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MASTER PLAN TEXT
RIVERVIEW BEACH PARK

TOWNSHIP OF PENNSVILLE, NEW JERSEY

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INTRODUCTION

The Master Plan for the Riverview Beach Park Site in the Township of Pennsville, NJ is intended as a document which defines the following:

1. A comprehensive plan for the long term development of recreation features and facilities which will:

a. Satisfy immediate local needs for active, passive and cultural recreation forms.

b. Provide opportunities for regional recreational forms where they are consistent with and appropriate to local participation interest.

c. Anticipate future growth of recreation demands, both local and regional.

d. Ensure a balance of facilities and opportunities appropriate to citizens occupying any portion of the age spectrum.

2. A system for applying physical structures to the land in a manner which will:

a. Preserve significant natural features, vistas and systems.

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- b. Minimize adverse environmental impacts to land and water systems, air and water quality, the quality of life in adjacent neighborhoods.
- c. Permit economy of program maintenance and operation.
- d. Enhance access to and the quality of natural and man-made recreation forms.
- e. Maximize the opportunity to utilize existing and proposed features for the largest possible portion of the accessible public.
- f. Provide consistent extension of public health and safety features.

3. A development sequence priority which:

- a. Permits logical arrangement of construction phases without duplication or overlap.
- b. Provides necessary program support prior to expenditures for facility development.
- c. Maximize the application of all forms of public funding opportunities as available and appropriate to planning and construction expenditures.

Technique anticipated to be applied to achieve the preceding outline goals are presented in ensuing text and pictorially described on the accompanying plan.

LISTING OF RECREATIONAL OPPORTUNITIES/FACILITIES

The following tabulation represents the total of development forms indicated on the plan. It is useful to understand that only a portion of these will likely be included in planning for the first development stages.

It is intended that all indicated facilities will be ultimately developed except as precluded by changing recreation trends or lack of economic feasibility.

Tabulation/Description:

1. Athletic Fields

- 2 softball diamonds with backstops
- 2 Multi-purpose football/soccer fields
- 1 Free play space - lawn pick up games

2. Courts

- 2 Tennis Courts
- 2 Handball courts with wall
- 2 Basketball Courts - multi-purpose paved roller hockey/line games pavement
- 2 Shuffleboard Courts

3. Play Areas

- 2 Tot lots with static equipment
- 2 Older childrens' play equipment areas

4. Other Active Use Areas

- 9 hole par 3 golf course
- paved lane for jogging, bicycling, walking
- Vita course

5. Water Based Activities

- a. Boating - launching ramp (Delaware River), boat dock (on site lake)
- b. Fishing - along bulkhead (proposed 1750[±] l.f.) proposed 500'[±] pier - Lake shore
- c. Ice Skating - on site lake
- d. Swimming - none proposed

6. Passive Uses

- a. Family picnic sites - tables, benches, grills, horseshoe pitches
- b. Group picnicking - same
- c. Lawn Picnicking, sunbathing
- d. Sitting areas with benches, game tables, sunshelters
- e. Park benches

7. Cultural Uses

- a. Bandstand and small concert seating pavement

- b. Display graden
- c. Historical Display feature
- d. Bandshell/concert - stage/amphitheatre

The preceding tabulation describes only the type of proposed recreation facilities anticipated under this plan. The accompanying Cost Estimate and Plan Concept provide more specific information concerning size and quantities of these.

Land Use Plan - see accompanying Preliminary Master Plan Concept.

LANDSCAPE RECOMMENDATIONS

Extensive landscaping alterations are proposed as a part of this plan. The most significant items include the following:

1. Extensive surface regrading particularly of athletic field areas. These operations are proposed to resolve existing local drainage problems which affect field utilization. Generally, grading operations will create uniform surfaces which direct storm surface run-off in broad lawn swales toward the existing pond site. Existing ditches will be eliminated.
2. Construction of earth fills to elevate activity areas. Spoil material from expansion of the existing lake shore will be utilized to elevate proposed facilities at the rear of the bulkhead to a level (elevation 10[±]) where vistas across the water will be unobstructed by topographical features. Similarly, proposed buildings will be elevated to a level above the 100 year flood (elevation 10).
3. Extensive preparation of finished field surfaces as required to support continuous, vigorous grass stands and permanently stabilize existing base soil surfaces.
4. Extensive plantings of deciduous and coniferous trees, shrubs and ground covers to accomplish the following:
 - a. Provide visual screening of portions of the site from off site areas.
 - b. Provide visual separation of interior functions.
 - c. Increase availability of shaded locations particularly in association with picnic areas and passive use facilities.

d. Improve the aesthetic character of the site by reducing the generally stark open appearance and increasing the plant type diversity.

e. Increase habitat diversity for the few existing fauna groups - birds, squirrels, rabbits.

