BOSTON FISH PIER FEASIBILITY STUDY

Mintz Associates

September 15, 1976

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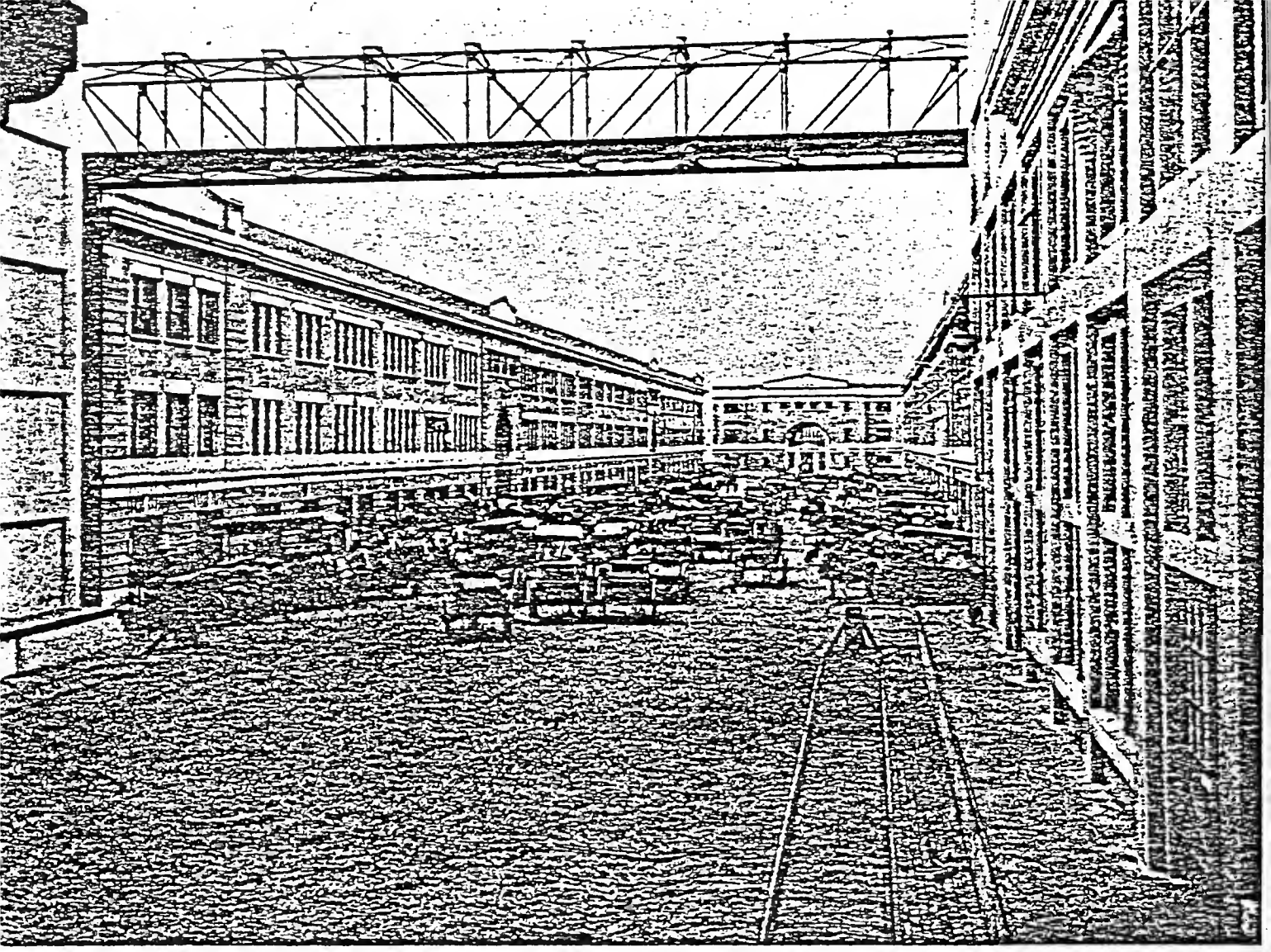
NTZ ASSOCIATES ARCHITECTS/PLANNERS INC.
E DOCK SQUARE BUILDING BOSTON, MASSACHUSETTS



oston Fish Pier Circa 1915

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211 Northern Avenue
Boston, Massachusetts

Gentlemen:

With this letter we formally submit to you the Boston Fish Pier Feasibility Study that we at Mintz Associates, with the help of our Consultants, have prepared as a result of having jointly participated with all of you as our clients in the study. Such mutual cooperation in financially participating in such a study is unusual. The Boston Fish Pier facility and its attendant problems are also unusual, and if these problems are to be solved, and they are solvable, it is going to take the continued cooperative involvement of all of you to make it happen.

This Feasibility Study is, of course, subject to your reviews and that of members of your respective organizations and we welcome any comments, corrections, and criticisms. To the best of our ability, we have endeavored to do a careful, thoughtful study, always focusing on its eventual implementability. We have tried to meet with as many representatives and participants in the industry as possible, commensurate with the time and scope of this first feasibility phase of the work. Should we have missed someone, we hope they will excuse us and inform us of their concerns and opinions and their desire to be consulted should this study move forward.

We thoroughly researched and dialogued the major issues and are satisfied that to our knowledge we have sufficiently covered all significant aspects of this industry and their implications for the Boston Fish Pier. We are confident of the do-ability of our recommendations and equally confident that if these recommendations are, in general, implemented the fishing industry in Boston has a great future at the Fish Pier. This confidence has developed through out intense involvement in the area for the last six months.

The task of doing a thorough Feasibility Study of the Boston Fish Pier has proven to be a more complex problem than we originally anticipated because we had to get deeply into issues well beyond the scope of physically upgrading the facility as you will see upon reading this report. We, ourselves, became emotionally involved with the struggles of this industry and its marvelous people. We believe the extra time and effort on our part was fully justified and rewarded by the extraordinary cooperation we received from all participants and we confidently hope and expect this atmosphere of cooperation and honest, tough dialogue to continue through the review and decision-making phase of the project. The time to act is now and we recommend expedient and decisive joint action by the Fish Pier Tenants, the Boat Owners and Massport.

We look forward to your comments.

Sincerely,

MINTZ ASSOCIATES ARCHITECTS/PLANNERS, INC.

Samuel E. Mintz

Samuel E. Mintz, AIA, AIP
President

FOREWORD

This report is the product of a joint effort between the fish processors and boat owners who are tenants at the Boston Fish Pier and the Massachusetts Port Authority which is the owner of the Fish Pier.

While the study was not a collaborative one, it does reflect the range of outstanding problems facing the industry and the Port Authority and offers an impressive array of approaches to solutions of these problems. The conclusions and recommendations in the study are those of the consultants. They have arrived at them after exhaustive discussion with representatives of the parties involved in the study. They are their best determination of how to move ahead to a development program for the Pier. Naturally these recommendations are not unanimously agreed upon by all parties and areas of disagreement will have to be resolved before any final decisions are made. However, the process followed for this study of the Fish Pier is unique, in that it represents for the first time a cooperative effort on the part of the fish processors, boat owners and Massport to come to an identification of issues and to working toward feasible solutions.

We see this report as the first step in a process which we are all committed to following until a final development program has been agreed to. We expect that this process will allow us to satisfy the needs of all concerned and will lead to the revitalization not only of the Boston Fish Pier but of the fishing industry in Boston.

David W. Davis
Massachusetts Port Authority

Francis M. Byrnes
Fish Pier Tenants Group Association

J. Bradley O'Hara
Representative of the Boat Owners

The following Consultants have assisted Mintz Associates Architects/Planners, Inc. in the preparation of this document:

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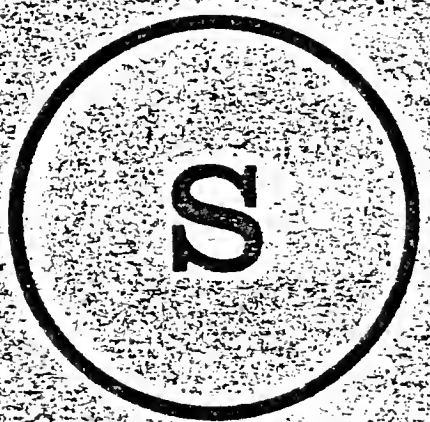


SUMMARY

REPORT SUMMARY

A. Study Objectives

The main purpose of the study is to examine the feasibility of re-using the existing Fish Pier and the buildings as improved facilities for the fish industry in Boston.

The specific objectives are to identify and evaluate physical and economic alternatives which would:

1. Improve the existing fish industry operations particularly on the Fish Pier and also in the immediate area.

2. Provide efficient and functional space for these operational needs.

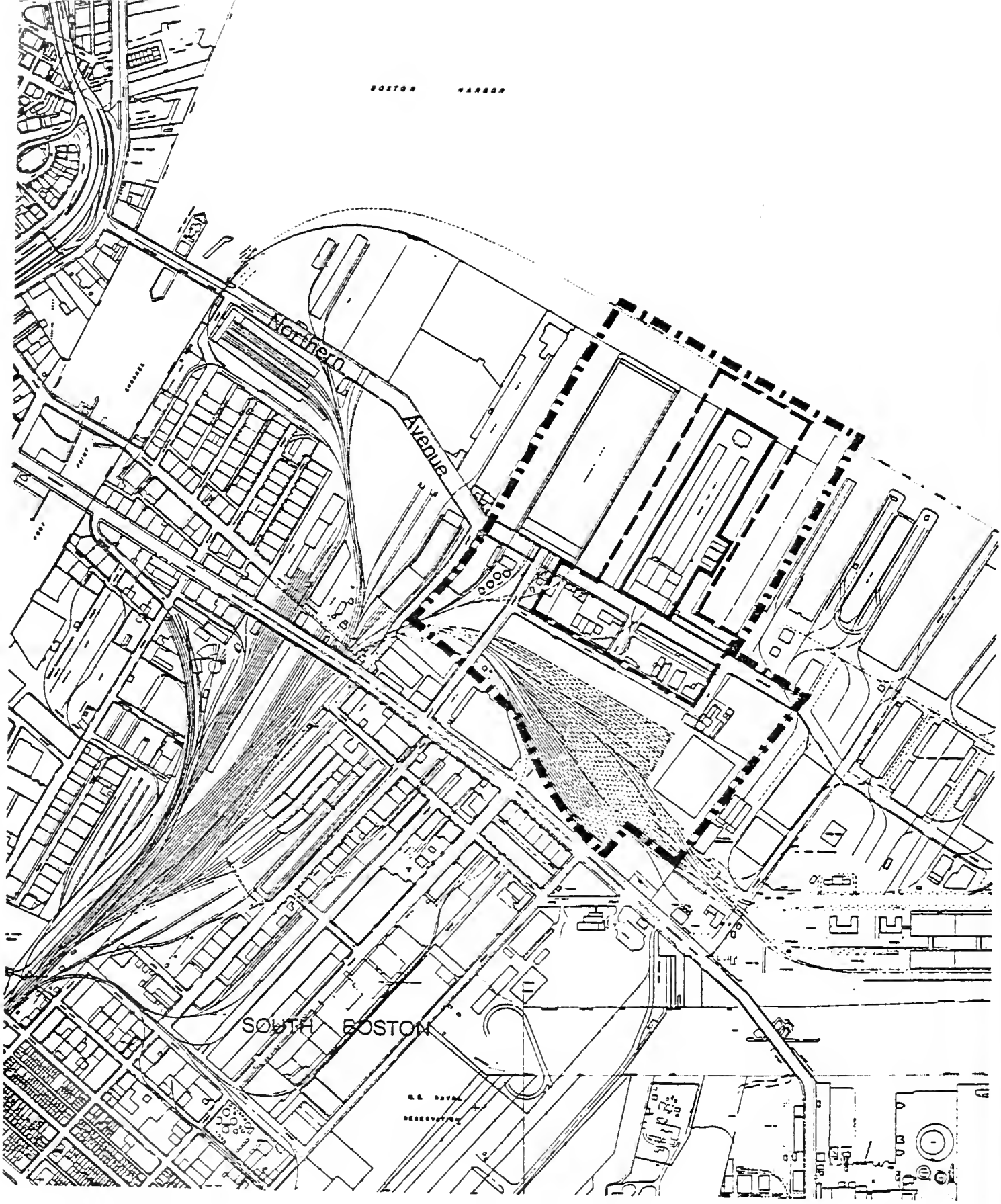
3. Determine spacial and operation capacities of the Fish Pier.

4. Allow for effective and feasible financing.

5. Improve management and ownership conditions for all effected and interested parties.

B. Study Area

The primary area to be considered is the Boston Fish Pier, Pier No. 6, which is located off Northern Avenue in South Boston. Fish industry uses in the area adjacent the Fish Pier and owned by Massport are also included in the study. (Figure S-1)



STUDY AREA

FIG. S-1

FISH PIER
STUDY AREA
MASSPORT

BOSTON FISH PIER

0 100 200 400 800

C. Method and Scope of Work

The study represents a joint effort by the Fish Pier Tenants Group Association, which for this study includes representatives of the Boat Owners, and the Massachusetts Port Authority, in determining the best alternative for improving the physical and operational conditions on the Boston Fish Pier. The ideas, experience and opinions of all parties were solicited as part of the process of surveying and evaluating existing conditions, researching and evaluating new concepts, and testing the development of alternatives and recommendations.

The scope of work emphasized the following:

- Existing conditions evaluation which included the Pier and adjacent area;

- Space utilization and operations analysis and future use and operation needs; and,

- Cost, financing and management evaluation.

Previous studies related to the Fish Pier and the surrounding area were also evaluated (Listed in Appendix D.)

D. Major Findings

1. Pier and Building Use

a. Approximately 45% of Buildings 1, 2 and 3 are occupied and of those areas rented, only 75% are utilized.

b. Most fish dealers presently on the Pier prefer to confine their operation to the first and second floors and have little need for the third floor.

c. While not needing the third floor space, most dealers need more area on the ground floor where their processing operations take place.

d. Some fish dealers would substantially expand their present operations or even start new operations if they were guaranteed a long-term committment for the equipment improvements they would need to make.

e. The apron, that area between buildings and the water, could be significantly more effectively used by dealers as part of their processing operation if the apron were partially covered and restricted from truck usage, thus relieving much of the interior ground floor congestion that now exists.

f. Regarding potential Fish Pier users, there has been indication of a desire for fish industry office space on the Pier.

g. There are several fish dealers presently not located on the Pier who want to relocate there or operate a store there.

h. The New England Fish Exchange no longer needs the large auction area it presently uses in Building No. 3.

i. While all buildings on the Pier have deteriorated substantially, some more than others, it is largely due to neglect and in fact all buildings are structurally sound, including the Power Plant, and all offer potential for re-use for the fish industry.

j. Circulation and parking congestion cause delay and inefficiency in many Pier operations. Given the limited space on the Pier, parking regulations must be defined and enforced and a circulation plan, particularly for trucks, must be developed and implemented.

2. Fish Industry Utilization

a. Boston Fish Pier is unique in that it specializes in fresh fish which caters to a high quality market and supports a range of dealers and processors from small specialty processors to large processors serving the frozen fish market purchasing fish through the Boston Fish Exchange as opposed to large plants buying independently.

b. The major reason for the current low level of production is generally a lack of fish. Of all the fish processed or sold at the Fish Pier, 50% or less is landed by boat. The rest is brought "over the road" by truck. New boats and the impact of the 200 mile limit could reverse this trend.

c. A major concern in the industry is the lack of youth and that if it is to grow, new blood as fishermen, cutters, dealers, boat owners -- all areas of the industry -- is needed.

d. There is general agreement that if the industry is to prosper and grow at the Fish Pier, a central freezing and cold storage facility must be provided on or adjacent the Pier.

e. Also of major concern is the method of unloading fish. Compared to other fishing areas, the process used to unload fish at the Pier is outdated, inefficient, and unsanitary. There is

both need for and room for improvement. There is varying opinion as to if and how improvement should be made.

f. The central ice plant no longer is the major source of ice for Pier dealers as most have already or are planning to install their own ice machines. The need for a central facility, however, remains important as a backup for the dealers and as the only source of ice for the boats. Its operation and improvement to support future growth is vital.

g. Fish waste disposal, or gurry, is a major sanitary as well as logistical problem. More efficient and sanitary methods are needed to handle gurry from the cutting table to its market.

h. Presently, approximately 38% of the fish is used for human consumption with the remainder as gurry which is primarily sold to cat food manufacturers. While some dealers have explored ways of increasing the percentage of consumable product, Fish Pier operations could and should allow for improvement in this area.

E. Recommendations

1. The Buildings

a. That buildings on the Fish Pier be rehabilitated primarily for fish industry uses.

b. Buildings 1 and 2 be rehabilitated for fish dealers and processors on floors 1 and 2 and that the 3rd floor be rehabilitated for other rent producing use such as office space or residential use.

c. Building 3 be rehabilitated for commercial use on the ground floor. A theater company has shown interest and a restaurant may be feasible. The upper two floors should again be rehabilitated for office space.

d. The Power Plant Building while somewhat deteriorated is in fact structurally sound and this structure is a potential resource for fish industry and Pier needs. The Power Plant has the capacity of simultaneously housing a central freezer and cold storage facility, a fish unloading and auction facility; a central gurry processing room; and a new ice plant; plus a new heating plant.

Further, the Power Plant Building can be expanded and rebuilt on the existing foundations under the area used for parking, as the need for increased space is demonstrated.

e. Buildings 4 and 5, located on Northern Avenue, are a resource that should be maintained and upgraded by rehabilitating the interiors where needed and doing some cosmetic work on the exterior facade which would make these buildings more attractive to tenants, improving the income stream as well as improving the physical qualities of the area.

2. The Pier

a. Rehabilitation of the Pier itself should include resurfacing the apron (water side) area with concrete and raising its elevation one foot along with the first floor of Buildings 1 and 2. Simultaneously, the street should be regraded and repaved to an elevation 6 inches below existing. The net result would be a resurfacing of the entire pier and an increase in the truck dock height from an average of 17 inches to approximately 3'-0" making for more efficient loading and unloading of fish products.

b. The cap log along the perimeter of the entire pier should be replaced along with necessary repairs to the fender piles as noted in previous studies.

c. All utilities on the Pier must be replaced. Existing utility tunnels under buildings 1 and 2 and connecting to building 3 and the Power Plant should be rebuilt. Major utility lines should be

buried in the street and service to the rebuilt tunnels would be through the archway underground areas at buildings 1 and 2 as they now exist.

3. Fish Pier Uses

a. The need for a central freezer, central fish unloading facility and improved ice production and a more efficient and sanitary way of dealing with gurry are real and must be provided for elsewhere on the Pier or in the case of the central freezer elsewhere in the immediate area, should the Power Plant Building recommendation not be implemented.

1) Fish Unloading

We recommend that priority be given to on-pier use for a fish unloading facility at the existing Power Plant Building. The use of automatic equipment and more advanced methods of unloading and delivery of fish to the dealers is necessary for sanitation, efficiency, and cost savings reasons, and to maximize the growth potential of the Fish Pier.

2) Central Freezer and Cold Storage

A second priority for on-pier use is a central freezer and cold storage. Alternative locations to the recommended Power Plant Building would be on the site and foundations (if possible) of the

former Freezer Building, or on vacant land adjacent the Fish Pier, or conceivably by upgrading and improving both circulation, access, and equipment at the existing freezer on Commonwealth Pier.

3) Ice Plant

The alternatives for increasing ice production would be to expand on the present site, which is being contemplated, or to phase out the existing Ice Plant at a proper time, with reasonable understanding of the capital investment already spent on it, and to build a new ice plant as part of the Power Plant Building reconstruction.

4) We recommend serious consideration be given to the gurry handling and processing problem and that a central gurry processing function be established conceivably in the proposed reconstructed Power Plant Building.

b. A Pier circulation and parking plan is recommended that would include the following:

1) Limit truck and auto traffic to the street side of the buildings and eliminate it from the apron side except for emergency vehicles.

2) It is recommended that the street circulation pattern conform to a new angled configuration for the loading docks; that is, trucks would unload at an angle toward the harbor and then proceed to the end of the Pier, turn around,

and exit. This allows for (1) vehicle passage even while two large trailer trucks are unloading, (2) increasing the size of the unloading dock area and (3) providing an opportunity for those dealers who care to install automatic dock levelers.

3) On-Pier parking must be limited during working hours as much as possible. Off-Pier parking areas should be provided adjacent to and easily accessible to the Pier.

c. There currently exists other off-Pier uses that are important to the fish industry. These include various repair, maintenance and supply businesses which directly serve the Fish Pier tenants and the boats. It is recommended that such use be given consideration in any off-Pier planning.

4. Operation and Development

a. Our analysis outlines several alternative approaches to financing, ownership, and operation. We recommend that these alternatives be carefully considered and dialogued so that a mutually satisfactory solution can be implemented.

b. We further recommend that in those areas of the fish industry where collective action and interdependence are essential for the industry's viability and growth, such as fish unloading and auctioning, freezing and cold storage, ice and

jurry operations, and overall industry regulation including the role of the Fish Exchange, that ways of updating and improving these functions with participation by all parties in this dialogue begin immediately so that the implementation process can proceed and effectuate these agreements.

c. It is apparent that the Northern Avenue area of the South Boston waterfront will grow and develop over the next decade and the fish industry should become a part of that growth and consider its future development needs. Should the Fish Pier reach capacity sometime in the future, the Pier could expand in some of the following areas depending, of course, on other needs, uses, and plans for these areas:

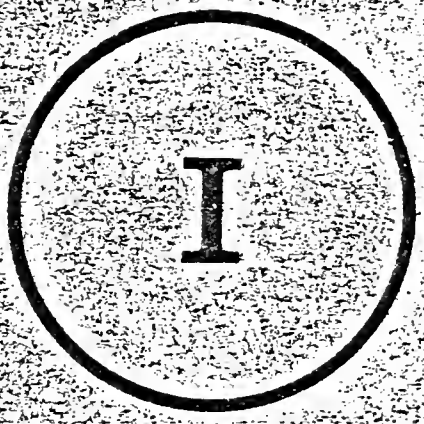
-- The existing Boston Fish Market Corporation land area could permit some consolidation of its existing uses and buildings providing for future growth and construction for the fish industry;

-- The so-called "Railroad Yards" that the Port Authority owns on the south side of Trilling Street could also provide for future expansion of the fish industry, depending of course on what future development plans are contemplated for this land.

-- Pier No. 7 of the existing Navy Yard which is contemplated for industrial use expansion by the City of Boston through its Economic Development Industrial

Commission might consider fish industry future expansion in its plans for this area;

-- Pier No. 5, Commonwealth Pier, might provide some possible expansion capabilities for certain fish industry operations, but this would be subject to other uses that the Port Authority might have for these buildings.



I

INTRODUCTION

I. INTRODUCTION

A. Background

Boston Fish Pier has since the early 1900's been a focus of the fishing industry in Boston. Constructed in 1911-1913 specifically for the landing and distribution of fish, the Pier and its buildings have functioned in this capacity for over 60 years. It has changed, adapted to, and developed with the industry, from a distribution and market center of whole fish to the present diversification which includes filleting, freezing, and salting of fish along with wholesale and retail marketing.

The buildings, built to the original tenants specifications, give an exterior modular appearance but in face are made up of various size bays allowing for some flexibility of size and use. They have been adapted to succeeding tenants needs and also have accommodated uses other than processing and distribution of fish. The Pier uses remain almost as unchanged as its cobblestone paving. General use patterns on the Pier (moving fish from boats to stores to distribution) remained as motor vehicles replaced horses. The original Fish Pier had conceived some sophisticated operations for its time which comprised a compact and efficient fish industry unit. This included a cold storage facility, an ice plant with an ingeneous railroad roof-top distribution system to each store, its own central heating and power generating capacity, and a telgraph communication system. In 1908, the New England Fish Exchange was organized

to govern the purchase and sale of fish. The Boston Fish Pier was unique in the world and a model for the industry and in 1936, for example, 339 million pounds of fish were landed. This was a consistent figure for landings at that time.

During the last two decades, much has happened to change this. World-wide fishing characteristics have effected the balance of the industry in this country and economic and industry pressures have resulted in a series of physical and operational changes at the Pier. The industry, despite its continued attrition (Tables I-1, I-2) has managed to survive the changes and declines over these past decades and remains a going, but maimed operation. The Pier and its buildings have suffered physically over the years because of minimum maintenance and the overall decline of the fishing industry in this country.

The first significant change in ownership of the Pier took place in April 1972 when Massport acquired rights for the Boston Fish Pier from the Boston Fish Market Corp. (BFMC). BFMC had managed the Pier from the beginning and in later years control was assumed by the Fulham family. The initial effort after Massport assumed ownership was to begin planning for the redevelopment of the Pier and adjacent Massport property for uses other than the fish industry. Several reports and studies have been produced over the years on the Boston Fish Pier with ideas of demolishing what's there and constructing new buildings both for fish industry uses as well as other uses. Area transportation proposals by various other public

LBS. OF FISH LANDED AT THE BOSTON FISH PIER

1950	170,000,000 lbs.
1960	108,000,000
1970	32,157,000
1975	21,994,417

TABLE I-2

BOSTON FISH PIER: FISH LANDED AND IMPORTED

Year	Landings (1) Pounds - Value (in millions)	Fresh (2) Pounds - Value (in millions)	Frozen (3) Pounds - Value (in millions)
1959	111.0 - $11.0	35.0 - $3.5	116.0 - $29.0
1969	46.0 - $6.9	50.0 - $7.5	216.0 - $108.0
1972	21.4 - $5.1	60.0 - $15.0	494.0 - $247.0
1973	23.7 - $5.6	60.0 - $16.9	548.0 - $274.0
1974	25.2 - $5.8	60.0 - $17.5	371.0 - $185.5
1975	22.0 - $6.3	60.0 - $19.0	406.0 - $203.0

(1) Fresh fish landed by boat at Massport's Boston Fish Pier.

(2) Fresh Fish Imports - This figure is a combination of trucked fresh fish to Boston from Canada and New England ports. It is an estimated figure. There is no official figure, nor a single source for one. The figure is considered minimum by both government and industry people.

(3) Frozen - Canada and Europe. These figures are total frozen imports to New England. There is no precise figure of how much frozen comes to Boston for processing.

Source: Massachusetts Port Authority

agencies have also been prepared. This work has been useful in its provision of information and in presenting new construction alternatives but they were not able to solve some of the complex functional problems facing the fish industry and the Fish Pier; and they did not adequately come to grips with the significant problems faced by new building proposals -- the problems of costs, especially in light of this being waterfront land with expensive site and foundation costs.

B. This Study

While physically the Pier and buildings have deteriorated, they are structurally sound as determined by our investigations and supported by the various other reports. The fact of the Pier and buildings structural soundness and the enormous cost of replacing buildings at today's construction cost, coupled with a recognized need to evaluate the functional operation of the Fish Pier and its buildings with all the diverse parties and interests involved has led to this latest study being undertaken in expectation that this be the last study, and that the next step will be to begin the implementation process.

It is because there is a commonality of interests between the Port Authority, Fish Dealers and Boat Owners, and the fact of the imposition of the 200 mile limit and a change in U.S. Government policy towards the American fishing industry, coupled with the Commonwealth's awareness of the potential of expanded job and income-producing opportunities for fish and fish products that a fortuitous time may be here permitting the beginning of the revitalization of the Boston Fish Pier.

Aside from evaluating recent studies and reports related to the Fish Pier and the fish industry, the approach used is to survey and evaluate existing conditions and needs, involving fish dealers and fishermen, in an on-going participation process which recognized the dependence upon their inherent knowledge and understanding of the Pier and industry. A series of field surveys, interviews, questionnaires (Appendix E), project reviews and general day-to-day contact provided the vehicle for this process.

Major emphasis is on the re-use of the existing buildings on the Pier. New building alternatives based on recent Massport proposals are also considered as comparison to re-use alternatives. The area adjacent to the Pier is also evaluated.

C. Scope of Work and Study Approach

Within the scope of this Feasibility Study we have considered the following:

-- Land use, traffic and circulation in the adjacent area;

-- Structural, exterior and interior condition, and utilities of buildings on the Pier;

-- Space utilization and exterior and interior functioning of the buildings and Pier;

-- Existing costs, future costs and financing alternatives; and,

-- Ownership and management alternatives and strategies.

As the basis of carrying out this work, the consultants first conducted a thorough field survey of the area, concentrating on the Pier and its buildings. Drawings were made of Buildings No. 1, No. 2, No. 3, and the Power Plant Building, noting area, uses and sizes, vertical and horizontal circulation, and general building layout and function including exterior relationships and building condition.

Larger scale drawings were made of each typical bay size and each tenant on the Pier was interviewed, many several times, to develop an understanding of their operation, using the drawings as a discussion tool to identify functional problems and establish present and future needs of each tenant. Off-pier tenants were also interviewed to assess their relationship to the Pier and their present and future needs.

The openness and candor of these dialogues, plus the wealth of knowledge the fish dealers and boat owners have concerning thier industry, is not only impressive but an invaluable source of information and provided us the basis for our space utilization analysis and design recommendations. The economic and other information provided by the Port Authority and the generous time spent by Port personnel has not only been appreciated, but was essential to a realistic evaluation of the alternatives.

D. Major Areas of Concern

Within the scope of this feasibility study there are several key areas requiring specific attention and having significant bearing on the project.

1. Phased Development. Any construction and rehabilitation of the Pier and its buildings must be phased to allow for continued operation of fish dealer and Pier operations. Therefore, construction work must be phased to concentrate on buildings already vacant, then relocating tenants to the newly completed areas then moving the construction operation to those areas just vacated. This will minimize disruption of the fish dealers operations during the construction period.

2. Heating and Utilities. Previous to our feasibility study, it was determined that new utilities were needed on the Pier and in addition a Mechanical Engineering Consultant has been engaged and has designed an interim heating system. Our work takes into account this proposed interim heating system. We have proposed an alternative to this interim heating system which reflects not only interim

D. (continued)

3. Fish Industry Needs. Of critical concern to fish processors, brokers and fishermen are those operations effecting the fish industry on the Pier as a whole. These include the following:

-- Fish Unloading: Presently done essentially as it was 65 years ago, this area evokes a wide range of opinions and desires. Nevertheless, it must be looked at not only as it now functions but how it can accommodate future needs and potential growth.

-- Freezer and Cold Storage: Once a major part of the Fish Pier, there presently is no central freezing and cold storage facility on the Pier. There is general agreement that if fish landings significantly increase, such a facility will be necessary and therefore provision for the development of a central freezing and cold storage facility is an important consideration.

-- Ice Facility: Like the freezer and cold storage, an ice plant was also part of the original Fish Pier. An ice plant now exists on a wood pier at the easterly side of the Fish Pier. Future needs are again

D. 3. (continued)

-- Ice Facility: (continued)

a concern and expansion, improvement or relocation of this facility must be considered.

4. Circulation and Parking. One need only to visit the Fish Pier at noon on a normal work day to understand the critical nature of this concern. If any proposal is to be successful, vehicular traffic and pedestrian circulation must be adequately planned for. Key to this is the adequate provision of accesses, loading and egress of trucks serving the fish industry.

5. Management and Operations. Regarding the fish industry at the Boston Fish Pier, this has long been a key concern and sometimes controversial issue. It is perhaps the key issue at this time in the life of the industry. Dealers, fishermen, boat owners and landlord must be willing to work together to establish firm and fair rules for operating the Pier.

6. Economic Feasibility. This is a major aspect of this report and certainly a concern of the Fish Pier Tenants and Massport. In the final analysis, the project cost reflected in rent per square foot will largely determine feasibility.

E. Overview of the Report

The remainder of this report presents in detail the findings, relevant alternatives, and recommendations of our feasibility analysis.

Section II provides a look at the historical and land use conditions in the South Boston waterfront adjacent to the Fish Pier, as well as future proposals in the area and their relationship to the Pier.

Section III evaluates the structural and physical conditions of the Pier and its buildings considering potential future utilization.

Section IV presents a space utilization analysis of buildings and piers reflecting existing use efficiency and future needs accommodation of the fish dealers and the fish industry. It also addresses potential new building uses on the Pier.

Section V identifies alternative solutions for each major pier and building use and presents back-up data including cost estimates for alternatives and an illustrative site plan.

Section VI analyzes existing operating costs for fish dealers and Massport, development cost and revenue income and the impact on operating cost and financing alternatives. It also outlines various alternative methods of ownership and management.

Finally, Section VII presents in somewhat more detail the conclusions and recommendations outlined in the Summary and recommended for action by the Fish Pier Tenants, Boat Owners, and Massport.

II

AREA CONDITIONS: EXISTING AND FUTURE

II. AREA CONDITIONS: EXISTING AND FUTURE

To evaluate the Fish Pier in the context of the adjacent South Boston waterfront area, the following is a brief overview of existing and known future conditions.

A. Background

In the early 1800's, the shoreline of South Boston in the Fish Pier area consisted of sandy shores and salt marshes. By the 1880's, landfill operations had fixed what is presently the Fort Point Channel and extended eastward to establish the harbor area from Pier 1, through Piers 2, 3, and 4 in the Northern Avenue area, and later included the Pier 5 and 6 area. The actual building of the pier structures began at the turn of the century. Railroads were extended to the new piers and in 1912 Pier No. 6, the present Boston Fish Pier, was built exclusively for fishing industry use and was at that time the largest Fish Pier in the nation. While the industry has declined and much of Boston's waterfront that was once devoted to marine uses has disappeared, Pier No. 6 remains today as a fish industry operation and a waterfront activity.

The development of Boston Army and Navy bases to the east of the Fish Pier during World War II completed pier construction in the area and allowed for a 200 foot extension of the pierhead line beyond the end of the Fish Pier. An important change to the area was the decline of the railroad with the emergence of motor freight in this century. Only a few tracks are used today as the railroad area to the south of Northern Avenue has been either paved and used for trucking depots, or is awaiting re-use development.

B. Land Use

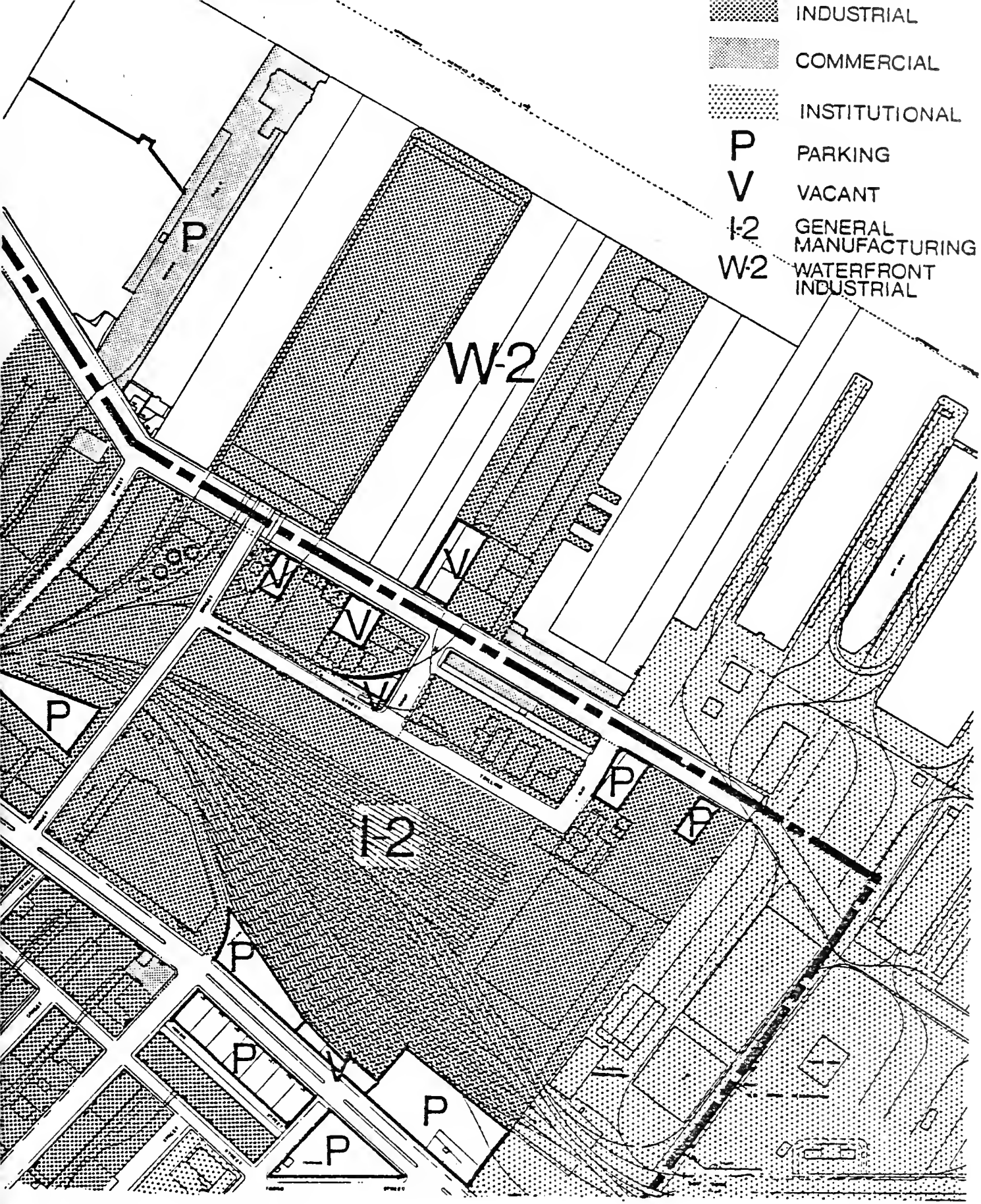
The land fill area described above comprises that part of South Boston north of the older residential neighborhoods which is primarily industrial and surrounds the Fish Pier. The predominant uses are transportation related, as the area affords good access to the Central Artery via Summer Street and Northern Avenue. Although large areas are presently vacant and underutilized, it is a prime area for future development.

1. Waterfront Area (Figure II.1)

Waterfront and marine related industrial and commercial uses exist on both sides of Northern Avenue and include fish processing, seafood packaging and distribution, boat repairing and navagation equipment sales, related office uses, freight depots and seafood restaurants. There are many active and inactive rail spurs and the streets are very active with truck usage. Parking facilities and loading activities add to the circulation. There is considerable vacant land, much of it from previous railroad uses. Recreation use is limited to the exhibition space on Commonwealth Pier. Institutional uses include the Chapel of Our Lady of Good Voyage, long connected with the Boston fishing fleet.

2. Fish Pier Area

In the area immediately adjacent the Fish Pier are Massport properties including those purchased from the Boston Fish Market Corporation in 1972. The uses in this area are



EXISTING LAND USE
AND ZONING

FIG. II.1

BOSTON FISH PIER

0 100 200 400

an integral part of the fishing industry and Fish Pier activities and use patterns. There is some underutilization. However, this vacant land can be an important resource for redevelopment. The uses include the following categories:

categories:

-- Fishing Industry Uses. Similar to those on the Pier and primarily involved in the marketing of fish. They may supply or purchase fish or have clients on the Pier.

-- Fish Industry Services. These include maintenance and repair services and transport services. Also parking facilities for Pier employees.

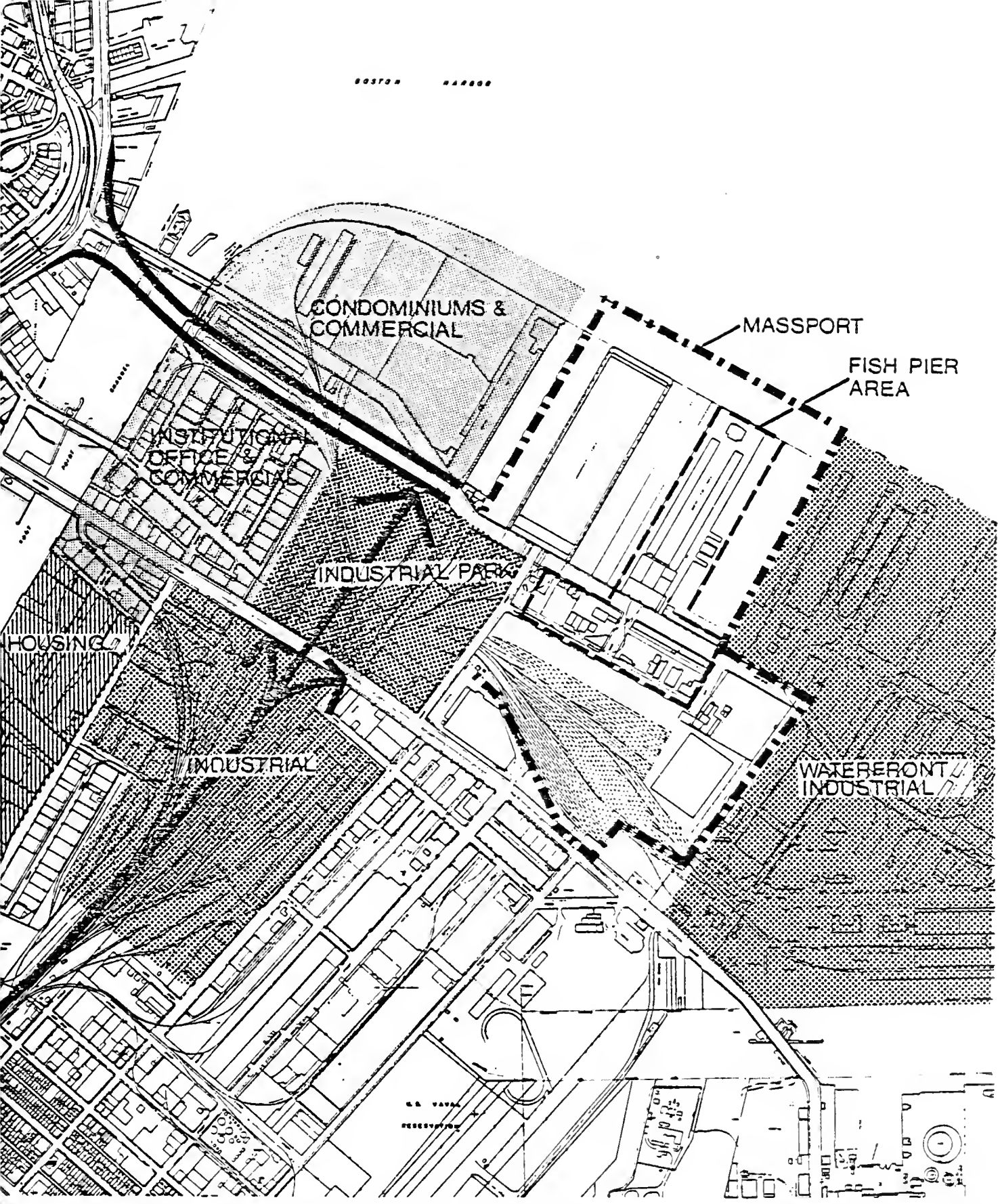
-- Other Uses. Restaurant, banks and commercial uses which provide indirect services or add necessary diversity to the life of the Pier area.

