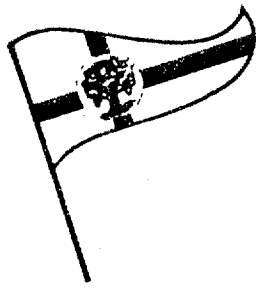

CITY OF SALEM
MUNICIPAL PORT AUTHORITY

RECREATION FACILITY PLAN

FINAL REPORT

SEPTEMBER 1984

PQA ENGINEERING COMPANY

ENGINEERS • ARCHITECTS • PLANNERS • CONSTRUCTION MANAGERS

Riverdale, NJ • Haddonfield, NJ • Cape May Court House, NJ • Charlotte, NC

CITY OF SALEM
MUNICIPAL PORT AUTHORITY

RECREATION FACILITY PLAN

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RECREATION FACILITY PLAN

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1.0 INTRODUCTION

1.0 INTRODUCTION

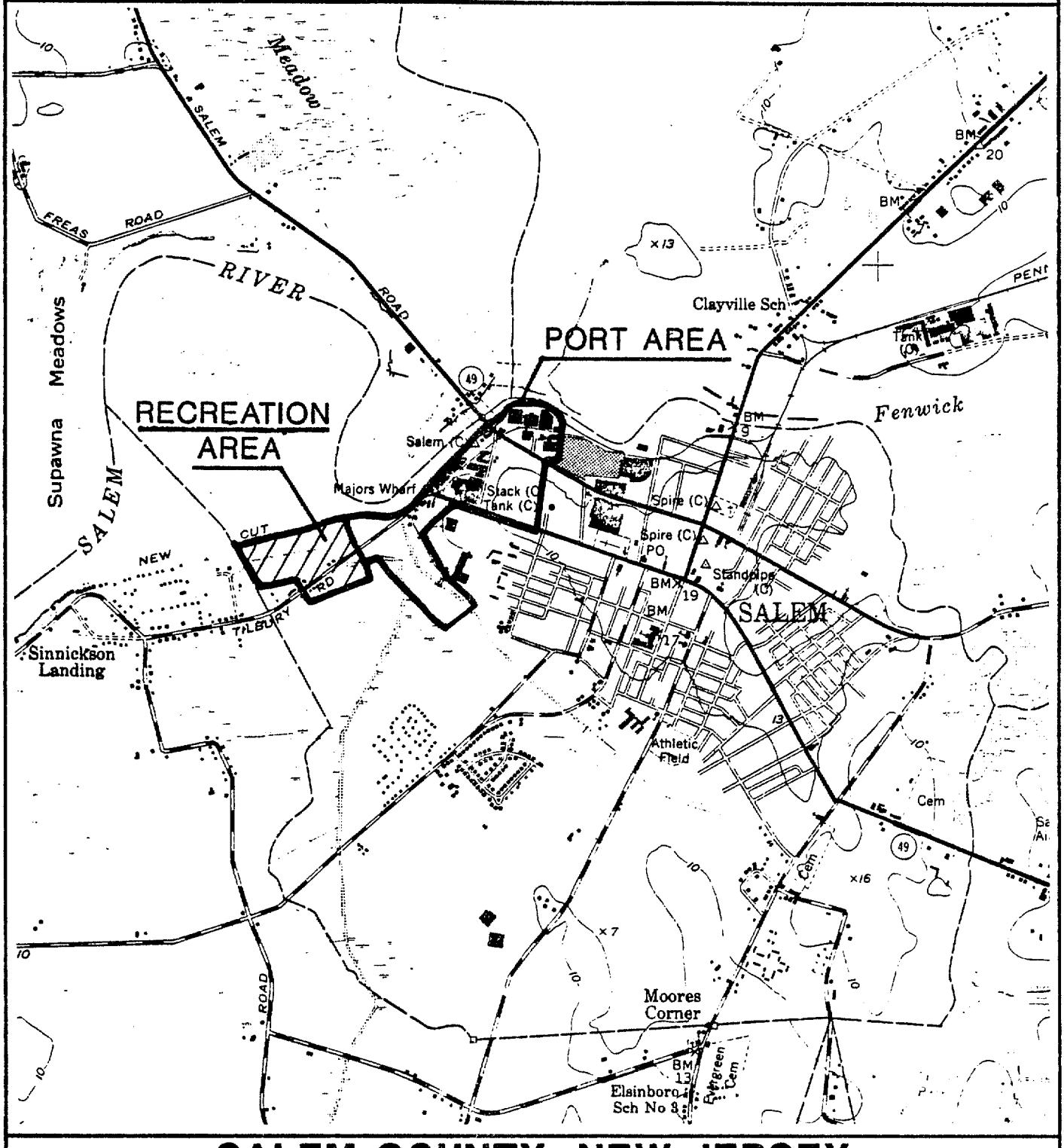
The City of Salem is located in the southwestern corner of New Jersey adjacent to the Salem River. The City serves as the county seat for the predominantly rural County of Salem and has a population of nearly 7000 people. During the past 10 years, many local industries have been in decline and some large manufacturing firms have left the area. Many of these industrial concerns were located along the Salem River and their departure left an area of abandoned manufacturing facilities along the riverfront.

Due to the under-utilized and deteriorating nature of the riverfront area, the Salem City Community Development Agency acting through the City Planning Board moved to declare the area blighted. A redevelopment plan was prepared for the riverfront area and the City of Salem Municipal Port Authority was created to oversee the redevelopment of the riverfront and the creation of a barge port.

A key element in the redevelopment plan was the preservation of public access to the river and the enhancement of the recreation potential of the area. As stated in the redevelopment plan, "...this area should be developed carefully with respect for its historic significance and recreational potential. At a minimum the present scenic vista from this area should be preserved and enhanced and should not be obstructed by new structural development."

In October, 1983, the New Jersey Department of Environmental Protection, through the Bureau of Coastal Planning and

CITY OF SALEM MUNICIPAL PORT AUTHORITY
RECREATION FACILITY PLAN
SALEM, N.J.



SALEM COUNTY, NEW JERSEY

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SCALE IN FEET

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SOURCE: U.S.G.S. 7.5 MINUTE QUADRANGLE FOR SALEM, N.J.

PQA ENGINEERING COMPANY

FIGURE 1

Development, provided a grant to the Salem Port Authority to plan for public access and recreation along the Salem River. The recreation area, as designated in the redevelopment plan, is southwest of the Port area (Figure 1). The goal of this plan is to provide for both passive and active marine oriented recreational activities as well as visual access to the Port of Salem from a safe distance.

1.1 Existing Land Use

The General Area Map, Figure 2, is prepared to show the existing land uses in the area of the Salem Port including the adjacent community of Elsinboro Township. The land uses described on the map include residential, commercial, manufacturing land uses and areas of open space and marsh lands. Boundary lines are drawn that show the Salem Port District as described in the Redevelopment Plan for the area and the proposed recreation/public access area outside of the redeveloped area. Adjacent areas of Pennsville Township are also delineated.

Marsh lands border the Salem River and the northern bank of Fenwick Creek. These marshes are an integral part of the Salem River ecosystem subjected to tidal inundation twice daily. The marshes are a contiguous ecosystem bound continuously by the Delaware River, located 9500' west of the Port, and the large tidal marsh complex known as Mannington Meadows, found approximately 4000' east of the Port.

PENNSVILLE TOWNSHIP

Salem River

PENNS NECK BRIDGE

STUART DRIVE

TILBURY ROAD CO. RD. 661

PROPOSED RECREATION AREA

PORT AREA

FUTURE PORT AREA

SALEM CITY LANDFILL

ELSINBORO TOWNSHIP
CITY OF SALEM

Second Oak

FRONT STREET

WEST

GRIEVES PARKWAY

SOUTH FRONT STREET

BROADWAY RT. 49

GRIFFITH STREET

CO. RD. 657

3 RD ST.

WEST SIDE COURT

Fenwick Creek

N

0 200 400
SCALE IN FEET

LEGEND

MARSH
OPEN SPACE
RESIDENTIAL
COMMERCIAL
MANUFACTURING/INDUSTRY

PORT AREA BOUNDARY
RECREATION AREA BOUNDARY
RECREATION AREA NATURAL PRESERVE
(6) BLOCK NUMBER
37 LOT NUMBER

CITY OF SALEM
MUNICIPAL PORT AUTHORITY

RECREATION FACILITY PLAN
GENERAL AREA MAP

PQA ENGINEERING COMPANY
CHARLOTTE, NORTH CAROLINA RIVERDALE, NEW JERSEY

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FIGURE 2

Open space as shown in the General Area Map depicts two distinct areas. Adjacent to the Grieves Parkway is a continuous band of parklike vegetation along the western side of the City. Adjacent to the Second Oak Creek, the open space is the site of landfill activities of the City of Salem Landfill. The present working face of the landfill is a small area adjacent to Elsinboro Township.

Residential areas are found each of South Front Street in Salem and in adjouning Elsinboro Township. The Salem City residential development depicted on the map consists of the Salem Housing Authority's West Side Court housing development. The West Side Court project is a high density, multi-family development. Elsinboro residential areas are single family, rural home sites. The Elsinboro area supports low density residential development.

A small commercial district is located on the north side of Broadway. This commercial district is comprised of a few stores and is isolated from the City's main business district. Other commercial areas shown on the map include a tavern, an existing restaurant and a marina located along the west side of Tilbury Road. The marina area has been highlighted as the study area for the recreation and public access area because of its direct proximity to the Port. Figure 3a shows the relationship of the existing facilities and the proposed facilities.

A major industrial area is located along Fenwick Creek. This area is currently underutilized due to numerous business closings during the last decade. The activities that previously were centered in the industrial district were primarily glass manufacturing and food processing. Currently, the industiral site adjacent to the Salem River is utilized for minerals storage and processing, and petroleum storage facilities. Other uses presently within the industrial district are a machine shop, wire manufacturing facility and a fertilizer handling depot. The Salem City Sewage Treatment Plant is also located in this district.

Boundary designations provided on the General Area Map include the Port Area and the Recreation Area. The designation for the Port Area includes the area identified in the Redevelopment Plan for the Port as well as additional area leased from the City of Salem by the Port Authority. The boundary for the Recreation Area includes an area of salt marsh that may be acquired and maintained as a natural preserve. A discussion of Port expansion and future activities is contained in the Appendix.

1.2 Purpose of Study

This recreation facility plan proposes the inclusion of natural and historical interpretation activities, upgrading an existing marina and boat services center and developing a related commercial and tourist establishment.

A conceptual design of these facilities is presented herein. Discussions are included relating to the facilities being proposed, the conflicts with Port of Salem activities, consistency with applicable NJDEP Coastal Policies, and relationship to the state-wide and regional recreation planning goals. Facilities costs and funding sources are presented at the conclusion of the Report. By implementation of the facilities plan as presented, the City of Salem Municipal Port Authority will provide the citizens of Salem City and southern New Jersey with a valuable and unparalleled recreation facility providing direct experience with port-related activities. This will be accomplished where possible through the enhancement of existing businesses and properties.