TRANSPORTATION - PARKING AND ACCESS PLAN

The proposed access plan relies exclusively on existing road systems for vehicle access. Route 49 is the principal vehicle link between Salem, Bridgeton and points east, to the New Jersey Turnpike, Delaware Memorial Bridge and Interstate Route 295. As such it provides direct access to substantial regional populations.

Three vehicle accessways to the site interior are proposed. One at the existing park entrance from North Boardway (Route 49) and two from West Pittsfield Street. The main vehicle access from North Boardway provides access to parking directly servicing the athletic fields and court sports areas. This is intended to serve primary local need for conventional day use facility parking. The second access from West Pittsfield provides access to the Park Control Center located in the existing Park and Recreation Department building as well as the proposed Maintenance Center Building. The third vehicle access is located at the end of West Pittsfield Street and is the intended primary access to the riverfront. This access is intended to serve the majority of access for local and regional visitors intent on boat launching, fishing or other waterfront activities.

Access for other transportation forms offers greater numbers of entry points and is designed in anticipation of local traffic. A total of five entry ways are provided to accommodate bicycle and pedestrian access to the site, two of these occur on North Boardway, two from West Pittsfield and one from River Drive at the northern corner of the site.

Though traffic volumes through Pennsville are moderate even on primary roads, hazardous conditions particularly for pedestrians are reduced by existence of concrete walks fronting the entire site. Light traffic on secondary roads of the Township, particularly West Pittsfield and River Drive present a very reasonable approach route for visitors on foot or bike.

Proposed parking development on the site is intended to provide two principal functions. The first is the provision of sufficient parking in paved lots to accommodate the normal load applied by local site visitors. Typically, this demand is generated by citizens of Pennsville and nearby communities in attendance at baseball, football and soccer practices and

competitions as well as court sports and other proposed activities. The Pennsville Recreation Department has developed extremely viable recreation programs which generate very substantial local attendance even for routine practices. It is anticipated and shown on the plan that a total of 140 paved spaces will be necessary to satisfy existing demands. In addition, overflow capacity is indicated to provide space for occasional events with larger attendance.

The second principle function is accommodation of the space requirements for parking in support of the proposed waterfront activities. This facility considered in total will primarily serve regional demands. The development plan anticipates construction of spaces for 20 boat trailers and a total of 70 passenger vehicles. It is likely that the passenger vehicle parking would be increased gradually as overall development at the riverfront continues. Also, all 20 boat trailer spaces are anticipated to be constructed as a minimum simultaneously with the construction of the proposed boat ramps.

Interior site circulation is intended to preclude all but the necessary minimum of maintenance, service and occasional emergency vehicle traffic. At the same time, it is intended to maximize interior circulation for bicycles, joggers and pedestrians. The principal element supporting this utilization is the proposed 8' wide bituminous concrete lane which is a peripheral and interior loop of approximately 7580 linear feet. This system will provide uniform, barrier-free access to all areas and facilities proposed on site as well as providing the central support for the increasingly popular recreation forms of jogging and bicycling.

TEXT DESCRIPTION OF DRAFT MASTER PLAN

The Master Plan for the development of Riverview Beach Park attempts to implement the goals described in the Introduction to this draft report.

As a central approach method, it addresses in order of developmental priority, first the immediate and long term needs of the citizens of Pennsville and secondly the regional demands for access to quality vacation opportunities.

In order to properly present a logical proposal, the existing conditions of the site should be considered in the context of their ability to satisfy recreative demands.

The existing site may be generally dissected into four broad functional categories. They are as follows:

1. Existing athletic field and court sport facilities - these are represented by an existing rudimentary baseball and football field, two deficient recreation class tennis courts, basketball courts, a small play equipment area and minimal

accessory support systems, parking, comfort station.

2. A somewhat diverse system of individual or small group recreation activities represented by a pleasant shaded area with picnic tables and an effective Gazebo and a network of earth surfaced paths available for jogging, walking or bicycling and enhanced by a Vita course.

3. The "20 acre lake" and Delaware Riverfront which are very imposing natural features and unembellished by any substantial accessory improvement or distinct directed activity.

4. An existing service and support system comprised by the Park and Recreation Department building and its maintenance and control functions.

Utilization

Overall the site sustains very light utilization except during a large annual "Septemberfest" which draws large crowds and periodic ball games and practices. The principal routine utilization is for jogging and walking which occur at low levels all year. Other day-use activities generate varying levels of local attendance. These are tennis and basketball courts, a Gazebo, a small play lot and a quantity of picnic sites.

Physical Conditions

The existing condition of much of the site suffers from a number of problems.

1. Waterfront - access and utilization to the waterfront is restricted by lack of facilities and by physical deterioration of the bulkhead and surrounding lawn and earth areas.

