

**Harvard University - Graduate School of Design
Unit for Housing and Urbanization**

The Shipyard of Boston - Charlestown Navy Yard

References :

- Case Study written by Mr Victor Karen = Boston Redevelopment Authority
- Illustrations : Master Plan for the Yard's End - Charlestown Navy Yard
City of Boston- B.R.A. March 1990

SUMMARY

THE BOSTON NAVAL SHIPYARD

On July 1, 1974 the U.S. Navy locked the gates on the Boston Naval Shipyard, a complex of over 300 acres located in two geographically separate facilities -- one in Charlestown, and the other across the harbor in South Boston. The Charlestown Navy Yard (CNY) was the nation's oldest, having been established in 1800. The South Boston Naval Annex (SBNA) was initially developed around the turn of the century and acquired by the federal government in 1920.

The approximately 105 acres CNY was acquired by the Boston Redevelopment Authority (BRA), which is the City's planning board and redevelopment agency with powers pursuant to urban renewal law. An additional 30 acres was conveyed to the National Park Service (NPS) to establish a National Historical Park around the U.S.S. Constitution, the country's oldest commissioned naval vessel, built in 1799. The BRA acquisition occurred in three separate transactions:

- The 30 acres Historic Monument Area, which included the shipyard's most historic structures was transferred for \$1.00 with the stipulation that historic preservation be an integral part of the re-use plan;
- A 17 acres parcel was also conveyed for \$1.00 to be used for development as a public park; and
- 58 acres, known as the New Development Area, was conveyed to the BRA for \$1.7 million in order to create a mixed use project through both new construction and rehabilitation of existing buildings.

The South Boston Naval Annex was acquired by the Economic Development and Industrial Corporation (EDIC), which was created in 1971 with a mandate to restore manufacturing, in order to create and retain industrial jobs in Boston. The 1977 purchase price of \$4.9 million was financed through the Massachusetts Government Land Bank program, which was established by the State to aid in returning decommissioned military bases to civilian use. In 1983 EDIC acquired an additional 24 acres of the adjoining Boston Army Base for \$3.5 million. These two acquisitions resulted in a total redevelopment area of 191 acres for what became known as the Boston Marine Industrial Park (BMIP).

The use of complementary redevelopment strategies. In the early 1970's employment at the Shipyard stood at 5,000. The addition of these people to the ranks of unemployed during a recessionary downturn further burdened the local economy at a time when Boston's unemployment rate was at 15.3%. The challenge of formulating a redevelopment strategy was compounded by the fact that the nation was in the grips of an economic downturn as the cost of oil skyrocketing. In the Northeast, this downturn was further magnified by underlying economic conditions that favored other regions of the country.

In response to the physical constraints and opportunities of each site. A mixed-use plan was developed for the Charlestown Navy Yard, including biomedical research on portions of the site, as well as the construction of affordable housing and creation of public open space. More traditional maritime and light industrial uses were targeted for the Boston Marine Industrial Park. These complementary strategies have proved eminently successful in optimizing job creation in response to current economic trends. Employment at both sites is now greater than at decommission, and job creation over the next decade is expected to double to a total of 12,300 permanent jobs.

Attracting private investment. The present appearance of the CNY, with its meticulously restored historic structures, new buildings and handsomely appointed pedestrian way at the water's edge, does not reveal the difficulties involved in implementing the project. Economic conditions at the time of the base's closure were far from propitious and it took over four years after decommission to find a redeveloper willing to invest in accordance with the plan for the New Development Area of the CNY. That this private entity -- Immobiliare New England -- was a joint venture between two Italian companies speaks volumes about the local perception of the Navy Yard's value in the 1970s! A substantial element of risk was in fact involved for the developer and, in the first five years after Immobiliare's purchase of development rights, the CNY was able to attract only \$25 million in debt financing, with credit enhancement requirements, for the construction of rental housing and marinas.

Against this difficult backdrop the City of Boston, with state and federal assistance, succeeded in attracting over \$600 million in private investment to the Boston Naval Shipyard's revitalization over the past two decades. Achievements at the Charlestown Navy Yard and the Boston Marine Industrial Park -- the two components of the decommissioned Boston Naval Shipyard -- are summarized in Table I.

Over 5 million square feet of space (not including parking) has been redeveloped into productive uses. Numerous design awards garnered by projects attest to the high level of quality of the Charlestown project while, at the BMIP, the Coastal Cement importing facility and the overall street scape improvements program have also received design commendation.

Table 1

REVITALIZATION PROGRAM THROUGH 1990

	Charlestown Naval Yard	Boston Marine Industrial Park
Public Investment	\$25,000,000	*\$35,000,000
Private Investment	**\$471,000,000	\$140,000,000
Property Taxes***	\$4,000,000	
Permanent Jobs	2,800	3,500
Construction Jobs	2,000	2,400
Affordable Housing	171 d.u.	n.a.
Market Housing	763 acres	n.a.
Open Space	22 acres	2 acres
Additional Investment Anticipated in the Coming Decade	\$969,000,000	\$200,000,000

* Includes \$10,500,000 cost of 1,100 space parking garage.

** Includes ca. \$12,000,000 cost of 1,300 space parking garage financed through IRB under lease to a private entity.

*** Recurring yearly revenue in 1990 dollars; BMIP is subject to a negotiated agreement in lieu of taxes for the entire site which does not produce a meaningful comparison.

Nearly 4,400 construction jobs had been created by the end of 1990 and an additional 6,000 construction jobs are projected in the coming years. A broad range of employment opportunities are provided by these well paying jobs, with excellent advancement opportunities, including for people with only a high school education. This is not only the case at the Marine Industrial Park's light and maritime industries but also at Charlestown's growing sector of biomedical research.

Private investment at the two sites is projected to total nearly \$1.8 billion by the turn of the century. The amount of capital committed to date in the New Development Area under Immobiliare's redevelopment agreement stands at roughly \$200 million, with a significant potential for future investment. An additional \$270 million has also been invested in the Charlestown Historic Monument Area by other private redevelopers. Its redevelopment, which already spans two decades since decommission and is projected to last another decade. Its balanced growth strategy to attain a full return on asset value can provide a wealth of experience for future military base closing.

Public expenditures of around \$60 million have already occurred. Further public sector investment in environmental clean-up and infrastructure is projected at approximately \$10-15 million. The ratio of private investment leveraged by public funds is therefore expected to be around 25:1 at the completion of the two projects.

