POULSBO MARINE SCIENCE CENTER

Feasibility Study
December 1987

POULSBO MARINE SCIENCE CENTER

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POULSBO MARINE SCIENCE CENTER
FEASIBILITY STUDY

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"The preparation of this report was financially aided through a grant from Washington State Department of Ecology with funds obtained from the National Oceanic and Atmospheric Admin., and appropriated for Section 306b of the Coastal Zone Management Act of 1972.

SECTION 1
Summary

SECTION 1 - SUMMARY

This study was commissioned by the City of Poulsbo in September 1987 with funds provided by the State of Washington Department of Ecology. The study was done to explore the concept of expanding the function of the existing Poulsbo Marine Science Center (now located in Poulsbo), from its present set of educational services, to include a public marine life display and other public programs. The award winning Marine Science Center will lose the lease on its present facility in 1990. At that time, it may negotiate a new lease, or move to another facility in Poulsbo or elsewhere. This study is an outgrowth of a planning effort undertaken in the spring of 1987 by a group of community leaders to determine whether the Marine Science Center could remain in Poulsbo, and under what conditions. Their proposal was for a new facility to be constructed which would allow for the expansion of the educational mission of the existing MSC to include public displays and programs. The key question for this study has been whether such an educational/public display facility could be financially self-supporting.

The study, conducted by the Seattle, Washington zoo and aquarium planning and design firm, BIOS:Inc., was structured to answer a number of questions. Those included: 1) what sizes and kinds of facilities would be needed to permit both educational programs and public displays to be conducted; 2) could community support be found for such a program, and could financial support be found for construction and operation of such a facility; 3) was an appropriate site available; 4) could a facility and programs be developed which would attract visitors to Poulsbo; and 5) under what conditions could all of the above happen?

The study was supervised by the City of Poulsbo, and by a citizens Ad-Hoc committee. The committee provided input and helped sort the various possible answers to each of the major questions. A sub-committee evaluated possible sites, and another assisted with an evaluation of the economic analysis.

The economic projections developed during the study indicate that a reasonable range for public attendance is 90,000-180,000 visitors per year. A range is presented instead of a more precise estimate because actual data on tourism in North Kitsap and Poulsbo was found to be severely limited. It is principally the admission charge which visitors to the public display portion of the facility will pay that will produce revenues needed to cover operating costs. Other attendance dependent revenues used in financial projections include revenues from a gift/book shop. At the low end of the attendance range, the facility would have an operating loss of approximately $55,000 annually. At the upper end, it would generate an operating surplus of approximately $180,000.

A site selection study was undertaken by a sub-committee. Both that committee and the ad-hoc committee as a whole recommended that the site of the existing Poulsbo Yacht Club be used for the expanded PMSC. The present Yacht Club building is on City land. The Yacht Club intends to construct a new facility on its land South of downtown by the time its lease is up in 1990 making its present site available.

A brief analysis of potential funding sources, and mechanisms of land and facility ownership, and of operational structure was also undertaken. This report concludes that the Educational Service District which presently operates the existing MSC is the most likely candidate to operate the expanded PMSC. While several general alternatives are presented, no recommendations were made on capital funding and ownership. The final section in the report discusses some of the key steps in future development and recommends that several steps be taken immediately if an opening date in 1990 is to be achieved.

This study found that the economic performance of a new PMSC and the downtown Poulsbo business district are directly related. The product which downtown Poulsbo tries to provide patrons, the degree to which that product is marketed, and the success of the PMSC are so interdependent that this report and summary

address both. If the PMSC must operate in today's environment, it probably cannot be financially self-sufficient. However, construction of the PMSC as outlined can help Poulsbo achieve the status of a leisure service core, which will help the PMSC be successful.

The key factors in achieving the minimum level of attendance necessary for the new downtown PMSC to be financially self sufficient are listed below. There is a direct relationship between all of these factors, and each must be dealt with in some positive manner.

KEY FACTORS REGARDING THE PMSC

The new facility must be physically large enough to accommodate both educational programs and public displays.

It must be located in the downtown Poulsbo core within easy walking distance of most businesses.

The public display portion of the facility must be designed to a clearly thought out set of design criteria to ensure local support and attendance.

The public displays must be large and numerous enough that visitors stay in the facility for approximately one hour. They must also be unique, diverse, must present information on many levels, and must stimulate visitors.

The PMSC must be able to operate in a dynamic manner, taking every opportunity to market itself in Poulsbo, North Kitsap, Kitsap County, and the metro Seattle area. It should have excellent relationships with all forms of the media, with local groups, with area colleges and universities, and with any other group or individual which can help it broaden its influence and fame.

ESD 114 must continue to provide funds for the school educational programs on the same basis as they now do.

The City of Poulsbo must make the land available to the PMSC at a cost which revenues can support.

An active organization must assume responsibility for raising funds to construct the PMSC. Due to the limited time available, this is a first step in further development.

KEY FACTORS REGARDING POULSBO

Downtown Poulsbo must focus on its product and strategy for penetration of the resident and visitor markets. For the PMSC to succeed, that focus must include a significant emphasis on Poulsbo as a leisure destination.

Serving as a leisure attraction requires that:

Food services of different types be available in the downtown core.

Other attractions be added to provide an experience with a variety of activities for visitors.

Periodic festivals or other events be mounted to promote visibility and encourage visitation.

A coordinated marketing campaign be mounted and maintained to market Poulsbo to the day trip market in the metro Seattle area.

Such marketing efforts should focus on strengths such as Poulsbo's theme, Poulsbo Bread, the new PMSC, and others as they develop.

A "front door" feature be developed at the intersection of Highway 305 and Hostmark Street identifying downtown and serving as an initial attractor.

Visible signage and/or a structure announcing downtown Poulsbo and its direction at the corners of Bond Road and highway 305; highway 305, highway 3 and Viking Way, and Finn Hill Road and Viking Way.

If visitor traffic increases, additional parking within the downtown core must be provided.

SECTION 2
Overview

SECTION 2 - OVERVIEW

POULSBO MARINE SCIENCE CENTER - HISTORICAL REVIEW

The Poulsbo Marine Science Center, a National Science Teachers Association award winner, had its beginnings two decades ago. From a single class of thirty students, the Poulsbo Marine Science Center now serves some 10,000 students yearly. The facility, located in dockside buildings which were once the home to a fleet of codfish schooners that traveled to the Bering Sea to fish for cod, provides the base for center programs. For a more complete description, see "The World of Water" in the appendix.

Today, the Poulsbo Marine Science Center serves as a national model for science education for school age children. The elementary program is centered around the 2nd, 4th and 6th grades and the secondary program around middle school and high school science classes. Serving four school districts under a cooperative arrangement, all 2nd, 4th and 6th grade students and all middle school/junior high school and senior high school marine science classes travel to the Center in Poulsbo to participate in Center programs. In recognition of the high quality educational program, the Marine Science Center has been selected by the National Science Teachers Association Search for Excellence in Science Education as an exemplary elementary and secondary science curriculum and as one of the ten best environmental education science programs in the nation.

From a mandate of serving students, services have expanded to meet the needs of other user groups as well. The Poulsbo Marine Science Center has scheduled public hours and fills the role of a regional science museum. The Center originally operated on a school year schedule, in 1983 it responded to increasing requests for programs and began to offer an array of

adult and student discovery classes during the summer and on weekends and evenings. The summer 1987 program included over thirty offerings ranging from robotics to sailing to sharks! Pre-school and senior groups are regular users throughout the year.

A comprehensive teacher training program operates out of the Poulsbo Marine Science Center as a result of national recognition of the Center's environmental education program by the National Diffusion Network of the U.S. Department of Education in 1982. The program trains teachers across the country as well as within Washington state. Curriculum and educational ideas developed and refined at the Poulsbo Marine Science Center are being shared with students and teachers throughout the nation. At this time, teachers trained by Poulsbo Marine Science Center staff are working in over 900 schools in over 30 states.

The Center's role as a major in-service teacher training site has developed over the past six years. From a single college credit course in marine science for elementary teachers in 1982, a course catalog of over forty college credit courses in 1986-87 provided on-site training for teachers from Kitsap County and the Olympic Peninsula. Courses range from computers, to math, to marine science as well as other science courses of all descriptions. As the demand for college level courses continues to grow, the Poulsbo Marine Science Center looks forward to expanding its role as a provider of formal education for adults.

The importance of providing "informal" educational experiences for adults is also recognized by the Poulsbo Marine Science Center. Public presentations to interested citizen groups, service organizations, and individuals by Center staff have been a tradition since the beginning. Recently, these presentations have been augmented by topical sessions provided by Washington Sea Grant. Because of site limitations the full potential of the Center in providing educational experiences for adults cannot be met at the present facility.

All this activity has real meaning for Poulsbo. Students and teachers in the local community are being exposed to the very newest and best ideas in marine science education. While they continue to work with animals in tide pools, lab tanks, aquaria and the waters of Puget Sound, students are increasingly working with computers and with the concepts of math and science which they will need to succeed in our modern world.

The Center's science programs provide leadership within the schools. Their work influences the State of Washington guidelines for science, math and environmental education, but most importantly, they effectively teach basic science skills locally and, for the people of the community. Excellent science education for children is the bottom line.

One aspect of the Poulsbo Marine Science Center which has particular importance to the local community is the interest in the relationship of science to the maritime history of the area. The Center's approach to science looks at tangible issues which have an impact on the life of people in the local community. Staff are especially concerned with how things have changed within the memory of community members.

When one thinks that the last cod fishing schooners sailed from Poulsbo in the early 1950's, one can recognize that since that time, profound changes have taken place in the technology of fishing and in the available resource.

Every year, hundreds of visitors stroll through the Center, with a particulary large number during the summer. Due to zoning restrictions the MSC has very limited parking and therefore has had to curtail almost all programming which would attract non-school visitors. Nonetheless, significant numbers of visitors are attracted to the facility. The Center's job is education and the Poulsbo Marine Science Center does it as well or better than anyone else in the country.

The Poulsbo Marine Science Center has served local schools and the communtiy for 20 years. As the demand for present and new services has increased, the Center has been forced to examine the adequacy of present leased facilities and has embarked on a study designed to guarantee that it will be able to continue providing services for many years to come.

By looking at the past, by combining it with the best scientific knowledge in the present, and by projecting that understanding into the future, the Poulsbo Marine Science Center hopes to provide students, teachers and community members with a genuine appreciation for the importance of the marine resource to their lives, their community and the nation.

An interesting historical review of the Poulsbo Marine Science Center is found in "The World of Water" article by Millie Magner, attached as an appendix.

THE NEED - POULSBO MARINE SCIENCE CENTER POINT OF VIEW

A Marine Science Center serving local school districts has operated in Poulsbo since 1968. The Center, initially operated by North Kitsap School District 400, is now managed as an educational cooperative by Educational Service District 114, Bremerton. Located in a small waterfront structure south of Poulsbo on the shore of Liberty Bay, the Poulsbo Marine Science Center presently occupies about 7,000 square feet of floor space and serves more than 10,000 regional students annually. Operating under a twenty year lease signed in 1970, the Center also provides a large number of college credit courses for teachers and the public. Interest in the program from all user groups now exceeds the Center's ability to meet the demand.

Although demand is currently higher than ever, the space occupied by the Center has always been insufficient for the presentation of the kinds and numbers of public educational and informational programs which such an institution should offer. The lack of adequate parking further hampers the Center's offerings. The reduced scope of public programming permitted in the Center's present location coupled with the fact that the Center's lease expires in March 1990, has prompted the Poulsbo Marine Science Center to search for a new waterfront location.

The need exists for a facility which will accommodate the increased demand for and increased variety of Marine Science Center programs. The opportunity for a combination Marine Science Center/public viewing aquarium presents itself as one option.

ANSWERING THE NEEDS: A PROPOSAL

The existing Marine Science Center has directly benefited the community of Poulsbo for the last 20 years. The center provides our local students with a superior educational experience and provides community activities and recreational exhibits. The actions of the Poulsbo Marine Science Center have produced positive community recognition with both direct and indirect economic benefits to the North Kitsap Community. As the center approaches the end of its twenty (20) year lease on the site at Liberty Bay Marina, the city needs to assist the Center in the relocation efforts to retain and enhance the community benefits provided by the center.

The facilities and operation of the Poulsbo Marine Science Center offer a great opportunity to better serve the community by expanding them to accommodate an aquarium facility as part of the relocated Poulsbo Marine Science Center. Expansion would enhance the existing benefits while improving the attractiveness of Poulsbo as a visitor destination. The community needs projects like the Poulsbo Marine Science Center/Aquarium facility to offset increasing competition for tourism, retail sales revenues and to bolster community esteem.

Many of the physical facilities the Poulsbo Marine Science Center needs for its programs can also be utilized by a public display facility because the times of use overlap only slightly. The Poulsbo Marine Science Center facilities would be committed to formal instruction primarily on week days during the school year. The public display facilities, on the other hand, would be open evenings and weekends during the school year, and all-day during the summer months.

The city can bring land, technical assistance, and funding assistance to facilitate the successful relocation and enhancement of the Poulsbo Marine Science Center. The preferred waterfront land site which can accommodate the relocated Center, is the present home of the Poulsbo Yacht Club, a site owned by the city and leased to the Yacht Club for one (1) dollar per year. The lease expires in 1990, at the same time as the Poulsbo Marine Science Center's present lease at Liberty Bay Marina expires. The expanded Poulsbo Marine Science Center as proposed, may be a good future use for the present Yacht Club site. The concept has a core of local support and was suggested in the city's 1986 Downtown Waterfront Revitalization Plan.

THE NEED - THE COMMUNITY OF POULSBO POINT OF VIEW

The present Yacht Club site needs to be used for the greatest public benefit. To meet the need, the city should seek to redevelop the present Yacht Club site in a manner that will provide a significant new anchor tenant to bolster the downtown economy. If downtown Poulsbo continues to evolve toward providing leisure activities, the uses on the site should attract and extend the stay of visitor and local residents in the downtown area. The use on the site should involve and serve broad segments of the community to return maximum public benefit.

The appearance of any future building on the present Yacht Club site should complement the downtown Poulsbo Scandinavian theme. Any redevelopment of the site should promote land use and environmental compatibility. The shoreline at the site should be opened up for public access consistent with the waterfront access objectives achieved in the Liberty Bay Park. Problematic issues in the downtown such as parking and the location of a boat ramp should be addressed at the time of a redevelopment proposal.

The community would be best served by planning for a multiple use facility to accommodate as many uses as practical. Examples of possible uses to combine with the Poulsbo Marine Science Center/Aquarium facility, if relocated at the Yacht Club site, include:

- Office space with possible shared use of meeting rooms and secretarial support for the Port of Poulsbo and the Poulsbo Chamber of Commerce. The Port of Poulsbo is currently exploring their future space needs. Port authorities have the ability to pay rent.

- Outdoor recreation opportunity provided by extension of the city Liberty Bay Park concept to the South end of Anderson Parkway as depicted in the 1986 Downtown Waterfront Revitalization Plan.

- Space for privately owned retail, concessions, or service operations compatible with the Poulsbo Marine Science Center/Aquarium mission.

This list is a sample and will be refined as both community needs and wishes, and funding opportunities are further explored during subsequent planning. Additional goals for programs and cooperation which an expanded Poulsbo Marine Science Center should address are included as Appendix B.

SECTION 3
Goals & Objectives

SECTION 3 - GOALS AND OBJECTIVES

The concept of an expanded Poulsbo Marine Science Center located on the downtown waterfront was developed by a citizens ad-hoc committee. After some initial discussions, this study was undertaken to examine all aspects of the idea and to provide an overview of feasibility. The remainder of this section describes the assumptions and specific goals and objectives as distilled from meetings with the PMSC administration and staff/ ESD 114 Administration/ City of Poulsbo Mayor, Council members and staff/ Port of Poulsbo Commissioners and staff/ downtown business people/ and interested citizens.

ASSUMPTIONS

The concept described here is based upon several assumptions. First, that the public programs the Poulsbo Marine Science Center has already developed, and the displays for open public viewing, will complement each other and produce an institution which is dynamic and which has the best opportunity to achieve stable financial operation. The present Poulsbo Marine Science Center is handicapped by lack of space, and in particular, parking for public events. A new display facility, on the other hand, often takes years to develop the public and educational programs which give it a sense of validity and importance in the minds of the public visitors. This concept of co-use of the same facility with both the educational programs and the public display functions being enhanced is valid.

Second, the general public and visitors who might come to Poulsbo are interested in the surrounding marine environment. This seems a safe assumption given the increased attendance at the Seattle and Pt. Defiance aquariums, and the founding of small marine centers at Blaine, Pt. Townsend, Pt. Angeles, Shelton, and Olympia. Nationally, at least nineteen aquariums are in design, under construction, or being planned. Clearly the "general public" is interested in the marine environment and its life.

The third assumption is that a facility does not have to be bigger, or fancier, to be attractive. While some of the new aquariums now being developed are architecturally significant and very large, there is a growing number of smaller facilities with a much more defined display and interpretive focus. The display and exhibit menu for some of these new facilities includes much more than just display of fish, but confines this broader view to a more specific location. For example, we find small institutions such as The Oregon Coast Aquarium and the Maui Ocean Center displaying and interpreting the plants, animals, and ecologies of their defined geographical region. Enough similar institutions are now in planning to validate the assumption that a facility must be more interesting, not just larger, to interest people.

Fourth, the combined facility will be of appropriate size and scale for Poulsbo and its waterfront, and there is a potential for combining public and non-profit operation with some new method of development. There are a few (all recent) models for joint public (as in ESD 114) and non-profit (as in a dedicated IRS 501 (c)(3) corporation) operation. There are even one or two models for such an operation sharing a facility built by a for-profit business which receives a return on its investment through rent paid. A goal of this study was to explore these and many more alternatives.

GOALS FOR ENHANCING EXISTING EDUCATIONAL PROGRAMS

- The Poulsbo Marine Science Center needs new facilities in which to teach its classes and hold other public programs.

- The facilities should be large enough and have enough parking to allow the Poulsbo Marine Science Center to expand its programs in size, and in time to evenings and weekends.

- Some facilities for research, either as part of its teaching function, or cooperative research with universities and other agencies, should be provided.

- The facility should be adjacent to Liberty Bay. The salt water quality should be good enough to permit supplying the displays, holding tanks, and laboratory facilities without exotic or expensive mechanical pre-treatment. A location which provides a boat dock is desirable.

- The facility must be affordable to be built using one of the funding pathways to be worked out in the next planning phase. This probably means a more modest, rather than large and expensive, facility.

- If possible, both the location and facility should allow extension of the Poulsbo Marine Science Center mission and teaching to the site. This means that if the new facility can be part of the larger downtown waterfront and park, some free public displays and interpretation of the local environment should be provided.

- The new facility must be financially self-supporting. This is a key requirement and one basis of the present concept. The public admissions and other programs must generate enough revenues to pay for the facility. The Poulsbo Marine Science Center and ESD 114 will continue to operate the educational program section of the new facility, but cannot afford to pay for the capital costs of the new facility.

PUBLIC DISPLAY GOALS

- One area of vital interest to both education and public display programs is the general theme, what is being taught, and what is being displayed. The ad-hoc team has agreed to a display and program theme focused on Liberty Bay and the Puget Sound area. The displays would focus on the plants and animals of this region complementing the educational programs already developed and operating on the same subject matter. Just as the programs encompass broader subjects of

science and ecology, so too can the displays be broadened as necessary or desired. Adopting a Puget Sound/Liberty Bay theme seems prudent because it fits well within the expectations of visitors to Poulsbo. The specific exhibit ideas are described later in this section under public displays.

- The displays should focus on the marine and freshwater aquatic animals, plants, and habitats of the Liberty Bay and Puget Sound region. Display of other animals or locations is acceptable if it amplifies understanding or appreciation of some aspect of the local environment. Display of human activities related to the marine environment, such as maritime history, is desired.

- The displays should provide the visitor with a quality experience emphasizing exploration and discovery by individual visitors. Quality is more important than quantity. A key desire is for visitors to CONTACT the environment, the animals, people (staff and volunteers) who will explain it all to them, and new subjects or subjects seen in new ways. Visitors must also have fun and enjoy themselves. Displays should be large enough to cause the average visitor to stay for 45-70 minutes.

- The displays, their quality and the length of time visitors spend looking at them, should cause an appreciation which more than offsets the admission charge. The displays must be "worth enough" that admission fees and other revenues pay the cost of operating the open public displays.

- The displays should promote interaction between the Poulsbo Marine Science Center programs and the more static permanent public displays. This may be done by utilizing the Poulsbo Marine Science Center teaching laboratories and other facilities for the visiting public during open display hours.

- Some displays and interpretive graphics should be provided outside the facility, free of charge, for interested visitors to Poulsbo.

- A suggested listing of animals, habitat types, subjects and individual displays and key factors was developed by the ad-hoc committee. No decisions on condensing the list have yet been made.

POULSBO MARINE SCIENCE CENTER

Exhibit Program Listing

Animals

1 Plankton
2 Clams
3 Octopus
   a. natural looking
   b. Octopus cave
   c. Demonstration
4 Wolf Eel
5 Salmon/Hatchery
6 Mammals
7 Jelly fish

Subject

1 Mud Estuary
2 Tide in/Tide out
3 Cross section of mud bottom
4 Shell fish
   a. Harvest
   b. Red Tide
5 Food Chain
6 Open water/ Plankton
7 Marine Science
8 Boating/Seamanship
9 Coast Guard Traffic
10 Control Station
11 Indian History
12 N.W. Timber History
13 Liberty Bay History
14 Commercial Fishing
15 Current Events/ Other Institutions

Specific Exhibits

1 Touch tank or Display
2 Fish in water/ Natural or normal aquaria
3 Video displays of Biological Processes
4 Wave tank
5 Weather station
6 Children timeout/play areas
7 Children Oriented Display
8 Discovery lab
9 Curatorial Space
10 Theater
11 Simple, Identifiable Precise Graphics

All displays should be:
12 True, precise multi-level, useable by all levels

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Exhibit Program Listing

Areas to receive emphasis

1 More diversity in kinds of displays and subject
2 Animal protection - displays should be good for animals
  Two types of Experience
    a. Labs
    b. Self-service
       Themed
       Ergonomic
3 Overall Framework
4 Seasonal Exhibits
5 Hands on interactive displays attended/unattended
6 Flexible can travel

Exhibit Types

1 Walk by/Static
2 Normal Aquaria
3 Unattended interactive
4 Attended interactive
5 AV/Demo

Keys to visual satisfaction

1 How something is displayed is often more important than what is being displayed
2 All displays must be visitor centered, not staff or design centered.
3 All displays must serve all audiences - both young and old (all ages) and those with a variety of educational backgrounds. All exhibits must be identifiable and must present multiple levels of information in several different ways.