2. Lakefront - The entire shore and surrounding land area proximal to the "20 acre lake" have been subject to various dredging and filling operations in the past. The lake shore as it exists offers little in the way of useful spaces for any activity and will benefit by stabilization of earth surfaces with good grass stands.

3. Land areas - Those areas not occupied by courts, parking lots or other land facilities are predominately variously poor grass areas. There are considerable areas of bare earth, local drainage problems, ditches and weed infested land. As this condition exists over much of the land surface, 30-40 acres, it does little to satisfy the functional or aesthetic condition of the site. A number of large trees exist on the site and provide some local shade. No significant natural or planted shrubs occur. Access to any shade in combination with use areas is functionally non-existent except near the Gazebo and nearby picnic sites.

PLAN PROPOSALS

The essence of the Master Development Plan is the description of facilities that satisfy the needs for active and passive recreation uses, aesthetics, service and maintenance. The following proposals have been developed through meetings with the Recreation Committee, Town Council and General Public of Pennsville. They have been amended based on comments and observations received from these groups and from a representative of Green Acres.

To clearly understand the following text description of facilities, it is useful to follow each on the accompanying Master Development Plan.

The Master Plan for Riverview Beach Park anticipates the following:

I. Active Recreation Uses

A. Athletic Fields:

Initial development stages will include the development of a multi purpose athletic field area. Located in the eastern corner of the site, this facility will occupy existing open lawn areas and will be comprised of two softball fields overlaid in the outfield areas with football/soccer fields.

The softball fields will support present and anticipated local demands for youth and adult softball as well as unstructured use by occasional site visitors.

Proposed infields are "skinned" clay mix types with backstop cages, protective fencing and limited spectator seating.

The football/soccer fields are lawn areas large enough (200' X 380') to support other major field sports (lacrosse, field hockey, rugby) as well as the anticipated main functions.

Parking, drinking fountains and a comfort station facility are close enough to all fields for comfortable access.

The athletic fields are so situated on the site to separate the potentially noisy functions from passive areas of the site. Traffic to and from the field areas will not intersect or disrupt adjacent uses.

Substantial earthwork and earth stabilization with grass cover are essential to the development of these facilities. Grading of the entire area will be performed to create a surface system that directs surface run-off in sheet flow toward the existing lake, no storm drain construction is indicated.

Correction of soil conditions is proposed as necessary to provide a suitable environment for strong grass growth, this will likely be accomplished by heavy lining and introduction of soil conditioners (gypsum, organic matter).

An irrigation system suitable to maintain strong growth of grass stands will

be constructed simultaneously with field development.

Lighting of one softball/football field combination is anticipated as a means to increase access to recreation opportunities for working people. This will be recreation class lighting of approximately 25 footcandle levels at the infield and 20 footcandles at the outfield.

B. Court sports and paved area uses:

A diversity of paved use areas are proposed to accomodate the preferences of varying age and interest groups.

Existing paved spaces utilized for tennis and basketball courts will be converted to a large (120' X 230') pavement space to support roller skating activities and street hockey. (Note: Pennsville supports uncharacteristically high participation in roller skating uses as a result of a private facility once operational on this site which has been demolished. This demand is unmet elsewhere.) This pavement will also be utilized for line games (volleyball, badminton, tetherball, etc.) as well as a general sports instructional area for recreation programs. In addition, it will serve as a dry controllable surface used to set up events, booths or other attractions during the annual Septemberfest. Post sleeves will be utilized in the pavement to allow other uses (nets, goals) to be placed and easily removed.

Proximal to this area will be two basketball courts of full high school standard size. These will support routine utilization of this popular youth and young adult sport and will accomodate recreation department basketball programs.

The basketball courts and street hockey area are adjacent to the main parking area at the park entrance. This will allow ready access for these short duration activities. Benches and a drinking fountain will be supplied to support these uses and a comfort station is nearby.

Two tennis courts and two handball courts with a wall are proposed along the southwestern boundary of the site. These facilities will accommodate local demands for these youth and adult recreations as well as providing instructional opportunities for the recreation department. The tennis courts will be lighted to extend use into the evening. As a compliment to these courts will be the development of a sitting area, tot lot and childrens play equipment area. This combination will permit adults at play to be able to supervise accompanying children without disrupting either use. The sitting area will provide a small sun shelter, game tables and benches and drinking fountain on a paved space. A few picnic tables will be located near this area.

C. Water based activities

The Master Plan anticipates the creation of extensive recreation uses along the Delaware River shore and along the shore of Twenty Acre Lake.

Development along the river is contingent upon construction of a proposed bulkhead approximately 1800 feet long, this will stabilize and provide uniform access to the river shore. Bulkhead construction will be followed by the

development of a launching ramp and in the future by a stone pier.