3. Existing Zoning (Figure II.1)

The primary zoned land use in the area is waterfront industrial and general manufacturing. Waterfront industrial also allows for office uses and wholesale business and storage. Present zoning does not inhibit the continuance or expansion of existing land uses on the Fish Pier or in the adjacent area. However, diversified growth as suggested by proposed future development on the South Boston waterfront will necessitate zoning changes.

4. Future Development (Figure II.2)

The area, in general, is underutilized but substantial development is currently planned. With the near completion of the downtown waterfront development, South Boston's



PROPOSED FUTURE DEVELOPMENT

BOSTON FISH PIER

0 100 200 400 800

FIG. 11.2

waterfront may receive more concentrated attention. Plans for the area include the following:

-- An industrial park in the area between Summer Street and Northern Avenue including the old Penn Central railroad yards.

-- Mixed income housing in the Summer and A Streets area.

-- Office and commercial development in the Congress, Sleeper and Pittsburgh Streets area.

-- The Children's Museum and Transportation Museum in combination have purchased the Wharf Building on Sleeper Street which they plan to convert to museum and entertainment use.

-- Marina, condominiums, and commercial uses in the area of Piers 1, 2 and 3.

The area adjacent the Fish Pier would be positively impacted by the above proposed development and it enhances revitalization of the fishing industry on the Pier.

C. Traffic and Circulation

In a recent report on traffic in the South Boston waterfront area, the Boston Redevelopment Authority estimated that crossings over the Fort Point Channel into the area would increase by 85% by 1985. (Table II.1) This is largely based on the approximately 220 acres of proposed new development outlined above. Primary vehicular access to the Fish Pier area is via the Northern Avenue Bridge, one of the major channel crossings. Traffic counts in the BRA report show that Northern Avenue presently carries about 14,000 to 15,000 average daily trips (ADT) from Atlantic Avenue to Sleeper Street and approximately 8500 ADT's in the Fish Pier area. Summer Street, the next nearest major street serving the area, carries approximately 28,000 to 29,000 ADT's. The Northern Avenue - Atlantic Avenue intersection which leads to the Bridge exceeds peak hour capacity and the approximately 25% truck traffic on Northern Avenue is excessive for a city street. The street surface is in poor condition. The Fish Pier is almost totally dependent on Northern Avenue for access and should be concerned regarding its improvement and that of the surrounding traffic infrastructure if the Pier is to be revitalized.

Major traffic and circulation improvements are proposed for the South Boston waterfront area, the most significant ones being the replacement of the Northern Avenue bridge and the building of a Seaport Access Road. (Figure II.3)

PROJECTED 1985 TRAFFIC VOLUMES

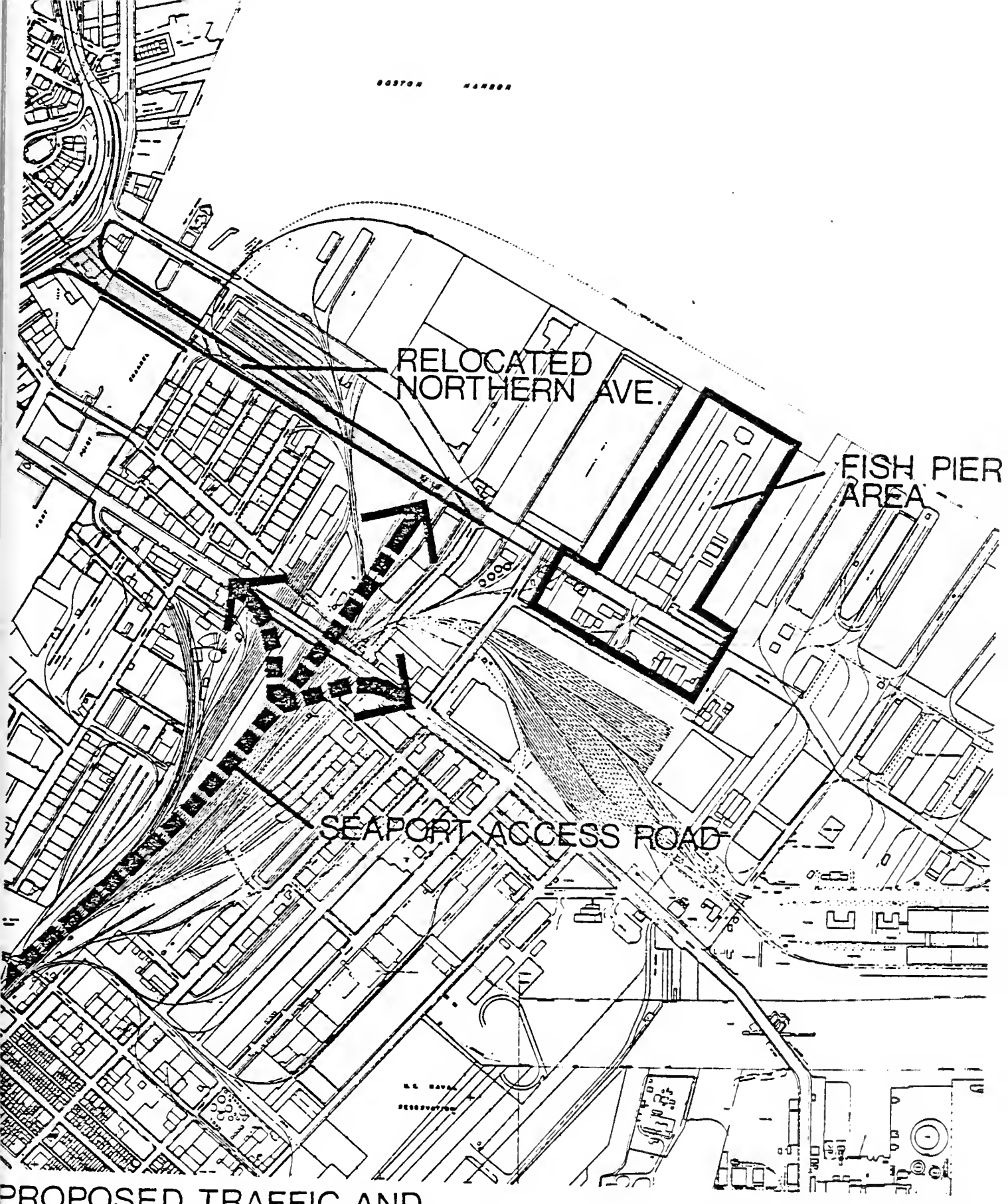
ACROSS FORT POINT CHANNEL, SOUTH BOSTON

(6:00 AM to 12:00 Midnight)

	Estimated 1974 Volume	Estimated 1985 Volume	Change 1974 - 1985	
			#Vehicles	% Increase
Northern Avenue	15,300	40,000	24,700	161.4%
Congress Street	8, 00	20,100	11,700	139.3%
Summer Street	23,100	33,400	10,300	44.6%
Broadway Bridge	17,700	26.600	8,900	50.3%
Fourth Street	9,100	13,400	4,300	47.3%

Low traffic estimate for 1985 based on: Existing daily trips across Fort Point Channel = 73,600; plus 15% increase (11,000 trips) atributed to past trends in traffic growth rate; plus new site generated traffic which is estimated at 50,000± trips per day based on the development of approximately 220 acres in northern South Boston with maximum employment estimated at 130 employees per acre. Approximately 18% of the new site generated traffic would be trucks, accounting for 7,500± daily trips.

Source: Boston Redevelopment Authority
Seaport Access Road Report, July 1975



PROPOSED TRAFFIC AND
CIRCULATION IMPROVEMENTS

FIG. 11.3

BOSTON FISH PIER

0 100 200 400 800

The Seaport Access Road is in response to community desires to eliminate trucks from South Boston residential streets and improve truck connections from the Southeast Expressway and Mass Turnpike to the waterfront. It will serve existing and proposed development, including the fish industry. Several alternatives are being considered.

A DPW report found the Northern Avenue Bridge to be in "delapidated condition" making its replacement "mandatory and urgent". This project will have the greatest impact on the Fish Pier area as it affords the most direct truck route. It includes relocating a portion of the existing Northern Avenue right-of-way from the Pier 4 area to Fort Point Channel and widening to six lanes. Other traffic improvements proposed with this project is the extension of Sleeper Street to Summer Street.

III

BUILDINGS AND PIER: PHYSICAL CONDITIONS

III. BUILDING AND PIER: PHYSICAL CONDITIONS

Some of the information used in evaluating the existing structural and physical condition of the Pier and buildings was obtained from existing available data, particularly reports recently prepared for Massport as listed in Appendix D.

We have conducted our own field surveys to review the data previously collected for these reports and in general what was previously found and reported as to physical condition of the Pier and buildings is still true; the Pier and buildings are neglected and in need of repair, but are structurally sound.

A. Structural Evaluation

1. Buildings. As noted in previous reports, the buildings are supported on wood piles into blue clay with a capacity of 12 tons each. The structural system is essentially steel frame with concrete floor systems with a wood frame roof. Settlements of fill and foundations have occurred over the years resulting in several cracks in the buildings. There is no visual evidence of structural damage and further observation confirms recent reports that the situation has stabilized. New construction, however, would have to consider taking measures to ensure subsurface stability.

2. Pier. The Pier is 300 feet wide and 1,200 feet long, formed by quarry-split granite block retaining walls. Blocks are minimum one ton in size, laid with open joints. Their foundation is of crushed stone and quarry chips to approximately 28 feet below mean low water (MLW) bearing directly on blue

.ay at the harbor bottom. The base of the wall is 27 feet wide and the top, at 16 feet above MLW, is 4 feet wide. The Pier is filled with dredged material overlain with gravel. When pile driving began for the buildings in 1913, movement of a portion of the seawall occurred on the easterly side and settlement took place. Remedial work was done and history and visual observation indicates the situation has stabilized

3. Subsurface Conditions. Extensive investigation into subsoil conditions was recently completed for Massport (see Appendix D-Previous Studies). For the purposes of this report, it will not be necessary to elaborate or re-evaluate this data as our primary consideration is rehabilitation of the existing buildings. Previous reports indicate that existing piles and foundations are in a stabilized condition and adequate to continue supporting the present buildings and proposed rehabilitation.

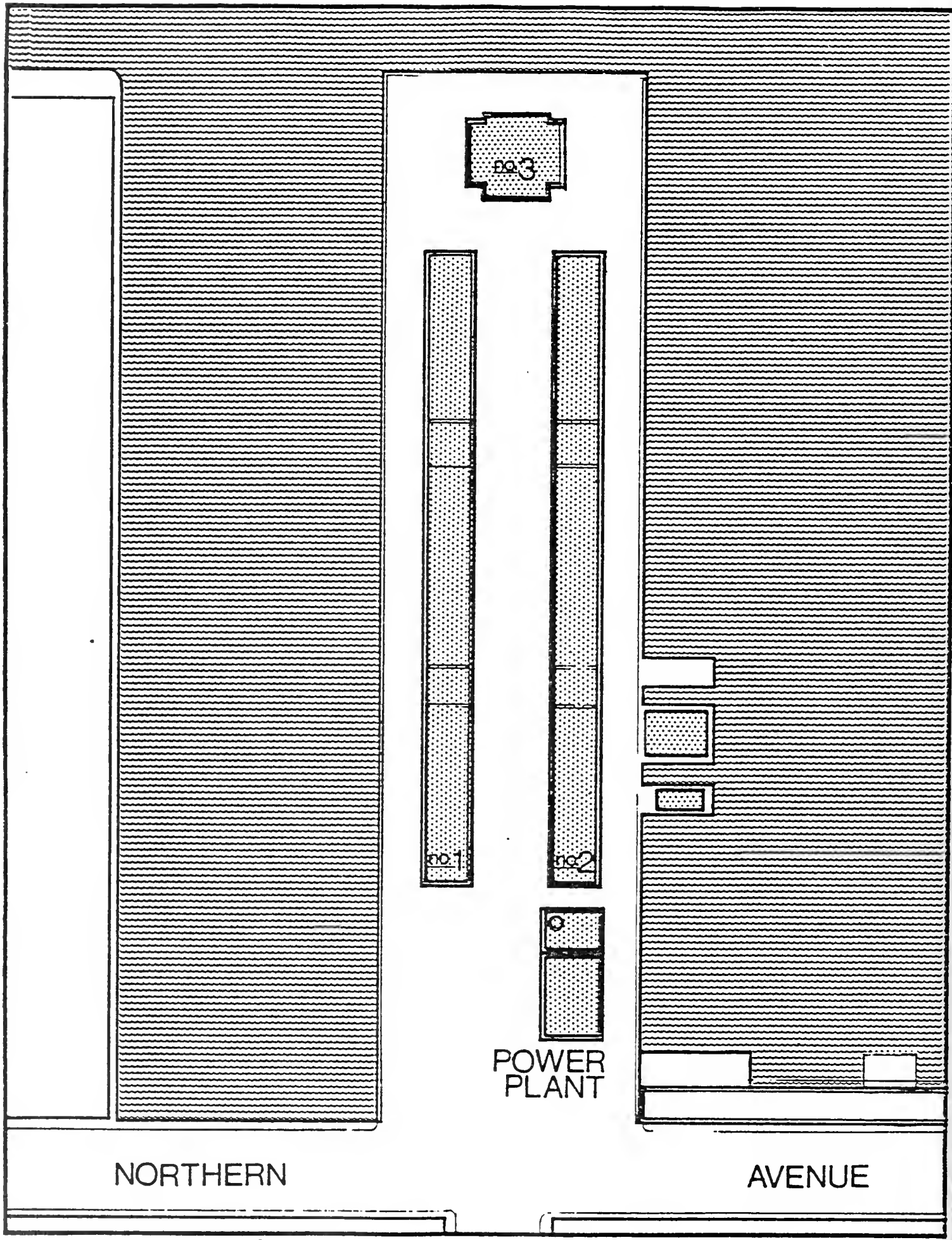
B. Physical Condition

1. Buildings. There are four major buildings remaining on the Fish Pier. Three of them (Nos. 1, 2 and 3, Figure III.1), similar in materials and three stories in height, are most actively used by the fish industry. The fourth, the Power Plant (Figure III.1) is six stories in height and its present major use is as a boiler plant for the Pier and Massport site offices. It was at one time an integral part of the cold storage, freezer, ice plant complex described in Section I.

a) Buildings Numbers 1 and 2

These two buildings are similar in appearance and construction. Each is approximately 735 feet long and 54 feet wide and three stories high. Each has three sections connected by archways with an enclosed third floor. Building No. 1 has 26 structural bays and Building No. 2 has 25. The exterior walls are of load bearing brick at the first floor and stuccoed non-structural terra cotta tile at the second and third floors. Interior walls are non-load bearing terra cotta tile in the bottom of the slab. The roof is wood plank with gravel on longitudinal structural beams and wood joists. All windows and doors are wood, and the stairs are reinforced concrete.

Our field survey confirms the findings of the Howard, Needles, Tammen and Bergendorf report, "Condition Survey of The Fish Pier." Where conditions have deteriorated it is largely due to a lack of maintenance and buildings being open



EXISTING FISH PIER
BUILDINGS
FIG. III.1 0 50 100 150

BOSTON FISH PIER

to the weather. Windows and doors are wood and except where tenants have painted or repaired them, they have deteriorated severely. Exterior brick and stucco walls need repointing and repair and poor flashing and roof surface conditions have led to interior damage.

The interior of the buildings are in similar disrepair although several stores have been maintained by tenants and are in very good condition. However, the general conditions of these buildings is one of deterioration and inefficiency and major rehabilitation is necessary.

b) Building No. 3

This building, located at the northerly end of the Pier, is of similar construction as Buildings Nos. 1 and 2. The building conditions are not as deteriorated as Buildings Nos. 1 and 2. This is most likely due to the fact that the building's uses are quite different (buying and selling fish as opposed to processing and storing fish) and recent exterior maintenance has improved the building's appearance. Most of the building is vacant, particularly on the upper floors. The roof has deteriorated severely causing major water damage in the interior. Roof and Flashing repairs are the most immediate needs for this building.

c) Power Plant

This is a six story building at the Northern Avenue end of the Pier. The exterior condition has deteriorated, particularly the end exposed by the demoli-

tion of part of the building. It is the only building on the Pier with a basement and access to the utility tunnels under Buildings Nos. 1 and 2. The only major active remaining use in the building is the boiler plant. The building contains unused refrigeration equipment, coal hoppers, and fish packaging and freezing equipment. There are some limited areas of deteriorated beams and floor slab where water penetration of the encasing concrete and rusting of the structural steel has occurred. The building, however, is structurally sound and the continued utilization of the structure for heavy loads and a variety of future uses is possible.

2. Pier

The pier exhibits many surface cracks and areas of settlement. The wood fender system and cap log along the face of the pier, as reported by Howard, Needles, is in poor condition and in need of repair. The pier needs re-surfacing in all areas and replacement of the cap log.

C. Utilities

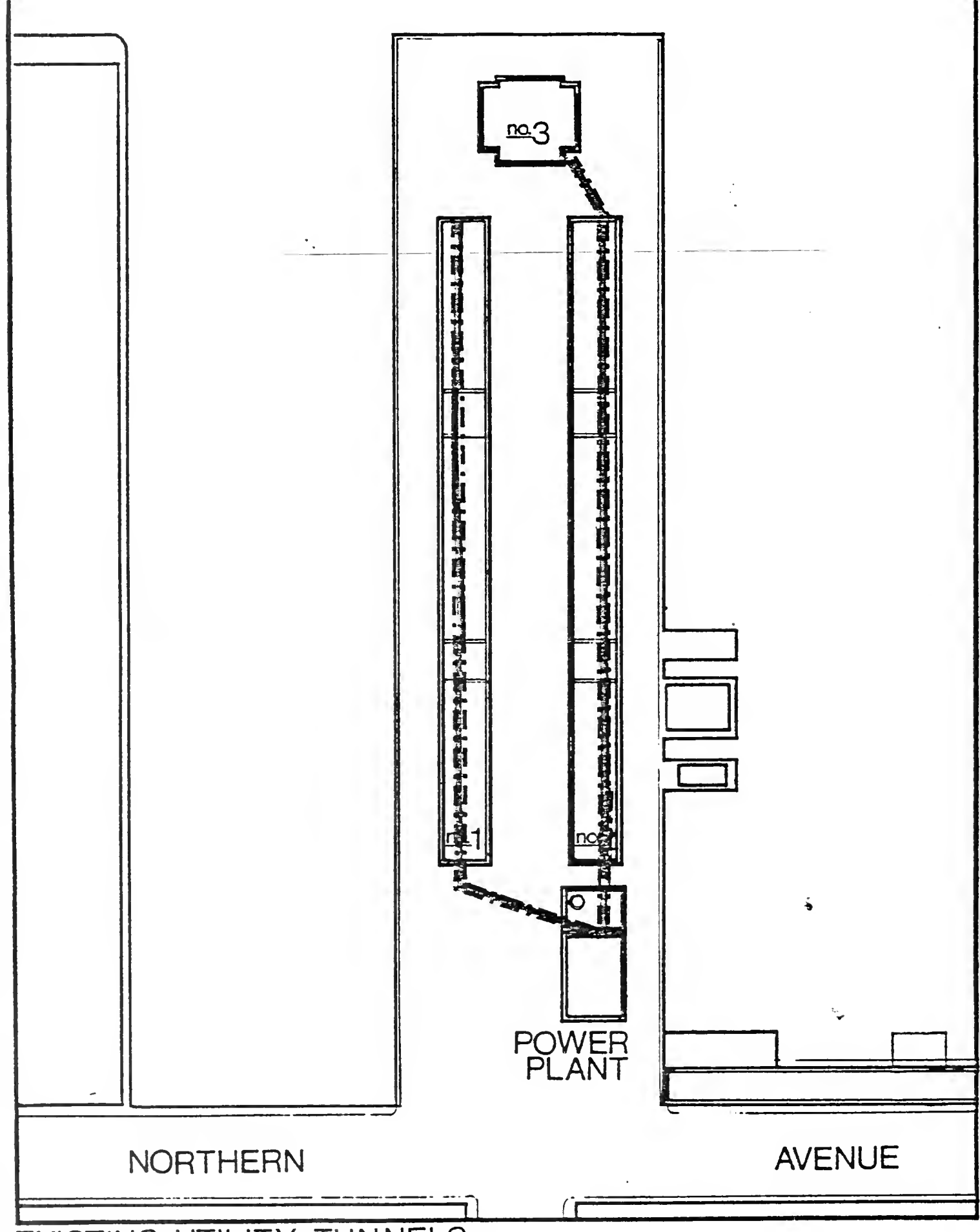
The evaluation of existing utilities is based primarily on the review of previous studies ("Condition Survey", Howard, Needles, Tammen & Bergendoff, May 1975) and current information assembled either through utility companies, Massport engineers or observations and field surveys.

1. Existing Conditions

As in the previous "Condition Survey", we did not enter the utility tunnels under Buildings Nos. 1 and 2, but did make a visual inspection by removing the manhole cover in the archway adjacent No. 15 in Building No. 1. We concur that all utilities are in a generally deteriorating condition in the tunnel and that replacement of utilities is necessary throughout the Pier.

2. Future Needs and Recommendations

There are two alternatives to replacing utilities on the Pier. One is to build a new concrete utility tunnel in the street and feed utilities laterally to the buildings as needed, entering each tenant area underground through the truck dock area and servicing the third floor through the archway areas. The second alternative would be to utilize the existing tunnels under Buildings Nos. 1 and 2 and connecting to Building No. 3 and the Power Plant (Figure III.2). We have analyzed both alternatives and the latter, utilizing existing tunnels, is recommended for the following reasons:



EXISTING UTILITY TUNNELS

FIG. III.2 0 50 100 150

BOSTON FISH PIER

C. 2. (continued)

a) It utilized tunnel areas that already exist and will require an expenditure to either clean or close off if they are not used.

b) It provides the greatest flexibility of tenant use and future development.

c) It eliminates having to break through the truck dock and foundation to service each tenant.

d) It provides an already built trench that with additional work can be made usable and with access for repair and changes as they are needed.

Major utility lines will be buried in the street and the rebuilt tunnels will be served through the archway underground areas as they are now.

D. Summary of Existing Conditions

1. Structural Evaluation

As stated in the Charles T. Main soils engineering report in 1973, "The existing Fish Pier had served its function usefully since 1913. The cracks and movements of the buildings and fill has stopped, as all the forces have reached the equilibrium after 60 years."

Any additional load, such as new construction, on the fill and blue clay will cause additional settlement to the fill and outward movement of the walls. Reuse of the existing buildings would not significantly increase pier loads so that the existing pier structure is adequate with some minor repair.

Our structural engineers have inspected buildings 1, 2 and 3 and they are basically sound and could be successfully repaired. Settlement of foundations has caused cracking in walls and slabs but this has certainly stabilized. Removal of selected transverse masonry in-fill walls and floors may be easily accomplished without adversely effecting the structure.

The Power Plant building was also found to be basically sound. There are areas of deteriorated beams and slab where water has penetrated some of the encasing concrete; however, most beams and columns are in good condition including those in the basement area of the razed portion of the building which can support future construction. The structure is adequate for heavy storage loadings of 250 lbs.

2. Physical Conditions

As was determined in previous studies, conditions have worsened, but not to a point of no return and there is an even more urgent need to take action. It is our finding that the non-structural physical condition is continuing to deteriorate and the major cause is a general lack of maintenance and up-keep. Conditions indicate that normal maintenance, i.e. painting, roof patching, window and door repair, and keeping unused areas closed and weathertight, has not been practiced for several years. This has resulted in the need for major physical rehabilitation of all buildings on the Pier as well as the Pier itself.

IV

OPERATIONS AND USE PATTERNS

IV. PIER OPERATIONS AND USE PATTERNS

The fish industry has occupied Pier No. 6 in South Boston for some 65 years and in many ways the Pier has remained unique and unchanged since the earliest days of its construction. Some buildings have been demolished and mechanization has changed some processes but many of the operations and most of the use patterns reflect the Pier's beginnings. The methods used to evaluate these operations and use patterns were to survey the existing conditions, visiting each bay or store of the buildings on the Pier and preparing drawings of existing physical conditions and use patterns. Following this, each tenant was extensively interviewed, reviewing our survey drawings and discussing their future needs. Also discussed were operations related to the fish industry as a whole, their present function, and what the future needs and potential might be. Operation and use survey forms were also given to all fish dealers and processors providing for a more detailed expression of ideas and follow-up to the initial interviews.

A. Buildings

There are four major buildings remaining on the Pier today. Buildings Nos. 1 and 2 are primarily used for fish processing and distribution but also include other uses such as offices and restaurant. Twenty of the 26 tenants on the Pier are located in these two buildings. Building No. 3 at the harbor end of the Pier currently houses the New England Fish Exchange offices and auction hall and a sandwich shop.

Until recently it also contained office uses both related and unrelated to the fish industry. The Power Plant Building, located nearest Northern Avenue, houses the boilers providing steam for heating and hot water to the Pier and Massport offices. It was at one time an integral part of the cold storage, freezer, ice plant complex described earlier in the report. Current tenants, location and approximate existing rented floor areas are shown in Table IV.1.

1. Space Utilization. To evaluate space utilization and ultimately future space needs, one product of our field survey was the identification of uses and an approximation of how much floor area was actually being utilized. This would be the first step in enumerating used space versus unused space; the latter being a potential resource for future growth or expansion as well as an indication of the true square foot cost each tenant is paying for his space.

a) Buildings Nos. 1 and 2. The total combined floor area of these buildings is approximately 212,000 sq. ft. on three floors. Figure IV.1, "Existing Building Utilization," shows use conditions including vacant or underutilized areas. Table IV.2 summarizes existing space, used and unused. Including all space in Buildings Nos. 1 and 2, rented and unrented, approximately 55% or 95,000 sq. ft. is not utilized to capacity. About 53,000 sq. ft. of this is unrented and

does not generate revenue to support the Pier. Thus, there is a resource for both improvement in efficiency of fish industry uses and a potential for generation of more income.

Also interviewed were off-Pier tenants who participate directly in the fish industry on the Pier. Of these dealers and processors, several are interested in locating on the Pier in either Building No. 1 or No. 2.

b) Building No. 3

This building is called the Exchange or Administration Building and the total floor area is approximately 20,000 sq. ft. on three floors. Table IV-1 lists tenants and specific uses and Figure IV-1 shows existing use conditions. The prime user is the New England Fish Exchange. They, along with two commission offices and a coffee and sandwich shop, occupy only part of the first floor. The upper two floors, formerly used as office space, are vacant. Used floor area is about 16% of the total building area, which means that approximately 17,000 sq. ft. is presently unused.

c) Power Plant Building

The Power Plant, six stories high, is primarily unused. It houses an office and locker facility for Massport personnel on the Pier, with its major use being a boiler room which provides steam for Massport tenants in Buildings Nos. 1, 2, 3, 4, and 5. Approximately one-third of the

TABLE IV.1

CURRENT MASSPORT TENANTS ON FISH PIER

TENANT	LOCATION	USE	RENTED AREA
	Building No. 1		
A. F. Rich Co.	#2	Fresh fish processing & wholesaling	3,750
John Nagle & Co.	#12 & 14	Frozen storage	8,250
F. E. Harding Co.	#16	Fresh fish processing & wholesaling	4,500
Blue Sea Fish Co.	#18 & 20	Fresh fish processing & wholesaling	7,500
T & J Busalacchi, Inc.	#22	Fresh fish processing & wholesaling	5,250
F. J. O'Hara	#24	Equipment storage & maintenance	1,250
Channel Fish Co.	#30	Frozen storage	3,000
Ameri-Cana Trans.	#30-3/4	Office/storage	800
Seaside Fisheries, Inc.	#34, 36, 38	Fresh fish processing & wholesaling	8,000
Bart Tribuna Co., Inc.	#40, 42, 44	Fresh fish processing & wholesaling	12,750
	Building No. 2		
R.N. Cram Seafood Co.	#3 & 5 (Fl. 1)	Frozen fish dist.	2,500
O'Donnell-Usen Fisheries	#1, 3, 5 (Fl. 2 & 3)	Office	10,500
McFisheries Inc. (Fish Pier Processing)	#7, 9, 11, 13, 15 (Fl. 3)	Frozen fish processing & dist.	8,400

CURRENT MASSPORT TENANTS ON FISH PIER

TENANT	LOCATION	USE	RENTED AREA
	Building No. 2 (cont.)		
Channel Fish Co.	#13 & 15	Salt fish processing & storage	1,500
No Name Restaurant	#15½ & 17	Restaurant	5,100
Avenue Fish Co., Inc.	#19	Fresh fish processing & retailing	3,000
Puritan Fish Co., Inc.	#21	Fresh fish processing & wholesaling	5,250
D & F Fish Corp.	#25 & 27	Fresh fish processing & wholesaling	9,000
Super Snooty Seafoods Corp.	#29	Fresh fish processing & wholesaling	3,650
Channel Fish Co.	#31	Fresh & frozen fish processing & wholesaling	7,200
John Nagle & Co.	#33 & 35	Fresh & frozen fish dist.	10,500
New England Fillet Co.	#37 & 39	Fresh fish processing & wholesaling	8,250
Great Atlantic Fish Corp.	#41, 43, 45	Fresh fish processing & wholesaling	9,000

TABLE IV.1 (cont.)

CURRENT MASSPORT TENANTS ON FISH PIER

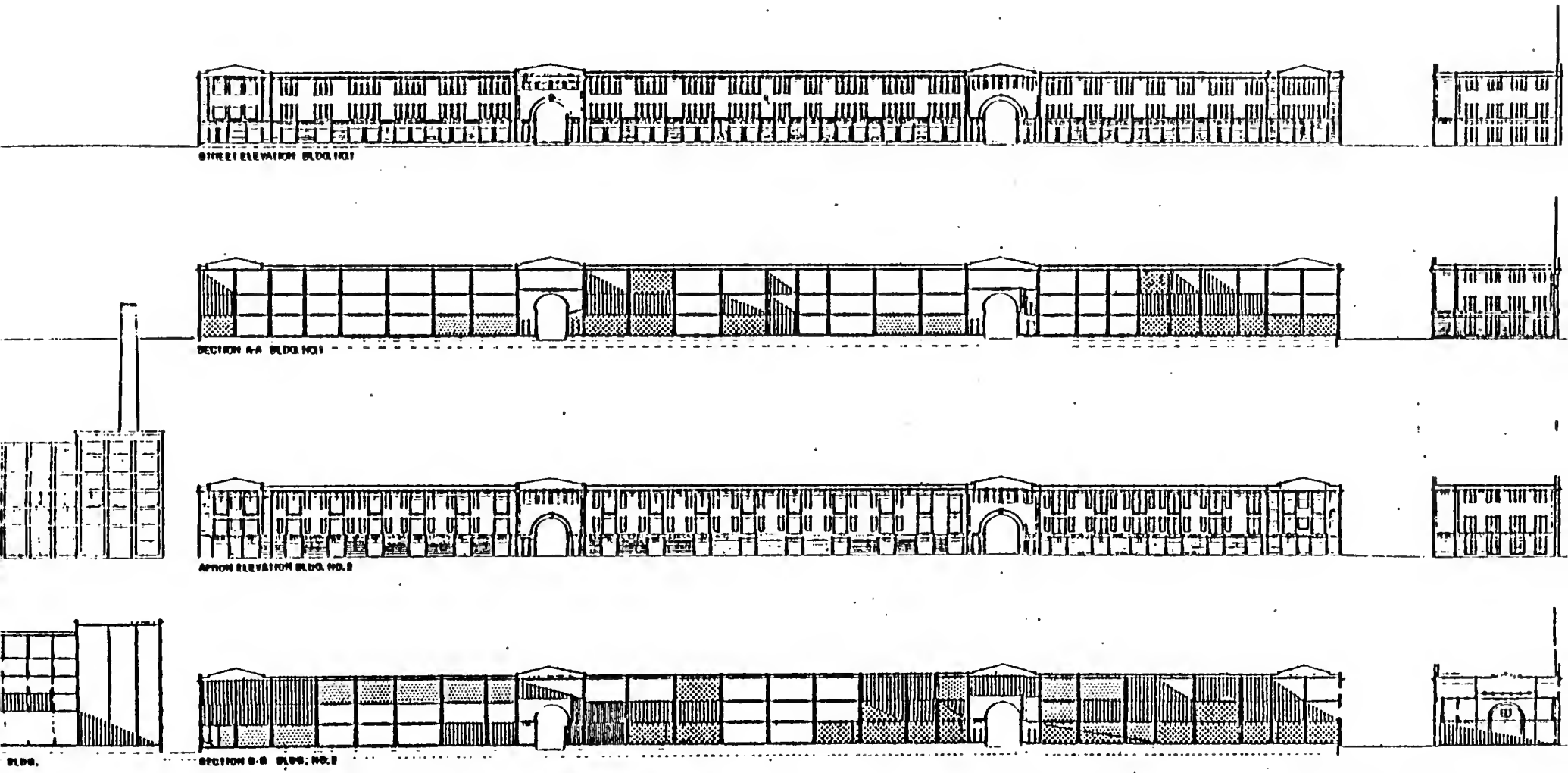
TENANT	LOCATION	USE	RENTED AREA
	Building No. 3		
New England Fish Exchange	Sales Regulation Office		± 1,200
	Auction		± 1,800
			5,500
Commission Services Co.	Fish Auctioneer Office		200
John Nagle & Co.	Fish Auctioneer Office		200
Daley's Coffee Shop	Take-out food		50
	Other		
Fulham Co.	Wood pier	Ice plant	5,400
Harbor Lobster	Wood pier	Lobster holding & wholesaling	2,400
	Power Plant Building		
Massport	Basement	Boiler/Utilities	±3,700
	Floor 1	Boiler Room	±3,700
	Mezzanine	Offices & Lockers	±2,800

building on the ground floor houses three boilers (two of which are used) and an unused coal hopper which extends from the ground floor to the roof about 78 feet in height. The mezzanine containing approximately 2,800 sq. ft. used for office and lockers, the remainder of the building is unused. (Figure IV-1 and Table IV-1) This building was formerly part of a larger freezing and cold storage facility and still contains much abandoned and unused mechanical equipment. Actual floor area, including the basement, is approximately 44,800 sq. ft. of which about 10,200 sq. ft. is used or about 23%. (Table IV-2)

TABLE IV-2

SUMMARY OF EXISTING SPACE UTILIZATION

	Used	Unused	Total	Major Use
Buildings 1 and 2				
Floor 1	48,960 (72%)	19,040 (28%)	68,000	Fish Dealer
Floor 2	32,640 (48%)	35,360 (52%)	68,000	Dealers/Office/ Vacant
Floor 3	33,440 (44%)	42,560 (56%)	76,000	Dealers/Office/ Vacant
Totals	115,040 (55%)	96,960 (45%)	212,000	
Building 3				
Floor 1	2,750 (41%)	3,900 (59%)	6,650	Exchange
Floor 2	0	6,650 (100%)	6,650	Vacant
Floor 3	0	6,840 (100%)	6,840	Vacant
Totals	2,750 (16%)	17,390 (84%)	20,140	
Power Plant Building				
Basement	3,700 (36%)	6,800 (64%)	10,500	Boiler/Utilities
Floor 1	3,700 (36%)	6,800 (64%)	10,500	Boiler Room
Mezzanine	2,800 (82%)	600 (18%)	3,400	Massport
Floor 2	0	6,800 (100%)	6,800	Vacant
Floor 3	0	6,800 (100%)	6,800	Vacant
Floor 4	0	6,800 (100%)	6,800	Vacant
Totals	10,200 (23%)	34,600 (77%)	44,800	



ING BUILDING UTILIZATION

WET PROCESSING
FROZEN PROCESSING
FISH RELATED USES
OTHER USES (NON FISH)
VACANT
PARTIAL USAGE
KEY

BOSTON FISH PIER

MINTZ ASSOCIATES ARCHITECTS PLANNERS INC.
ONE DOCK SQUARE BUILDING BOSTON, MASSACHUSETTS

2. User Needs

The major use on the Pier is fresh fish processing and marketing in a way that is unique in the industry. Under the New England Fish Exchange, a group of dealers, small and large, participate in the marketing of a high quality fresh fish product and more recently in the frozen fish market. Our user interviews focused on their needs and critical industry needs to allow these uses to continue and grow.

a) Buildings Nos. 1 and 2

The general use pattern in Buildings Nos. 1 and 2 is the receiving of fresh fish primarily at the apron or water side of the building, both from the boat landings and over the road by truck. Processing or filleting of the fish, packaging and packing in ice and either shipping directly or holding in a cooler cold storage for later shipping takes place mostly inside the building, primarily on the first floor where possible. At extremely busy times some of the packing and icing spills out on the apron. The shipping out and some receiving takes place on the truck dock side of the building. There is some holding of fresh fish before processing. Generally, the upper floors are for dry uses such as office, employee areas, lockers, ice machines, compressors, shop work, and storage.

This general pattern of operation should continue in Buildings Nos. 1 and 2 with one major change in space utilization, that being to eliminate use of the third floor by fresh fish dealers. The majority of tenants concurred

that the third floor was not efficient or usable, and expressed a desire to confine their operation to the first and second floors.

Regarding future needs, most dealers expressed varying needs for physical improvement such as larger cold storage areas; more efficient processing areas; better use of the apron; improved shipping and receiving; improved locker, dressing and lunch areas; and more efficient office areas. Space needs varied from dealer to dealer, some desiring to remain approximately the same square footage while others wanted moderate to significant expansion. Table IV-3 outlines approximate future space needs. Mechanical and utility needs were also of major concern, particularly heating and sewer systems.

b) Building No. 3

User needs of the Building No. 3 tenants were also taken into consideration. The New England Fish Exchange has indicated that they need a similar size office area but they do not need the large auction area they are presently using. The two commission offices have needs similar to their existing areas. All three should continue to share adjacent spaces near the auction area.

The coffee and sandwich shop located in the building serves both people participating in the auction and many of the dealers at lunch time. They desire to be located adjacent the auction area and also to be accessible to working personnel from the fish stores.

c) Power Plant

Present uses of this building are the boiler plant and Massport office and locker room.
The boiler is scheduled for immediate replacement and the office and locker space as we understand it is scheduled to be moved to another location and the Power Plant Building is scheduled for demolition. While only approximately 23% of this building is utilized, it is seen as a potential space resource. Since the building has several multi-story spaces such as the coal hopper area, it has potential for additional floor space by filling in the void. Part of the building on the west side has been torn down but could be reconstructed on the same foundation.

d) Summary of Space Utilization

It is no revelation that there is much unoccupied space in the buildings on the Fish Pier and that the percentage utilized is approximately 46% of all major buildings. What is significant is the utilization efficiency, that is, the area rented versus the area utilized, particularly in Buildings 1 and 2. Building No. 3 and the Power Plant are also mostly unoccupied. Our survey and interviews indicated that of the total floor area being rented in Buildings No. 1 and 2, only 75% is actually used by the dealers. Thus, not only is there unrented space, but there is an operating inefficiency that is costly to tenants and which provides a significant

space resource for improving and expanding the present fish dealer operations, plus providing some additional space for some new dealers.

3. Conclusions

Figure IV-2 shows future building utilization. Table IV-3 summarizes space utilization and future needs and may be compared withexisting conditions discussed in Section A.1.

a) Buildings Nos. 1 and 2

With the proposed utilization pattern, first and second floor space becomes prime for fish processing and in fact present tenants could occupy as much as 85% of the available space on these floors. This is about 117,000 sq. ft. of the 136,000 sq. ft. total. Add to this those tenants wanting to relocate on the Pier and the occupancy of the first two floors is at a maximum. The third floor is mainly unused by the present tenants.