COMMUNITY GOALS

- Retain the Marine Science Center and its education programs in Poulsbo. Expand the programs to serve a broader Poulsbo, North Kitsap and visitor audience.

- The community needs a quality visitor destination to extend the time visitors to Poulsbo spend in the downtown area. The facility must be of appropriate size to handle expected visitor crowds. It should have a positive appeal to local pride as well as to the local economy.

- The facility must be multi-use providing a place for small scale meetings and for receptions or other community based events. It should provide a location for display of traveling or other temporary displays of local interest.

- The facility should be architecturally themed to fit into the downtown, and should not "stick out". Existing and new parking must be sufficient to service the facility.

- The planning of the facility must be integrated with the other planning activities underway for the downtown area. Specifically, planning of the Poulsbo Marine Science Center should be in coordination with relocation of the Poulsbo Yacht Club, the Port of Poulsbo offices, possible relocation of the boat launch ramp, and the planning of other institutions now in transition.

SECTION 4
Physical Planning

SECTION 4 - PHYSICAL PLANNING

This section describes the physical program of requirements for a new PMSC facility. The facility includes the space and functions necessary to accommodate the existing school educational programs as well as space for the public displays.

After an initial listing of space requirements was conducted to determine the general site size requirements, a site analysis process was done by a citizens committee. The site of the present Poulsbo Yacht Club was selected. Architecturally, the concept described here calls for a building which will fit into the downtown theme. The building must be flexible accommodating construction in phases without looking unfinished, and future changes in use. The concept also calls for significant open public space around the building with interpretive displays available without charge. Space for Port of Poulsbo offices has been included. Finally, potential expansion space has been included.

To allow flexibility in assessing funding and fundraising, the physical space program was developed for minimum and optimum sized facilities. The site selected and all planning done during this study were done with the optimum facility to ensure that it would fit on the site. Construction costs including design for the two facilities are estimated at $1.2 million for the minimum facility, and $2.2 million for the optimum sized one.

EDUCATIONAL FUNCTIONS

The physical space and function needs for both existing and future teaching programs were developed through several workshops with PMSC staff and administration. The overall space requirements for the minimum program would provide a facility similar in number and size of rooms of the existing Marine Science Center with the addition of 3,000 sq.ft. of public display space. The optimum program would permit the educational programs a modest expansion by including

new teaching and preparation facilities. Both programs enhance the teaching functions through inclusion of the displays, and are based on dual education and display use of many spaces. One of the wet teaching laboratories and one of the classrooms have been designated for dual use. They will be used for school classes on week days during the school year. During evenings, weekends, and the summer, they will be used as a film auditorium and a discovery lab for the visiting public.

The various spaces required for efficient operation of the Poulsbo Marine Science Center are presented in Tables 4.1 (minimum) and 4.2 (optimum). The spaces have been allocated to one of four categories:

Public - Refers to spaces most often used by the admission paying public. The educational programs will also utilize the display spaces.

Teaching - Refers to spaces most often used as part of the educational classes and programs. The general public will have access to many of these spaces as public programs and events are presented.

Combined - Refers to spaces planned for normal use by both the general public and school groups. Use will be most often segregated by time.

Support - Refers to service, preparation, office and similar spaces necessary with any such facility.

TABLE 4.1

POULSBO MARINE SCIENCE CENTER

PRELIMINARY SPACE PROGRAM - MINIMUM

SPACE	SIZE (SQ FT) PUBLIC	TEACHING	COMBINED	SUPPORT	TYPE OF SPACE	COMMENTS
PLAZA/GROUP STAGING AREA			400		OUTDOOR-COVERED	
OUTDOOR AMPITHEATER PICNIC AREA			0		OUTDOOR-COVERED	
ENTRY	200				INDOOR	TICKET PAYING VISITORS
ENTRY		50			INDOOR	SEPARATE GROUP ENTRY DUMPS TO GEN. CIRC. SPACE
TICKET BOOTH	50				INDOOR	
EXHIBITS	3,000				INDOOR	
CLASSROOM/ THEATER			750		INDOOR	
CLASSROOM/ AUDITORIUM		1,000			INDOOR	CAN BE USED FOR EVENING EVENTS
DISCOVERY WET LAB			0		INDOOR	
TEACHING WET LAB			750		INDOOR	
TEACHING DRY LAB/ COMPUTER LAB		750			INDOOR	
DRY CHEM TYPE LAB		400			INDOOR	
GIFT/BOOK SHOP			300		INDOOR	
RESTROOMS			220		INDOOR	
GEN CIRCULATION PUBLIC/TEACHING SPACE	650	440	484		INDOOR	20% OF PUBLIC/TEACHING/ COMBINED SPACE
MUD ROOM			200		INDOOR	ENTRY FROM DOCK FOR CLASSES
PROJECT/ GIFT SHOP STORAGE				400	INDOOR	

SPACE	SIZE (SQ FT) PUBLIC	TEACHING	COMBINED	SUPPORT	TYPE OF SPACE	COMMENTS
SHOP				250	INDOOR	
DIVE LOCKER				150	INDOOR	DOES NOT INCLUDE RESTROOMS
GEN CIRCULATION STAFF SUPPORT SPACE				80	INDOOR	10% OF STAFF SUPPORT AREA
PUMP ROOM				120	OUTDOOR-COVERED	OUTSIDE MAIN BUILDING
NET STORAGE				150	OUTDOOR-COVERED	
DOCK				0	OUTDOORS	WILL USE EXISTING PORT DOCK
TOTAL SPACE -						
GROUND FLOOR INDOORS:	3,900	2,640	2,704	1,150		
GROUND FLOOR OUTDOORS:	0	0	400	80		EXCLUDING DOCK
DIRECTORS OFFICE				300	INDOOR	
TEACHING (MSC) STAFF OFFICES				250	INDOOR	
PROJECT STAFF OFFICES				250	INDOOR	
GENERAL OFFICE SPACE				500	INDOOR	
STAFF/VOLUNTEER ROOM/KITCHEN				150	INDOOR	
STAFF REST ROOMS				0	INDOOR	
LIBRARY/CONF. ROOM				250	INDOOR	
PHOTO LAB				120	INDOOR	
JANITORIAL CLOSET				80	INDOOR	
GRAPHICS (DRY) WORK ROOM, PAPER STORAGE				250	INDOOR	
PROJECT STAFF (WET) WORK ROOM				250	INDOOR	
GENERAL CIRC. SUPPORT AREAS				210	INDOOR	10% OF GENERAL SUPPORT SPAC
TOTAL SPACE - SECOND FLOOR				2,610		ALL INDOORS

TOTALS

SPACE	SIZE (SQ FT) PUBLIC	TEACHING	COMBINED	SUPPORT	TYPE OF SPACE	COMMENTS
GROUND FLOOR - INDOORS	10,394					
GROUND FLOOR - OUTDOORS	480					
GROUND FLOOR - DOCK	0					
SECOND FLOOR - INDOORS	2,610					

TABLE 4.2

POULSBO MARINE SCIENCE CENTER

PRELIMINARY SPACE PROGRAM - OPTIMUM

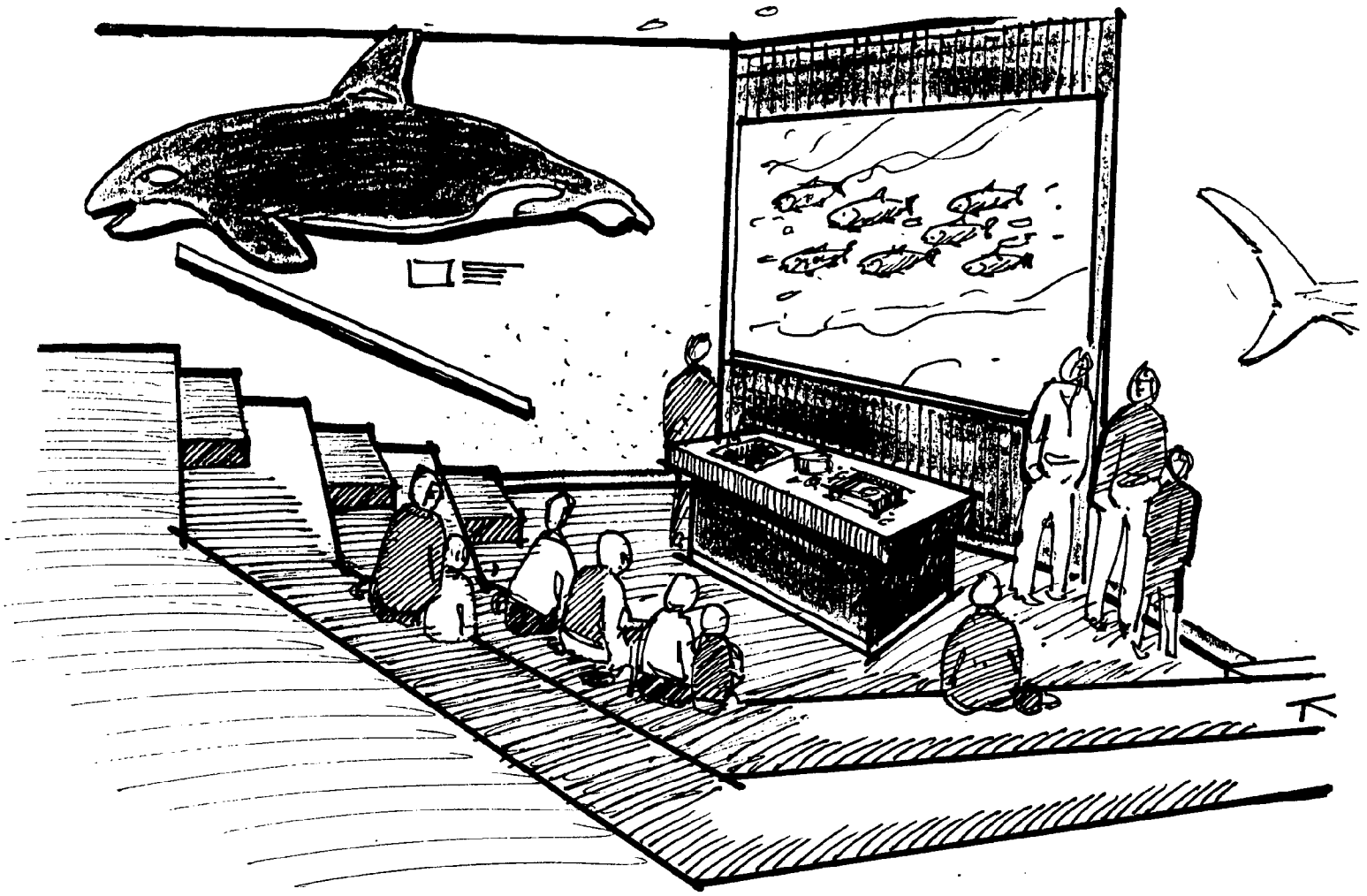
SPACE	SIZE (SQ FT) PUBLIC	TEACHING	COMBINED	SUPPORT	TYPE OF SPACE	COMMENTS
PLAZA/GROUP STAGING AREA			800		OUTDOOR-COVERED	
OUTDOOR AMPITHEATER PICNIC AREA			500		OUTDOOR-COVERED	
ENTRY	400				INDOOR	TICKET PAYING VISITORS
ENTRY		50			INDOOR	SEPARATE GROUP ENTRY DUMPS TO GEN. CIRC. SPACE
TICKET BOOTH	50				INDOOR	
EXHIBITS	4,000				INDOOR	
CLASSROOM/ THEATER			750		INDOOR	
CLASSROOM/ AUDITORIUM		1,500			INDOOR	CAN BE USED FOR EVENING EVENTS
DISCOVERY WET LAB			750		INDOOR	
TEACHING WET LAB		750			INDOOR	
TEACHING DRY LAB/ COMPUTER LAB		700			INDOOR	
DRY CHEM TYPE LAB		1,000			INDOOR	
GIFT/BOOK SHOP			500		INDOOR	
RESTROOMS			250		INDOOR	
GEN CIRCULATION PUBLIC/TEACHING SPACE	890	800	710		INDOOR	20% OF PUBLIC/TEACHING/ COMBINED SPACE
MUD ROOM			250		INDOOR	ENTRY FROM DOCK FOR CLASSES
PROJECT/ GIFT SHOP STORAGE				600	INDOOR	

SPACE	SIZE (SQ FT) PUBLIC	TEACHING	COMBINED	SUPPORT	TYPE OF SPACE	COMMENTS
SHOP				400	INDOOR	
DIVE LOCKER				150	INDOOR	DOES NOT INCLUDE RESTROOMS
GEN CIRCULATION STAFF SUPPORT SPACE				115	INDOOR	10% OF STAFF SUPPORT AREA
PUMP ROOM				120	OUTDOOR-COVERED	OUTSIDE MAIN BUILDING
NET STORAGE				150	OUTDOOR-COVERED	
DOCK				1,500	OUTDOORS	DOCK OPEN TO PUBLIC - FREE
TOTAL SPACE - GROUND FLOOR INDOORS:	5,340	4,800	3,210	3,035		
GROUND FLOOR OUTDOORS:	0	0	1,300	115		EXCLUDING DOCK
DIRECTORS OFFICE				300	INDOOR	
TEACHING (MSC) STAFF OFFICES				400	INDOOR	
PROJECT STAFF OFFICES				500	INDOOR	
GENERAL OFFICE SPACE				600	INDOOR	
STAFF/VOLUNTEER ROOM/KITCHEN				300	INDOOR	
STAFF REST ROOMS				250	INDOOR	
LIBRARY/CONF. ROOM				400	INDOOR	
PHOTO LAB				120	INDOOR	
JANITORIAL CLOSET				80	INDOOR	
GRAPHICS (DRY) WORK ROOM, PAPER STORAGE				500	INDOOR	
PROJECT STAFF (WET) WORK ROOM				500	INDOOR	
GENERAL CIRC. SUPPORT AREAS				365	INDOOR	10% OF GENERAL SUPPORT SPAC
TOTAL SPACE - SECOND FLOOR				4,315		ALL INDOORS

TOTALS

SPACE	SIZE (SQ FT) PUBLIC	TEACHING	COMBINED	SUPPORT	TYPE OF SPACE	COMMENTS
GROUND FLOOR - INDOORS	16,385					
GROUND FLOOR - OUTDOORS	1,415					
GROUND FLOOR - DOCK	1,500					
SECOND FLOOR - INDOORS	4,315					

PUBLIC TEACHING LAB



THEATER - CLASSROOM

PUBLIC DISPLAY FUNCTION

Several workshops were held to determine what kinds of animals and habitats should be displayed, and how those displays should present their contents to the visitor. A display theme focusing on presenting and interpreting animals of Puget Sound and Liberty Bay was developed. An exhibit program list was developed to describe the exhibit possibilities in terms of animals, and subjects to be presented, specific exhibits which are appropriate, and what the interpretive emphasis should be. The space requirements for areas dedicated to public display, and used jointly with the educational programs are shown on table 6.1.

The following general guidelines to guide display development were also developed:

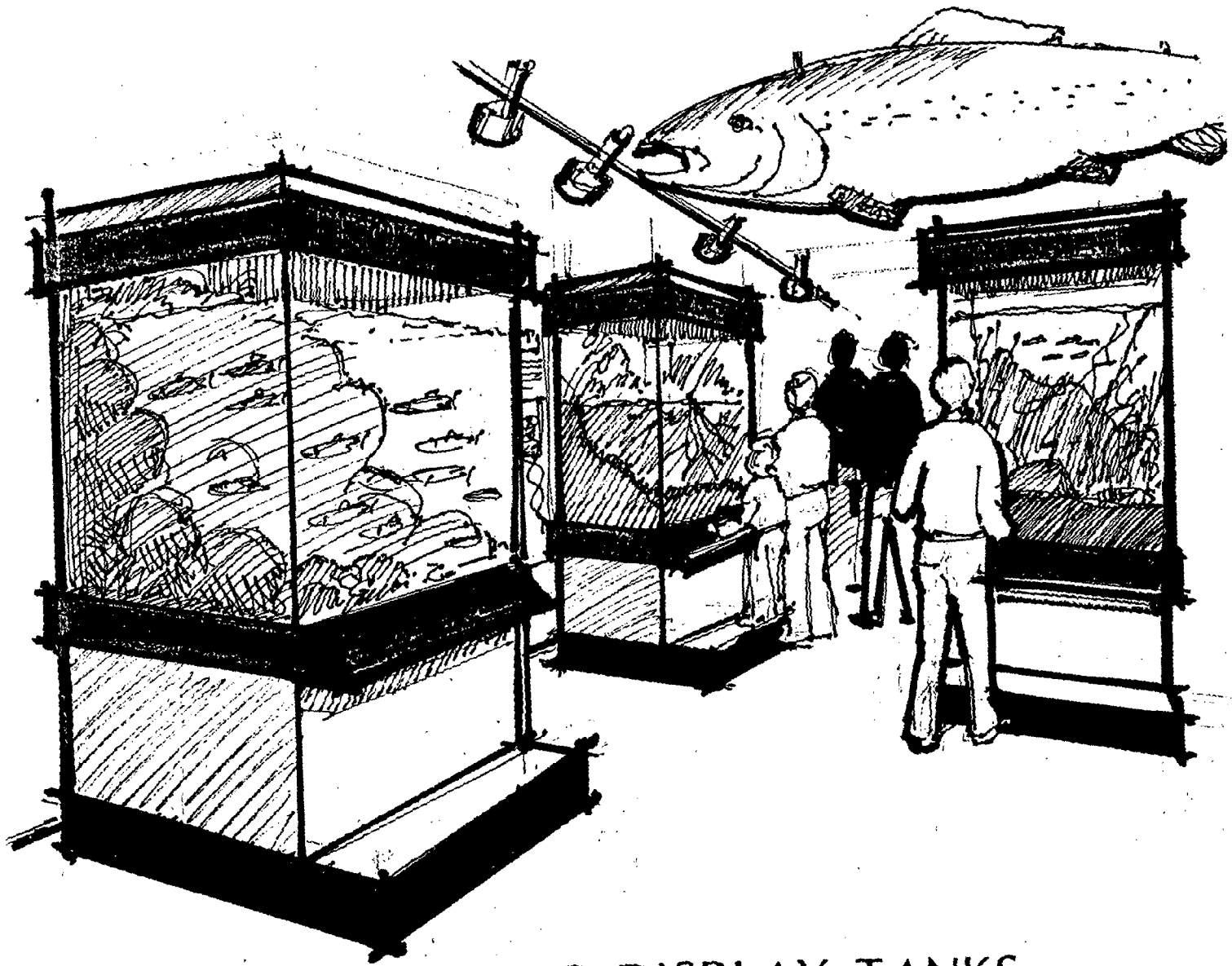
- the displays should focus on the marine and freshwater aquatic animals, plants, habitats, and appropriate scenes of Puget Sound and Liberty Bay. Displays of human activities such as maritime history, commercial and sport fishing, and others are to be included.

- The displays should provide the visitor with a quality experience emphasizing exploration and discovery by individual visitors. Quality is more important than quantity. A main goal is to have as many visitors as possible directly contact an animal or habitat. Displays should be informational and educational, but must also be fun. Information will be presented on a variety of levels ensuring that people of all ages and educational backgrounds can enjoy the exhibits. Staff and volunteer interpreters will be utilized along with graphics, video and computer displays, and other interactive exhibits to ensure a personal experience for every visitor.

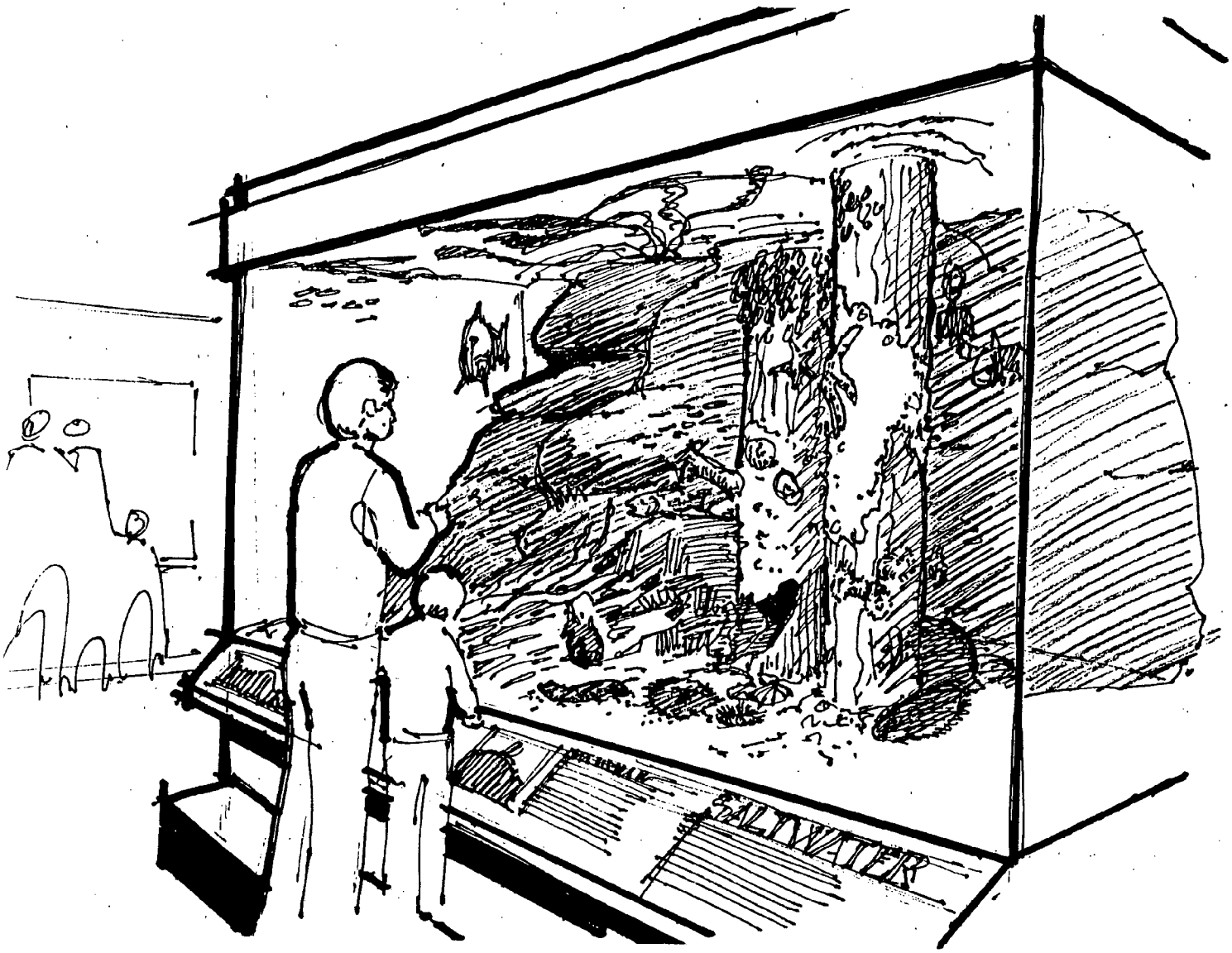
- The displays must be of sufficient number, complexity, and interest to cause visitors to stay approximately an hour. They should be of such quality that visitor appreciation and interest offsets the price of admission in their mind.

