more educationally oriented, such as: lectures, concerts, museums and nature centers could be housed in the remodeled structure. The main building on the property was once a gun club and has the large rooms and facilities needed by groups. A well-planned recreation program could include many, if not all, of the previously mentioned activities.

The areas south of the parking lot and east of the main building are designated as picnic areas. Immediately north of the house is the location of a tot-lot. The activity mix in the tot-lot include swings, see-saws and slide. The large garage in the south central section of the site will be remodeled and used as a picnic pavilion.

Shoreline Alterations

On the west side of the site, Trout Run is to be channeled to a width of 50 feet between the jetty of the Flower Marina on the west and a new jetty on the east. A bulkhead runs eastward from the northern extremity of the new jetty. The bulkhead will provide fishermen with additional room in which to pursue their sport. The Pennsylvania Fish Commission has responded favorably to this development.

In addition to protecting the shoreline from damage due to heavy stream flows, the jetty and fishing pier provide a sheltered area that will be filled with sand and used as additional swimming beach. Some scouring of the filled beach can be expected. The eroded material is to be recaptured by a groin located in the northeast corner of the site thus further increasing the beach area.

The cost estimate for the construction of the filled beach is based on the importation of the required material, however, material from the Flower Marina's on-going dredging operations, currently discharged offshore near the center of the proposed site, could be used for the fill along with the material removed

from the Trout Run channel as part of the necessary stream maintenance. The existing sluice pipe now used for the marina dredging operations would be covered by the proposed fill (beach) area. The existing dredge discharge location will require relocation out of the swimming area to perhaps east of the proposed groin. The dredged material from the marina could be used to replenish eroded material.

Boat Facilities and Miscellaneous Support Services

Preliminary plans included a boat ramp and boat docking facility, located in the area of the proposed new beach. The investigation of the suitability of the site for a boat ramp and a boat docking facility found that this type of development is not feasible. The site is not sheltered and would require extensive protective works, while the history of the marina adjacent to the site indicates substantial maintenance is required on a continuing basis. Consideration was also given to the effect of competition that a new public facility would have on the existing private enterprise. At the current time, Walnut Creek has boater related services as will the proposed development of the Elk Creek Access Area. Finally, the provision of boater services would exacerbate the traffic and parking problems already very much in evidence. While parking is to be provided, the large areas required for auto/boat trailer combinations would rapidly reduce the spaces that could be provided at the site, especially in light of the desirability of maintaining the multi-use recreational center approach.

Miscellaneous support services required include storm drainage, a lift station to transfer the sanitary waste to sewers or septic systems on top of the bluff, walkways and landscaping.

V. DEVELOPMENT PLAN IMPLEMENTATION

Development Criteria

The envisioned development will be expensive and realistically, funding will not be available to pursue the entire project at one time. With this in mind, the project must be broken down into more manageable portions spread over a reasonable time period.

The phased approach to plan implementation requires prioritizing the development objectives in order to provide the optimum utilization of the facility throughout the extended construction time frame. The main criteria used to rank the development priorities is how the activity or facility impacts the problems of access, sanitation and lastly recreation.

Each phase has been assigned a 1-5 year time span with the estimated costs of the proposed improvement considered in the final assignment of the included activities.

The phased development plan presented below (Plate 5) is only a guide to aid in the planning process. Time frames are suggested and could be shortened or extended based on the availability of funds; while specific activities may be re-arranged to suit an altered priority evaluation based on changing population or use patterns.

Phase I

Phase I includes the most crucial activity: site acquisition. In addition, the most pressing site problem, traffic congestion, is addressed by the construction of a large portion of the parking lot along with a temporary entrance road and the exit road. Temporary restrooms are provided during this phase immediately north of the parking lot.