2.0 THE LANDSCAPE DESIGN & RECREATIONAL FACILITIES PLAN

2.0 THE LANDSCAPE DESIGN AND RECREATIONAL FACILITIES PLAN

The Salem Recreational Facility has been designed to address four (4) appropriate recreational demands; the history of the Salem area, a facility for boating and water sports, visual access to the port area, and a public plaza.

New Sweden is to be a reconstructed representation of the first Swedish settlement in the Salem area. The Marina is an enlargement and reconstruction of an existing facility and would provide docking for 100 boats. The public plaza includes a shopping complex and the marina restaurant and store. The total site of the recreation area ~~is to be~~ landscaped for pedestrian traffic flow, and provisions are included for direct access to the riverfront, with an observation tower included at the waterfront.

2.1 New Sweden

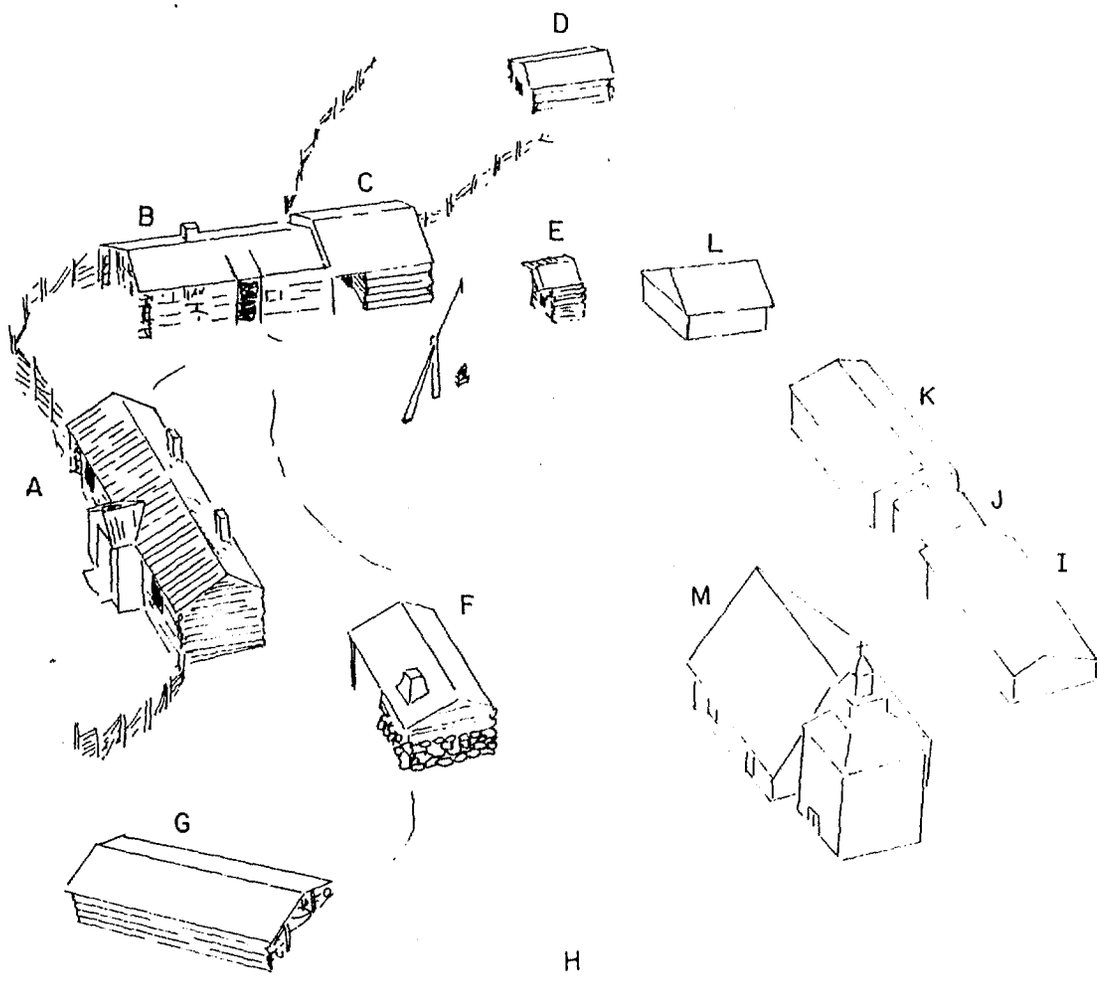
The Village of New Sweden will be created to represent the first Swedish settlement in the area of Salem that dates back to approximately 1635. The buildings that will be created in this village will represent the architecture that was present at the time of the original settlements. It has been documented that the first Swedish settlement in the New World was at Fort Elfsburg approximately four miles from the site in Salem. The Fort existed until 1650-51 until it was abandoned.

The Village of New Sweden as conceived in the recreation facilities plan, is located in the woodlands portion of the

site on the edge of the existing marshlands. This site does not have any documented historical significance, but was chosen to be representation of a Swedish New World settlement. Approximately 1/4 acre of woods will be cleared to position the buildings shown on the landscape design plan (Figure 3). A small waterway would be created winding through the marsh into the foregound of the settlement from the Salem River. The waterway provides access from the Salem River for small boats to the Village of New Sweden and represents what the original access to the settlement location would have been. It is documented that Swedish settlements were all built adjacent to bodies of water. The Swedish boat, the Durham boat, was used as a main form of transportation for these people. The site has been historically documented, a design has been created, and extensive research has been done by the New Sweden Company. New Sweden Company has been founded from the Scandanavian-American Historical Society, a group of Swedish decendants presently living in the United States. The Village of New Sweden will be the focus of the 350 year celebration of the Swedish settlement in the New World, to be held in 1988.

The buildings will reflect the Swedish and Finnish influence in style and construction techniques. Types of buildings to be reconstructed include a double-house, cattle shed, meadow barn, bath house (sauna), forge or

Parking



Marina

LEGEND

A - DOUBLE-HOUSE
B - SIMPLE STUGA
C - CATTLE SHED
D - MEADOW BARN
E - BATH HOUSE
F - FORGE OR HAMMERSMITHY
G - BOATHOUSE
H - WORK AREA
I thru L - ANOTHER FARM
M - CHURCH

Salem River

NEW SWEDEN SKETCH

FIGURE 4

hammersmithy, boat house, a work area and a church, (Figure 4).

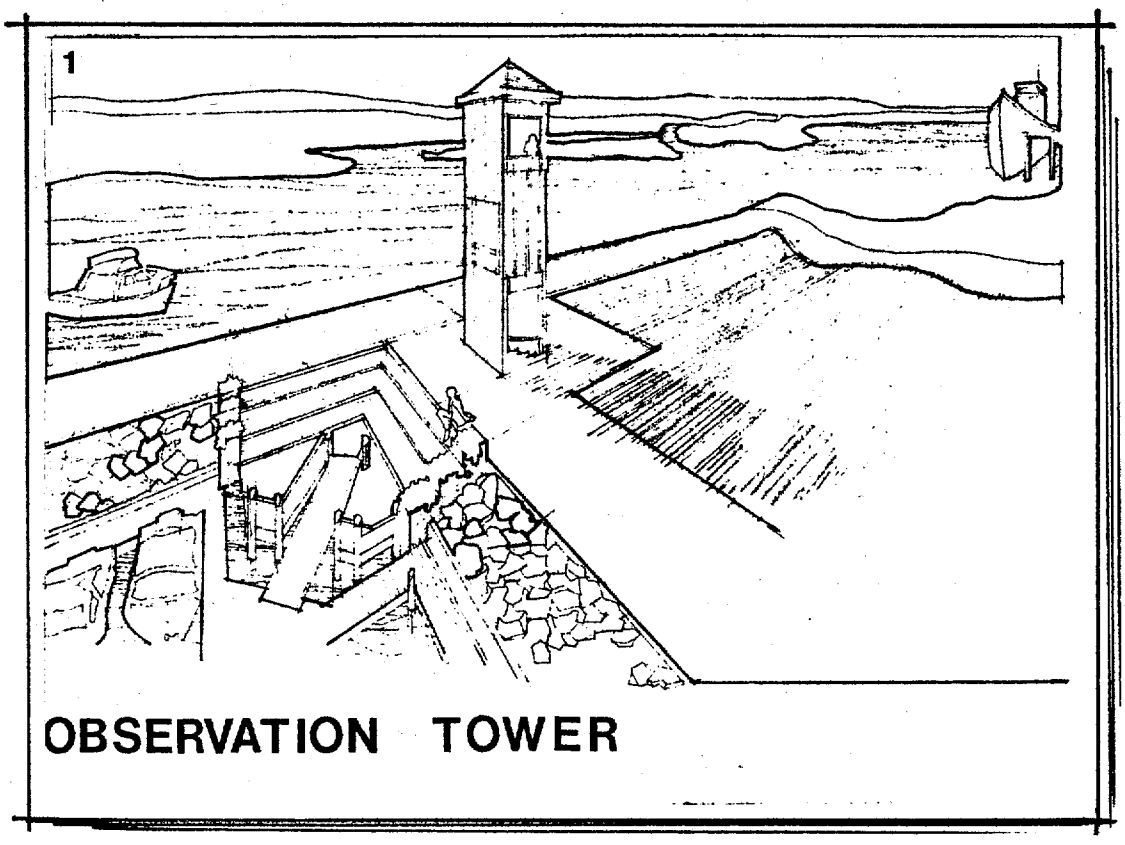
The activities proposed will exemplify the life of a typical pioneer family, emphasizing the domestic handicrafts for which Sweden is famous. Skills that could be demonstrated include weaving and food preparation, as well as soap and candle-making, basketry, woodcarving and basic furniture-making.

