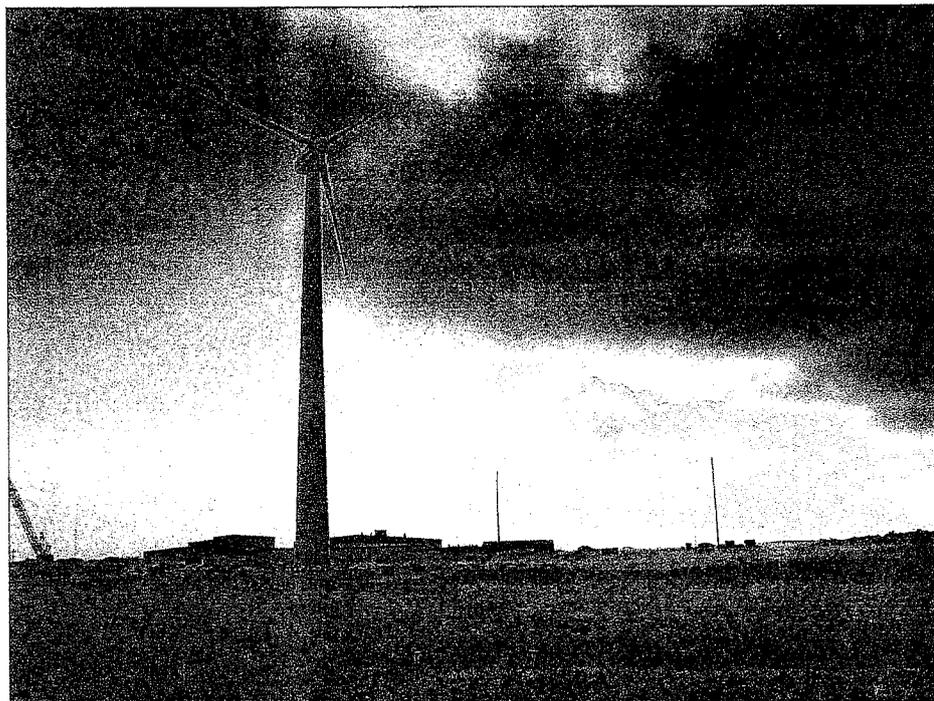


St. Paul Island

TDX CORPORATION



ST. PAUL ISLAND

5 - YEAR

ECONOMIC DEVELOPMENT STRATEGY

JULY, 1999

TDX FIVE YEAR ECONOMIC DEVELOPMENT STRATEGY

This statement of capital development priorities describes, in a brief narrative format, TDX' five year capital development plan for St. Paul Island and the financial mechanisms for implementation. The plan strives to provide the maximum economic and social benefits to the Aleut people of St. Paul Island, including the development of desirable employment opportunities, while insuring the scale of development is acceptable from a social and cultural point of view on St. Paul Island.

The capital improvements outlined are those considered to be the most likely to provide self sustaining economic development and diversification. The plan focuses on the most likely near term economic growth potential anticipated within the presently developed community, and new commercial development at St. Paul Airport.

Within the community, the largest industry as well as the industry with greatest growth potential is commercial fish processing. In 1998 alone, the quota for opilio crab almost doubled the previous year. This shore based industry is just beginning to serve the vast potential of the Bering Sea's halibut, sole and cod fisheries. It is anticipated that the two major processors, Trident Seafoods and Icicle Seafoods, will continue to expand their production as their operating space becomes more efficient and additional harbor space is developed for expansion. TDX places a high priority on projects to redevelop the old commercial fur sealing industrial site and expansion of the harbor to support the growth of the fishing industry.

TDX began supporting development at the airport when it took ownership responsibility of the area known as the POSS camp, a collection of facilities built during the early 1980's to support oil exploration in the Bering Sea. After oil exploration was abandoned, the facilities were deeded to the Corporation. TDX has converted a portion of the facilities to support airline and cargo needs and recently completed a hybrid, 500 kW wind generation system to support present facilities as well as future growth at the airport. The airport has both the land and the basic infrastructure needed to become the most likely location for non-marine based commercial development. TDX has undertaken a master development plan which will more fully utilize the existing POSS camp facilities and provide new facilities that will create new jobs and economic diversification for the community. The projects which follow are subdivided into two general categories.

Redevelopment of NOAA Infrastructure

- Government House Restorations
- Renovation of Fur Sealing Warehouses
- Redevelopment of Tract 41 Waterfront Area
- Replacement of the old government bunk house

Diversified Economic Development

- Construction of a Commercial Hydroponic Greenhouse
- Construction of a Natural History/Lodging Center
- Replacement of the Sewage Treatment Plant

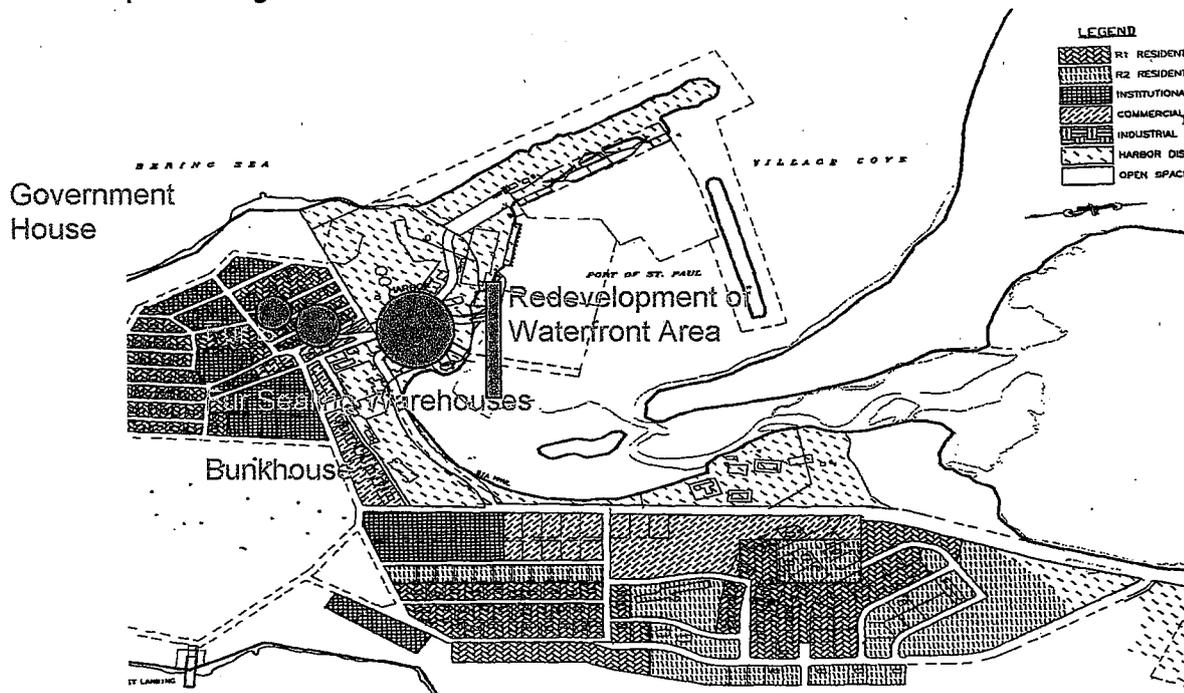
PART 1: REDEVELOPMENT OF NOAA INFRASTRUCTURE

Most of the buildings in the west section of St. Paul, adjacent to the harbor, were constructed during the period of occupation by the Department of the Treasury, later the United States Bureau of Fisheries and finally the National Oceanic and Atmospheric Agency (NOAA). Few were modernized and when transferred to the community in 1983, most were incapable of supporting a commercial use. Without the means to make necessary renovations of these buildings, many have deteriorated to a level where they are unsafe for occupancy and have been boarded shut.