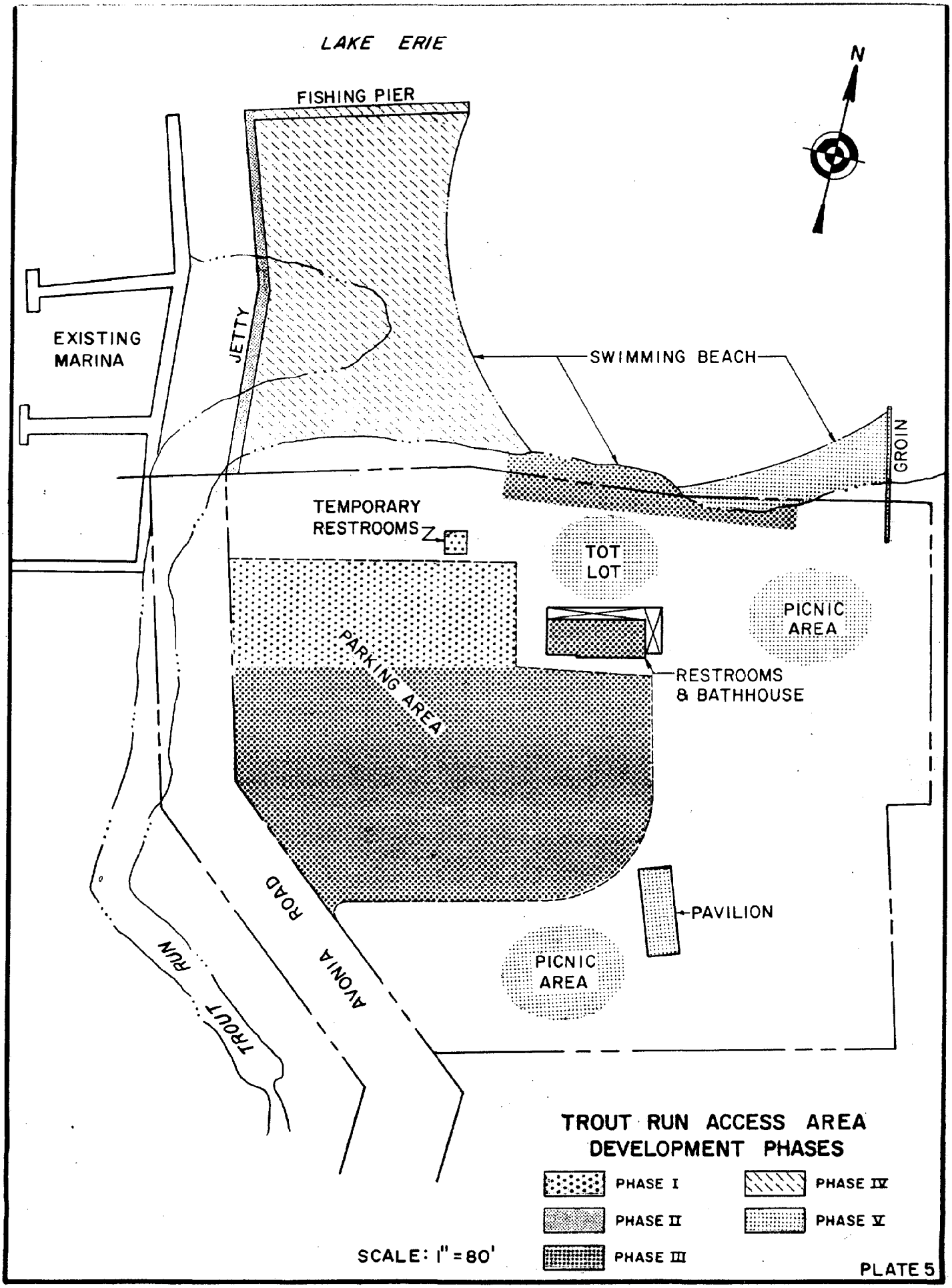
The majority of the site remains unaffected by the Phase I development. With this in mind, the Township could utilize the interval between the purchase and the recreational development of the site by leasing the main building and the related section of the property. Funds secured in this manner could be used to offset the acquisition costs and provide the seed money for further development.

The time frame proposed for Phase I is 1-3 years.

Phase II

The only activity in Phase II is construction of the proposed Trout Run channeling jetty. With Fish Commission approval, this structure will provide additional fishing area. The jetty also forms the necessary first step for later development. A sidewalk will provide handicap access to the jetty.

Years 4 and 5 are set aside for the jetty construction. Prior to any construction affecting the Lake Erie shoreline, permits from the U.S. Army Corps of Engineers, the Pennsylvania


LAKE ERIE
N
FISHING PIER
EXISTING MARINA
JETTY
SWIMMING BEACH
GROIN
TEMPORARY RESTROOMS
TOT LOT
PICNIC AREA
PARKING AREA
RESTROOMS & BATHHOUSE
PAVILION
PICNIC AREA
AVONIA ROAD
TROUT RUN
TROUT RUN ACCESS AREA
DEVELOPMENT PHASES
PHASE I
PHASE II
PHASE III
PHASE IV
PHASE V
SCALE: 1" = 80'
PLATE 5

Department of Environmental Resources and the Pennsylvania Fish Commission will be required. Permits from other regulatory agencies may also be necessary.