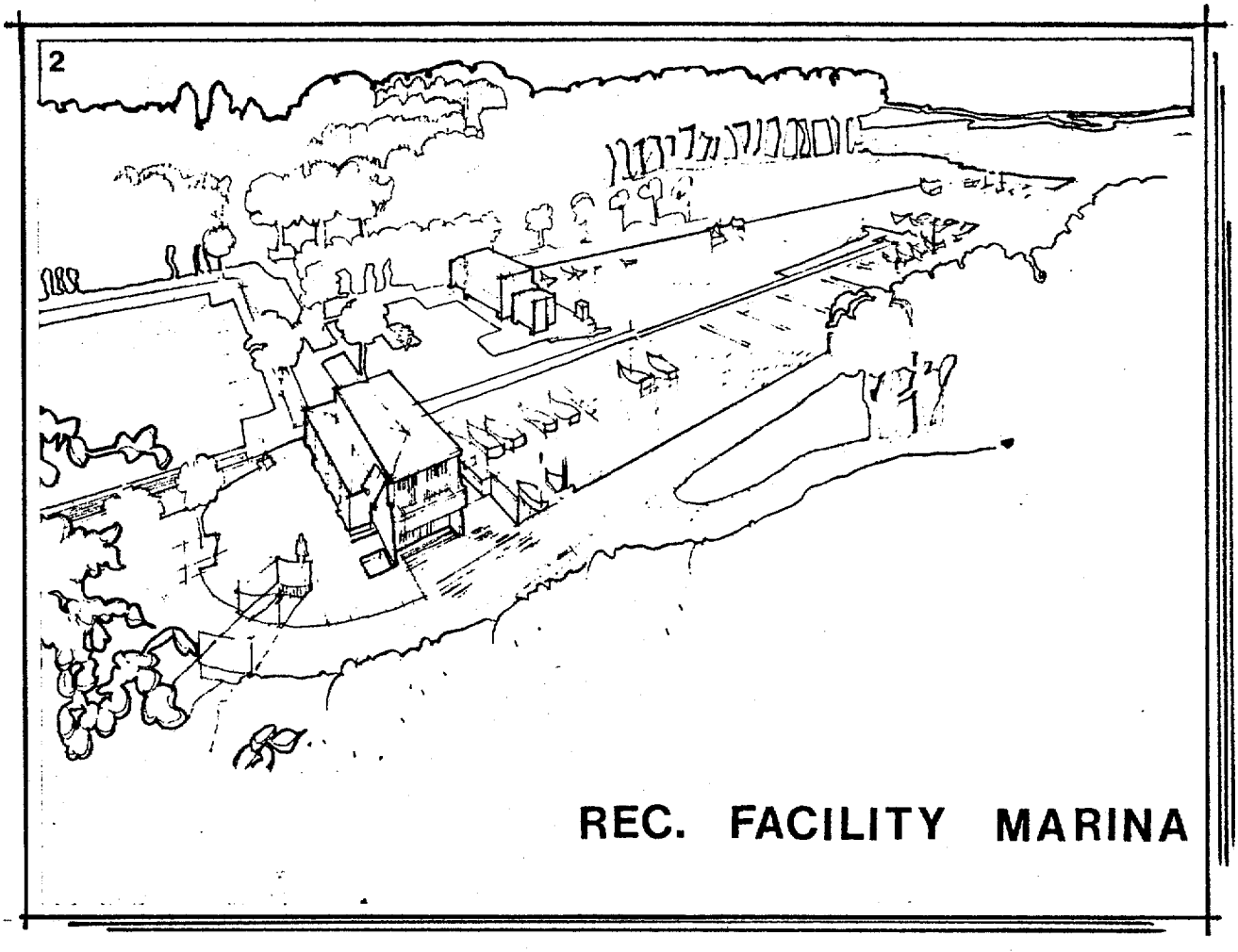
Some outdoor work of a maritime nature might be demonstrated including net making and boat building. Swedish dancers and musicians on tour in the U.S. would be encouraged to perform at New Sweden.

A 35 car parking area will be located south of New Sweden. A gravel path will link the parking area with the village, run past the settlement through the woods to bird blinds that will be created adjacent to the existing marshland. Bird blinds will be there to provide access to viewing birds and other species of animals that inhabit and utilize the marshland relief. The path circles through the western woodlands and returns back to New Sweden providing an area for hiking and observing nature. The bird blinds are to be wooden platforms with benches that provide a clear view above the marsh vegetation for bird watching over the Supawna Wildlife Preservation which is across the Salem River from the site. The blinds will be shielded in such a way that human activities within the blinds will not disturb the natural activity taking place in the marsh.

2.2 The Marina

The marina is the central focus of the recreation area. The plan provides for 98 docking slips arranged as 49 double boat slips. A preliminary docking plan has been formulated and is included as part of the report showing docks ranging in size from 10' to 20' in length providing dockage for boats from 16' to 50' in length. The dock systems will be composed both of floating and fixed platforms. The floating dock will run around the perimeter of the marina with 3' side fingers extending out at right angles between the boats. Each boat slip would be provided with electric power and with fresh water. An additional floating section is provided in the center part of the marina that would serve as a fuel dock and a boat service dock. Fixed platforms above the high tide level are located at the corners and intermediate stations. These platforms provide pedestrian ramps to the floating platforms below and stepped access to the perimeter marina walkway above. To obtain the configuration of the marina as shown in the plan, the marina which is presently located on this site needs to be expanded by approximately 68,000 square feet. Below the water level, a bulkhead is provided to stabilize the grounds around the marina, then a 15' wide section of crushed rock sloping onto a 25' side promenade surrounding the marina is provided, (Figure 5). Adjacent to the





OBSERVATION TOWER & MARINA SKETCHES

FIGURE 5

marina in the eastern side of the site, a sod covered picnic area is provided. The picnic area will include tables and barbecue structures to allow for both sitting and picnicking.

An observation tower will be constructed at the rivers edge providing an optimum view of the Salem River, the Salem Port facilities, and the Supawna Meadows across the river, (Figure 5). Because of this particular position in the landscape, the activities on the Salem River may be observed in every direction. With a platform height of 20 feet, the visible distance exceeds 6 miles. Therefore, even shipping activities on the Delaware River will be visible on a clear day. This tower will be the focus of interpretive activities for the Port of Salem containing explanatory displays for the visitors.

Passenger car drop-offs are provided for each of the promenades, and 175 parking spaces to be used primarily for the marina and picnic area are provided in a main parking lot.

Boat servicing will be available in the central building located at the end of the west section of the basin. The smaller buildings provide office space, parts storage and additional service facilities. Adjacent to the service building, a boat launch is provided. Fuel will be provided on a floating dock extending out from

these service buildings. Fourteen standard parking spaces and seven spaces for cars pulling trailers are provided on the south end of the marina buildings.

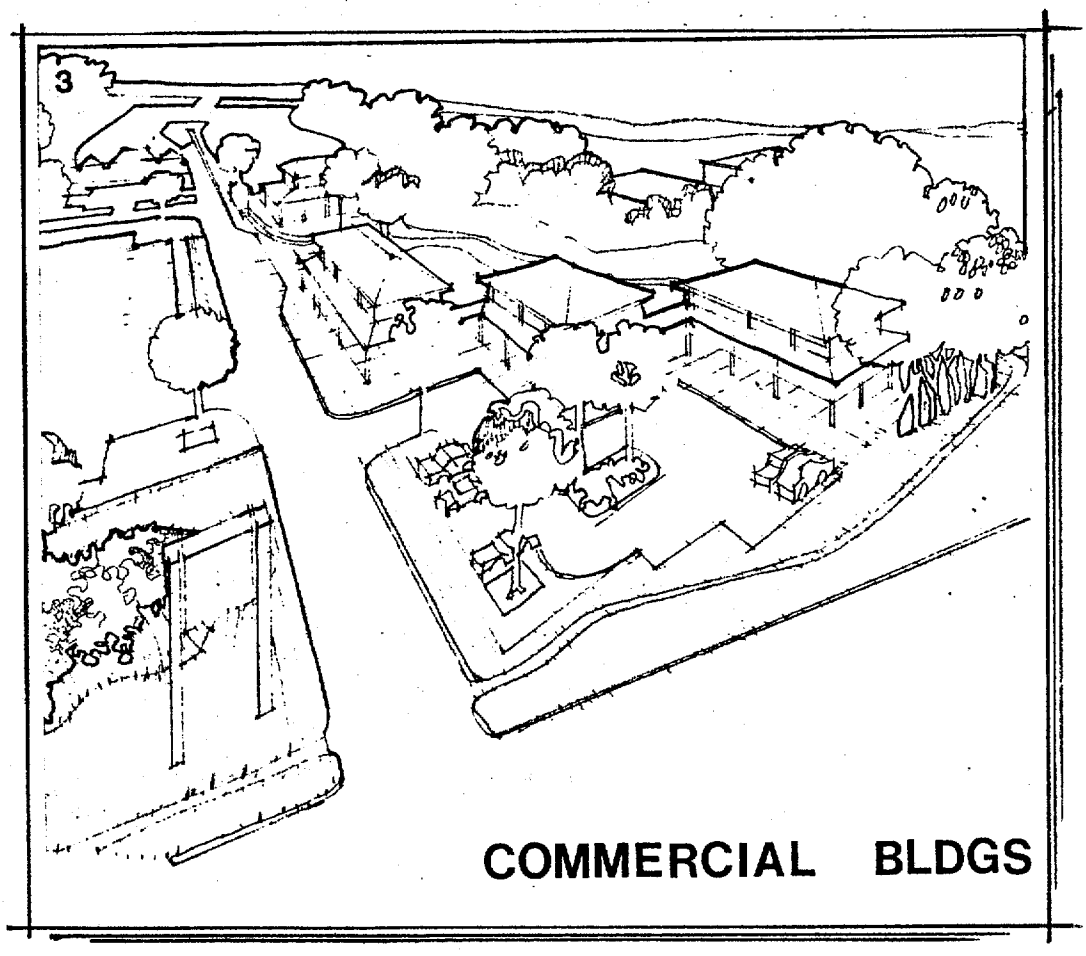
2.3 Public Plaza

The third feature of the recreation area is a plaza located on the east as one comes in through the main entry. Passenger car drop-offs are provided not only for those proceeding to the marina, but also to the support activities of the restaurant/shop and the commerical buildings. It is anticipated that this restaurant would be elevated above the level of the marina so that activities within the marina and in the port areas could be observed also from the restaurant. Commercial buildings are provided in such a configuration as to form a continuous mall. These buildings could be utilized for marine recreation oriented shops. They could also provide areas for tourist services such as an information center and a center from which the New Sweden Company could provide information on touring all of the Swedish historical sites in southern New Jersey.

The marina restaurant and shop are oriented toward the east side of the marina. Both buildings are on a semi-circular platform stepped up from the passenger drop-off and the central portion of the marina. A creek which presently runs through the site, would be relocated and form a natural boundary on the eastern end of the

recreation area. It would be directed underneath of the restaurant and store and into the marina.

In the commerical complex, the three buildings at the southeastern corner of the site are provided with 25 separate parking spaces. The covered walkway connects the buildings on the south. Activities that may be accommodated in this area include performances by musicians and other actors and troups of entertainers, vendors of food and drink with circulation of people and activities on the northern part of the site, (Figure 6).



COMMERCIAL BUILDINGS & PUBLIC PLAZA SKETCH

FIGURE 6

3.0 CONFLICTS RESULTING FROM PORT ACTIVITIES

3.0 CONFLICTS RESULTING FROM PORT ACTIVITIES

The potential for conflicts between the activities of the recreation area and those of the barge port will be minimal due to the distinct physical separation of the areas. Conflicts that could pose a risk to personal health and safety are related to vehicular traffic, pedestrian access to port areas, and boat traffic interference.

3.1 Land Based Conflicts

Both vehicular and pedestrian access to the Port area will be restricted. Operating plans being prepared by the Port Authority call for Tilbury Road and West Broadway to be closed from Front Street through the port to Grieves Parkway. Only port-related traffic will be permitted access to the working areas. The access to the port will be gate controlled to insure that non-port persons are kept from the industrial area. Similar restrictions on pedestrian access will ensure the safety of persons in the Salem port vicinity.

3.2 Water-Related Conflicts

Both pleasure and commercial boat traffic will be using the Salem River and Salem Cut-Off. The movements of vessels are regulated by the United States Coast Guard "Rules of the Road" for Inland waterways. Both commercial and pleasure boat operators are required to adhere to the Coast Guard operating rules. These rules require vessel operators to signal distinct blasts on a horn, any maneuvers being initiated.