- Where possible, opportunities for traveling or cooperative displays should be developed. All displays should be usable by the teachers and classes in the educational programs. Opportunities for cooperative programs and displays with other institutions such as schools, colleges, universities, other aquariums, or science centers should be facilitated.

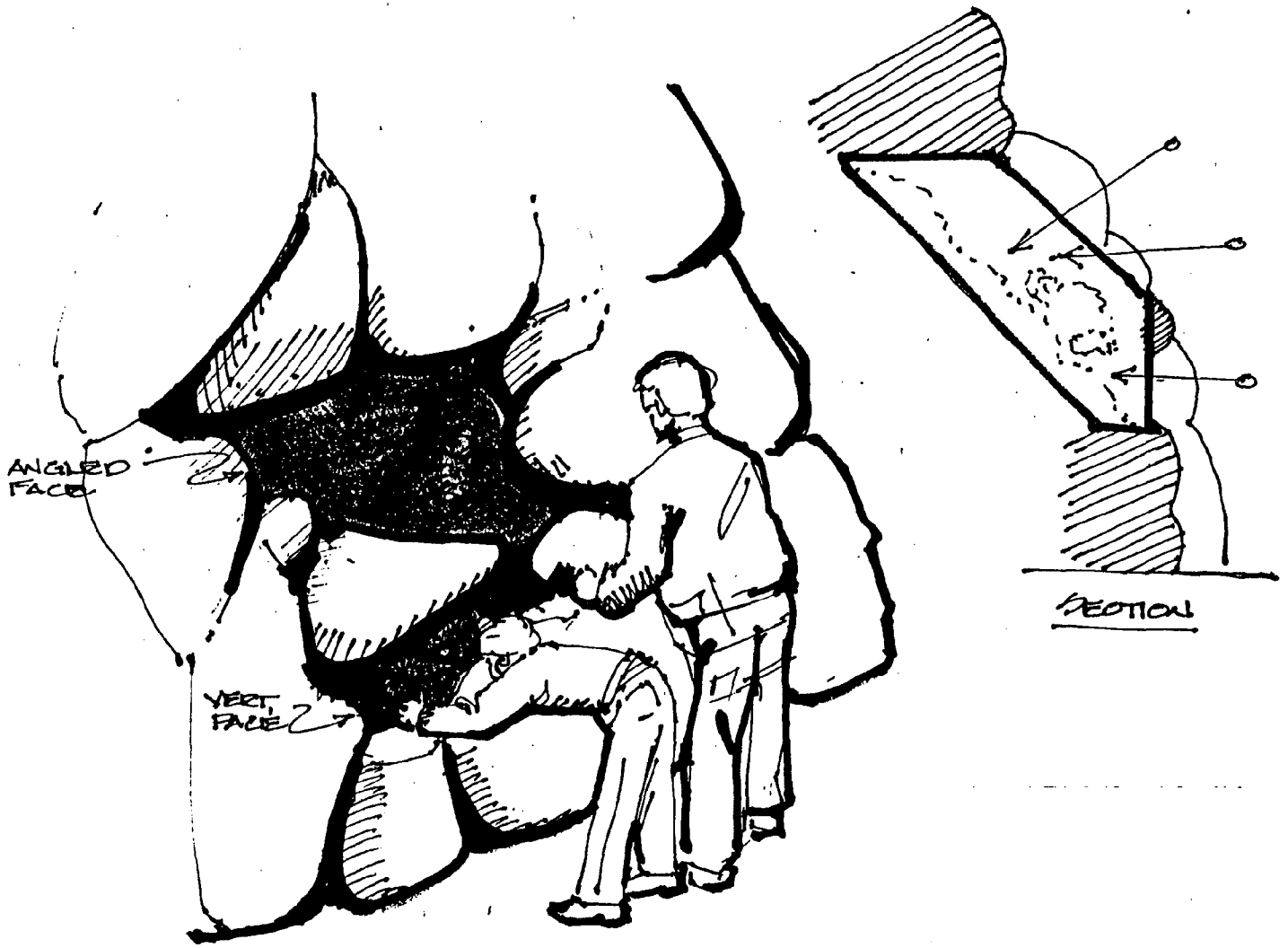
Some of the potential displays are depicted in the sketches. The attempt is not to show particular exhibits, but to show the diversity of displays and how differently they may be used by the visitor.



FREESTANDING DISPLAY TANKS

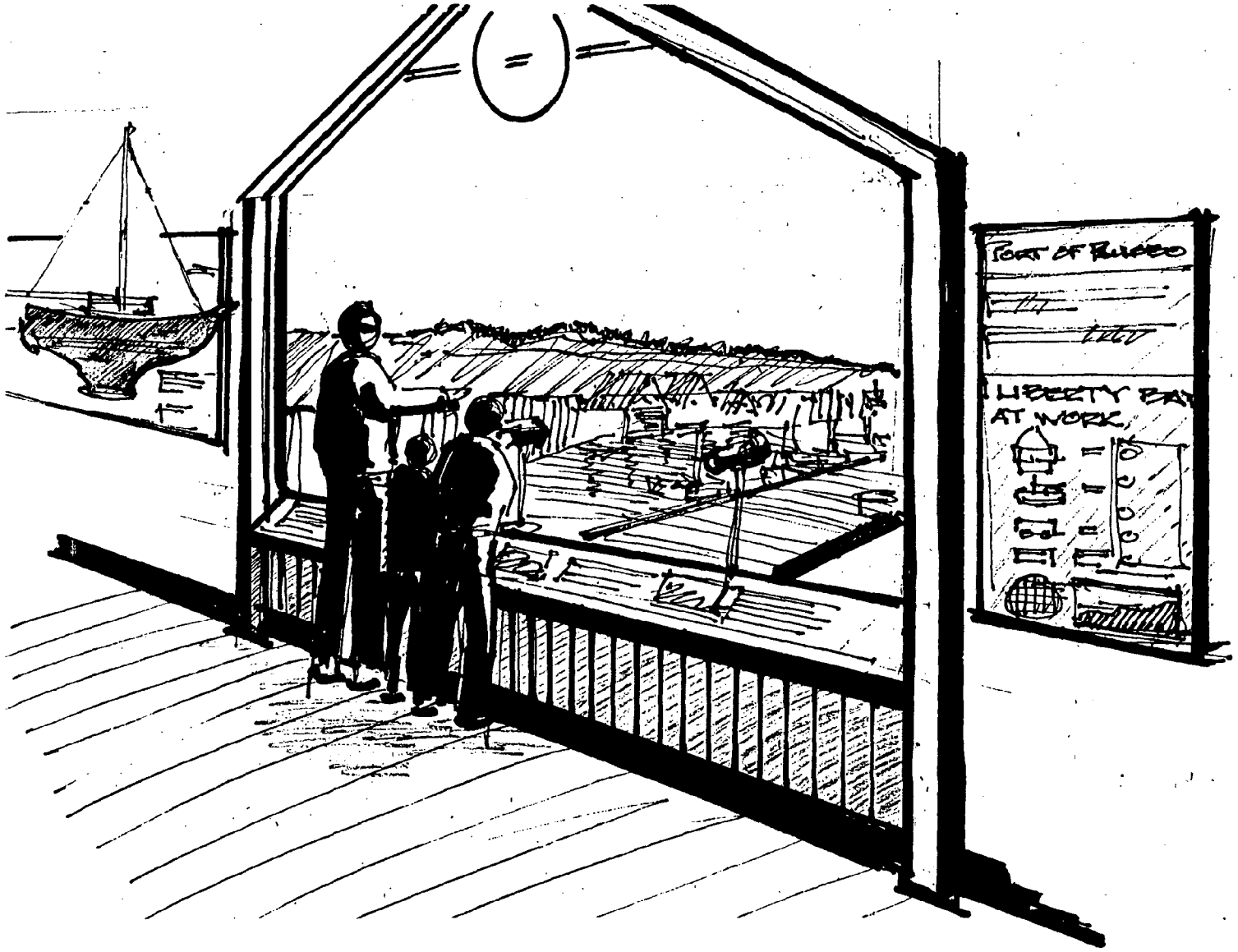


LARGE DISPLAY TANK



OCTOPUS TANK

GIFT SHOP



BAY OVERLOOK

SALMON HATCHERY EXHIBIT

SITE

A committee assisted the consultants in examining potential sites for the new, expanded PMSC. A set of criteria on which sites were judged was developed. The order reflects the critical nature of the site because of its impact on possible attendance and financial feasibility.

EVALUATION CRITERIA

The evaluation criteria were developed as the first way to judge sites, and to trade-off the assets and liabilities of each. Those criteria are, in order of importance to the PMSC:

1) SIZE - At this time, the PMSC requires a basic area of 12,000 SQ FT (absolute minimum), with a more realistic size minimum estimated at 15,000 SQ FT. This size assumes that all offices and other non-public functions can be on the second floor, and will not contribute to the basic "footprint." This size estimate includes a small entry area outside the PMSC, but does not include a larger public gathering area, parking, or possible future expansion or lease space.

2) PARK AND WALK - It is very important to the PMSC that visitors, who will form the bulk of the admission paying public, be able to walk to the facility from the downtown core. Whether visitors come by boat, or by car, they should be able to park once and walk.

3) CRITICAL MASS - Given that the PMSC will not be large enough to be a destination attraction for a majority of the potential visitors, there will be a strong tie between the economic performance of the PMSC, and the other activities in the downtown area. The sense of a "basket of attractions", of general people oriented activity, and of there being several things to do will increase the number of people coming to downtown Poulsbo. That audience is the base from which the PMSC will draw.

4) COST - The site must accommodate a facility constructed at a very modest cost. The economic feasibility of the project will depend, in part, upon economical construction. This probably precludes construction in difficult locations, or major multi-level structures.

5) BOAT ACCESS/WATER QUALITY - These issues are tied together because any site with boat access adjacent or nearby will be far enough South in the bay to provide adequate water quality. Boat moorage at the facility itself, at the adjacent public dock area, or within a short walk, is highly desirable.

6) ASTHETICS - The site must provide good views of Liberty Bay, and should accommodate a facility which thematically matches the rest of downtown Poulsbo. It should be a generally pleasing place to visit.

7) REGULATORY FEASIBILITY - The site should accommodate the PMSC without confronting major regulatory issues for land use and zoning, building codes, or environmental concerns.

8) OWNERSHIP-AVAILABILITY - Only sites which are available, either because they are publicly owned, or because they are known to be for sale, are to be considered.

9) NEIGHBORHOOD COMPATIBILITY - Sites in residential neighborhoods, or in areas where there might be extensive controversy, will not be considered.

10) SPECIAL CONDITIONS - Sites should be free of any other unusual or special conditions which might preclude development because of site characteristics, cost, or other factors.

Using the criteria described above, the following sites were reviewed and ranked by suitability and/or probability of use. Sites designated a (1) were examined in detail. Sites designated a (2) were excluded and deserve further study as circumstances and the study budget permit more information to be collected. Sites designated a (3) were excluded from the active study and were held in reserve.

Downtown Sites

Yacht Club/Port - (1)

Site includes location of existing yacht club, port office and boat ramp.

Berg Garage - (2)

Site of existing and vacant garage and adjacent parking

Offshore-Floating Vessel/or Fixed on Pilings - (1)

A floating structure or one supported on pilings located offshore at the north end of Anderson Parkway, or near the existing port office area.

Legion Park - (2)

The hillside and narrow shoreside flat below street level at the present location of Legion Park.

Netshed - (2)

The location of the old sewage treatment plant and net sheds just south of the existing yacht club.

Norskliff - (3)

The steep hillside north of the Sons of Norway Hall below and including the Danceworks building.

South of Downtown

Liberty Bay Marina - (1)

The piers and marina where the PMSC is presently located.

Coast Oyster Plant - (1)

To be considered as part of the Liberty Bay Marina Site.

Shields Property - (3)

Two pieces split by the road just North of Ninth Avenue.

Whitford Property - (3)

Two pieces split by the road between Lemolo Meats and the Shields property, immediately north of the Poulsbo city limits.

Lemolo Nursery Site - (3)

The nursery property.

Sites North of Downtown

Nelson Property - (2)

Property at head of Liberty Bay, west side, behind Roats Engineering.

Anderson Property - (2)

Property on West side of Liberty Bay behind the new fireplace shop south of Tide Chevrolet on Viking Avenue.

Brennan Property - (3)

West side of Liberty Bay just south of Liberty road and the Liberty Bay Condominium Complex.

Quadrant Site - (3)

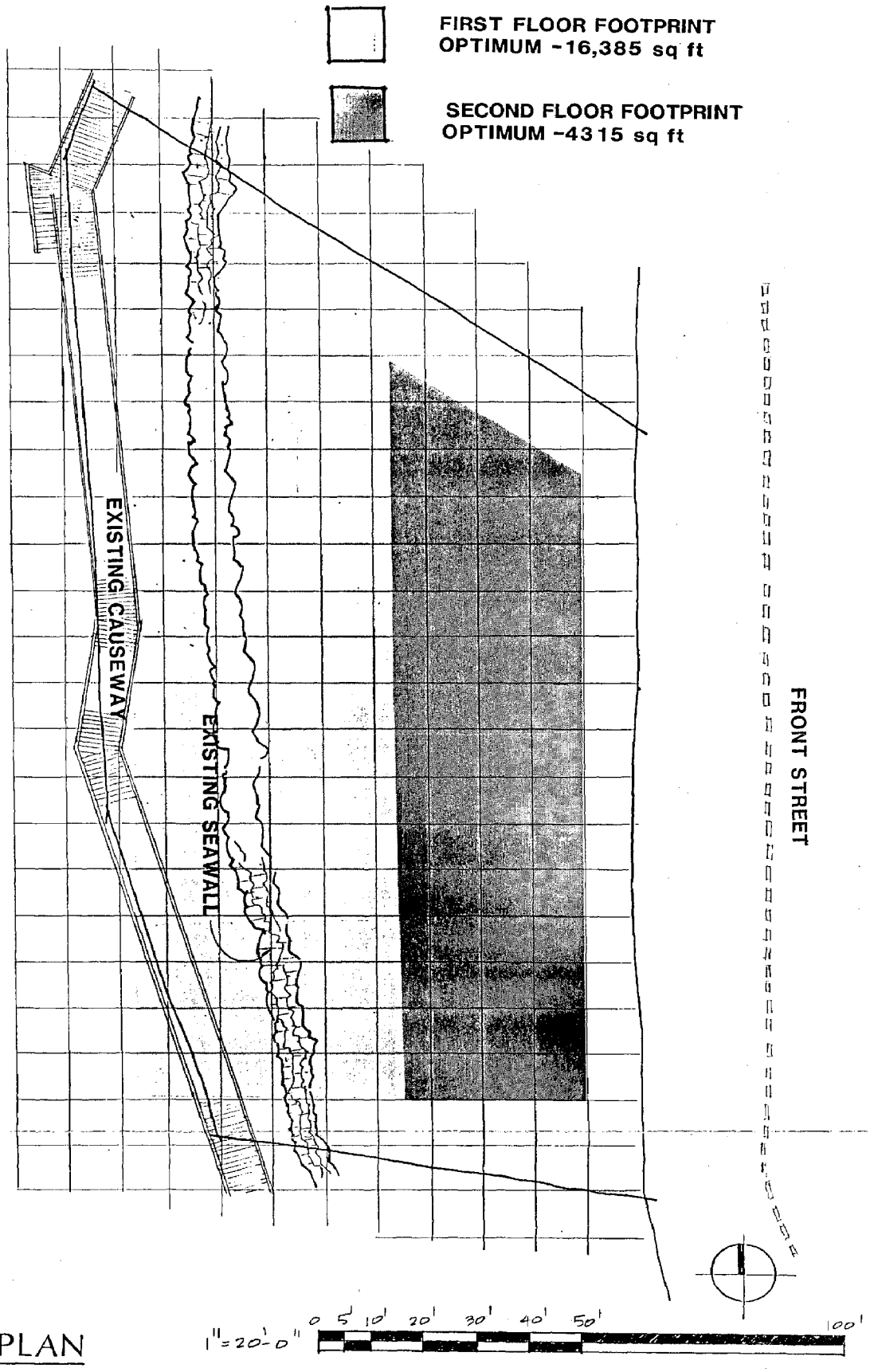
Site north of Lindvig Way on west side of Dogfish creek which was originally graded for a shopping center.

SITE ANALYSIS

Initially, eighteen sites were examined. Many were eliminated for size or location reasons. Four sites were selected for more detailed analysis. Those were:

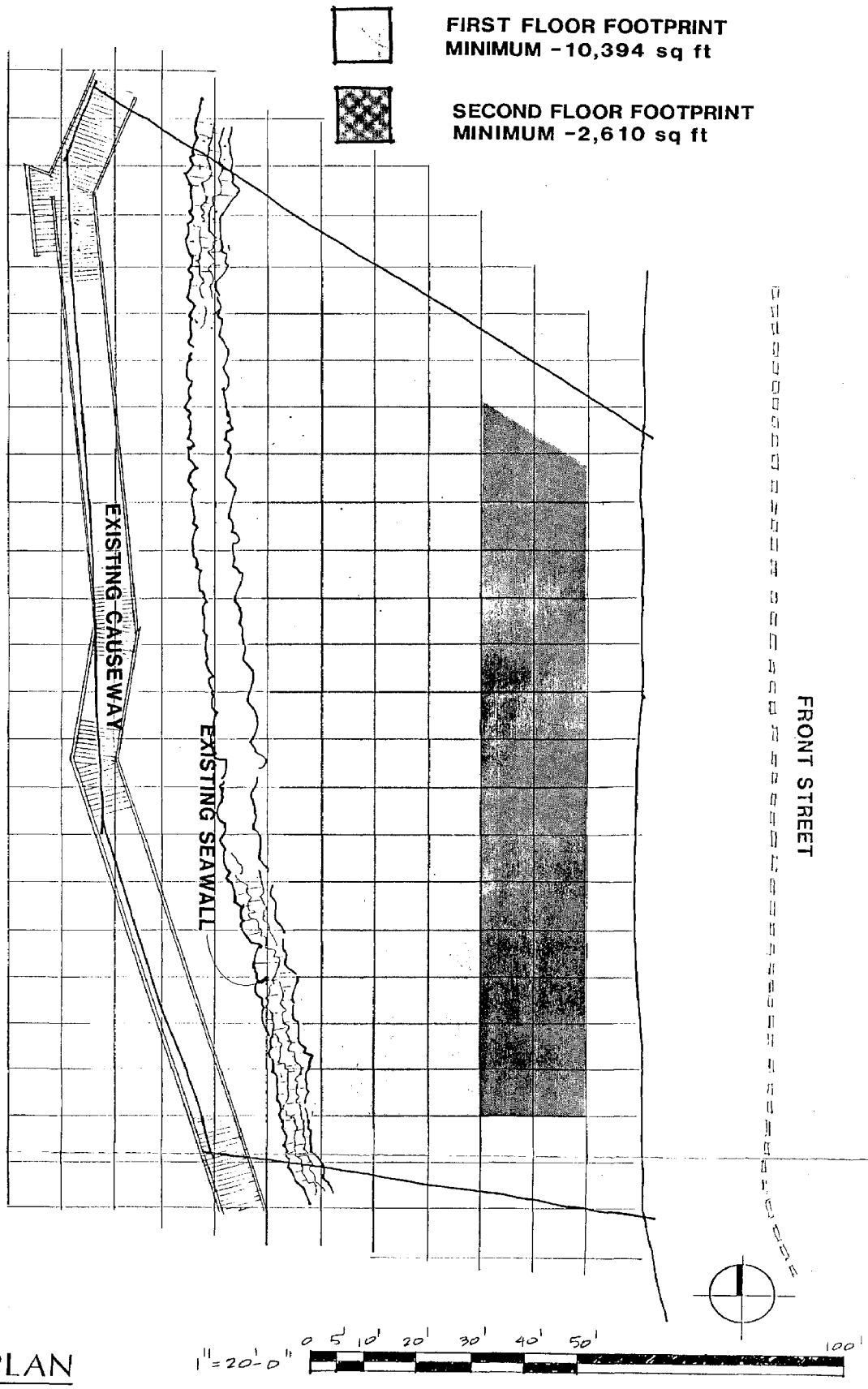
Liberty Bay Marina Site (site of the existing MSC)
Poulsbo Yacht Club Site
A floating facility on a barge or old ferry in the downtown (Port of Poulsbo) marina
The hillside immediately North of the Sons of Norway (Norskliff)

An analysis of whether the optimum and minimum facilities would fit onto each of the sites and the cost for each site was developed. The following diagrams give an indication of the relative "fit". Behind the diagram for each site is a table indicating the preliminary cost estimates for development at each site. The cost estimate for the Poulsbo Yacht Club site assumes that the Yacht Club building has little value and will be demolished.