Phase III

Year 6 marks the end of the lease period for the main building. Permanent restrooms and bathhouse facilities are to be located in this building after remodeling. Sewage disposal associated with this facility will be a costly item with a lift station providing a connection with a top of bluff leach field or municipal sewer system required. A financial agreement, lease etc., will be needed to obtain property in the event a leach field is required. Easements may also be required dependent upon the sewer routing necessary to reach the disposal point.

Phase III improvements also include the completion of the parking lot and access road, as well as the swimming beach. The site will also be available for picnic use although tables and other amenities will not be provided until Phase IV.

Phase III is scheduled for years 6-8.

Phase IV

The fishing pier parallel to the shore at the end of the jetty is listed for this phase. The beach fill with expanded swimming opportunities is also included.

Phase IV implementation takes place in years 9-11.

Phase V

The final phase, years 12-13, encompasses the groin on the eastern end of the site, tot-lot and picnic facilities including the large garage remodeled to serve as a pavilion. The Township may be held liable for any erosion damage caused by the construction of the groin and should be prepared to replenish the eroded area as required.

Phased Development Summary

Phase I - Site Acquisition of parking lot, temporary restroom facilities and storm drainage.

Phase II - Jetty channeling Trout Run.

Phase III - Permanent restrooms, bathhouse, indoor recreation, sewage disposal system, remainder of parking lot and access road and swimming beach.

Phase IV - Fishing pier, filled beach with expanded swimming facilities.

Phase V - Groin, tot-lot, pavilion and picnic facilities.

Funding

At the present time, the Township can look to four funding sources for aid in financing the acquisition and development of the Trout Run Access Area.

First, the Department of Community Affairs provides grants on a 50/50 basis through the Recreational Improvement and Rehabilitation Act Program (RIRA). As the name of the program implies, recreation projects will be considered for funding. Monies provided by grants can be earmarked for property acquisition as well as development for areas designated for public recreational facilities including fishing and swimming.

Secondly, the National Park Service of the U.S. Department of the Interior provides funds for local government sponsored recreation and park projects through a program called the Federal Land and Water Conservation Fund (LWCF). This program, administered by the Pennsylvania Department of Community Affairs, will also fund acquisition as well as development of public parks and recreational facilities. Related professional fees

for the design, engineering and construction supervision are also eligible costs. LWCF reimbursement is limited to a maximum of 50 percent of eligible costs or the approved grant amount, whichever is less.

The third source of funding is the Coastal Zone Management (CZM) Program. This study, as previously noted in the introduction is being funded with CZM funds. The program is Federally funded through the U.S. Department of Commerce's National Oceanic and Atmospheric Adminstration (NOAA). Pennsylvania funds are dispersed by the Department of Environmental Resources, Division of Coastal Zone Management. Previously, non-construction-type projects which involve planning, feasibility studies, site planning design, etc. have been the only eligible projects. Recently, however, construction and acquisition activities are now being considered. Projects involving recreational access facilities and shoreline protection facilities are cited as eligible for funding. At present, up to 80% of approved project construction costs can be funded by the CZM 306A program.

Finally, an access area with the emphasis on sport fishing related problems may be considered for funding by the Pennsylvania Fish Commission.

All sources of funding will require matching funds from other agencies and/or Fairview Township.

Maintenance and Operation

Acquisition and construction of a recreational facility are major one-time expenses; support services, however, require an annual expenditure. Support services for a recreational facility are made up of maintenance, operational services, programming and health and safety services.

Maintenance is the continuing process of providing a clean and usable facility. Grass cutting and related landscaping, restroom cleaning and supply replenishment, apparatus repair, trash removal and snow clearing are all activities included under maintenance services.

Operation covers the necessary record keeping activities, as well as, the pumps and power systems necessary for the functioning of the park.

Programming is the phase of park operation responsible for special events, competitions, organization, scheduling and instruction.

Finally, security forces, medical services and lifeguards come under the heading of health and safety services.

The services provided by the park generally run between 2 and 3% of the development cost. Based on this "rule of thumb" the following annual costs are associated with providing support services for the proposed Trout Run Access Area.