CHARLESTOWN NAVY YARD -- A PLACE WITH DISTINCTION

The distinction of the Charlestown Navy Yard (CNY) is far-reaching:

- Its historical significance lies in connections that reach back to colonial days, the Revolutionary War and the birth of the U.S. Navy.
- Its present significance stems for its emergence, after decommission in 1974, as one of the largest historic preservation and waterfront revitalization projects in the country as well as the newest mixed-use addition to one of Boston's oldest neighborhoods.
- Its future significance lies not only in leveraging success already achieved toward even greater economic growth and benefit shared by all Boston residents, but also in the potential for applying lessons learned from Navy Yard redevelopment to the challenge of converting an ever increasing number of military bases which are slated for closure in the coming decade.

ACHIEVING EMPLOYMENT GOALS

Creation of jobs that matched the profile of the workers to be dislocated by the base closure was a key goal from the start. Light industrial re-use of portions of the CNY was promoted. Unfortunately, the physical plant and location was ill-suited to attract light industry. Notwithstanding the space set aside for such uses in initial plans they did not materialize.

In 1987, however the Massachusetts General Hospital (MGH) was enticed to locate 250,000 square feet of biomedical research space in one of the CNY's WWI vintage multi-story warehouses. This decision met with such success that by 1992 MGH expanded to fill the entire 675,000 square feet of space in this warehouse, known as Building 149.

The profile of jobs at the MGH biomedical research center is broad and includes skill levels which characterized the pre-decommissioned CNY work force. Even more importantly, today's residents of inner-city neighborhoods can and have found employment at the MGH facility.

Moreover, these jobs are well paying and provide advancement opportunities for all workers, even those without college degrees. On-site day-care, which is mandated by the City's zoning, gives working mothers a chance to participate in this new economy.

PROMOTING ACTIVITY AND ECONOMIC DIVERSITY

Since its closure, there has also been a desire to develop a major public attraction at the CNY. Attaining this goal has been quite elusive. First it was proposed that the John F. Kennedy Library be located adjacent to the National Historical Park. The Massachusetts College of Art, with an enrollment of 1,100 students, was also wooed after the decision to site the Kennedy Library at Columbia Point. The College opted to move elsewhere to a vacant State-owned building.

In the mid 1980's the New England Aquarium was considering significant expansion plans to become the world's largest. A site at Yard's End was designated for this project. Unfortunately the Aquarium plans were too reliant on maximum capitalization of its present site along the downtown Boston waterfront. The declining real estate market of the late 1980's forced these plans to be shelved.

Today, another major attraction -- a museum/entertainment complex developed around the pirate ship Whydah, which is the only sunken pirate ship to have been discovered and conserved -- has expressed interest in Yard's End. Financing for this project is committed and construction could be underway in 1993 once regulatory permitting is completed.

The Whydah Pirate Complex is projected to draw 1.5 million visitors and generate \$5.8 million in city, state and federal tax payments per year. Further economic activity expected from this major attraction amounts to \$10 million per year in contracts for goods and services. An additional \$15 million per year multiplier effect on the local economy is also projected.

OVERALL PLANNING OBJECTIVE -- BALANCED GROWTH

The redevelopment strategy for the CNY is one of balanced growth. Overall benefits of economic expansion are secured in an environmentally sensitive manner. For example, a minimum 50% of the CNY site area is programmed for publicly accessible open space.

Public access is mandated for the entirety of the nearly 3 mile long water's edge. Open space is located in areas that possess advantageous views, sunlight, and pedestrian level wind conditions. Such open spaces will draw people from the entire region to enjoyment of this waterfront location.

Initially, public sector expenditure was required to create CNY open space such as Shipyard Park, completed in 1981. Today, however the private sector will construct and maintain over 5 acres of publicly accessible open space in conjunction with the development envisioned at Yard's End.

MAXIMIZING PUBLIC ACCESS TO A CITYWIDE RESOURCE

Parameters of public access at the CNY are broader than simple provision of open space. Of the 1242 housing units existing (934) and proposed (308), over 30% are available to individuals and families with low and moderate income, for both homeownership and rental. These housing units are of the greatest possible variety ranging from elderly one-bedroom to family four-bedroom.

Another element that helps maximize access to the waterfront is the overall mixed land use revitalization strategy. A significant component of CNY redevelopment comprises uses that generate a broad range of permanent jobs -- such as the biomedical research center and Whydah Pirate Complex. The CNY redevelopment program also provides for a 400 room hotel and additional office uses to complement the 350,000 square feet of office space already occupied.

People are thus invited to the CNY not only for recreation, entertainment and cultural activities, but also as a place to live and work. Access to housing and job opportunities is planned to include the broadest possible range of income and education.

STRUCTURING COMMUNITY INPUT TOWARD CONSENSUS

Lastly, and perhaps most importantly, public access to the CNY is enhanced through a participatory planning process that gives the community access to decision making. Over 125 meetings with neighborhood residents, public officials, harbor advocates and various other interest groups were held between 1987 and 1990 in order to achieve acceptable consensus on amendments to the CNY 1978 Master Plan. The amended plan will guide growth into the next century. Like number of meetings were held in the 1970's to achieve consensus on initial redevelopment plans.

The participatory planning process was carefully structured so that people would have a chance to learn about and evaluate a full range of available choices. The process was geared to preclude decision making that is accomplished too quickly, because speedy decisions are more likely to be biased toward maintaining the status quo. They are also prone to be expressed as re-use strategies that put maximum drain on public resources, such as over-abundance of open space or retention of jobs which no longer match overall economic trends. Agreement on more balanced re-use plans requires a process of education and compromise that achieves a broader set of goals over an appropriate time frame scaled to the issues at hand.

DEVELOPING REALISTIC FINANCING STRATEGIES

As is evident from the foregoing, realization of redevelopment goals for the CNY was a lengthy affair. It is also evident that the return on investment has been tremendous and is expected to grow even more as the re-use plan is completed over the coming decade.

At this time the entire program is a little over halfway completed. Approximately 2.5 million square feet of mixed use development in new and rehabilitated buildings is currently in place. Another 2.5 million square feet is envisioned in the coming decade.