SITE PLAN

EXISTING LEGION PARK SITE



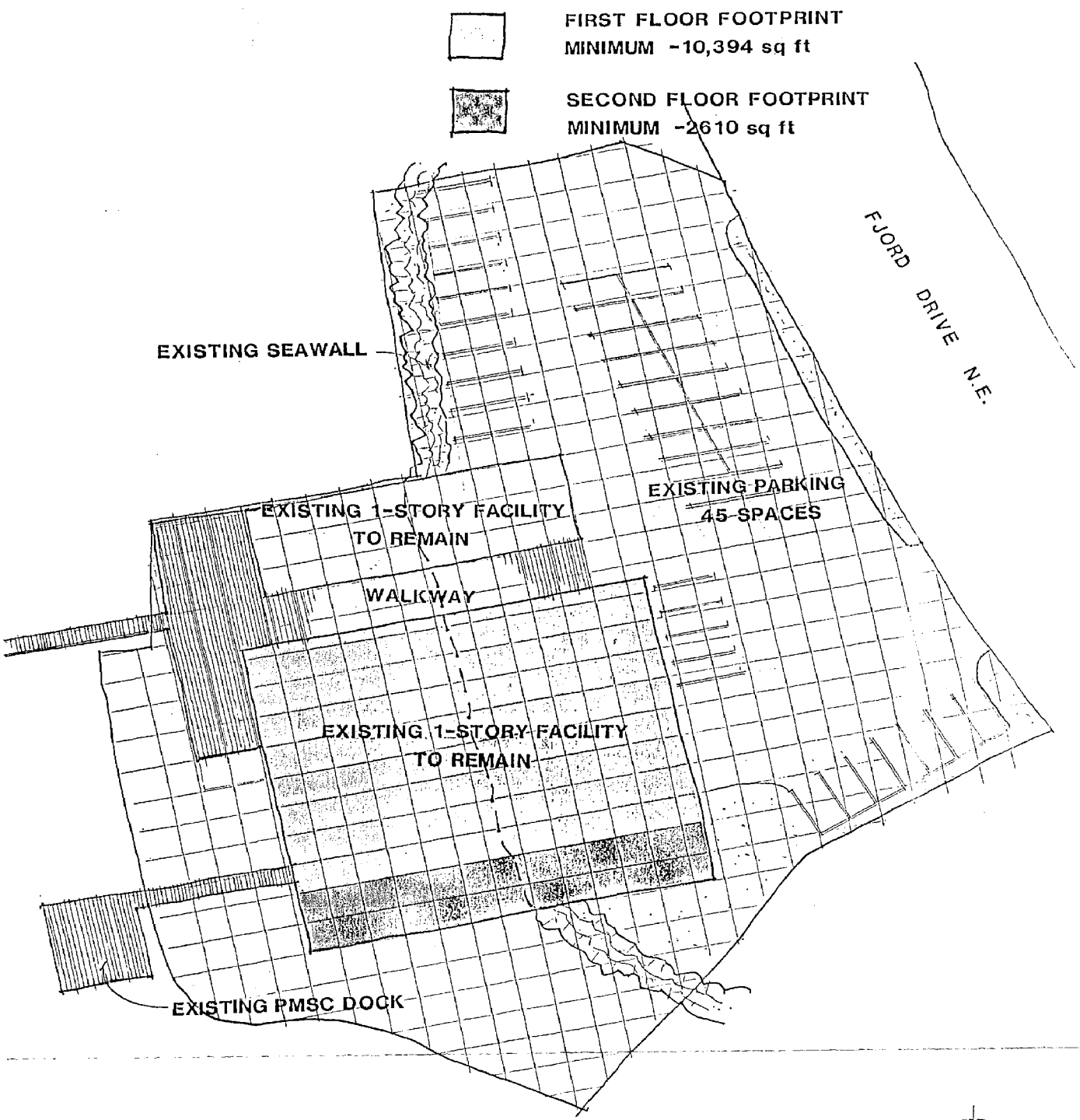
SITE PLAN

EXISTING LEGION PARK SITE

POULSBO MARINE SCIENCE CENTER

DEVELOPMENT COST ESTIMATE
LEGION PARK SITE

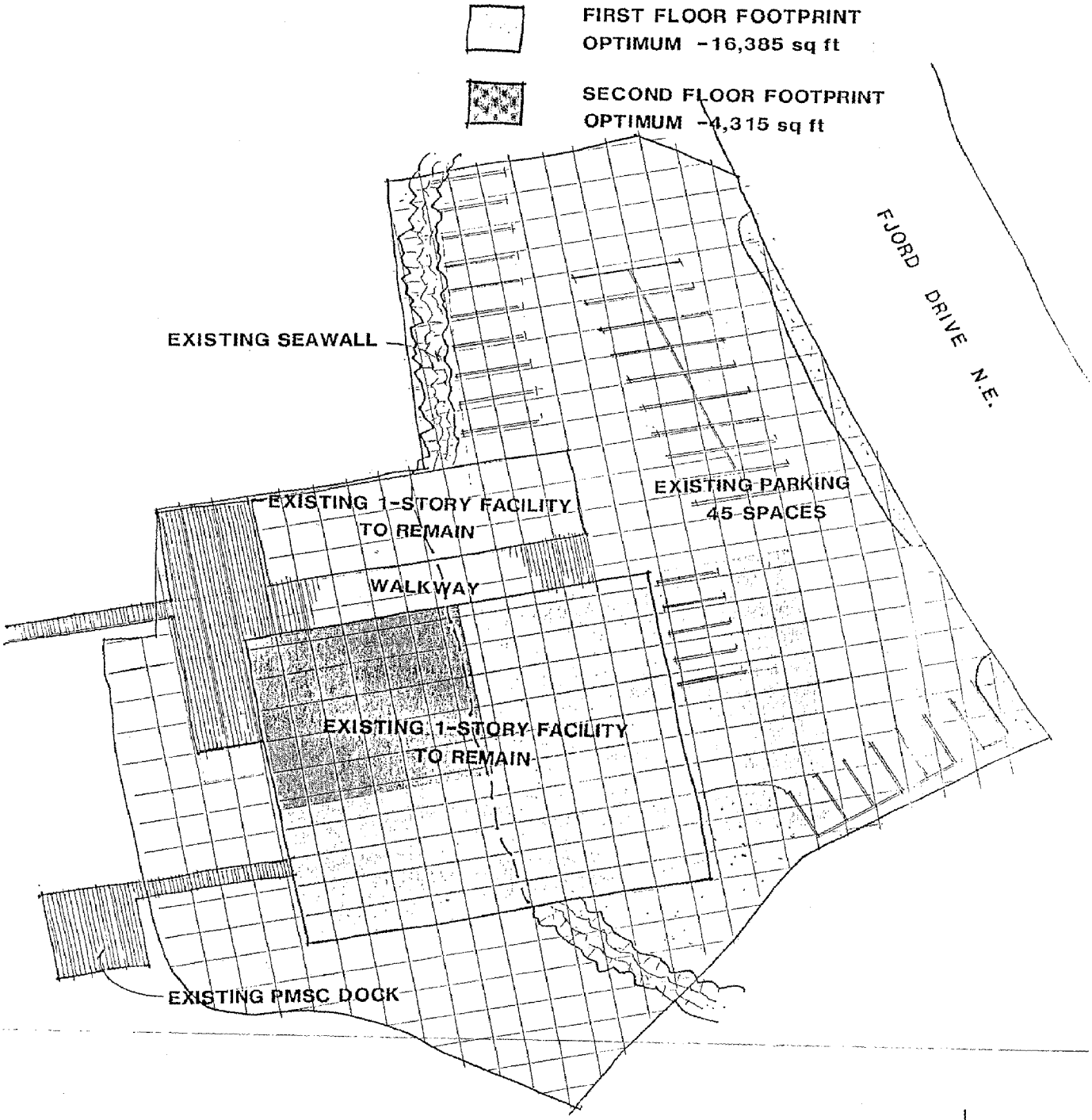
SPACE CATEGORY	COST $/SQ FT	OPTIMUM SPACE PROGRAM SPACE SQ FT	OPTIMUM SPACE PROGRAM COST $	MINIMUM SPACE PROGRAM SPACE SQ FT	MINIMUM SPACE PROGRAM COST $
SITE PURCHASE	??				
SEAWALL/RETAINING WALLS	25	10000	$250,000	7500	$187,500
STRUCTURAL PIER	45	4000	$180,000	0	$0
OUTDOOR SPACE SHARED WITH WATERFRONT PARK	50	1300	$65,000	400	$20,000
DOCK SPACE	35	1500	$52,500	1500	$52,500
INDOOR PUBLIC SPACE	80	10150	$812,000	7344	$587,520
INDOOR LAB SPACE	110	3200	$352,000	1900	$209,000
INDOOR SUPPORT SPACE	65	3100	$201,500	2060	$133,900
INDOOR OFFICE TYPE SPACE	70	2750	$192,500	1700	$119,000
SITE PREPARATION	30	14000	$420,000	10000	$300,000
EXHIBITRY	60	4000	$240,000	3000	$180,000
CONSTRUCTION COST			$2,765,500		$1,789,420
CONTRACTOR OVERHEAD & PROFIT	15%		$414,825		$268,413
DESIGN FEES	12%		$331,860		$214,730
BUILDING FEES & PERMITS	4%		$110,620		$71,577
TOTAL PROJECT COST			$3,622,805		$2,344,140



SITE PLAN

1" = 30'-0" 0 10' 20' 30' 40' 50' 100'

EXISTING LIBERTY BAY MARINA SITE



SITE PLAN

1" = 30'-0" 0 10' 20' 30' 40' 50' 100'

EXISTING LIBERTY BAY MARINA SITE

POULSBO MARINE SCIENCE CENTER

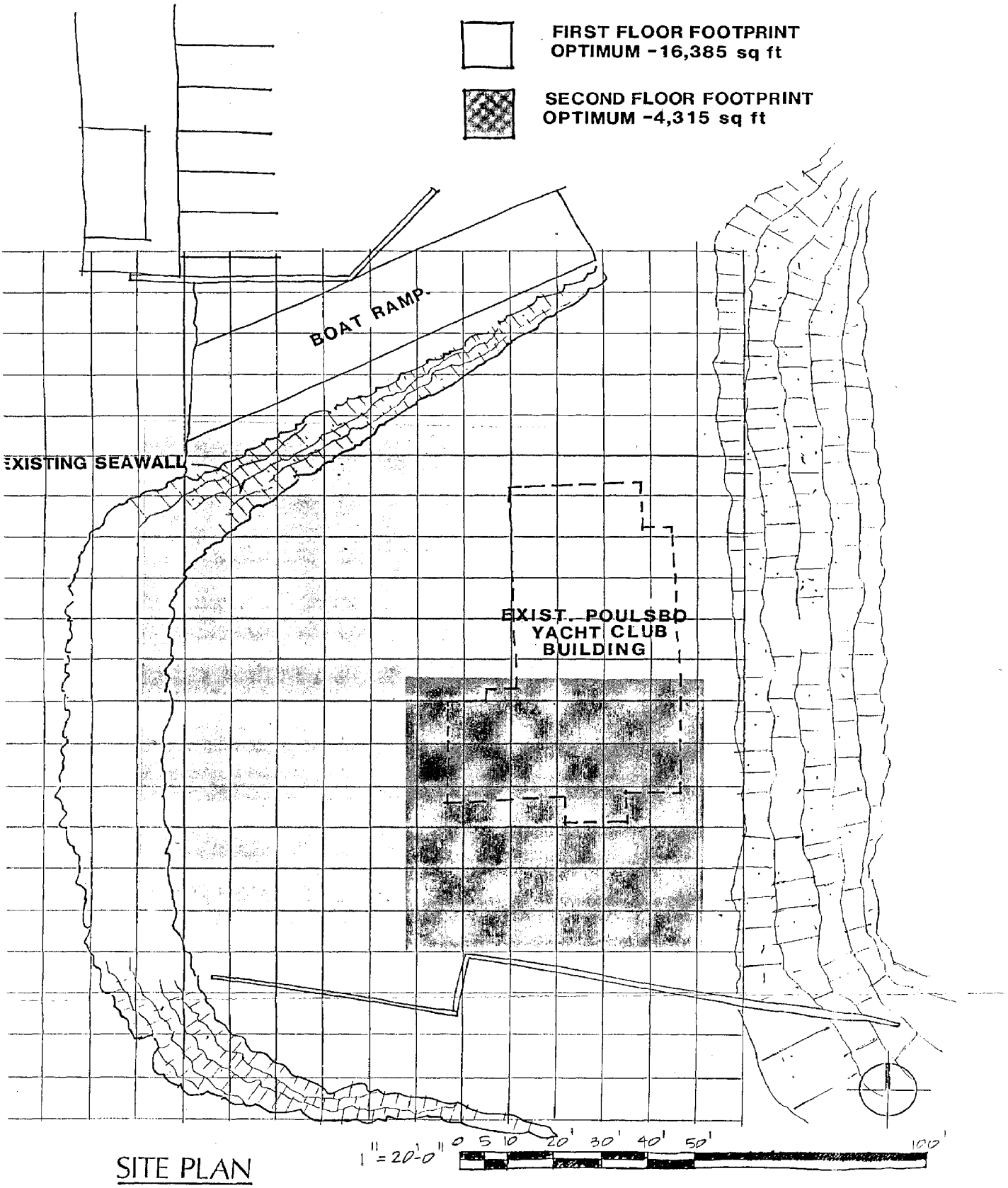
DEVELOPMENT COST ESTIMATE
LIBERTY BAY MARINA SITE

SPACE CATEGORY	COST $/SQ FT	OPTIMUM SPACE PROGRAM SPACE SQ FT	OPTIMUM SPACE PROGRAM COST $	MINIMUM SPACE PROGRAM SPACE SQ FT	MINIMUM SPACE PROGRAM COST $
SITE PURCHASE	??				
DOCK REHAB	20	4000	$80,000	0	$0
OUTDOOR SPACE SHARED WITH WATERFRONT PARK	30	1300	$39,000	400	$12,000
BUILDING DEMOLITION	20	10000	$200,000	4000	$80,000
INDOOR PUBLIC SPACE	55	10150	$558,250	6190	$340,450
INDOOR LAB SPACE	75	3200	$240,000	1900	$142,500
INDOOR SUPPORT SPACE	45	3100	$139,500	2060	$92,700
INDOOR OFFICE TYPE SPACE	45	2750	$123,750	850	$38,250
SITE PREPARATION	8	14000	$112,000	2000	$16,000
EXHIBITRY	60	4000	$240,000	3000	$180,000
CONSTRUCTION COST			$1,652,500		$901,900
CONTRACTOR OVERHEAD & PROFIT	15%		$247,875		$135,285
DESIGN FEES	12%		$198,300		$108,228
BUILDING FEES & PERMITS	4%		$66,100		$36,076
TOTAL PROJECT COST			$2,164,775		$1,181,489

POULSBO MARINE SCIENCE CENTER

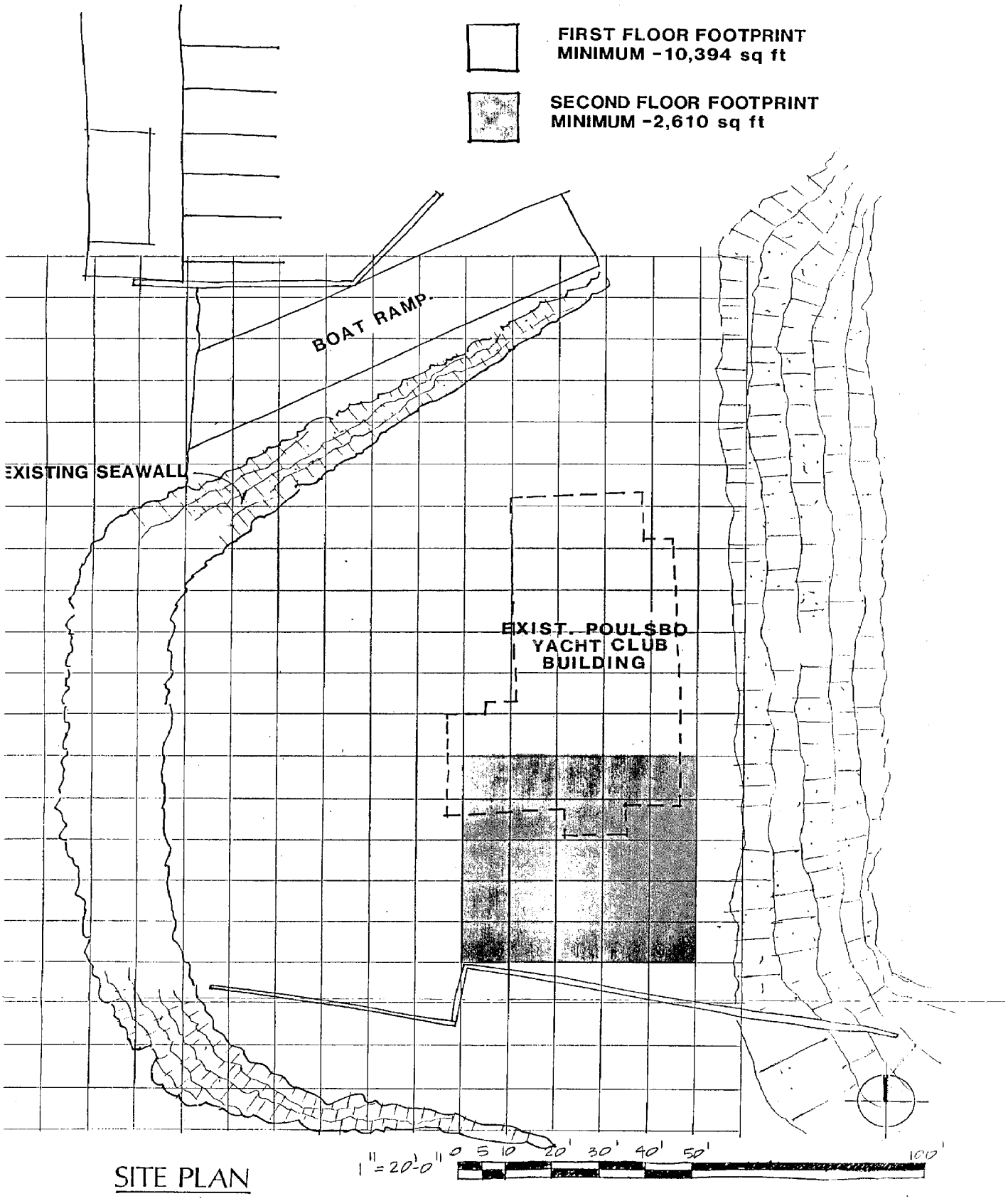
DEVELOPMENT COST ESTIMATE
FLOATING SITE

SPACE CATEGORY	COST $/SQ FT		OPTIMUM SPACE PROGRAM SPACE SQ FT	OPTIMUM SPACE PROGRAM COST $	MINIMUM SPACE PROGRAM SPACE SQ FT	MINIMUM SPACE PROGRAM COST $
FLOATING VESSEL WITH WATERFRONT PARK			10000	$1,200,000	10000	$1,200,000
DOCK	35		500	$17,500	0	$0
UTILITY CONNECTION				$10,000		$10,000
INDOOR PUBLIC SPACE	90		10150	$913,500	7344	$660,960
INDOOR LAB SPACE	110		3200	$352,000	1900	$209,000
INDOOR SUPPORT SPACE	75		3100	$232,500	2060	$154,500
INDOOR OFFICE TYPE SPACE	80		2750	$220,000	1700	$136,000
LAND SITE PREP	30		2000	$60,000	2000	$60,000
EXHIBITRY	60		4000	$240,000	3000	$180,000
CONSTRUCTION COST				$3,245,500		$2,610,460
CONTRACTOR OVERHEAD & PROFIT		15%		$486,825		$391,569
DESIGN FEES		12%		$389,460		$313,255
BUILDING FEES & PERMITS		4%		$129,820		$104,418
TOTAL PROJECT COST				$4,251,605		$3,419,703
ESTIMATED COST USING EXISTING FERRY				$3,400,000		$2,600,000



SITE PLAN

EXISTING POULSBO YACHT CLUB SITE



SITE PLAN

EXISTING POULSBO YACHT CLUB SITE

POULSBO MARINE SCIENCE CENTER

DEVELOPMENT COST ESTIMATE
YACHT CLUB SITE

SPACE CATEGORY	COST $/SQ FT	OPTIMUM SPACE PROGRAM SPACE SQ FT	OPTIMUM SPACE PROGRAM COST $	MINIMUM SPACE PROGRAM SPACE SQ FT	MINIMUM SPACE PROGRAM COST $
OUTDOOR SPACE SHARED WITH WATERFRONT PARK	40	1300	$52,000	400	$16,000
DOCK SPACE	35	1500	$52,500	0	$0
INDOOR PUBLIC SPACE	80	10150	$812,000	7344	$587,520
INDOOR LAB SPACE	110	3200	$352,000	1900	$209,000
INDOOR SUPPORT SPACE	65	3100	$201,500	2060	$133,900
INDOOR OFFICE TYPE SPACE	70	2750	$192,500	1700	$119,000
SITE PREPARATION	20	14000	$280,000	10000	$200,000
EXHIBITRY	60	4000	$240,000	3000	$180,000
CONSTRUCTION COST			$2,182,500		$1,445,420
CONTRACTOR OVERHEAD & PROFIT	15%		$327,375		$216,813
DESIGN FEES	12%		$261,900		$173,450
BUILDING FEES & PERMITS	4%		$87,300		$57,817
TOTAL PROJECT COST			$2,859,075		$1,893,500

SITE SELECTION

Based on the diagrams and cost tables, the site sub-committee recommended that the Poulsbo Yacht Club site be selected. The full ad-hoc committee agreed. conceptual development of all facilities, estimates of construction costs, economic analysis, and all subsequent planning were directed toward the Poulsbo Yacht Club site.