Individual homes have been continuously occupied by residents and have slowly been improved. The old government buildings, particularly those used for the fur sealing industry, have remained in a state of disrepair. Development of the harbor and the resulting major advancement of the fish processing industry has increased the pressure to either repair or replace these buildings. There is no room for expansion in this section of the community and it is the only land with the potential for supporting harbor activities.

While the west section of St. Paul is important for harbor development, there are also buildings which should be preserved for their historical value. Facilities such as the Russian Orthodox Church and Government House, which was the residence of the top government official, are all extremely important for the history they play in the development of St. Paul.

TDX is strongly committed to maximizing both economic and social benefits to the community of St. Paul. Many of the buildings transferred to TDX after the 1983 Amendments to the Fur Seal Act were only marginally useable and have deteriorated with time. TDX places a high priority on restoring Government House so it can be used as a location to display the culture of the Aleut people and their background. Such use will also support TDX's summer Island tour program. TDX further, intends to renovate harbor support facilities and make improvements to the harbor which will encourage fisheries development in an appropriate manner to support year around seafood processing.



GOVERNMENT HOUSE RESTORATION

With annexation of Alaska in 1867, the United States government took control of all sealing operations on the Pribilof Islands. In 1870 Congress enacted legislation instructing the Secretary of the Treasury to grant an exclusive private lease to carry out the government's sealing operations in the islands. The Secretary awarded a 20 year lease to the Alaska Commercial Company and the Treasury Department administered the islands from Washington, D.C. The United States sent Treasury Department agents to the Islands to manage both the seals and the Aleut people on whose labor the seal industry depended. Its field agents in the Pribilofs were directly responsible to the Secretary of the Treasury. Staff on the islands included an agent in charge and three assistant agents. The agent in charge was responsible for supervising the others, as well as administering all public affairs in St. Paul.

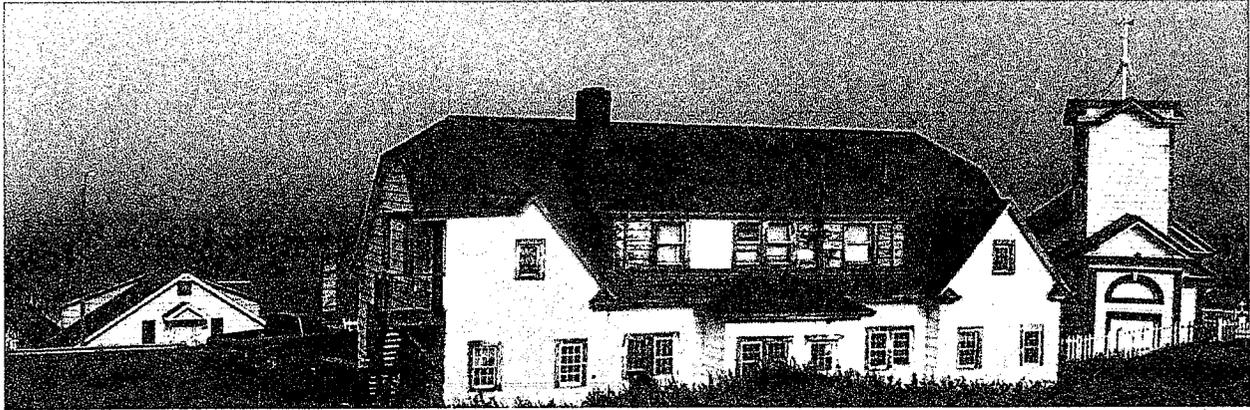


Government House, constructed for use as the headquarters and living units for the government workers, special agents and assistant special agents was built in the 1870's and reconstructed in 1932.

The building is located next door to the Russian Orthodox Church (see below). The Aleutian Pribilof Heritage Group, Inc. is committed to restoration of the church. Aleut WWII Reparation funds have been appropriated for the restoration and the design will begin during the summer of 1999.

Government house is memorialized as a result of publication of the Letters and Journals of Libby Beaman the first white woman who came to live with her husband, the assistant special agent in charge of sealing on St. Paul Islands in 1879-1880. This is an excerpt from her Journals:

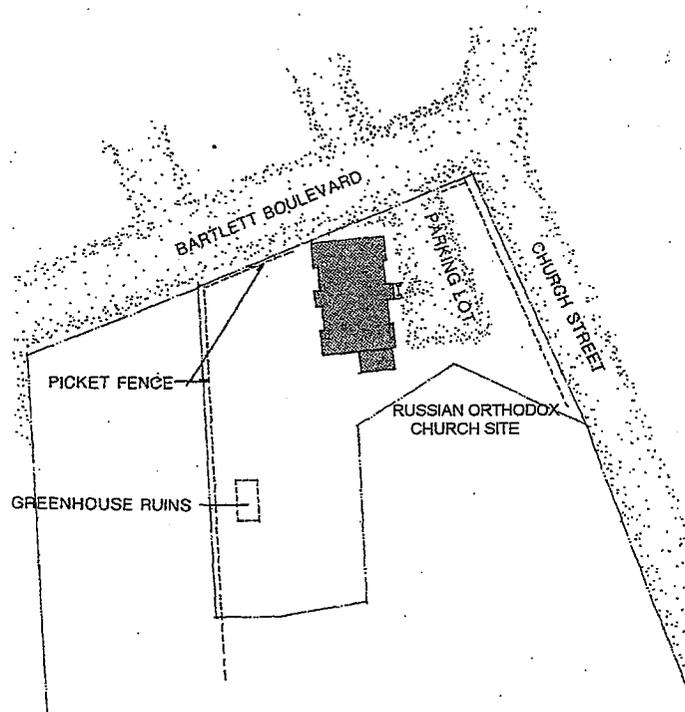
"Government House sits high on the central slope overlooking the roofs of the other houses. Our room is not exactly what one would call lovely. It is terribly plain.....The woodwork is stained dark as is the floor. There's a nondescript beige paper on the walls, stained and coming loose above the shield in back of the iron stove....The furniture is good, sturdy mission oak: a chiffonier, no dresser, a huge wardrobe, a small table that is used for a basin and pitcher for hot water, and on the floor, a good rug of a rather nondescript conventional flower pattern."



Government House was surveyed by the National Park Service in 1988 as a National Historic Landmark. It was considered by the Park Service to be the most prominent building in the administrative center of the St. Paul unit of the Seal Island Historic District. The landscape character remains much the way it was when first constructed. The exterior of Government House has received little maintenance and is badly in need of repair. The exterior appearance has changed little from construction and the opportunity to restore or rehabilitate still exists. Major tasks include reroofing, restoration of windows and doors, re-siding and repainting.