The general use pattern is "wet" processing (filleting, cold storage, packaging, etc.) on floor one and "dry" uses (offices, lockers, storage, etc.) on floor two. Floor three is available for other, new uses.

b) Building No. 3

This building presently houses exchange and auction activities. These uses will be relocated to the new auction

TABLE IV.3

FISH PIER TENANTS: SPACE UTILIZATION AND FUTURE NEEDS

Bldgs. 1 & 2	Dealer	SF/Rented	SF/Utilized	SF/Future
2	A.F. Rich	3,750	2,600	3,250
12 14	John Nagle	8,250	2,800	(see #33*
16	F.E. Harding	4,500	3,500	6,000
18 20	Blue Sea Fish	7,500	5,200	6,000
22	T.&J. Busalacchi	5,250	3,100	3,500
30	Channel	3,000	3,000	(see #31*
30½	Amer. Trans.	800	600	600
34 36 38	Seaside	8,000	6,600	6,600
40 42 44	Bart Tribuna	12,750	7,100	9,300
1 3 5	O'Donnell Usen & R. N. Cram	10,500	9,100	10,500
7-15	McFisheries			
15½ 17	No Name	5,112	5,112	6,500
13 15	Channel	1,500	1,500	(see #31*
	No Name			6,500
19	Avenue	3,000	2,700	3,500
21	Puritan	5,250	4,900	5,500
25 27	D & F	9,000	5,300	6,000

TABLE IV.3
(continued)

Bldgs. 1 & 2	Dealer	SF/Rented	SF/Utilized	SF/Future
29	Super Snooty	3,650	3,300	4,600
31	Channel	7,200	6,300	(*incl. below)
Channel Total (13, 15, 30, 31)		11,700	10,800	*15,000
33 35	John Nagle	10,500	10,100	(incl. below)
Nagle Total (12, 14, 33, 35)		18,750	12,900	*16,000
37 39	N.E. Fillet	8,250	6,400	6,400
41 43 45	Great Atlantic	9,000	6,200	8,500
		126,762 SF	95,412 SF	117,750 SF
			75% of rented space	
Bldg. 3				
New England Fish Exchange		5,500	2,300	1,800
Commission Services Co.		200	200	200
John Nagle Co.		200	200	200
Daley's Coffee Shop		50	50	300
		5,950 SF	2,750 SF	2,500 SF

and fish unloading facility. The building contains approximately 20,000 sq. ft. of floor area and should be rented for new uses. (Figure IV-2, Table IV-4)

c) Power Plant Building

The building is a potential resource for fish industry uses on the Pier and we have evaluated alternative uses including a new central boiler facility. The building provides a potential new use resource and should be rehabilitated and developed for these uses. (Figure IV-2)

d) New Uses

In Building Nos. 1, 2, and 3 there is about 90,000 sq. ft. of rentable space (Table IV.4) not proposed for fish processing uses. Our interview and survey indicated that there is a potential for office use and possibly residential use on floor 3 of Building Nos. 1 and 2. Interest in other commercial uses have been expressed for Building 3, including a theater/restaurant. There is also potential for a fishing museum and, perhaps most importantly, an education facility to train young people in all aspects of the fishing industry. This is discussed further in Section VII, B, 2 along with other aspects of future development.

The Power Plant building also provides a resource for potential new uses and thereby a new source of revenue (Table IV-4.) Specific uses and cost estimates will be discussed in the following section.

TABLE IV.4

SUMMARY OF PROPOSED SPACE UTILIZATION

Buildings 1 and 2

	Floor Area (SF)	Use
Floor 1	68,000	Fish dealers - "wet" processing
Floor 2	68,000	Fish dealers - "dry" uses
Floor 3	76,000*	New uses - office, residential
Total	212,000	

Building 3

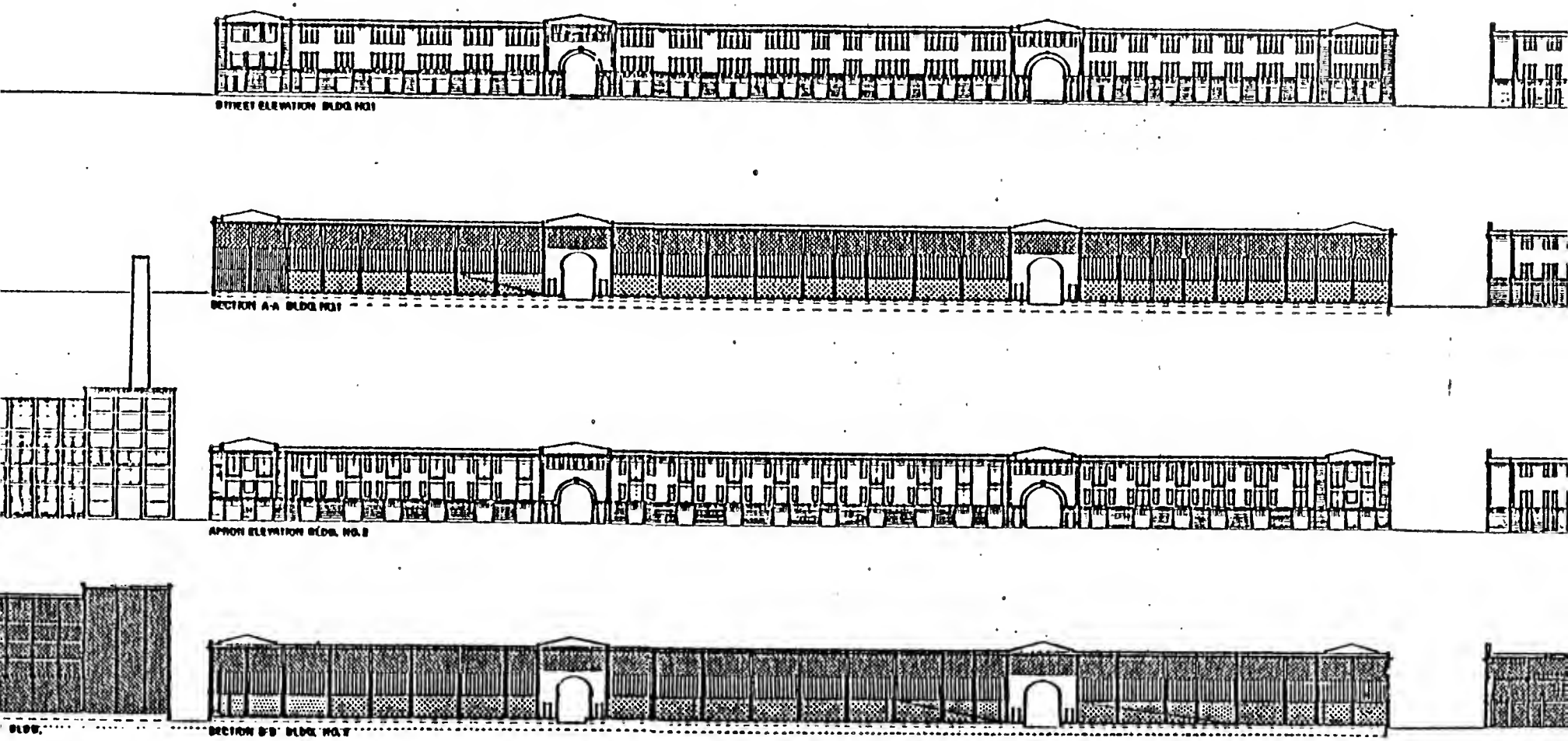
Floor 1	6,650	New uses - commercial, institutional
Floor 2	6,650	New uses - office
Floor 3	6,840	New uses - office
Total	20,140*	

Power Plant Building

	Floor Area	Future Expansion	Use
Basement	10,500	7,000	New uses - boiler, gurry
Floor 1	10,500	7,000	- Fish unloading, boiler
Floor 2	10,500	7,000	
Floor 3	10,500	7,000	- Freezing and cold storage, ice
Floor 4	10,500	7,000	
Totals	52,500*	35,000	

* Proposed New Rental Areas

	Approx. S.F.
Buildings 1 and 2, 3rd Floor	70,000
Building 3, Floors 1, 2 & 3	20,000
Power Plant Building	47,000
	137,000



RE BUILDING
CATION

WET PROCESSING
FROZEN PROCESSING
FISH RELATED USES
OTHER USES (NON-FISH)
NEW USES

KEY

BOSTON FISH PIE

MINTZ ASSOCIATES ARCHITECTS PLANNE
ONE BOSTON SQUARE BUILDING BOSTON, MASSAC

B. Pier

In evaluating the exterior areas of the Pier, it is necessary to look at the existing use patterns and future industry needs which may effect the long-range patterns and uses of the Pier. What will be the impact of the 200 mile limit legislation and renewed government interest in the fish industry? What is the processing and marketing capacity of the Fish Pier? What changes might be necessary to improve the industry and how can the Fish Pier accommodate these changes? Thus, along with circulation, building use relationships and use patterns, we also must consider existing and future Pier operations such as fish unloading, central freezing and cold storage, ice supply, and waste disposal.

1. Utilization

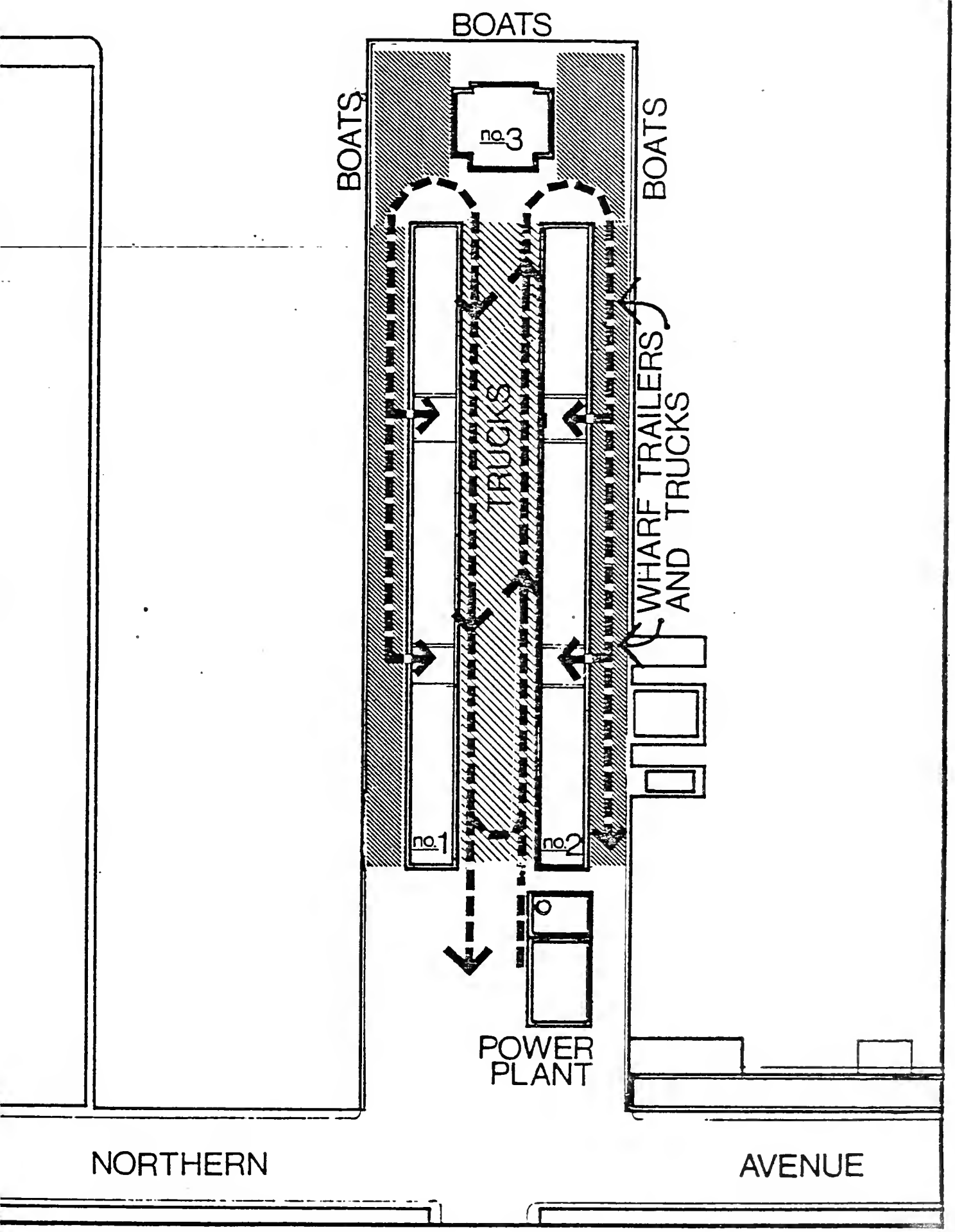
Utilization of exterior areas is at or near capacity during the hours of 6:30 AM to late afternoon on most weekdays. Presently, the unloading of boats takes place at the harbor end of the Pier on the apron around Building No. 3. The apron along the harbor side of Buildings Nos. 1 and 2 is used to transport fish from the boats ("over-the-dock") to the individual stores. This is done with small tractors and trailers loaded with 500 pound wharf boxes owned and operated by the dealers. Fish delivery by truck ("over-the-road") also occurs on the apron side. Box storage, gurry storage and pickup, ice delivery, and miscellaneous dealer activities round out apron uses.

Most truck and all automobile activities occur on the street or truck dock side of the buildings. This

includes the receiving and shipping of fresh and frozen fish, wholesale and limited retail customer traffic, store owners and restaurant traffic. Wharf tractors and trailer traffic with fish and ice also use the street. Figure IV.3 indicates Pier use areas and patterns. Another area of Pier utilization is the three wood piers extending out from the easterly apron of the Fish Pier. The ice plant and Harbor Lobster are located on two of these piers and the third is vacent. For the ice plant, having to serve both fish dealers and boats and the Harbor Lobster, needing easy access to great amounts of sea water, it is a reasonable location. However, use and expansion of in this area should be evaluated within the total context of the Fish Pier. Ice plant capacity, for example, may need to be improved and expanded and other alternatives should be studied as to the best long-range solution satisfying all industry needs.

2. User Needs

The Pier, like the buildings, was first used by horse and buggy traffic (see cover) and although this original transportation mode has long been abandoned, little of the use patterns has been changed. Our research indicated that the volume of traffic during those early days was similar to that of today but vehicle size and maneuverability pattern has changed drastically. Thus, improvements are needed in what are presently the three major problem areas: Operation patterns, circulation and parking, and surface conditions.



XISTING PIER UTILIZATION

G. IV.3

BOSTON FISH PIER

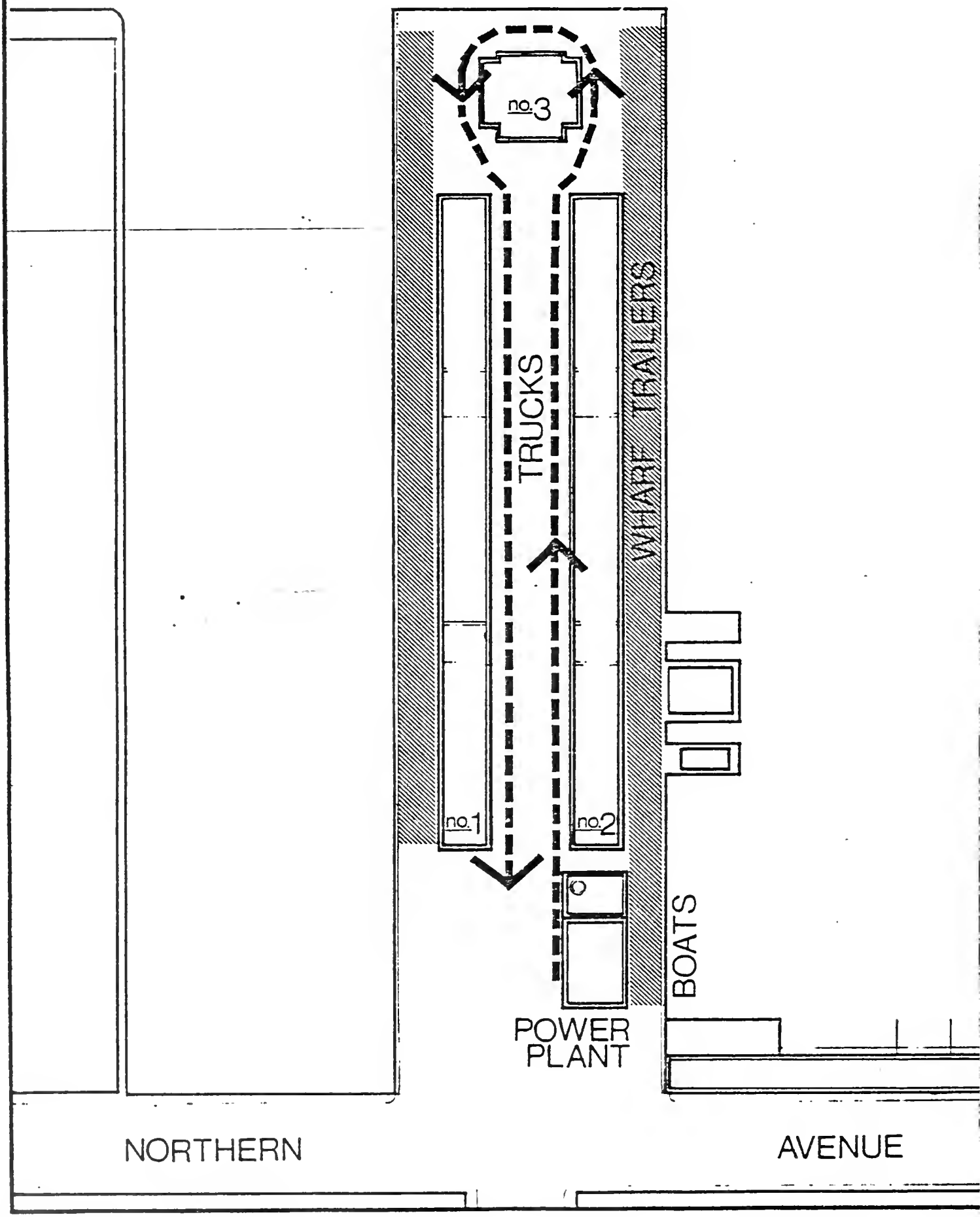
a) Operation Patterns. The need for store operations to have efficient access and staging areas for fish receiving and shipping adjacent the building is essential. Generally, the pattern is fresh fish receiving at the apron side and shipping at the truck dock side. There are random variations in this pattern and combined with inadequate truck dock areas and an inefficient use of the apron area, the overall impact is a conflicting mix of uses and patterns.

b) Circulation and Parking. Congestion, poor circulation pattern and maneuvering and illegal parking are major problems on the Pier that must be dealt with. The Pier cannot adequately handle existing traffic demands and with predicted growth and expansion, a comprehensive plan controlling circulation and including imporved off-Pier parking is necessary.

c) Surface Conditions. For the horse-drawn wagons, the loading docks were an appropriate height and perhaps the cobbles which still pave the street were also appropriate. Today's vehicles and circulation needs demand changes to the Pier surface and the physical configuration of the loading docks. The surface must be repaired or replaced, the loading dock raised from its average of 16 to 17 inches to a more usable height of 30 to 36 inches, and the cap log at the apron edge must be replaced. The truck dock solution must be coordinated with the circulation plans.

3. Conclusions

The Pier is 65 years old and the major exterior utilization problem is that the circulation and use patterns are also 65 years old. This is not to say that all aspects of them are out-dated. In fact, many are sound and should be continued. The need for improvement is in the interface of use areas (different modes of service, shipping and receiving, parking and circulation, etc.) and to devise a circulation plan that will control movement patterns and efficiently utilize the valuable exterior areas of the Pier. The new circulation plan limits truck and auto traffic to the interior street with all over-the-road shipping and receiving occuring on the street side of the buildings. Loading and unloading will conform with the proposed angled truck docks in the direction of the harbor end of the Pier. The apron areas traffic will include wharf trailers and fork lifts only and store activities for handling and moving fresh fish, primarily that received over-the-dock. The only exception would be emergency vehicles. Figure IV-4 shows the revised use patterns and circulation.



FUTURE PIER UTILIZATION

FIG. IV.4

BOSTON FISH PIER

C. Summary of Operations and Use Patterns

The Fish Pier is the setting for a complex set of interrelated operations at the center of the fishing industry in Boston. The impact and use of these operations affects not only dealers on the Pier but also those in the area of Northern Avenue along the South Boston waterfront and at more remote locations in the Boston area. Therefore, the long-range needs and solutions for the industry as well as the specific, immediate needs of the building tenants on the Pier itself must be recognized and dealt with. The major use on the Pier will remain fish processing and its attendant operations. This will be the focus of the first and second floors of Buildings Nos. 1 and 2. Related to this is the emphasis on industry-wide needs and their importance to the future of the industry on the Boston Fish Pier. Provisions must be made for the immediate accommodation of improved uses on the Pier such as fish unloading and a replacement heating plant and opportunities for anticipated future needs vital to the Pier's future. This latter catagory includes central freezing and cold storage, increased ice plant capacity, increased and improved accommodations for an enlarged fishing fleet and a more efficient, sanitary and profitable method to handle gurry.

New rental areas are proposed for the third floor of Building Nos. 1 and 2. This represents floor space neither desired nor presently utilized by most fish dealers. It is, however, rentable space and can generate revenue to support

the Pier. Office use, currently occupying part of the third floor in Building No. 2, related to the fishing industry or apartments are two potential uses.

New rental areas are also proposed for Building No. 3. These could include office use related to the fishing industry (a former use), commercial or institutional uses. The Exchange and Commission offices could continue there although this is not a prerequisite for them and the large central auction area is no longer needed or desired for fish auctioning. Finally, parking needs must be provided for and while limited space is available on the Pier, it is necessary to plan for off-Pier parking to satisfy both existing and future needs. Alternatives to all the above use and operation needs will be discussed in the following section of the report.

V

ALTERNATIVE IMPROVEMENTS

V. MAJOR FINDINGS AND ALTERNATE IMPROVEMENTS

At this point, our research and analysis has brought us to a summarization of key findings and quantitive evaluation of alternative solutions.

A. Major Findings

1. Pier and Building Use

a. Approximately 45% of Buildings Nos. 1, 2 and 3 are occupied and of those areas rented, only 75% are utilized.

b. Most fish dealers presently on the Pier prefer to confine their operation to the first and second floors and have little need for the third floor.

c. While not needing the third floor space, most dealers need more area on the ground floor where their processing operations take place.

d. Some fish dealers would substantially expand their present operations or even start new operations if they were guaranteed a long-term commitment for the equipment improvements they would need to make.

e. The apron, that area between buildings and the water, could be significantly more effectively used by dealers as part of their processing operation if the apron were partially covered and restricted from truck usage, thus relieving much of the interior ground floor congestion that now exists.

f. There has been indication of a desire for fish industry related office space on the Pier which could easily be accommodated on the third floor of Buildings 1 and 2, as well as in Building 3.

g. There are several fish dealers presently not located on the Pier who want to relocate there or operate a store there.

h. The No Name restaurant, one of Boston's landmark restaurants, has expressed a desire for increased floor space for restaurant use, plus possible a small retail fresh fish operation and gift shop for the numerous tourists frequenting the restaurant and the area.

i. The New England Fish Exchange no longer needs the large auction area it presently uses in Building No. 3.

j. While all buildings on the Pier have deteriorated substantially, some more than others, it is largely due to neglect and in fact all buildings are structurally sound, includin the Power Plant, and all offer potential for re-use for the fish industry.

k. As shown in our construction estimates, the costs of rehabilitating these buildings is substantially below the costs for new construction with their penalty to be paid for extraordinary foundations. (See Charles T. Main Report for the Relocation of the Fish Processors, August 9, 1974.)

j. Circulation and parking congestion cause delay and inefficiency in many Pier operations. Given the limited space on the Pier, parking regulations must be defined and enforced and a circulation plan, particularly for trucks, must be developed and implemented.

2. Fish Industry Utilization

a. Boston Fish Pier is unique in that it specializes in fresh fish and supports a range of small and larger dealers

who sell their fresh fish product to restaurants, institutions, retail fish stores, and super markets both in New England and elsewhere throughout the country. In addition, there are processors located on the Pier who serve the frozen fish market and purchase fish through the Boston Fish Exchange as well as "over the road". They are generally smaller in size than the large frozen fish dealers in Gloucester, and they cater to their own specialized markets.

b. The major reason for the current low level of production is generally a lack of fish. Of all the fish processed or sold at the Fish Pier, less than 50% is landed by boat and some dealers purchase as high as 70% of their fish "over the road" adding to the truck congestion on the Pier. New boats and the impact of the 200 mile limit could reverse this trend.

c. A major concern in the fish industry is the lack of youth, and that if the industry is to grow, new blood, particularly fishermen, as well as cutters, dealers, boat owners, etc. are going to have to be attracted to the industry.

d. There is general agreement that if the industry is to prosper and grow at the Fish Pier, a central freezing operation with at least short term cold storage capability must be provided on or near the Pier.

e. Also of major concern as expressed by the boat owners and some of the fish dealers, is the method of unloading fish. The process presently used to unload fish at the Pier is

out-dated, inefficient, and unsanitary. There definitely is need for a new method for fish unloading, and this is generally accepted by everyone at the Pier. There are differing opinions as to how the fish, once unloaded is to be sold.

f. The central ice plant no longer is the major source of ice for Pier dealers as most have already or are in the process, or planning to install their own ice machines. The need for a central facility, however, remains important as a back-up for the dealers and as the only source of ice for the boats. Therefore, even with improvement in cooler capacity for the dealers, as well as their own ice making capability, the immediate future demands for ice should be planned for now.

g. Fish waste disposal, or gurry as it's called, is a major sanitary as well as logistical problem for the fish dealers on the Pier. More efficient and sanitary methods are needed to handle gurry from the cutting table to its final destination in the market.

h. Presently, between 35% to 40% of the fish, depending on the specie, is used for human consumption with the remainder going as gurry which is primarily sold to cat food manufacturers. While some dealers have explored ways of increasing the percentage of consumable product, Fish Pier operations could and should allow for improvement in this area.

These findings project a set of needs and recommendations which we are confident that the Boston Fish Pier has both the recources and capacity to satisfy and justify. The fulfillment of these needs and recommendations relate to improvements in the overall operations on the Pier and to the physical improvement and better utilization of the Pier and buildings.

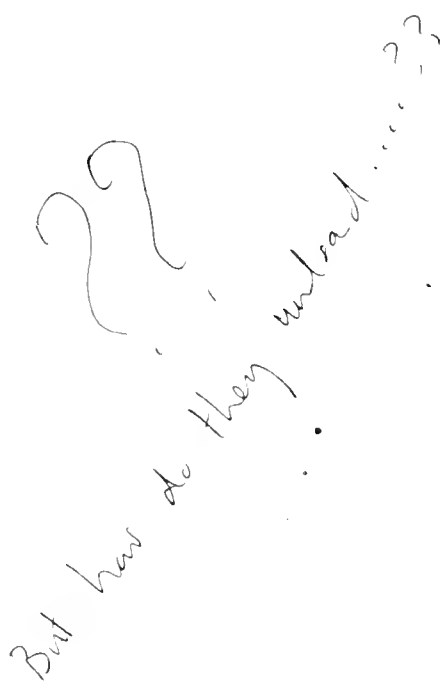
B. Use and Operations Improvements

Regarding Pier operations, there are four key areas that effect the future of the Fish Pier as the center of the fishing industry in Boston and need improvement. These areas are fish unloading, central freezing and cold storage, ice production and gurry handling and disposal. We have concluded that these are improvements, some of which can and must be made now, and that planning be done so as not to close out options for future improvement or expansion as the industry warrants it.

1. Fish Unloading

Much has been said about the method of unloading fish at the Boston Fish Pier. It is a complex system involving many people including boat owners, fishermen, dealers and processors, and the New England Fish Exchange. The subject of the Exchange will be discussed in the concluding section of the report as it will be sufficiently complicated to address the mechanics of unloading at this time.

a) Existing Conditions. Like so much else at the Pier, the method of unloading fish reflects the beginnings of the Pier and is perhaps the last example of this type of unloading in the country today. In general, the process is as follows.


But how do they unload.....??

Interviews with dealers and boat owners about how fish is unloaded at the Pier have indicated to some degree how costly the present system is. The dealers must pay a similar labor dollar to unload any amount of fish, whether large or small, because they must have a similar number of people on the wharf for any unloading. Dealers must move from boat to boat for various species and continually get in line to incrementally unload and weigh their purchases. Estimated time spent unloading ranged from 30 to 80 man-hours per week in labor or about 1500 to 4000 labor hours per year. This does not include equipment operation and maintenance and, on some days, idle cutters waiting for fish to arrive at the store.

There is also a costly time and labor factor for the boat owners. Eleven to 21 lumpers are required for each boat and they are paid by the boat. There is also a 5% loss on ice. Boat owners and dealers have reported that it is a very difficult system to control and accurately account for fish caught, sold and bought, and the majority of people interviewed said the system could and should be improved.

Another area of concern voiced by many dealers was the method of auction itself, primarily the setting of the price while fish is still in the boat and unseen. Because of the unique character of Fish Pier operations, ranging from preparing select fillets to cutting for frozen portions, it is the opinion of many dealers that one price should not be set for all grades of fish. We are aware that second prices are often set during unloading to reflect a change in quality but it was stated that bidding on a

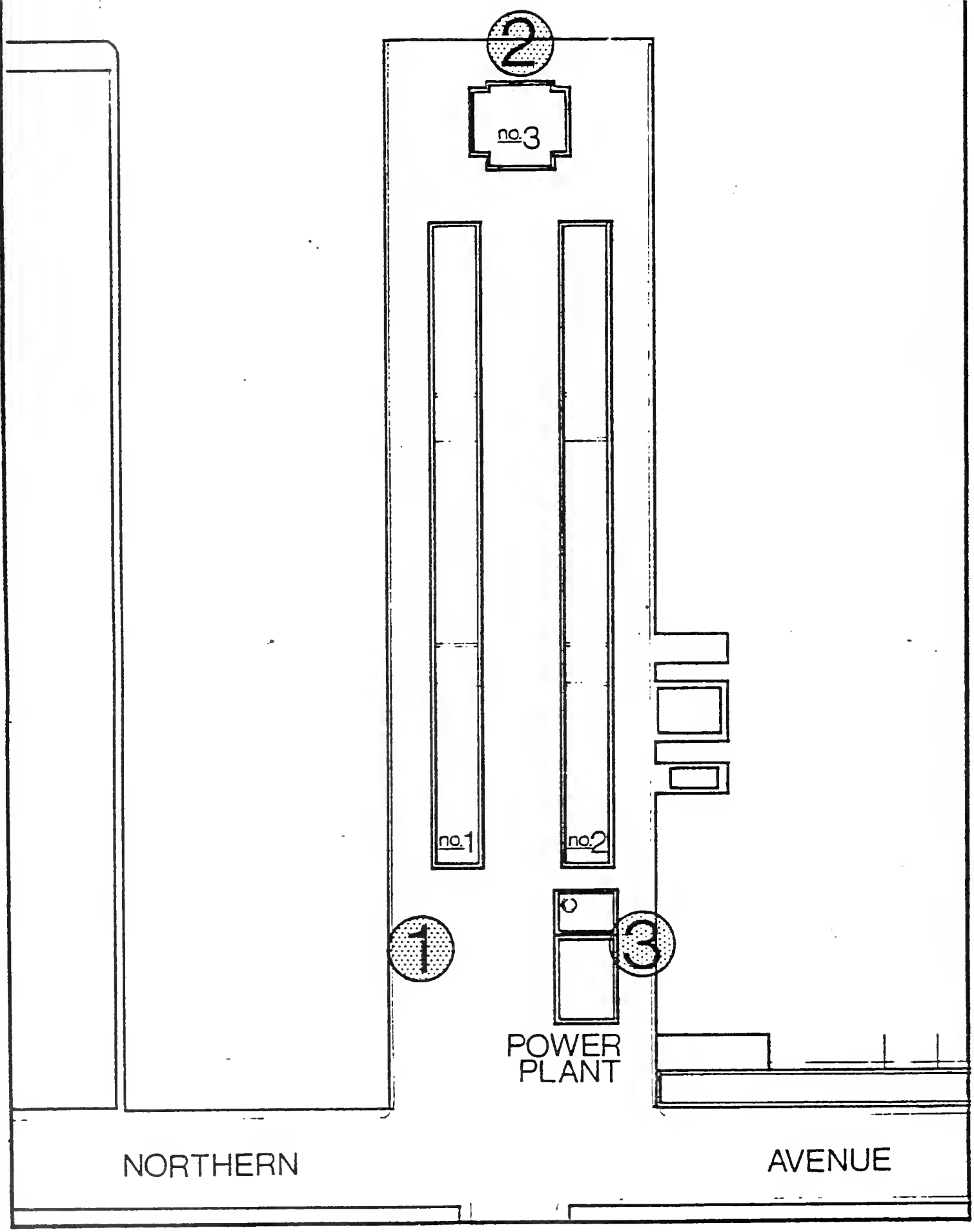
visable product would improve competition resulting in all around better prices for boat owners and dealers.

c) Improvements. It is our conclusion that unless fish unloading is improved, the Boston Fish Pier faces a serious threat to its future viability as a place for fishing boats to land their cargo. In addition, there is the potentially very serious question concerning the loss of Federal approval to continue to operate at the Pier because of the poor sanitary conditions of unloaded fish in open wharf boxes waiting in the sun, and acting as a gourmet attraction to seagulls. Beyond this, it is doubtful the Fish Pier could take full advantage of any benefits coming from the 200 mile limit given its present limited capacity to efficiently land fish. Along with improving the fish cutting operations, and sanitary handling of gurry, this is the most important improvement needed at the Pier.

We have researched available technology and recommend that pneumatic fish unloaders be put into operation and that these unloaders be part of a fish unloading facility for the display and auction of fish. In terms of efficiency, lumpers can unload approximately 10 tons of fish an hour while a pneumatic unloader can automatically unload from 25 to in excess of 60 tons per hour. For ground fish and the type of "pen" unloading of mixed species done at the Fish Pier, the average would be about 25 to 30 tons per hour automatically unloaded. Fish in excess of 20 lbs. must be hand fed into the tube. While this could drop the capacity down to about 15 tons per hour, fish

of this size are only 5 to 10% of all fish landed at the Pier. Included in the Appendix B are letters from dealers attesting to unloading capacity and efficiency including the important question of damage to ground fish. This does not appear to be a problem; however, to satisfy boat owners and dealers a more thorough investigation and proving of this point could be made should the recommendation of automatic fish unloading be implemented.

d) Locations. There are three potential locations for the fish unloading equipment and auction facility on the Pier (Figure V.1). These include Site 1, a complete new facility at the Northern Avenue end of Building No. 1 (formerly proposed by Fulham & Maloney, and preliminarily planned and costed by Charles T. Main in June 1975); Site 2, the end of the Pier in the area of the Exchange Building; and, Site 3, the existing Power Plant site. All three sites would be adequate for boat access. Site 1 could physically support a facility. The area available is the same as that available at Site 3 but the cost of new construction with the concomittant cost of foundations should be a consideration. Site 2 at the Pier end would require demolition of the Exchange Building since it is not large enough nor adaptable for fish unloading and the display and auction of fish. There is also potential re-use of this building producing income to the Pier. The cost of foundations out at the end of the Pier are prohibitive and the cost for building an extension to the Pier is also prohibitive. The building also has architectural merit and is a major element in the aesthetic character of the Pier. Therefore, we do not recommend Site 2 for consideration.



POSSIBLE FISH UNLOADING FACILITY LOCATIONS
FIG. V-1

BOSTON FISH PIER

Site 3, the Power Plant site and building can also physically support the unloading facility and our findings indicate that it is structurally sound and would provide the least costly solution. The fish unloaders can be located adjacent the building and with some physical adjustments, the fish unloading operation can be accommodated on the first level of the existing building. Initially, two unloaders could be installed which would give a 5 hour unloading capacity of 500,000 to 600,000 lbs. The 5 hour period is based on the assumption of unloading the boats prior to the auction (before 7:00 AM) and placing all fish on display before the dealers arrive. If the landings at the Pier increase, two additional unloaders could be installed bringing the unloading capacity up to 1,000,000 to 1,200,000 lbs. in a 5 hour period or about 5 times the amount being landed today. We believe from conversations with the boat owners and from the equipment manufacturer and his engineers that there is adequate space for the big and small boats to land their fish cargoes and maneuver in and out of the dock area. We would hope in time to see the ice making wharf phased out, Harbor Lobster moved to a new location and all three wood piers demolished to increase boat landing and maneuver area. The display area has a capacity of from 300,000 to 400,000 lbs. depending on the box size used in one level and using a 2 level system this can be doubled. Future expansion capabilities would allow for a large cooler to be included in the auction area. Wharf trailers or fork lifts can be used to transport the fish to the stores either by the dealers or the auction. In addition, either the whole boiler plant building or

just the construction of the first floor extending out towards Northern Avenue and using the existing foundations could add 7000 sq. ft. more fish unloading and display space to the Pier. We also think that because of some reluctance or skepticism about automatic fish unloading and open display, it may make great sense to try a minimum cost solution in an existing building adaptable to this use to test its operating cost savings, damaging of fish, and acceptance by the dealers. The cost of both the building renovation and equipment is outlined in part D of this section of the report.

2. Central Freezer and Cold Storage

Since the demolition of the freezer and cold storage facility around 1969, the Boston Fish Pier has been without these capabilities and given the decreasing amount of fish being landed at the Pier over the last 20 years, the need for such a facility has been satisfied elsewhere. However, the majority of those interviewed expressed the opinion that if the production of the Fish Pier is to grow as a result of increased landings due to the 200 mile limit, a freezing and cold storage facility is a necessity. Many dealers expressed an interest to invest in such a facility, others said they would support a central freezer-storage facility. There was mixed opinion as to what size and capacity such a facility should be with opinions ranging from two or three million pounds to as high as 15 million pounds. We were able to determine the following data relative to freezing and cold storage needs on the Pier.

a) Ten of the fourteen fresh fish dealers on the Pier presently use freezing and/or cold storage facilities elsewhere in the Boston area. All of those dealers who have expressed a desire to locate on the Pier utilize such facilities.

b) While it is believed the impact of the 200 mile limit will not be felt for another two to four years, there will likely be an expanded need for freezing and cold storage in the near future.

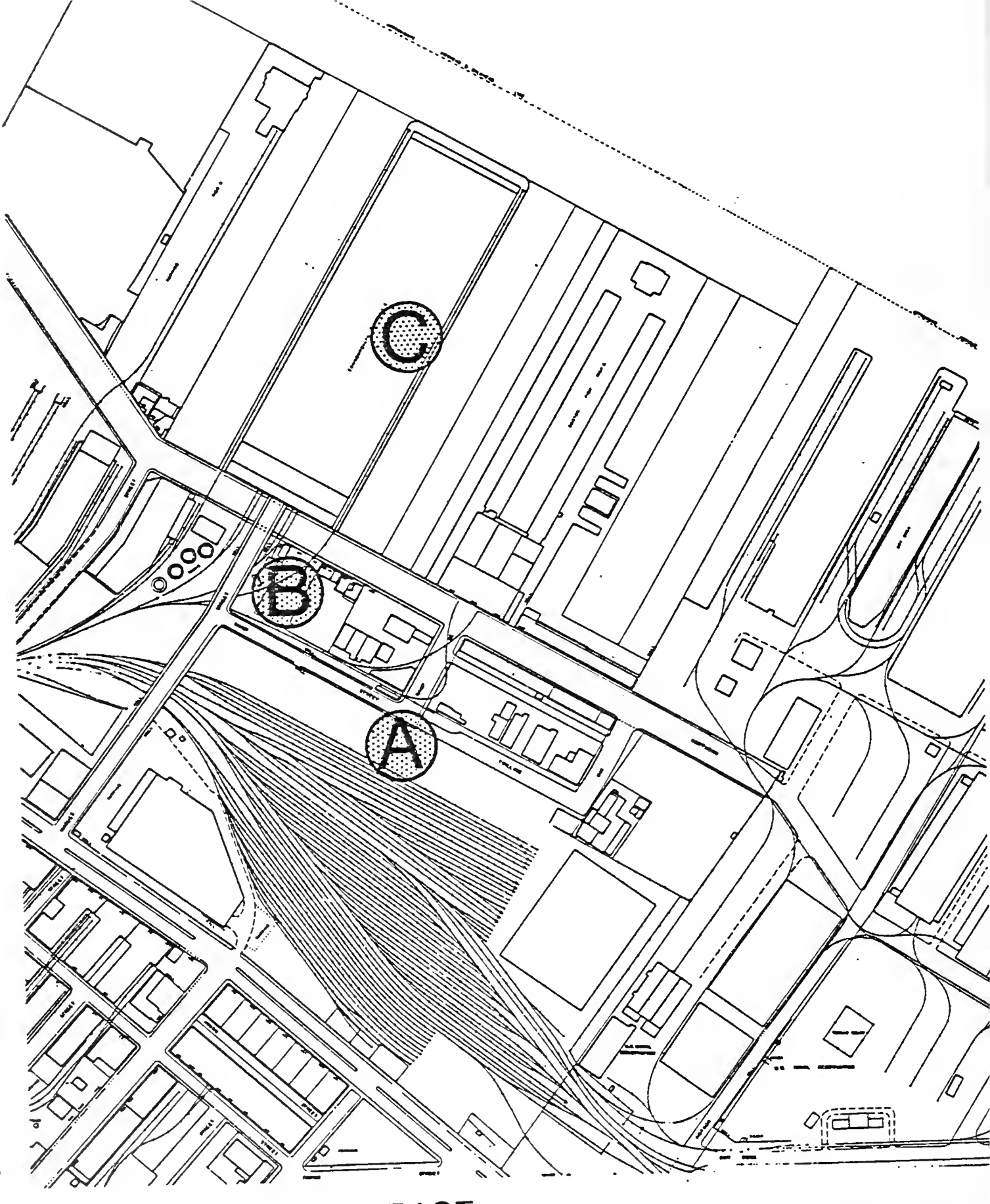
c) The type of freezing needed on the Pier as expressed by the dealers should be about 80% plate freezing and 20% blast freezing. Individually Quick Freezing (IQF) could be done in the blast room.

d) A freezing facility would be the more pressing need as expressed by the dealers with short term, or if possible long term cold storage next. The capacity for freezing and cold storage is difficult to precisely determine and the cost for the equipment is great so it is desired to have flexibility to begin small and grow.

e) The facility could be located in an area adjacent to the Pier but the preference expressed was that it be on the Pier proper.

f) One level and multi-level cold storage operation was discussed and while one level is most efficient, adequate ceiling height and elevators make multi-level a feasible solution.