Varied financial transactions have been structured to achieve CNY redevelopment. A common thread however unites these diverse strategies -- it involves optimization of public sector outlay in leveraging private sector investment. For example:

- 30 acres of the CNY which contained the most significant historic structures - the HMA -- was deeded to the BRA for \$1.00 with the stipulation that it be used in furtherance of historic monument purposes. Redevelopment in this area is accomplished through 65 year lease of structures to private developers for rehabilitation. Initial cost to both public and private sector was therefore minimized.
- 58 acres of the CNY -- the NDA -- was sold to the BRA for \$1.7 million (1978\$). The BRA borrowed the funds from the designated private developer, securing its obligation with a mortgage on the site. By agreement the site was to be redeveloped in phases. As each phase was ready to proceed, the mortgage would be reduced and attendant interest forgiven in proportion to the value each phase represented of the total redevelopment program.

Again, initial public sector outlay was minimized. Private sector risk was managed through a phased redevelopment program. Upside participation by the public sector was also established in the initial agreement to account for the possibility that CNY re-use would succeed beyond 1978 expectations (initial expectations were in fact exceeded in 1987).

- An alternative property taxation regime, available pursuant to state enabling law, was used to provide certainty regarding property tax payment over a 15 year period to better manage development risk.
- 17 acres of the CNY was conveyed to the BRA for \$1.00 to be used for a public park.

- 30 acres of the CNY was conveyed to the National Park Service for development of an Historical Park around the U.S.S. Constitution, the country's oldest commissioned naval vessel dating from 1799.
- As various public funding programs became available, they were vigorously pursued in order to construct infrastructure improvements and public open space. Such funding sources included:
 - EDA grants;
 - UDAG grants;
 - BOR funds;
 - State historic preservation grants;
 - State coastal facilities improvement grants;
 - City capital funds; and
 - Federal, state and city planning grants.
- Private redeveloper contribution for public amenities is now accepted as part of the development cost given current reduced availability of public sector funding.
- o Various housing assistance programs were tapped in order to promote a diverse community. Such programs included:
 - o HUD co-insurance;
 - o Elderly Section 202;
 - o CDBG grants;
 - o Federal and state rent subsidies;
 - o Low income housing acquisition funds;
 - o Gap financing funds provided from City linkage exactions on commercial projects;

- o Low-income housing tax credits; and
 - o Cross subsidy of affordable housing by market rate housing.
- o Historic tax credits were utilized to enhance development potential of historic buildings slated for rehabilitation.
- o Industrial revenue bond financing was utilized for the MGH biomedical research facility and parking garage.
- o Mitigation funds from large-scale regional public works projects were secured to subsidize water transit operations to the CNY.
- o DERP/FUDS funds administered by the U.S. Army Corps of Engineers are available for environmental clean up of sites yet to be developed.

The benefit of detailed understanding of CNY financing structures lies less in their form and more in their substance. For example, facile focus on a UDAG label attached to funds that helped achieve a particular project could lead to an overly simplistic conclusion that such projects are no longer feasible inasmuch as the UDAG program has been discontinued.

On the other hand, a more profound understanding of how these funds actually leveraged other investment can lead in a more interesting direction. The substantive financial concept behind the formal package may very well have characteristics that can be repackaged to appeal to today's capital markets.

Potential for structuring such products should be increasing with the ever greater linking of global financial markets. The downturn in real estate and banking certainly exerts a dampening influence. However, real estate has historically been a cyclical investment with upward trends always following downward ones just as sunrise follows sunset, unfortunately without the same predictability.

Financial instruments to resolve credit risk issues in obtaining permanent financing for buildings leased to fledgling research companies are in fact now being developed for application at the CNY. These companies lack current cash flow upon which to judge their ability to meet lease obligations. On the other hand, they have tremendous upside potential.

Investment in any one such company can easily come up empty because of long lead time and uncertain product development. Investment in a sufficiently large pool of research

companies can control risk. If even only one company in the pool makes it, success is often so spectacular that potential loss on the others is overshadowed.

Financial concepts being developed to resolve permanent financing issues in buildings leased to research companies basically transfer credit risk to a third party. This third party could for example issue a letter of credit that would stand behind lease payments. Third party risk is then hedged through pooling a number of companies in the investment.

The actual instruments that accomplish such transactions share conceptual similarities with securitized commercial mortgage pools. Further progress on this front will be tracked and described as part of the work undertaken in this proposal.

CONSERVING THE NATION'S HERITAGE IN CONCERT WITH ECONOMIC GROWTH

The founding of the Charlestown Navy Yard was contemporaneous with establishment of the U.S. Navy at the turn of the 18th century. The U.S. Congress authorized construction of six frigates in 1799. Of these, only one -- the U.S.S. Constitution, which is still docked at the Navy Yard -- survives today. It is the oldest commissioned vessel in the U.S. Navy.

The entire Navy Yard is listed in the National Register as a National Historic Landmark. Its transfer out of federal ownership in 1978 involved review pursuant to Section 106 of the National Historic Preservation Act, which requires that federal actions be reviewed to insure any adverse effect on properties listed in the National Register be minimized or mitigated.

Section 106 review involves consultation with the State Historic Preservation Officer (SHPO) which is the Massachusetts Historical Commission (MHC) and the President's Advisory Council on Historic Preservation. Because of the particularly significant historic aspects of the HMA and the restrictions imposed on its transfer in furtherance of historic monument purposes, additional parties involved in the Section 106 process included the Department of Interior (DOI), the National Park Service (NPS) and the Boston Landmarks Commission (BLC).

In 1978 the Section 106 consultation culminated with various agreements that incorporated measures judged appropriate to mitigate and minimize potential adverse effects of the Navy Yard transfer including:

- o Design Guidelines that established height, use, and other controls for sites in the New Development Area; and

- o A Program of Preservation and Utilization that governed redevelopment in the Historic Monument Area.

To date, much has been accomplished to achieve preservation goals articulated in these documents. The nearly \$1/2 billion of private investment made in the CNY from decommission makes it the largest preservation effort in the country: nineteen buildings have been meticulously restored and adaptively re-used. Numerous design commendations awarded to these projects testify to the high rehabilitation standards that have been attained.

Since 1978, new opportunities to further enhance the Navy Yard's revitalization have also arisen. Accordingly, in 1987, an extensive community planning process was undertaken to create a plan that will guide completion of redevelopment through the next decade. At the same time, meetings held with MHC and other preservation interests focused on developing measures that would minimize and mitigate potential impacts on historic resources.

PLANNING FLEXIBILITY TO CAPITALIZE ON CHANGING CIRCUMSTANCES

The 1978 plans envisioned a significant component of light industrial space, in part to ameliorate the elimination of jobs resulting from the Navy Yard's closure. Since that time, regional economic forces have severely affected the viability of these uses in urban core locations. However, biomedical research has emerged as a new growth economy, providing a broad range of employment opportunities that can take up the slack in light industrial jobs.