Boating will be one of the primary recreation forms resultant from this development. An access system, ramp and parking area will accommodate launching of boats as large as 25 feet long. Additional boating is proposed on Twenty Acre Lake and will include non-motorized boats (canoes, rowboats, paddle boats). It is anticipated that these will be provided by the recreation department and seasonally moved against wooden docks constructed on the lake. Visitors with boats that can be carried will also have access to the lake.

Fishing opportunities will be greatly increased by the proposed bulkhead and pier. This combination will provide over 2000 ft. of accessible river edge for fishing or crabbing. Fishing opportunities will also be available from all shore points as well as the boat dock on Twenty Acre Lake. Proposed dredging and improvement of the lake shore and bottom will ultimately improve habitat and access for panfishing.

D. Bicycling, Walking, Jogging

An extensive system of paved and natural surfaced paths and lanes is proposed to support these popular recreation forms. An eight foot wide Bituminous concrete lane consisting of a peripheral loop with access points at adjoining streets and an interior connection network will support heavy bicycle and foot traffic volumes. At the same time it will provide efficient dry access to all site facilities and represents the main route for service operations.

A Vita Course presently exists in the park and will be adjusted to the proposed lane locations.

Additional paved areas occur along the bulkhead in the form of a 10' wide Bituminous concrete walkway, this will likely be used more heavily for strolling than for exercise.

Natural surfaced paths are proposed through the existing grove in the southern corner of the site and around the entire lake shore. These will be earth or wood chip surfaced and will be utilized for leisure walking as opposed to exercising.

E. Play Equipment Areas:

Two play equipment areas are proposed. One at the tennis court location and the other at the riverfront. Both consist of a tot lot and childrens play equipment area. These will be curbed resilient surfaced areas with static play equipment forms. Theme equipment and types which encourage imaginative play will be emphasized rather than conventional swings, see-saws and slides.

Incidental active uses of the site will include lawn games of any sort. Frisbee, croquet, volleyball, badminton and similar activities will be accommodated when proposed improvements to lawn surfaces are completed.

Track and field events practice spaces can be found in the vast grass areas of the athletic field development.

A large uncluttered lawn area is designated at the outer of the site and will sustain the above activities as well as any other form of free play.

II. Passive Recreation Uses/ Cultural Uses

A. Picnicking:

Picnic sites for family and group use constitutes the single largest passive use function proposed for this site. Family picnic sites characterized by a picnic table, grill and trash receptacle will be located primarily along the riverfront and the lake shore. Additional sites though few will be located near the park entrance in the existing grove of trees and near the tennis courts.

The bulk of picnic sites will be near parking areas and comfort stations while some will be more isolated particularly along the northern lake shore. Only half of the 100 proposed picnic sites will be provided with grills and these will be located near the river.

All picnic sites will have ready access to drinking water and will be near the paved lane to facilitate clean-up procedures.

Horseshoe pitches will be constructed at regular intervals through picnic areas to provide ample space for this popular game.

Picnic tables will be of durable construction and set on gravel pads to eliminate bare earth. A quantity of the tables will be constructed on Bituminous concrete pads to accommodate handicapped visitors.

Group picnicking will be available by reservation at a single large facility on the lake shore. This area will feature a shelter over a paved area and a large masonry barbecue. Capacity of the group picnic area will be 100-120 persons.

B. Gazebo Area

An existing frame and masonry gazebo will become the centerpiece for the development of a historical/cultural area. A paved space for concert seating is proposed for band concerts or small performances, awards etc.

The local women's club is expected to construct a decorative water fountain in this location.

In addition a historical display area featuring graphic displays of significant local history is proposed. This group of structures will be developed into the overall context of a display garden. Various ornamental trees and shrubs will be developed around the gazebo.

Benches, few game tables and picnic sites are proposed along the paths and under the canopies of trees in the existing grove here.

C. Sitting Areas:

Sitting areas characterized by the presence of game tables and benches in combination with shelter are proposed in two locations. The first is in combination with the tennis courts and associated play lots. The second is located at the Riverfront Activity Complex again in combination with childrens' play equipment areas but also providing two shuffleboard courts. These areas are intended to provide quiet, comfortable spaces for conversing or playing games while enjoying views across the river or other activity areas.

Typical park-type benches are proposed along the lane system throughout the park but particularly in areas with commanding views across the waterfront or over activity areas. In five locations along the bulkhead shelters will be built to cover the benches.

D. Riverfront Activity Complex:

The Master Plan anticipates future development of a cultural facility at the riverfront. This area will be constituted chiefly of a large paved space with electric utility support and ornamental plantings. The anticipated function of this area will be for the conduct of large events such as art shows, craft shows, workshops or group educational programs. The remainder of the time it will serve as a mall for instruction in arts and crafts or other recreation programs.