Specific Coast Guard rules govern vessel operations in narrow channels; determining maximum safe speed; vessels

approaching one another; overtaking and passing situations; and vessels operating in restricted visibility. The "inland rules" specify audible signals to be sounded and visible lights and shapes to be displayed by all classes and types of vessels operating on the inland waters of the U.S. Both commercial water craft and pleasure boats must comply with the "Inland Rules" for navigation.

Because the Salem River and the Salem Cut-Off meet in the vicinity of the recreation area, pleasure boaters have alternate streams to utilize if operating conflicts occur with the commercial traffic. The one area that will pose the greatest risk for vessel traffic is the entrance to the marina.

Vessels entering the marina from the river will have a clear view of commercial and other pleasure boat traffic in the waterway at the time. However, vessels exiting the marina will face some obstruction of visibility caused by the entrance structures. To overcome the problem faced by boats leaving the marina, signs will be placed at the entrance reminding boaters to signal according to Coast Guard rules and also warning boaters of the potential for encountering a commercial craft.

Reminders of Coast Guard rules and the conflicts that may be encountered with the commerical traffic will be placed throughout the marina. Additionally, provisions will be made within the marina facility to provide boating safety instructions. The Coast Guard Auxiliary provides small boat safety and handling courses. Space will be offered in the recreation

area to the Coast Guard Auxiliary to teach these courses. Through this commitment to boating awareness and training, the recreation area will serve the Salem region boating population by providing for safety and boating education.

4.0 APPLICABLE COASTAL RESOURCE AND DEVELOPMENT POLICIES

As the public access element of the proposed Salem Port Redevelopment Plan, the recreation area is required to be consistent with State and Federal regulations, in particular, the New Jersey Coastal Resource and Development Policies (N.J.A.C. 7:7E-1.1 et. seq.). Being within the CAFRA delineation, this recreation plan must address the Special Areas (N.J.A.C. 7:7E-3.1 et. seq.) which are applicable to this project, including:

- Navigation Channels
- Marina Moorings
- Ports
- Submerged Infrastructure Routes
- Natural Water's Edge-- Floodplains
- Wetlands
- Wetlands Buffer

In addition to these Special Areas, several use policies must also be addressed. These policies (N.J.A.C. 7:7E-7.3, 8.13, and 8.15) refer to recreational uses, public access to the waterfront, and buffers and compatibility of uses. The following describes these pertinent aspects of the plan including a discussion of the associated impacts of the proposed recreation area, (Figure 7, Special Areas Map).

4.1 Navigation Channels (7:7E-3.7)

Navigation channels include water areas in tidal rivers presently maintained by NJDEP or Army Corps of Engineers and marked by the U.S. Coast Guard. The Salem River and Salem Cut-Off, upon which the proposed project borders, are considered as a navigation channel.

CITY OF SALEM
MUNICIPAL PORT AUTHORITY

RECREATION FACILITY PLAN
SPECIAL AREAS MAP

LEGEND
- 15 LOT NUMBER
- (9) BLOCK NUMBER
- PORT
- WETLANDS
- PROPOSED RECREATION AREA BOUNDARY
- FLOOD HAZARD BOUNDARY

0 100 200
SCALE IN FEET

FLOOD HAZARD AREA
ZONE A

N

NATURAL WATER'S EDGE

300 FT. WETLANDS BUFFER

NAVIGATION CHANNEL

MARINA MOORINGS

ZONE B

PENNSVILLE TOWNSHIP
CITY OF SALEM

Salem River

SUBMERGED OUTFALL

PORT

CAFRA BOUNDARY

TILBURY ROAD CO. RD. 661

WEST BROADWAY

GRIEVES PARKWAY

ELSINBORO TOWNSHIP
CITY OF SALEM

STP

(6) (9) (29) (46) (47) (97)

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CHARLOTTE, NORTH CAROLINA RIVERDALE, NEW JERSEY

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DW.	LCJ	1/10/84

FIGURE 7

A federal budget authorization was approved for FY '84 to provide maintenance dredging of the Salem River Channel by the Army Corps of Engineers.

This maintenance dredging will be beneficial to the proposed recreation project as well as the port facilities. A sufficient depth is required in this project area for commercial and recreational water transportation, especially in the locations designated for the marina and barge port due to the intended expanded use in comparison to present conditions.

4.2 Marina Moorings (7:7E-3.10)

Marina moorings are defined by the coastal policies as areas of water that provide moorings, dockings and boat maneuvering room as well as access to land and navigational channels for recreational boats. The proposed marina in the recreation area is actually an expansion and redesign of an existing marina facility. The new marina is proposed to have 100 boat slips in comparison to approximately 80 slips in the existing facility. The design includes an entrance from the Salem River, bulkheading, floating docks, a boat launch and a fuel dock. Ancillary services for the boating community are also proposed in the recreation area, including a marina store, boat service shops and eating establishments.

Some dredging will be required in this marina area prior to bulkheading in order to accommodate the proposed expansion. It should be noted that with the increasing recreation demands of the coastal region, the need for additional and upgraded marina moorings is evident. This new boating facility, in

addition to the rest of the recreation project, will be an asset to the local economy.

4.3 Ports (7:7E-3.11)

In accordance with the coastal policies, ports are water areas having, or lying immediately adjacent to, concentrations of shoreside marine terminals and transfer facilities for the movement of waterborne cargo including facilities for loading, unloading and temporary storage. The proposed Port of Salem is to be located adjacent to the eastern border of the recreation-public access area. This port is being designed for barge transport of cargo. At present, existing storage buildings are serving as storage facilities for the Port. Rehabilitation of this area is proposed to include new bulkheading, warehouses, service facilities, upgraded transportation and other related improvements.

The adjacent recreation area will not conflict with the Port activities. To prevent disruption, boats will not be launched directly into the river but, rather, into the marina moorings area. The entrance to the marina for recreation boats is designed small enough to monitor and, therefore, is not expected to interfere with the barge navigation. The recreation area will also provide for visual access to the Port from the riverfront walk, the pathways, the marina, and the observation tower.

4.4 Submerged Infrastructure Routes (7:7E-3.12)

A submerged infrastructure route is defined as the area in which a pipe or cable runs on or below a submerged land

surface. A submerged outfall serving the City of Salem Wastewater Treatment Facility is located in the Salem River, off of the Port area, near Grieves Parkway. Additionally, a pump station discharges water from the Mud Diggers Ditch into the river at this site. These outfalls will be appropriately marked as a precaution to safeguard the outfall from any navigation vehicles.

4.5 Natural Water's Edge--Floodplains (7:7E-3.19)

Natural Water's Edge--Floodplains are defined as the flood hazard areas around rivers, creeks and streams as delineated by DEP under the Flood Hazard Area Control Act (N.J.S.A. 58:16A-50), or by the Federal Emergency Management Agency (FEMA); or the flood hazard area around other coastal water bodies as defined by FEMA. The FEMA delineation of the 100-year floodplain (Zone A) was utilized on the Special Areas Map, Figure 7.

Most of the proposed recreation area lies within this FEMA designation. Development of the recreation area will be consistent with E.O. 11988--Floodplain Management. This regulation stipulates that any new construction within the floodplains must be elevated to the base flood level and use accepted floodproofing measures wherever practical. The coastal policies prohibit development in this special area designation within 100 feet of a navigable water body, unless the use is water dependent. The only alteration proposed within 100 feet of the Salem River is a channel for a historic boat on the western side of the marina and a riverfront walk

and observation tower on the eastern side of the marina. The entrance and a small part of the marina is also within 100 feet of the Salem River. These uses may be classified as either passive-recreation or water-dependent uses and are compatible with periodic flooding. The major portion of land adjacent to the river will be kept in its natural state as wetlands.

4.6 Wetlands (7:7E-3.26)

Wetlands are areas where the substrate is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions which are subject to the Wetlands Act, or the Coastal Area Facility Review Act (CAFRA) or the Waterfront Development Law.

Wetlands are one of the most important environmental features of the coastal zone. They form a natural transition area between the land and sea. The wetlands contained within the recreation area in Salem consist mainly of salt marsh cordgrasses (Spartina Sp.). Phragmites communis delineates the upland border of the wetlands area. Moving further upland, to the south of the wetlands area, the site is proposed to be kept as woodlands.

The recreation plan does not propose any major development within the existing wetlands areas. Structural features of the plan which are compatible with the wetlands environment include "bird blinds" and a new stream channel. These viewing

areas allow the public to observe the wildlife and coastal surroundings without encroaching upon the fragile environment.

A small channel is proposed to cut through the wetlands leading to the historic cultural village, "New Sweden". This channel will be located to the far east of the wetlands area, near the marina. The purpose of the channel is for the mooring of a Swedish-style boat, adding to the ambiance of the village.

4.7 Wetland's Buffer (7:7E-3.27)

The coastal policies state that all land within 300 feet of wetlands and within the drainage area of those wetlands comprise an area within which a wetlands buffer shall be determined. Development is prohibited in this buffer zone unless it can be exhibited that the potential for adverse impacts to the wetlands can be minimized.

The recreation plan attempts to maintain most of the area adjacent to the wetlands as woodlands. The proposed historic village of New Sweden is planned to be included within a portion of this 300 foot buffer delineation. New Sweden is expected to be constructed in two phases as a museum village with a cultural emphasis reflecting a Swedish Village, circa 1630's to 1650's. Except for the boat channel, no part of the New Sweden development will encroach upon the wetlands. According to the coastal policies guidelines, development within the wetlands buffer can be permitted provided that a transitional area of native vegetation in the portion of the

wetlands buffer adjacent to the wetlands is maintained. In addition to this, the construction of a detention basin or basins may be required to control runoff if a portion of the wetlands buffer is to be developed. No paved areas are proposed within the buffer zone

4.8 Resort/Recreation Use (7:7E-7.3)

The Coastal Resources and Development Policies states that resort/recreation uses shall have priority over all other uses in Salem County, especially projects serving large numbers of people, providing facilities for all ages and for people with physical handicaps. The coastal policies also encourage the inclusion of recreation areas within the design of all residential, industrial and commercial developments in coastal areas.

The proposed recreation plan incorporates several public attractions related to waterfront parks including:

- marina/boating facilities
- riverfront walk
- jogging/bicycling trails (linear paths)
- natural area
- open space for picnicking (passive recreation)
- historic village

4.9 Port Use Policies (7:7E-7.9)

As defined in 7:7E-3.11, ports include areas adjacent to shoreside marine terminals and transfer facilities for the movement of waterborne cargo. The ancillary facilities for loading, unloading and temporary storage are included in the port definition.

In accordance with the coastal policy on port uses, the Salem project attempts to maximize public access to the waterfront with the installation of the separate recreation facility area. By containing the public access to a separate, adjacent area to the port, the public is able to obtain visual and physical access to the waterfront while maintaining safety and security with regard to the port operations.

4.10 Dredge Spoil Disposal on Land (7:7E-7.12)

Dredge spoils are the sediments removed during dredging operations, known as spoils. In the Salem recreation area plan, dredging will take place in the area of the marina basin and the boat channel proposed in the wetlands. The exact disposal site for these dredge spoils has not been selected at present, although the Salem City Landfill is a likely location. Disposal at the landfill will require that dredge spoils be covered with a suitable cover material and that the landfill be environmentally secure with regard to runoff and leachate.