We have investigated a number of potential sites for a freezer and cold storage facility and there are three off-Pier and two on-Pier locations. The off-Pier locations (Figure V.2) are vacant land across Northern Avenue (A and B) and on Commonwealth Pier (C) where a cold storage facility currently



FREEZER & COLD STORAGE
POTENTIAL OFF PIER LOCATIONS

FIG. V.2

BOSTON FISH PIER

0 100 200 4

exists. These sites would allow for a one level facility with site C requiring improvement and adaptation of the existing refrigeration equipment so it can freeze as well as handle cold storage. At the same time it would be necessary to address the circulation problems that currently exist inside the Commonwealth Pier structure. The on-Pier locations (Figure V.3) include two sites with options for new construction or rehabilitation, each multi-level. Of all available options, we recommend the rehabilitation of the existing Power Plant Building (A, Figure V.3) as the best alternative for the following reasons.

a) It is an existing, sound structure available now for rehabilitation and conversion.

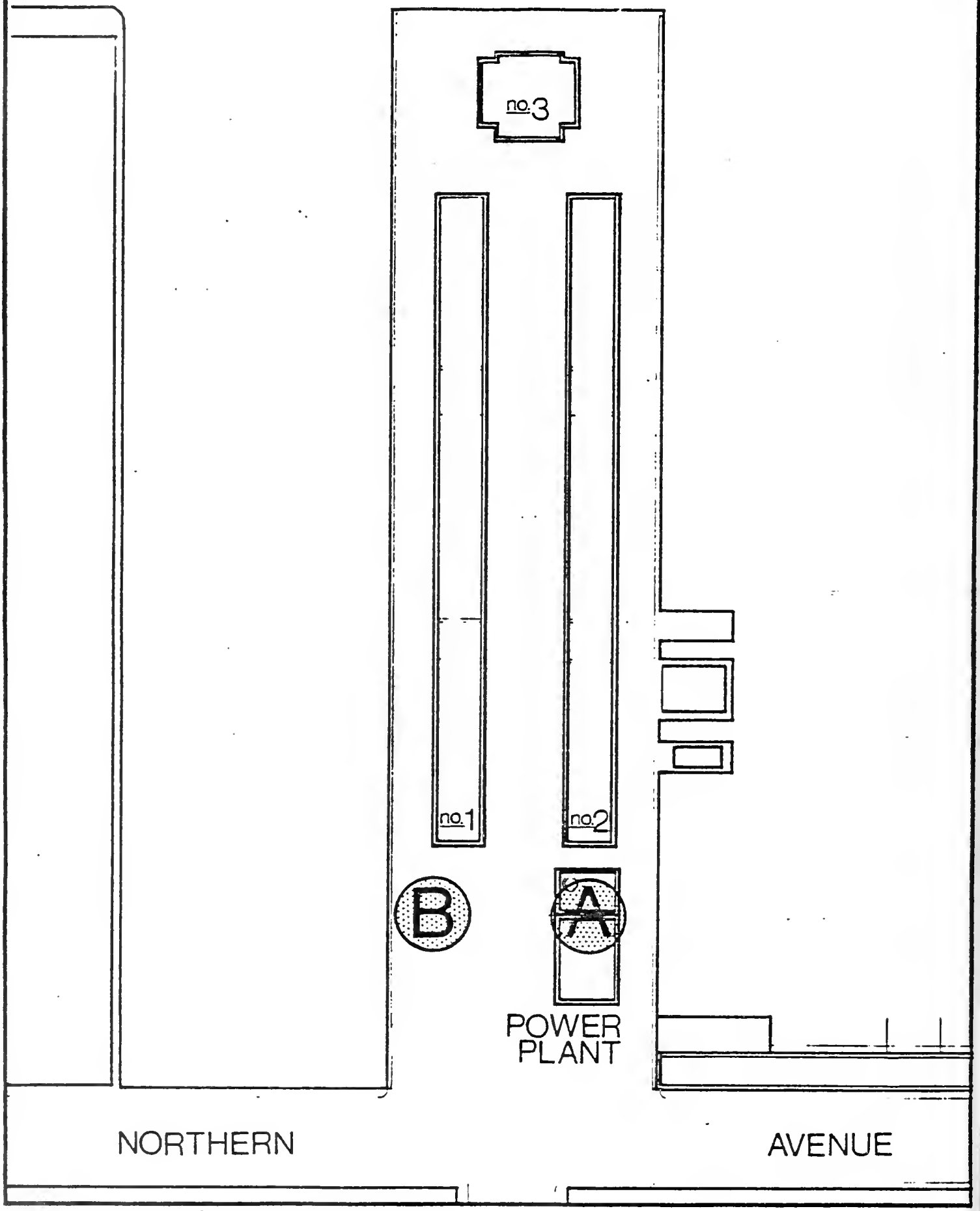
b) It can be done at a cost less than new construction.

c) It allows for satisfying initial needs and some future expansion in the existing building, and the opprotunity to further expand the facility by building on the existing foundations of the portion of the Power Plant Building that was town down.

d) It has the best location relative to dealers on the Pier.

e) It has the advantage of being part of a central facility benefiting from shared initial and operation costs.

It is our finding that the building is structurally sound and can accommodate the spacial needs of a freezing and cold storage facility along with several other uses. The frozen cold storage floors will have a ceiling height of about 18 to



FREEZER & COLD STORAGE
POTENTIAL ON PIER LOCATIONS
FIG. V.3 0 50 100 150

BOSTON FISH PIER

20 feet and storage capacity from 2.7 to 4.2 million pounds with expansion capabilities by extending the building on its old foundations, to 6.2 to 7.8 million pounds. The range is dependent upon what other uses will be programmed for the Power Plant Building. The capacity in million pounds is based on storage three pallets high and assuming that 80% of the fish stored will be of a high density variety, averaging approximately 18 lbs. per cubic foot.

Freezing initially provides for six plates with a capacity of 250,000 lbs. per day and expansion potential for up to four additional plates or over 400,000 lbs. per day. The blast room capacity would range from 5000 lbs. to 8500 lbs per hour.

Initially, two industrial elevators (8 ft. x 12 ft. each) would serve all levels. If expansion became necessary, two additional elevators would be installed. Detailed cost estimates are presented in part D of this section of the report.

3. Ice

Like freezing and cold storage, ice making and distribution was once an integral part of the Boston Fish Pier. As part of the original cold storage - boiler plant complex at the Northern Avenue end of the Pier, ice was delivered to individual stores by way of an ingeneous roof top railroad system. This system was demolished with the cold storage building in 1969 although the rails and some chutes are still in place on the roofs of Buildings 1 and 2. Presently, the ice plant which replaced the original facility is located on a wood pier off the easterly side of the Fish Pier. Operated by Fulham-Maloney, it supplies ice to all boats fishing out of Boston and to customers on and off the Pier.

Recently, fish dealers have begun to install their own ice machines due to the fact of rising costs and the time lost in picking up ice from the central plant. Of the 16 dealers on the Pier who presently use ice, nine have their own ice machines or plan to buy them. Two others are seriously considering buying them. This does not, however, suggest the need for a central ice facility is declining. All fishing boats in Boston and many stores, including some of those with their own machines, depend on the existing plant for all their ice or as a back-up resource. Although most dealers want to maintain their in-house machines, there is a consensus that the central ice plant is a necessity if the fish industry is to grow and if more boats are to land in Boston. This would greatly increase the demand for ice and some future improvements to the ice-making capacity must be considered.

The existing ice plant has a maximum capacity of 100 tons per day and operates at about 75 to 80 tons per day with a storage capacity of 170 tons. There are some days when it cannot meet peak demands and the owners are considering expansion. Also, it is a freon operated plant which is less efficient and less economical to operate than amonia. Alternatives for expanding or improving ice producing capacity should consider the following criteria:

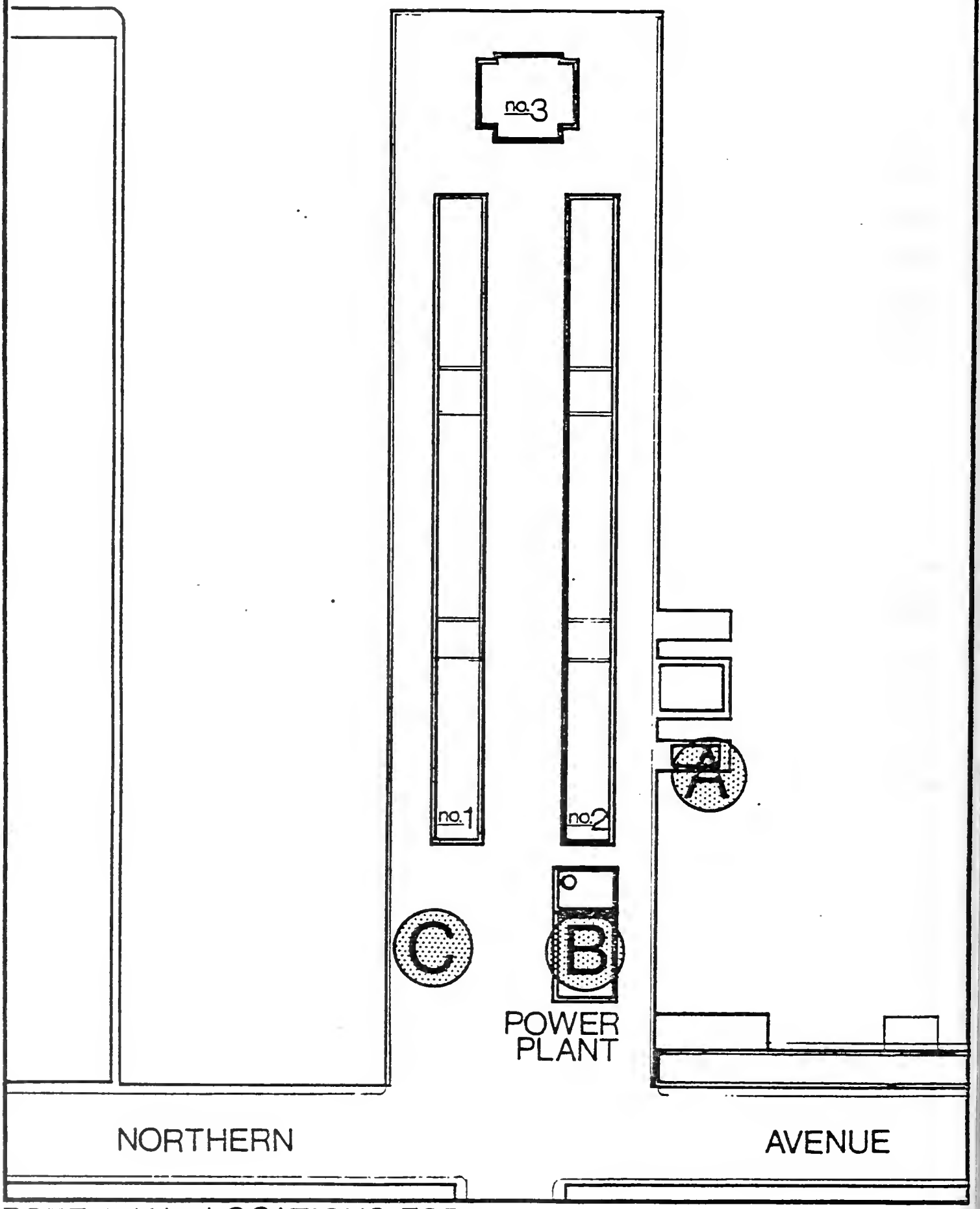
a) Good access by boats;

b) Access from Northern Avenue and pier dealers; and,

c) Relationship to the fish unloading facility.

Given this criteria, possible locations are shown on Figure V.4. Location A would include expansion of the existing plant to the northerly side and conversion of the existing plant to amonia. Location B would provide a new replacement facility in the existing Power Plant Building. Location C would be a new facility on the presently vacant area next to Building 1. Locations A and B are the most feasible.

Improvement and expansion of the existing facility should consider its compatibility with new equipment, type of ice produced and potential maintenance costs of older equipment. The turbo machines in the present plant produce chunk ice which will last long enough at sea in the hold of a fishing boat but has sharp edges and may damage fresh fish. New equipment could produce both chunk and flake ice of which the latter can be adjusted to size to satisfy a variety of needs. Also, it may not be possible to convert the existing plant from freon to a more efficient amonia (15% more production at a lower horsepower).



POTENTIAL LOCATIONS FOR
ICE FACILITY EXPANSION

FIG. V.4 0 50 100 150

BOSTON FISH PIER

Our recommendation would be serious consideration of installing new equipment in a rehabilitated existing Power Plant Building with continued utilization of the existing ice making plant until it economically can be written off from an investment point of view. The providing of new ice making capability in the rehabilitated Power Plant Building could provide certain other economic advantages such as sharing a structure with other related uses and the potential of dual use of machinery if the freezing facility were also one of the uses. The equipment could be used for freezing during "on-hours" and ice making during "off-hours" and as back-up use for operational flexibility.

An area of approximately 1900 sq. ft. on one floor and 600 sq. ft. on a floor above would provide an ice making capacity of 150 to 180 tons a day and a storage capacity of 245 tons. This is about 6% of the total floor area available in a rehabilitated Power Plant Building. The production capacity could be doubled in an additional 600 sq. ft. area. This location can service boats, on-Pier dealers and off-Pier customers. Cost data is discussed in part D of this section.

4) Gurry

A major problem at the Pier today is handling and disposal of gurry, that part of the fish not used for human consumption. On an average, about 38% of the fish is kept for human consumption which means that 62% of it must be handled and disposed of in some sanitary manner. Presently, the handling is not very sanitary. Gurry is dumped into barrels or gurry bins on the apron and picked up by truck several times a day.

The gurry is exposed to the weather and the sea gulls, and is smelly, unsightly, and unsanitary. It is a serious concern for health officials and everyone agrees that something must be done to improve the system of gurry handling.

Another area of concern is the potential for increasing the human consumption yield of the approximately 62% of the fish that is discarded as gurry.

A few of the dealers have been experimenting with ways of improving the yield for human consumption by salt cod processing and deboning of the frame. This is a modest effort but shows the potential for some fresh research and thinking. Their efforts, and other efforts of this kind should be continued and aided for it does seem that with the need for high protein food in the world, a higher yield for human consumption should be striven for. Looking at it from a purely monetary point of view, with most gurry now being sold for cat food at less than 1¢ per pound and the human consumption produce bringing in an average of $1.32 per pound, it makes economic sense to try to increase the human consumption yield. Other uses for the gurry include bait for lobster fishing and also mink food, both of which bring a low price. If the gurry from the dealers could be aggregated it could provide significant yield from a deboning machine for the manufacture of fish blocks, fish paste, and fish meal. The idea of a central gurry system, which we recommend for serious consideration, could provide several advantages such as:

a) More efficient handling by large bulk storage and weighing; therefore, a better price from the cat food producers;

b) A sanitary and flexible system virtually eliminating the need for handling gurry beyond the cutting table (unless by need or choice such as red fish gurry sold to lobstermen for their traps); and,

c) A much greater opportunity to increase yield for human consumption by centralizing such operations. This would obviously increase the price received for fish significantly above the 1¢ per pound now being received.

Options available to dealers for improving the gurry handling situation are to improve each individual store by adding conveyors and stainless steel hoppers or storage bins, or to cooperatively install a new central system. The relative costs could be surprisingly equal. Since our rehabilitation recommends rebuilding the existing utility tunnels under Buildings 1 and 2, this area provides an ideal location for a vacuum system that would carry all gurry to a central tank that would be located in the basement of the existing Power Plant Building. This same basement location has the potential for future installation of deboners or salt cod operations and provides flexibility to utilize the best and most economical options available for either selling or processing the gurry plus opportunities to receive grants for experimentation with increasing the human edible portion of various fish species. This automatic vacuum gurry system would require that individual scales be placed at each store to accurately weigh and record all gurry deposits. These scales and other machinery are included in the cost estimate given in part D of this section.

A central gurry system which we propose could accomplish improved sanitary conditions, less handling and need for storage space for the gurry, an aggregate market for selling and a better price, plus potential for experimentation in better ways to increase the percentage yield of edible fish.

C. Physical Improvements to the Pier

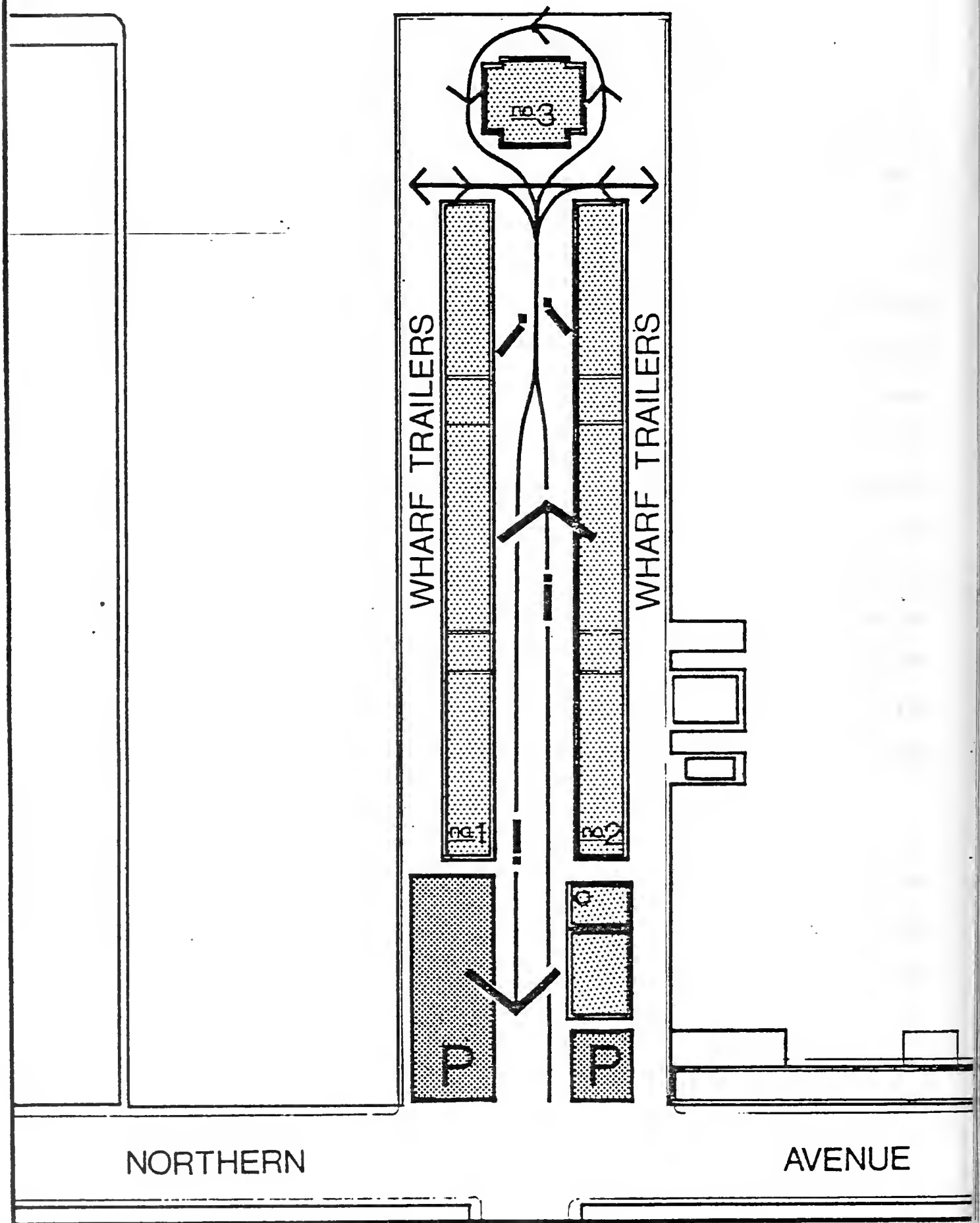
These next two parts of Section V will outline specific physical improvements necessary to provide for the recommended use and operation changes and the attendant construction costs.

1. Surface Conditions

All exterior surfaces on the Pier must be resurfaced or replaced. As part of this work, the surface of the apron area will be raised to a new level approximately one foot above the existing cap log elevation. This new elevation will be extended into the first floors of Buildings 1 and 2. Simultaneously, the street area will be lowered approximately six (6) inches and repaved. The net result will be an improvement both in surface usability, as well as an increase in truck dock height from the existing approximately 17 inches to a new height varying from 30 to 36 inches depending on grades along the Pier. Materials will be concrete on the apron areas (and first floor areas) and either asphalt or concrete on the street and archway areas.

2. Circulation and Parking

Along with the increase in truck dock height the docks will be both angled and extended further into the street forming triangular extensions that afford more loading dock area. This additional area will also allow for dock leveler installation and improved maneuvering circulation. This new truck circulation plan, shown on Figure V-5, controls the unloading direction and allows for vehicle passage when two trailer trucks are unloading at the same point on opposite sides. Thus, trucks would unload



PROPOSED VEHICULAR CIRCULATION

FIG. V.5 0 50 100 150

BOSTON FISH PIE

in the direction of the harbor end of the Pier than drive to the end of the Pier, turn around and exit toward Northern Avenue. Also, all truck access will be on the street side of Buildings 1 and 2 limiting apron access to emergency vehicles only. New store layouts would allow for both shipping and receiving at the street side and the apron side would now have maximum use for extending store activities out onto the apron under a new canopy which would protect the fish, and the workers, from the elements and provide additional usable areas for moving fresh fish from the boats, protected temporary holding areas and box and trailer storage. Auto circulation would also be limited to the street side of the buildings and parking would be limited to store trucks at the loading dock area of the dealer.

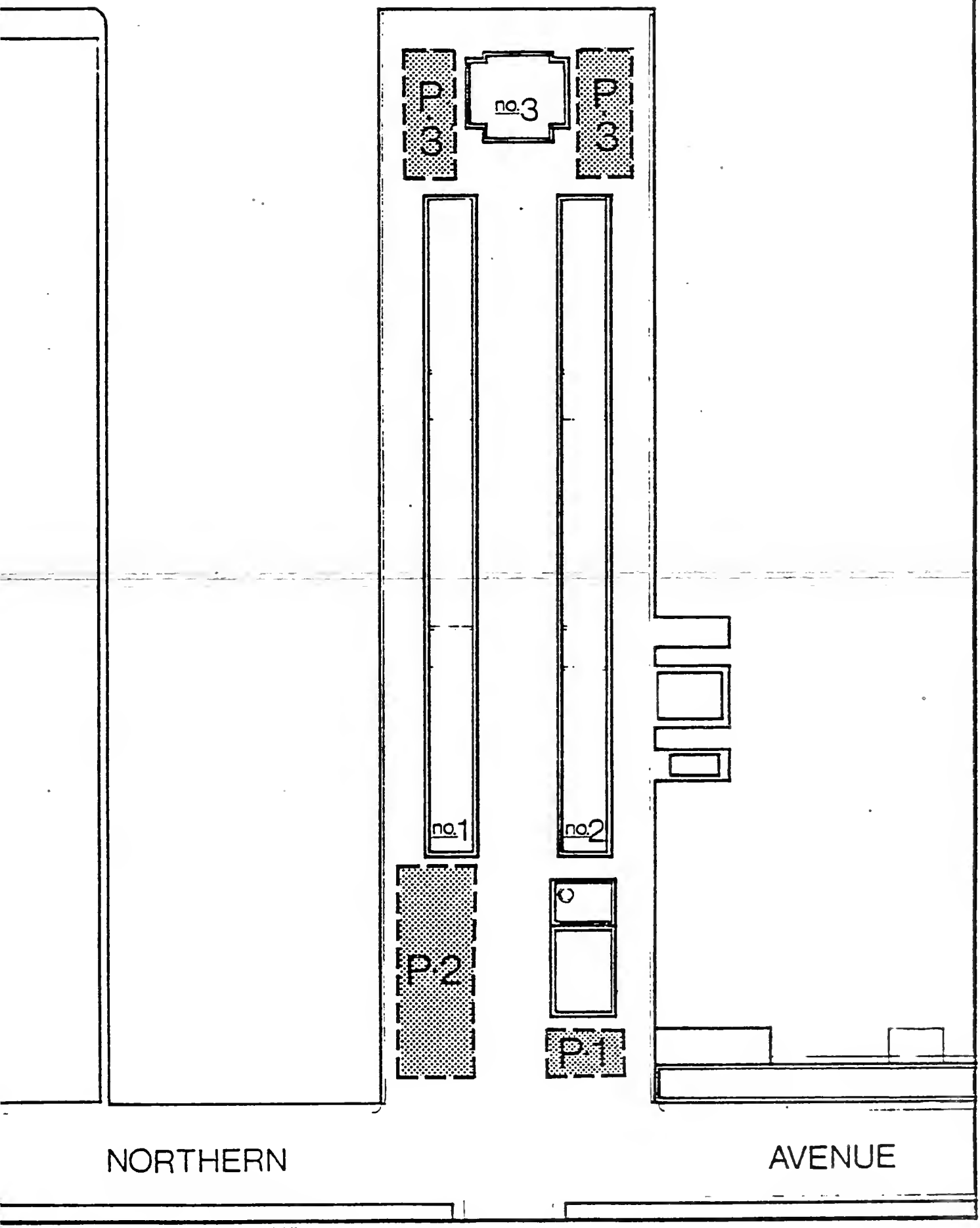
a) Parking Needs. Table V-1 summarizes the existing and projected parking needs for the Boston Fish Market Corporation Area. The variation in future need reflects the range of commercial development that might be attracted to the Pier. Of the existing parking, much of it occurs on Northern Avenue with approximately 180 spaces on the Pier itself. It is evident that a central parking area must be provided for in the immediate area if new Fish Pier development is to occur.

b) Future Parking. On-Pier parking should be excluded from the areas adjacent to Buildings 1, 2 and the Power Plant. Once the fish unloading is moved to the rehabilitated Power Plant, about 56 parking spaces could be provided on the apron at both sides of Building 3 (P-3, Figure V-6). These would be rental spaces available to dealers and tenants during daytime working hours and patrons of commercial uses in the evening.

EXISTING AND FUTURE PARKING NEEDS
(Boston Fish Market Corporation Area)

Fish Pier	Existing	Future
Fish Dealers	100	150
Exchange, Daley's, etc.	20	30
No Name	40	100
New Uses Office, or Apartments	---	100 to 400
Commercial	---	*100 to 350
Sub-Total, Fish Pier	160	480 to 770
Off-Pier		
Fish Dealers	35	35
Jimmy's Harborside (P-1, Fig. V-6)	45	370 - 395
" " (P-2, Fig. V-6)	75	
Jimmy's and other Commercial uses	250 - 275 (Northern Ave. estimate)	
Sub-Total, Off-Pier	450 - 430	405 - 430
TOTAL	565 - 590	885 - 1200

* New uses discussed included office, restaurant/theater and museum.



PROPOSED ON PIER
PARKING

Parking could continue in those areas left vacant by previous building demolition (P-1, P-2, Figure V-6). This parking should be considered as temporary since any future expansion of facilities on the Pier would require use of these areas. Examples of this future expansion would include the proposed fish unloading and cold storage facility (area P-1) and additional fish dealer processing (area P-2). The existing foundations in these areas can be utilized to support such future construction allowing for a significant reduction in development costs. Table V-2 summarizes proposed on-Pier parking areas.

TABLE V-2

PROPOSED ON-PIER PARKING AREAS (Figure V-6)

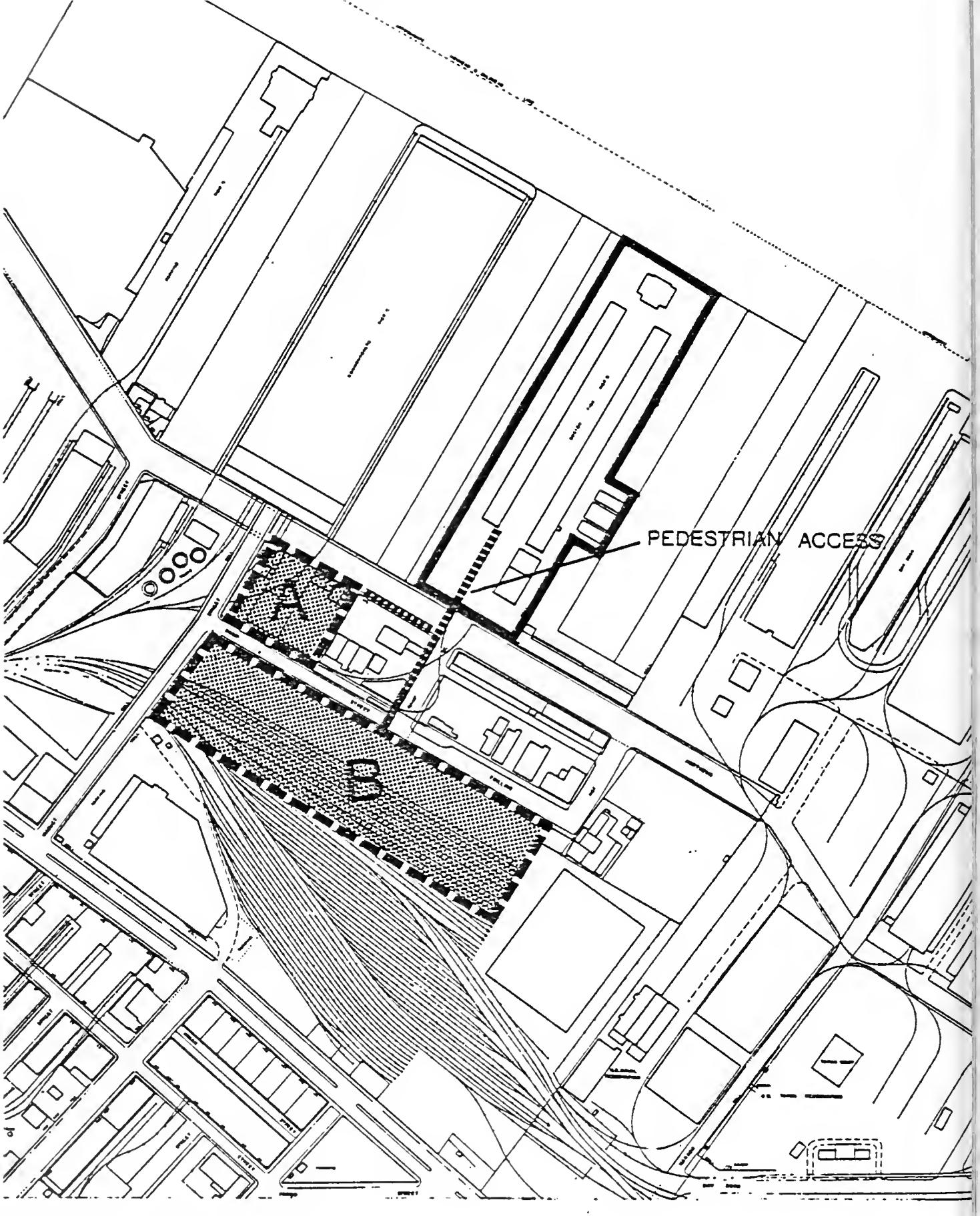
Area	Capacity	Users	Future
P-1	45	Jimmy's Harborside Restaurant	Fish unloading and cold storage expansion.
P-2	75	Jimmy's Harborside No Name Restaurant	Fish dealer expansion.
P-3	56	Pier Tenants	Parking

It will be necessary to implement an on-Pier parking control program that will assure elimination of the chaos that now exists. Parking stickers or some similar device could be used to monitor on-Pier parking. Parking for commercial uses in areas P-1 and P-2 need no longer be policed by Massport as access is directly from Northern Ave. Thus, restaurant traffic is physically separate from on-Pier fish dealer traffic eliminating

the existing conflict between restaurant patrons and fish dealers.

Two locations are recommended for off-Pier parking and they are shown in Figure V-7. Both are on property owned by Massport and both are visible from and within easy walking distance of the Fish Pier. Location "A" on Northern Avenue is mostly vacant and partially used for parking. The vacant area is approximately 1.4 acres and could accommodate 200 cars. Location "B", adjacent the intersection of Trilling Road and Ramp Street is a large vacant area that contains some parking and a helicopter port. It contains approximately 8 acres and could accommodate the 1200 cars estimated to be the future parking need (Table V-1).

Both location "A" and "B" are equidistant from the Fish Pier and can serve as off-site parking with "B" having a greater potential capacity. We would recommend using a conservative area to satisfy parking demands as the Fish Pier is rehabilitated. Thus, surface parking in these areas could adequately handle the Fish Pier area needs for the immediate future. This maintains flexibility of use and ultimately the growth of the fishing industry and the surrounding industrial area will determine the final development on these sites.



FUTURE OFF PIER
PARKING

FIG. V.7

BOSTON FISH PIEI

0 100 200

c. Pedestrian Circulation. Pedestrian circulation must be considered as an integral part of the overall circulation needs of the Pier area. The major need will be employee and customer/patron access from either the MBTA bus or their parked car across Northern Avenue going to work or to the various commercial uses (retail fish dealers, restaurants, etc.) in the Pier area. Bus service from South Station and South Boston via Northern Avenue is at 30 minute and 15 minute peak hour intervals and used by many employees and visitors to the Pier area.

One important consideration when locating off-Pier parking is that it be as visible as possible from the Pier. Directly related to this visibility factor is ease and safety of pedestrian access. Sidewalk improvements (curbs, paving, trees, etc.), street cross walks, and signage are needed and would be incorporated in any rehabilitation plan. Traffic controls, including pedestrian walk signals, should be considered for the intersection of Northern Avenue, the Fish Pier and Ramp Street.

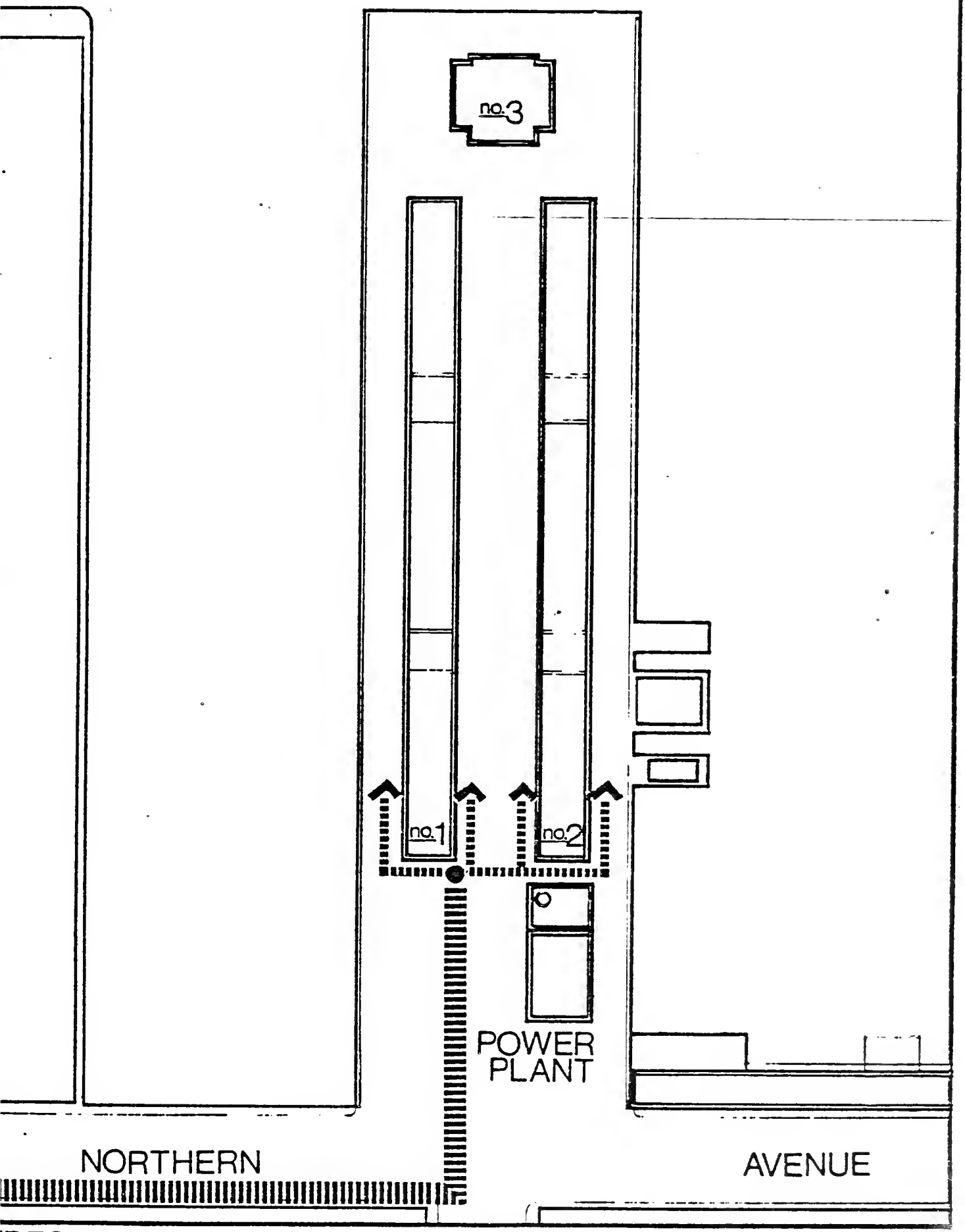
It is desirable for pedestrian access onto the Pier to have a clearly defined entry point separate from the vehicular entrance. A sidewalk is proposed from the entry point at Northern Avenue to Building 1; at this point, the pedestrians choices are to continue on by using the street or by using the truck dock apron along Buildings 1 and 2 to get to thier destination on the Pier. While neither of these pedestrian choices are ideal,

we cannot devise a more reasonable way to totally separate pedestrians from Pier working activity. (Figure V-8) Fish delivery and pick-up activities keep the street active with vehicular circulation during the hours of 6:30 AM and 5:30 PM. The truck dock apron is active with loading and unloading operations, but is managable by pedestrians. The apron on the water sides of Buildings 1 and 2 could also be used for pedestrian circulation; it is scenic with views of the water and the boats but it too will be frequently busy with activity. After 5:30 PM, and frequently as early as 4:00 PM, truck circulation and fish business activity on the street and the aprons is at a minimum and the Pier would then be more open to other Pier users and pedestrian activity.

3. Utilities

All utilities on the Pier must be replaced. This was the recommendation of the Charles T. Main and the Howard, Needles, Tammen & Bergendoff studies and is concurred in by us and our engineers.

There are two alternative approaches to install new utilities for the Pier. Alternative (1) would be construction of a new utility tunnel running approximately down the middle of the street between Buildings 1 and 2 from Northern Avenue to the foot of Building 3. From this new utility tunnel lateral connections would be made to each of the fish dealer tenants' locations in Buildings 1 and 2. This would require breaking through



EDESTRIAN CIRCULATION

the existing truck dock and building foundation walls to effectuate connections to plumbing, etc., inside each of the fish dealer tenant stores. In addition, the existing utility tunnel under the floor of Buildings 1 and 2 and running the full length of each building would have to be abandoned, the utility lines cut off and the tunnel filled in. Alternative (2) would be to place the new utilities coming from feeder mains in Northern Avenue under the newly constructed and lowered street between Buildings 1 and 2 but not in a new trench. We recommend instead the repairing and reconstruction of the utility trench that exists under the floor of Buildings 1 and 2 making the lateral connections from the newly buried utilities in the street at the archways of Buildings 1 and 2 where the existing reconstructed utility tunnel passes, and from these collection points, utility distribution such as plumbing, etc. would be made to each of the fish dealer tenant stores.

A cost comparison of the two alternatives was done and they appear to be about equal. While more detailed study and investigation would need to be done we recommend the repair and reconstruction of the existing utility tunnel under Buildings 1 and 2. The advantages include: Greater flexibility for tenant changes in operating equipment and new tenant location without having to tear up the street for new laterals and other connnections; access to the utilities in the tunnel by workmen to inspect utilities and make repairs without tearing up the floor; opportunity to install an automatic vacuum gurry retreaval system, and

depending on the final heating solution, opportunity to distribute main heating piping in this same utility trench.