E. Bandshell and Amphitheatre:

The future development of a large scale presentation area for this site is expressed by the proposal for the bandshell and amphitheatre. This facility will consist of a stage area with modest shell and permanent seating outdoors for up to 500 persons. Additional seating for up to several thousand visitors will be accomplished on lawn areas of the free play space. A full complement of electric service will be included integrally with the stage area. Anticipated events include band performances, shows, commencements, plays, Septemberfest programs and other local or regional large presentations.

III Control Features

A. The Existing Park Center Building:

An existing converted residence is presently used to house offices and meeting areas for the operation of the Department of Parks and Recreation. This is located on N. Broadway at the south corner of the site. All programs and services will continue to be coordinated from this location.

B. Waterfront Control Center:

A control center is proposed at the location of the bulkhead and boatramp.

This facility will provide necessary monitoring of the waterfront. An attendant will organize launchings and landings at the ramp to prevent vehicle congestion.

The proposed structure will include Comfort Stations, equipment storage areas, a small snack bar and an office. Adjacent to the building will be a small outdoor terrace with benches and tables for an eating area and a table with water supply to be used as a fish cleaning station. A concession for fishing equipment as well as provision of food is being considered for this facility.

C. Maintenance Center:

A new structure is proposed on site to accommodate present and future maintenance requirements for the park. The facility will include three garage bays, a tool room, a work area, employee toilets and showers, an office area and bulk storage areas.

It is anticipated that all routine maintenance and repair services will be controlled at this facility. Interior spaces will be heated to provide year-round working convenience. An enclosed equipment storage and service yard will be proximal to this structure.

Access to the maintenance yard shall be from a secondary park entrance from West Pittsfield Street

IV Health and Convenience Facilities

A. Comfort Stations:

In addition to the existint Comfort Station on site, two other facilities are proposed in the Master Plan. The first is located in the Waterfront Control Center - the second at the Riverfront Activity Complex. Both facilities will be of masonry construction with low-flow fixtures and provisions for handicapped access. Vandal resistant fixtures with flush operators and recessed accessory equipment will be utilized. Comfort Stations will provide toilets, urinals, lavatories, mirrors and toilet partitions. Toilets will be in enclosed stalls with doors. Lighting will be by skylight or clerestory and no ground floor windows will be provided. All interior surfaces will be washable and floor drains will remove washing waste. Minimal heat will be provided to maintain year-round use.

B. Drinking Fountains:

Drinking fountains are necessary to the support of all recreation forms. As such they will be installed in picnic areas, at ballfield areas, near courts and at each building. All will be of frost-proof construction with service pits.

For all fountains in or near picnic areas, spring valve spigots will be included for cooking and clean-up water.

C. Waste Receptacles:

The normal conduct of summer season operations in this park will generate large quantities of refuse material. This is a current maintenance aspect and one that will increase dramatically. The utilization of trash receptacles, permanently placed, with covers and liners will relieve littering as much as is possible. All facilities will receive some trash receptacles but the bulk will be placed in the picnic areas. These will be located near the paved lane and will be routinely emptied and transferred to a large dumpster at the Maintenance Center.

V Utilities

A. Sanitary Sewer:

The proposed Comfort Stations will be tied into an existing trunk sanitary sewer which parallels the bulkhead for the entire length of the park.

B. Storm Sewers:

The utilization of storm sewers is not anticipated. Surface run-off will not be concentrated and will follow reshaped land contours in sheet flow to Twenty Acre Lake. This will allow maximum opportunity for percolation of rainfall and reduce the potential for erosion.

C. Potable Water:

Existing city water supply will be extended to service all Comfort Stations and drinking fountains. Fire hydrants will be included on this system at buildings.

D. Irrigation:

An extensive system of irrigation is proposed to maintain grass on athletic fields and for court cleaning. A system of quick coupling valves which can receive sprinkler or hydrant heads will be installed underground. The source for this system will be provided by the redevelopment of existing on-site wells and addition of pumping stations.

E. Electric Service:

The Master Plan anticipates the construction of athletic field lighting, tennis court lighting, perimeter path lighting and security lighting for all buildings. In addition, area lighting for bandshell/stage and riverfront activity areas is anticipated in future stages. All such lighting will be supplied underground with remote control panels. Field and court lights will be on semi-automatic clocks for on-off control and area lights will be controlled by photocell. The underground distribution system will be constructed in conduit to ensure ease of service and reduce potential for physical damage.

F. Telephone Service:

Telephone service will be extended to the Waterfront Control Center, Maintenance

Center and the central Comfort Station. These will be public phones likely of the pedestal type. Phones are proposed to offer the potential to respond quickly to emergencies as opposed to being for convenience.

VI Other Factors

A. Security and Access Control:

The Master Plan anticipates the construction of perimeter fencing as necessary to preclude pedestrian access through neighboring residential lots. Similarly, buffering with plant masses will be utilized to visually separate residential rear yards from park functions.