In 1984, the City established the Harborpark planning program for the entire Boston waterfront including the Charlestown Navy Yard. Among its various goals, Harborpark included the provision of continuous public access along the water's edge of Boston Inner Harbor.

Prior to this, projects would routinely be designed with private yards, terraces, and balconies along the water. This enhanced private value and marketability at the expense of the public. Harborpark regulations insure that the primacy of access to the water's edge is preserved for the public. As a result, new development extends a more welcoming gesture to the public rather than privatizing the waterfront.

In 1992 plans for constructing the Whydah Pirate Complex on Parcel 5 at Yard's End of the CNY were unveiled. This significant public attraction projected to draw 1.5 million visitors per year will establish a dynamic relationship with the U.S.S. Constitution at the other end

of the Navy Yard. People will circulate between these two "magnets," thus making the entire Charlestown Navy Yard a more familiar, accessible, and significant public resource.

To further build upon this dynamic relationship, a concept called the Double Interpretive Loop has been developed. Through a series of informational and wayside exhibits, the Double Interpretive Loop will inform those visitors whose primary trip purpose is the Whydah, for example, about additional attractions available at the Navy Yard, prominently featuring, and directing them along First Avenue toward, the U.S.S. Constitution. Likewise, visitors whose primary trip purpose is the U.S.S. Constitution will be encouraged to also visit the Whydah.

Midway along First Avenue between the U.S.S. Constitution and the Whydah is the Chain Forge Building #105 -- the site of one of the most important 20th century technological achievements of the Charlestown Navy Yard. An exhibit built around the invention of "die-lock" chain manufacture at this location would not, by itself, be expected to attract broad interest. However, as part of an overall system which draws on the tremendous attraction of the U.S.S. Constitution and the Whydah Complex, an interpretive exhibit at the Chain Forge Building could be more successful.

For their return journey from either the U.S.S. Constitution or the Whydah, the Double Interpretive Loop will direct people back along either of two paths. One is along the water's edge where wayside exhibits about shipways, shiphouses, drydocks, piers, and marine railways would be located.

The second of the two loops will be a landside path, routed through the center of the Historic Monument Area. Along this path the Ropewalk Complex would house exhibits focusing on one of the Yard's most significant 19th century technological achievements.

By itself, a Ropewalk museum would have narrow appeal. The essence of the Double Interpretive Loop however is a system which ties the Yard's more esoteric historic resources to the major attractions that generate visitation. Thus, people's exposure to the entire Navy Yard as an important historic resource will be increased. Accordingly, the Double Interpretive Loop has tremendous potential to realize the goal implicit in the designation of the entire Charlestown Navy Yard as a National Historical Landmark.

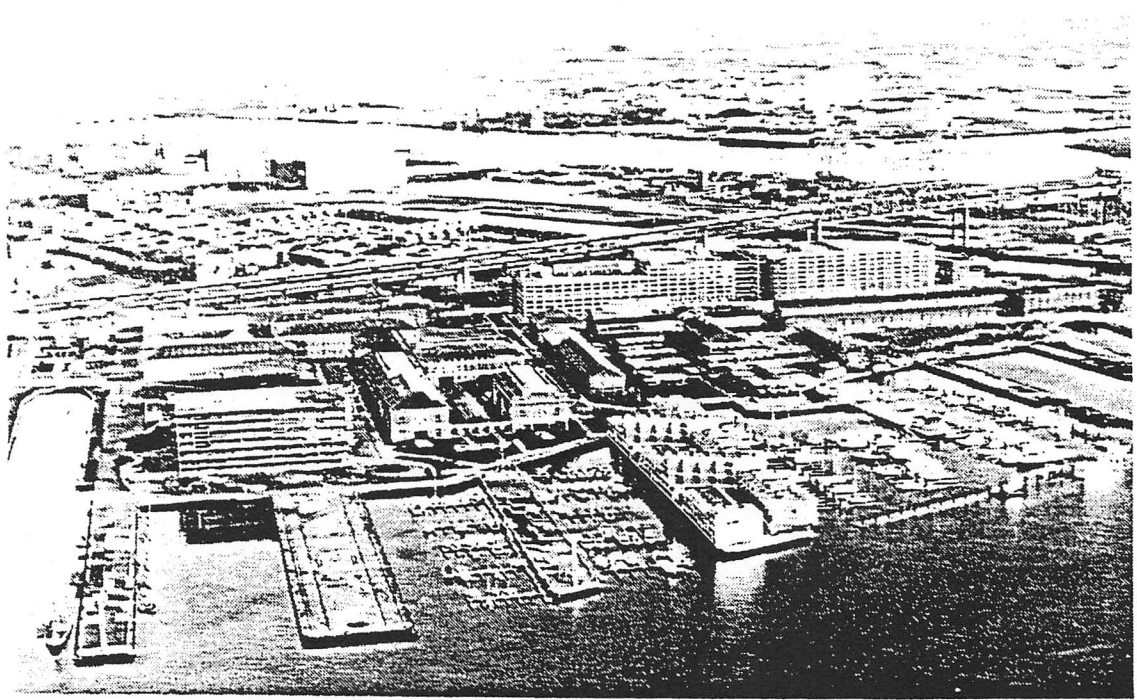
As is evident from the foregoing, numerous opportunities to enhance revitalization of the Navy Yard have arisen in the decade and a half since its acquisition by the BRA. The cumulative economic development that now appears within reach dwarfs even the most optimistic initial plans: Over \$950 million in additional private investment is anticipated clearly proving the adage that success breeds success.

Plans, development strategies and other studies undertaken to promote CNY redevelopment were and continue not to be conceived in absolute, prescriptive terms. Rather, the key to success already achieved as well as realization of future opportunities is seen in continual adjustment in response to changing markets. A degree of flexibility is critical for successful redevelopment in partnership with the private sector.