Phase I	$ 1,040 - 1,560
Phase II	$ 2,730 - 4,100
Phase III	$ 3,325 - 5,000
Phase IV	$ 1,870 - 2,800
Phase V	$ 3,985 - 5,980
	$12,950 -19,440

The costs listed above are basically maintenance related items. Provision for program staff, lifeguards, etc., will be extra. The noted support staff is required initially in Phase III upon the opening of the beach and the remodeling of the main building for indoor recreation.

Based on a swimming season of 100 days and an 8 hour day, the cost of a lifeguard would be $6,000. Programming services for the same time period would run $12,000 - $15,000. The programming staff costs may be less if volunteers are available.

Phase IV requires 2 additional lifeguards at a cost of $12,000.

The final annual maintenance cost is in the range of $42,964-$52,440.

Phased Cost Estimate Summary

Phase I	$ 52,050.00
Phase II	136,600.00
Phase III	166,100.00
Phase IV	93,500.00
Phase V	199,270.00
Total Project	$ 647,520.00*

The cost estimates are based on concepts and preliminary data with no provision for contingency. For planning purposes 15% to 20% may be added to the figures. The cost reflects 1985 prices for the estimated quantities.

The more detailed cost breakdowns are contained in the following pages.

*Figure does not include site acquisition or maintenance costs.

Phase I - Cost Estimates

Site Acquisition	Appraised Value
Site Facilities	
Gravel Parking Area (55 spaces)	$ 25,500.00
Temporary Restrooms (2)	11,200.00
Landscaping	1,500.00
Storm Drainage	5,800.00
Entrance Sign	500.00
Park Apparatus	
Litter Containers (4 each)	800.00
Total Site Improvements	$ 44,500.00
Eng.	5,300.00
Legal	1,500.00
Audit	750.00
Total Phase I	$ 52,050.00
	Plus Site Acquisition Costs

Phase II - Cost Estimates

Site Facilities		
Jetty		$ 120,000.00
Sidewalk		600.00
	Total Site Improvements	$ 120,600.00
	Eng.	14,500.00
	Legal	750.00
	Audit	750.00
	Total Phase II	$ 136,600.00

Phase III - Cost Estimates

Site Facilities	
Main Building Remodeling	$ 30,000.00
Sewage Disposal System	80,000.00
Parking Area (51 spaces)	27,600.00
Sidewalk	1,000.00
Landscaping	1,000.00
Park Apparatus	
Litter Containers (6 each)	1,200.00
Indoor Recreation Equipment	5,000.00
Guard Chair (1)	450.00
Total Site Improvements	$ 146,250.00
Eng.	17,600.00
Legal	1,500.00
Audit	750.00
Total Phase III	$ 166,100.00

Phase IV - Cost Estimates

Site Facilities	
Fishing Pier	$ 59,600.00
Filled Beach	10,800.00
Landscaping	10,000.00
Park Apparatus	
Guard Chair (2)	900.00
Litter Containers (4)	800.00
Total Site Improvements	$ 82,100.00
Eng.	9,900.00
Legal	750.00
Audit	750.00
Total Phase IV	$ 93,500.00

Phase V - Cost Estimates

Site Facilities	
Groin	$ 12,000.00
Paved Parking Area	134,520.00
Pavilion (Remodeled Garage)	2,500.00
Water Outlets (Pavilion, Picnic sites) (3)	8,500.00
Landscaping	500.00
Play Apparatus	
Swings (set of 4)	825.00
See-Saw (set of 4)	775.00
Slide	1,275.00
Bike Rack	275.00
Grills (6 each)	5,400.00
Litter Containers (10 each)	2,000.00
Picnic Tables (20 each)	8,000.00
Total Site Improvements	$ 176,570.00
Eng.	21,200.00
Legal	750.00
Audit	750.00
Total Phase V	$ 199,270.00