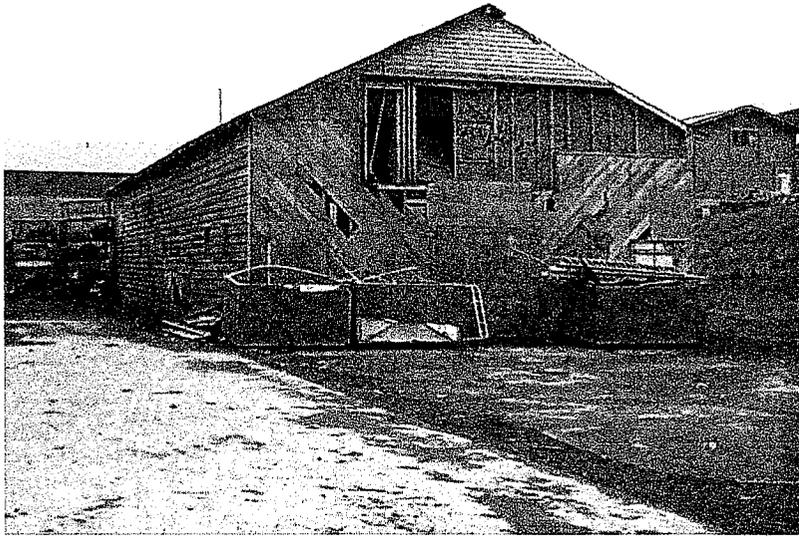
The living portions of Government House are currently used for apartments although the building is in such poor condition that this use is considered temporary. The building will be modified to become a cultural center available for public use. Cultural artwork will be on display as well as historical documents from the fur sealing era. The Corporation intends to make the building a part of the summer tour package which they are now managing.

Estimated Cost: \$1,000,000-\$1,500,000



SEALING WAREHOUSE RENOVATIONS

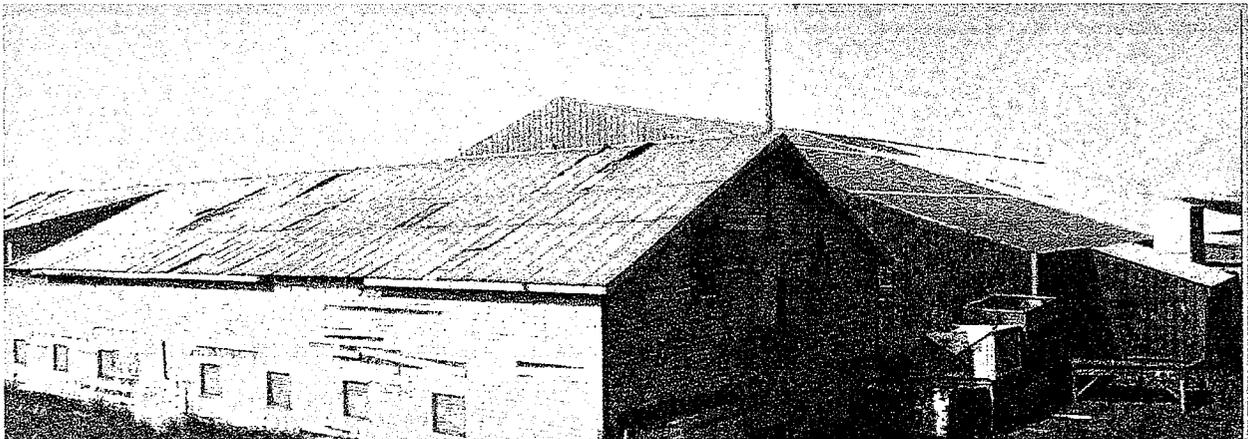
All of the warehouses used to store the annual fur seal harvest were built between 1910 and 1935, during the era of island control by the Bureau of Fisheries. Although some improvements were made to the buildings during this period, most were uninhabitable when they were transferred to TDX Corporation in the 1970's. TDX has attempted to restore portions of the buildings for temporary storage and warehousing. However major mechanical, electrical and life/safety issues have prevented all but the most temporary use of the buildings.



Completion of the breakwater and development of fish processing facilities have intensified the need to renovate the warehouses. The area they are located in must be made available for immediate support of the processing industry. Returning these facilities either to a useable state or, if they have deteriorated beyond a useful state, replacing them, is of vital importance to further development of the harbor area and the fishing industry.

This project would initially provide for a building assessment to determine the overall best method of repair or replacement. Buildings which can be salvaged will be upgraded to provide necessary cold storage and fish processing support. Buildings considered beyond repair will be removed from the site to make way for critically needed open storage.

Estimated Cost: \$4,000,000



REDEVELOPMENT OF TRACT 41 WATERFRONT AREA

The completion of the breakwater in St. Paul in the 1980's ushered in the development of a fish processing industry, allowing, for the first time, the harvest of the rich Bering Sea fishery. Three major processors now operate at St. Paul. Due to limited improvements to the waterfront however, Trident Seafoods, with TDX' financial support, has been the only processor able to develop permanent facilities. The other two, Unisea Seafoods and Icicle Seafoods use processing ships that are semi-permanently anchored along the shoreline. The volume they can produce is limited both by the ability to service fishing boats and by their confined processing facilities.

This project will more than double the size of the improved waterfront area and will increase the



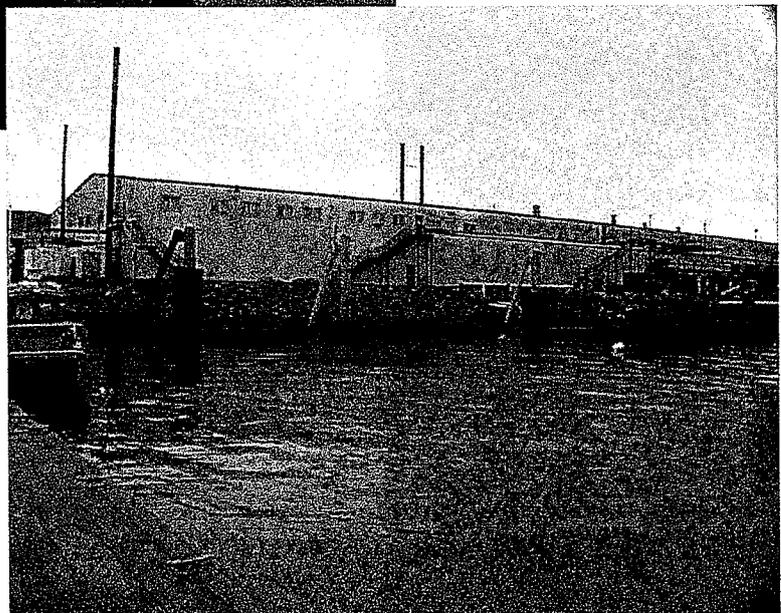
Undeveloped area in foreground. Trident Seafoods and wharf in background

St. Paul processing capability by over 50% of the current capacity. Completion of this project and the development of land based processing plants will substantially increase the number of jobs opportunities in the community.