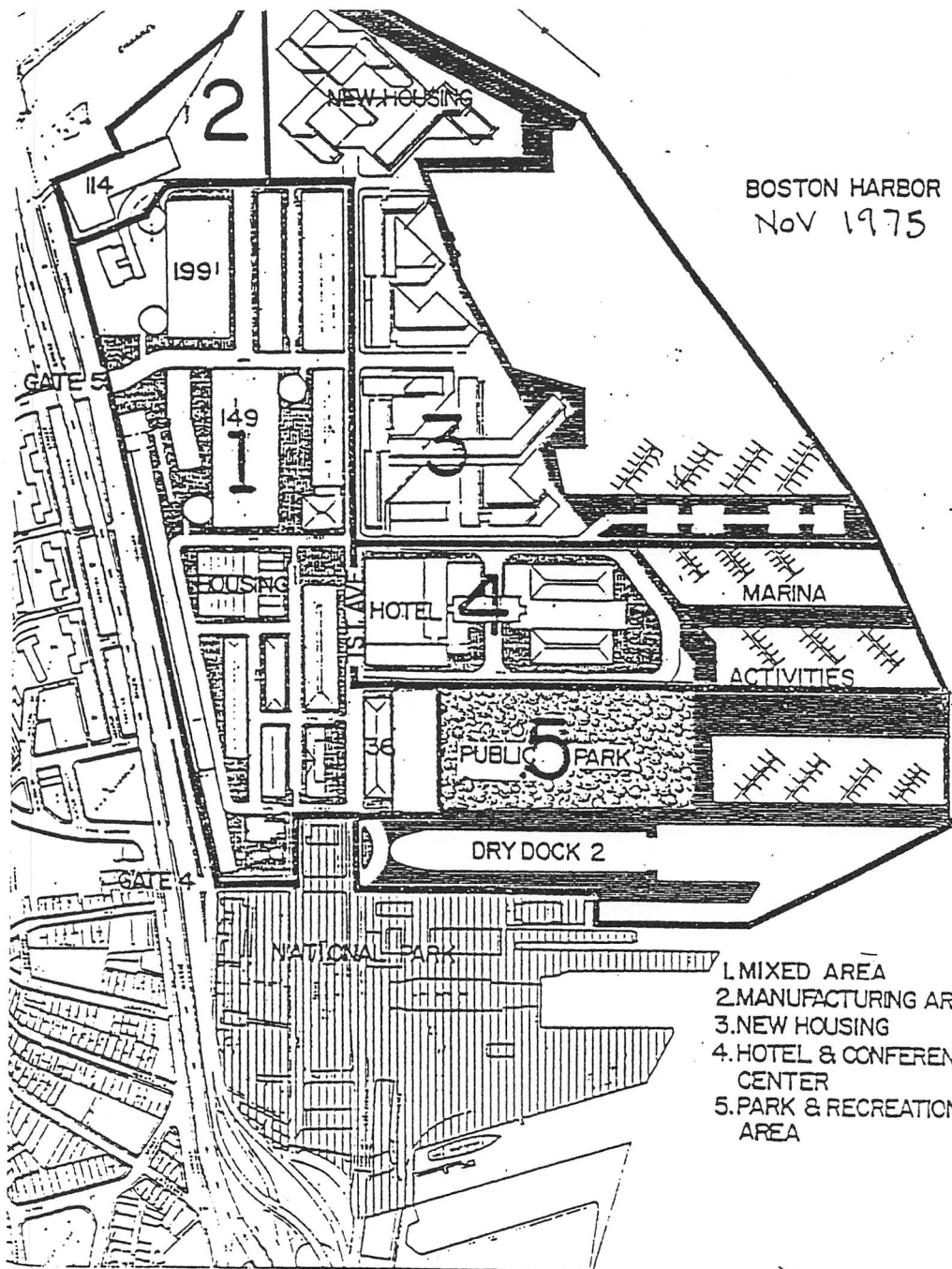
Because current opportunities were unforeseeable in 1978, amendment of agreements which effectuated initial transfer was required. Further Section 106 review was thus undertaken in 1990-1992 with MHC, the Advisory Council, BLC, DOI, and NPS to evaluate alternatives for capitalizing on new opportunities.

Measures to minimize and mitigate potentially adverse impacts on historic resources were once again identified in the Section 106 consultation. During the course of these discussions, the Double Interpretive Loop emerged not only as a beneficial concept in its own right, but also as a significant element of mitigation with respect to the coming decade's increased redevelopment program.

Lastly, State environmental agencies were also involved in the review and approval of CNY redevelopment revisions. The CNY Master Plan was refined to meet the requirements of the Massachusetts Environmental Policy Act (MEPA) as well as proper public purpose doctrine of tidelands licensing regulations.



Aerial of Navy Yard (Landslides)