CONCEPT

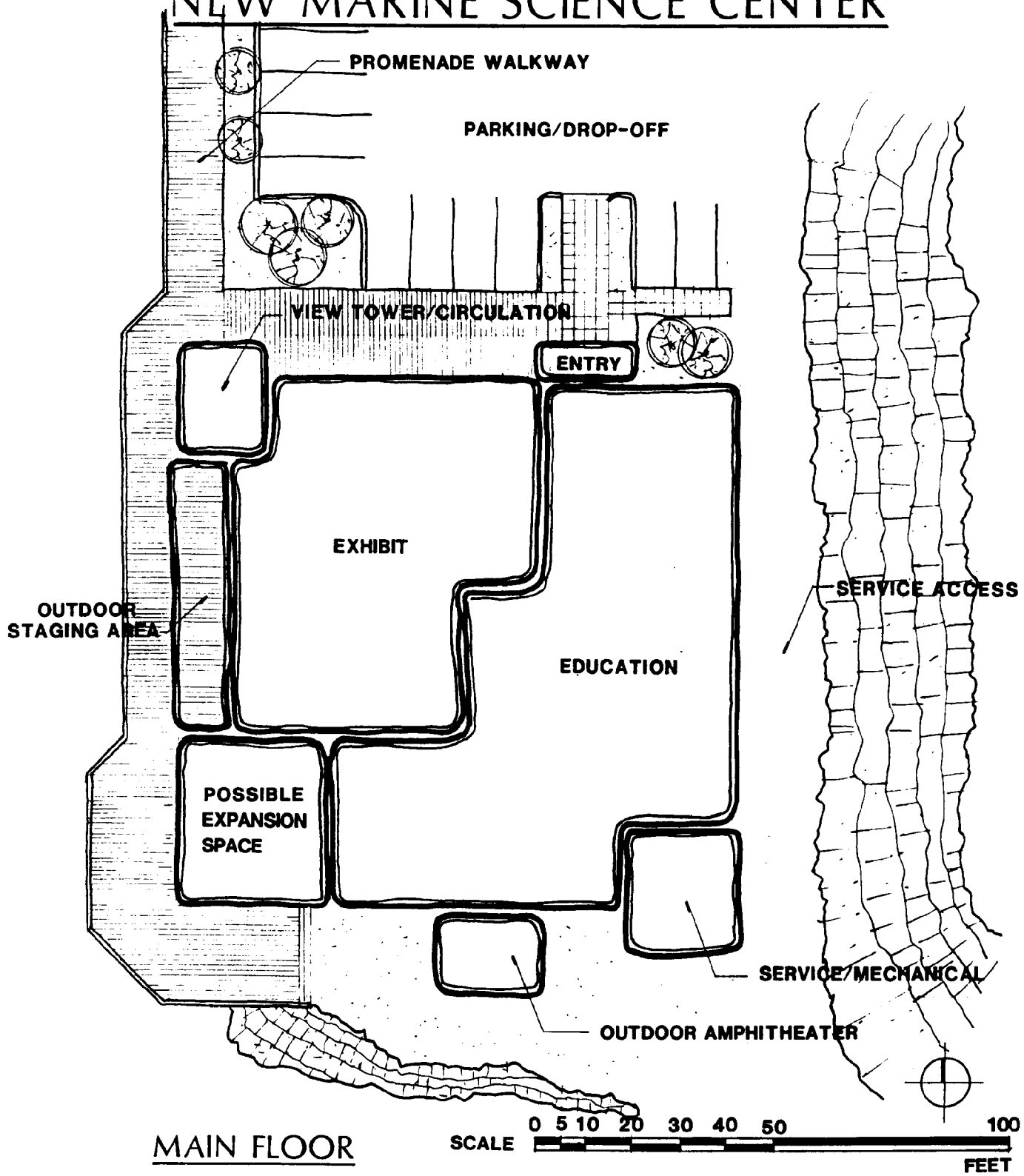
The concept for a physical facility calls for a two story building to occupy much of the existing Yacht Club site. The present Yacht Club building will be demolished. The site as it now exists, a building zone plan, and illustration are attached.

The concept features a building themed to fit into Poulsbo. The building is bordered on the Liberty Bay side by a long public walkway or promenade. The walkway would join Anderson Parkway by going around the end of Viking Mall, across the end of the parking lot where the present Port of Poulsbo office is, and along the front of the new PMSC. The promenade will have displays and interpretive graphics along its rail.

The building itself features a two story public observatory. This tower like corner of the building will be free to the public who may enter and go to the second floor observation deck. This tower also provides access to the Port of Poulsbo offices on the second floor.

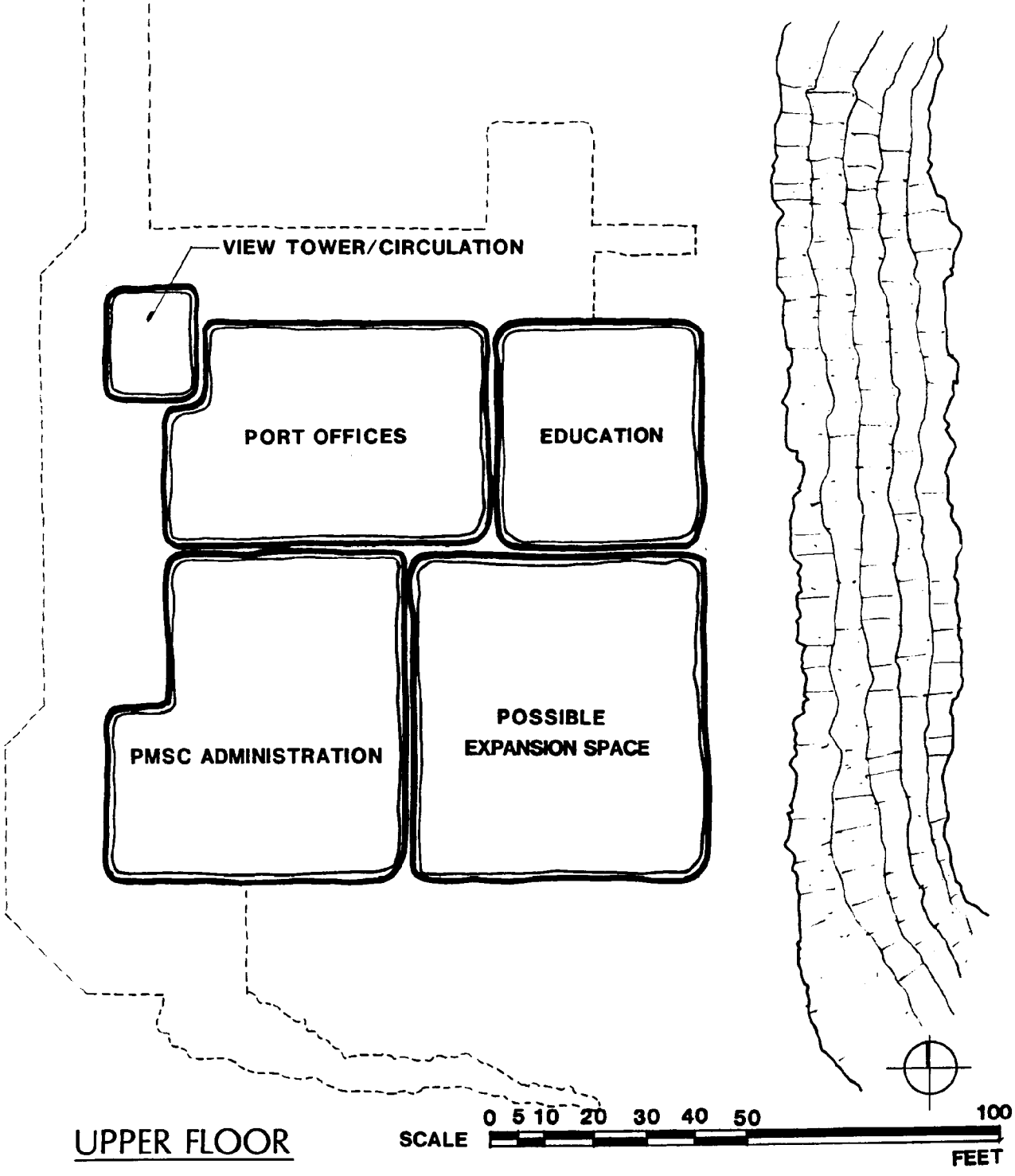
The entry into the PMSC will be from a drop-off zone adjacent to the present parking lot. The ground floor of the building contains educational and display space. A relatively small space in the South West corner of the building has been reserved for future expansion. The ground floor features an entry portico where classes and other groups may gather

NEW MARINE SCIENCE CENTER



MAIN FLOOR

NEW MARINE SCIENCE CENTER



UPPER FLOOR


POULSBO
MARINE
SCIENCE
CENTER

out of the rain prior to entering the facility. It also features a glass roofed area facing the promenade and Liberty Bay where school groups and the general public alike may eat out of the weather.

The second floor houses some educational classrooms, most of the administrative and the service areas for the PMSC. Approximately 2,200 square feet have been allowed for Port of Poulsbo offices. It is anticipated that they will use the larger classroom/auditorium for large gatherings. The second floor could include approximately 3,500 square feet but not now included in the program or cost estimate. That space could be developed providing for expansion of educational programs or other uses.

SITE COORDINATION

There are two significant coordination issues. First, this concept calls for the closure and removal of the existing boat ramp. The possibility for closure was discussed extensively during the site selection process. It would be possible to develop the PMSC at the Yacht Club site without removing the boat ramp. The building would be a very tight fit, however, and the public promenade and other outside public space would have to be reduced or eliminated. The site selection sub-committee recommends removing the boat ramp. In addition, the seawall immediately north of the boat ramp is near failure and will need replacement.

The second coordination issue involves the Yacht Club. The club's lease is up in 1990. In order to open a new PMSC in 1990, the Yacht Club would have to be moved into its new facility, or a temporary building, by the spring of 1989. An alternative would be for the PMSC to continue in its present space until 1991 allowing construction from the spring of 1990 to opening in 1991.

COST

The costs for both the minimum and optimum facilities developed on the Poulsbo Yacht Club site are shown in the next table. The cost estimates include design costs, contractor overhead and profit, and building fees. The cost for removal of the boat ramp is not covered in this estimate.

SECTION 5
Ownership & Organizational Structure

SECTION 5 - OWNERSHIP AND OPERATION

The question of which agency or group should take the lead in developing the proposed PMSC is a major one, the answers to which will determine the ultimate success or failure of the concept outlined in this study. It has several parts. First, leadership is needed at several points in the development process. Secondly, capital funds for construction may come from a single source or a variety of sources. Who should provide the construction funds and who will own the land, buildings, and exhibits. Finally, what agency or group is best suited to operating the PMSC in fulfillment of its goals.

THE SITUATION

The existing PMSC is staffed and funded by ESD 114. The administration and staff are all employees of the ESD. The building and land which the PMSC uses is owned by a private individual and the facilities are leased by the ESD. The ESD funds the operation of the PMSC through the participation of four of its member school districts which utilize the marine educational programs.

The present lease, which expires in 1990, grants the PMSC and ESD use of the facilities for $1.00 per year plus an allocation of property taxes and some other costs. The owner has notified the PMSC that when the lease expires, it must be increased to fair market value if the PMSC is to stay there. The PMSC and ESD have determined that the member school districts could not bear the increased costs of a lease at fair market value. Therefore, a major tenet of the concept discussed in this study is that a way must be found to reduce the tenant cost for the educational programs. Thus, the idea of using public displays and the resulting revenues to help defray costs was developed. The results of the study reported here indicate that revenues may be sufficient to cover operating costs of the display portion, but will not be sufficient to retire the capital debt.

The study team believes that capital funds to construct the PMSC must come from a source or sources which do not require a debt to be retired from operating revenues. That conclusion helped shape the decision on the recommended site, on the operating structure described later in this section, and on the analysis of potential funding sources and ownership described next.

OWNERSHIP AND FUNDING

The brief table outlined below presents some of the options for which agencies and groups might provide capital and operational funding, and what the resulting ownership structure might be. There are other options which were discarded. Some of those are discussed in the appropriate sections.

OWNERSHIP AND OPERATION

ASPECT	AGENCY	SOURCE OF FUNDS
Land	City of Poulsbo	
Buildings	City	Bond Issue
	Port	?
	ESD 114	Bank Loan
	Non-Profit org.	Donations:
		Foundations
		Corporations
		State
		Federal
Exhibits (if not part of buildings)	Non-Profit org.	Donations
	ESD	State Funds
	ESD-Totally	Earned Revenues & Present Funds
	Ed Prgms only	Present Program Funds
	Non-Profit org.	
	Exhibits only	Earned Revenues

LAND OWNERSHIP - The City of Poulsbo owns the site selected as the best for development of an expanded educational/public PMSC. The study team recommends that the City retain ownership of the land, and that they make it available at little or no cost for development of the PMSC. Based on the economic projections presented in Section 6, the PMSC will be able to pay little or no rent (or lease payments). One of the options for funding sources discussed below involves a for-profit development on the site. The concept being tested called for a private developer to put up the physical building on City land with the provision that most of the profits from leased space or commercial activities be used to effectively lower the cost of the space for the PMSC. While that option is still a possibility, it appears that there is not enough room on the selected site for a commercial development. For that reason, the possibility of a commercial business using City land is not discussed further.

BUILDINGS

As the table shows, there are several possible sources of funds for construction of the actual building. Depending upon the source of funds, different agencies or groups might own the physical building. There are models for each potential funding source and ownership option. Determining which of the options is most probable and most desirable is one of the next tasks to be undertaken in the development process.

One likely scenario would have a non-profit corporation dedicated to marine science and public education raise the needed construction funds. That organization might own the physical buildings, or might transfer ownership to the City of Poulsbo. Several such new facilities are presently being developed by non-profit organizations from a variety of funding sources. Donations, grants from foundations, corporate sponsorships of exhibits, funds available through various state and federal programs, and many sources

are available. Most of these funding sources are not available to governmental agencies. The feeling seems to be that everyone already pays taxes and many organizations and groups will not donate to government operations.

EXHIBITS

Just as with buildings, there are at least two possible capital funding sources for the exhibits and furnishings. The most likely seems to be utilizing a non-profit corporation to generate the needed funds from donations, corporate sponsorships, bequests, a membership, and a variety of other sources. It is also possible that the operating agency might borrow funds based on anticipated revenues.

OPERATION

There seem to be only two viable options for an operating agency. The ESD is a service oriented organization with a much more flexible operating structure than is found in most governmental agencies. After some examination, the study team believes that the ESD should continue to operate the educational programs, and could also operate the public exhibits (thus the total facility) in an effective manner. A second possibility would be for a new, non-profit corporation to be formed to operate the whole PMSC, or possibly to co-operate the facility with the ESD. The study team believes that total operation by the ESD or a cooperative arrangement where the ESD operates the educational programs and contracts with a non-profit organization to operate the exhibits are the most viable options. Definition of an operating structure is another area which needs study and refinement during the subsequent development process.

SUPPORT GROUP

Even if the ESD, City of Poulsbo, or other governmental agency were to operate the PMSC, they could utilize a non-profit organization in a support role. This arrangement is common and is typified by the SEAS organization which raises some funds and gives

the Seattle Aquarium a degree of operational freedom lacking under governmental operation. Almost all zoos, aquariums, amd many museums have such non-profit support groups associated with their operation.

STAFF STRUCTURE

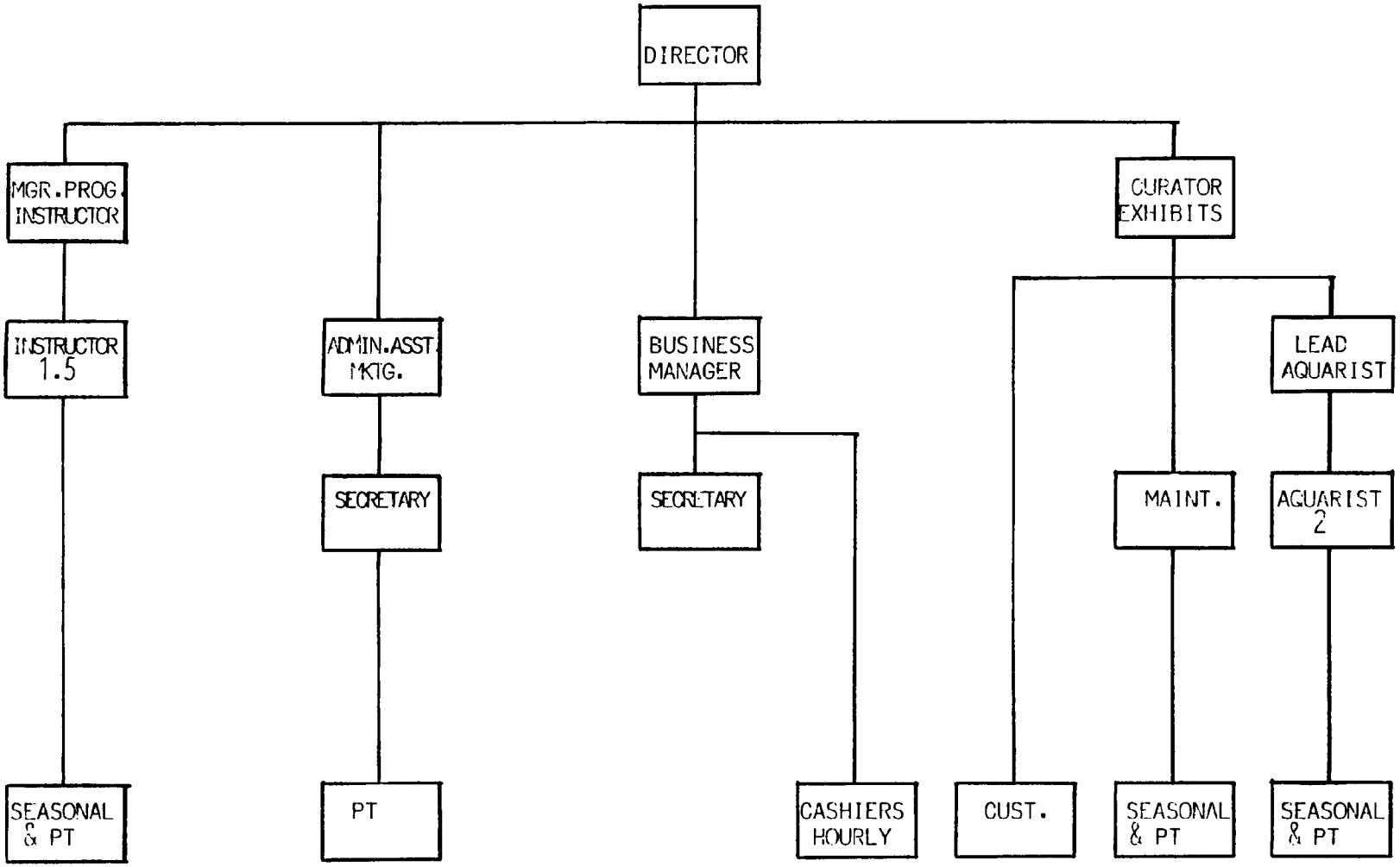
The attached diagram shows the recommended operating structure for a PMSC with a joint educational and public display role. This study recommends that the facility have a single director. Using good business practices, a staff structure has been developed which uses a minimum of people to help control operating costs, yet which provides a great deal of operational flexibility. Combining both educational and public display functions in one organization will increase the ability and ease of having educational staff assist with exhibits and vice versa.

The exact staff positions, salaries and benefits remain to be defined by whomever operates the Poulsbo Marine Science Center. The following positions were used to calculate operating costs (section 6).

Director	1
Curator of Exhibits	1
Lead Aquarist	1
Aquarist	2
Administration Asst.	1
Membership coord.	
Secretary	1
Business Manager	1
Cashiers	3
Manager programs	1
Instructor	1.5
Maintenance	1
Seasonal	3

VOLUNTEERS

Volunteers are attracted to similar institutions because of the diverse kinds of activities and interesting subject matter. Most similar institutions count on 10-15% volunteer labor to augment the paid staff workforce. However, because an institution must be able to operate on its own, most use volunteers to provide extra programs not possible with normal staff budgets. Thus, while a volunteer program is recommended for the Poulsbo Marine Science Center, no reduction in estimated operating costs can be made.



Organizational Chart
Poulsbo Marine Science Center

SECTION 6
Economic Outlook

SECTION 6 - ECONOMIC OUTLOOK

BACKGROUND

The Poulsbo Marine Science Center (PMSC) is nearing the end of its lease of space at the Liberty Bay Marina. When the Center reaches the end of its lease period, a new lease must be negotiated at the existing facility, or the Center must find a new home.

In the process of addressing the future of the PMSC an idea was born to examine the viability of creating a public attraction aquarium as a parallel, side-by-side development with the new PMSC. The purpose of this parallel development would be to create an attraction to enhance an understanding and interest in the marine sciences and to assist Poulsbo's image and drawing power as a leisure-time location.

There is a clear requirement to assist downtown Poulsbo's economic posture. Development activities such as the Silverdale Mall and the commercial development along Highway 305 have been harmful to the economic viability of the waterfront town center. The town center appears to have a place among these competing areas as a leisure-time center and perhaps for some (yet to be determined) specialized retail outlets.

This section discusses the economic outlook of the proposed aquarium aspect of the new PMSC.

POULSBO - THE SETTING

Prior to discussing the economic outlook of the aquarium, a viewpoint is offered on the overall objective of enhancing Poulsbo's place as a leisure-time location.