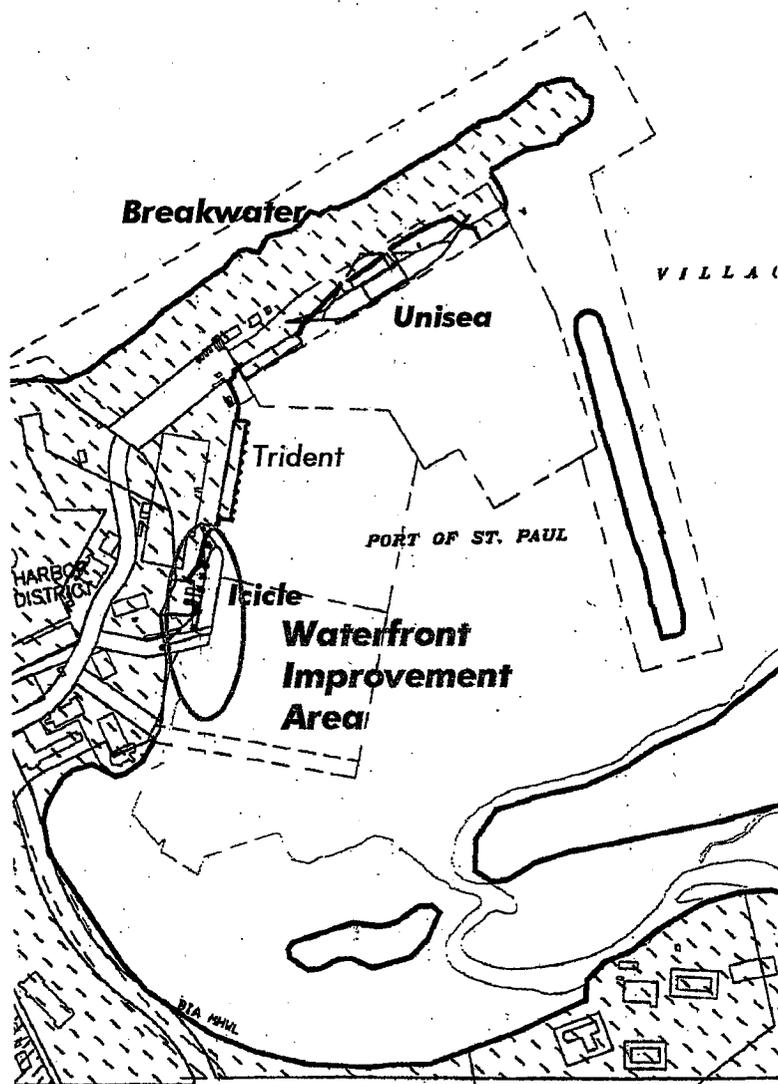
sketch on following page). Tract 41 is critically situated for development on the south shore of the Port of St. Paul adjacent to the commercial center of the community.

TDX leases the tidelands adjacent Tract 41. Such tidelands are the only area adjacent the shoreline of sufficient depth to allow fishing boats to tie off (see

Improved Wharf and Trident Seafoods



Improved Wharf and Trident Seafoods



Waterfront Improvement Location

The project will consist of dredging to a depth of 23'. It will also extend the wharf approximately 600' to the east of its present location and will include mooring dolphins for tying off during fish transfers.

Estimated Cost: \$4,000,000

BUNKHOUSE REPLACEMENT

The bunkhouse was built by the Federal Government in the 1930's. It was used to house Native workers brought to the Pribilof's from other communities during the seal harvests. It is a 3 story wood frame structure with 28 rooms. The rooms share common single bathrooms located on each floor. It was in only marginal condition when it was turned over to TDX Corporation in 1983. TDX remodeled the interior and reestablished the building as the King Eider Hotel which they have operated since 1989.



The King Eider Hotel is the only lodging facility in St. Paul and has provided the needed infrastructure to develop the community's tourism industry. The average profile of the Pribilof Island visitor is well educated, generally with a naturalist background. Due to the expense of travel to the Pribilof's, most visitors are seasoned travellers and have an age profile in the 45 to 70 bracket. While visitors

to the Island seek the opportunity to view the seal rookeries, bird rookeries, and unique wild flowers, most are unprepared for the Island's harsh climate. Warm, comfortable indoor facilities where visitors can spend a good portion of their off touring time is a key factor to the success of the tour. Customer questionnaires returned to TDX consistently cite the absence of adequate facilities as the major negative complaint.



The old bunkhouse, Circa 1940's

The repairs TDX made to the former Federal bunkhouse, while they have provided a level of comfort which did not exist when it served as a bunkhouse, were only cosmetic in nature. TDX has performed an assessment of what would be required for renovation. The assessment indicates that serious structural deficiencies exist in the building. Both the foundation and the roof need replacement or the building will be lost. Because the building is un-insulated it costs \$50,000

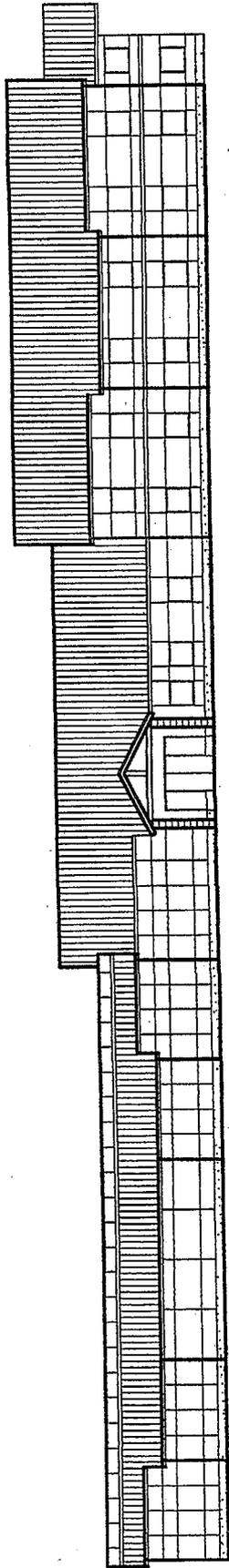
each year for TDX to heat it. To modernize the structure, all rooms would need to be renovated to include bathrooms, and mechanical and electrical systems need replacement. The assessment concludes that the cost of replacing the facility is much more practical than renovation.

Neither the King Eider Hotel nor the local community can support facilities for feeding tour groups. Food is provided by agreement with one of the fish processors, in their galley. While meals are wholesome, the experience is less than satisfactory for tour programs and there is no guarantee that the fish processing plant will provide this service on a long term basis. The replacement must therefore include complete food services.