4.11 Soil Erosion and Sedimentation (7:7E-8.8)

According to the definition in the Coastal Resource and Development Policies, "Erosion is the detachment and movement of soil or rock particles by water, wind, ice, or gravity, while sedimentation is the action or process of depositing soil or rock particles."

In order to control the probability of soil erosion or sedimentation due to the construction of the Salem project, a

Soil Erosion and Sediment Control Plan will be developed as specified by the Soil Conservation Service. Most of the riverfront area will be stabilized with bulkhead, riprap or wetlands vegetation. Special attention will be given to protect the area from sedimentation especially during dredging activities.

4.12 Vegetation (7:7E-8.9)

It is important to protect, to the maximum extent practicable, existing vegetation within a coastal development site. This awareness of the vegetation of an area is necessary due to the steady loss of vegetation from development. The coastal policies urge the planting of new vegetation in a project area with species reflecting regional suitability.

The proposed public access plan for the Salem project protects the existing wetlands vegetation by utilizing it as an environmental observation area. The lands adjacent to the wetlands area are heavily wooded. Some of this woodland will be disturbed by the construction of the "New Sweden" village. The landscape work throughout the new public access area will be indigenous to the coastal plain region of the State.

4.13 Public Access (7:7E-8.13)

Public access to the shorefront is an important feature of any coastal development and is encouraged by NJDEP. Public access should be implemented into new and existing plans, to the maximum extent possible, either in the form of visual or physical access. Linear walkways parallel and perpendicular

to the waterfront are favorable access design elements, according to the coastal policies guidelines, for promoting a continuous shoreline strip to be used for walking, jogging, bicycling, viewing and other public activities.

The proposed recreation area is the public access element of the Salem Port revitalization plan. There are many drawing features which have been incorporated into the recreation plan to attract the public to the waterfront. The plan contains both physical and visual access elements including the riverfront walk, observation tower, bicycling/jogging trail, bird blinds and other boating and tourist related features. This recreation area will also allow for observation of the port activities from its eastern boundary.

4.14 Buffers and Compatibility of Uses (7:7E-8.15)

Buffers are areas of land or structures that serve to separate distinct uses or areas. These buffers may range from natural vegetation or berms to fencing.

The recreation area plan has taken into account this need for buffers, especially between areas which are less compatible than others. The wetlands buffer, previously discussed, is predominantly woodland vegetation. This vegetation also buffers the recreation area from the adjacent residential and commercial development to the south and west of the site. To maintain visual access between the recreation area and the port facilities, the buffer will most likely be established with fencing and low growth vegetation.

Within the recreation area there are also several different uses, including retail shops, parking, the historic village, the marina and passive recreation facilities. Although these uses are distinct, it is not necessary to separate them from each other. Similar vegetation will be used between some of these features for continuity of design and establishment of a natural setting.

4.15 Traffic (7:7E-8.19)

Traffic, as addressed by the coastal policies guidelines, applies to both land and water movement and includes pedestrians, as well as vehicles and boats. Any new development is required to exhibit that safety and congestion problems have been investigated.

The circulation plan for the Salem project limits the number of entrances and exits onto the main route, Tilbury Road. With regard to boat traffic, the interfacing of pleasure boats from the marina and barges from the port must be controlled to ensure safety. The barges maintain the right-of-way. All water-related vessels are to abide by the United States Coast Guard operating regulations. Signalling is required for all maneuvers intended. Safety instructions will be posted throughout the marina and small boat safety and handling courses will be made available to instruct users on safety and boater education.

4.16 Flood Hazard Areas (7:7E-8.23)

Flood hazard areas are delineated and controlled by NJDEP under the Flood Hazard Area Control Act (N.J.S.A. 58:16A-50

et. seq.), and by the Federal Emergency Management Agency. There are no floodways in tidal areas. In tidal areas, the 100-year tidal elevations have been mapped and are utilized as the boundary delineation of the flood hazard zone.

For the Salem plan, the 100-year flood line (Zone A) has been mapped. Most of the proposed development is located within this flood hazard area and will be required to adhere to the floodplain regulations noted in 7:7E-3.19, Natural Water's Edge - Floodplains.

4.17 Barrier Free Design (7:7E-8.26)

Barrier free design is defined as a plan for a project which would permit a handicapped person to maneuver independently with comparative ease.

The Salem site will cater to the needs of the handicapped wherever possible including the incorporation of special ramped curbs, sidewalks, ramps to buildings, gradual grade changes, handicapped parking spaces and bathroom facilities. The level grade of the public access site lends itself well to the barrier free design concept.

5.0 CONSISTENCY WITH THE STATE COMPREHENSIVE OUTDOOR RECREATION PLAN

5.0 CONSISTENCY WITH THE STATE COMPREHENSIVE OUTDOOR RECREATION PLAN

Recreation activities take on many forms, whether active or passive. They can range from something as relaxed as reading a book to activities as energetic as swimming. Recreation also takes place in many different locations, indoors as well as outdoors.

Government participation, however, has mainly been directed towards outdoor recreation facilities which cater to large numbers of people and are multi-purpose in nature. In accordance with the Federal Land and Water Conservation Fund Act of 1964, the New Jersey Statewide Comprehensive Outdoor Recreation Plan (SCORP) was developed and periodically updated. The SCORP details the present and future developed recreational facility needs for the State on a county-by-county basis. It is therefore important to demonstrate how any new recreation areas will be able to relieve some of this deficit of recreation facilities. This task of the Port of Salem public access project will demonstrate the consistency of the recreation plan with the SCORP objectives. It will address the activities which will be supplied by the proposed development in terms of (a) alleviating some of the existing recreational deficits and (b) creating a tourist attraction of the site.

5.1 Recreational Supply and Demand

The SCORP report has detailed the outdoor recreation requirements on a county-by-county basis. Table 1, extracted from the SCORP, exhibits the developed recreation facility

SALEM COUNTY

TABLE 1
PRESENT AND FUTURE DEVELOPED RECREATIONAL FACILITY NEEDS

ACTIVITIES	1976				1985			1995		
	Supply People[1]	Demand People	Surplus or Deficit Facilities[2]	Surplus or Deficit People[3]	Demand People	Surplus or Deficit Facilities[2]	Surplus or Deficit People[3]	Demand People	Surplus or Deficit Facilities[2]	Surplus or Deficit People[3]
Swimming — Fresh Water	28,700	12,100		(16,600)	13,100		(15,600)	14,300		(14,400)
Beaches (linear feet)										
Beaches (acres)										
Outdoor Pools (square feet)										
Swimming — Salt Water										
Beaches (linear feet)										
Beaches (acres)										
Motor Boating & Boat Fishing — Fresh Water	360	2,200		1,840	2,600		2,240	2,700		2,340
Water Surface (acres)			34			41			43	
Rivers (miles)			613			747			780	
Slips (number)			10			12			13	
Launching Ramps (number)			245			299			312	
Rental Boats (number)										
Motor Boating & Boat Fishing — Salt Water	1,756	8,500		6,744	9,600		7,844	10,900		9,144
Slips (number)			2,248			2,615			3,048	
Launching Ramps (number)			37			44			51	
Rental Boats (number)			899			1,046			1,219	
Shore Fishing — Fresh Water		1,900		1,900	2,100		2,100	2,200		2,200
Shoreline (miles)			24			26			28	
Ice Skating	2,610	13,600		10,990	14,700		12,090	16,300		13,690
Natural (acres)			25			28			31	
Artificial (square feet)			4			4			5	
Downhill Snow Skiing	3,200	13,100		9,900	15,900		12,700	18,900		15,700
Slopes			132			169			209	
Camping — Tent/Trailer	3,084	4,600		1,516	5,200		2,116	5,600		2,516
Family/Small Group Sites (number)			379			529			629	
Group Sites			1,516			2,116			2,516	
Trail Hiking	3,360	3,500		140	3,900		540	4,300		940
Trails (miles)			3			11			20	
Horseback Riding	600	1,700		1,100	1,800		1,200	1,900		1,300
Trails (miles)			46			50			54	
Picnicking — Family	7,388	17,400		10,012	19,800		12,412	21,300		13,912
Tables (number)			1,335			1,655			1,855	
Hunting	38	4,300		4,262	4,400		4,362	4,200		4,162
Area (acres)			68,192			69,792			66,592	
Bicycling		18,600		18,600	19,900		19,900	21,800		21,800
Bikeways (miles)			72			77			84	
Tennis		4,200		4,200	4,800		4,800	5,600		5,600
Courts (number)			131			150			175	
Shuffleboard		200		200	200		200	200		200
Courts (number)			6			6			6	
Horseshoes/Quoits		700		700	700		700	800		800
Courts (number)			22			22			25	
Basketball	240	600		360	700		460	700		460
Courts (number)			9			12			12	
Baseball	520	3,300		2,780	3,500		2,980	3,700		3,180
Fields (number)			56			60			64	
Softball	150	1,900		1,750	2,000		1,850	2,100		1,950
Fields (number)			35			37			39	
Football/Soccer	320	3,700		3,380	3,800		3,480	4,300		3,980
Fields (number)			86			87			100	
Playground Activities	400	1,200		800	1,300		900	1,400		1,000
Areas (number)			4			5			5	
Regulation Golf	1,200	1,000		(200)	1,100		(100)	1,300		100
Courses — 18 holes (number)									1	

Footnotes
[1] Estimated capacity of 1976 supply of Municipal, County, State, Interstate, Federal and Private facilities
[2] Indicates total number of facilities necessary to satisfy unmet demand for each type of facility
[3] Represents deficits or (surplus) of 1976 supply of facilities in terms of capacity to meet demand

needs of Salem County for the years 1976, 1986, and 1996. Of the 22 activities evaluated, only swimming and regulation golf courses can meet the supply requirements of the population. The other recreational activities studied exhibit a deficit of facilities.

The proposed recreation area will furnish the following recreational elements which will be beneficial to the City of Salem, as well as the larger tourist industry:

- boat launch (possibly a double launch)
- 100 boat slips
- boat service and shore-side facilities
- trails
- picnic area
- natural area/passive recreation
- public access
- historic village

According to the SCORP, there will be a deficit of 2615 boating slips in Salem County in 1986. The existing marina area in the plan presently has 80 slips, with 100 slips proposed for the new marina. A total of 20 new slips will, therefore, be added to the county supply. Also with regard to boating, the proposed design supplies a boat launch which will probably be large enough for two boats at a time. The county deficit for 1986 is indicated as 44 boat launches by the SCORP. This plan will aid as a reduction to the deficit by 1 launching lane.

The 1986 deficits for hiking and bicycling trails are 11 and 77 miles, respectively. The recreation area includes approximately a half mile of trails through and around the waterfront, marina and village areas. The trails are not necessarily designed for active recreation, but rather for the more passive observation pleasures of the users.