V. ALTERNATE DEVELOPMENT PLAN

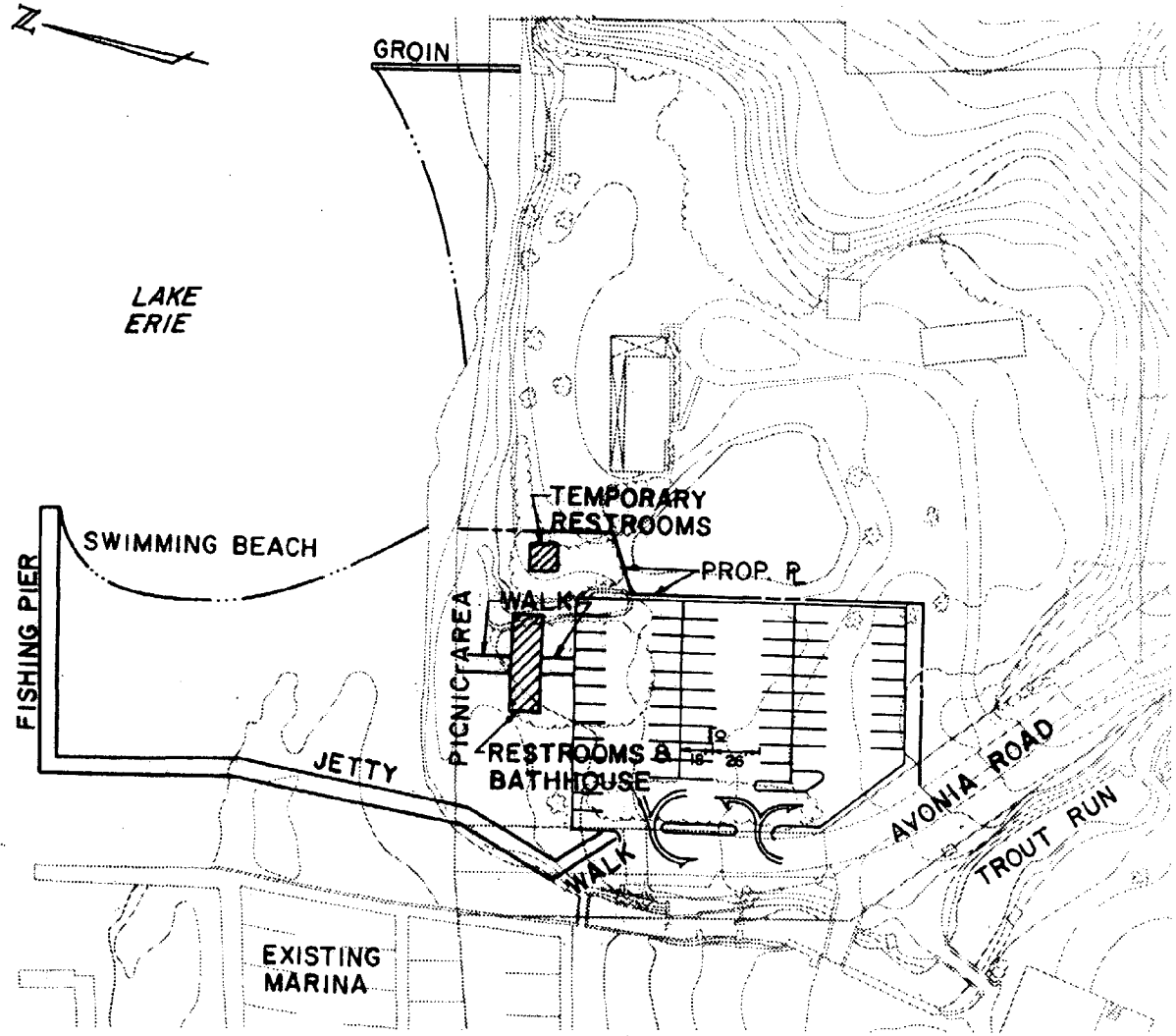
The foregoing discussion has been presented based on the assumption that the whole 3.1 acre parcel can be procured. As this cannot be assured and the need for improvement still exists, an alternate plan is hereafter presented which requires the acquisition of only the western third of the Brugger property.

Proposed Facilities

The reduced site consists of the western third of the Brugger property from Avonia Road to the pond and from the existing driveway north to the lake (Plate 6).

The basic activity and facility mix developed earlier in this report will remain although reduced in scale. The parking lot's circulation pattern is changed by placing the lot entrance just south of the existing 30 foot wide turn-around. The capacity of the lot is reduced to 58 vehicles.

The most significant casualty in the alternate plan is the indoor recreation which was to be housed in the main building. In addition, the pavilion and tot-lot are lost to the smaller site. The loss of the main building dictates the construction of a building to house restrooms, bathhouses and a concession stand. The new building is sited just north of the parking lot with the area surrounding the restroom facilities to be utilized as a picnic ground.



SCALE: 1" = 100'

*See Plate 4 for Details of Groin, Jetty & Fishing Pier.