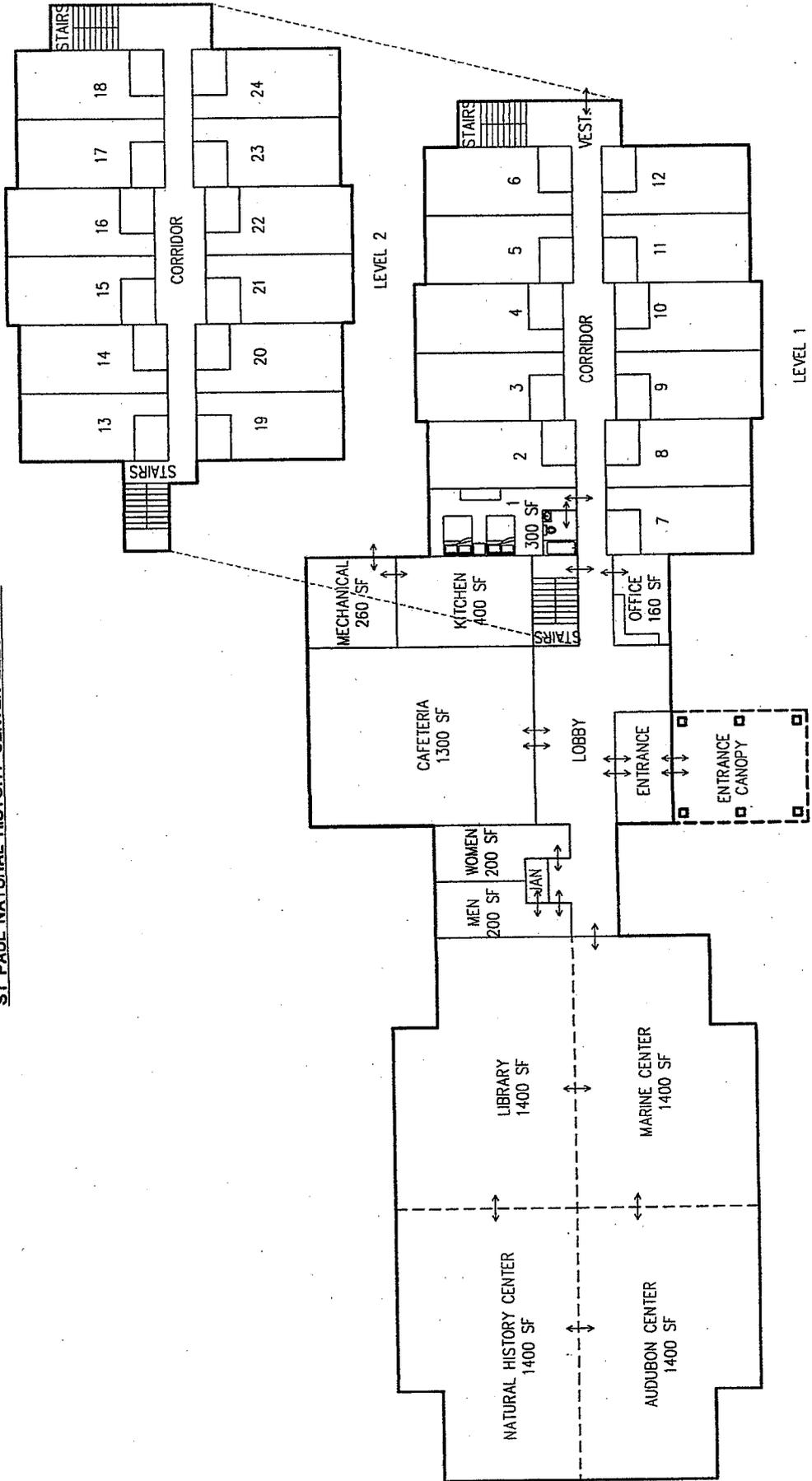
TDX Corporation intends to solve this major problem by developing a new lodging facility located near the airport. TDX has developed a plan for combining the replacement structure with a natural history complex. For a more complete description of this facility, see the *Airport Lodging and Natural History/Education Center* located in part 2. This replacement project will be unique in that it will take advantage of TDX's wind generation system to fully heat and electrify the building.

Recommended replacement of the King Eider Hotel will include 36-40 rooms and cafeteria capable of serving guests and the Island community.

Estimated Cost: \$3,200,000.



ST PAUL NATURAL HISTORY CENTER ELEVATION



ST PAUL NATURAL HISTORY CENTER - CONCEPT

LEVEL 1 : 13,800 SF
 LEVEL 2 : 4,600 SF
 TOTAL 18,400 SF

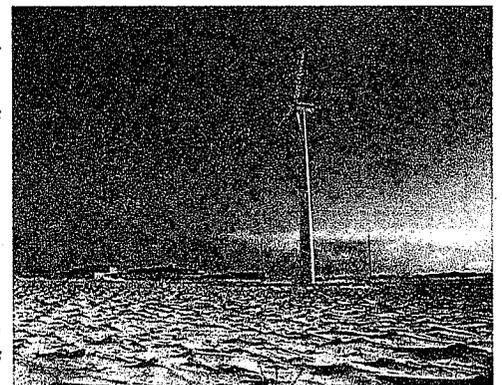
PART 2: DIVERSIFIED ECONOMIC DEVELOPMENT



In 1998 TDX initiated a major development plan aimed at making St. Paul airport the land based commercial center in the Pribilof Islands. TDX completed a new wind generation power system capable of providing both the required electrical energy and heat to support all facilities at the airport. The completion of the project at a reasonable cost not only makes commercial development at the airport practical but presents a unique opportunity to demonstrate this important alternative energy resource. The strategic reasons for development at the airport are clear:

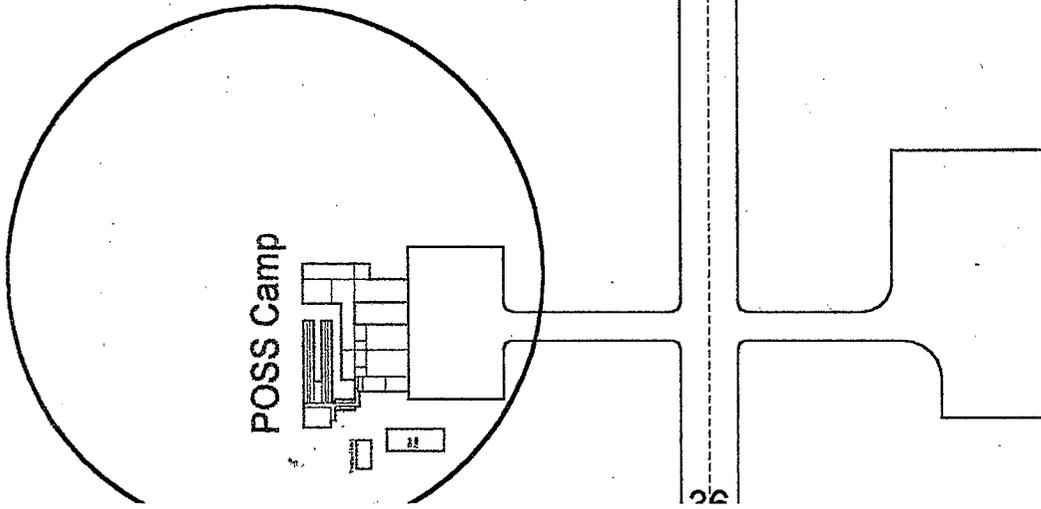
- Limited space within the community of St. Paul must be preserved for the growth of the fisheries industry.
- St. Paul airport is inland, away from the environmentally sensitive areas of the island.
- The airport is capable of jet cargo activity making it a logical center for distribution of products to markets.
- The airport is 3 miles from the community of St. Paul and is served by an all weather, recently improved highway, water, on-site sewer, and power (currently provided by TDX's hybrid wind/diesel power plant).
- Existing facilities include 80,000 square feet of warehousing and office space known as the POSS camp. This facility was originally constructed as a base for oil exploration in the Bering Sea and is now owned by TDX.

TDX invested over a million dollars in the hybrid, wind/diesel power system designed to not only supply power but to provide heat to the POSS Camp and all other airport facilities. The system is capable of initially supplying up to 500 KW of energy and can be expanded by adding wind turbines. Based on NOAA wind records, the system is capable of reducing the cost of energy from the current 35¢./KWH to less than 15¢/KWH.



The power generation system is gaining National attention. It is the only computerized stand-alone system in the world capable of providing clean, useable power without the aid of a motor generator or back-up batteries. The system operates successfully because of St. Paul's strong, steady winds, and a unique configuration of supporting software and hardware that conditions the raw power from the wind turbine to high quality AC power. TDX hopes that by demonstrating the capabilities of the system through projects of economic importance to the community, other communities in Alaska with similar wind characteristics will take advantage of this cost saving technology.