A picnic grove is proposed on the eastern side of the marina, adjacent to the port. This area will be in close proximity to a restaurant and will have a view of the marina, the waterfront and the port. The bicycling/jogging trail terminates at the picnic grove. The SCORP report predicts a deficit of 1655 picnic tables in Salem County for 1986. The number of tables provided in this recreation plan will help to reduce the deficit indicated, as well as being a positive design element to this public access area.

5.2 Historic Significance

Many explorers passed through New Jersey in pre-colonial and colonial times while visiting the New World. Henry Hudson was one of the first explorers, in 1609, to voyage to this area for purposes of trade and settlement exploration. "Following Hudson's voyage, the Dutch and the Swedish became the dominant explorers in New Jersey," according to the SCORP report. These groups were primarily traders and did not settle in one place for a long term in most cases. The first known Swedish settlement in the New World was in Salem County near Fort Elfsborg which is approximately 3-4 miles from the proposed recreation area.

With the approaching 350th anniversary of this Swedish settlement, the establishment of a museum village called "New Sweden" has been incorported into the proposed design. The buildings and surroundings will be replicas of a Swedish village of the 1630's to 1650's. A Swedish church boat will be included in a stream channel cut from the Salem River to

add to the authenticity. As a tourist attraction, some of the retail shops proposed in the design will carry Swedish goods and operate as a Swedish trade market.

5.3 Demographic Conditions

The County of Salem is located in southern New Jersey along the Delaware River. It is bordered on the north by Gloucester County and on the east and south by Cumberland County. Across the Delaware River on the west of Salem County lies the State of Delaware. The City of Philadelphia, Pennsylvania is also in close proximity to the proposed public access area, northwest of the site and across the Delaware River.

In 1980 the County of Salem had a population of 64,676 with a density of 173.4 persons per square mile. The per capita income in 1980 was calculated at $6,714. The median age throughout the County was average at 31.3 years. As noted in Table 1, this population of Salem County does favor water-related activities, as well as bicycling and picnicking for which the proposed project area caters to.

With access available by boat, automobile and pedestrian means, this historic seaport public access area should prove to draw its users from the Salem County area, as well as being able to accommodate the recreation demands of other southern New Jersey, southeastern Pennsylvania and northern Delaware populations.

The major automobile access route to the proposed public access facility from the north is the New Jersey Turnpike.

The Turnpike terminates in Salem County in the Township of Pennsville at the Delaware Memorial Bridge. Proceeding south on Route 49, the proposed site is approximately 9 miles from the Turnpike exit. Access to the site from the Philadelphia and Camden area is available via Route U.S. 130 and Interstate highway 295, approximately 40 minutes away. The Atlantic City area is approximately 90 minutes from the public access facility by way of Route 40 west to Route 45. Traffic from Cape May County and south may travel north to Route 49 and the site in approximately 1 hour. Other major cities for which the proposed site is within reasonable distance include Trenton - 1 hour, Baltimore, Maryland - 2 hours, Wilmington, Delaware - 25 minutes and Vineland - 45 minutes.

By boat, the site is accessible via the Delaware River to the Salem River. The marina incorporated in the public access area plan is approximately 3.2 nautical miles from the Intracoastal Waterway. The Intracoastal Waterway (ICW) is a heavily travelled course, especially by pleasure boats, extending along the eastern coast of the United States inland, away from the open ocean. The ICW stretches from New Jersey to Texas. This means of transportation allows for access to the site by many travellers from outside of the general recreational demand area, as well as those within close proximity to the public access area. The marina will provide a number of transient boat slips to service travellers on the Delaware River and the ICW.

5.4 Marketing Strategy

A recreation/public access area of this magnitude can attract a large number of tourists if marked properly. There are many channels available for promoting this type of waterfront facility and it is important to investigate all possibilities, whether they are free advertising or have an associated cost.

Recreation facilities are promoted by the State of New Jersey, as well as regional and local councils. The State Division of Travel and Tourism has devised a vacation kit which promotes recreational attractions throughout New Jersey. For this purpose the Division has divided the State into six (6) regions, each with individual regional brochures. The proposed public access area lies within the Delaware River Region which is composed of Burlington, Camden, Gloucester, Mercer and Salem Counties. The Division of Travel and Tourism also publishes a quarterly calendar of events. Any special events or attractions which may appear at the Salem facility can be publicized in this document, especially the grand opening of the site to the public, as well as the Swedish celebration in 1988. For purposes of future information, the State of New Jersey Division of Travel and Tourism may be contacted at 1 West State Street, CN-826, Trenton, N.J. 08625 or (609) 292-2470.

A Regional Tourism Council exists for the Delaware River Region. The proposed public access facility may become a member of this council which will then participate in the

promotional marketing of this site in Salem. Types of promotional coverage range from brochures to media advertising (radio, television, newspapers) to bus tours. This type of waterfront village may, for instance, be coupled with a bus trip to Atlantic City. The contact for the Regional Tourism Council is Mr. Sheldon Zieger, Chairperson, Capital Plaza Hotel, 240 West State Street, Trenton, N.J. 08625 or (609)394-1000.

The marina facilities can be promoted in boating guides and periodical publications. One such guidebook is called the Boating Almanac. This guide is published annually for specific boating regions, such as New Jersey and the Delaware Bay. The information provided in the almanac includes details of boat services available, as well as tourist attractions of interest to boating travellers. Commercial advertising also allows for promotion of a marina facility. Once operations at the recreation area begin, advertisements will be secured in the Boating Almanac or similar marina recreation guidebooks.

On the local scale, advertising may include circulars, newspapers, brochures and signs, in addition to word-of-mouth publicity. Initially, the more visible exposure the project area receives, the better the attraction that is anticipated. Within time, word-of-mouth advertising is expected to maintain the flow of visitors to the site along with literature put out to advertise the Salem waterfront development.

6.0 PERMIT REQUIREMENTS

The construction of a waterfront project in the State of New Jersey must be closely monitored due to the development pressures which may result from increased use of the coastal zone. To regulate the development of the coast, New Jersey has implemented several permit and certification processes to ensure wise planning and use of limited coastal resources.

The following list of permits and certifications are those which are potentially required for the Salem public access area:

- Waterfront Development Permit
- Wetlands Permit
- Stream Encroachment Permit
- Army Corps of Engineers Permit
- Tidelands Conveyance
- Soil Erosion and Sediment Control Plan Certification
- Solid Waste Management Permits
- County and Local Permits

6.1 Waterfront Development Permit

Is generally required if a project is proposed within or bordering on a tidal water body. A permit is not required for valid repair or replacement of waterfront structures associated with a residence or with recreational boating. Projects requiring this permit do not need to obtain a separate Water Quality Certification.

A Waterfront Development Permit will be required for the proposed Salem public access project. The entire facility borders the Salem Riverfront. Although the marina is existing, the rehabilitation will be substantial, including enlarging the marina by dredging, adding new bulkhead, additional docks and moorings. The entrance to the marina is directly on the riverfront. All new structures are subject to review under this permit.

6.2 Wetlands Permit

Is required for projects which propose to excavate, dredge, fill or erect structures on coastal wetlands. There are two types of permits, Type A and Type B. As defined by the New Jersey Coastal Development Handbook, "Type A permits are required for minor projects including excavation of small boat mooring slips, maintenance or repair of bridges, roads or highways, and construction of piers, catwalks, docks, landings, and observation decks. The permit requirement does not pertain to emergency repairs necessitated by a natural disaster or sudden and unexpected mechanical, electrical or structural failure. Type B permits are required for the installation of utilities, excavation for boat channels and mooring basins, construction of impoundments and sea walls, water diversion, and the use of pesticides."

The public access project will require a Wetlands Permit for the proposed channel in the New Sweden portion of the site. The rehabilitation of the marina may also be cutting into the existing wetlands when it is re-dimensioned.

6.3 Stream Encroachment Permit

Is necessary for projects involving construction, installation or alteration of any structure or permanent fill along, in, or across the channel or floodway of any stream. Any dredging or filling of the stream itself within the high water mark of the 100-year flood line is subject to permit requirements. In this manner, the State of New Jersey is able to control the floodway and flood fringe areas of all flood hazard zones.

The Salem project will require a Stream Encroachment Permit for the majority of the public access area since it is located in the flood hazard Zone A (100-year flood delineation). The Second Oak Creek will also be relocated, requiring review and approval by the Bureau of Floodplain Management. The floodway line along the coast of the Salem River will have to be determined.

6.4 Army Corps of Engineers (COE) Permit

Is required for dredge or fill activities, disposal of dredge material, or construction of a structure in waters of the United States. A COE permit is also needed for the transportation of dredge spoils for the purpose of ocean dumping. This COE permit program is authorized by Section 10 of the River and Harbor Act of 1899, Section 404 of P.L. 92-500 and Section 103 of P.L. 92-532.

The proposed site plan will require a COE permit for the marina and the boat channel through the wetlands. Both areas will be dredged. The new bulkheading, boat moorings and boat

launches incorporated into the plan are also typical activities which require a COE permit.

6.5 Tidelands Conveyance

Is a legal agreement between an interested party and the State which allows the party to purchase, lease or use a specific area of publicly owned, tidally flowed lands. There are three types of tidelands conveyances:

- o Grant - conveys full ownership to the applicant.
- o Lease - conveys use of the property for a fixed number of years, and is usually issued for projects involving solid fill (such as a bulkhead).
- o License - allows use of the property for a fixed number of years (usually 10 or less), and is the type of instrument used for residential docks and piers.

The proposed public access area has two existing tidelands conveyances, one is a grant for an area 200 feet wide by about 30 feet deep adjacent to Block 97 Lot 7, the other parcel contains a 10 year license (administered September 1976) and is 30 feet wide by approximately 75 feet deep from the shoreline. This licensed parcel is located adjacent to the grant conveyance at the northwest corner of Block 97, Lot 9.01. An additional tidelands conveyance will be necessary for the remainder of the tidelands fronting on Block 97, Lots 9.01 and 9.02.

6.6 Soil Erosion and Sediment Control Plan Certification

Is required for projects which disturb more than 5,000 square feet of surface area of land for which the State

uniform construction code would require a building permit. In some cases single family residences may be exempt from this requirement.

The proposed public access area will require a Soil Erosion and Sediment Control Plan Certification. The application for this certification includes a sequence of construction in addition to a plan which demonstrates the measures employed for erosion and sediment control for on-site development.

6.7 Division of Waste Management Permit

The disposal of dredge spoils can require one of several permits. If disposal is intended to be to a landfill, a Division of Waste Management Permit would be required. However, if the dredge spoils are disposed of in a dewatering lagoon with overflow to a surface water body, the disposal will be covered by the Section 404 Army Corps of Engineers Permit. In a case where dredge spoils are transported upland and spread on the ground, a New Jersey Pollution Discharge Elimination System Permit is required.

This project will require a permit for the disposal of dredge spoils from the marina area. Being in close proximity to the municipal landfill, this most likely disposal site would require a Division of Waste Management Permit.

Additionally, a landfill disruption permit may be required. The site of the observation tower and the relocation route of Tilbury Road are on previously landfilled areas.