Vehicular access for park visitors will be restricted to three points. At other potential access points, gates or bollards will be used to restrict vehicle access to service and emergency vehicles or special events.

B. Future Developments:

Through many of the indicated Master Plan facilities will be constructed in progressive future stages, one large area of the site is presently designated as open space for undecided future use. This area is approximately 10 acres of land north and east of the Lake. The land surface here will require substantial reevaluation before it is useful for recreation uses.

Piping of an open storm drain ditch and land filling are expected to occur as budgets permit. This work will continue until the site can be stabilized. At present it is expected that this area will be used for landscaped open space for picnicking or development of a par 3 golf course.

Park Construction Phasing

Though the citizens and representatives of Pennsville anticipate the development of Master Plan features as rapidly as possible, it is believed that several development stages will be necessary to approach a completed facility.

The greatest restraint to completion will be access to funds. The approach adopted by the Town Council for funding of the proposed development is to seek the greatest possible assistance from appropriate State and Federal assistance programs.

Reviews of this project and subsequent applications for assistance will be solicited from the State of New Jersey Department of Environmental Protection, Division of Coastal Resources, N.J. D.E.P. Green Acres program and the U.S.D.A. Soil Conservation Service.

It is anticipated that construction on site will commence in 1981 and continue

sequentially with logical additions until a comprehensive facility base is completed.

Generally, construction projects will be phased as presented in the following table. It should be understood that such a scheme could be considerably accelerated or stopped by changes in funding agency policies.

Project Description	Establish Budget	Prepare Const.			
	Secure Funds	Drawings - Receive Bids	Begin Const.	Complete	Open
	Year in Quarters				
Bulkhead	81-1	81-2	81-3	82-1	82-1
Boat ramp & Parking Area	81-1	81-1 & 2	81-3	82-1	82-1
Athletic fields, courts, play areas, path system and parking areas. Waterfront Control Center picnic sites (partial) utility systems, landscaping	81-1 & 2	81-2&3	81-4	82-4	83-1
Riverfront Activity Complex Pier, Bandshell utilities landscaping, picnic sites	81-4	82-1&2	82-3	83-4	84-1
Gardens, historical displays, continue plantings, utilities, land stabilization	82-4	83-1&2	83-3	84-2	84-3
Landscaping & Site accessories	84-90	84-90	85	90	---
Development of site northeast of Lake	81-84 - work to proceed piecemeal unless critical area treatment can be attained under S.C.S.				

NOTE: Landscaping will be included in all construction phases but will likely take years of continuing improvement to reach a finished condition.

COST ESTIMATE

The following cost estimate has been prepared from the Master Plan based on unit prices received at public bid for similar work items. The resultant estimated quantities are to be useful for budgeting purposes. A precise cost estimate based on actual take-off of quantities of construction items as reflected in working drawings and specifications will be necessary prior to establishment of final construction budgets.

In addition, the estimate will be influenced by changes in size and scope of facilities and variation in proposed construction techniques.

Unit prices in the estimate assume construction during the 1981 construction year and should be increased at a current annual rate of 12% per year for budget adjustments.

MASTER PLAN COST ESTIMATE

RIVERVIEW BEACH PARK

PENNSVILLE TOWNSHIP, NEW JERSEY

GENERAL CONDITIONS & CONSTRUCTION LAYOUT \$140,000.00

SITE PREPARATION

Demolition of concrete slabs - 680 s.y. @ \$3.00	\$2,040.00	
Fence removal - 330 l.f. @ \$2.00	660.00	
Remove existing play equipment - LS	2,000.00	
Demolition of bituminous concrete parking lot - 4600 s.y. @ \$2.00	9,200.00	
Miscellaneous demolition - LS	5,000.00	
		18,900.00

EARTHWORK

Athletic field development - 6500 c.y. @ \$3.50	22,750.00	
Court area development - 500 c.y. @ \$3.50	1,750.00	
Riverfront Activity Complex - 7500 c.y. @ \$4.00	30,000.00	
Free play area - 1500 c.y. @ \$3.50	5,250.00	
Area northeast of Lake - 15,000 c.y. @ \$4.00	60,000.00	
		119,750.00

PAVEMENTS

Bituminous concrete parking lots & drives:		
@ Boat ramp - 7700 s.y. @ \$13.00	100,100.00	
@ Main entrance - 5100 s.y. @ \$13.00	66,300.00	
@ Administration Building - 1900 s.y. @ \$13.00	24,700.00	
10' Bituminous Concrete Lane - 2350 s.y. @ \$7.50	17,625.00	
8' Bituminous Concrete Lane - 9900 s.y. @ \$7.50	74,250.00	
Concrete Pavement - 10,500 s.f. @ \$3.50	36,750.00	
Unit Pavements - 28,800 s.f. @ \$5.00	144,000.00	
		463,725.00