Airport Master Development Area



18

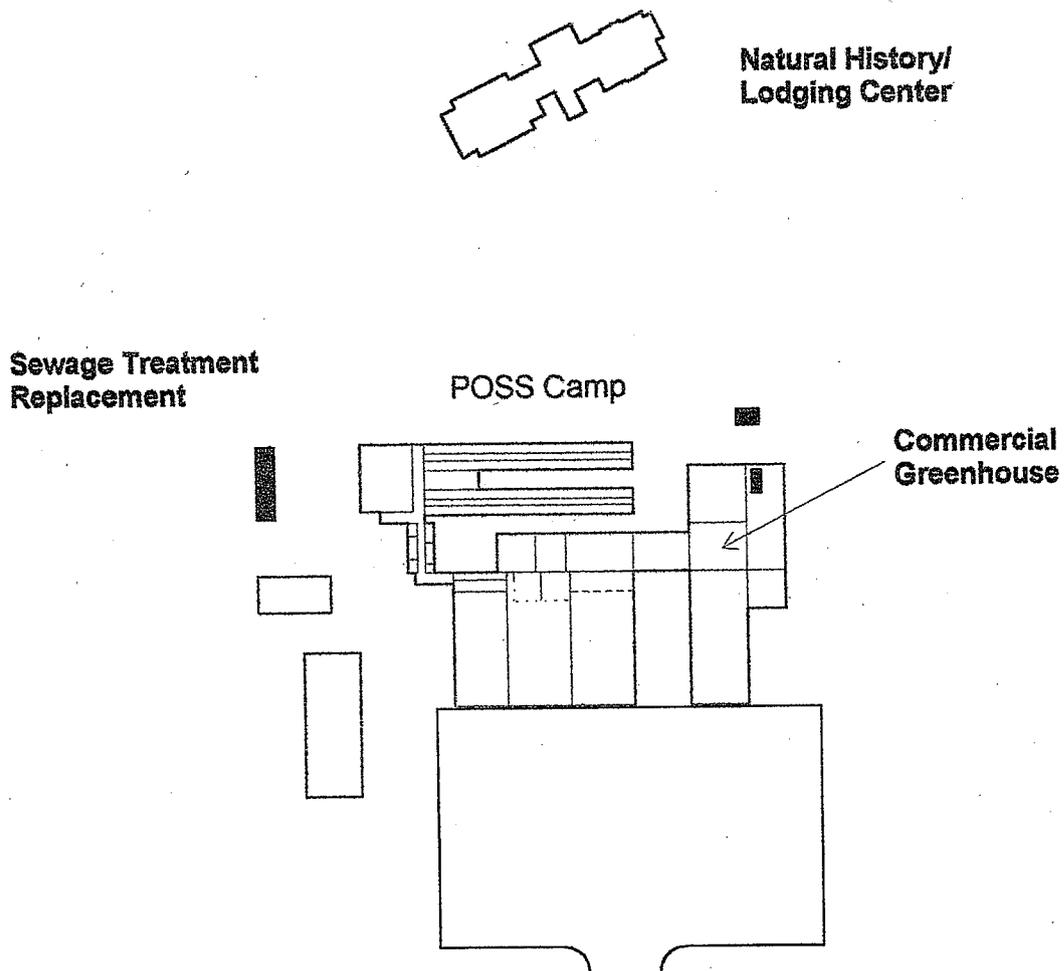
5700' x 150' Runway

26

St. Paul Airport

TDX Corporation Economic Development Priorities

 VESTAS Wind Generator



St. Paul Airport Commercial Development Plan

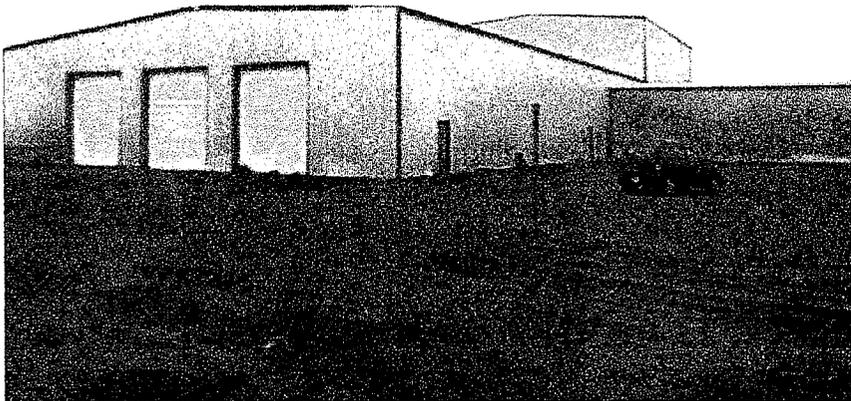
COMMERCIAL HYDROPONIC GREENHOUSE

Following completion of the wind generated power system, TDX created a master plan to guide the development of the facilities most likely to provide long term economic returns at the airport. With the exodus of Bering Sea oil exploration, TDX was left with a facility of almost 80,000 sf. and little identified need. As an empty shell, it was considered a liability to the Corporation. For a time, it appeared the facility would be leased by a surimi fish processor, but this interest vanished despite substantial tenant improvements.

Development of a hydroponic greenhouse within the hanger and warehousing portion of the building has been identified as the most promising venture. While St. Paul winds are severe, temperatures are relatively moderate throughout the year. With inexpensive power, supplied by wind, the prospect of raising and harvesting produce for local as well as export consumption has great potential.

The concept has shown such merit that a feasibility study has recently been funded by the Alaska Science and Technology Foundation. The results of this study should be available by September, 1999. Preliminary information gathered for the study has produced the following facts:

- The local market consists of the local community, the Bering Sea fishing fleet and the processing industry of St. Paul Island which employs a seasonal workforce larger than the permanent population of St. Paul.
- The transportation network is in place right now to economically supply product to much of Southwest Alaska and the Aleutian Chain as back haul freight.
- A favorable contract for hauling freight on existing aircraft back-hauling to Anchorage could economically compete with produce markets outside of the State.



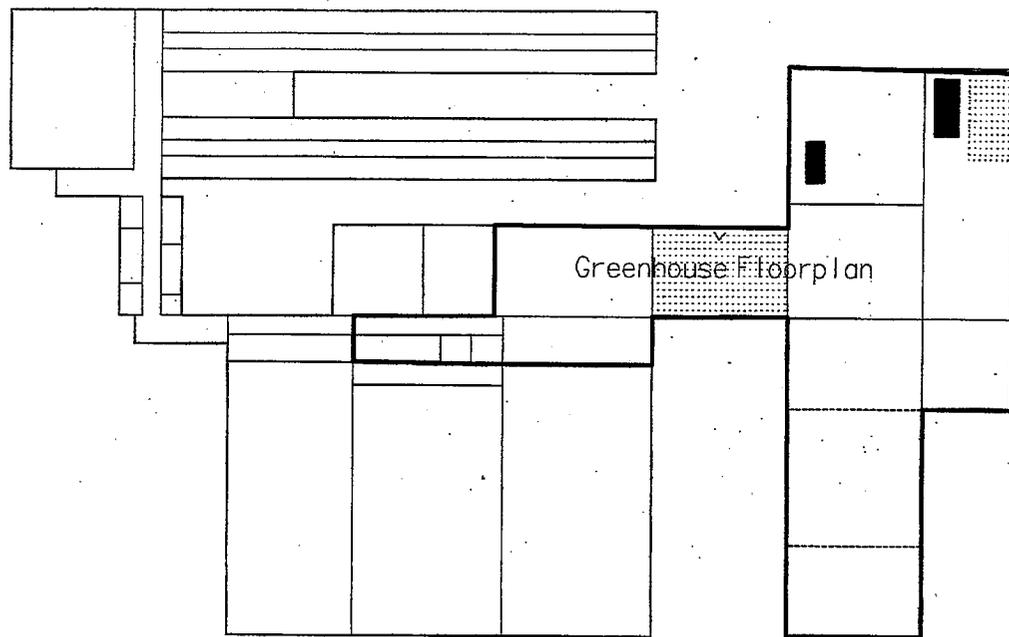
To compete commercially, the facility needs to be a minimum of 30,000-35,000 sf. and be capable of providing about 1 million pounds of product annually. Climate in St. Paul dictates that the facility be a 100% artificially lighted, controlled environment facility operating on a year around basis. A 100% electrically lighted facility is assumed because significant amounts of added light would be required for much of the year