4. Heating

It is clear to the Port Authority, the fish dealers, the previous consultants and to us that the existing heating system is in terrible physical condition and is economically unfeasible to run from an operating and cost point of view.

The replacement of it, with what, when and how, is a more complicated problem. During our feasibility study, a crash program was initiated by Massport to effectuate an Interim Heating System. This interim system would replace the present high pressure boilers in the existing Power Plant Building with two low pressure boilers in Buildings 1 and 2 and a new condensate return piping system utilizing condensate meters, and reusing the existing poorly located steam piping running from the Power Plant Building to Buildings 1, 2 and 3. Buildings 4 and 5 were each treated separately in the Interim Heating Study and will not be part of our heating recommendations.

The Interim Heating Study proposed that two boilers and an oil tank be placed on the first floor of Building 1 a few bays down from the south end and another two boilers and an oil tank be placed on the first floor of Building 2, also a few bays down from the south end of the building.

It is requested that if at all possible, this Interim Heating System not be implemented at this time even though we

recognize the tremendous operating costs of the present system and the concern for the ability of the existing system to function during this coming heating season. We make this request because we are not convinced that the new Interim Heating System can in fact be operational for this 1976-77 heating season (crash program or not). We also question whether the capital cost of $250,000, as we understand the projected cost to be, is (1) realistic in light of the unknowns found in connecting to and patching an existing piping system, and (2) whether expending that large a sum of money on a steam system, which is a system rarely employed today, is the best investment for the Port Authority to make over the long range for the Fish Pier.

Should the Port Authority go ahead with the Interim Heating System we would strongly recommend not putting the two new low pressure boilers in Buildings 1 or 2. This space is needed for fish dealer use and expansion and is valuable space which can produce rental income. Rather it is recommended that the new boilers be located near the existing boilers in the Power Plant Building. Although representatives of the Port Authority have told us the Power Plant Building is supposedly scheduled for demolition, this report recommends it be kept, not only for possible central heating plant use, but for fish unloading, freezing, and cold storage and other uses as described in our report.

We have had our engineering consultants analyze several alternative heating systems including the proposed Interim Heating System, and other heating systems such as all electric

applications and gas fired boilers combined with central system and individual dealer system, and oil fired boilers for both central system and individual dealer system.

It was our considered opinion and that of our engineering consultants to go with gas fired individual units for each of the dealers which we previously suggested. We then were informed by the Gas Company that (1) although gas was theoretically available, because of inadequate street gas main capacity, they could not deliver what they estimated the gas consumption to be, and (2) the qualifications for gas allocations were so structured that a final decision on an application had to be made in July and the Gas Company said it would be questionable if the Fish Pier would qualify.

An electric system, although electric heat is generally operationally expensive, was investigated because it was felt that the bulk rate change of existing and new consumption could offset the operational cost. This proved not to offset the cost sufficiently and was discarded as a heating alternative.

Finally, the oil fired central system and individual system was evaluated and appeared (since no gas was available) to be the best fuel source. The central oil fired boiler system also seemed to have cost, maintenance, space, and operational advantages over that of the individual system. Therefore, for this stage of our Feasibility Study (and reflected in our cost estimates) the assumption is that we will have a central oil fired boiler system in the rehabilitated Power Plant Building.

The question of steam or hot water as the heating vehicle for the space or some form of hot water transformed into hot air cannot really be determined at this time.

We would recommend, should this Feasibility Study move into either a second more detailed phase, or to implementation, that a more in depth study of heating be done. We would recommend pursuing even further, the question of gas including the cost of a larger service coming to the Fish Pier, and the criteria for qualifying the Fish Pier for a gas allocation, conceivably in phases. If this gas alternative proves unfeasible, then we would recommend a more detailed study of first cost, operating cost, and ease of accurately measuring and establishing the individual dealer cost, for the oil fired central system in the Power Plant Building, with a final determination to be made on which heating medium will best give the flexibility needed at the least cost. Appendix A includes a letter from Environmental Design Engineers which discusses systems and operating and other costs.

D. Construction Improvements and Cost Summary

A number of physical improvements aimed at revitalizing the Boston Fish Pier and the Boston fishing industry are being recommended in this report. All these improvements may have merit for consideration and implementation, but even if there ~~was~~ were unanimous agreement on each one and a desire to proceed, if the cost for these improvements translated into rents and operating expenses is not economically feasible then much time and effort has been wasted and the project will surely die. Economic feasibility, costs of various earlier proposals and numerous other references to costs have been mentioned throughout this report because we are keenly aware of today's economic climate and the economic constraints faced by Boston's fishing industry and competition from other locations and other world markets. Therefore, it should be noted that this study has not been treated as just another Feasibility Study. We have not been satisfied with so-called rough "ball park" figures to determine economic feasibility. We have enlisted the aid of qualified engineering and economic consultants as well as a respected general contractor who does substantial new and rehabilitated construction to assist in completing the construction cost estimating in this report. We have all endeavored to see that the costs presented are as realistic as possible, commensurate with the fact that we could not prepare schematic architectural design drawings, and certainly not construction document drawings. The costs reflect today's prices, which are quite competitive and we deliberately did not escalate for the future since we do not know if or when this

program will be carried out. Documentation supporting their findings are in Appendix A.

We are confident of the do-ability of the project both from a construction cost and an operating expense point of view. We also believe there is justification to vigorously pursue Economic Development Administration grant money from the United States Department of Commerce to assist with the revitalization effort for Boston's Fish Pier. We believe an excellent case can be made for substantial job generation, as well as overall economic benefit to the City, the Commonwealth and the country if the Boston Fish Pier is rehabilitated and Boston's fishing industry is helped to realize its full economic potential.

What follows is 1) a summary of proposed use improvements and construction Outline Specifications for the various project components, and 2) a Summary of Construction Costs reflecting realistic estimates of the dollars needed to proceed.

Regarding implementation, it is proposed that construction be phased to allow for continuing operation of the fish dealers during the construction period. Buildings 1 and 2 are each divided into three sections and given the existing vacant stores, rehabilitation can be phased to do one or two of these sections at a time. Every effort will be made not to relocate a tenant to a temporary store before they are moved to their permanent rehabilitated location, but there may be circumstances where this is unavoidable because of construction cost and staging problems.

1. Site Work and Utilities

The construction improvements outlined below are those necessary to achieve the physical improvements to the Pier as presented in Part C of this section. Primarily, this construction would achieve new desirable grade changes, completely resurface all Pier areas, and replace the utility supply lines presently buried in the central street.

SITE WORK AND UTILITIES: OUTLINE SPECIFICATIONS FOR PRELIMINARY COST ESTIMATES

Site Work

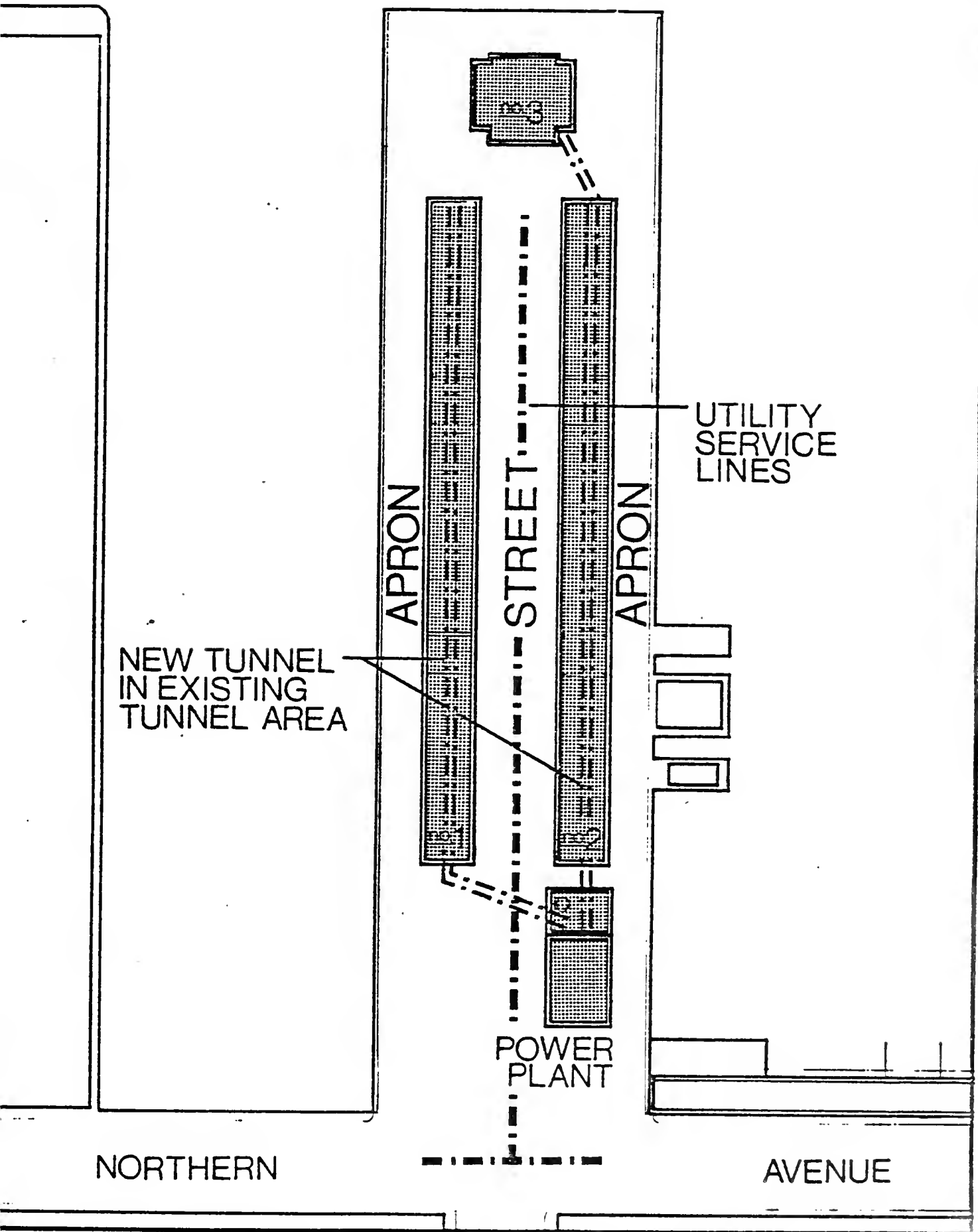
1) Remove existing cobblestone and asphalt surface and regrade interior street to approximately six (6) inches below existing elevation.
2) New base coat and chip asphalt paving on interior street. Grade and pave archway areas from street to new apron surface. Include catch basins.
3) New concrete paving on apron area and raise apron elevation approximately one foot above the existing elevation. Reinforced, acid and waterproof, 6" concrete, 6" gravel base. (New concrete surface to be extended to all first floor and loading dock areas of Buildings 1 and 2. See Specifications for Buildings 1 and 2.)
4) New cap log at water edge of apron and repair fender piles.
5) Build utility tunnel with concrete floor and walls with cement coat waterproofing in existing tunnel area under Buildings 1 and 2.

Utilities

1) New central low pressure heating plant in existing Power Plant Building and piping distribution system to new utility tunnels under Buildings 1 and 2.

2) All new utility service lines in existing central street from Northern Avenue.

(Figure V-9 shows the major areas related to these Specifications.)



ITE WORK AREAS

G V9 BOSTON FISH PIER

2. Buildings 1 and 2

The primary use intended for Buildings 1 and 2 is continued and expanded fish dealer and processing. As discussed in detail in Section IV, these uses will now take place on floors 1 and 2. Floor 3 will provide new rental space for office use and residential use. The two archways in each building will be utilized to provide major access to the 3rd floor tenant spaces and new ground floor lobbies in these areas, including elevator and stair access are proposed.

The construction improvements below are presented in three parts including a) Core and Shell, b) Fish Dealer Tenant Finishes, and c) 3rd Floor Tenant Finishes.

a) Core and Shell Construction Improvements

Core and shell construction improvements outlined below include all work required to rehabilitate and upgrade the interior and exterior of the basic building including such things as structural elements, exterior walls, windows, doors and lighting, subfloors, major interior walls, stairs, roofs, rough utility distribution and any attendant demolition. The result would be an enclosed building shell ready for finishing and occupancy by a variety of potential tenants. Core and shell construction does not include any finishes, construction or mechanical equipment peculiar to a specific tenant's needs.

CORE AND SHELL, BUILDINGS 1 AND 2: OUTLINE SPECIFICATIONS

Exterior

1) Replace all windows and doors.

a. Floor 1: Street side -- 80 OH doors (40 w/man door) 8' x 10'

Apron side -- 52 OH doors (8 x 10)

b. Floor 2: Street side -- 208 windows (3 x 8)

Apron side -- 51 OH doors (8 x 10)

North elevations -- 10 windows (3 x 8)
-- 86 windows (3 x 8)

c. Floor 3: Street side -- 208 windows (3 x 6)
16 windows (3 x 4), arch area

Apron side -- 208 windows (3 x 6)
16 windows (3 x 4), arch area
(Existing doors and windows to be removed and openings rebuilt for windows as at street side.)

North elevations -- 10 windows (3 x 6)

2) Repair door lintels and window lintels and sills.

3) Patch, repair, and paint stucco, all sides, 2nd and 3rd floor areas.

4) Clean and repoint brick and stone work with epoxy grouting where possible and reconstruct where necessary.

5) Remove copper cladding from parapet, clean and repoint brick, recap and flash.

6) Remove existing skylights from roof and close openings.

7) Remove rails and wood ties from roof (approx. 1470 l.f.)

8) Resurface and flash roof.

9) Remove exterior concrete stair from two archways.

10) Remove all wood structures from two archways, 1st and 2nd floors.

11) New exterior lighting at all OH doors, entrances to archway area, and general lighting of outside areas.

12) Remove one story concrete block structures from apron areas and exterior elevator.

Interior

1) Floor 1:

a. General demolition.

- Remove all existing concrete stairs.

- Remove all existing partitions between party walls.

- Clean existing utility tunnel and remove all existing pipes, conduit, etc.

- Miscellaneous demolition and cleaning.

- Remove tile block party walls as needed.

b. New concrete floor, including loading docks, 6 inch gravel and 6 inch reinforced, acid and waterproof concrete. Extend floor drain.

c. Dock levelers, 6 ft. length x 5.5 ft. width with 12 inch differential capacity. (Installation by tenant, as needed.)

d. New steel pan concrete filled stairs, 52 total. (28 requiring new openings to 2nd floor, 24 using existing openings.)

e. Patch and paint all masonry ceilings.

f. Clean and repoint any interior brick work.

g. New utilities in rebuilt tunnel.

h. Rough-in utilities (plumbing, electrical and heating).

i. New masonry party walls as needed.

j. Install cross or K-bracing where required.

2) Floor 2:

a. General demolition.

- Remove all existing concrete stairs (65).

- Remove all tile block party walls as needed.

- Remove all existing partitions between party walls.

- Remove all existing toilet rooms and fixtures.

- Miscellaneous demolition and cleaning.

b. Level and resurface all concrete floors.

c. Fill old stair openings in floor (34) 4 ft. x 10 ft. each.

d. Patch and repair masonry ceilings and party walls to be left.

e. New masonry party walls as needed.

f. Install cross or K-bracing where required.

g. Rough-in utilities (plumbing, electrical and heating).

3) Floor 3:

a. General demolition.

- Remove masonry party walls as needed.

- Remove all partitions between party walls.

- Remove all existing toilet rooms and fixtures.

- Remove vent areas above 2nd floor toilet rooms.

- Miscellaneous demolition and cleaning.

b. Level and resurface all concrete floors.

c. Fill all stair openings in floor (66).

d. Install egress stair at ends of each building to ground floor - 4 stair, 3 floors.

e. Install elevator and stair core at each archway (4), include 3rd and 1st floor service with lobby area at ground level in arch.

f. Rough-in utilities (plumbing, electrical and heating).

g. Install sprinkler system throughout. (alternative.)

b) Fish Dealer Tenant Finishes

To determine the feasibility of improving Buildings 1 and 2 into efficient and functional fish processing stores, it was necessary during our fish dealer interviews and our space utilization analysis (Section IV) to prepare a series of dealer store layouts in the context of the existing buildings and using the expressed needs of the various dealers as design criteria. The following drawings are examples of three typical layouts used to determine design feasibility and as a basis for preparing Outline Specifications for cost estimating purposes.

Typical Layout A, Figures V.10 and V.11, is a 35 foot bay with fresh fish processing on floor 1 and fish dealer offices, lockers and storage on floor 2. Floor 3 shows the alternative uses of offices or apartments. The 35 foot bay was found to be the smallest design unit for a fish processing store. There are three 35 foot structural bays in buildings 1 and 2. The remaining structural bays are 20, 25, or 30 ft. wide and not individually adequate to accommondate expressed dealer needs; therefore, all other dealer layouts will consist of two or more structural bays.

Typical Layout B, Figures V.12 and V.13 show combined 20 ft. and 25 ft. bays with fresh fish processing on floor 1 and fish dealer offices, lockers and storage on floor 2. Offices and apartments are again shown on floor 3.

Layouts A and B utilize a common central circulation pattern with cold storage to one side allowing for expansion to additional bays through the walls adjacent the fish processing area.

Typical Layout C, Figure V.14, also is a combined 20 ft. and 25 ft. bay but utilizes a central cold storage core with receiving and shipping on opposite sides. This would minimize conflicts between the two activities; however, expansion capabilities are somewhat limited.

These preliminary layouts are not presented as the final alternatives. Many other layouts are possible and must be explored should the project move ahead. At that time, each individual dealer's needs would be further assessed and final designs prepared for implementation. The following Outline Specifications for fish dealer tenant finishes are based on these typical layouts.

TENANT FINISHES, FISH DEALERS: OUTLINE SPECIFICATIONS

Floor 1

1) Install cooler/freezer walls, insulate walls and ceiling, install ice bin and insulate.

2) Install two (2) sliding doors 6 ft. x 8 ft. high.

3) Epoxy paint on all masonry finishes.

4) Plastic tile wall covering in all processing areas.

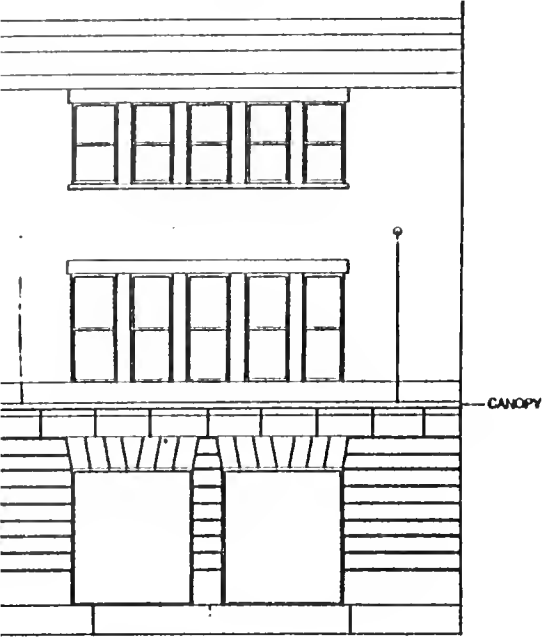
5) Install office including walls with glass panels and doors.

6) Toilet room with ceramic tile wainscot and floors and fixtures (1 - water closet, 1 - lavatory).

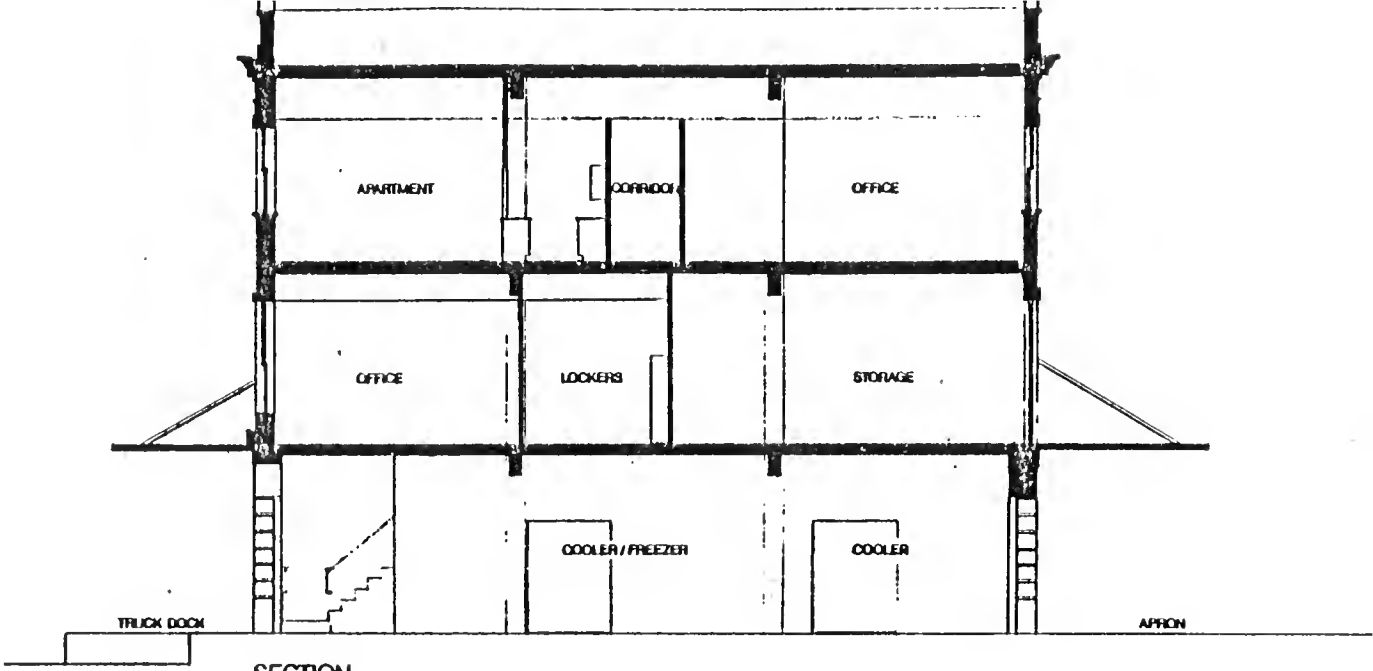
7) Furred pipe space for utilities.

8) Electrical service.

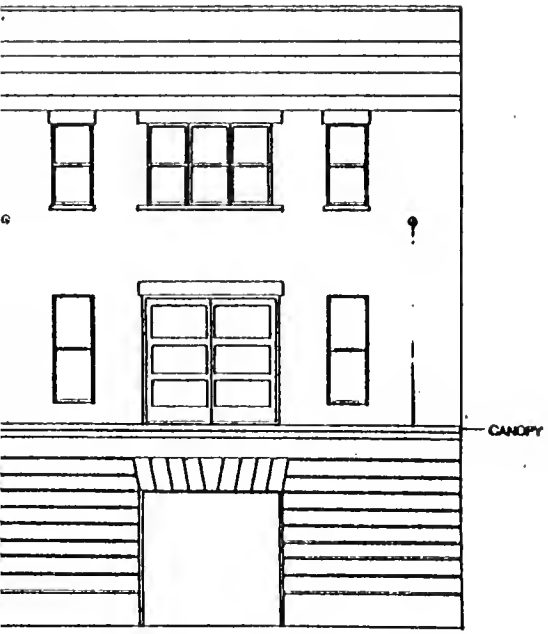
9) Heating and ventilating.



EET ELEVATION

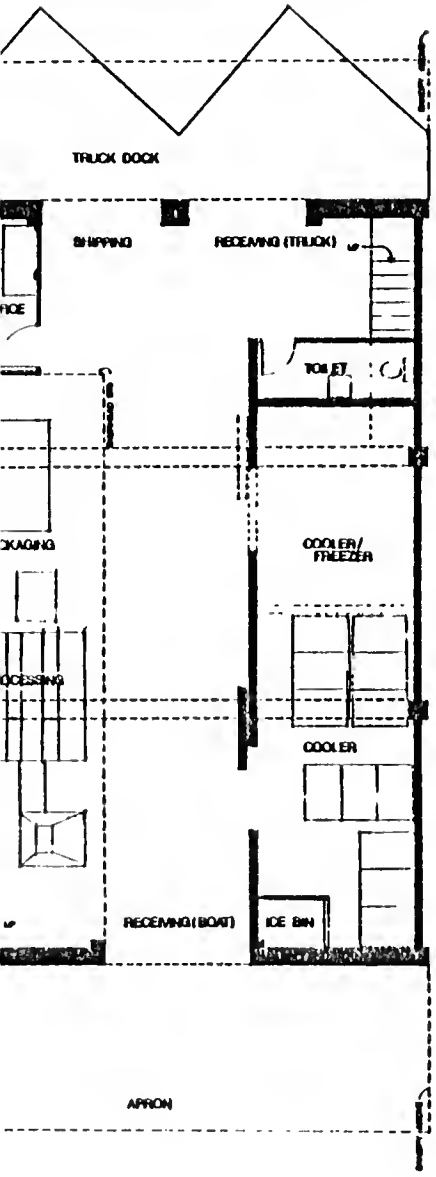


SECTION



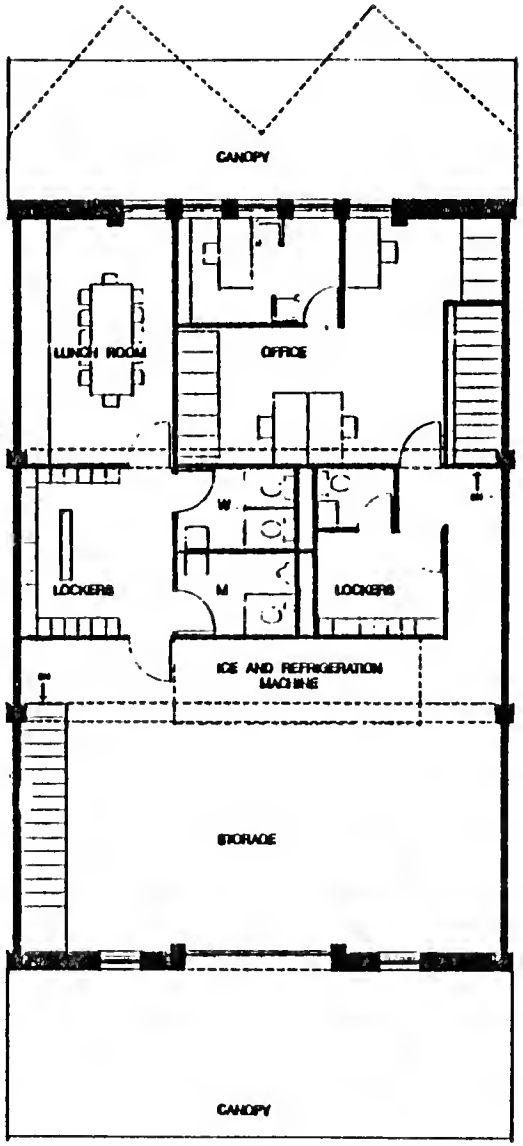
ION ELEVATION

TYPICAL BAY LAYOUTS
BOSTON FISH PIER

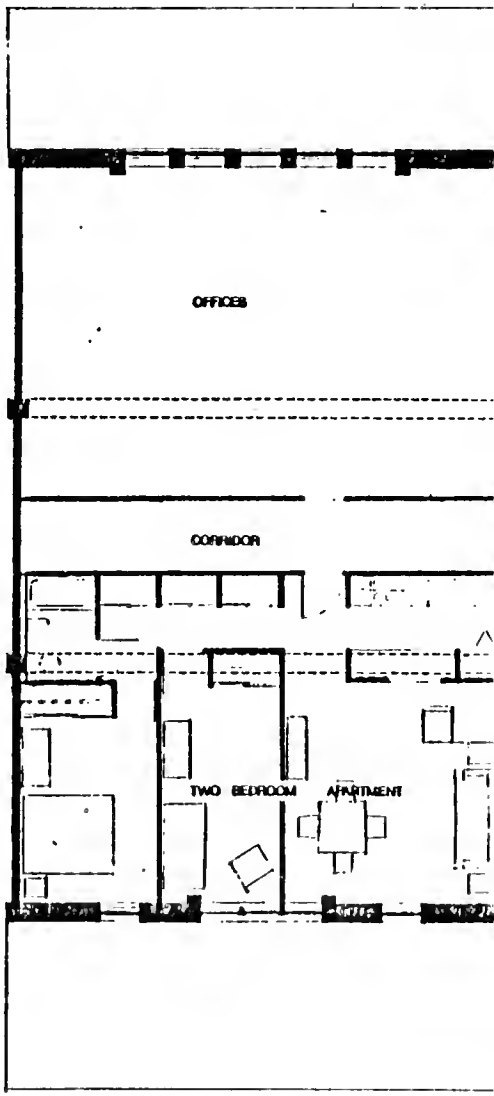


FLOOR

PICAL LAYOUT
35' BAY



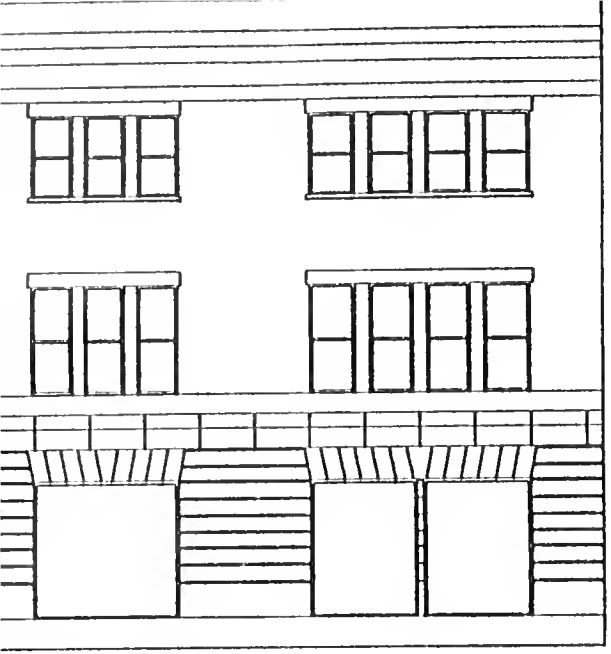
SECOND FLOOR



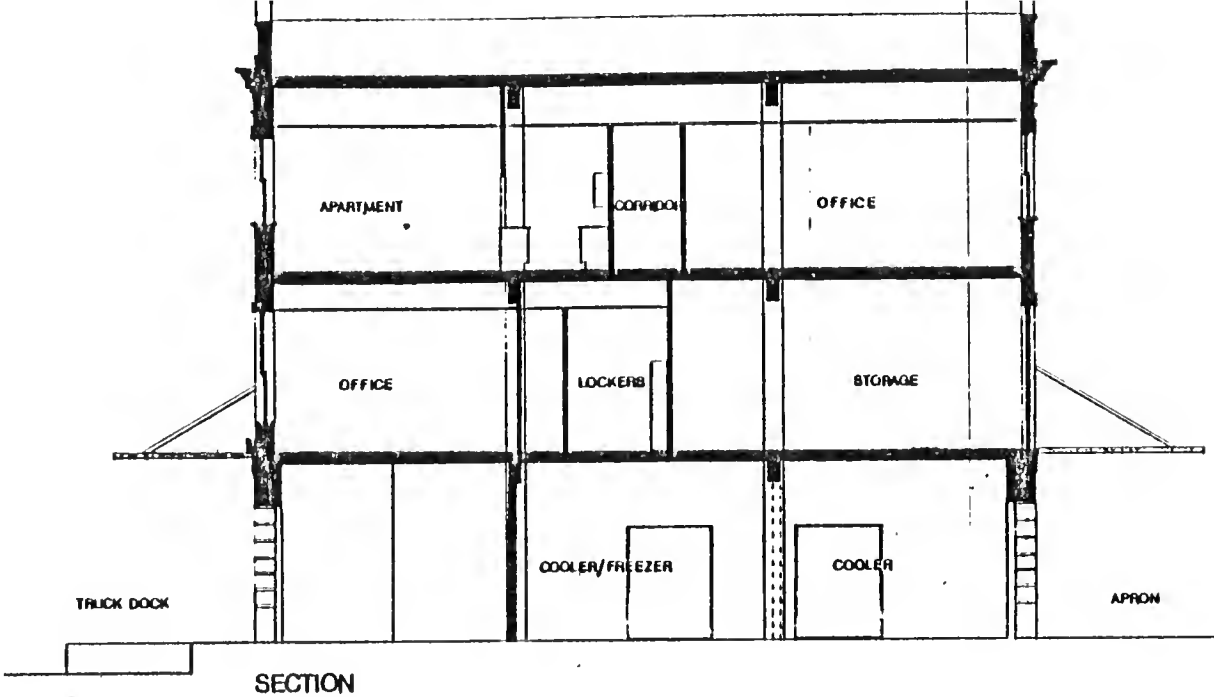
THIRD FLOOR

TYPICAL BAY LAYOUTS
BOSTON FISH PIER

0 5 20 30



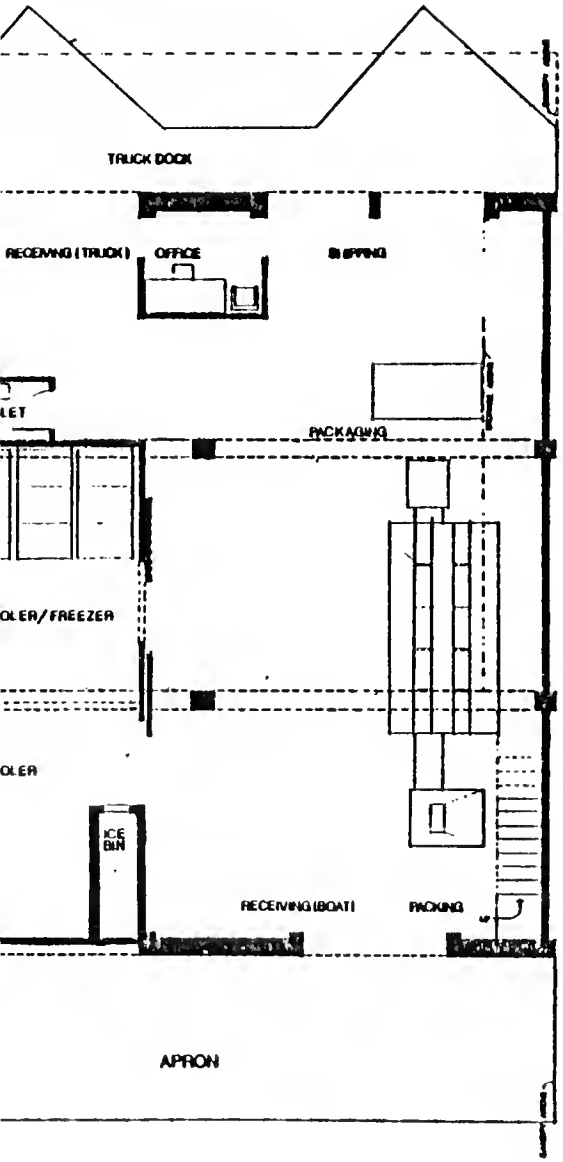
EET ELEVATION



SECTION

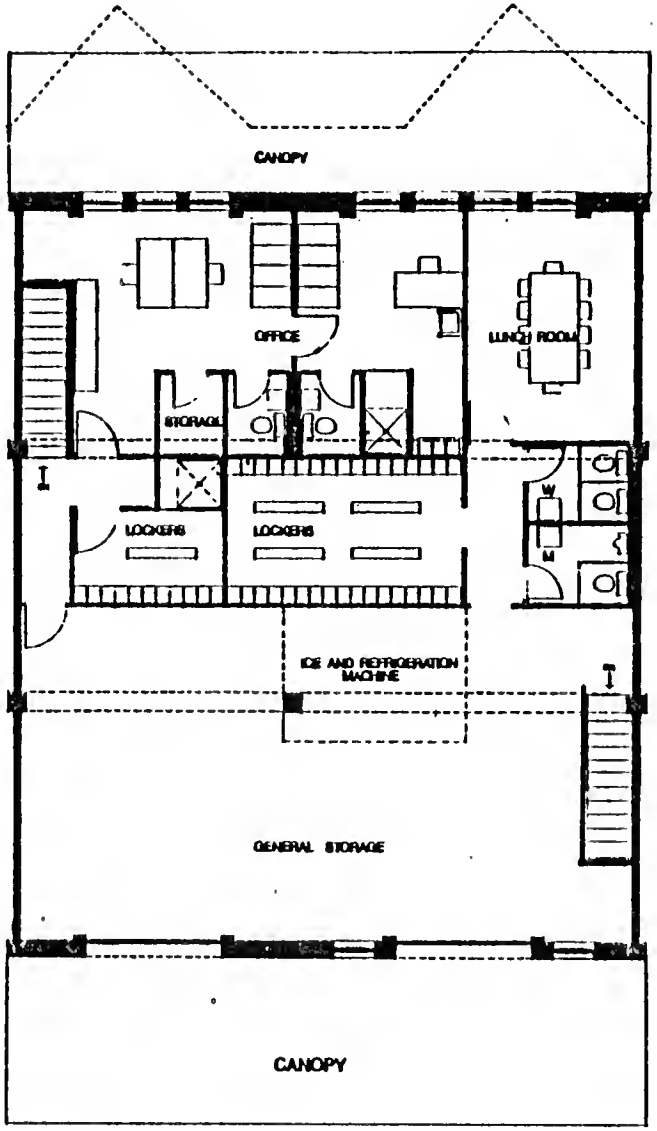
RON ELEVATION

TYPICAL BAY LAYOUTS
BOSTON FISH PIER

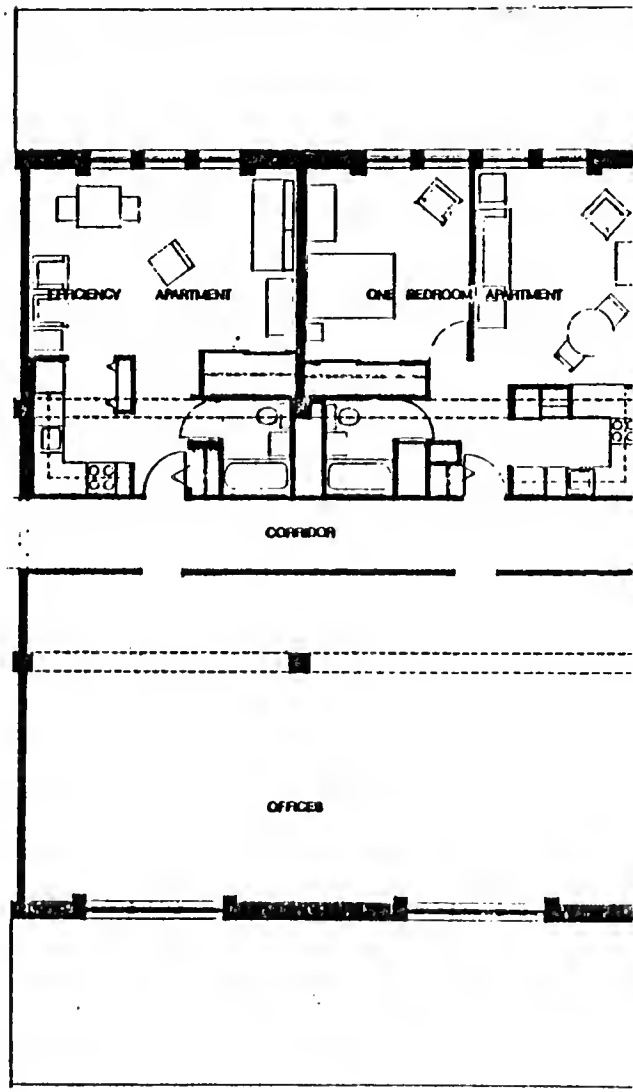


FLOOR

ICAL LAYOUT B
20'&25' BAYS



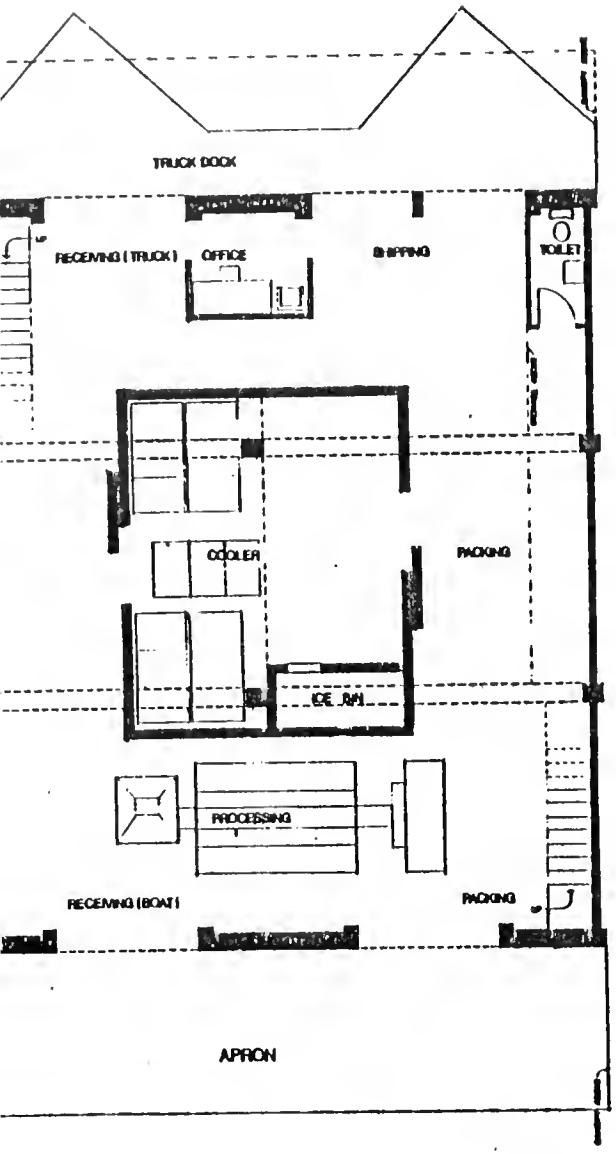
SECOND FLOOR

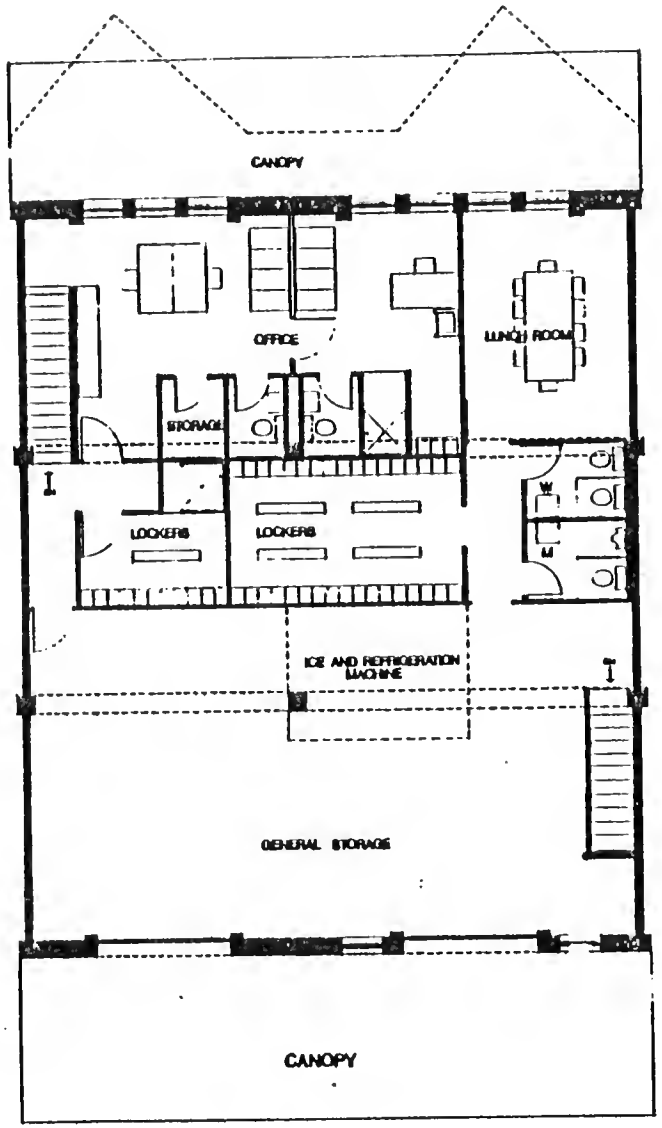


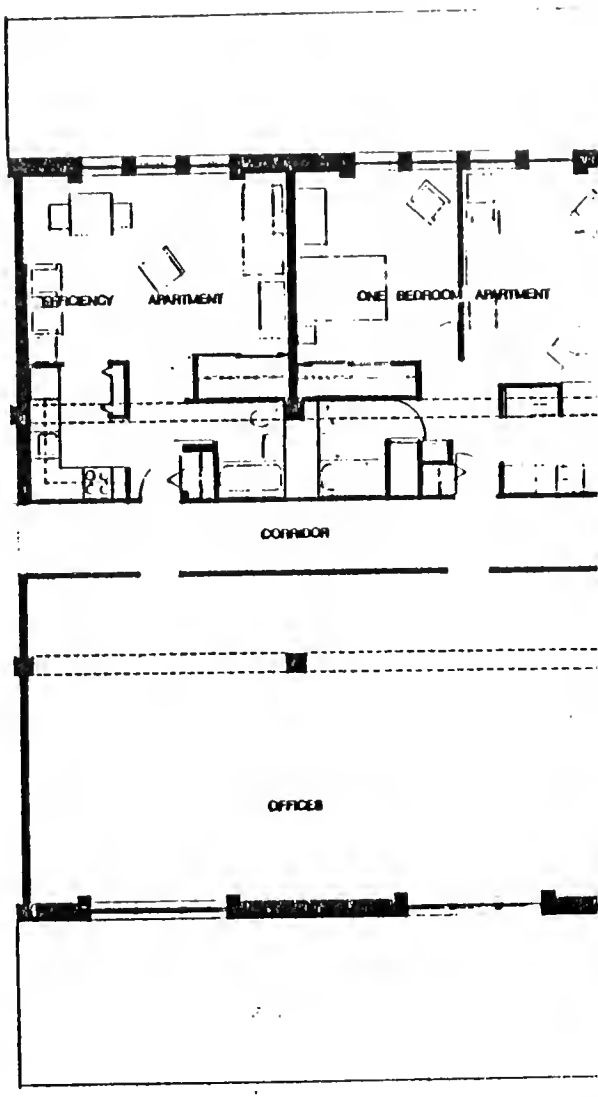
THIRD FLOOR

TYPICAL BAY LAYOUTS
BOSTON FISH PIER

V.13







IRST FLOOR

TYPICAL LAYOUT C
20' & 25' BAYS

SECOND FLOOR

THIRD FLOOR

TYPICAL BAY LAYOU
BOSTON FISH PI

Floor 2

1) Office area with suspended acoustic tile ceiling, vinyl asbestos tile flooring and base, interior doors and partitions.