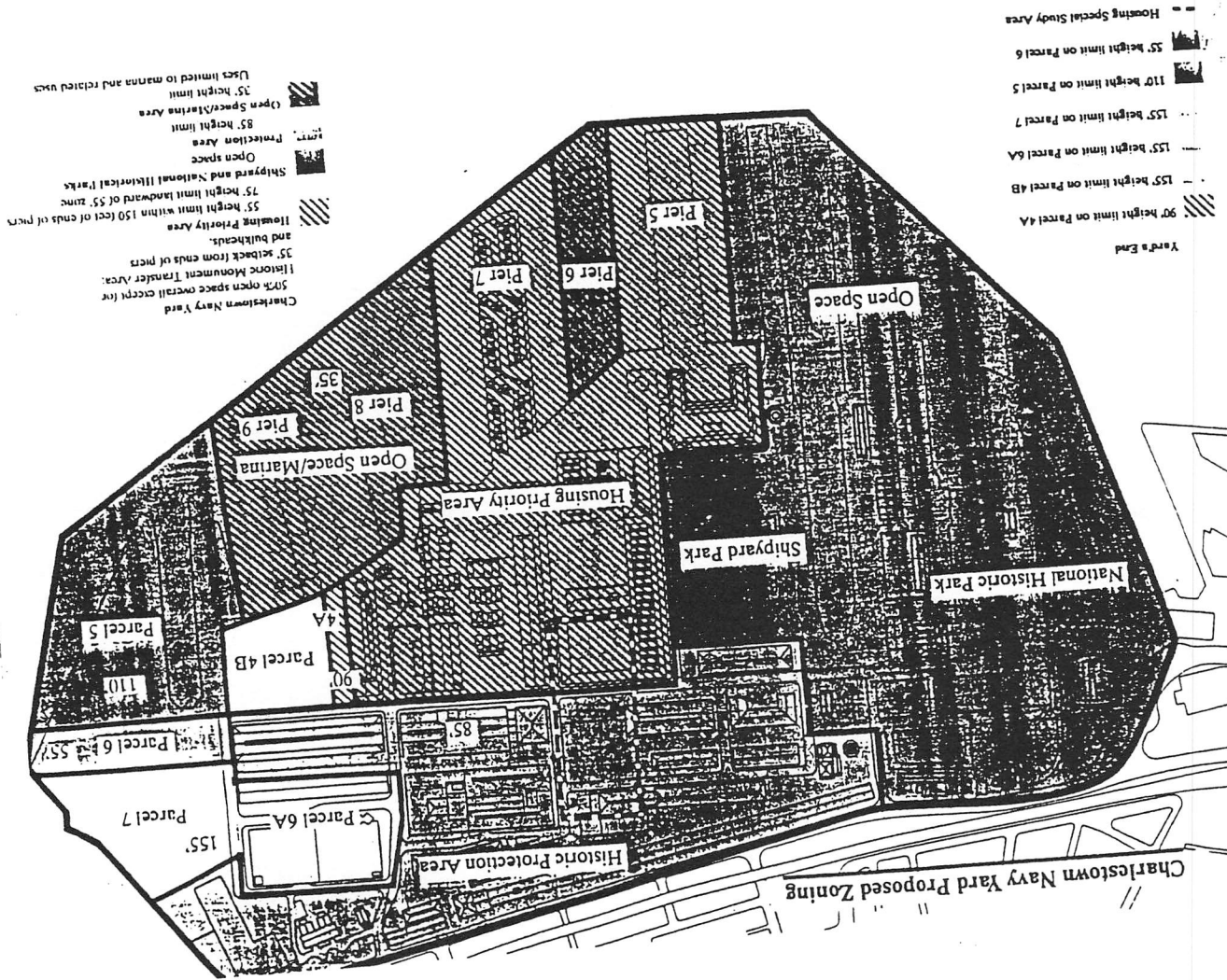
BOSTON HARBOR
Nov 1975

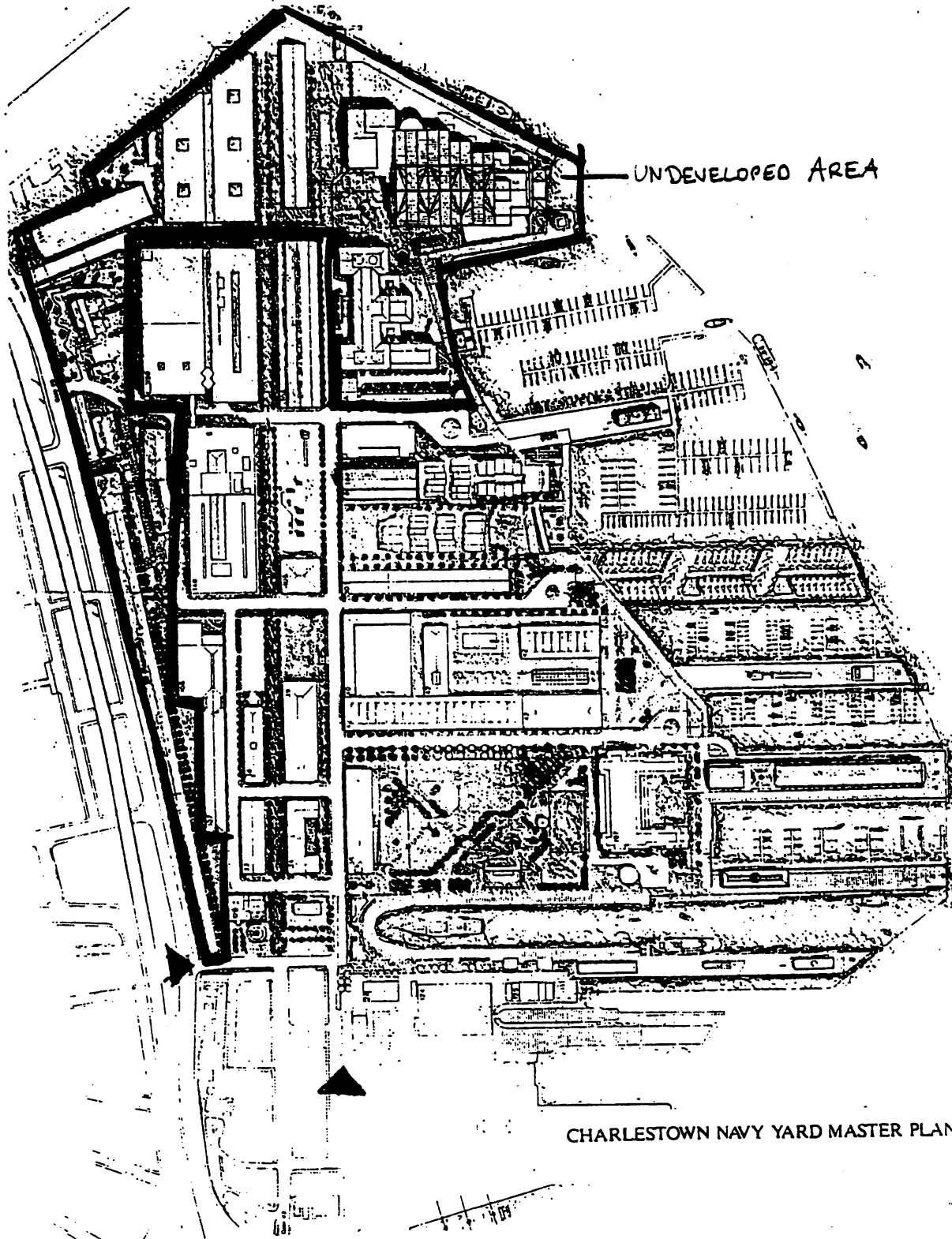
- 1. MIXED AREA
- 2. MANUFACTURING ARE
- 3. NEW HOUSING
- 4. HOTEL & CONFERENC
CENTER
- 5. PARK & RECREATION
AREA