6.8 Local Permits

For construction of the proposed Salem public access project, include, but are not necessarily limited to, a building permit, an electrical permit and a plumbing permit. A County permit may also be required for the relocation of Tilbury Road.

Although the City of Salem is located within CAFRA (Coastal Area Facility Review Act) jurisdiction, this public access project does not appear to need a CAFRA permit. The project area does not include the construction of 25 or more dwelling units or 300 or more parking spaces for motor vehicles. Likewise, the project does not include any other of the specified activities which require a CAFRA permit by law.

7.0 FUNDING SOURCES

7.0 FUNDING SOURCES

Funding for this public access area may be available in the form of a grant, a loan or a bond or any combination of the three. A grant is the awarding of money for a project which does not have to be paid back. Loans and bonds are both the lending of money at a specified interest rate, for a given length of time.

Funding may be available from a variety of public or private sources. For this project, an initial investigation assessed the following potential funding sources; most of which are public:

- Green Acres
- Land and Water Conservation Funds
- Urban Development Action Grants (UDAG)
- Community Development Block Grants (CDBG)
- National Endowment for the Arts (NEA)
- Economic Development Administration (EDA)

The following information details these assistance programs specifying their purpose, authorization, type of assistance, restrictions, funds available, examples of funded projects and information contacts.

7.1 Green Acres

Purpose: Green Acres loans may be used for the acquisition and development of lands and waters for outdoor recreational facilities for the good of the general public.

Authorization: 16 U.S.C. 1-4 et.seq. Land and Water Conservation Fund of 1965; P.L. 88-578 as amended, and the N.J. Green Acres and Recreational Opportunities Bond Referendums of 1978 and 1983 and subsequent appropriations bills.

Type of Assistance: Loans available for projects at 2% interest over 20 years.

Restrictions: Loans are available only to municipalities and counties from this State program. Although assistance is available for a variety of recreational uses and their support facilities, the proposed use must be open to the general public, and not limited to special groups. The preferred facility is of a basic, rather than elaborate design. Funding is not available for the operation and maintenance of recreational facilities. Specific to marinas, slips must not be leased for periods of more than three years and new leases must be allocated by a lottery system.

Funds Available: FY 84 est $2,119,457 N.J. from the Land and Water Conservation Fund: Green Acres $16,600,000 per year will be available for 5 years, of which $8,000,000 is dedicated to loans, $4.8 million dollars to Urban Aid Communities, and $6.7 million to the incentive program, of which 25% is a grant.

Examples of Funded Projects: Acquisition and development of picnic areas, inner city parks, bicycling/jogging trails, campgrounds, recreation courts, boat launching ramps, parks, etc.

Information Contact:

Regional Office - National Park Service, Department of the Interior, Washington, D.C. 20240, (202) 343-3700, Sam Hall. State Office - NJDEP, Green Acres Program, DEP CN 404, Trenton, New Jersey 08625, (609) 292-2455, Dennis Davidson.

7.2 Urban Development Action Grants (UDAG)

Purpose: To aid distressed cities and urban counties to alleviate economic deterioration and employment, as well as strengthening the tax base.

Authorization: Title I of the Housing and Community Development Act of 1974, P.L. 93-383, 42 U.S.C. 5301-5317, as amended.

Type of Assistance: Project Grants, there is no specified minimum or maximum amount in the Action Grant Program.

Restrictions: Grants must support economic development. Large cities and urban counties may not use UDAG funding for planning a project or developing the application; however, small cities may receive up to 3% of their grant for planning costs. Funds may not be used for public services. Grants must be applied for by municipalities or counties.

Funds Available: FY 84, $440,000,000 U.S.

Examples of Funded Projects: Boston, MA - Industrial project between two neighborhoods; creating new jobs, land acquisition, relocation, demolition and site preparation. Jobs created for low income residents with training.

Information Contact:

National Headquarters - Office of Urban Development Action Grants, Community Planning and Development, Department of Housing and Urban Development, 451 7th Street, S.W., Washington, D.C. 20410, (202) 755-6290; State Office (NJ) - New York Regional Office, Regional Administrator, 26 Federal Plaza, New York, New York 10278, (212) 264-0751 - Carmen Valenti.

7.3 Community Development Block Grants/Small Cities (CDBG)

Purpose: The purpose of this grant is to develop viable urban communities by providing decent housing, a suitable living environment, and expanding economic opportunities, principally for persons of low and moderate income.

Authorization: Title I of the Housing and Community Development Act of 1974, P.L. 93-383, 42 U.S.C. 5301-5317, as amended.

Type of Assistance: Project Grants

Restrictions: Eligible uses of this funding include acquisition, rehabilitation or construction of certain public works facilities and improvements, site preparation, housing rehabilitation, code enforcement, relocation payments and assistance, administrative expenses, economic development, and completing existing urban renewal projects. Communities are restricted from constructing or rehabilitating public facilities for the general conduct of government and certain community-wide facilities. Project funds must

demonstrate a benefit for low and moderate income persons or aid in the prevention or elimination of slums or blight. New construction not eligible.

Funds Available: FY 84, $3,500,000,000 U.S., $100,000,000 N.J.

Examples of Funded Projects: Neighborhood revitalization, including housing rehabilitation and economic development.

Information Contact:

National Headquarters - State and Small Cities Division, Office of Block Grant Assistance Community Planning and Development, Department of Housing and Urban Development, 451 7th Street, S.W., Washington, D.C. 20410. State Office (NJ) - Department of Community Affairs, Trenton, New Jersey, (609) 292-8916 - Richard Binetsky.

7.4 National Endowment for the Arts (NEA)

Purpose: To promote excellence in design by funding activities in architecture, landscape architecture, urban design and planning, interior design, graphic design, industrial design, and fashion design. The program awards grants to community and neighborhood organizations, service organizations, art institutions, colleges and universities, local and state governments, professional designers, design students and other qualified individuals working on design projects.

Authorization: National Foundation on the Arts and the Humanities Act of 1965; P.L. 89-209, as amended.

Type of Assistance: Project Grants, Direct payments for specified use.

Restrictions: Funding is available for the planning and design phases of applicable projects. Grants are not available for capital improvements, construction or operations and maintenance costs.

Funds Available: Unknown at this time.

Examples of Funded Projects: Urban design and zoning study for a national historic theatre district, support dissemination of information about design research, planning and design of water fronts.

Information Contact:

National Headquarters - Design Arts Program, National Endowment for the Arts, 1100 Pennsylvania Avenue, N.W., Washington, D.C. 20506, (202) 634-5437, Peter Smith, Administrator.

7.5 Economic Development Administration - Tax Exempt Industrial Development Bonds

Purpose: To enhance economic development by creating jobs and tax ratables.

Authorization: Public Works and Economic Development Act of 1965; P.L. 89-136, as amended.

Type of Assistance: Bond financing.

Restrictions: These loans are meant for private borrowers rather than public agencies. Applicable areas for use of these monies are targeted by EDA. Projects must enhance economic development. Under the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA), EDA is not able to fund recreation or restaurant areas.

Funds Available: Variable.

Examples of Funded Projects:

Information Contact:

Economic Development Administration, New Jersey - Cliff Rossignol, (609) 989-2192 or Larry Ceir, (609) 292-0194.

7.6 Discussion of Funding Potential

The programs described above give an overview of potential funding sources for the Salem waterfront. The information tells which phase of the project the funding may be used for. Application deadlines for some of these programs can prove to be a crucial factor with regard to the phase that the project progresses to: planning, design, or construction. Most funding can not be applied to work which has already been completed. Therefore, the most appropriate funding sources for this project appear to be either the UDAG, Green Acres Programs, or private financing.

At present, Salem holds a UDAG grant appropriation. The grant may be applied to acquisition, site preparation and development of the proposed public access area in an effort to enhance the immediate environment. The Salem project will aid

in the betterment of the existing economic status of the community. This proposed tourist attraction will bring tax ratables to the area in addition to creating new jobs for many residents of Salem. Job opportunities may range from sales positions such as in the retail shops and marina stores, to guides for the museum village, to waiters or restaurant help at the eateries. The UDAG funding is primarily available for design and construction of the waterfront facilities; however, small cities may utilize up to 3% of their grant for planning costs.

The Green Acres Program, which is another favorable funding source for this project, is available in 1984 mainly in the form of a loan; however, a small amount of grant money may still be appropriated. Twenty-five percent of project costs may be granted under certain categories called Environmental Incentives. The proposed project appears to qualify under the incentives program. The Green Acres funding may be used for all stages of the project, including acquisition for outdoor recreational facilities. The Salem project meets the objectives of Green Acres by being open to the general public, a multi-purpose facility, and aware of the precious environment in which it is to be situated in containing a marina and museum village in addition to the park design. This proposed public access facility will cater to all ages.

The National Endowment of the Arts-Design Arts program is very appropriate as a funding source for the planning and design stages. This grant has been used for several waterfront projects in the past; however, with the Salem project, the next application deadline is May 1984. Any portion of the project performed before December 1984 is not applicable for funding reimbursement. This project will most likely be too far along to use this funding source.

The CDBG program does not appear to be a viable source of funding since it is intended for rehabilitation projects rather than new projects. Although the Salem project is designed to enhance the neighborhood and the economic development of the City, it is a new facility and, therefore, lacks compliance with the CDBG objectives. The upgrading of the existing marina may, however, be able to use this source for funds.

The EDA financing primarily focuses at private investors. The borrower may be able to negotiate a low interest rate since the bonds are exempt from Federal and State taxes. Since Salem is an EDA target area, appropriate design features may be funded from this source. The TEFRA law restricts EDA from funding recreational and restaurant uses; however, the marina and commercial facilities may be eligible. It is possible to couple this loan with the UDAG appropriation if necessary. As a public entity, if the City of Salem

Municipal Port Authority does run the entire facility, they can float their own bond rather than using the EDA funding.