2) Locker area with suspended acoustic tile ceiling, vinyl asbestos tile flooring and base, interior partitions and doors.

3) Mens and Womens Toilet Rooms including plumbing fixtures (5 water closets, 4 lavatories, 1 urinal, 2 showers).

4) Paint all walls.

5) Electrical service.

6) Heating, ventilating and air conditioning.

c) Tenant Finishes, Third Floor

Alternative uses of office and residential are proposed for floor 3 of Buildings 1 and 2. Typical layouts for these uses are shown in Figures V.11 and V.13.

Office Use

The cost for Office Tenant Finishes as shown in the Construction Cost Summary later in this section of the report is derived from a square foot cost which is based on related office and corridor areas taken from the above typical layouts and the "Outline Specifications for Office Tenant Finishes" contained in Appendix C of this report.

Residential Use

Residential finish costs, also shown in the Construction Cost Summary, were derived from an apartment breakdown consisting of 30 efficiency units, 38 1-bedroom units and 24 2-bedroom units for a total of 92 apartments. Figure V.11 shows a typical two bedroom apartment layout and Figure V.13 shows both a typical efficiency apartment and a typical one bedroom apartment layout. The square foot cost was based on the "Outline Specifications: Residential Finishes," contained in Appendix C, as related to the above unit mix and floor areas.

3. Building 3

The proposed future use of Building 3 is commercial - office space on floors 2 and 3 and alternative commercial or institutional uses on floor 1. Section IV summarizes alternative new rental uses for this building.

For the purpose of cost estimating, the construction improvements outline below are presented in two parts: a) Core and Shell, and b) Tenant Finishes, Floors 2 and 3. Finish specifications and costs were not not included for floor 1. There are a number of potential alternative uses for this space including, restaurant, theater and a museum and it is recommended that it be rehabilitated as shell rental space to be finished by a tenant to specific needs at such time as one is selected.

a) Core and Shell Construction Improvements

As in Buildings 1 and 2, Core and Shell improvements include rehabilitation of the basic building and does not include any tenant finishes.

CORE AND SHELL, BUILDING 3: OUTLINE SPECIFICATIONS

Exterior

1) Replace all windows and doors. Replace or repair mullions and glass at north and south entrances under arch.
2) Clean and repoint all brick.
3) Patch and repair stucco (was recently repaired -- field check)
4) Remove copper from parapet, clean pediment stone work, clean and repoint brick, recap and flash.
5) Resurface and repair roof and flash. Recondition skylight.
6) Repair entrance stairs and sidewalks.

Interior

1) Floor 1:

a. Clear out existing office partitions.

b. Remove existing toilet room fixtures and strip walls.

c. Repair water damage from roof leaks.

d. Repair and paint walls in atrium, corridor and stair areas.

e. Two new fire stair and enclose each stair with fire rated wall and door.

f. Remove old wood stairs.

g. New toilet rooms -- 150 sq. ft. each.

Fixtures: 6 WC
2 urinals
4 lavatories.

Ceramic tile floor, plaster and lath walls.

h. Install new elevator -- 5' x 6' hydraulic lift.

2) Floor 2:

a. Clear out existing office partitions and suspended ceiling in vacant office areas.

b. Remove stair, 2nd to 3rd floor and wood partitions, patch ceiling.

c. Repair water damage from roof leaks.

d. Recondition and repair stairs to 3rd floor.

e. Repair and paint walls in atrium, corridor and stair areas.

f. Two new fire stair to 3rd floor and enclose each stair with fire rated wall and door.

g. Elevator opening, housing, etc., as on Floor 1.

h. Carpet corridor area.

i. New toilet rooms - 150 sq. ft. each.

Fixtures: 4 WC
2 urinals
4 lavatories

3) Floor 3:

a. Clear out existing office partitions and suspended ceilings in vacant office areas.

b. Repair floor from removal of stair.

c. Repair water damage from roof leaks.

d. Repair and paint walls in corridor and stair area.

e. Repair and paint atrium area including atrium ceiling grille work and balcony.

f. Enclose each stair area with fire rated wall and door.

g. Carpet corridor area.

h. New toilet rooms -- 150 sq. ft. each

Fixtures: 4 WC
2 urinals
4 lavatories.

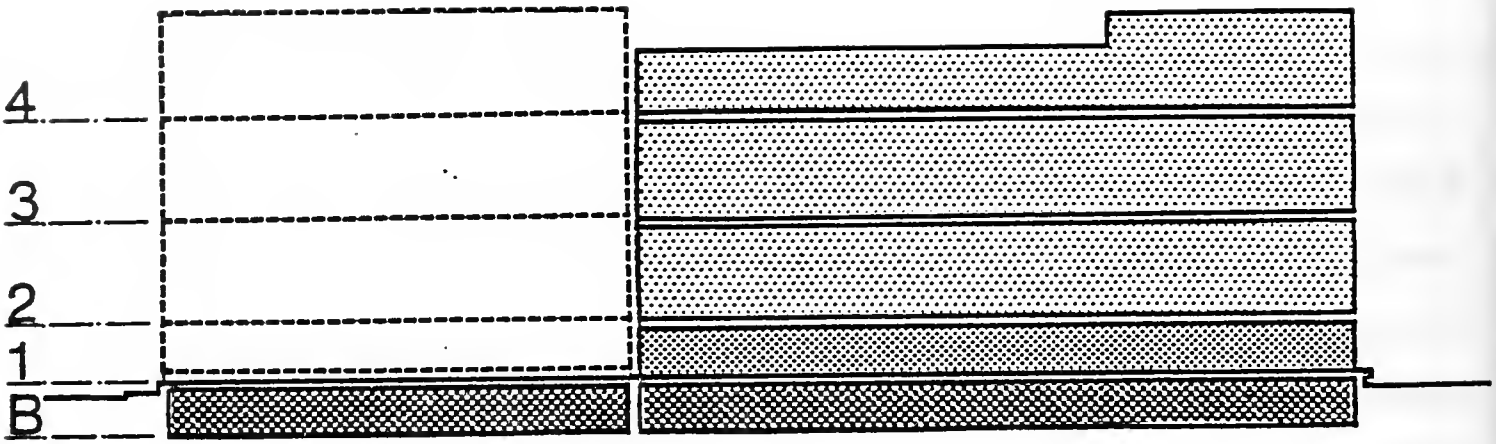
b) Tenant Finishes, Floors 2 and 3

Office use is proposed for these floors and a square foot cost taken from the outline specifications for Office Tenant Finishes in Appendix C and based on the actual areas of floors 2 and 3 was used to determine the total cost shown in the Construction Cost Summary.

4. Power Plant Building

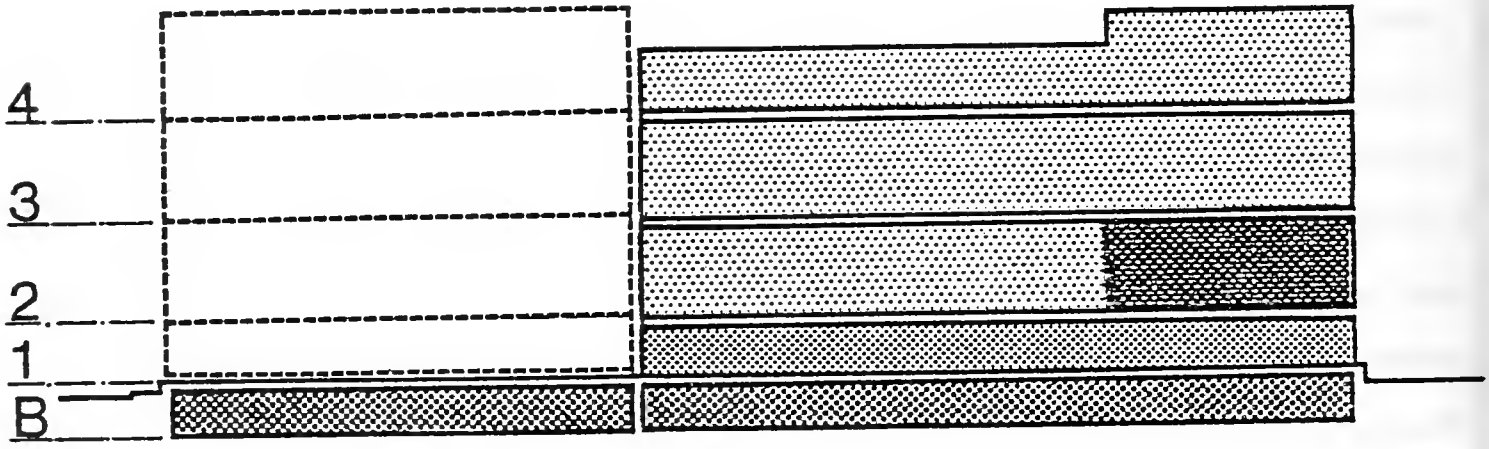
The so-called Power Plant Building is a potentially versatile and valuable space resource for the Boston Fish Pier. It is possible to house several different uses and facilities needed now and for the future of the Fish Pier including a new heating plant, a fish unloading facility, a freezer and cold storage facility, a central gurry facility and an ice making plant. Recommended construction improvements include removing one full floor and one partial floor and rebuilding them at a new level in order to make the building more functional by attaining better floor to ceiling heights to accommodate these potential new uses.

Several alternative use schemes were evaluated, accommodating various combinations of the proposed new uses. We consulted with businessmen, engineers and designers in the various related fields to insure that our schemes were feasible and attendant construction improvements and equipment costs were realistic. Four alternative building use schemes are diagramatically shown in cross-section representations of the Power Plant Building in the following figures. Scheme A, Figure V.15, shows fish unloading and auction use on level one and freezer and cold storage on levels 2, 3, and 4. It should be noted that the dotted line areas on the left of each diagram represent future expansion potential for all levels. Scheme B. Figure V.15, shows in addition to the fish unloading and freezing and cold storage facilities, a central gurry facility. Scheme C, Figure V.16, adds an ice making use to those uses in Scheme B and finally, Scheme D, Figure V.16, add a new boiler plant facility and includes all of the



KEY:
- FISH UNLOADING
- COLD STORAGE
- MAIN-TENANCE
- GURRY
- ICE
- BOILER

SCHEME A



KEY:
- FISH UNLOADING
- COLD STORAGE
- MAIN-TENANCE
- GURRY
- ICE
- BOILER

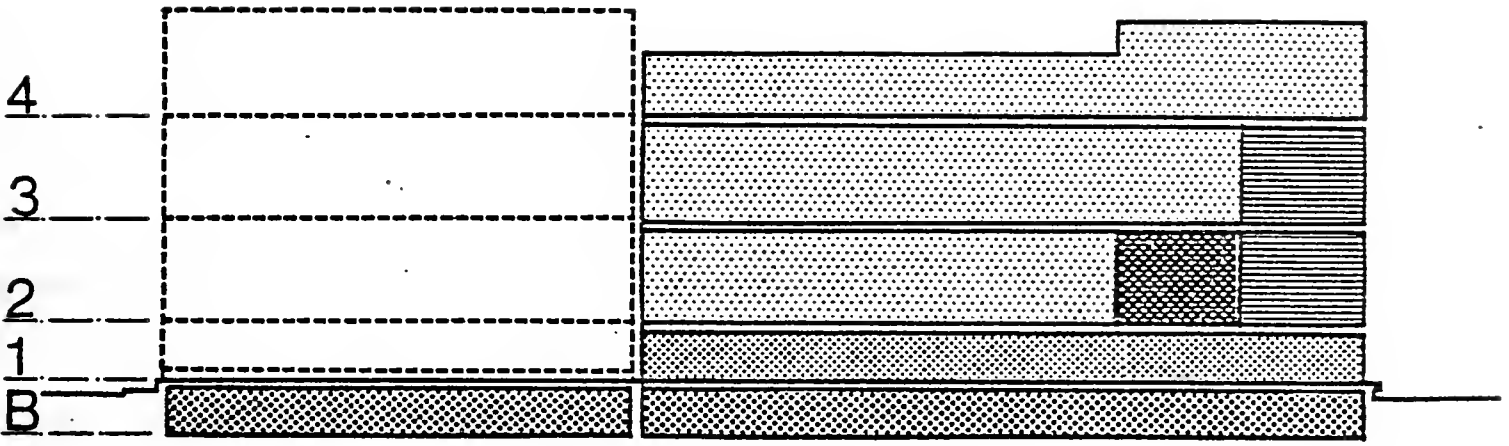
SCHEME B

POWER PLANT RE-USE

FIG. V-15

BOSTON FISH PIER

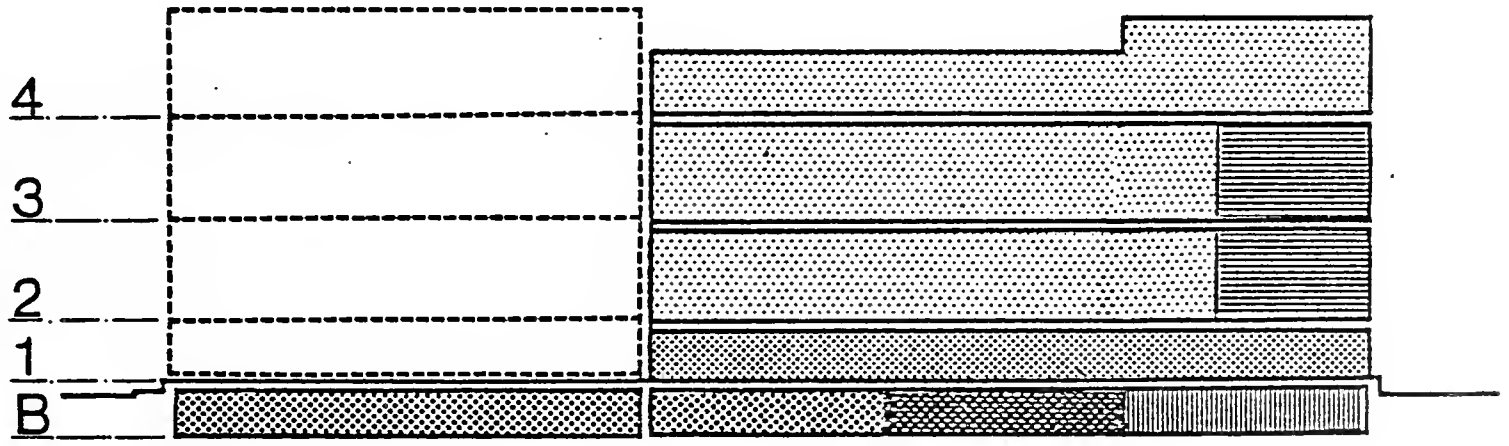
0 5 20 30



KEY:

- FISH UNLOADING
- COLD STORAGE
- MAIN-TENANCE
- GURRY
- ICE
- BOILER

SCHEME C



KEY:

- FISH UNLOADING
- COLD STORAGE
- MAIN-TENANCE
- GURRY
- ICE
- BOILER

SCHEME D

POWER PLANT RE-USE

FIG. V.16

BOSTON FISH PIER

0 5 20 30

recommended uses. Thus, these schemes serve as examples of the versitility and flexibility of the Power Plant Building as a resource on the Boston Fish Pier.

For the purpose of estimating construction and development costs, the building layout shown in section, Figure V.17, and in floor plans in Figures V.18 and V.19 was chosen as being the most representative solution of the Fish Pier's existing and future needs. The basement level can house general maintenance and storage, the central gurry tank and equipment capable of serving all fish dealer stores on the pier and processing equipment for converting more of the gurry into products for human consumption. The new boiler plant is also located on the basement level and on part of level 1 and is based on new heating plant requirements as recommended by our heating consultant. The fish unloading and auction facility is located on level 1 and the apron adjacent the building including a newly constructed addition for the weighing and boxing of fish as they are unloaded. It has the capacity to unload between 500,000 and 1 million pounds of fresh fish in a five-hour period depending upon the number of automatic unloaders used. About 300,000 to 600,000 pounds can be displayed for auction. The freezing and frozen cold storage located on levels 2, 3, and 4 provides for both plate and blast freezing and a frozen storage capacity of approximately 3 million pounds. The ice plant on parts of levels 2 and 3 would double the ice making and storage capacity of the present ice plant. The potential future expansion could approximately double the capacities for fish auction and display and frozen cold storage.

As with buildings 1, 2, and 3, the construction improvements are presented as a) Core and Shell Improvements, and b) Tenant Finishes.

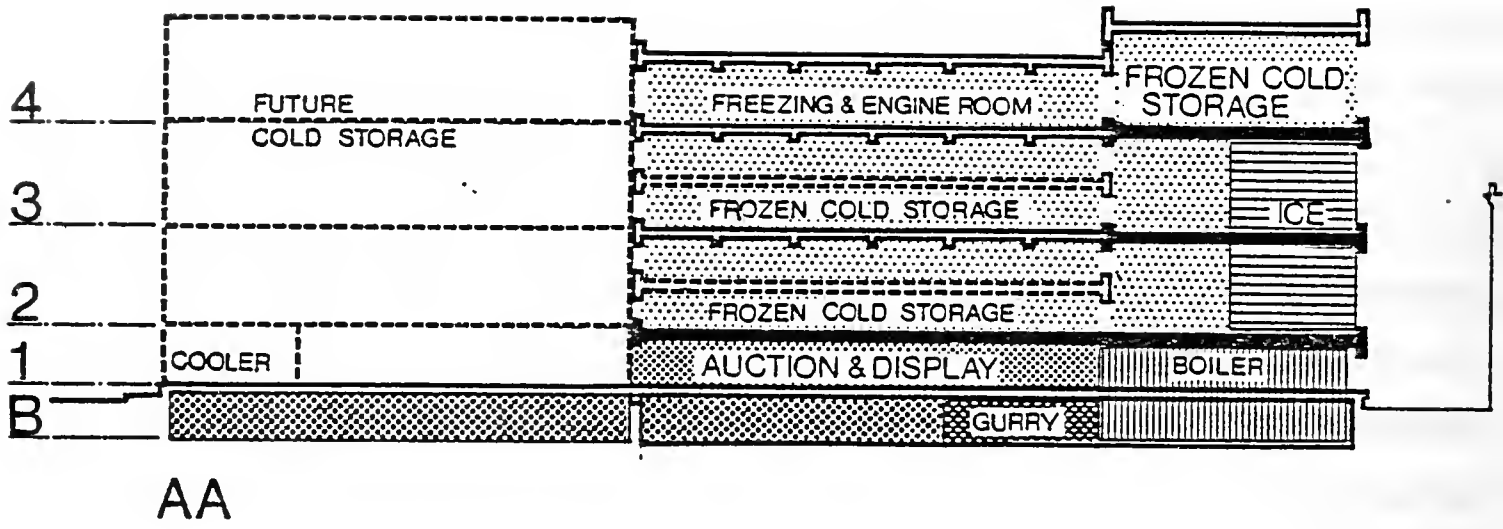
a) Core and Shell Construction Improvements

These include rehabilitation of the building shell and removal of all existing machinery and equipment to prepare it for tenant improvements. They also include improvements to house a new heating plant.

CORE AND SHELL, POWER PLANT BUILDING: OUTLINE SPECIFICATIONS

Exterior

1) Remove all windows and doors.
2) Replace windows at first floor only, all other openings to be concrete block and stucco to match exterior.
3) Repair facade where concrete is cracked or spawled with epoxy grout or reconstruction.
4) Reconstruct southerly facade where part of building was demolished. Repair structural members, steel and reinforced concrete, fill all openings with concrete block and stucco to match exterior.
5) Install overhead doors (6) on first floor.
6) Remove bridge structure at roof of Building No. 2 and Power Plant.
7) Repair truck dock on street side of building.
8) Resurface and flash roof. Build parapet at southerly facade.
9) New exterior lighting at all OH doors.



AA

FUTURE

REMOVED FLOORS

NEW FLOORS

FISH UNLOADING

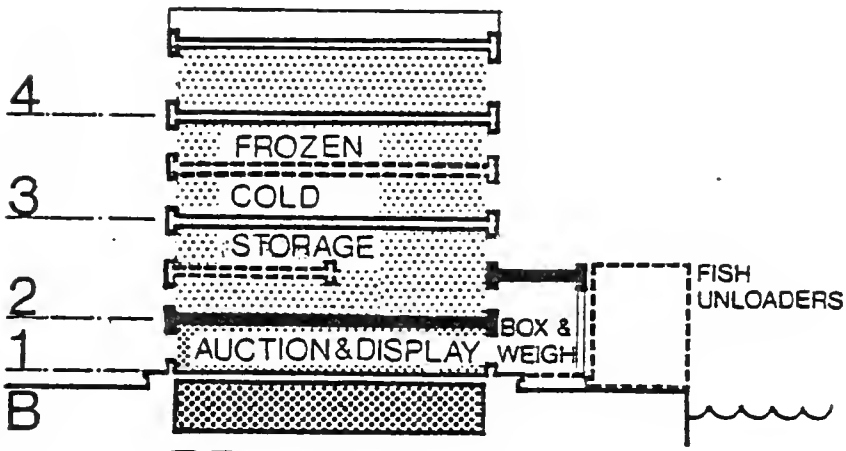
COLD STORAGE

BOILER

ICE PLANT

GURRY

STORAGE & MAINTENANCE



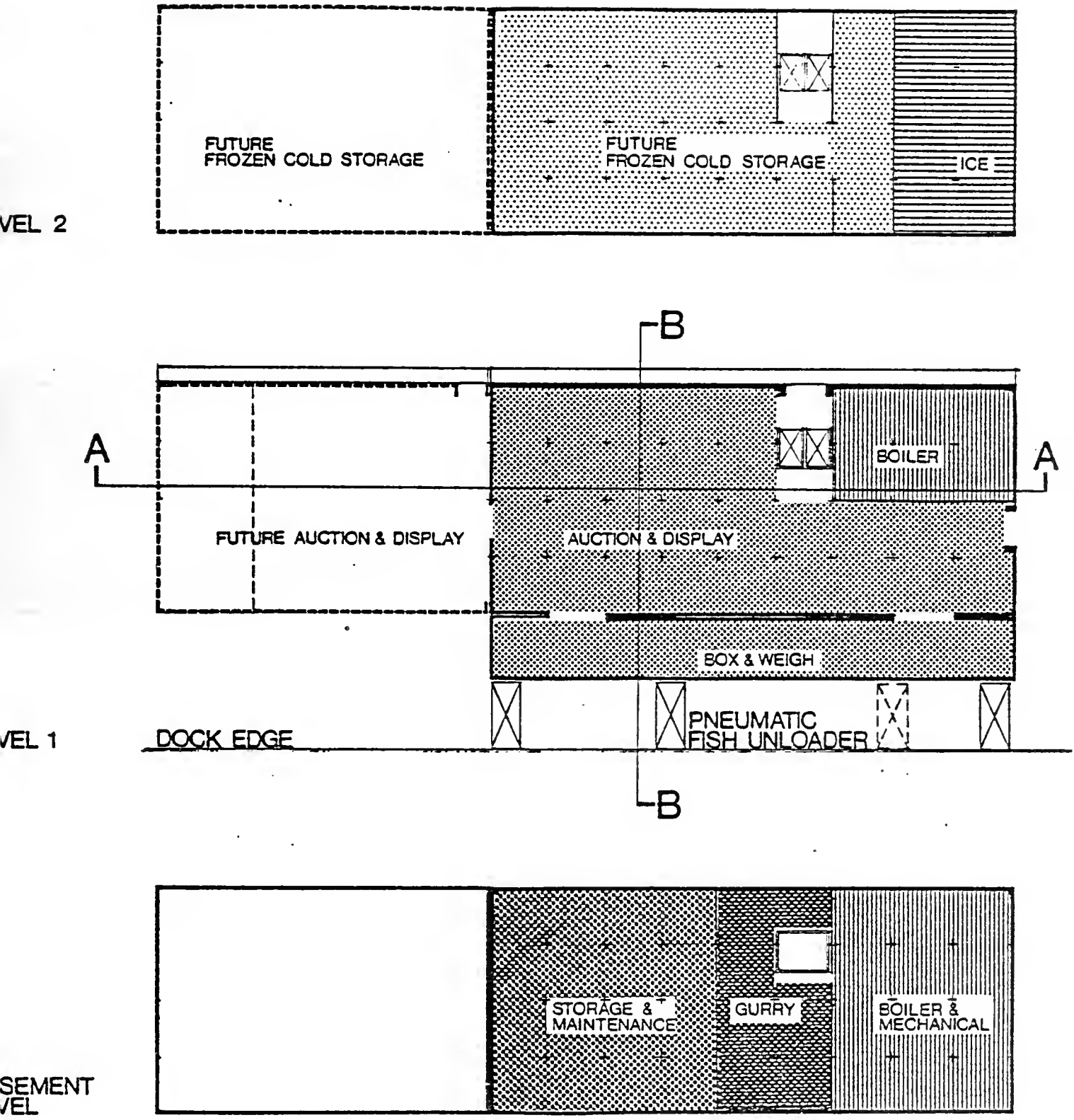
BB

POWER PLANT RE-USE

FIG. V.17

BOSTON FISH PIER

0 5 20 30

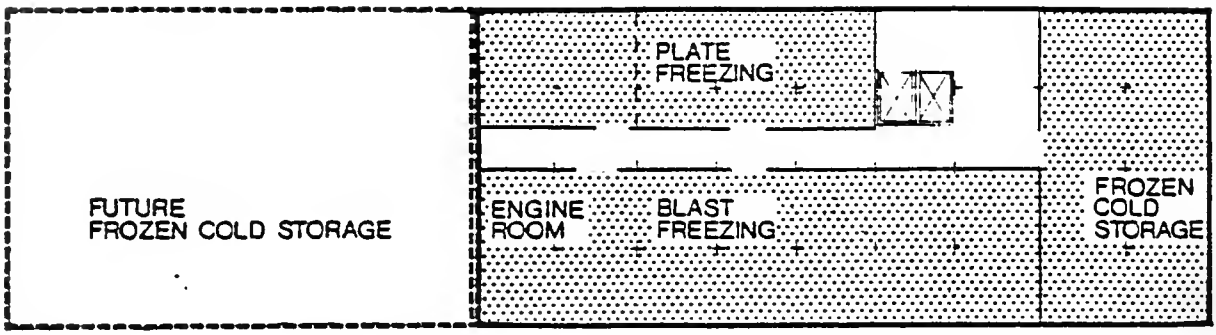


POWER PLANT RE-USE

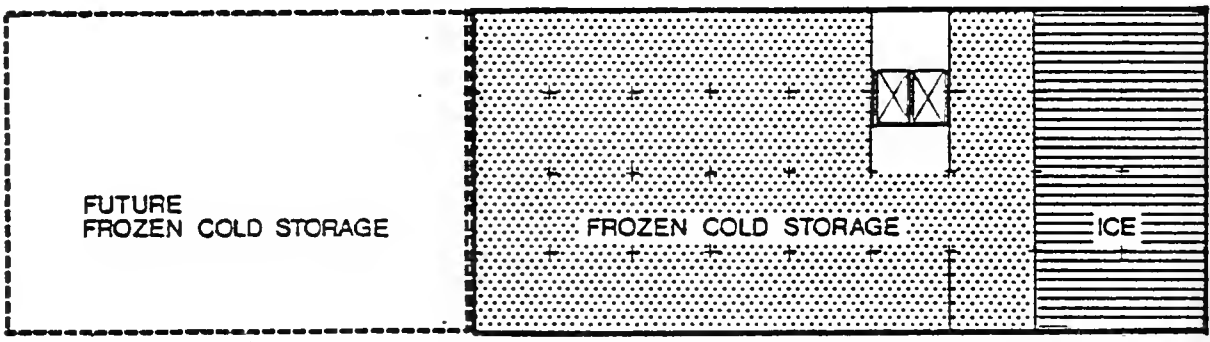
BOSTON FISH PIER

FIG. V.18

0 5 20 30



LEVEL 4



LEVEL 3

POWER PLANT RE-USE

FIG. V. 19

BOSTON FISH PIER

0 5 20 3

Interior

1) General demolition:

   a. Remove all boilers, engines, freezing equipment and miscellaneous machinery throughout the building.

   b. Remove interior walls and partitions except concrete wall between boiler room and rest of building.

   c. Remove existing level 3 and level 5 (Figure V.17)

2) Install new floors as indicated (Figure V.17) for a loading of 250 lbs. per sq. ft.

   Slab: decking = 2" 20 gauge composite metal

   concrete = 3000 psi light weight, 150#/cf

   reinforcing = 6 x 6 $\frac{10}{10}$ wwf

   steel = 12 lbs. per sq: ft. of floor area.

3) Resurface first floor with 3" concrete topping, 3000 psi, 6 x 6 $\frac{10}{10}$ wwf.

4) Rebuild approx. 1200 sq. ft. of floor over basement of demolished portion of building and resurface total area with 3" concrete topping and wwf to level of #3 above.

5) Resurface basement floor with 3" concrete reinf. with 6 x 6 $\frac{10}{10}$ wwf and install two sump pumps.

6) Structural repair:

   a. Replace 12 beams, structural steel = A 36 15" wf, 40#/lf, (assume 8000# of steel beams).

   b. Replace 2000 sq. ft. of concrete floor slab: 4 1/2" reinf. conc. with 1.5# reinf./sq. ft.

   c. Replace 6 to 8 columns and reinforcement (cover plates with reinf. conc. patch.)

b) Alternative Tenant Finishes

Tenant uses and layouts shown in Figures V.17, V.18 and V.19 along with the following tenant construction improvements were used to determine the tenant finishes costs.

ALTERNATIVE TENANT FINISHES, POWER PLANT BLDG: OUTLINE SPECIFICATIONS

Fish Unloading and Auction

1) Construct reinforced concrete platform along apron side of building.
2) Install steel frame enclosure at box and weight platform.
   steel = 5#/sq. ft. of area.
   Roof = 1 1/2" - 20 gauge roof decking wish built-up roof.
   Walls = Concrete block with stucco, non-structural around masonry.
   Doors = 4 overhead doors (10 ft. x 12 ft.)
   2 man doors (3 man doors (3 ft. x 6 ft. 8 in.)
3) Install toilets and locker facilities.
4) Install 1500 sq. ft. of office space.
5) Electrical service.
6) Heating and ventilating service.

Freezer and Frozen Cold Storage

1) Install masonry walls including insulation for cold storage and 6 electric, sliding doors.
2) Install two industrial elevators (8 ft. x 12 ft.) to all floors.
3) Install toilet and locker facilities
4) Install 1500 sq. ft. of office space.
5) Electric service.
6) Heating ventilating and air conditioning for office area.

5. Preliminary Construction Cost Summary

The preceding construction improvements are for the rehabilitation of the pier and the existing buildings. As part of our study we also considered raising the existing buildings and constructing new "modern facilities" for fish operations. In addition, we reviewed the extensive studies that were previously done to evaluate new construction alternatives. Given among other things the extraordinary sub-foundation costs required by new construction we concluded that 1) it was not economically feasible after translating new construction costs into rent cost per square foot and 2) we believe that "modern facilities" can in fact be achieved by rehabilitating the existing buildings and at a significantly lower cost than new construction and with considerably less interruption to Fish Pier operations.

Each item contained in the construction improvement outlines was costed out and the resultant costs are summarized in Table V.3 below.

5. Preliminary Construction Cost Summary

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Each item contained in the construction improvement outlines was costed out and the resultant costs are summarized in Table V.3 below.

II. Alternative Tenant Finishes: Power Plant Bldg.

(continued)

B. Freezer and Cold Storage		
1) Building alterations and additions	348,000	
2) Equipment estimate	650,000	
		998,000
C. Central Gurry Tank		
1) Building alterations and additions	14,400	
2) Equipment estimate	182,300	
		196,700
D. Ice Plant		
1) Building alterations and additions	17,100	
2) Equipment estimate	375,000	
		392,100

III. Additional Items

A. Apron and Truck Dock Canopies	$440,000
B. Sprinkler System, Floor 3, Bldgs. 1 & 2	91,200

The above costs do not include allowances for professional fees or profit and overhead. These will be added in the Development Proforma, Table VI.3, in Chapter VI, Financial Feasibility Analysis. This analysis will also translate the above construction costs into rent and operating costs and various financing alternatives.

VII. Alternative Tenant Finishes: Power Plant Bldg.

(continued)

B.	Freezer and Cold Storage		
	1) Building alterations and additions	348,000	
	2) Equipment estimate	650,000	
			998,000
C.	Central Gurry Tank		
	1) Building alterations and additions	14,400	
	2) Equipment estimate	182,300	
			196,700
D.	Ice Plant		
	1) Building alterations and additions	17,100	
	2) Equipment estimate	375,000	
			392,100

VIII. Additional Items

A.	Apron and Truck Dock Canopies	$440,000
B.	Sprinkler System, Floor 3, Bldgs. 1 & 2	91,200

The above costs do not include allowances for professional fees or profit and overhead. These will be added in the Development Proforma, Table VI.3, in Chapter VI, Financial Feasibility Analysis. This analysis will also translate the above construction costs into rent and operating costs and various financing alternatives.

E. Illustrative Site Plan

Having completed the detailed evaluation of the recommended improvements which altogether are complex and perhaps difficult to absorb, it may be helpful to visually summarize them. The Illustrative Site Plan, Figure V.20, is a graphic representation of proposed Fish Pier improvements as they would affect the activities both on the pier and the related ground floor uses of the buildings. A key on the plan sufficiently explains various building and surface uses.

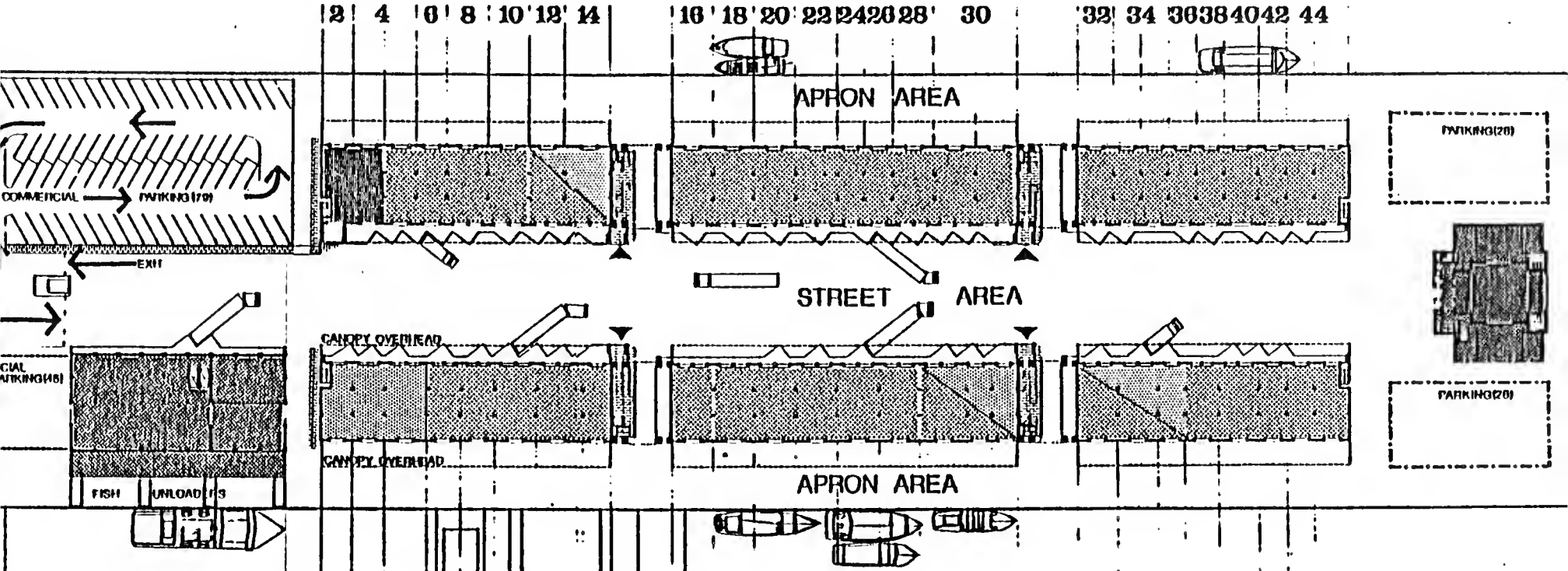
Regarding pedestrian and vehicular circulation, truck access and unloading is indicated by the new, angled loading docks along Buildings 1 and 2. Pedestrian access from Northern Avenue is also indicated, up to Building 1 and then to both apron areas. Fish dealer parking is shown at either side of Building 3 while all commercial parking is located at the Northern Avenue end of the pier and has entrances that are separate from the Fish Pier entrance gate which has been moved about 90 feet further onto the pier. This should help to minimize many circulation and parking conflicts that now exist.