PROPOSED ZONING Nov 1975

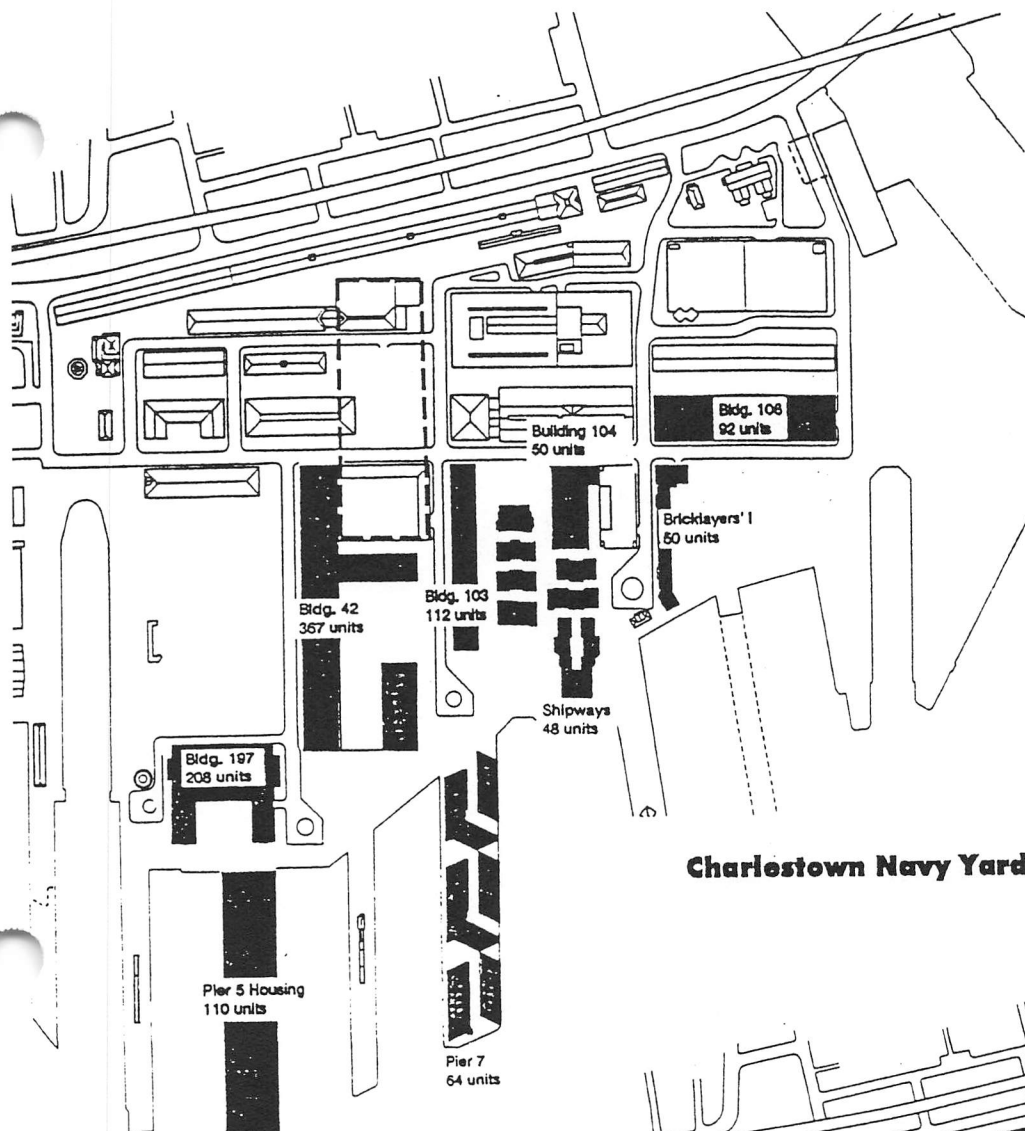
Charlestown Navy Yard Proposed Zoning



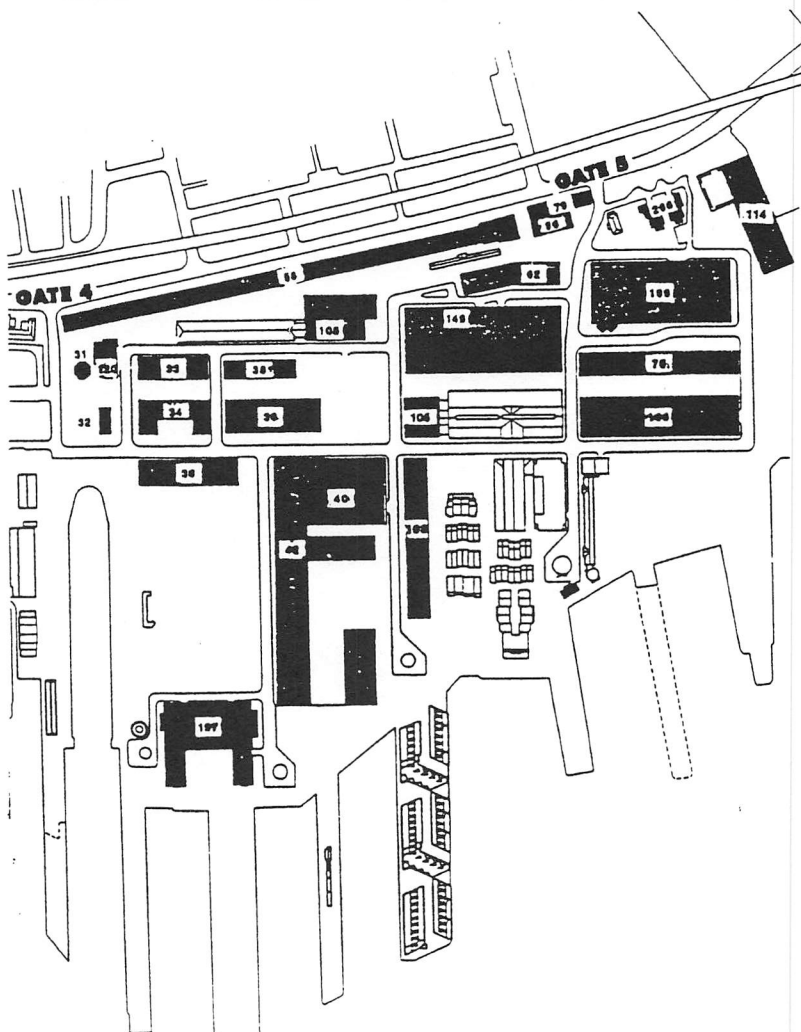


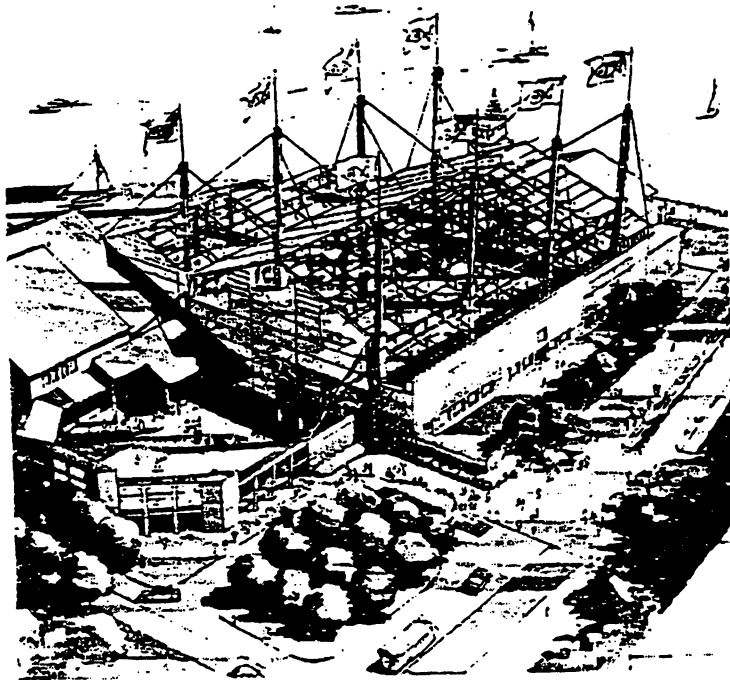
CHARLESTOWN NAVY YARD MASTER PLAN

Charlestown Navy Yard Housing



Charlestown Navy Yard Rehabilitated Buildings

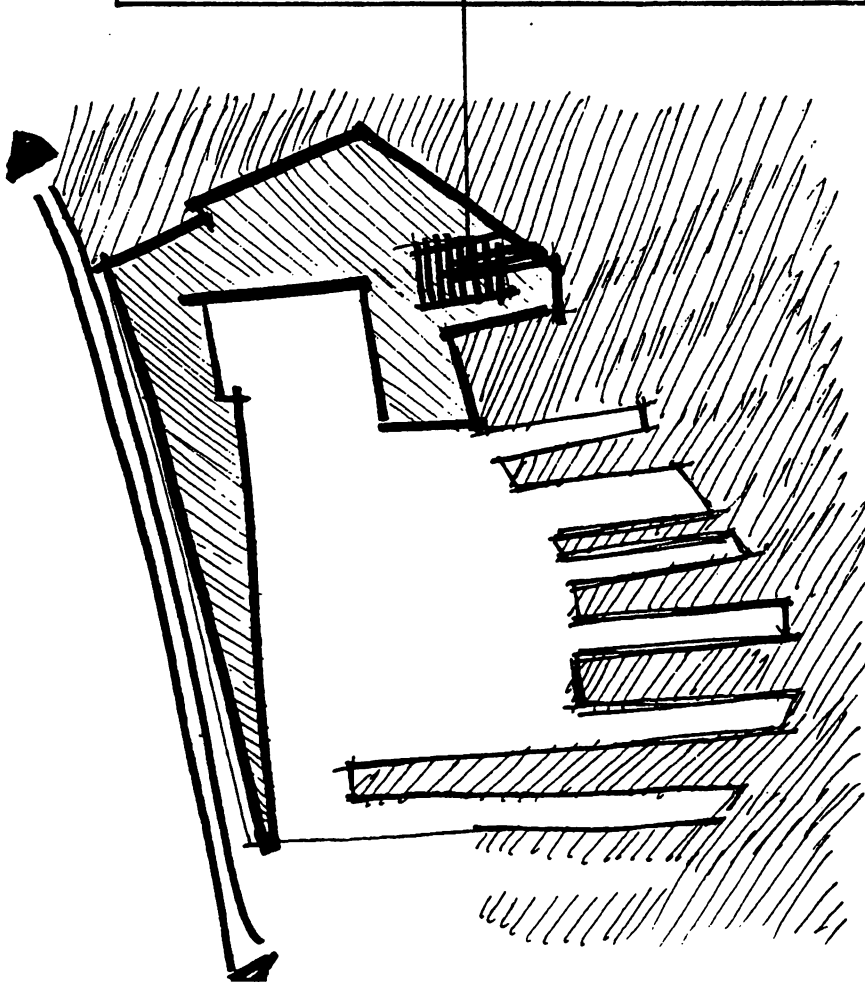




New England Aquarium Dry Dock 5

(Dognik Lee)

- PROJECT ABANDONED -



Charlestown Navy Yard Development 1978- 2000

	DONE		RECESSION EFFECT		Potential Buildout in Special Study Area
	1978-1983	1984-1989	1990-1995	1996-2000	
Affordable Housing		154,400s.f. (171du)	64,000s.f. (50du)	100,000 s.f.	•
Market Rate Housing	300,000s.f. (367du)	783,000s.f. (403du)		198,000s.f. (110du)	•
Medical Research		630,000s.f.	550,000s.f. ✓	550,000s.f.	•
Office		343,000s.f.	60,000s.f.		•
Retail		113,000s.f.	34,000s.f. ✓	24,000s.f.	
Hotel			350,000s.f. ✓		
Cultural			275,000s.f. ✓	195,000s.f.	
Total GSF (w/o Pkg)	300,000s.f.	2,023,400s.f.	1,333,000s.f.	1,067,000s.f.	250,000s.f.
Open Space	9 acres	13 acres	8 acres	4 acres	•
Harborwalk		8,000l.f.	4,000l.f.	2,500l.f.	
Marina Slips	170	180	175		
Parking Spaces	367	2,738	1,405	110	230

* Composition of potential buildout by use to be determined through Special Study process. A minimum 100 units of affordable housing will be developed in the Special Study area from 1990-2000.

Project Phasing

Building 104	Pier 5	Building 39A
Yards End, I	Yards End, II	Building 150
Parcel 4	Ropewalk	Building 108
Aquarium	Building 105	Building 40A
Building 75**		
Building 114		

Funds Invested

	\$36,000,000	\$433,000,000	\$524,000,000	\$352,000,000	\$70,000,000
Total Private					
Permanent Jobs	16	3,000	2,400	1,400	•
Construction Jobs	200	1,900	2,300	1,100	300
Jobs Linkage	0	\$115,000	\$875,000	\$415,000	•
Housing Linkage	0	\$3,289,000	\$4,375,000	\$2,075,000	•
Property Taxes***	\$250,000	\$6,800,000	\$13,300,000	\$16,600,000	\$17,500,000
(Cumulative)					

*To be determined through Special Study area process.

**Building 75 relocated to new location.

***Recurring yearly revenue in 1989 dollars.