STRUCTURES

Historical Display & Gazebo - LS	7,500.00	
Walls @ Riverfront Complex - 3600 f.f. @ \$15.00	54,000.00	
Fountain @ Riverfront Complex - LS	25,000.00	
Walls @ Waterfront Control Center - 900 f.f. @ \$15.00	13,500.00	
Curbs @ Riverfront Complex - 720 l.f. @ \$10.00	7,200.00	
Timber Bridges - 3 @ \$4,500.00	13,500.00	
		120,700.00

ACTIVITY AREAS

Softball Infields - 2 @ \$5,000.00	\$10,000.00
Softball Backstops - 2 @ \$3,750.00	7,500.00
Basketball Courts - 2 @ \$10,500.00	21,000.00
Paved Multi-Purpose Court - LS	33,000.00
Tennis Courts - 2 @ \$21,500.00	43,000.00
Handball Courts - 2 @ \$5,500.00	11,000.00
Handball Wall - LS	8,000.00
Shuffleboard Courts - 2 @ \$2,500.00	5,000.00
Tot Lot @ Court Complex - LS	15,000.00
Play Area @ Court Complex - LS	17,500.00
Sitting Area @ Court Complex - LS	4,500.00
Tot Lot @ Riverfront - LS	17,500.00
Play Area @ Riverfront - LS	22,500.00
Amphitheatre - LS	30,000.00
Band Shell @ Amphitheatre - LS	30,000.00
Lake Boating Docks - LS	20,000.00
Skate Changing Area - LS	5,000.00
Group Picnic area w/ Bar-B-Que - LS	8,000.00
Horseshoe Pitches - 8 @ \$400.00	3,200.00
Woodchip Paths - 2000 l.f. @ \$.75	1,500.00
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	312,200.00

SITE FURNISHINGS

Benches - 40 @ \$300.00	12,000.00
Picnic Tables - 100 @ \$350.00	35,000.00
Grills - 50 @ \$175.00	8,750.00
Waste Receptacles - 50 @ \$125.00	6,250.00
Game Tables - 10 @ \$1,750.00	17,500.00
Bicycle Racks - 8 @ \$250.00	2,000.00
Bleachers - 6 @ \$2,500.00	15,000.00
Signage - LS	5,000.00
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	101,500.00

FENCES

6' Chain Link - 2500 l.f. @ \$9.00	22,500.00
Stockade - 220 l.f. @ \$20.00	4,400.00
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	26,900.00

UTILITIES

48" RCP Storm Sewer - 700 l.f. @ \$70.00	49,000.00
Sanitary Sewer - 200 l.f. @ \$25.00	5,000.00
Sanitary manholes - 2 @ \$850.00	1,700.00

UTILITIES (continued)

Potable Water:

Water Meter Pits - 2 @ \$1,500.00	\$ 3,000.00
Water Service - 1100 l.f. @ \$15.00	16,500.00
Wet Taps - 2 @ \$1,000.00	2,000.00
Fire Hydrants - 3 @ \$1,500.00	4,500.00
Ground Hydrants - 5 @ \$250.00	1,250.00
Drinking Fountains - 6 @ \$1,250.00	7,500.00
Distribution Lines - 2000 l.f. @ \$9.00	18,000.00

Irrigation System:

Redevelop existing wells - 2 @ \$2,000.00	4,000.00
Pumps - 2 @ \$1,500.00	3,000.00
Distribution System - 2400 l.f. @ \$10.00	24,000.00
Heads - 20 @ \$150.00 each	3,000.00

Electric:

Baseball/Football Field Lighting - LS	75,000.00
Tennis Court Lighting - 2 courts @ \$9,000.00	18,000.00
Lighting @ Waterfront Control Area - LS	10,000.00
Electric Service @ Riverfront Activities and Lighting - LS	20,000.00
Site Lighting - General - LS	45,000.00
Telephone Service - LS	4,000.00

314,450.00

BUILDINGS

Waterfront Control Building - LS	120,000.00
Maintenance Building - LS	85,000.00
Comfort Station - LS	60,000.00
Large Picnic Shelter w/slab - 2 @ \$20,000.00	40,000.00
Warming Shelter w/fireplace - LS	12,000.00
Sun Shelter @ Courts - LS	5,000.00
Sun Shelter @ Riverfront - LS	8,000.00
Small Sun Shelters along water - 5 @ \$2,500.00	12,500.00
Fish Cleaning Station - LS	2,000.00

344,500.00

LANDSCAPING

Lawn Areas - 180,000 s.y. @ \$.85	153,000.00
Garden @ Gazebo - LS	5,000.00
Plantings - LS	150,000.00

308,000.00

WATERFRONT STRUCTURES

Preparatory Demolition - LS	\$ 18,000.00	
Bulkhead Construction - LS	315,000.00	
Fishing Pier Construction - LS	300,000.00	
Boat Ramp Construction - LS	50,000.00	
		<u>683,000.00</u>

Sub-Total	\$2,953,625.00
10% Contingency	<u>295,363.00</u>
Total	<u>\$3,248,988.00</u>

No estimates of necessary additional costs for professional fees, surveys, tests, legal services or other normal development services are included.