Poulsbo, known as "Little Norway", has many assets as a leisure-time location. These assets include the following:

- A Norwegian-themed village
- A rich nautical past
- Home of the Poulsbo Marine Science Center
- A picturesque setting
- A national/international connection via the Sons of Norway
- A growing resident base throughout Kitsap County
- An opportunity to be a leisure-time center for the area
- A waterfront location
- A boater's destination
- Home of Poulsbo bread
- On a Peninsula path

Although a number of steps to enhance the city's center have been taken in the past years -- such as Anderson's Parkway -- Poulsbo has not taken advantage of some obvious opportunities to promote the city. These include:

- Clear and strategically placed signs along key roadways
- A distinctive physical landmark on Highway 305 serving as an initial attractor and indicating the way to the waterfront and downtown, and visible signage and/or a structure announcing downtown Poulsbo and its direction at the corners of Bond Road and Highway 305, Highway 305, Highway 3 and Viking Way, Finn Hill Road and Viking Way.

- Refine the development of the waterfront into a Norwegian-themed festive center, anchored by restaurants and other leisure-time offerings which are in demand by the resident and daytrip markets

- Exploit the international reputation of Poulsbo bread and Sluys Bakery

- Exploit the national reputation of the Poulsbo Marine Science Center

- Develop a comprehensive marketing plan for the downtown area as a single attraction.

Why this discussion on Poulsbo rather than the PMSC? It is our opinion that the promotion of the PMSC and the waterfront village generally should be combined. Capturing from the nearby resident market should not be a difficult task for the PMSC. However, capturing from the Seattle and Tacoma markets may be considerably more difficult given the existence of the Seattle Aquarium and the Point Defiance Park with its aquarium. While the existence of the PMSC will assist in bringing visitors to Poulsbo by adding another attraction to the basket of attractions already existing, it is Little Norway + Poulsbo Bread + PMSC + Marinas that is the combined magnet to draw residents and tourists to the area.

What we are saying is that the success of the PMSC in capturing from somewhat distant markets is more dependent on the success of Poulsbo attracting visitors than that of the PMSC attracting visitors alone. And, because visitors will be attracted to the waterfront, the visitation to the PMSC will be maximized if it is located there.

MARKET ANALYSIS

The market, aside from school groups, for the PMSC consists of the nearby residents -- essentially Kitsap County residents -- and tourists and people who make day trips from across the sound.

The Nearby Resident Market

Kitsap County has about 170,000 residents. The population of the county has added about 22,000 residents since 1980. Most of the growth has been in the unincorporated areas of the county, and the heaviest growth has occurred in Central Kitsap.

Beyond Kitsap County

The relevant resident market area beyond Kitsap County consists primarily of Snohomish, King and Pierce Counties. The Seattle Metro Area is defined as the first two counties and has a population of approximately 1.76 million residents/the Tacoma Metro Area is defined as Pierce County and has a population of about 0.54 million residents. The combined population is roughly 2.3 million residents.

The population values and age and income characteristics are depicted in accompanying tables.

The Tourist/Transient Market

State and Regional

As with most regions of the United States, tourism information is rather scant. Statewide, an estimated 15-16 million annual out-of-state visitors come to Washington and there are about 11 million resident trips. Of some $3.4 billion of travel expenditures statewide in 1986, Kitsap County received about $33 million, or less than 1 percent of the total. Many visitors to the Olympic Peninsula travel through Kitsap County or are adjacent in Clallam or Jefferson counties. These counties received about $40 million of travel expenditures in 1986 (1+ percent). Snohomish, King and Pierce Counties received about $3.5 billion or 65 percent of the statewide total travel expenditures.

The Olympic Peninsula

The number one tourist attraction in the state is the Olympic National Park (ONP). In 1986, the ONP recorded nearly 3.5 million visitor-days. No estimation is made of the number of distinct parties making up these visitor-days; there are 24 entrances to the ONP and multiple entries are common and counted as separate visits. Of the entry areas, the northern approaches are the most populous. The Lake Crescent and Hurricane Ridge areas provide about two-thirds of all visitor-days. Very coarsely, it would appear that the number of visitor-trips to the ONP might be on the order of 2 million annually.

The seasonality of visitation is shown in the accompanying table. The ONP is a year-round park, yet it receives half of its visitors in the Memorial Day to Labor Day time period. August is the best attended month; in August, 1986, 740,000 visitor-days were recorded, or 21.3 percent of the year's attendance.

Visitors to the ONP come from a wide variety of origins. Most are Washington residents and California residents are the next most populous group. the origins of visitors are shown below in the text table.

Origin	Percent
Puget Sound	65%
California	14
Oregon	8
Canadian	2
Other Foreign	2
Other	9
TOTAL	100%

POPULATION OF SELECTED JURISDICTIONS
Dec. 31, 1986

Jurisdiction	Population
Seattle Metro Area	1,758,200
Tacoma Metro Area	537,300
King County	1,371,400
Kitsap County	170,900
Pierce County	537,300

Source: Sales & Marketing Management, "Survey of Buying Power, 1987".

EFFECTIVE BUYING INCOME FOR
SELECTED JURISDICTIONS
Dec. 31, 1986

Jurisdiction	Median Household Effective Buying Income
Seattle Metro Area	$ 30,814
Tacoma Metro Area	21,486
King County	31,023
Kitsap County	25,829
Pierce County	21,486
State of Washington	25,535
U.S.A.	24,632

Source: Sales & Marketing Management, "Survey of Buying Power, 1987".

AGE DISTRIBUTION OF SELECTED JURISDICTIONS
Dec. 31, 1986

Jurisdiction	Age Distribution 0-17 yrs	18-50 yrs	50+ yrs	Median Age
Seattle Metro Area	23.3 %	52.9 %	23.8 %	32.4
Tacoma Metro Area	26.1	51.1	22.8	30.6
King County	22.3	53.3	24.4	32.7
Kitsap County	26.1	51.0	22.9	31.2
Pierce County	26.1	51.1	22.8	30.6
State of Washington	25.2	51.2	23.6	31.8
U.S.A.	25.8	48.3	25.9	32.2

Source: Sales & Marketing Management, "Survey of Buying Power, 1987", and The Lyon Group.

Highway Traffic/Ferry Traffic

Viewing highway traffic is another means to attempt to get a handle on tourist/transient volumes. Let us look at traffic at a number of areas -- on the way to and from the ONP, at the ferry terminals, and around Poulsbo.

Most of the visitors to the ONP get there by traveling via highways 104 or 101. The low values from average daily traffic (ADT) on these highways are 4500 and 1500, respectively. These points are just before their junction (and the western termination of highway 104). These traffic values are vehicle counts and include all two-way traffic.

If it is assumed that there are 2.5 people per vehicle, on average, and that 90 percent of the travelers retrace their paths, then there are 2.26 million and 0.75 million vehicular travelers heading towards the northern part of ONP via highways 104 and 101 respectively. It is noted that the low value for ADT on the "circle path" around ONP occurs on highway 101 at the previously mentioned point and again at the Forks area on the western side. Thus, at the most 750,000 travelers make one circle trip and the value has to be substantially less when one deducts local and commercial traffic. The circle path travelers probably amount to well under 500,000 people per year.

The principal path to the northern gateways to the ONP is via highway 104. There are three times as many vehicles on 104 as there are on 101, and the two carry about 3 million vehicular travelers per year, after deducting for those who retrace their steps. If a deduction is made for residents who are not on a sightseeing trip and for commercial traffic, probably under 2 million travelers pass by 104 and 101 on their way to or from ONP. This is a significant number of visitors passing through the area and represents a promising target for Poulsbo and the PMSC.

ATTENDANCE TO THE OLYMPIC NATIONAL PARK, 1986

Month	Attendance	
	Number*	% of Year
January	170,200	4.9 %
February	128,500	3.7
March	175,600	5.1
April	209,500	6.0
May	242,300	7.0
June	378,600	10.9
July	517,400	14.9
August	739,700	21.3
September	415,300	12.0
October	242,600	7.0
November	134,500	3.9
December	120,400	3.5
TOTAL	3,474,600	100.2

* Rounded to nearest 100.

Source: U.S. National Park Service and The Lyon Group.

Thus, probably three-fourths of the travelers to the ONP pass over the Hood Canal Bridge. Most of these travelers get to the Hood Canal via the Kingston ferry or highway 3 or via the Winslow ferry from downtown Seattle. In both cases, they either pass by Poulsbo on highway 305 or they pass by the Poulsbo turnoff at the junction of highways 3 and 305.

If it is assumed that 15 percent of ferry traffic (there are no estimates available from the ferry authorities), on a year-round average basis, are sightseers/vacationers, then a crude guess is that 250,000 travel via the Kingston ferry, 350,000 travel via the Winslow ferry and the balance, 800-900,000, via Highway 3.

A summary of highway traffic in the area is provided below:

-	Highway 101 NE of Port Townsend turnoff:	6,900 ADT
-	Highway 101 at Forks:	1,500 "
-	Highway 101 below Highway 104 junction:	1,500 "
-	Highway 104 before Highway 101 junction:	4,500 "
-	Kingston ferry terminal:	3,261 "
-	Highway 3 north of Highway 305 junction:	8,100 "
-	Highway 3 south of Highway 305 junction:	11,300 "
-	Highway 305 at Poulsbo:	11,000 "
-	Winslow ferry terminal:	4,592 "

It is noted that the closer a traffic counter is located relative to a populated area, the more local traffic influences the count. The Poulsbo 11,000 ADT count is a good example of significant local traffic counted.

As a final note, the ferry authorities did make a one-day survey on the Bremerton route in each of May and August, 1984, and found that the percentage of riders that were vacationers were 6 and 35 percent, respectively. The seasonality of ridership on that ferry route is illustrated by an accompanying table. As seen, the number of vehicles carried per day in August is 25 percent greater than the number in the January-February time frame. The number of passengers

1986 FERRY DATA: SEATTLE - BREMERTON RUN
(Passengers in thousands)

Month	Passengers	Vehicles	Pax/Day	Veh/Day
January	314	122	11.0	3.94
February	311	111	11.1	3.96
March	380	136	12.2	4.39
April	364	129	12.1	4.30
May	409	144	13.2	4.64
June	437	150	14.6	5.00
July	500	159	16.1	5.13
August	531	166	17.1	5.35
September	401	143	13.4	4.77
October	377	139	12.2	4.48
November	373	134	12.4	4.47
December	403	143	13.0	4.61
Total	4,827	1,676	13.2(avg)	4.59(avg)

Source: Washington State Ferries

carried is 35 percent greater. This seasonality is caused, in large part, by the seasonality of vacation travel.

Market Summary

The Poulsbo resident market area consists of 170,000 residents in Kitsap County and 2.3 million residents of other Puget Sound areas. Clearly, the resident market "across the sound" is an important one in terms of numbers of people, and this market should be pursued vigorously; however, Poulsbo might serve the more proximate resident market well by organizing the village as a leisure-time center.

Kitsap County receives only a minuscule amount of the tourist spending in the state. This implies that the potential for growth in tourism is extremely strong. Already there is substantial tourism to the ONP and this flow should be readily tapped by some rather easy procedures owing to the limited number of ways of gaining access to the ONP. Highway signage and ferry/ferry terminal marketing would appear to be very cost effective means of marketing Poulsbo and the PMSC.

COMPARABLE FACILITIES

There are no facilities particularly comparable to the PMSC as it exists or in its proposed new form. Perhaps, the facilities which might be the closest in concept are the three state-operated aquariums in North Carolina. These aquariums are located along the North Carolina Coast and their purpose is "to promote an awareness and understanding of this state's relationship with the sea ...". The three aquariums opened in 1977 and in that year the combined attendance was 341,000 visitors. In 1985, the combined attendance was over 1 million annual visitors, with the attendance at each facility very similar to the others -- 335-350,000 attendance each.

The aquariums range in size from 19,200 sf to 29,550 sf. The aquariums are people-oriented places featuring live marine animals and plants native to their areas. Each of the aquariums houses classrooms,

laboratories for teaching and research, a library, aquarium tanks and ample graphics. Programs are offered to promote the understanding of marine life, swimming and boating safety, teacher training and proper use of marine resources. The aquariums offer exploratory walks, boat trips, scuba diving and other off-site activities. The marine life tanks range from the small, intimate tanks to one which holds 20,000 gallons of water.

Replacement cost of each of the facilities is estimated to be in the $1.5-2 million range. In the western Washington areas, two smaller facilities with similar goals can be found in the Port Townsend Marine Science Center and in the Arthur Feiro Marine lab in Port Angeles. They presently have an attendance of 15,000 and 40,000 respectively. Both wish to grow and their Boards of Directors and/or staff have expressed a desire to add significant public display facilities.

ESTIMATE OF POTENTIAL VISITORSHIP

The visitation potential to the PMSC would be a share of the visitation to Poulsbo's waterfront center. The greater the attractiveness of the waterfront area, the greater the attendance will be to the PMSC. Unfortunately, there are not many other attractions in the area whose experience can be used to gauge how well the PMSC might perform. The Suquamish Museum draws about 12,000 annual visitors on one hand, and the Olympic National Park attracts perhaps 2 million visitors (3.5 million visitor-days), on the other.

The keys to the success of the PMSC (and Poulsbo) are:

- creating a leisure-time magnet at the waterfront
- market the nearby resident market to frequent Poulsbo regularly
- assemble a "basket" of activities for the more distant resident market and market the basket collectively

- through the use of highway signs, brochures and direct marketing, penetrate the existing tourist flow to the peninsula.

If these activities are performed, then it is judged that the PMSC with its public exhibits as outlined here could attract 88-188,000 annual visitors.

POULSBO MARINE SCIENCE CENTER

ESTIMATED RANGE OF ATTENDANCE

		Estimated Attendance			
		Low Estimate		High Estimate	
Source of Visitors	Number	% Attending	Number	% Attending	Number
Kitsap Cty. Residents	170,000				
PMSC Members	1,700	100%	1,700	100%	1,700
Non-Members	168,300	12%	20,200	20%	38,400
Visitors coming by Boat	40,000	60%	24,000	75%	30,000
Puget Sound Resident (Day Trip Market)	1,680,000	2%	33,600	5%	84,000
Tourists (overnight)	868,000	1%	8,700	4%	34,700
			88,200		188,800

Facilities with 12-30% penetration rates for local populations include; The Seattle Aquarium, The Vancouver Aquarium, Cabrillio Museum (San Pedro area), The Monterey Bay Aquarium, The North Carolina Aquariums, Gulf of Maine Aquarium and others.

Based on the experience of the North Carolina aquariums, it is conceivable, given its marketplace, that the PMSC could perform substantially better than 150,000 annual visitors provided both the PMSC and Poulsbo have the entertainment content and are marketed well.

The 12-30 percent capture rate of the nearby resident market falls within the range of capture rates of other aquariums in the U.S. Of the boaters and vehicular tourists to the waterfront (although the number of vehicular visitors is not known), conservatively, 20-40,000 visitors to the PMSC should be attainable at a town center location. Boaters alone account for about 40,000 visitors a short walk from the downtown docks.

The greatest opportunity for the PMSC and for Poulsbo is to attract visitors from across the sound and to tap into the flow of visitors going to and from the ONP. High excellence in product and in marketing, Poulsbo should be able to benefit handsomely from this market segment.

ESTIMATE OF REVENUES

Operating revenue is a function of spending on admission and merchandise. The price of admission should be set according to the value to the visitor of the attraction and the length of stay. While funds will be limiting, with creative design, the attraction can deliver an engaging experience even though the length of stay will probably be fairly short in duration. An adult admission price of $3-3.50 should find little consumer resistance among visitors, youth and senior citizen admission might be set at $2-2.50. A membership and family pass program can be used to help lower the cost for families and frequent users. Passes will be priced so that if they are used more than twice each year, they save the user money compared with the normal admission price. Groups, other than school groups, should be given a group discount rate of

perhaps a 15-20 percent reduction. School groups would be admitted free to the educational side of the house and this would be extended to the commercial side as well, during school outings.

Utilizing an adult:child ratio of 2:1 and allowing for some discounting for group sales or promotions, an average, weighted per capita spending on admission calculates to be about $2.75.

Probably the only other visitor spending category would be merchandise sales where the merchandise is PMSC-related. If the mix and layout of merchandise is professionally planned, a per capita visitor spending on merchandise of $0.75 should be achievable. Thus, total per capita spending is expected to be about $3.50. Total operating revenue then would range between $270,000 and $595,000.

ESTIMATE OF OPERATING COSTS

Using the organizational structure described in Section 5, an estimated cost for operating the proposed PMSC was developed. Salary levels and benefits were adjusted to conform with the salary schedules of ESD 114. The estimated number of persons required to operate the facilities, the supplies and other operating costs were compared with those of The Seattle Aquarium and The Waikiki Aquarium, and are proportional with two significant exceptions. The first is the proportionally larger size of the educational staff (because of the PMSC'S mission and programs), and the lack of insurance costs (both other institutions are part of self-insured government agencies). It is possible that if the ESD were to operate the PMSC, its self-insured status would expand to cover the exhibits to be added. An estimated annual insurance premium has been included to ensure an accurate "worst case" estimate.

POULSBO MARINE SCIENCE CENTER

ESTIMATED OPERATING COSTS

BUDGET CATEGORY	ELEMENTS	AMOUNT	HOURLY EQUIVALENT	NO.	BENEFITS (WAGES ONLY)	OVERALL TOTAL	ABOVE PRESENT CONTRIB
% AMT.		ESD					
STAFF COSTS							
	DIRECTOR	$45,000	$21.63	1	15%	$6,750	$51,750	$8,050
	CUR. EXHI.	$24,960	$12.00	1	15%	$3,744	$28,704	$28,704
	LEAD AQUARIST	$20,800	$10.00	1	15%	$3,120	$23,920	$23,920
	AQUARIST	$16,640	$8.00	2	15%	$2,496	$38,272	$38,272
	ADMIN AST MEMB.COORD.	$16,000	$7.69	1	24%	$3,840	$19,840	
	SECRETARY	$16,000	$7.69	1	24%	$3,840	$19,840	$19,840
	BUS. MGR.	$20,800	$10.00	1	24%	$4,992	$25,792	$25,792
	CASHIERS	$10,400	$5.00	3	0%	$0	$31,200	$31,200
	MGR.PROG.	$24,960	$12.00	1	15%	$3.744	$28,704	$22,400
	INSTRUCTOR	$22,000	$10.58	1.5	15%	$3,300	$37,950	
	MAINTENA.	$16,640	$8.00	1	24%	$3,994	$20,634	$10,634
	SEASONAL	$11,400	$5.48	3	0%	$0	$34,200	$34,200
						$39,820	$360,806	$243,012

SUPPLIES		
OFFICE SUPPLIES	$9,799	$2,400
POSTAGE	$3,400	$2,400
MARKETING/MBRSHIP SUPL	$10,000	$10,000
CURATORIAL SUPL	$9,000	$9,000
CUSTODIAL SUPL	$2,000	$0
FUELS	$1,500	$1,500
UTILITIES	$24,000	$12,000
INSURANCE	$59,000	$40,000
TAXES	$3,800	$1,900
MISC. SUPPLIES	$12,000	$12,000
TOTAL SUPPLIES	$134,499	$91,200
SERVICES		
EQUIPMENT LEASE	$11,000	$6,000
JANITORIAL SERVICES	$7,200	$3,600
REPAIR AND MAINT. SERVICES	$13,000	$8,000
TRAVEL	$5,500	$2,000
PRINT & DUPLICATE	$2,200	$2,000
MEMBERSHIPS & SUBSCRIPTIONS	$950	$500
MISC. SERVICES	$10,000	$5,000
TOTAL SERVICES	$49,850	$27,100
	$545,155	$361,312

The estimated operating costs are shown both as total costs, and as the amount above the amounts presently budgeted for the PMSC educational functions. to avoid overestimating the operating costs, the amount of overlap was estimated. For example, the total salary amounts were listed along with the increase in any individual salary which could be attributed to the public display function. This is true for all salary and operating costs such as utilities, office and other supplies, and other needed services.

Using this method, we estimate that an expanded PMSC with both educational and public display functions would cost approximately $550,000 per year for all costs except any retirement of capital indebtedness. The costs above those now spent by the PMSC for its educational function is estimated at approximately $370,000 per year. That is the amount which any revenues from admissions, retail sales, or other new sources must balance to achieve a financially self-sufficient operation.

FINANCIAL SUMMARY

Given the lack of quantitative data on tourism and its potential contribution, projections of financial performance for an expanded PMSC are presented as a range. The expected revenues and expenses are shown in the following table:

ESTIMATE OF FINANCIAL PERFORMANCE

	LOW ESTIMATE	HIGH ESTIMATE
VISITORSHIP	88,000	188,000
REVENUES		
from ADMISSIONS	$242,000	$517,000
from RETAIL	$ 66,000	$141,000
from ESD 114	$180,000	$180,000
TOTAL	$488,000	$838,000
OPERATING EXPENSES	$550,000	$660,000
PROFIT OR LOSS	<$ 62,000>	$178,000

From the above, it is seen that the PMSC commercial project would probably lose slightly, or at best breakeven, at the lower attendance level. At the top of the range, the admissions to the display operations could generate on the order of $175,000 of operating surplus (before taxes, if any, depreciation, if allowable, and debt service, if required).

In summary, the exhibit side of the PMSC could be self-sufficient in an operating sense, and perhaps even retire some capital debt. The overall success of the operation depends on the project's content, location and the ability of the City of Poulsbo to attract people to the town center. A more precise estimate is not possible at this time because of lack of data on tourism, lack of a firm operating authority, and an operating plan. How the facility is operated, whether it is dynamic, progressive, and visible will do more to determine its success than any other single factor.

SECTION 7
Community Interactions & Benefits

SECTION 7 - COMMUNITY IMPACT

SUMMARY

This section describes some of the relationships between an expanded PMSC and the community of Poulsbo. Retaining the PMSC will bring several significant benefits to the Poulsbo area. Expanding its mission to include public display along with moving it downtown would provide even more benefits. The few drawbacks discovered during this study are also described. The cultural, educational, and economic benefits to Poulsbo and the North Kitsap area far outweigh the few negative aspects. The positive impacts are described first, and the negative ones second.