to produce year around and absolute control of light produces a factory type of control in production. Experience has shown that a facility utilizing natural light supplemented by electrical

lighting can be higher in cost than a design for a single artificial lighting system.

Hydroponic production eliminating soil as a growing medium enables a highly intensive culture of crop plants, leading to a high productivity in minimal space. Hydroponic production also eliminates the need for pesticides, resulting in high quality, environmentally friendly production which yields a premium price.

Relying on wind generated electrical power to both heat and light a major commercial greenhouse has never been attempted before anywhere else in the world. It is possible only because of the high percentage of time year around in St. Paul when there is reliable wind power. TDX intends to complete a detailed testing period to determine whether the cost of providing auxiliary diesel generated power outweighs the price paid for less than optimal crop production. The program will provide an invaluable database for the development of future crop production using alternative energy sources



Proposed Location of Greenhouse within the POSS Camp

TDX intends to commit a significant portion, worth over \$7,500,000, of the POSS camp to the production facility (see plan view). TDX believes crop production will pay operating costs and eventually make a profit with a successful marketing program.

Construction Costs:

Additional Wind Generators	\$2,000,000
Building Renovation	\$500,000
Production & Environmental Control	3,100,000
Packaging/Office/Start Up	250,000
Design/Architectural	750,000
Contingency	400,000
Total	\$7,000,000

Because of the risk associated with an untried venture TDX is seeking grant funds for initial construction of the facility.

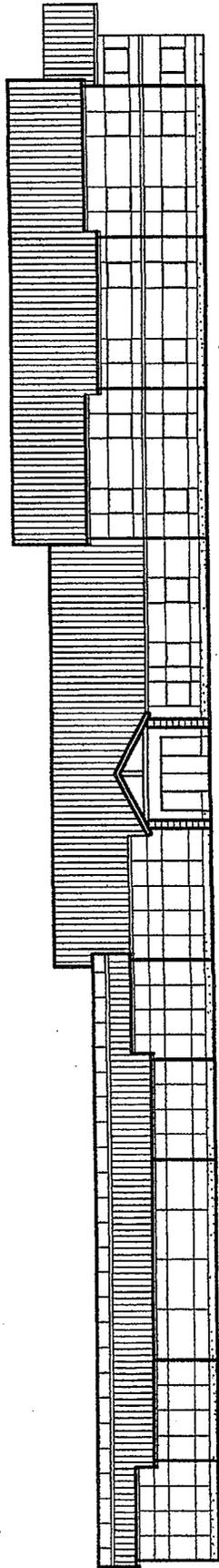
AIRPORT LODGING AND NATURAL HISTORY/EDUCATION CENTER

For the past ten years, TDX Corporation has provided the only means for the world to experience the unique environmental beauty of the Islands by first developing, and then implementing a complete tour package to the Pribilof Islands. However, because of the Island's limited facilities, the business has operated at less than a break-even basis. TDX continues to support the program because it provides local job opportunities and because it is the only manageable way to control and minimize the impact summer visitors have on the sensitive Island environment. This proposal will be combined with the replacement of the old bunkhouse (King Eider Hotel) replacement described in Part A, Section 4. The lodging facility and the Natural History/Education Center will be constructed as a single composite structure so visitors will have immediate access to the educational facilities during their entire stay on the Island.

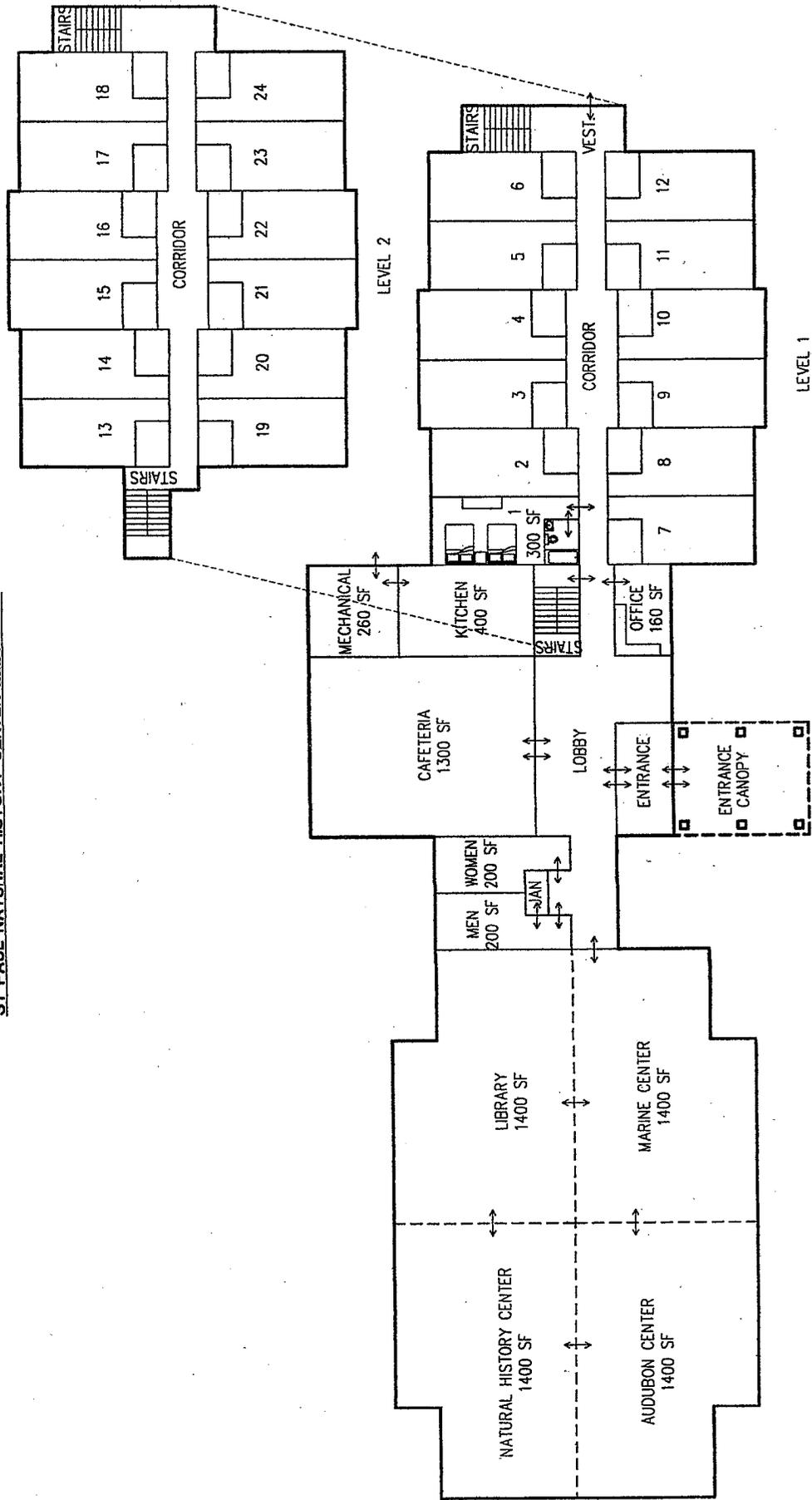
This project will be developed as another demonstration of TDX's unique wind generation system and a portion of the Natural History center will be dedicated to renewable energy. The wind generation system will totally heat and provide electrical power for the facility. In conjunction with the construction of the facility, TDX intends to seek grants from the National Audubon Society, the Alaska Fisheries Development Foundation, and the Fish & Wildlife Service to create the displays in each of the center's segments. These will consist of an Audubon Resource Center, a Marine Resource Center, and a Natural History Resource Center. A library/lecture room will complete the Center, offering a location for tour descriptions throughout the visitor's stay on the island. The facility will also be available as a conference and research center for business and government use throughout the year.