PROPOSED FACILITIES ALTERNATE PLAN

TROUT RUN ACCESS AREA

PLATE 6

The streams and shoreline improvements will remain with the groin on the eastern end of the Brugger property constructed in an easement developed for the purpose. The site size reduction also decreases the swimming beach to the zone provided by the filled beach enclosed by the fishing pier and Trout Run jetty.

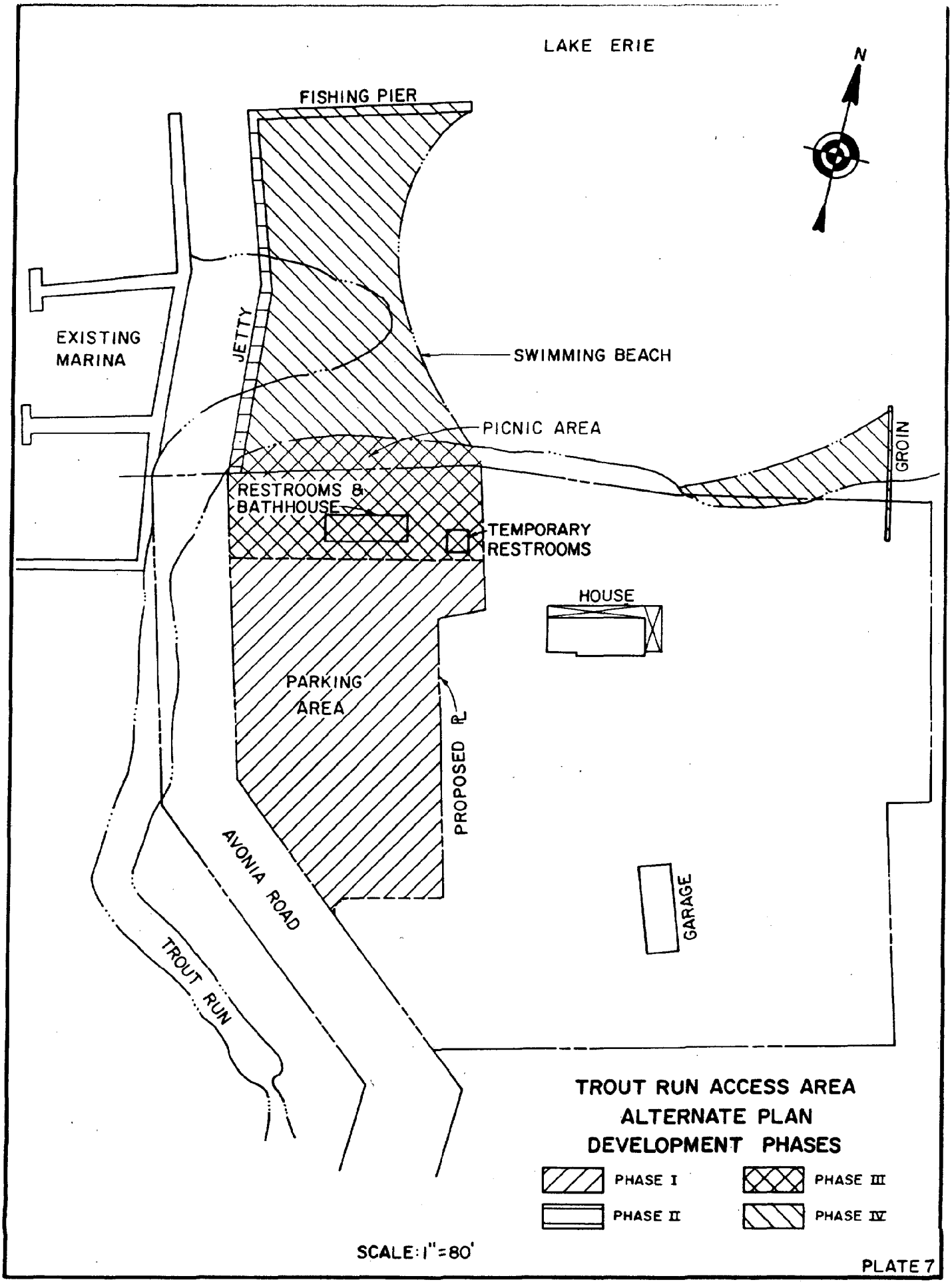
Finally, to assure privacy for the owner of the bulk of the original site, a six foot high chain link fence with appropriate screening foliage will be provided along the south and east sides of the new recreational facility.