FINANCIAL IMPACT

There are three kinds of financial or economic impact an expanded PMSC will have upon Poulsbo. The first is retaining the existing economic contribution the PMSC makes to the general economy. Obviously, if the PMSC were to move to another community, that contribution would be lost. Using the standard economic multiplier of 2.2 to calculate the impact of actual budget dollars, the present $180,000 annual budget has an indirect effect of approximately $400,000 annually on the economy. The second area of impact comes from the construction of the new PMSC. That construction could provide up to 25 man years worth of jobs. The third aspect is contribution of the increased budget required to operate the expanded PMSC. The expanded PMSC described in this study would have an operating budget approximately $350,000 higher than does the existing PMSC. Using the same multiplier, that means an indirect contribution to the economy of almost $750,000 annually. Thus, the total operating budget of $550,000 could be worth up to $1,150,000 to the Poulsbo and North Kitsap economies.

Just as important in calculating economic impact is the effect an expanded PMSC will have on the rest of downtown Poulsbo. As discussed in the analysis of economic factors, downtown Poulsbo will be forced to focus on its role as a leisure or recreational

attraction. Up to 100,000 more tourists may be drawn to Poulsbo for at least 1-2 hours, many for as long as one-half day. Using a factor of $5.00 per person as an average amount each person would spend, the increase in the economy could be up to $500,000 in direct impact. That money would be spent for food, for retail items, and would extend to services such as the purchase of gasoline. Using the standard multiplication factor of 2.2, the total indirect impact could be as much as $1,100,000 annually.

Even if few new tourists are not attracted to Poulsbo, the PMSC is expected to cause visitors who are already in Poulsbo to stay at least one hour longer to visit the PMSC. That will cause some to eat a meal, and possibly to shop for longer period of time. If the minimum predicted attendance of 90,000 annual visitors all spent an extra $1.00 each, the direct contribution would be approximately $100,000 annually.

There are too many unknown factors which must be considered in calculating the exact direct and indirect financial benefits to Poulsbo. Questions such as how many of the construction jobs would be taken by Poulsbo or North Kitsap residents, how much of the PMSC operating budget would be spent in Poulsbo, and many others must be answered before a more exact prediction can be developed.

An expanded PMSC in downtown Poulsbo could mean a direct expansion of the economy of up to $850,000 each year. The indirect contribution of the PMSC and downtown businesses to the general economy could be as much as $2,250,000 annually.

It must be noted that achieving this kind of increase in tourism requires that downtown Poulsbo and the PMSC work together to market a series of experiences to potential visitors. The degree to which this cooperation and marketing occur will determine what the direct and indirect contributions will ultimately be.

STRENGTHENING OF DOWNTOWN ATTRACTIVENESS

Having the new PMSC in downtown Poulsbo will add a major element to the other attractions which make up downtown. Alone, the PMSC is not enough to make the downtown a leisure center. However, the addition of the PMSC to the picturesque waterfront location, the Scandinavian theme, and the bakery will create a package of things for visitors to do. It is that package which can be marketed to local residents, the day-trip market, and tourists.

PHYSICALLY ENLARGE DOWNTOWN

The addition of the PMSC on the site of the existing Yacht Club will physically extend Poulsbo's public waterfront by 210 feet. The public can presently walk in this area but there is little reason to do so. The PMSC will add a major public attraction at the very end of the waterfront. Most visitors are expected to park in the existing Anderson Parkway parking.

There are several ways the new Poulsbo Marine Science Center can be tied to the main downtown area. One discussed by the ad-hoc group would provide for a public promenade from the end of Anderson Parkway around the end of Viking Mall and across to the PMSC. This wooden walkway would be constructed on pilings over the edge of the water. Other distinctive pathways using the edge of the car pass through Viking Mall and the Front Street sidewalk would also be developed.

COMMUNITY PRIDE AND ACTIVITY

Keeping the PMSC in Poulsbo, and having its mission expand to include public display, will make a significant impact on the pride Poulsbo residents have in their community. The existing PMSC has won several national awards. Residents of Poulsbo seem to value the PMSC, but not very many seem to know much about it. An expanded PMSC must be highly visible to be successful. That visibility will increase regional knowledge and appreciation of the PMSC, and of Poulsbo at the same time.

The public displays and other programs which the PMSC will feature will require assistance from volunteers, and it is anticipated that a corps of volunteers will be developed. These volunteers will work from a few to several hours per week serving as interpretive naturalists, assisting with school and public programs, and will participate in animal care and collecting activities. Such volunteer programs have proven popular with retired persons and students alike as a way of combining intimate involvement with marine sciences with service to the community. Because these volunteers need not be biologists or scientists, most will come from the Poulsbo and North Kitsap area.

EDUCATIONAL IMPACT

The PMSC presently makes an important contribution to the science education of the four school districts which use its programs. These programs provide elementary and secondary students with an exposure to science in general, and the marine sciences in particular. The experience students receive include hands-on laboratory classes, field ecology and biology education, and classes aboard a research vessel. The value of these programs to the students of Kitsap county is hard to underestimate. The enlarged PMSC will continue these programs, and because of the added space and new facilities, can expand them into new subject areas such as computer science. More classes from new participating districts are also expected to utilize the expanded PMSC.

The curriculum and teacher training programs developed by the Center bring an exposure to marine sciences to students across the country. Those programs will continue, and may be expanded through enlarged facilities and/or outreach programs.

The new facilities will permit a major expansion of PMSC programs into the North Kitsap community. The present PMSC is prohibited from offering evening classes in marine and other sciences to the general community because of its limited facilities. At its new site in downtown, such restrictions will not exist.

The Center staff has developed a list of over 100 community programs ranging from fish cooking classes and evening film presentations to fish print art and programs in maritime history. These programs are one of the significant advantages the community will receive from an enlarged PMSC located in downtown Poulsbo.

NEGATIVE IMPACTS

The study team was only able to find one significant area where an expanded PMSC located in downtown would have a negative impact. That area is the possible increase in auto traffic downtown, and the associated lack of parking places. The necessary relocation of the boat-ramp and the resultant loss of direct access to the water would be of negative value to some parts of the community.

TRAFFIC

The major negative impact of having the expanded PMSC downtown will be a possible increase in vehicular traffic. This will include school busses during the school day to drop off and pick up classes attending programs at the PMSC. The majority of car traffic is expected to occur on weekends, and during the summer season. At the minimum attendance level projected, the PMSC will create little increased traffic. At that level, the attendance wil come from people already in Poulsbo. At the maximum attendance level, as many as 100,000 new visitors may come to Poulsbo.

Based on existing operations, the Poulsbo Marine Science Center education element could be expected to generate the following traffic:

Vehicle	Trips
Busses	12 (6 bus visits daily)
Employees	20 (10 employees)
Visitors	* unknown (requires greater market data)
Education element traffic	32 *

Generation of traffic from the public exhibit portion is more difficult to estimate. A crude assessment of traffic impact can be generated using the following rational:

1 hr. stay X 100 facility capacity / 2.5 cars/hour =

40 cars/hour X 10 hours of operation = 400 cars/day

This estimate is the worst possible scenario and will be heavily influenced by mode of visitor arrival. Significant arrivals by bus, boat and by foot will reduce the number of cars. Better market data is required to refine traffic impacts. The planning staff and other departments of the City of Poulsbo, in conjunction with the downtown bussineses, will need to study this potential increase in vehicular traffic with an eye to lessening possible congestion. Given the preliminary nature of this report, and the lack of definitive attendance projections, no more exhaustive analysis is provided.

PARKING

The same analysis offered above for traffic applies to parking. Obviously, if up to 100,000 more visitors come to Poulsbo, parking in the downtown area will have to be expanded. Currently, the City of Poulsbo policy is to allow new traffic generating uses in the downtown without providing on site parking if the business executes an agreement to not oppose a

future Local Improvement District (LID) to provide additional parking for the downtown area. Under this policy, no additional parking would have to be provided by the owner of the site (expected to be the city), if they agree to support a future LID.

As a practical and political matter, the parking issue must be examined in greater detail as the plan for the project is refined and more market data generated. In discussions on the parking issue with the Ad Hoc Planning Committee the following rational evolved:

> If the PMSC does not cause a major increase in visitorship to Poulsbo through capturing people already in town, there will be little or no parking problem.
>
> If the visitorship to Poulsbo increased dramatically enough to require additional parking, there should be a corresponding increase in business activity and revenue to pay parking improvements.

This rational will need to be developed, tested and supported by the City and downtown.

SECTION 8
Funding

SECTION 8 - CAPITAL FUNDING

OVERVIEW

There are several ways the $1.2-2.0 million dollars in capital construction funds for the PMSC might be raised. It is anticipated that funds for capital construction will come from a variety of sources, rather than as a single lump sum from a single source as described below.

How funds are generated is directly dependent upon decisions as to who will own and operate the PMSC. Those options are described in Section 5, and are reviewed below. Once a funding strategy has been selected, an organization with a staff will be required to implement it. They will need materials describing the facilities and programs of the new PMSC. That means enough planning work will have to be done to permit development of plans and illustrations of what the facilities and exhibits will look like.

Raising funds for capital construction will require an organized effort. It must be lead by a small group willing to commit the time and effort necessary. Each potential funding source needs to be researched as to its needs, wishes, and budget available. Each approach needs to be tailored to the potential donor and must use enough materials to describe the item or facility for which the funds are being sought. Finally, the entire effort must have the widespread and active support of all segments of the community.

OTHER FUNDING MODELS

Historically, zoos, museums, and aquariums have been funded by governmental agencies, primarily through the use of general obligation bond funds. Capital construction funding for the Seattle Aquarium was provided by the Forward Thrust bond issue passed by King County voters in 1969. Construction of the

Aquarium was only one of the items included in that bond issue. Once open, the Seattle Aquarium was operated by the City of Seattle Department of Parks and Recreation.

Not all facilities constructed by governmental agencies have been constructed soley with bond funds. Construction money for the building portion of the National Aquarium in Baltimore, for example, came partly from the sale of the City's airport as well as from bond funds. Funds for the exhibits were raised from corporations and private foundations by the non-profit organization which operates the aquarium under a management contract with the City of Baltimore.

Funds for the Monterey Bay Aquarium including the building, exhibits, and start-up operating costs came from a private foundation. The foundation was set-up with funds granted by a single, wealthy individual. Several small zoos, museums, and nature centers have been funded in a similar manner by individuals or families.

The new Oregon Coast Aquarium now being planned for Newport, Oregon is being developed by a non-profit organization. They have raised the planning and operating monies used to date from a variety of sources including government grants, donations from foundations and corporations, and from the revenues provided by a membership program. Those funds have been used to secure a site and develop plans. They have expanded their efforts and are in the process of raising $10 million dollars for capital construction and start-up from a similar group of diverse sources. A single large grant from a philanthropic foundation kicked off the fundraising process. From that beginning, they have pursued other foundations, convinced corporations to sponsor exhibits, requested numerous government grants from a variety of state and federal agencies, and have continued to build a strong membership. The final funds not raised through these sources will be

requested through a bond issue. At this time, the managment of the OCA believes that they will be able to raise all funds without resorting to a vote on a bond issue.

FUNDING SOURCES

General Obligation Bond Funds - Given the recent difficulties the local school district has had in getting voter approval for capital bond funds, depending upon bond funds as the only source seems unwise. The citizens of Poulsbo have responded when there is a real need, however, such as with the recent passage of a bond issue for a new fire station. It is probable that if fund raising from other sources fell short of the goal, a small bond issue might be passed to ensure that the PMSC will remain in Poulsbo.

Revenue Bond Funds - Both the Port and the City of Poulsbo may issue revenue bonds. These bonds are retired from revenues generated by the project constructed with the money they provide. The possibility of using this source has not been explored to date, and cannot be until a better estimate of expected economic performance of the PMSC is complete.

Foundations - Grants and donations from foundations are a very real and possible souce of funds for construction of the PMSC. Many foundations do not make grants for construction. This project should be attractive to those which do because of its integration into the community, its potential for stimulating further economic development, the educational aspect of its programs, and all of the other positive things it would bring to Poulsbo and Kitsap County. A key aspect in obtaining foundation funds is showing widespread support for the project. These funds must be sought on an individual basis with a request tailored for each foundation approached.

In approaching a foundation or corporation, having a researched plan prior to making a request is mandatory. The kinds of projects the foundation usually grants money for, the amounts, and specific needs and wants should all be determined. The research should include a description of internal organization of the foundation, who should receive the proposal, and other areas of protocol. Above all else, the request should be tailored to the budgets available. If it is not, it will stand little chance of being funded.

Corporate Sponsorships - Corporate sponsorship of facilities and exhibits has great potential for funding parts of the PMSC. Few corporations seem to want to donate money for part of the building or other facilities. They often need to receive recognition in the form of having a building, a wing or exhibit named after the corporation. Doing so allows them to channel funds from their marketing budgets because a named exhibit is a category of marketing the corporation. For this reason, it is usually better to request funds for specific exhibit, room, or other area which is discrete enough to be named for the corporation.

While competition for corporate philanthropy is keen, opportunitites exist to secure funding for specific exhibits. The same kind of considered approach starting with research as to corporate philosophy and requirements leading to a specific funding proposal is needed.

Direct Federal or State Aid - In times past, this was a major way new facilities were funded. However, in the present, almost no federal and few state allocations are being made. There are exceptions, however. The new Naval Museum in keyport was allocated $500,000 by funds because of lobbying work done with a variety of legislators. The PMSC would seem to be a candidate for a similar grant in the same dollar range if the appropriate legislators are involved and educated about the needs and benefits of the PMSC. In requesting funds from the legislature, and to some degree from all sources, the power and influence of the people publicly supporting the project and speaking for it will determine whether money is granted.

Federal and State Agencies - Many Federal and state agencies have programs for public education, conservation, and interaction with many aspects of the marine environment. Others have a mission of promoting economic development or tourism. To raise money from these agencies, the same kind of research as was described for foundations and corporations is needed. The request must be for an exhibit or program which is part of the agency mission, and for which they have funds. Experience with the Oregon Coast Aquarium has shown that many agencies do not spend all of the funds available to them. These agencies offers good potential if the sources and fund categories can be discovered through research.

Loans - If, after a more detailed economic analysis is completed, the financial predictions are for a large operating profit, it may be possible to borrow some construction funds from a bank or other commercial lender. This source has not been often used by museums and aquariums. Given a positive financial outlook and sound managment, banks are showing increasing willingness to review and fund loan applications from non-profit institutions.

Bequests and Gifts of Property - A source now receiving more attention from non-profit institutions are people who might leave cash, real property, or personal property to the institution. Most of these gifts will not produce cash for some time, almost always after the giver dies. Some such gifts contain restrictions on dispersal of the property. In all cases, the institution must examine a gift to see if it fits within the mission of the institution, and if it contains unacceptable restrictions. Because of the time restrictions on dispersal of property, funds from these sources are better suited to building an endowment or for changes in the future rather than for immediate capital construction.

Donated materials - Depending upon the way the PMSC is constructed, donated materials and/or labor are a possible way costs might be reduced. This source is most likely if the facility is constructed by local

contractors, or is done in phases, larger contractors are often reluctant to make significant donations. Community labor can be utilized only if needed skills are present and if insurance coverage can be provided.

Membership - Establishing a supporting membership is a very important step in development of the PMSC. It will accomplish two goals. First, it will provide the evidence of widespread public support needed for all funding requests from all sources. Secondly, it will provide a source of operating money. This source will be small at first increasing as the membership grows. Because it is a small initial source, funds from membership programs are often used as seed money to provide staff, planning, and materials for capital fund raising rather than being used for direct funding.

A typical membership structure includes categories for singles, students, families, and a variety of value added memberships. These are often called patron, sponsor, and so on. Normally, each membership would entitle the holder to unlimited free admission to the PMSC including free admission of some number of guests. Each member should receive a periodic newsletter and other information about the PMSC. Some institutions add benefits such as reduced admission to other area attractions, a catalog of specialty items, an annual members party, and many more.

SECTION 9
Further Development

SECTION 9 - FURTHER DEVELOPMENT

The planning process for a facility such as the proposed PMSC is difficult enough if funding has already been secured. Because that is not the case, the process will be even more difficult. The development process is further complicated by the tight time frame. The PMSC needs to be complete in the spring of 1990 to enable the existing MSC to move out of its present facility when the lease expires.

The group of people trying to define and develop the new PMSC have three distinct advantages at this time. First, this study has brought the planning of many aspects a long way, and an overall concept exists. That concept seems to have widespread support among the community and governmental agencies. Finally, the process started initially by a citizens committee in 1987, continued through this study, has contributed to a momentum which should be utilized to carry this project forward.

MOMENTUM

Momentum is a vital factor for a committee or organization trying to plan, raise funds, and to organize at the same time. Momentum can best be preserved by continuing the multi-faceted planning process already underway. The process of advancing the state of planning can itself, become an interim product. In other words, development of a series of planning products can serve to help keep the organization together and to build momentum. Once financing is secure, it will be easier to maintain momentum.

PROJECT SCHEDULE

There are two important aspects to the schedule and time constraints for development of the PMSC. First, the existing MSC loses its lease in 1990. To have a new facility contructed and open will require from 9-12 months for design and construction once funding is secure. The second factor involves the

momentum and funding. If rapid progress is not made in advancing planning and in securing funding, those contributing time and effort may begin to lose interest. If funding or even the preliminary promise of funding has not been secured within 6 months or so, the committee should look to other options. Those include construction of a much more simple, less costly facility to operate just as the MSC does now without public display facilities.

If the PMSC is to become a reality as now conceived, immediate steps should be taken to advance planning, to build support, and to raise some of the funds needed to pay for the first two. The ad-hoc committee which has been providing overview for this study would be the logical group to begin a more formalized organizational process.

ACTION REQUIRED

There are several courses of action which should be pursued immediately and simultaneously. The list outline below can be modified and is presented only as a general guide to some of the steps which seem appropriate.

Organization - the citizens ad-hoc committee has been providing the organizational structure up to now. However, with the planning and research which now needs to be done, the committee should be formalized and expanded. This study recommends formation of one committee to focus on **physical planning**, one to focus on **organizational structure and programming**, and one to focus on **finances and fundraising.**

Non-profit Organization - Several institutions similar to the proposed PMSC are operated by non-profit corporations (IRS 501 (c)(3)). In some cases, such as the Oregon Coast Aquarium, these corporations have raised the capital funds. Even with institutions operated by governmental agencies (such as The Seattle Aquarium), associated non-profit corporations have been formed to offer support, a vehicle for fundraising, and operational flexibility.

This study recommends the formation of a non-profit corporation. Given the several possible pathways by which the PMSC might be funded, its ultimate role is not known now. However, even if it will not be the operating agency, that agency can utilize a non-profit organization for the same kinds of support as does the Seattle Aquarium. It does not matter whether it will be the prime operating authority, or a support organization, a non-profit corporation will be a valuable entity for the PMSC.

Forming a non-profit corporation takes several months. After an initial organizational meeting, a charter and by-laws must be adopted. Those, along with the proper paperwork are forwarded to the IRS for a ruling on the non-profit application. We recommend that the first steps in incorporating the non-profit organization be taken immediately. The citizens ad-hoc committee can serve as the founding board of directors to serve through the first year up to the first formal election of the board. Once approved, this organization can accept tax deductable donations, and can begin to help take control of the planning process and to shape the ultimate success.

Membership Program - Once a non-profit corporation is in place, there is something to join. In other words, people can join the organization to help advance its cause. Given that there will be no new PMSC to go to for some time, efforts need to be made to provide the membership with other benefits. Perhaps an arrangement can be made with the Seattle Aqurium for reduced price admission for PMSC members. Other possible benefits might include a newsletter, periodic activities such as guided field trips, and others as developed.

A caution about a membership program is in order. A program should not be started until the people and effort are pledged to make it a success. One newsletter never followed by a second is a good way to alienate people and to kill momentum.

Support - Every agency and foundation which might grant funds or donations will want to know about support. The organizaitonal committee or non-profit corporation should make an extended effort to let people know about the PMSC. Pledges and other indications of support should be pursued and collected in the form of letters, club or agency resolutions, and any other means. These will be used in citing support during grant and funding applications. A good avenue for building support is through the membership program outlined above.

Fund Raising - Capital fundraising for construction is not an easy task under any circumstances. Many foundations and agency programs are geared entirely toward the funding of programs. It is fortunate that this kind of funding is what is needed most immediately for the PMSC. By soliciting funds for, and successfully completing planning and design activities with such funding, it will demonstate to all that the organziation is competent, professional, and well organized.

Funds for the next planning steps should be sought immediately. Requests should be for specific planning steps such as the request presently pending with the State of Washington for development of economic data and a strategy. Research on the particular target source will usually provide insight into the goals and wishes of that source. The request should then be tailored to fit. Funding requests should never be unrealistic as to what will be accomplished with the funds, the schedule, or any other goals. That is one sure way of failing.

Funds for capital construction will require better planning than now exists. The physical and operational concepts will have to be defined enough to ensure confidence in the target source that the PMSC will indeed be constructed. The economic picture will have to be much clearer with some assurance that the PMSC can operate in a financially self-sufficient manner, or that suplementry sources have been committed. This entire package will need to be expressed in a series of

fundraising tools such as a brochure, slide show, video tape, and the like. The actual selling of the project will be done by people, however. The board of the non-profit organziation, city and ESD officials, as well as interested and committed citizens will have to work very hard selling the concept.

SECTION 10
Lower Cost Alternative

SECTION 10 - A LOWER COST DEVELOPMENT ALTERNATIVE

The success of the expanded Poulsbo Marine Science Center described in this report depends upon raising the approximately $1.9 million dollars needed for full construction, and upon attracting approximately 100,000 visitors annually. While both seem feasible at this time, it seems prudent to briefly examine a lower cost alternative, one which might operate on a different basis. This chapter describes a Marine Science Center which would be located at the same site, which would retain the educational program functions, but which would not have public exhibits for which an entry admission price would be charged. In this alternative, however, public educational and evening programs would be expanded because parking for evening events is available. Those programs would increase the overall activity of the PMSC and its service to the greater Poulsbo and North Kitsap communities.