Overnight accommodations will include 36-40 to replace the King Eider Hotel. The facility will be complete with a cafeteria to serve guests and Island residents. See the following page for a description of the floor plan and elevation of the building.

Project Cost: \$1,500,000



ST. PAUL NATURAL HISTORY CENTER ELEVATION

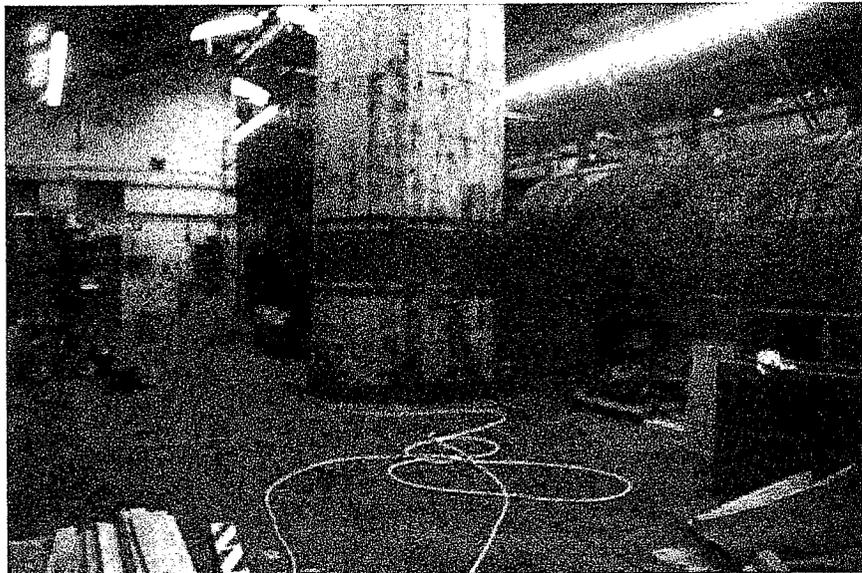


ST. PAUL NATURAL HISTORY CENTER - CONCEPT

LEVEL 1 : 13,800 SF
 LEVEL 2 : 4,600 SF
 TOTAL 18,400 SF



SEWAGE TREATMENT PLANT REPLACEMENT

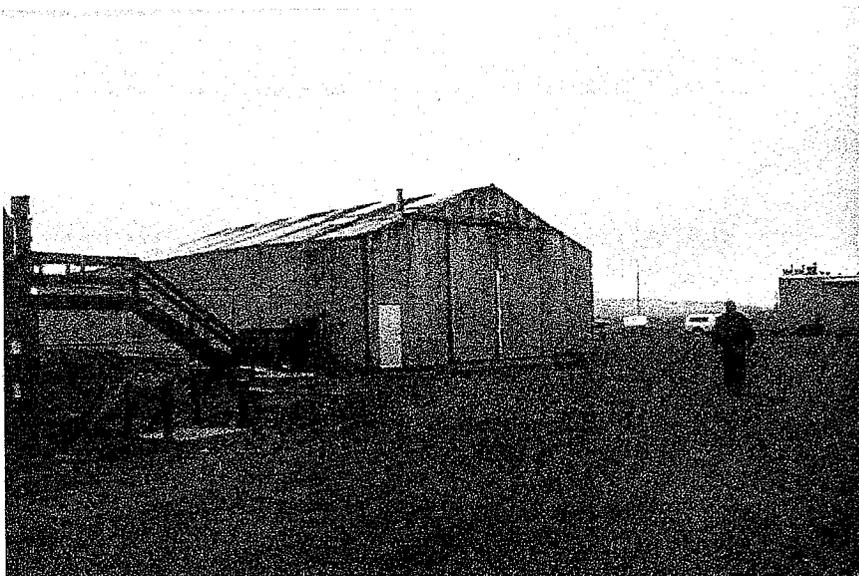


Primary Digester (Center) and corroded water storage (Right).
Secondary holding tank at the rear, left of primary digester

TDX provides sewage treatment to the POSS camp using the plant built for oil exploration in the early 1980's. The system is grossly over-designed for the uses anticipated in the current master development plan and TDX operates the system at a cost far in excess of the needs.

The POSS camp was relocated in total from a North Slope oil development site. The camp was designed for the complete lodging requirements of 128 people. The sewage

disposal system was specifically designed for the extreme weather conditions on the North Slope and because of that, it is a fully self contained disposal system which must be operated in a heated building. The sewage digesters and clarifiers are designed to retain the effluent in a heated structure until it is fully clarified and the bacterial level has been reduced to a level suitable for discharge directly into a watershed. This solution is a necessity on the North Slope but is very expensive and



Utility Building at the POSS Camp

inefficient in more moderate climate of St. Paul. Due to the fact that there are no bodies of water at the POSS camp, an outside sewage lagoon was added to the system to retain the effluent an additional period before it is released to surrounding soils. The building also shelters a 10,000 gallon water tank which provides a back-up supply for fire fighting. The building selected to enclose the plant is an uninsulated metal warehouse structure. In all likelihood, its original use was for cold storage. The building was in much worse condition than other buildings relocated from the Slope. When it was reconstructed, many of the panels were misaligned and it has many



Existing aeration lagoon

cracks and openings allowing heat to escape to the exterior.

This project replaces the plant with a series of small underground tanks which will be heated by coils of excess hot water derived from the unused power of the wind generator system. The introduction of a small amount of heat will increase bacterial digestion will speed the clarification of the liquids. The system will be designed to meet current needs as well as the uses proposed in the

master development plan.

A sewer line will also be constructed to collect effluent from all airport facilities on the west side of the airport. The sewer line will flow to a primary, two compartment, underground digestion tank where heat will be introduced to speed bacterial action. The second retention tank will hold effluent an additional period of time where the clarification process will continue. Clarified effluent will then flow to the existing lagoon for final retention and aeration. TDX will also replace the old fresh water storage tank with a properly sized tank.

Project Cost: \$800,000