Building uses in Buildings 1 and 2 are primarily fish processing on the ground level. Proposed overhead canopies, along the entire length of Buildings 1 and 2 at both the truck dock and the apron area, are also indicated. The archway areas at the third points of the buildings, show pedestrian access and elevator lobby areas to the proposed new tenant uses on the third floor.

The plan also strives to improve accessibility and visability of the No Name restaurant. We recognize the importance of this use and have tried to respond to the expressed needs such as possible future expansion, to remain an integral part of the Fish Pier and accessibility to its patrons. The No Name is a landmark in Boston with a wide-ranging clientele and also serves to promote fish as a consumer and dietary staple. However, we must also respond to the critical problems of the fish dealers and boat owners and their circulation, operation and expansion needs must be satisfied. Therefore, we recommend relocating the No Name from its present location at number 17 in Building 2, to numbers 2 and 4 in Building 1 after the new location has been rehabilitated and the existing tenant, A. F. Rich Co., has been relocated into its new renovated facilities. This would benefit the No Name by providing for easier and safer pedestrian and auto access, an auto drop-off area adjacent the entrance, better expansion capabilities and better visibility from Northern Avenue while still remaining an integral part of Fish Pier life.

The so-called Power Plant Building would have fish unloading and auctioning as a ground floor use. Fish purchased at the auction would be taken from the building through a side exit and then along the ends of Buildings 1 and 2, to the apron areas and then directly to the fish dealer stores. Building 3, at the northerly end of the pier, would have new tenant uses.

The plan proposes many changes, all aimed at improving the Boston Fish Pier and returning vitality and potential to the fishing industry in Boston.



R: 1

STRATIVE SITE PLAN
20

WET PROCESSING
FROZEN PROCESSING
OTHER USES NON FISH
NEW USES
PEDESTRIAN WAY

BOSTON FISH PIE

MRITZ ASSOCIATES ARCHITECTS/PLANN
ONE BOSTON SQUARE BUILDING BOSTON MASS

VI

FINANCIAL FEASIBILITY ANALYSIS

The financial feasibility analysis for renovation of the Boston Fish Pier is intended to be used for further discussion between Massport, the Fish Dealers Tenants Group Association, and the consultants. No one approach for improving and operating the Fish Pier is evaluated, but rather a series of alternatives is presented for consideration.

A. Current Massport Operations

The following (Table VI.1) summarizes the Massport revenue and expenses for the Fish Pier operations for fiscal years 1974-1976 (7/1 - 6/30). This information was derived from Massport accounting reports with adjustments and extrapolations as indicated. It should be noted that this summary of operations includes both the Pier and off-Pier facilities; records are not kept in such a manner that a breakdown of expenses for Buildings 1 - 3 can be made.

In brief, the financial situation of the Fish Pier has declined markedly over the period. Revenues have fallen off sharply due to increased vacancies. At the same time, expenses have risen considerably, due primarily to a combination of payroll and utility cost increases. These adverse changes of nearly $200,000 in both revenues and expenses have changed a modest surplus from operations into a sizeable deficit.

Table VI.1 is followed by notes describing the various items listed.

SUMMARY OF MASSPORT OPERATIONS

Fiscal Year:	(Notes)	1974	1975	1976*
Revenues	(a)	$785,000	$741,000	$592,200
Reserve	(b)	-	-	(35,000)
Net Revenues		$785,000	$741,000	$557,200
Payroll	(c)	$154,600	$173,100	$191,600
Maintenance	(d)	75,200	86,100	90,000
Utilities:				
heat		202,900	267,000	266,600
electric		17,800	21,400	21,700
sewer & water		22,400	80,000	71,300
Miscellaneous	(e)	8,500	22,100	9,500
Subtotal Expenses		$481,400	$649,700	$650,700
Pro-rated Administration	(f)	47,600	56,300	59,300
Total Expenses		$529,000	$716,000	$710,000
Net Income		$256,000	$ 25,000	($152,800)
Imputed Debt Service	(g)	(179,000)	(179,000)	(179,000)
Surplus (Deficit)		$ 77,000	($154,000)	($331,000)

* Note: Net revenues for fiscal 1976 are based on 9 month totals and total expenses on 11 month totals, proportionately extrapolated for a full year's operations.

Notes, Table VI.1, Massport Operations:

(a) Revenues for fiscal 1974-1975 are per Massport statements; revenue for fiscal 1976 is based on current rental agreements as of 6/1/76, but may not include assessments for utilities, etc.

(b) The reserve for bad debts was established in fiscal 1976 to cover potential loss of revenue arising out of lease disputes; the reserve stated is imputed back from net revenues, the latter based on Massport statements.

(c) Payroll includes wages, salaries and benefits for Massport employees directly assigned to the Fish Pier (currently sixteen persons).

(d) The maintenance category covers a number of Massport accounting line items, including materials, supplies, services and repairs (e.g., cleaning, painting, rubbish removal, mechanicals, etc.).

(e) Miscellaneous includes various otherwise non-categorized expenses; the nominal real estate taxes paid directly by Massport are also in this item.

(f) Added to direct expenses is a proration of Massport's general administrative overheads which includes salaries, office expenses, and property insurance.

(g) The imputed debt service is based on the Massport general borrowing rate and an original principal amount of $1,340,000; given a 13.4%± debt constant, the apparent rate is approximately 9% for 12.5 years.

B. Current Fish Dealer Operations

The following pages present the current operating overhead for the Fish Dealers at the Pier and off-Pier facilities. A detailed breakdown by dealer was compiled for Buildings 1 - 3 but is shown here only in the aggregate for reasons of confidentiality. Similarly, aggregates are shown for Buildings 4 and 5, land and building leases, etc. This information was derived from several sources as follows:

1. Square footage occupied: From a Massport summary of Fish Pier operations prepared in June 1976. These square footages in most instances correlate with the space estimates reported by the dealers and/or determined by the architectural survey, although some discrepancies do exist.

2. Rental payments (annual): Also from the Massport summary excluding parking. Here again minor discrepancies exist between the Massport and Fish Dealer reported rents.

3. Utility Costs: From the questionnaire completed by the Fish Dealers. (See sample questionnaire below) The utilities included in this estimate are heat, electricity, sewer, and water. All utilities are apparently billed on an estimated use basis periodically by Massport, except electricity which is directly billed by the utility company.

4. Insurance: Also from the Fish Dealer questionnaire. The wide variances in the amount may suggest that some dealers reported non-property related insurance costs and that other dealers are not adequately insured.

5. Real Estate Taxes: From the fiscal 1975 City of Boston tax records checked against Fish Dealer sources. Since Massport is tax exempt, the tenants are assessed directly at an assessment rate in the range of $4-6 per square foot occupied. Given that 1975 taxes are used as compared to 1976 leased space, some discrepancies may exist.

OPERATING COSTS QUESTIONNAIRE CIRCULATED TO FISH DEALERS AND OTHER FISH PIER TENANTS GROUP MEMBERS

The Fish Dealers' Association has contracted with Mintz Associates Architects/Planners, Inc. to study the feasibility of renovating the Fish Pier. Housing Economics is acting as the financial consultant on this study. Your physical space needs have probably already been surveyed by someone from Mintz Associates. It would now be very helpful if you could fill out the below Questionnaire which will tell us about your current operating costs. This information will be used (in the strictest of confidence) for comparison against projected future costs given alternative renovation plans. Thank you.

Dealer's Name: _____

Estimated Square Footage _____ s.f.

Annual Rent $_____ per year

Parking Charges (___ spaces) $_____ per month

Utilities (1975 totals for year)

heat $_____
electric $_____
water $_____
sewer $_____
other (_____) $_____

Insurance (for physical contents and general liability only; do not include health, workman's comp. etc.) $_____

Note: Use reverse side for other operating costs of your space (excluding salaries or other job costs) that were not covered above.

* * *

The below Table VI.2, summarizes more detailed operating experience compiled for the Fish Piers. All figures are on a square foot basis, rounded to the nearest $ .05.

TABLE VI.2

SUMMARY OF OPERATING EXPENCES FOR THE FISH PIER AREA

Location	Rent	Utilities	Insurance	Taxes	Total
Building #1-3	$2.20	$1.10	$ .40	$ .80	$4.50
Building #4	2.20	-	-	1.35	3.55
Building #5	2.45	-	-	.95	3.40
Other Leases	.95	-	-	.35	1.30

It should be noted, however, that many of the Fish Dealers are not efficiently occupying the space they lease. The architectural survey indicates that the average dealer uses only about 75% of his leased space, meaning that the dealers are paying a premium in not only basic rent, but also in utilities, insurance, taxes, etc., for such "extra" space. The $4.50 per square foot total rent translates to a $6.99 per square foot effective total rent for space actually used. After renovations, the Fish Dealers should be better able to occupy space more efficiently and therefore avoid such premiums on rent.

C. Proposed Development and Operations

This section presents preliminary proforma development and operating budgets for the Fish Pier renovations. The estimates contained in these proformas were derived from several sources as follows:

1. Development Costs: From construction cost estimates prepared by the consultant contractor, based on architectural drawings and specifications prepared by the prime consultant. These estimates are to be considered preliminary only and subject to change based on more complete drawings and specifications. The other development costs are based on the general experience of the financial consultant for projects of this type.

2. Operating Expenses: From a combination of Massport and Fish Dealer operating data plus industry standards for the operation of commercial real estate of a similar nature. Certain assumptions such as debt rates are general estimates only and will be adjusted once the final financing/ownership is structured.

The proformas are differentiated for alternative uses of the third floor of Buildings #1-2. The housing alternative (I) proposes 92 apartment units; the office alternative (II) proposes 76,000 s.f. of commercial rental space in this location.

In summary, the net results in terms of average Fish Dealer square foot costs of operation, both total costs and basis costs, are as shown in the table below. The total costs/sf is for rent,

utilities, taxes, etc.; the basic cost/sf is for rent only. The numbers in brackets indicate the cost increases over the current conditions and the adjusted conditions.

	Cost Per Sq. Ft.		
Cost Item	Currently Rented	Currently Utilized (75%)	*Proposed Future
Basic Cost (Rent)	$2.20	$2.95	$5.00
Utilities			
Heat	.46	.60	.23
Electrical	.55	.75	.66
Water/Sewer	.09	.12	.11
Subtotal	(1.10)	(1.47)	(1.00)
Insurance	.40	.53	.13
Taxes	.80	1.05	1.12
Total Cost	$4.50	$6.00	$7.25
		(+1.50)	(+1.25)
Total Cost with $5M EDA Grant Applied			$5.10 (-.90)

* Renovations per Proformas.

1. Development and Operating Proformas

Table VI.3, below, Development Proforma, and Table VI.4, Operating Proforma, are based on renovations and related cost estimates as presented in Chapter V, section D of this report and both are followed by notes describing various items.

TABLE VI.3

DEVELOPMENT PROFORMA		(Notes)	I	II
Renovation Costs:		(a)		
Site & Utility		(b)	$1,001,500	$1,001,500
Core & Shell	(#1 & 2 only)	(c)	1,168,300	1,168,300
Fish Dealers	(136,000 sf)		1,013,200	1,013,200
Offices	(76,000 sf)		-	696,200
Apartments	(92 Apts.)		1,153,100	-
Building 3	(20,000 sf)	(d)	226,700	226,700
Power Plant Building	(40,000 sf)	(e)	243,200	243,200
Subtotal			$4,806,000	$4,349,100
Profit & Overhead (13%)			624,800	565,400
Contingency	(5%)		271,500	245,700
Total			$5,702,300	$5,160,200
Professional Fees:				
General Contract			(in costs)	(in costs)
Architectural (7.5%)			$ 427,700	$ 387,000
Legal		(f)	50,000	50,000
Total			$ 477,700	$ 437,000
Carrying & Financing:				
Construction Interest (18 mos. @ 10%)		(g)	$ 525,000	$ 475,000
Taxes & Insurance		(h)	50,000	50,000
Marketing Allowance		(i)	50,000	50,000
Relocation Allowance		(j)	75,000	75,000
Funded Reserves		(k)	75,000	75,000
Net Income (before completion)		(l)	(-)	(-)
Total			$ 775,000	$ 725,000
Acquisition Cost		(m)	-	-
Total Development Cost			$6,955,000	$6,322,200

Notes, Table VI.3, Development Proforma:

(a) The renovation costs are based on estimates by Taylor Woodrow Blitman from architectural documents prepared by Mintz Associates. These estimates include only the costs to improve buildings #1-3 (232,000 sf ±), the power plant (40,000 sf ±), and the pier itself. (See also construction section for breakdown of costs by site work, shell renovations, and tenant improvements.)

(b) The Site and Utility costs include basic site work and utility installations on the pier, a new heating plant and distribution system, and a utility trench within Buildings #1-2.

(c) The "Core and Shell" costs shown are for Buildings #1-2 only. These are the basic costs to renovate the buildings exclusive of specific uses for the space. The costs for such tenant finishes (the Fish Dealers on the first and second floors and either offices or apartments on the third floor) are estimated separately in the proforma.

(d) The Building 3 cost estimate includes both basic renovations and tenant finishes for Building #3.

(e) The Power Plant Building is proposed for renovation as a common facility serving the pier operations, including a heating plant, fish off-loading, exchange, freezer, ice-making, storage, etc. The cost estimate includes shell costs only (net of salvage credits); the various installations indicated will add close to $500,000 in tenant costs plus almost $1.5 million for equipment.

(f) The legal and organizational fee estimate includes all legal services required to finance the development as well as organize the entity to develop it.

(g) Construction interest is assumed at a 10% rate for 18 months, based on an average outstanding loan equal to one-half the total development cost.

(h) The taxes and insurance estimate is an allowance for such items not covered by normal operations during the construction period.

(i) The marketing allowance is to provide for leasing currently vacant space (approximately 83,000 sf.)

(j) The relocation allowance is to cover some of the costs for moving tenants during renovations ($ .50 per occupied sf). It is assumed that only one move per tenant will be required.

(k) The funded reserves are an initial allowance for future maintenance and repairs (1.5% ± of renovation costs). These reserves are to be supplemented by annual additions to this fund out of rents.

(l) No net income during construction is assumed given the current deficit operations of the pier; i.e., it is assumed that at current lease rates the piers will operate at best at break-even after basic expenses and debt service. Depending on when new lease rates take effect, some surplus cash may be generated which could offset other expenditures.

(m) No acquisition cost has been reflected in the development budget since Massport has placed no specific value on the property nor even determined it if wishes to sell it to the dealers or others.

TABLE VI.4

OPERATING PROFORMA

		(Notes)	I	II
Rental Revenues:		(a)		
Fish Dealers	($7.25/s.f.)	(b)	$ 986,000	$ 986,000
Offices	($6.50/s.f.)	(c)	-	494,000
Apartments	($525/mo.±)	(d)	576,000	-
Building 3	($6.50/s.f.)		130,000	130,000
Power Plant Bldg.	($1.50/s.f.)	(e)	60,000	60,000
Parking	($50/mo.)		30,000	30,000
Subtotal			$1,782,000	$1,700,000
Vacancy Allowance (10%±)			(178,000)	(170,000)
Total			$1,604,000	$1,530,000
Operations:				
Management	(3.5%±)	(f)	$ 60,000	$ 55,000
Maintenance	($ .33/s.f.)	(g)	90,000	90,000
Utilities	($1.00/s.f.)	(h)	232,000	232,000
Insurance		(i)	35,000	30,000
Reserves		(j)	25,000	25,000
Real Estate Taxes:		(k)	280,000	280,000
Ground Rent:		(l)	179,000	179,000
Total			$ 901,000	$ 891,000
Net Income:			$ 703,000	$ 639,000
Capitalized Value:		(m)	$6,960,000	$6,330,000

Notes, Table VI.4, Operating Proforma:

(a) The rental revenues stated are inclusive of all costs of operations including basic rent, utilities, taxes, insurance, etc. except as noted below. Rental rates were established based on the renovation costs for each use as well as besed on the services included in the rents.

(b) The Fish Dealers would occupy completely finished and serviced space on the first and second floors of Buildings #1-2 for the stated rental which again is inclusive of all operating costs. The $7.25 per square foot cost is approximately $2.75 per square foot higher than current costs or $1.25 higher than adjusted costs.

(c) The office space if provided on the third floors of Buildings #1-2 would have to rent for $6.50 per square foot inclusive. This rent is comparable to secondary space in downtown Boston. (The office space in Building #3 is assumed to rent at the same rate.)

(d) The apartment alternative for the third floors of Buildings #1-2 results in an average rent of $525 per month for the 92 units provided. This rent may be marginal for the market area.

(e) The power plant building is being finished to shell condition only, does not have any allowance for utilities built into the rent, and carries a lesser tax assessment. For these reasons, the rent per square foot is substantially less than for the other uses.

(f) A Management fee of 3.5% on rents is assumed to cover the costs of general administration and rent collection.

(g) A maintenance allowance of $90,000 or $ .33 per square foot is budgeted, including payroll for 2-3 employees; also included in this item is related supplies and services for maintaining the property such as refuse collection, snow plowing, repairs, etc. This estimate is based on current Massport operations as well as industry standards for this type of property.

(h) The utilities estimated include heat, hot water, electric, sewer, and water for Buildings #1-3. (No utility allowance is made for the power plant since utility requirements will vary depending on the ultimate uses.) Consumption is estimated based on fish dealer experience to date with adjustments for both the upgraded utility system and anticipated increases in energy needs. It is likely that utilities will be separately metered and paid directly by the tenant, but an estimate is still carried here to arrive at total operating costs.

(i) The insurance estimate (Property damage, liability and minimum contents) is based on a rate of $ .50/$100 of value. This rate takes into account fireproof construction of the piers except for the roofs.

(j) Reserves are accumulated for future extraordinary repairs and for replacements of equipment.

(k) The real estate tax estimate is based on the current assessment formula of $4.50 per square foot of leased space and applying the probable future tax rate of $250/$1000 of value for Buildings #1-3. (The power plant assessment is halved to reflect the shell condition.) This tax payment equals 18%± of gross effective income which compares favorably to normal rates of commercial taxation (although if utilities are taken out of rents, the taxes increase to 22%± which is closer to the average.)

(l) As previously stated no acquisition value has been established for the pier property. However, in order to reflect some value for purposes of determining rental rates after renovation, it was assumed the land and buildings are leased at the current imputed debt rate at which Massport carries the properties. (It should be emphasized that this ground rent assumption was arbitrarily made by the consultant and does not represent the position of Massport or the Fish Dealers.)

(m) The cap. rate of 10.1% is equivalent to a 9%, 25 year loan. The significance of this term is that the total development cost must be able to support some combination of debt and equity at an average rate of 10.1%

2. Alternative Financial Factors

The preceding financial proformas were based on a number of assumptions, certain of which are subject to change. The below analysis indicates the effects of such alternative assumptions being applied. This analysis takes into account all related development costs and operating expenses in arriving at the various adjustments. The "gross change" reported suggests the effect of an increase or decrease in costs on the entire Fish Pier operations (prorated over 272,000s.f.); the "skewed change" is the effect on the Fish Dealers only (prorated over 136,000s.f. only).

(1) The renovation costs are based on a stated scope of work. If this scope were modified to add or subtract specific items, the net effect on rents per square foot is as follows:

Renovation Scope*		Gross Change/s.f.	Skewed Change/s.f.
Add Canopies	(a)	$ .26	$ .52
Add Sprinklers	(b)	.05	.11
Increase Commercial Rent	(c)	N/A	(.50)
Delete Tenant Finishes			
Fish Dealers	(d)	(.60)	(1.19)
Offices	(e)	.85	1.23
Apartments	(f)	.90	1.30

*See notes on alternative assumption (1) at end of this section.

(2) The property acquisition was treated on a lease basis with a ground rent equal to Massport's current imputed debt rate. Assuming the property was not leased but rather purchased for varying amounts, the net effect on annual rents per square foot is as follows:

Purchase Price	Gross Change/s.f.	Skewed Change/s.f.
$0.0 million	($ .76)	($1.51)
1.0	(.30)	(.59)
2.0	.14	.29
3.0	.63	1.26
4.0	1.09	2.18

(3) The total development costs were assumed to be permanently financed at a 10.1% constant (e.g. 9% for 25 years). If financing rates were higher or lower, the net effect on annual rents per square foot is as follows (assuming an average development cost of $6.6 million):

Debt Constant	Gross Change/s.f.	Skewed Change/s.f.
8.0%	($ .53)	($1.07)
9.0%	(.28)	(.56)
10.0%	(.03)	(.05)
11.0%	.23	.46
12.0%	.48	.97

(4) It was also assumed that the total development costs were financed at the stated rate. The possibility of an EDA grant to benefit this development is under discussion which could cover up to 75% of total costs or about $5.0 million as currently estimated (based on the average proforma development cost). The net effect of various grant amounts on annual rents per square foot is as follows (assuming the grant takes effect after construction completion):

Grant Amount	Gross Change/s.f.	Skewed Change/s.f.
$1.0 million	($ .43)	($ .86)
2.0	(.86)	(1.71)
3.0	(1.28)	(2.57)
4.0	(1.71)	(3.42)
5.0	(2.14)	(4.28)

Notes, Alternative Assumptions (1):

a) The Apron and Truck Dock Canopy proposed as an option for the interior side of Buildings #1-2 has a basic cost of $440,000 which translates into the square foot rental increments shown.

b) The cost for sprinklering the third floor of Buildings #1-2 is $91,200 or $1.20 per square foot. The small increase in rents due to this extra may in fact be cancelled out by savings in insurance premiums (or such sprinklering may be required to insure the piers at favorable rates at all.)

c) A commercial rental rate of $6.50 for finished offices and $1.50 for shell power plant space was assumed. If this rent were to increase $ .50 per square foot, the effect on the Fish Dealers would be as shown.

d) The proformas assumed a full tenant finish for space to be occupied by the Fish Dealers. If such finishes were not provided as part of the basic renovation package but arranged independently by the individual dealers, the rental savings would be as shown.

e) The option exists to not finish the third floor of Buildings #1-2, but rather leave this space vacant until a more profitable use can be determined. The effect of this option, however, would be to increase rents for the otherwise occupied space (196,000 s.f.). The reason for this effect is the sunk costs in these 76,000 square feet deleted related to basic site and shell improvements. It should be noted on the other hand that if rental expectancy for the office space drops by more than about $2.20 per square foot, it is probably more reasonable to leave this vacant; i.e., at that point the commercial space no longer even supports sunk costs.

f) See note (e) above for rationale. The rental threshold for apartment feasibility is about $375 per month. If rents fall below that figure it is not worthwhile to invest in finishing this space because even sunk costs are not being covered. (The reason that the impact of deleting the apartments is not greater than for the offices is that the apartments initially paid more rent per square foot than the office alternative.)

D. Proposed Financing and Ownership

No commitments or even preferences have been stated by the Massport or the Fish Dealers as regards to the ultimate ownership of the Fish Piers after the proposed renovations. Also uncertain at this time is the form of financing to be employed since this decision is in part dependent on the ownership disposition. This section of the feasibility study, therefore, cannot detail financing and ownership recommendations. Rather, it can only outline in a general way the options to be considered and evaluate each in terms of the advantages and disadvantages to the parties involved.

1. Financing Options

(a) IDFA: Chapter 40D of the General Laws of the Commonwealth enables qualifying cities and towns to establish an Industrial Development Financing Authority (IDFA) which in turn can sponsor revenue bonds issued to finance industrial development. These bonds are tax exempt since they are sponsored by a municipality, but such bonds do not rely on the credit of that municipality nor effect its debt limit. Rather, these are revenue bonds to be secured by the credit of the industrial enterprise to be financed and collateralized by the asset value of the development in question. Proceeds from the sale of IDFA bonds may be used to purchase and/or improve land, buildings, capital equipment, etc.

The Fish Pier operations would probably be eligible for financing under this program subject to technical compliance with its various regulations and approval by Boston's IDFA. However,

given current conditions in the tax exempt bond market, it is not likely that the program will be functioning in the immediate future. Bond rates recently have averaged in the 8-9% range if saleable at all, and revenue bonds unless secured by a AAA tenant are in even a more marginal situation. Furthermore, IDFA places a $5 million limit on the bonding for any one project which is $650,000 short of the projected total renovation cost for the Fish Piers. (This limitation, however, could be circumvented by splitting the project into two or more parts; and, of course, receipt of an EDA grant as discussed below would eliminate the problem.) Finally, the currently proposed renovations of the Fish Piers call for approximately 100,000 of office and/or housing space which may be ineligible as an industrial activity under IDFA.

b) EDIC: The Economic Development and Industrial Commission is a special version of the IDFA in that it is empowered to issue tax exempt revenue bonds for various activities. However, EDIC is broader and more flexible in its powers (note the word "economic" as well as "industrial" in its name). It has no dollar limits to the financing allowable and there are fewer ownership or use restrictions for projects financed. That eliminates several of the problems associated with IDFA discussed above, but the basic bond market constraints still apply - revenue bonds are simply not currently very attractive issues to investors. It should also be noted that EDIC has not in its brief existence yet made a single bond offering so use of its authority would be a pioneering effort.

(c) MPA: The Massachusetts Port Authority could itself issue bonds to finance the proposed Fish Pier renovations. Such financing could be either in the form of revenue bonds secured by the Fish Piers alone or general obligation bonds secured by all income and assets of Massport. However, apparently Massport is presently constrained by its reserve requirements for currently outstanding bond issues and will not be in the position in the near future to float additional financing. Alternatively, given these circumstances, Massport could assist the renovation program by providing guarantees for financing by others. For example, IDFA or EDIC revenue bond financing would be greatly enhanced if backstopped by Massport guarantees for all or part of the debt service or principal. Another form of guarantee would be for Massport to sell the property to a new entity, take back a mortgage for the selling price, and then subordinate this mortgage to the primary financing for the proposed improvements. The same purpose would be served by leasing the property on a subordinated basis. However, it may well be that Massport will not choose to finance or guarantee financing by others, or that the Fish Dealers may not wish to have Massport play such a key role in the control of the renovated Fish Piers.

(d) EDA: The Economic Development Administration, an agency of the Federal Department of Commerce, may make outright grants to qualified economic development programs. These grants may cover up to 75% of the acquisition and improvement costs of a given project which would amount to over $4.2 million for the Fish

Piers based on currently estimated costs. The remaining 25% of the development costs would have to be financed (or contributed) locally, but this should present diminished difficulties given the existence of a substantial grant. Massport, on behalf of the Fish Piers, has taken initial steps to secure EDA funding. (These inquiries have reportedly been generally well received although consideration of a final grant request has been postponed pending completion of this feasibility study.)

In addition to grants, EDA operates a number of other programs which provide for guarantees and/or secondary financing to support economic development. These programs, the details of which have not been thoroughly researched, are known to be limited for purposes of the Fish Pier renovations because of low dollar limits on the capital amount that can be assisted. Similar Small Business Administration (SBA) programs are also limited as to the dollar value of guarantees or secondary financing. These limits would have the effect of subdividing the development into smaller parts and/or condominiumizing the development.

(e) Conventional: A source of financing other than government programs is conventional financing from commercial banks, thrift institutions, insurance companies, etc. The rates for such financing are likely to be 2%± more than tax exempt bonds rates. Some percentage of total costs would also have to be put up in the form of equity and/or secondary financing secured. Conventional financing, therefore, will likely only be attractive taken in combination with an EDA grant. If such a grant was

received for say 50-75% of costs, this amount would easily serve as the equity plus secure the loan on a very favorable loan to value ratio from the lenders point of view. Such a grant may also have a positive effect on the interest rate charged. Alternatively, if an EDA grant was not available, conventional financing might still be used in combination with Massport guarantees on operations and/or a subordinated lease agreement for the property. Here again the lender's security would be improved by shifting part of the risk.

2. Ownership Options

(a) Massport Rental: The Massachusetts Port Authority could improve, finance, and continue to operate the Fish Piers. The approach would require the minimum reorganization for purposes of the proposed renovations and permit the maximum flexibility in terms of future expansion or contraction of individual tenants since one overall management is maintained. Massport would likely be in a strong position to finance the renovations either by issuing its own bonds (when its reserve requirements are satisfied) or by using IDFA/EDIC bonds (perhaps in combination with certain guarantees.) The Fish Piers should also be eligible for EDA grants under Massport ownership. This approach, however, does not directly address the issue of greater participation by the Fish Dealers in the operations. Short of some form of equity ownership, such participation could still be promoted by other means. For example, on-site management could be established which would work closely with the Fish Dealer's Association on

matters concerning day to day operations (similar to landlord/ tenants committees set up for many housing developments.) One of the first tasks of such new management should be to reallign rents and leases to a fairer, more consistent formula and to resolve appropriate methods of additional assessments for utilities, real estate taxes, etc.

(b) Fish Dealer/Rental: The Fish Dealer's Association could form a new entity for the purposes of acquiring, improving, financing, and operating the Fish Piers. This entity could be comprised of all members of the association, those members who wish to participate, or only those of a certain size and/or financial position. This entity, probably a corporation, would then develop and manage the facility, charging rents to all tenants including stockholders in the corporation as if on an arm's length basis. In other words, ownership and occupancy would be separate considerations although there is obviously built in control and participation within this form of organization. This approach is similar to how the "Harris Building" facility has been organized.

The advantages of this approach is that the Fish Dealers, or at least some number of them, will have a direct role in the development and management of the Fish Piers. Since the ownership and occupancy are in part separated, flexibility is still maintained in terms of future expansion or contraction of individual tenants - a flexibility which is more constrained with cooperative or condominium ownership as discussed below.

A potential disadvantage of this approach will be financing the acquisition and renovations since the corporation formed and its constituent members may not show the net worth required to secure a loan of nearly $6 million. Financing will, therefore, likely be contingent on receipt of an EDA grant and/or Massport guarantees for some portion of the total development cost.

(c) Fish Dealers/Coop: The previous alternatives both involved separate ownership and occupancy; i.e., one entity owned the property and the actual occupants of the property rented space on a more or less arm's length basis. A cooperative would combine roles with the owners and occupants being one and the same in most cases. This cooperative would again likely start with the Fish Dealer's Association who would organize the coop and then in its name acquire, improve, finance, and operate the Fish Piers. Each owner/tenant would share in the development and management according to some formula which reflects amount and type of space occupied, equity contributed (if any), etc. Space not occupied by members of the coop could be rented to third parties with the income offsetting coop expenses; the office or housing units probably would be operated on this rental basis.

However, the same problem is likely to occur with the financing as was discussed relative to the Fish Dealer rental approach; namely, the net worth of the coop members may not be sufficient to support the loan required in the absence of EDA grants or Massport guarantees. An additional potential disadvantage of the coop approach is that future flexibility may be restricted as particular dealers need to expand or contract their operations.

In the case of rental occupancy, that dealer could relatively simply renegotiate the lease to cover space needs. However, with a coop the dealer would have to buy someone else's shares to expand or sell some of his shares to contract. Alternatively, a dealer could lease additional available space from the coop or another dealer or lease some of his own space if not needed. But it should be apparent from this discussion that such transactions do become more complicated. These complications are exacerbated over the long term by the form of financing employed for a coop - there would probably be one single or "blanket" loan covering the entire property of which each coop member holds a pro-rata share. Say one dealer owned a 5% share initially worth $300,000 (100% financing) and that after ten to fifteen years the value of that share rose to $400,000 while the underlying mortgage balance had been reduced to $200,000. If that dealer now wants to sell his share, a new owner would have to come up with $200,000 in cash plus assume the share in the remaining mortgage. It is conceivable that the entire coop could refinance its blanket loan to reduce cash payments for new members or that a second mortgage could be obtained by new members. However, here again the transaction is generally more complex than for rental operations with a single or corporate owner.

(d) Fish Dealer/Condo: The final ownership alternative to be discussed is a condominium approach to the Fish Piers. Under this alternative, the facilities are acquired and renovated under some appropriate auspices. Once completed, bays or other subdivisions

of the property would be sold on a condominium basis to individual dealers. The condo approach is similar to a coop in that ownership and occupancy are combined, but significantly different in that each owner takes simple title to his part of the property rather than a share in the overall property. Furthermore, each condo is financed independently rather than having a blanket loan for the entire property as with coops. There would, however, still be a sharing of common expenses according to a formula reflecting the percentage ownership (and/or type of space occupied) by each dealer. Also, each condo owner would be responsible for a prorata percentage of vacant spaces and be entitled to a share in any net income received from spaces rented rather than sold. (It may be that for simplicity it will be necessary to have another entity own and operate space not sold and/or held for rental purposes, rather than combining these operations with the individual condominium ownership.)

Financing on a condominium basis may or may not be a problem. Each individual loan would be relatively small and directly related to the financial position of the particular owner/occupant. This circumstance can also take advantage of certain EDA & SBA programs to provide primary or secondary financing or financing guarantees for condominium purchases. The open issue as regards financing is how the rental or vacant space at the Fish Piers is to be operated and what potential liabilities does this present to an individual condo owner and hence his lender. Flexibility, also remains problematic with condo ownership. As with coops, a

dealer who wants to expand a contract has to purchase or sell space or if available rent from or to other dealers. Ultimate disposition of a condominium interest, however, is not as constrained as with coops since the ownership is individually financed and can be refinanced by any new owner as required rather than being subject to a blanket coop loan.

The above has summarized financing and ownership alternatives in a general way. Clearly there are many variations, each of which require further detailing once the options are narrowed to likely course of action. It must be emphasized, however, that this summary of options does not represent the position of either Massport or the Fish Dealers as to the acceptability of a particular option or options. The final financing and ownership decision is subject to further discussion between the parties.

VII

CONCLUSIONS AND RECOMMENDATIONS

After considerable analysis and evaluation of the Boston Fish Pier, the industry of which it is a part, its immediate surroundings and the feasible alternatives for improvement and change, we have determined that:

1) The fish industry in Boston is at a turning point in its history. It is unsure of its future and of what will be the ultimate effect of various impacts including the new 200 mile legislation, the absence of youth in the industry, and to what degree local and national government will acknowledge and support it as a vital part of the New England economy; and

2) If the Fish Pier is to survive and grow, it must prepare for the future, be self-determined as to its own future and accept and allow for planned change.

A. Recommendations

The recommendations resulting from our study strive to be both practical and do-able. We have considered various alternatives including the option of demolishing the existing buildings and replacing them with new construction; but as previous studies had evidenced, this would not be the most practical or economically realistic solution. We have concentrated on the economic portion of the report and are confident that the cost estimates presented are realistic and accurately reflect today's financing and construction market.

The objective of the physical planning and design is to be creatively flexible, to begin by serving immediate needs at the present level of Fish Pier operation, such as solving the problems of operational inefficiency and sanitary defficiencies while also preserving options and opportunities that will allow for adequate response to long-range future needs such as expanding or developing central facilities including ice making, freezing and cold storage and ultimately growth beyond the Pier, should that become a necessity. While in their present condition, the buildings are not attractive or efficiently utilized, they are in fact unique buildings which have the capacity to again be made functional to the industry. They have a structural module and a non-structural interior floor and wall system that allows for flexibility and conformity to changing needs. It is a compliment to the original designer and builder that the buildings remain functional.

The following recommendations are all inclusive and far reaching, but essential if the Boston Fish Pier is to be a

competitive and financially viable Pier. It is suggested that they be prioritized and a series of actions be taken to execute the recommendations. Some of the actions proposed might have to be phased such as those involving reuse of the Power Plant Building but decisions on whether to implement these and other changes immediately or to phase them over a period of years requires more dialogue with dealers, boat owners, and the Port Authority, and may require more in depth investigation than is possible in this Feasibility Study.

Those recommendations requiring immediate action would include such things as:

-- Rehabilitating Buildings 1, 2 and 3 and the Power Plant Building, exteriors and interiors.
-- Renovating and upgrading fish dealer processing areas.
-- Physically upgrading the Pier, its surface, grades and utilities.
-- Installing a new heating system.
-- Reorganizing and developing new controls and locations for parking.

Also requiring immediate action but to be preceeded by a dialoguing and decision making process involving all participants would include the following:

-- Installing new fish unloading facility.
-- Installing a new gurry system.
-- Gradually developing and renting the new tenant spaces.
-- Reassessing the operational and management aspects of the Pier and the industry such as the Exchange, and developing programs that better respond to today's needs.

Finally, those recommendations that might have to be phased, depending on industry growth and dialoguing and decision making by all participants would include:

-- Upgrading the ice making capacity.

-- New central freezer and cold storage facility.

-- Developing additional fish processing facilities.

1. The Buildings

a. That buildings on the Fish Pier be rehabilitated primarily for fish industry uses.

b. Buildings 1 and 2 be rehabilitated for fish dealers and processors on floors 1 and 2 and that the 3rd floor be rehabilitated for other rent producing use such as office space or residential use.

c. Building 3 be rehabilitated for commercial or institutional use. A theater company has shown interest in using the building for a theater/restaurant. A museum of Waterfront History (fishing, shipping, whaling) might also be considered as Boston presently does not have one. An education and training facility for the fishing industry is also appropriate and needed. The upper two floors could again be utilized for office space.

d. The Power Plant Building while somewhat deteriorated is in fact structurally sound and this structure is a potential resource for fish industry needs. These new potential uses should be explored in detail before a decision is made regarding demolition. The Power Plant has the capacity of simultaneously housing a fish unloading and auction facility; a central gurry processing

room; a new ice plant; and a central freezer and cold storage facility; as well as continuing as the boiler plant with new boilers and other necessary equipment. Further, the Power Plant Building can be expanded and rebuilt as the need for increased space is demonstrated, on the existing foundations which are still under the parking area and in good condition.

e. Buildings 4 and 5, located on Northern Avenue, are a resource that should be maintained and upgraded by rehabilitating the interiors where needed and doing some cosmetic work on the exterior facade which would make these buildings more attractive to tenants, improving the income stream as well as improving the physical qualities of the area. These buildings house both fish dealers, related ancillary functions, office space, and other uses such as restaurants and a bank which are important to the life of the Fish Pier area. Jimmy's Harborside Restaurant in Building 4 and the No Name Restaurant presently in Building 2 are businesses which attract a tremendous number of people to the Fish Pier every day. These restaurants attract both tourists and Greater Boston residents and businessmen and contribute significantly to the life of the area and act as an advertisement for fish and its desirability as a consumer product.

2. <u>The Pier</u>

a. Rehabilitation of the Pier itself should include resurfacing the apron (water side) area with concrete and raising its elevation one foot along with the first floor of Buildings 1 and 2. Simultaneously, the street between Buildings 1 and 2

should be regraded and repaved to an elevation approximately 6 inches lower than the existing elevation. The net result would be a resurfacing of the entire pier and an increase in the truck dock height from an average of 17 inches to approximately 3'-0" making for more efficient loading and unloading of fish products.

b. The cap log along the perimeter of the entire pier should be replaced along with necessary repairs to the fender piles as noted in previous studies.

c. All utilities on the Pier must also be replaced. The new utilities it is proposed will be placed under the street and done as part of the street reconstruction. Laterals from these new utilities in the street will be connected at the archway points to distribution utilities running in the reconstructed utility trenches under the first floor of Buildings 1 and 2.

3. Fish Pier Uses

a. The need for central fish unloading, a more efficient and sanitary way of dealing with gurry, improved ice production, and a central freezer should be provided for on the Pier. In the case of the central freezer, this could be located on or immediately adjacent to the Pier.

1) Fish Unloading

We recommend that priority be given to on-pier use for a fish unloading facility preferably in the existing Power Plant Building or across from it on the present parking lot on the west side of the Pier. The use of automatic equipment and more advanced methods of unloading, displaying, and delivery of fish is necessary for sanitation, efficiency, and cost savings reasons, and to maximize the growth potential of the Fish Pier

for the dealers and the boat owners.

2) We recommend that a central gurry processing function be established conceivably in the proposed reconstructed Power Plant Building. This change could have the effect of increasing the dealers profit on his fish waste product, eliminating a serious sanitary problem, and conceivably providing an economic way for utilizing a greater part of the fish for human consumption. This central gurry automatic collection process will require more detailed evaluation, but the idea is promising and appears to have economic as well as sanitary benefits.

3) Ice Plant. The alternative for increasing ice production would be to expand on the present site which is being contemplated or to evantually convert the existing plant from freon to a more efficient amonis operation which would increase its capacity. A better alternative might be to phase out the existing Ice Plant at a proper time, with reasonable understanding of the capital investment already spent on it, and to build a new ice plant as part of the Power Plant Building reconstruction whether this be done in condominium long-term lease or other arrangement would require further study and discussion.