BACKGROUND

The concept discussed in this chapter was developed in response to the fear that raising funds for the construction cost for the expanded PMSC might not be possible and/or that enough visitors might not come to provide a financially self-sufficient operation. In developing this alternative concept, the findings of the body of this report were examined to determine how they might relate to a PMSC of reduced scale and scope.

The feasibility study reported here demonstrated that the following conditions exist:

1) There exists an interest in maintaining the Marine Science Center in Poulsbo, and in expanding its programs with offerings to a broader range of general public audiences.

2) Securing funding for, and operating such a facility will require the expertise of the present Marine Science Center and its operating agency ESD 114, the City of Poulsbo, along with the downtown merchants and the Port of Poulsbo.

3) The site selected for the expanded PMSC, the site of the present Poulsbo Yacht Club, is clearly the most desirable site for the new PMSC from the PMSC's point of view. Whether another use of the site would pay better dividends to the City of Poulsbo through paying site lease fees was not examined.

THE PROPOSED FACILITY

Given that retaining the PMSC in Poulsbo was, and continues to be a major force behind this study, a facility which could accommodate the existing PMSC programs, and which would also permit their expansion by providing space for evening programs and other special public events was developed. Another goal was to significantly reduce the construction cost. The following table (TABLE 10.1) shows a comparison of the minimum expanded PMSC as described in the body of this report (which included significant public exhibits) and the proposed PMSC which could provide all programmatic offerings, but is without public exhibits.

TABLE 10.1

SPACE CATEGORY	COST PER SQ.FT.	MINIMUM SPACE PROGRAM (WITH EXHIBITS) SPACE SQ.FT.	COST $$	REDUCED SCALE PMSC (WITHOUT EXHIBITS) SPACE SQ.FT.	COST $$
Outdoor Space	$40	400	$16,000	0	0
Dock Space	$35	0	0	0	0
Indoor Public Space	$80	7344	$587,500	4344	$347,500
Indoor lab Space	$110	1900	$209,000	1900	$209,000
Indoor Support Space	$65	2060	$133,900	2060	$133,900
Indoor Office Space	$70	1700	$119,000	1700	$119,000
Building Only Sub-Total		13,000	$1,050,000	10000	$809,000
Site Preparation	$20	10,000	$200,000	10000	$200,000
Exhibitry	$60	3000	$180,000	0	0
CONSTRUCTION COST			$1,445.420		$1,009,400
Contractor fees (15%)			$216,800		$151,400
Design Fees (12%)			$173,450		$121,100
Permits and taxes (4%)			$87,300		$40,400
TOTAL PROJECT COST			$1,893.500		$1,322,300

Removing the public display space from the PMSC space program termed "minimum" will still provide the needed teaching and educational spaces, and will accommodate public events and programs in those spaces at times when they are not being used. This step would reduce the overall project cost by approximately $570,000. Using the above cost table, building a new PMSC at the same size as the present one (8,000 SQ FT) would cost approximately $1,050,000. All of these costs can and will be reduced through more complete planning of the spaces involved, and through careful design. Costs can be further reduced through innovative construction management, procurement of donated construction materials and reduction of labor costs through the use of volunteers. Overall, cost reductions of up to 20% may be expected if all cost cutting measures work out. At this preliminary level, this report adapted confirmed commercial construction cost rates so construction costs would not be underestimated.

MODE OF OPERATION

The PMSC without public exhibits as outlined above would provide a new PMSC larger than the present one (approximately 10,000 square feet versus approximately 8,000 in the existing facility). It would be able to offer expanded public programs and events, and would support a modest expansion of present school educational programs. Without public displays and the staff required to maintain them, it would operate within the existing budget provided by ESD 114. Any increased costs for staffing of evening or special events would have to be paid by admission to the programs or events themselves, or from some unknown funding source.

ASSESSMENT

Given the overwhelming goal of keeping the PMSC in Poulsbo, this concept is attractive. It would provide a slightly enhanced facility which could serve the community through special programs. Further, it could

be viewed as the first phase of a two phase project with the public display portion to be added later. It will not provide the draw to downtown Poulsbo that a PMSC with public displays would. Given a 20% increase in the size of the annual operating budget to allow for increased evening programs and special events, the economic benefit to the community would increase to an estimated $480,000 in annual indirect economic impact. That compares to $1,200,000 projected for the PMSC with public displays. Conversely, loss of the PMSC to another community would mean the loss of approximately $400,000 contributed by the present PMSC.

CONCLUSION

There is an almost infinite number of different sized PMSC facilities which can be considered, and several ways in which each may be operated. This study recommends that civic leaders, City government, and the general populous be surveyed to determine their interest in the two PMSC facilities (one with public displays, and the one without) to determine whether they believe the required funds can be generated. At the same time, the space programs and thus the costs for the three options can be refined. That way, if the concensus is that a lower cost facility is needed, a more defined answer will be ready for discussion.

The alternative of a smaller sized PMSC with some public displays and a lower admission price was discussed at great length. That option should be carried forward also, but merits a strong word of caution. There is a point at which the entire facility lacks what is termed "critical mass" as an attraction. That means that displays and exhbiits can be reduced to the point where they cannot be marketed without the danger of disappointing visitors when they come, even if the admission price is lowered commensurately. Satisfaction is tied directly to the length of time a visitor stays in an attraction. The PMSC's described in the body of this report were sized to provide a 45-60 minute length of stay, and the admission price was projected accordingly. Any attraction with a length of stay lower than 30 minutes or so runs the risk that visitors will not find the experience of enough

consequence that they recommend to friends and others that they come. There are several examples of this kind of situation which indicate that these kinds of predictions are the most difficult to make. If the community decides to pursue a more modest and lower cost PMSC with public exhibits and an admission charge, some effort must be put into sampling public opinion and reaction to assess the relationship between perceived mass, the length of stay, and the admission price.

APPENDIX

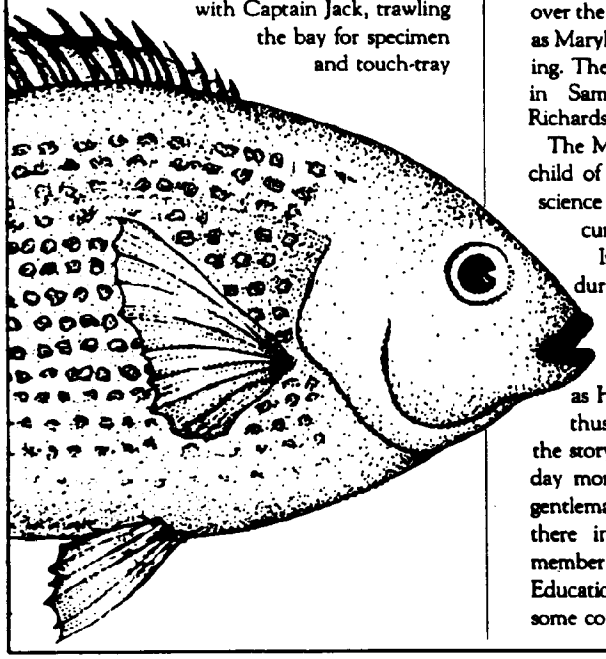
The World o

A VISIT TO POULSBO'S MARINE SC

Imagine yourself entering a marine research submarine, never mind that it's a simulation. After all, you're seven years old, in the second grade and alive with innate curiosity and imagination. Your sub, the U.S.S. Neversail, is equipped with realistic dials, gauges, and knobs so you can imagine, with the assistance of the sound system, your sub descending to the ocean floor. Throughout your descent you view, via a continuous film loop, seals, sunflower seastars, sea cucumbers, and sea asters; examples of the marine environment which you are entering.

This isn't mere entertainment. Those knobs and switches enable the participant to control water intake and output, as if on a research expedition. But, let's face it, your youthful experience is missing some exposure to sound hard facts, so along with your video of sea life is narration of what you can see.

This is exciting! This is highly motivational education and you want to see more. And it's all right here: trips in the "Beluga" with Captain Jack, trawling the bay for specimen and touch-tray aquariums alive with exciting creatures from the sea. The Marine Science Center in Poulsbo, Washington under the auspices of Educatonal Service District 114 (ESD) offers a gamut of educational possibilities through a cooperative presently serving elementary through high school students from Bainbridge Island, North Kitsap, and Central Kitsap School Districts. The Center was selected as Washington's representative in the "Search for Excellence in Science Education". This facility, located in the historic site where the last commercial sailing voyage under the United States flag once operated, is worth the attention of sight-seeing tourists as well as Puget Sound residents.



Though originating as a teaching facility for North Kitsap School District, the Center has grown far beyond its initial design. Still a small organization (there are only nine full-time staff), the effects of the Center are far-reaching. The Marine Science curriculum designed at the Center, in addition to being used by local districts, is used all over the United States. Staff travel as widely as Maryland and Alaska to do teacher training. The Center has even been represented in Samoa by exchange student Jerry Richards.

The Marine Science Center is the dream child of North Kitsap biology and marine science teacher Clayton Ham and former curriculum director Dick Colombini. It all began in a dormitory cafeteria during the summer of 1966 when Mr. Ham was taking some advanced course work at Oregon State. Though nearly twenty years ago, as Ham shared his experiences, his enthusiasm was still evident as he related the story. "I was having breakfast one Sunday morning when a rather distinguished gentleman asked if he might join me at table there in the dormitory cafeteria. As a member of the Department of Health, Education, and Welfare, he was attending some conference or symposium."

Esquire Hills Elementary students dragging for pl

After learning Clayton was a teacher, he asked if there were any ideas he had for programs or curriculum for which there just wasn't any money. As most teachers would, Clayton immediately replied "Oh, yeah!" The birthing of an idea is an exciting thing,

f Water

IENCE CENTER BY MILLIE MAGNER

c ton.

but even more so is the opportunity to turn it into reality. He then explained his hopes for developing a marine science center.

Back in Poulsbo, through the urging of that one individual and the assistance of a somewhat doubtful school district curriculum director, Clayton Ham said "Well, what the heck! I'll give it a shot." and applied for a grant through the Federal Elementary and Secondary Education Act, Title III. "There was a mess of paperwork. You know, everything had to be on the right forms and in triplicate. We had to get everything in by April, I think, and before school was out, we received word that we were awarded a planning grant of nearly $96,000."

With this financial assistance, Clayton was able to travel about the country visiting similar programs already in existence and confer with federal officials about the design, implementation, and further financial support of such a program. One of the conditions of the grant was to obtain funding from other sources. In Washington, D.C. alone, he had twelve appointments.

Ham spent his summer visiting agencies such as the Navy Oceanographic Department, Health/Education/Welfare, the American Institute of Biological Sciences of which he was a member, the Department of Fisheries, the U.S. Department of Vocational Education, and the General Services Administration. After looking around Washington, D.C. trying to find funds, a lot of promises were made.

At the time Clayton Ham was researching programs, there were only three or four in the country. One program with which he was already familiar existed in California. The others were on the east coast. He visited Falmouth, Massachusetts, Beaufort, North Carolina, and Crystal River, Florida. The Crystal River program impressed him the most. It was well funded and had tremendous community backing with contacts from the Smithsonian Institute. Their facility was located on an island and included a dormitory as well as a classroom/research building.

Once he returned, he began to understand how much work grant application required. He continued spending time in meetings and beating the bushes for local support and professional expertise. As well, he had to compile facts and statistics to show justification for such a program. He met with Dr. Eugene Kozloff, interim director of Friday Harbor Research Laboratory, and did a population study of the school district showing its relationship to the marine environment.

Even in its humble beginnings, the Marine Science Center had a certain penchant for good fortune. With data gathered and forms completed, the big question was "Where are we going to do this?" Ham checked with real estate offices for waterfront property which would be both appropriate and affordable, but as with many acts of providence, the property was discovered by accident. Nearly at the point of giving up, he went for a ride in his old pickup. Passing the old oyster plant on Liberty Bay, he thought to himself, "I don't think they use all that." and pulled in. Joe Engman, the owner, had an office upstairs so he went right up and explained the problem. Engman asked a few questions. Then to Clayton's total surprise, he turned around and said, "Mr. Ham, how would you like me to donate a piece of this property for this marine science project of yours?" So for one dollar, North Kitsap School District got a twenty year lease on some prime waterfront property.

There were many offers. He remembered an offer he received of a navy barracks barge.

"It was huge—a floating hotel and we could have had it for free, but we had to pay

Director Jim Kolb

to have it transported from the east coast."

Jim Kolb came to the center through the back door. Having left a high school teaching job in the San Francisco Bay area, he was hired by ESD 114 to write curriculum for the Center. The assignment (under a federal grant) was to rewrite the materials used at the Center in a uniform format and make them available to schools which didn't have access to a marine science facility.

The project took four years. During that time Jim led what he calls a rather schizophrenic life style. He had offices both at the Kitsap Regional Library in Bremerton and at the Marine Science Center in Poulsbo. As he finished writing his material, he took it out to school districts in the area, across the Sound, and in Eastern Washington to be tested. Naturally, there were revisions, but the materials were validated and approved by the State as exemplary. Finally the materials, which are now known as The Project For Sea Curriculum, were awarded national validation.

It was during this time that the Center evolved from a North Kitsap School District facility to a cooperative still managed by North Kitsap, to its present status under the management of ESD 114. So Jim Kolb made the transition from curriculum writer to interim manager to director.

About the Center, Kolb says,"It's a dynamic place to work. A lot of good folks. A lot of energy and enthusiasm. It's real nice to work with people who are dedicated, who really put out 150 percent all the time."

The Marine Science Center fulfills three different roles. First, it is a teaching station. Lessons are provided both at the Center and at the schools for elementary and secondary students. Though open to the public Monday through Friday from eight until four, its primary season is the school year. During this period, it's bustling with activity. Touch-tray aquariums are filled with a gallery of sea creatures from Liberty Bay. Students are clustered about the aquariums identifying the specimens and eagerly learning their characteristics and facts about their habitat. Discipline is rarely an issue. Abuse to the facility from youthful mischief is virtually non-existent.

Though additional curriculum is in development, the Center has been serving second, fourth, sixth grade and high school students. Each grade level has a pre and post visit by Center staff as well as curriculum materials which are used in the classroom in conjunction with their visit to the Center.

Second graders generally have one visit which is an hour and a half. Their focus is primarily identification of plants and animals of the sea. At the introductory visit, Center instructors explain what's going to happen and what they'll see and do. The follow up is a review of their trip and involves learning activities.

Grade four gets two visits. Their focus is the commercial uses of the marine environment. They get to go out in the "Beluga" (fittingly named for its resemblance to a white whale) with Captain Jack. They're loaded up, usually a class at a time. Imagine 30 fourth graders chugging down to the harbor. Here uses of the marine environment are pointed out to them. They're asked to look for how people around the Poulsbo waterfront are making their living. "What's happening?" instructor Darryl Elves might ask. That is then compared with Seattle's waterfront.

Sixth graders usually visit once. They begin to learn how the physical sciences affect the biological. Instructors ask "How are things like the tides, currents, and salinity affecting this biological community you've been learning about?" This is an introduction to oceanography.

Though seventh and eighth grade is not a strong program area, the staff sets up prearranged labs with teachers requesting them. The Center's objective here is to provide an experience which can't be performed in the classroom. It's usually a trawl, "Let's drag the net out on the bottom of the bay, see what's there, pick it up, identify it, and do some biological exploring."

High school students enroll in regularly scheduled classes which are held daily and last an hour each. They are encouraged to take three quarters—one of biology, one

oceanography, and another of fisheries. Beginning marine science is offered to ninth graders. Advanced marine science is available to juniors and seniors. The high school curriculum is an in-depth study of both the physical and biological aspects of sea life. Students study tides, currents, and salinity as well as sea life from marine bacteria to whales.

The second role of the Center is to act as a resource, so there is a wealth of material available from print to film to computer software. Aquariums with animals are furnished for the participating schools. The Center houses one of the better marine libraries on the coast.

The third role is curriculum development. This responsibility, coupled with teacher training, belongs primarily to Margaret Philbrick and Laurie Dumdie. Their job is to make school districts aware of the curriculum materials available and to train teachers to use them. Laurie, who previously was with the Pacific Science Center in Seattle as a curriculum writer, pointed out that many elementary teachers are anxious about teaching science because they lack either content or technique. Many have never seen good technique modeled.

Because the Center is an NDN (National Diffusion Network) Project, federal grant money subsidizes the cost to send Laurie and Margaret to districts who request training. They may travel to Washington, D.C., Oklahoma, Georgia, South Carolina, or Alaska. In addition to the For Sea materials, there are now special education materials available. In the near future, there will be materials for grades kindergarten, one, three, and five.

It's a busy and fantastic place. Unlike most schools, the Center's "open door" policy makes it and its program highly accessible to the public. Several of the staff expressed concern for the distrust of public schools which seems to be a trend. A unique opportunity is provided to the public by the Center to see school in action. Visitors can come in at any time and see what's going on. They can see what teaching is like and what kids are like. They are enthusiastic youngsters with eyes bright from excitement as they burst with questions. "Unless children and young adolescents are exposed to science early, often and favorably, they will not develop the interest or knowledge necessary to be scientifically literate."

This statement by Jim Kolb exemplifies the core of the Marine Science Center's philosophy. About hands-on learning, Kolb says, "We use their innate interest in the marine environment. It's basic science, but we slip science in on these kids under the guise of fun and marine adventure. It works real well. We test often enough to know that the science gains are real. The kids really learn science. They learn it in a way that is really meaningful to them."

Michael Rust, one of the summer instructors, relates his own science education. He began college as a science major, a geologist but quickly grew dissatisfied. He was appalled by how badly science classes were taught. So when, as a teacher from Seattle's Heritage High, he was able to bring a tour group to the Marine Science Center, he was impressed. "This is the way for people to learn at any age," he says.

Margaret Philbrick, who also came to the Center with a science background (she previously taught high school biology in Beaverton, Oregon) views the teaching at the Center as very non-traditional. She says, "A main goal is to give kids experiences that will help them continue learning the marine sciences. Whether picking up organisms from touch-trays or collecting their own specimens, hands-on is a very effective learning method."

Too often science is just rote learning. It's boring. Another summer instructor, Terri Peterson, says of her own experience, "When I was young I hated science. All we did was read. We skipped the experiments.

Appendix B

GOALS FOR PROGRAMS AND COOPERATION WHICH AN EXPANDED PMSC MUST ADDRESS

Visions - or what do I (as an organization) want from new facility

POULSBO MARINE SCIENCE CENTER

maintain/upgrade programs to schools

increase visitor usage/programs

increase community programs
- week-end
- nights - film series

clarified parking - buses
- vehicles

sufficient space to operate effectively

covered outdoor area - including picnic area for students, touch tanks?

multiple vs single visits

gift shop

performance area - puppets, mimes to lectures etc.

on-the-water sampling for visitors

tour boats to/from Keyport Museum

space for meetings/receptions

organizational space for tour starts etc.

increased revenue to defray operating costs

MARINE SCIENCE SOCIETY

meeting place - capable of increased visitors

continued Marine Science Center program

increased opportunities for community programs
- in which to participate
- to present

clarified parking

base for operations and for reaching out to potential members and public at large

POULSBO YACHT CLUB

time to move to new site

community improvement facilitated by Poulsbo Yacht Club plus goodwill come permit time

(revenues from facility rental to end of lease period)

move existing building to new site

possibility of cooperative programs with Marine Science Center/Seattle Aquarium and Poulsbo Yacht Club

timing is of greatest concern - when would this happen? when will they be ready to move (i.e. begin construction of own site?)

potential for maritime history connection - water connection

NORTH KITSAP SCHOOLS

site for science program - elementary
secondary
- in Poulsbo within reasonable high school distance
- water access

presence of school within community with opportunity for public to witness "education in action"

nominal rent/lease charge

maintain efficiency of cooperative management scheme

increase in teacher in service

ESD 114

administrative organization that is efficient

facility/program consistent with goals of participating districts

recognition of role in management

DOWNTOWN MERCHANTS

facility that could act as cornerstone in revitalizing/maintaining vitality of downtown core

increased trade for existing businesses

appropriate design for Scandinavian theme

does not contribute significantly to parking problems/congestion

civic pride

encourage other property owners to maintain/improve their properties

facility that would increase attractiveness of downtown as a destination

multiple local user programs (film series)

meeting space

PORT OF POULSBO

increased parking - trailer on site versus off site
- vehicle

improved port superintendent's office - overlook

meeting areas

boat launch - retained

improved deck/promenade at site of present port building - goodwill from and with city

KITSAP COUNTY

1. major new northend tourism facility - economic development

source of aide to Kitsap County

educational enhancement

(political achievement)

2. located in north end of county

program that offers educational research/technical assistance ability to county government

CITY OF POULSBO

1. facility located downtown; accessible, visible, physically attractive, landmark potential; no major negative traffic impact

   economic retention and development; increase business activity and revenue downtown and rest of city

   community marketing tool

   educational resource

   concern over management in as much city involved in longterm ownership - no desire to actively manage

   economic benefit offsets alternative economic uses - tangible and intangible

2. Scandinavian theme - aesthetically pleasing

   environmentally sensitive

   multiple use tenant (port/MSC/aquarium/chamber museum of maritime) space and site (center/recreation fuel dock)

PORT COMMISSIONERS

1. economic and educational resource

   compatible water dependent shoreline use

   opportunity to expand downtown parking?

   catalyst to physical improvement of downtown

2. bus drop off - low parking impact

height and bulk in scale with surroundings

compatible operation with surrounding community

CHAMBER OF COMMERCE

1. new headquarters for Chamber of Commerce (central, busy, easy to locate)

more tourism for city and north end of Kitsap County so strong member support from retail interests

destination quality attraction for city

plug for advertisment/marketing of community

intellectual cultural resource

economic development catalyst to downtown and city

business retention program

2. facility would be located downtown within easy walking distance of central parking with high visibility - become a landmark possibly

multiuse building areas accessible to chamber

programs for tourist (1 time) and locals (multiple visits)

chamber office accessible to outside - highly visible - possible shared personnel for secretarial and reception