DISCUSSION OF SPECIAL AREAS

Prime Fishing Areas and Finfish Migratory Pathways

The shoreline of the Delaware River is classified as both of these special coastal areas. A partial inventory of the existing species as reported by local fishermen is as follows: Striped Bass, Bluefish, Channel Catfish, White Catfish, Carp, Eels, Herring, Menhaden, Norfolk Spot, White Perch, Yellow Perch, Shad, Weakfish and Blue Claw Crabs. In addition, the "Finding of No Significant Impact;" Riverview Beach Park RC & D measure, Salem County, New Jersey, Measure No. 34-6002-033-005-023; prepared by United States Department of Agriculture, Soil Conservation Service, Somerset, New Jersey; dated July 1980 (hereinafter referred to as the FNSI states: "Shortnose

Sturgeon and American Shad inhabit the Delaware River and are on the State's endangered and threatened species list." A variety of Panfish were observed in the pond.

This site is presently used for recreational purposes, including fishing along the existing bulkhead. An increase in fishing pressure due to improved accessibility and the proposed future pier is to be expected - however, the FNSI states: "The fisheries within the Delaware should not be adversely affected by the increased numbers of fishermen, although, some endangered or threatened species may be caught inadvertently."

Marina Moorings

There are presently no facilities for recreational boating on this site. The proposed boat ramp and adjunct facilities will provide a major regional recreation facility.

The quantity of recreational boaters at the site and in the nearby waters of the Delaware River will show a dramatic increase seasonally. As recreational boating is considered a prime function of the river, this impact is consistent with special area development strategies. Anticipated craft launched from this site will include private boats which are normally carried on car top or trailer.

Filled Water's Edge and Natural Water's Edge - Floodplain

This site is entirely natural or filled water's edge. Part of the proposed use is "water dependent" public waterfront recreation such as boating, fishing, scenic vista of the Delaware Memorial Bridge, etc. The remainder of the proposed use is public recreation which has no feasible alternate site and will compliment the waterfront recreational use.

It is significant to note that the bulk of proposed activity on the project site will be directly supported by the river and all other uses will be indirectly affected by the aesthetic preserve of the riverfront.

The combination of 20 acre lake and the Delaware River will constitute the major natural attractive force for local and regional visitors to the site. Other facilities will be largely ancillary to activities based at the water's edge.

Specimen Trees

There are no trees on this site that meet the definition of specimen trees in the Coastal Resource and Development Policies. There are, however, many good sized trees predominantly Maples, Oaks and London Plane. The proposed development will preclude the removal of all but a few of these trees.

Public Open Spaces

This site is owned and maintained by Pennsville Township. The FNSI states: "The area has been used for intensive recreation since the early 1900's and was purchased through Green Acres Program for this purpose."

Environmental Issues - Runoff

The Master Plan anticipates the development of natural surface structures for the handling of storm run-off. The existing topographical trends of the site will be utilized to direct storm waters in sheet flow or in broad swales toward the existing lake. There is no perceived need to concentrate run-off artificially to speed exit from this site. Local percolation rates are fair to good and will allow properly constructed facilities to dry out satisfactorily for utilization soon after storms.

Buffering

Buffering of neighboring residential areas is anticipated only to the extent necessary to filter potentially objectionable views (parking lots, roadways).

Compatability of Uses

As the proposed site has a long established and recognized application as a public recreation area, no adverse condition will result from the considerate development of improved recreational facilities. All public response to the project to-date has indicated strong local support and enthusiasm for the proposed development and concerns over resultant impacts have been few.

Flood Hazards

The aspect of substantial damage by inundation or demolition by water force in flood situations will be eliminated by construction of the proposed bulkhead. After the bulkhead is replaced, the only potential hazard will be backwatering of 20 acre lake. Backwatering of the lake or even inundation of large portions of the site will cause no inordinate problem other than clean-up. Proposed comfort stations will be constructed at an elevation of at least 1 foot above the 100 year flood level. All other facilities will tolerate flooding without damage.

Cost Estimate

The following cost estimate is for the proposed plan if developed as a unit.

It is likely that Riverview Beach Park will be developed in several stages. Further it is likely that many of the facilities proposed in this draft text will be altered by the final Master Plan Draft.

Assuming staged development, unit costs will likely increase and recent experience indicates that the annual inflation will increase this estimate by 10-15% per year.