4) Central Freezer and Cold Storage. A central freezer and cold storage facility, preferably on the Pier, is recommended. Alternative locations to our recommended Power Plant Building would be on the site and foundations (if possible) of the former Freezer Building, or on vacant land adjacent the Fish Pier, or conceivably by upgrading and improving both circulation, access, and equipment at the existing freezer on Commonwealth Pier.

b. A Pier circulation and parking plan is recommended that would include the following:

1) Limit truck traffic to the street side of the buildings and eliminate it from the apron side except for emergency vehicles.

2) It is suggested that the street circulation pattern might conform to a new angled configuration for the loading docks, that is, trucks will enter the Pier and unload at an angle toward the Exchange Building, then proceed to the end of the Pier, turn around and exit. This allows for vehicle passage even while two large trailer trucks are unloading. We have also increased the size of the unloading dock area giving added depth to what is now a very tight space and at the same time providing the opprotunity for those dealers who care to, to purchase and have installed an automatic dock leveler facilitating the loading and unloading of trucks of various bed heights.

3) Parking for other than trucks or designated vehicles must be limited during working hours as much as possible if the fish industry on the Pier is to properly function as well as grow. Off-Pier parking areas should be provided adjacent and easily accessible to the Pier. Surface parking in these off-Pier areas could accommodate existing demands for dealer and employee parking as well as visitors to the other uses such as office and restaurant. Future demands for parking may require consideration of structured parking but this would depend on other development taking place in the area since structured parking is expensive.

c. There currently exists other off-Pier uses that are allied to the fish industry. These include various repair, maintenance and supply businesses which serve the Fish Pier tenants and the boats. It is recommended at this time that such uses remain where they are. However, should future demands for additional Fish Pier development, significant increases in parking requirements, and pressures for other forms of development occur, it may then be necessary to consider other locations for these uses.

4. Operation and Development

a. Our analysis outlined several alternative approaches to financing, ownership, and operation. We recommend that these alternatives be carefully considered and dialogued so that a mutually satisfactory solution can be implemented. (See Section VI, part D.)

b. We further recommend that in those areas of the fish industry where collective action and interdependence are essential for the industry's viability and growth, such as fish unloading and auctioning, freezing and cold storage, ice and gurry operations, and overall industry regulation including the role of the Fish Exchange, that ways of updating and improving these functions with participation by all parties in this dialogue begin immediately so that the implementation process can proceed and effectuate these agreements.

c. It is apparent that the Northern Avenue area of the South Boston waterfront will grow and develop over the next decade and the fish industry should become a part of that growth

and consider its future development needs. Should the Fish Pier reach capacity sometime in the future, the Pier could expand in some of the following areas depending, of course, on other needs, uses, and plans for these areas:

-- The existing Boston Fish Market Corporation land area could permit some consolidation of its existing uses and buildings providing for future growth and construction for the fish industry.

-- Pier No. 7 of the existing Navy Yard which is contemplated for industrial use expansion by the City of Boston through its Economic Development Industrial Commission might consider the fish industry's future expansion in its plans for this area.

-- Pier No. 5, Commonwealth Pier, might provide some possible expansion capabilities for certain fish industry operations, but this would be subject to other uses that the Port Authority might have for these buildings.

-- The so-called "Railroad Yards" that the Port Authority owns on the south side of Trilling Street could also provide for future expansion of the fish industry, depending of course on what future development plans are contemplated for this land.

B. The Future

The Operation and Development recommendations included in Part A of this section address some key issues that cannot be sufficiently covered under physical rehabilitation or economics but nevertheless are vital to the future of the Fish Pier. They require more detailed attention and are perhaps a fitting topic for transition from the technical study and dialogue phase, presented above to the action and implementation phases which hopefully will follow this report.

Throughout the study, we conducted over 50 interviews with fish dealers, boat owners, and others directly and indirectly associated with the Pier and the fishing industry and most if not all conversations touched on the subjects of operation of the Pier facilities and future growth of the industry. The role of the New England Fish Exchange and the need to attract youth into the industry were concerns of many people.

1. The New England Fish Exchange

The Exchange was originally set up by a federal court to establish a price for fish landed at the Fish Pier, oversee the sale of fish, and insure immediate payment to the boats. Before the existence of the Exchange, store owners would row out in dories to meet the boats and offer a price for the fish. There was very little order or control in the process, particularly for the boat owners and a prime reason for establishing the Exchange was to protect the boats' interests by guaranteeing a fair price, the sale of the whole trip, and payment the same day enabling the boat owner to pay the fishermen, resupply the boat, and embark on another trip.

The Exchange is unique in this country and perhaps the world. The following summary of its operation is paraphrased from a 1941 radio script of an interview with Mr. E. L. Dunn, then President-Manager of the Exchange.

> Exchange men visit the boats and get the hail (pounds and species) from the Captain or Mate and record the information on the Exchange board including location of catch, tie-up, species and weights. The Captain or his agent offers the fish for sale from the Exchange platform and Exchange Registrars, also on the platform, make confirming sales slips with copies going to the buyer, the boat and the Exchange. The Captain or agent presents the slip to the Purser at the boat who then allows the buyer to remove the fish from the boat with the help of lumpers. The Purser takes the "cartman's voucher" or slip and verifies it with the store. The store gives the voucher to the Purser covering the amount of fish and cost. The Purser then returns this voucher to the Exchange for payment. The Registrar checks the voucher against his slip from the time of sale. The boats are paid immediately. The stores have 24 hour credit with the Exchange and the Exchange acts as arbitrator in all disputes.

This is essentially how the Exchange functions today. Only wholesale fish dealers may purchase a membership card to buy through the Exchange auction. A single ticket costs $110 per year. In addition, dealers not located on the Fish Pier must

pay a $750 annual fee to Massport for use of the Pier for loading fish. All buyers must be bonded based on the day-to-day dollar value of fish purchased. Bonds range from $1000 to $20,000. Also, 1.4% of all gross sales is paid to the Exchange by the boats.

Boston is also unique in that dealers can buy any quantity of fish desired and all dealers, large and small are given an opportunity to buy. In other ports, such as Gloucester and New Bedford, the buyer (a wholesale store or plant owner) must purchase the boat's total hail (load of fish). While there is no auction in Gloucester, New Bedford does have an auction which limits access to the auction room to the boat captain and the buyer. Sales in both ports occur after Boston's auction and are somewhat influenced by Boston's price. Once the sale is completed, the boat is taken to the purchasing store or plant and unloaded. This also differs from Boston where many stores buy and unload from the same boat.

Much has changed at the Fish Pier since the Exchange was established not the least of which is the amount of fish landed, from a high of 4,181,000 pounds on April 23, 1934 to the 200,000 to 300,000 pounds presently landed on a typical day. The role of the Exchange must be considered in light of these changes and those recommended in this report. While it is not the responsibility of this report to specify changes to the Exchange, we can encourage action to adapt to today's needs, summarize the positive and negative comments from our interviews and outline various roles that might be adopted. The positive aspects voiced regarding the Exchange were the individual bidding to set a price for fish where all dealers can compete, the role of the third party arbitrator

taken by the Exchange over the price and quality disputes and the guarantee of paying the boats on the day of sale. However, it was generally stated that a need for creative improvement exists. The Exchange no longer protects the interests of the boats. Much of the cost of unloading and auctioning comes out of the "cod end" or from the boat. Although the Exchange oversees operations it does not have power to control or influence transactions and effectively protect anyone's interest. It acts largely as a bookkeeper and this is not done, according to some dealers and boat owners, as efficiently as it could be. Some say this is because it is a system designed to handle massive landings of fish which no longer occur.

There are mixed opinions regarding the future role of the Exchange and whether in fact there is a role for it in the Fish Pier's future. One opinion of those interviewed was that the Exchange can be changed and made a more efficient operation and that it could have a role as a stabilizing agent between fishermen and dealers with limited power, acting as the "banker" for sales transactions and perhaps even overseeing the auction and sale of fish, the latter being dependent on what form the unloading and auction will take and if cost to the boats can be reduced. The second opinion is that the Exchange has perhaps outlived its purpose and is no longer needed.

It is our conclusion that along with the unloading process used today, the Exchange has at least reached a time for change and improvement that must respond to today's needs. Its ultimate role should conform with the fish unloading facility, the establishment of both being the responsibility of the fishermen, dealers,

boat owners, the courts and the Exchange itself.

2. Future Development of the Fishing Industry in Boston

Our assessment of the Boston Fish Pier led us to consider what was the ultimate growth potential of the existing Pier and what alternatives for growth were available beyond the Pier. Perhaps the most often repeated concern of virtually all those interviewed when the future was discussed was the absence of youth in the industry today and the need to attract young people to it as a career opportunity.

The capacity for unloading, processing, and marketing fish from the Boston Fish Pier is impossible to determine because of the large number of variables: A variety of species of fish; how much of the fish is filletted versus iced and shipped out whole; how much of the fish is frozen versus used fresh; what quantity of fish is hand filletted by cutters versus machine filletted; how many hand cutters the dealer has and how experienced and efficient they are; how many shifts of cutters would the dealer employ; how much fish is purchased from the Fish Pier but filletted at adjacent locations such as the Harris Fish Building Complex; how much fish will be landed by boats versus coming "over the road". Given these plus other variables one can understand the difficulty in predicting the accurate handling capacity of the Pier. In its heyday in the 1930's and 1940's, the Boston Fish Pier handled between 300,000 and 400,000 million pounds of fish per year, and while most of this fish was shipped whole, or processed at adjacent buildings, it does indicate that a capacity for

a significant increase above the present 20 to 25 million pounds landed annually does exist. It would depend on the amount and type of processing and the other variables mentioned as to the ultimate capacity of the Boston Fish Pier.

Regarding physical growth beyond the Pier itself, the processing of fish, either fresh or frozen, should be a priority consideration of industrial development in the area of the Pier. While the landing of fish requires a water-side facility, processing does not. An example is the Harris Building located across Northern Avenue from Commonwealth Pier and housing modern fish processing facilities. Thus, one alternative for consideration for growth or future development in this area would be to think seriously of an inland "extension" of the Pier providing additional dealer processing facilities extending across Northern Avenue. This would also include that portion of Northern Avenue from Commonwealth Pier to the Naval Annex property (Figure VII-1). This should be considered a prime expansion area for the industry should the 200 mile limit dramatically effect growth. This additional land could add significantly to the ground floor area on which the fish industry could expand still keeping the Pier as the main focus of the fish industry and the primary landing area for fishing boats coming to Boston. Unloading capacity could be increased on the Pier as the need demanded it with the addition of more unloaders and the expansion of the unloading facility as previously discussed. Ultimately, if the need existed, expansion could include the adjacent piers of the Naval Annex. We are not

RECOMMENDED OFF PIER EXPANSION AREAS

FIG. VII.1

BOSTON FISH PIER

0 100 200 400

predicting such industry growth but rather identifying options to be considered for future expansion.

Future development also raised the question of youth in the industry and how new people could be attracted to it. Boat owners and dealers agreed that the industry itself must be made more attractive to young people. Fish cutter's (fillet fish) wages (beginning at $3.50 per hour and going to $8.00 per hour, including all benefits, in 6 months) and fishermen salaries (ranging from $14,000 to $25,000 annually) should attract more youth to this important industry. This apparently is not incentive enough.

The environment of the Pier, which this report addresses, must be changed and new, more confortable and safer boats with shorter trips could and should be provided. The Federal government which subsidizes agriculture, defense industries, housing, etc. surely ought to be able either to subsidize this industry or find tax or other incentives to get this industry moving. Once these changes begin to occur, career opportunities in the industry could become part of the curriculum and counciling of the area school system. The employment potential is great and the Boston area schools should provide opprotunities to educate its students regarding this natural, historic, and well-paying industry. Such concepts as "class rooms" for the industry, on the Pier, could be explored conceivably using the present Exchange Building, Building 3, or a small portion of Building 1 or 2 could be organized as a fish dealer store which trains young prople in all aspects of the industry: perhaps even employing some of the older fish dealers and cutters as teachers. The same could apply to locating a training boat that developes fishermen for the industry. Training boats, and practical training facilities are all common

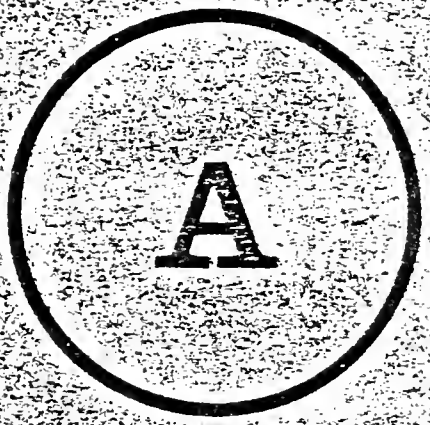
government practices in other countries, why not ours? We in this country and in this State have for too long a time neglected a resource which can bring in additional revenue, add productive jobs, and satisfy a healthy consumer product need, all of which could contribute significantly to improving our national and state economy.

C. Conclusions

It is our firm conclusion that Boston has a viable role to play in improving the fishing industry and thus the economy of the Commonwealth. It is an important industry which has long been a part of our state and city history and heritage. We further conclude that:

-- The Boston Fish Pier can and should remain the center of the fishing industry in the Greater Boston area.
-- The resource and facility presently there can be revitalized and the physical plant is worthy of rehabilitation.
-- There are many active and vital businesses on and adjacent to the Fish Pier that would make up the core of a revitalized fishing industry in Boston.
-- The fishing industry has significant potential as a major employer in the Greater Boston area if all parties involved, including local, state and federal government, the fish dealers, the boat owners, and the Massachusetts Port Authority accept their appropriate responsibilities and take an active role in supporting its revitalization.
-- The fish industry and the Fish Pier Tenants can and should play a major role in the progressing redevelopment of the South Boston Waterfront area. This industry should participate as an important member of the community by working as an industry-wide group with representation at the various local, state and federal levels who together will effect change in the waterfront.

This Feasibility Study, in our opinion, contains sufficient data addressing the above mentioned issues and supporting the conclusions. The last pages of this report contain specific recommendations, summarized for final comprehension and evaluation. Judgements can be made regarding the appropriateness of each recommendation relative to one's role in the process. Decisions certainly must be made because the facility and the Boston fishing industry will shortly be at the point of no return and unless something dramatic is done quickly, we are pessimistic about the future survival of this industry in Boston. As to where it all goes from here depends now on the willingness and ability of all the participants -- the fish dealers, the boat owners, the Massachusetts Port Authority -- to come together, and dialogue, and debate the important issues focused on in this report. We hope after that an effective course of action will emerge and collectively we can get on with the task of bringing this proud industry back as a viable symbol of the Commonwealth's and Boston's re-emergence as a national leader of the fishing industry.



APPENDIX

A. Construction, Economic and Engineering Consultant Summaries

Housing Economics
806 Massachusetts Avenue
Cambridge, Massachusetts 02139
(617) 661-9100

September 10, 1976

Mr. Samuel Mintz
Mintz Associates
One Dock Square
Boston, Massachusetts

Dear Mr. Mintz:

I am pleased to submit the final draft of the economic analysis section of the Boston Fish Piers study. This analysis provides a review of current operations from the point of view of both Massport and the Fish Dealers. It also projects future operations given various assumptions regarding renovations, including alternatives for financing and ownership.

In sum, the proposed improvement of the Fish Piers appears both desirable and feasible. The total rental cost (including utilities, taxes, insurance, etc.) would average $7.25 per square foot after work was complete. This total rent is only $1.25 per square foot more than the current cost adjusted for efficient occupancy. If the Fish Piers obtained an EDA grant of at least $3.0 million, the total rent before and after renovations would be the same or actually decrease. The primary uncertainty as regards economic feasibility is whether the renovated office (or apartment) space on the third floors of Buildings #1-2 can support itself at the projected rents, but even here there is some latitude for dealing with this part of the overall package.

I enjoyed working with you and the other members of the consulting team on this study as well as with the representatives of Massport and the Fish Dealers with whom we came in contact. I would hope that the recommendations of the study are acted on and I would be most pleased to work with you on the implementation of the proposed renovations if called upon to do so.

Sincerely,

Robert H. Kuehn, Jr.

RHK/cts

Robert H. Kuehn, Jr.

THOMAS E. ARTHUR
LUIGI R. DINAPOLI

engineers design group, inc.
48 Inman Street • CAMBRIDGE, MASS. 02142 • Tel. 492-0100

July 26, 1976

Mintz Associates, Architects and Planners
16 North Street
Boston, Massachusetts
Attn: Mr. Sy Mintz

Re: Boston Fish Pier Study

Gentlemen:

We have inspected the existing structures at the Boston Fish Pier to endeavor to evaluate their structural integrity and capacity for future use. Structural drawings of these buildings were not available and our findings are based on field measurement and calculation. Our comments are as follows:

A. BUILDINGS 1, 2, 3

1. These buildings generally conform to the detailed conditions survey by Howard, Needles, Tammen and Bergendorf, made last year and exhibit many deteriorated areas.

2. However, the buildings are basically sound and could be successfully repaired.

3. Settlement of the foundations has been a major factor in causing cracking of walls and slabs and this has certainly stabilized with the passing years.

4. Most damage is confined to the exterior where the weather has penetrated distressed and poorly maintained masonry, stucco and roofing.

5. Repair of the facade at the first level would entail general repointing epoxy grouting of distressed and cracked masonry where possible and reconstruction where necessary.

6. Structural repair and reinforcement will be required to lintels and other supporting steel in the stucco clad facade above the first floor in many areas.

7. Buildings 1 and 2 are divided into three units by arched openings. Removal of transverse masonry in-fill walls may be easily accomplished, however, steel cross bracing will be required if more than two thirds of the walls are removed within a building unit.

8. Areas of floor may be removed between structural beams for new stairs etc., without adversely effecting the structure. Infill wall panels may be penetrated for a central corridor at the 3rd floor level with no effect on the structure.

B. POWER PLANT BUILDING

1. This building is basically sound. There are some limited areas of deteriorated beams and slab where water penetration of encasing concrete and rusting of the structural steel has occured.

2. Deterioration is greatest in the present 4th floor system. The East and South spandrels and columns are badly spalled. This floor structure would require reinforcement of about a dozen beams and three columns.

3. The first floor slab in the razed portion of the building has about 1200 s.f. that has lost its structural value, however, the supporting beams and columns are in good condition. The slab could be replaced or topped by a new slab.

4. There appear to be about a dozen beams and 800 sf of slab in other areas which are in questionable condition and will probably require corrective action.

5. The coal hopper structure can be removed without disturbing the building structure.

6. Columns in the coal hopper area are able to take the additional imposed load of 3 new floors on the typical 16' x 16' bay.

7. Foundations in the razed area are able to be utilized for future construction.

8. The structure is adequate for heavy storage loadings of 250 psf.

9. The existing steel framing for the coil freezer level and the mezzanine level may be removed and reused to build a new floor above the present machine and boiler rooms.

We feel that all of the buildings in the facility have the ability to serve many more years if badly needed repairs are made and the enclosures made weathertight. Revitalization of these structures would be more economical than their replacement.

Engineers Design Group looks forward to the continuation of this exciting project.

Very truly yours,
ENGINEERS DESIGN GROUP INC.

Eugene W. Hamilton

Eugene W. Hamilton P.E.
Principal

EWH/jm

environmental design engineers inc.

145 PORTLAND STREET, BOSTON, MASS. 02114
Tel. (617) 742-7435

August 25, 1976

MINTZ ASSOCIATES, ARCHITECTS AND PLANNERS
16 North Street
Boston, Massachusetts 02109

Subjection: Feasibility Study
Boston Fish Pier

Attention: Mr. S. Mintz

Gentlemen:

In accordance with your request, the following is our first stage evaluations of the various heating systems and their cost implications on subject job.

A. Purpose:

To determine the feasibility of various systems to serve the anticipated rehabilitation of Building #1, 2 and 3, an evaluation of gas, oil and electricity were made, utilizing each as a heating medium.

Consideration was given in these fuel determinations, of providing individual bays with possible provision of separate metering for anticipated residential or commercial habitation of the 3rd Floor Areas.

B. Oil:

It was estimated that the annual No. 2 fuel oil costs with a new low pressure steam plant would be approximately $55,000, including provisions for central domestic hot water heating. This cost is for Building 1, 2 and 3, and approximately 20,000 SF of Boiler Plant heating.

In comparison, the 1975-76 fuel costs was $266,600, including Buildings 4 and 5. From our evaluations, the costs of fuel for heating Buildings 4 and 5 is approximately $50,000.

Continued.....

B. Oil (Continued)

Consequently, present fuel costs for Buildings 1, 2 and 3 appear to be $216,000, which could be compared with the estimated $55,000.

Our further evaluation indicates that the 3rd Floor residences (or Commercial Area) would cost approximately $280 per year with oil fired installation, with an added $200-$250 per year for electricity.

C. Electrical:

To determine the feasibility of using electric heat for both building heat and domestic hot water and utilizing separate meters for said heating, a general evaluation of load was made, based on the following criteria:

1. Typical Bay (1st and 2nd Floors) incorporating approximately 2,600 S.F.

2. Typical Residential/or Commercial Area (3rd Floor), incorporating approximately 40,000 S.F.

3. Residential load was premised on 5 KW heating and hot water for usable 600 S.F.

4. Commercial Area loads (in lieu of residential) were also premised on 5KW per 600 SF of usable area.

The basic differences in the following cost figures are the results of Boston Edison cost differentials for their various rate schedules.

Boston Edison rate schedules used in the evaluation were as follows:

Rate Schedule - Modified B - Residential all electric-individual meter.

Rate Schedule - Commercial - All electric for heat, hot water and air conditioning.

Rate Schedule - G-2 - Commercial - Power and lighting.

Continued.....

C. Electrical (Continued)

As a result of our calculations and comparisons with the particular rate schedule, the following was determined:

	Cost of Electric Heating
First and Second Floor Areas	$1300/Bay
Residential Area	$ 300 per Apartment
Commercial Area (in lieu of Residence)	$ 410 per Apartment

D. Conclusion and Recommendations:

As may be readily seen, if the Third Floor Areas were all residential, then the costs of heating with oil fired system vs electricity would appear to be a "stand-off" (i.e. 280/unit vs 300/unit).

Based on gas not being available and based on electricity being too high in operational costs, the recommended system would be oil fired low pressure boilers in central plant and preferably in the existing Power Plant Building as recommended under the "Heating" section of the report.

While we had to exclude gas from our considerations at this time, we would recommend that further investigation of gas be made should this Feasibility Study move into thie implementation phase.

E. Costs:

Our cost estimates for Buildings 1, 2 and 3 and the Central Power Plant are as follows:

1. Central Power Plant: The estimated cost for a new central low pressure plant, incorporating two new boilers, all necessary appurtenances, central domestic hot water, necessary ventilation and piping distribution in pipe tunnels (see Feasibility Study) would be $300,000.

Continued.....

E. Costs (Continued)

2. Buildings 1 and 2 - The estimated costs for heating and ventilating of the First and Second Floors (to be utilized by the fish dealers) would be (1) - First Floor - 0.75 per square foot, premised on this area being used for fish precessing only, with portions used as freezers or coolers and with heating temperature requirements of approximately 50 degrees F. at 0 degrees ambient, and (2) - Second Floor - $1.00 per square foot, premised on portions of the area being unfinished storage and locker room spaces, with the remainder as office space and with heating temperatures of 50 degrees in storage and locker spaces and 70 degrees in the office area, and (3) - Third Floor - $2.00 per square foot if used as residential space or $1.50 per square foot if used as office space.

3. Building No. 3 - The estimated cost for heating and ventilating for this building, premised on its being used for office space only is $1.50 per square foot.

Very truly yours,

ENVIRONMENTAL DESIGN ENGINEERS, INC.

Daniel B. Stevenson, P.E.
President

DBL/lm

VINCENT A. DiIORIO, Inc.
CONSULTING ENGINEERS
9 PORTLAND STREET
BOSTON, MASSACHUSETTS 02114
TEL. (617) 523-6688

Sept. 10, 1976

Mintz Associates
One Dock Square Building
Boston, Massachusetts 02109

Attention: Sy Mintz

Re: Boston Fish Pier Rehabilitation Study

Gentlemen:

We have investigated the site conditions pursuant to your request relevent to both the electrical distribution and the interior wiring systems. The systems, from observation, for the most part, seem to be that of the original systems with very little improvement over the past years. A common practice of most tenants is to upgrade process equipment which in most cases requires larger electrical demands, and have not maintained the systems to meet the new requirements.

We have contacted the Boston Edison Company and have been assured that there is sufficient power available to meet the demands of rehabilitating these structures.

It is our recommendation that a new distribution system be installed, and increased to satisfy tenant requirements. We further recommend separate metering for all spaces, new power and lighting panels as required, and complete new branch circuit wiring.

The construction cost estimates in Section V of your report include our electrical cost estimates based on past experience. These include $1.50 per square foot for the fish dealer processing areas and $2.00 per square foot for the fish dealer office, locker and storage areas. Other tenant area estimates are $1.50 per square foot for open office space and $2.25 per square foot for residential areas.

It has been a pleasure to participate in this phase of the work of the Boston Fish Pier. We feel it is a good and feasible project and look forward to participating in the future should the project move into the next phase.

Very truly yours,

VINCENT A. DI IORIO, INC.

Vincent A. DiIorio, P.E.
President

VAD:eld

TAYLOR WOODROW BLITMAN CONSTRUCTION CORP.

TEN TREMONT STREET · BOSTON, MASSACHUSETTS 02108 (617) 723-7730

MAIN OFFICE
50 PARK AVENUE
EW YORK, N.Y. 10017
(212) 986-3670

MEMBER OF
THE TAYLOR WOODROW GROUP

September 14, 1976

Mr. Sy Mintz
Mintz Associates
One Dock Sq. Building
Boston, Massachusetts

Re: Boston Fish Pier
Feasibility Study

Dear Mr. Mintz:

Enclosed is a summary of Estimated Construction Costs for the rehabilitation of the Boston Fish Pier including Buildings 1, 2, 3 and the power plant.

We have conducted appropriate field surveys, inspecting both the buildings and pier and, in addition, have utilized the expertise of various subcontractors such as roofing, elevator, mechanical and demolition. Also, we have utilized input from mechanical and structural engineers in preparing our figures. Our estimates were based on quantity take-offs where this was feasible. Our estimates were made from the preliminary plans and outline specifications prepared by your firm, Mintz Associates Architects/Planners, Inc. and they reflect our best experience and judgment at this stage of the projects development. If we have more detailed drawings, or even better, contract drawings we could estimate the price more accurately. However, we do feel from our extensive construction experience, some of it gained in the construction rehabilitation of masonry buildings like these, where we have been both Developer and General Contractor that the numbers in our estimate reflect todays costs and can certainly be used by you for computing your rent numbers. We are also submitting copies of our work sheets and cost breakdown as back-up to the Cost Summary.

We have enjoyed working with you on the Boston Fish Pier and consider it a very feasible project and we look forward to continuing involvement should the project move ahead.

Sincerely,

TAYLOR WOODROW BLITMAN CONSTRUCTION CORP.

R. N. Rosenthal

R. N. Rosenthal
General Manager

RNR:alb
cc: File

B. Letters of Endorsement for Pneumatic Fish Unloading Systems

BRITISH COLUMBIA PACKERS LIMITED

TELEPHONE: 277-2212 (AREA 604)
TELEX: 04-508852
CABLES: "PACKERS"

SEAFOODS

POSTAL ADDRESS:
BOX 5000
VANCOUVER, CANADA V6B 4A8

August 9, 1976

Mr. S.E. Mitz
One Dock Square Building
16 - 18 North Street
Boston, Mass. 02109

Dear Mr. Mitz,

Our Company, has at present, four Tempco Pneumatic Fish Unloaders, primarily for the vessel unloading of trawler fish (Cod, Perch, Flounder, Pollock, Rockfish). One unit is also utilized in the unloading of Salmon and Herring.

Depending on the particular specie being unloaded, rates run between 15 and 20 tons per hour. The vertical lift requirement at our plant is 40 ft. and the horizontal component is 30 ft.

We are very pleased with the performance of the Tempco units from a repair and maintenance point of view, rates of unloading and damage to the fish. They have been in operation for four years.

I trust this information will be of some value.

Yours truly,

BRITISH COLUMBIA PACKERS LIMITED

Don Petrie

Don Petrie
Manager, Technical Planning & Control

DP:st

J. S. McMILLAN FISHERIES LTD
#9 - 975 CENTENNIAL RD., VANCOUVER, B.C., CANADA V6A 3J

September 9, 1976

Edward J. Mee Inc.
Monadnock Bldg.
Suite 632
681 Market Street
San Francisco, California
U.S.A. 94105

Dear Ed,

In reply to your request for a report on the operation of our Temco Vacuum System.

It has proved itself by allowing us to increase our Bottomfish and Herring operation by over 8 times theprevious volume and it makes me wonder how we managed to operate by previous methods.

We originally purchased the machine for Food and Roe Herring up to 7,000 tons. We were never limited by the pump itself, so we built holding tanks and with Toledo Automatic Scale and continuous weighing system, plus conveyor etc. we found that we could average from 30 to 55 tons of Herring per hour. Our next move was to use this system for our Trawl fish, 10 to 12 million lbs. per year. We unloaded one trip from chilled sea water amounting to 360,000 lbs. of cod during a 7 hour period and have consistently unloaded our boats at this speed.

We also installed a 100 H.P. high speed Ford diesel for power. This has given us a variable speed which we feel is a necessity for the bottomfish as we found various sizes of fish could use mor or less power.

In my opinion it would be almost impossible with present labour costs etc. to operate a volume Herring or Trawl operation without this type of equipment. Therefore I fully recommend the Temco machine if installed under proper conditions as previously described, that is, with automatic scales, conveyors, etc.

Yours truly,

J. S. McMILLAN FISHERIES LTD.

J. S. McMillan

J. S. McMILLAN

MAY 31 1974

TEL.: (604) 254-7611
& 254-4691

TELEX: 04-53415

Bingham Fisheries Ltd.
OPERATING PLANT
2115 COMMISSIONER STREET, VANCOUVER B.C., CANADA V5L 1A6

oducers of all Pacific fish

May 29, 1974

Tenco Inc.,
P.O. Box 1087,
Bellevue, Wash. 98005

Attention Mr. Edward J. Moe
President

Dear Sirs:

The operation of the portable Tenco pneumatic fish unloader commenced in March 1974 on B.C. Herring and we are happy to report the system operated well during the entire season.

We are extremely pleased with the reliability, performance and the flexibility of the unit.

Herring were conveyed from the fishing vessels to the dockside in capacities in excess of 30 tons per hour without damage to the fish.

Sincerely yours,

BINGHAM FISHERIES LTD.

W. R. Bingham

WRB/lc

MAR 2 8 1974

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
MEAT AND POULTRY INSPECTION PROGRAM
WASHINGTON, D. C. 20250

March 19, 1974

Gordon Johnson Industries
2519 Madison Avenue
Kansas City, MO 64108

Gentlemen:

It has been determined that the following equipment is acceptable for use in federally inspected meat and poultry plants.

EQUIPMENT: Negative Air Offal System Model N.A.O.S.

This is with the understanding that all future equipment designated by a similar model number will be of the same design and material as those for which this letter is written.

This acceptance does not imply compliance with Department of Labor Occupational Safety and Health Standards. In addition, it should not be considered as an approval of processing methods. Any departure from established procedures must be cleared with the Inspection Standards and Regulations Staff, Technical Services.

Sincerely,

Ralph A. Thompson

for Royal J. Oyster
Industrial Specialist
Equipment Group
Technical Services

Edward J. Moe Inc.
Monadnock Bldg.
Suite 832
681 Market Street
San Francisco, California 94105

Telephone:
415 543 1242

August 10, 1976

Mr. Samuel E. Mintz, AIA,AIP
One Dock Square Building
16-18 North Street
Boston, Massachusetts 02109

Dear Mr. Mintz:

Today I talked with Mr. Don Petrie, Vice President Engineering for B.C. Packers in Steveston, British Columbia, Canada.

B.C. Packers have four of our unloaders in operation this season. They unload flounder, sole, cod, red snapper, sea perch and salmon.

These systems normally will handle pink or red salmon up to 6 to 8 pounds or chums from 10 to 20 pounds. The capacity on salmon runs in excess of 50 tons per hour.

On ground fish and bottom fish capacity varies from 20 to 30 tons per hour depending on fish flow efficiency and the sorting out on the dock as fish are discharged.

Obviously, B.C. Packers are pleased with the performance of Temco systems. After the original system was installed and in operation they purchased three more systems and intend to buy two additional systems for the 1977 season.

The above is for your information.

Sincerely yours,

Edward J. Moe
President
EJM:nl

C. Office and Residential
Tenant Finishes Specifications

TENANT FINISHES SPECIFICATIONS: OFFICE USE

A. EXTERIOR WALLS, LOBBY WALLS AND CORE WALLS

1. Finish. The exposed surfaces are to receive a drywall finish. The toilet rooms' walls are to be finished with ceramic tile (Dado height) and plaster.

2. Doors - Frames. Flush hollow metal doors or solid core wood doors 1-3/4" in thickness will be installed in 18 gauge pressed metal door frames.

3. Hardware. Each swing door shall be provided with one-and-one-half pairs of butts, a latch set, and a door stop where required. A surface mounted door closer will be provided at such additional locations as may be required by the local code. All hardware shall be Schlage, Russwin, or equal.

B. PARTITIONS AND DOORS

1. Partitions Separating Premises.

(a) Partitions. Partitions separating premises shall be constructed of metal studs with single layers of 5/8 inch wallboard on each side or equal, carried to the underside of the floor construction above. Partitioning shall be limited to eight (8) lineal feet for each one hundred (100) square feet of leased space.

(b) Doors. All doors shall have 18 guage pressed metal door frames or wood door frames and castings, as Landlord may elect. The door shall be 1-3/4 inch hollow-core wood doors and shall be provided with one-and-one-half pair of butts, a lock set, and a door stop where required. The doors will be located

according to Tenant's Final Plans, not to exceed one door per 25 lineal feet of partition. A surface mounted door closer will be provided for the principal entrance to the premises and at such additional locations as may be required by the local code. The lock sets which are provided at the entrance will be masterkeyed to building standards and shall be Schlage, Russwin, or equal.

2. Partitions Separating Offices Within Single Premises.

(a) Partitions. The partitions shall be constructed of metal studs with single layers of 5/8 inch wallboard on each side or equal, carried to the acoustical ceiling.

(b) Doors. The swing doors shall have 18 gauge pressed metal door frames or wood frames and castings at Landlord's election. The doors shall be one-and-one-half inch hollow-core and shall be provided with one-and-one-half pair of butts, latch sets, and door stop where required. All hardware shall be Schlage, Russwin, or equal.

C. CEILINGS

Mechanically suspended acoustic tile ceiling utilizing a 2' x 4' square edges fissured mineral tile (Johns Manville, Armstrong, or equal) installed in a standard 2' x 4' spline system as designated on the Tenant's Final Plans.

D. FLOOR COVERING

Vinyl asbestos tile (1/8" Armstrong, Amtico or equal,) shall be installed in all non-carpeted areas. Colors to be selected from the manufacturers' standard colors.

E. LIGHTING

1. Recessed fluorescent lighting fixtures (2' x 4') with acrylic lenses to accommodate 4-40 watt rapid start tubes to the extent of one such fixture per 100 square feet (averaged) of the ceiling areas, shall be installed by Landlord. Where required by design conditions, smaller recessed fluorescent and/or incandescent, shall be installed by Landlord. Where required by design conditions, smaller recessed fluorescent and/or incandescent, shall be installed in mechanical spaces, toilet areas, stairwells and utility areas to conform to building operation requirements and existing codes.

2. Wall switches, one for each private office and in sufficient numbers to control lighting fixtures in open areas, shall be installed. Switches will be single pole, quiet type.

F. ELECTRICAL AND TELEPHONE

1. Duplex wall base and floor receptacles (not to exceed one per 125 square feet of Net Rentable Area) in location shown on Tenant's plans and Schedule shall be installed by Landlord.

2. Landlord will make the necessary provisions for wall and baseboard telephone outlets (not to exceed one per 200 square feet of Net Rentable Area) in locations shown on the Tenant's Final Plans.

G. PAINTINGS AND WALL COVERING

1. All wall surfaces shall receive two finish coats of flat over one prime coat. Doors and frames shall receive two coats of enamel over one prime coat or shall have a natural finish.

2. Paint colors shall be selected from building standard color chart.

TENANT FINISHES SPECIFICATIONS: RESIDENTIAL USE

A. EXTERIOR WALLS, AND CORRIDER WALLS

1. Finish. The exposed surfaces are to receive a drywall finish.

2. Doors - Frames. Flush hollow, metal doors or solid-core wood doors 1-3/4" in thickness will be installed in metal door frames.

3. Hardware. Each swing door provided with one-and-one-half pairs of butts, a latch set, and a floor stop where required.

B. INTERIOR WALLS AND DOORS

1. Finish. Shall be constructed of metal studs with drywall finish, carried to underside of floor finish.

2. Doors. Shall be 1-3/8 inch hollow-core wood doors with one pair of butts, a lock set, and a door stop where required. Install in metal door frame. Metal bi-fold doors on all closets.

C. CEILINGS

Mechanically suspended acoustic tile ceiling, drop-in 2 x 2 panels.

D. FLOOR COVERINGS

Corridor areas to be carpeted. Vinyl asbestos tile in all non-carpeted areas with vinyl or rubber base. Bathroom to be sheet vinyl.

E. PAINT AND WALL COVERINGS

All wall surfaces to receive 1 finish coat of flat over prime coat. Doors and frames shall receive 1 coat of enamel over one prime coat or shall have a natural finish. Bathroom walls to be finished with full vinyl tile in tub area, vinyl cloth elsewhere. Semi-gloss paint on kitchen walls and all trim.

F. APPLIANCES

1. Refrigerator
2. Dish washer
3. Range and range hood
4. Garbage disposal

G. BATH AND TOILET ACCESSORIES

1. Grab bars and non-slip tub surface
2. Shower curtain rod
3. Soap dish and toothbrush holder at lavatory
4. Robe hook on door
5. Toilet paper holder
6. Medicine cabinet
7. Towel bars (2)

H. PLUMBING

1. Water closet
2. Lavatory set in vanity
3. Bathtub with mixing valve and shower head
4. Stainless steel sink with single lever faucet
5. All necessary trim for above fixtures

I. Utilities

1. Electrical service
2. Heating ventilating and air conditioning
3. Complete plumbing and water supply, drain and vent lines
4. Smoke and heat detecting systems in all spaces

D. Previous Studies

1. Preliminary Soil Engineering in the Vicinity of The Boston Fish Pier, Charles T. Main, Inc., Engineers, April 1973.

2. Test Boring Report - Proposed Development, Fish Pier-No. 6, C. L. Guild, Drilling and Boring Co., for C. T. Main, Inc., July 1974.

3. Preliminary Report for The Relocation of The Fish Processors on The Boston Fish Pier, Charles T. Main, Inc., August 1974.

4. Fish Pier Tenants Refrigeration Equipment Survey, Charles T. Main, Inc., August 1974.

5. Replacement of Northern Avenue Bridge, Universal Engineering Corp., September 1974.

6. Condition Survey of The Fish Pier, Howard, Needles, Tammen & Bergendoff, Engineers, May 1975.

7. Preliminary Study for Fish Unloading Facility on The Boston Fish Pier, Charles T. Main, Inc., June 1975.

8. South Boston Seaport Access Road: A Report on Alternative Alignments, Boston Redevelopment Authority, July 1975.

9. "Survey of Uses," Preliminary Draft, Commercial Fisheries, Massachusetts Coastal Zone Management, December 1975.

10. Interim Heating Program, Boston Fish Pier, Carl Biancucci, February 1976.

E. Fish Pier Tenant Survey Questionnaire

FISH PIER TENANTS: SURVEY

Tenant: _____ Date: _____

for: Building Rehabilitation Study

by: Mintz Associates Architects/Planners, Inc.
One Dock Square Building
Boston, MA 02109 Telephone: 523-3705

1. Major operations.

RECEIVING OFFICE

PROCESSING/PACKAGING LOCKERS

FREEZING _____

HOLDING/STORAGE _____

PACKING/SHIPPING _____

_____

_____

What levels can they be on? First, Second, Third?

Major space users?

Most important relationships?

Use needs of truck dock area? Present & Future

Use needs of apron area? Present & Future

2. Evaluate your operation and its future needs.

Good Points

Problems

Improvements

Is present space adequate?

Do you need more space?

Where?

How much?

Do you need less space?

Where

How much?

Describe an ideal set-up for your business. Be specific regarding uses (filleting, freezing, office, etc.) and location (truck dock or apron side, 1st, 2nd, or 3rd floor.)

3. Utility & Mechanical needs. Existing Future

Freezers

Coolers

Ice

Utilities

What floors can they be on?

Important relationship to other operations?

Problems?

Recommended improvements.

4. Circulation needs. Purpose Volume/Peak (AM/PM) Existing Future

Tractors, Forklifts, etc.

Trucks

Cars

Parking

Access to building?

Truck dock

Apron

Problems?

Recommended improvements.

5. General questions.

a) Centralized vs. dispersed facilities.

Fish unloading

Freezer

Ice

b) Trash and fish parts disposal.

How?

Improvements?

c) In addition to fish processing and distributing, what other uses would be appropriate?

10/20
7:45

Volume/Pa
Ex