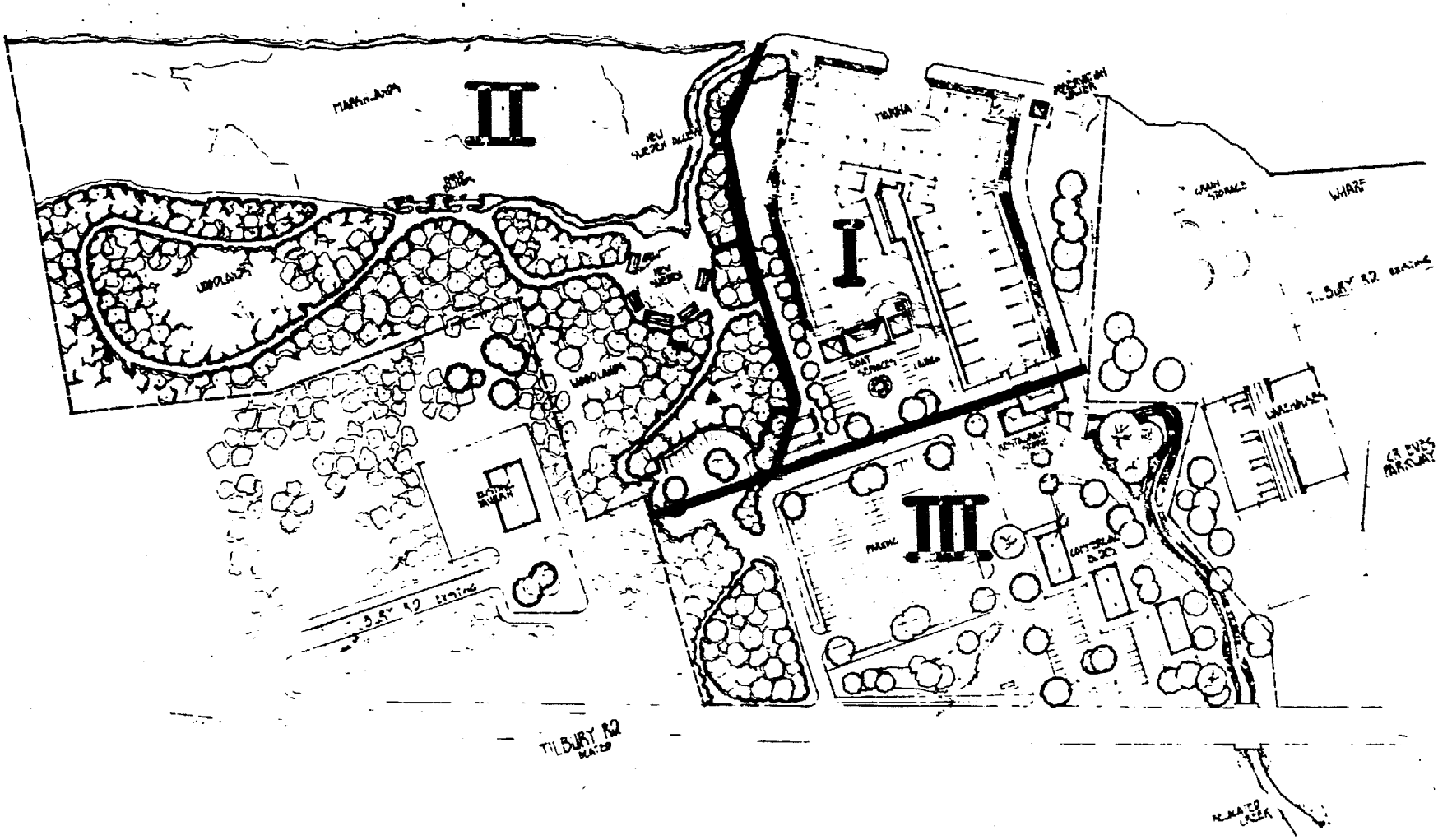
8.0 COST ESTIMATES

8.0 COST ESTIMATES

The New Sweden/Salem Port Recreation Area is planned to develop into a complete recreation facility providng a marina, a cultural/historical center and a commercial plaza. For the purposes of the cost estimate, the development schedule has been segmented to allow for complete operational units to be constructed should the total facility not be funded and constructed at the same time. Each unit that is described can be constructed and can be fully operational without the other segments.

The logical sequence for development is to proceed from Segment I through Segment III as shown on Figure 8. This sequence would provide a fully operational marina that would generate a client base and a cash flow as the first segment of the recreation area. The New Sweden historical complex would be the second unit of this facility. The final segment of the facilities would require the relocation of Tilbury Road to allow for the construction of the commercial plaza, the parking lot and the relocation of Second Oak Creek.

The construction cost for the Segment #1 marina area shown in Table 4 includes dredging and clearing activities, bulkheading and docks, rip-rap slopes, wooden deck and platforms, the boat service complex, the observation tower, power to buildings and docks, pavement and lanscaping. The Segment #2 New Sweden construction costs cover clearing the site for trails, buildings and parking, installation of gravel trails and parking area, constructing the New Sweden building, con-



CITY OF SALEM
MUNICIPAL PORT AUTHORITY
RECREATION FACILITY PLAN
SEGMENTATION PLAN

FIGURE 8

structing the stream channel, bird blinds, landscaping and utilities, (See Table 5).

The Segment #2 construction costs include both the plaza area and the relocation of Tilbury Road, as estimated in Tables 6 and 7. The plaza area construction cost is comprised of clearing the site, a stream relocation, curbing and pavement, trails, landscaping, wooden deck, restaurant and commercial buildings construction, covered walkway and utilities. The Tilbury Road relocation entails clearing, excavation, subgrade preparation base and surface courses and a culvert.

Cost estimates are presented for the facilities that are described in Chapter 2 and shown on the plan prepared for the recreation facility. Table 2 presents a summary of total costs for each segment of the recreation area. The total costs include construction, architectural and engineering fees and construction management services that are required during the construction phase of the project. Acquisition costs are not included as a factor in these cost estimates. Table 3 is a breakdown of Table 2, showing the construction costs and professional fees.

Detailed cost estimates are provided in Tables 4 through 7. The costs are generalized for the facilities shown on Figure 8 and described in detail in the text of Chapter 2. The cost estimates were prepared using Building Construction Cost Data, 1984, 42nd Annual Edition, published by Roberts Snow Means Co., Inc. Due to the level of detail of the plans, a 25% contingency was added to the cost estimate. The contingency

cost accounts for changes that may be made to the final plans and changes that may occur during construction.

TABLE 2

SUMMARY OF ESTIMATED PROJECT COSTS

DESCRIPTION	ESTIMATED COST
New Sweden Area	$ 541,000
Marina Area	2,229,000
Plaza Area	4,540,000
Tilbury Road Relocation	262,000
TOTAL PROJECT COST	$7,572,000
SAY $7.6 Million	

TABLE 3

BREAKDOWN OF ESTIMATED PROJECT COSTS

DESCRIPTION		ESTIMATED COST
1. New Sweden Area		
Construction		$ 435,000
Architectural/Engineering		71,000
Construction Management		35,000
	TOTAL	$ 541,000
2. Marina Area		
Construction		$1,890,000
Architectural/Engineering		225,000
Construction Management		114,000
	TOTAL	$2,229,000
3. Plaza Area		
Construction		$3,850,000
Architectural/Engineering		459,000
Construction Management		231,000
	TOTAL	$4,540,000
4. Tilbury Road Relocation		
Construction		$ 220,000
Architectural/Engineering		28,000
Construction Management		14,000
	TOTAL	$ 262,000

TABLE 4

CONSTRUCTION COST - MARINA AREA

	DESCRIPTION	EST. COST
1.	Dredging	$ 124,000
2.	Clearing	6,400
3.	Bulkhead	432,000
4.	Docks	150,000
5.	Stone Slopes	44,700
6.	Wooden Platforms @ Corners	29,300
7.	Wooden Platforms @ Intermediate Points	17,100
8.	Observation Tower	71,100
9.	Sodding	12,500
10.	Gravel Paths	62,400
11.	Boat Service Complex	355,000
12.	Water, Sewer and Power to Buildings	107,000
13.	Water and Power to Dock and Slips	37,700
14.	Timber Curbing	6,000
15.	Pavement (Including Launching Ramp)	34,100
16.	Trees and Shrubs	6,300
17.	Wood Deck Around Marina Buildings	15,700
	TOTAL	$ 1,511,300
	Contingencies @ 25%	377,800
	TOTAL EST. COST	$ 1,889,100

SAY $1,890,000

TABLE 5

CONSTRUCTION COST - NEW SWEDEN AREA

	DESCRIPTION	EST. COST
1.	Clear Trail	$ 21,500
2.	Clear Parking Area	15,200
3.	Clear "Building" Area	12,400
4.	Gravel Trails and Parking Area	94,900
5.	Timber Curbing	7,900
6.	Sodding	2,200
7.	Bird Blinds	18,000
8.	Construct "New Sweden" Buildings	150,000
9.	Pavement	4,900
10.	Trees	400
11.	Construct New Stream	5,500
12.	Utilities	13,000
	TOTAL	$345,900
	Contingencies @ 25%	86,500
	TOTAL EST. COST	$432,400

SAY $435,000

TABLE 6

CONSTRUCTION COST - PLAZA AREA

	DESCRIPTION	EST. COST
1.	Clearing - General	$ 13,300
2.	Fill in and Relocate Existing Stream	93,500
3.	Clear Trail at Southwest Corner	3,600
4.	Concrete Curb	6,200
5.	Timber Curb	41,900
6.	Pavement	58,300
7.	Gravel Trails Walks and Parking	212,600
8.	Sodding	21,800
9.	Trees and Shrubs	103,500
10.	Brick Paved Areas	301,600
11.	Wooded Deck Areas	49,700
12.	Restaurant/Store	820,000
13.	Commercial Buildings	1,100,000
14.	Sign and Planters	11,000
15.	Water, Sewer and Power to Buildings	210,300
16.	Covered Walkway at Commercial Buildings	29,800
	TOTAL	$3,077,100
	Contingencies @ 25%	769,300
	TOTAL EST. COST	$3,846,400

SAY $3,850,000

TABLE 7

CONSTRUCTION COST - TILBURY ROAD

	DESCRIPTION	EST. COST
1.	Clearing	$ 3,500
2.	Excavation	2,500
3.	Subgrade Preparation	16,200
4.	Base Course	88,900
5.	Surface Course	44,500
6.	Culvert	17,700
	TOTAL	$ 173,300
	Contingencies @ 25%	43,300
	TOTAL EST. COST	$ 216,600

SAY $220,000

APPENDIX

THE CITY OF SALEM MUNICIPAL PORT AUTHORITY

205 SEVENTH ST.
SALEM, N.J. 08079
TELEPHONE:
609-935-6380
609-935-5022

January 11, 1984

Mr. Louis C. Joyce, P.P.
PQA Engineering Company
8 Hand Avenue
Cape May Court House, NJ 08210

Re: Salem Port Facilities

Dear Lou:

In response to your request for information concerning the Port Authority's plans for future expansion, I have prepared a listing of ideas that are presently being considered. Let me stress at this time that the plans being considered for both cargo and location of facilities are tentative. Final decisions on siting and location of facilities will be based upon demonstrated needs of the shipping community and the completion of planning and engineering feasibility studies.

Plans for the Port facilities will include accommodations for cargo in bulk, bagged and containerized forms. Some of this cargo could include:

Grains
Minerals
Stone
Building Products
Fertilizers

Industrial uses that are being planned for the Port District include:

Boat Building/Repair
Light Industrial Activities
High Tech. Industries
Vegetable/Produce Handling
Container Staging and Storage

MEMBERS: James F. Storm, Kenneth R. Lewis, Charles R. Sullivan, Headley Small, James N. Acton, Jr.

The area directly adjacent to the proposed recreation facility is presently an inactive area of the Salem City Landfill. This area is designated as "Future Port Area" on your General Area Map. Because of the unstable nature of the substrata, this area would most likely be utilized in the future for storage, park expansion and parking facilities. The potential for methane recovery from the old landfill may be explored as Port planning progresses.

Presently, these are the best answers that we can provide to your inquiries of Port expansion plans. Operational needs and shipping market consideration will dictate the Port activities in the near term. Should you require additional information, please feel free to call.

Very truly yours,

Steve

J. Steven Carnahan

JSC/LCJ/mh

ACKNOWLEDGEMENT:

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