Development Phasing (Plate 7)

Phase I consists of site acquisition, the parking lot, fence and screening and the temporary restroom facilities. The lower acquisition costs should enable the parking lot to be paved early in the plan implementation rather than towards the end as envisioned in the primary development plan. The time frame for this phase is 1-3 years.

Phase II remains unchanged with the jetty the only activity scheduled in years 4 and 5.

Phase III provides permanent restroom and bathhouse facilities. Spaces will provide for a concession stand although the provision of this service will be delayed until the filled beach is constructed in the next phase. The picnic area is included at this time. The sewage disposal system is the most expensive item included in years 6-8.


LAKE ERIE
N
FISHING PIER
EXISTING MARINA
JETTY
SWIMMING BEACH
PICNIC AREA
GROIN
RESTROOMS & BATHHOUSE
TEMPORARY RESTROOMS
HOUSE
PARKING AREA
PROPOSED ℄
AVONIA ROAD
TROUT RUN
GARAGE
TROUT RUN ACCESS AREA
ALTERNATE PLAN
DEVELOPMENT PHASES
PHASE I
PHASE II
PHASE III
PHASE IV
SCALE: 1"=80'
PLATE 7

Phase IV, the final phase, includes the fishing pier, filled beach and groin. The swimming facilities will be available with the construction of the beach and the concession stand can open for business. Years 9-11 are covered by Phase IV.

Maintenance and Operation

The scaled down recreation area has a corresponding reduction in operation and maintenance cost associated with it. The major cost savings occur in the area of programming staff. The smaller beach reduces the number of life guards while the elimination of indoor recreation eliminates the program staff required in that area.

Fixed costs will be somewhat lower, reflecting the decrease in development cost and size. The breakdown is as follows:

Phase I	$ 2,800 -$ 4,200
Phase II	2,730 - 4,100
Phase III	2,940 - 4,400
Phase IV	2,150 - 3,225
	$10,620 -$15,925

Phase IV has the additional cost of $12,000 for a pair of life guards.

ALTERNATE PLAN PHASE I - Cost Estimates

Site Acquisition	Appraised Value
Site Facilities	
Paved Parking Area (58 Spaces)	70,170.00
Temporary Restrooms (2)	11,200.00
Landscaping	3,000.00
Fence (320 L.F.)	4,800.00
Storm Drainage	5,800.00
Entrance Sign	500.00
Park Apparatus	
Litter Containers (4 each)	800.00
Total Site Improvements	$ 96,270.00
Eng.	11,550.00
Legal	1,500.00
Audit	750.00
Total Phase I	$110,070.00
	Plus Site Acquisition Costs

ALTERNATE PLAN PHASE II - Cost Estimates

Site Facilities		
Jetty		$ 120,000.00
Sidewalk		600.00
	Total Site Improvements	$ 120,600.00
	Eng.	14,500.00
	Legal	750.00
	Audit	750.00
	Total Phase II	$ 136,600.00

ALTERNATE PLAN PHASE III - Cost Estimates

Site Facilities	
Restroom/Bathhouse Building	$ 45,000.00
Sewage Disposal System	80,000.00
Landscaping	1,000.00
Park Apparatus	
Litter Containers (4 each)	800.00
Picnic Tables (6 each)	2,400.00
Total Site Improvements	$129,200.00
Eng.	15,500.00
Legal	1,500.00
Audit	750.00
Total Phase III	$146,950.00

ALTERNATE PLAN PHASE IV - Cost Estimates

Site Facilities	
Fishing Pier	$ 59,600.00
Groin	12,000.00
Filled Beach	10,800.00
Landscaping	10,000.00
Park Apparatus	
Guard Chair (2)	900.00
Litter Containers (4 each)	800.00
Total Site Improvements	$ 94,100.00
Eng.	11,300.00
Legal	1,000.00
Audit	750.00
Total Phase IV	$107,150.00

VII. PROJECT IMPLEMENTATION

Crucial to the success of this project is the acquisition of the private property east of Avonia Road. At the present time, the existing owner is not willing to relinquish the property in total or in part. Eminent Domain proceedings would thus be required to acquire the development land. It has been determined that Fairview Township does not have these poweres for recreational facilities. It may be necessary to seek assistance from other agencies (e.g. the Pennsylvania Fish Commission) who have these powers in order for the project to be accomplished.

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