DEVELOPMENT OPTIONS FOR LINCOLN WHARF ON BOSTON'S WATERFRONT

by

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ABSTRACT

This thesis is a detailed examination of the market conditions and development options available for the Lincoln Wharf Development, a luxury residential development on Boston's downtown waterfront. In August of 1985, the Kenney Development Company will be designated the developer for the 2.36-acre waterfront site by Boston's Public Facilities Department. The site is currently composed of two old piers, Lincoln Wharf and the North Ferry Pier. The thesis addresses the development and rehabilitation of the first phase of the two-phase development - Lincoln Wharf and the abandoned coal pocket storage structure on the wharf, which will house the development. While arduous negotiations with the City have delayed the project and many legal and physical constraints currently surround the development, the thesis addresses the question now confronting the developer: what constitutes a luxury residential development in this market and how should the development effort efficiently respond to this market, while at the same time maximizing profits and minimizing risks.

The question is answered through a brief review of the existing legal and physical constraints. This is followed by an examination of the market conditions and market context in which the development finds itself. From this analysis, conclusions are drawn regarding pricing strategies, unit size, unit mix and distribution. Based on this analysis and on the physical and legal constraints, four fundamental development considerations are addressed. The first addresses the addition of two floors on the existing structure. The second addresses the internal organization and layout of the building. The third consideration addresses the question of whether to provide unfinished or finished condominiums to the market. Finally, the provision of some form of concierge service is addressed. The thesis then concludes with a market plan and a review of Lincoln Wharf's relative relationship to comparable developments in Boston.

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INTRODUCTION

In his last day in office in December 1983, Mayor White of Boston designated Robert Kenney of the Kenney Development Company as the developer for two of the last three piers on the downtown Boston waterfront. Since then arduous negotiations have delayed the project which has only just received preliminary approval from the Boston Redevelopment Authority. The site consists of 100,000 square feet of piers and water located on the harbor side of the Alantic Avenue Power Station, immediately adjacent to Union Wharf in Boston's North End. The designated development provides for 44 units of luxury condominiums built within the abandoned coal storage bunker on Lincoln Wharf and followed by a second phase of 18 units of luxury condominiums on the North Ferry Pier, just north of Lincoln Wharf. In addition, the development includes facilities for the Boston fireboats, a public park and a marina.

In the eyes of the developer and many of the residents now living on the waterfront, Lincoln Wharf and the North Ferry Pier represent one of the last great opportunities to create a truly spectacular residential development within the heart of Boston. Part of an established and prestigious neighborhood, this development is surrounded by downtown

Boston, the financial district, the Government Center, North Station, the Faneuil Hall Marketplace and the historic North End. At the same time, located at the end of Battery Street, both piers are far from the busy activity of Commercial Street and the city and share an almost unequalled intimacy with the harbor.

The image of this development is distinguished from its predecessors in the neighborhood, in that it will not have an exposed "brick and beam" look, but one of a higher degree of sophistication and refinement while retaining the historic waterfront character. Because of the size of the existing structure and the legal constraints, this development will be smaller than those built over the past ten years. The image of the development will play upon this relatively small size by emphasizing an overall quality of intimacy and underplayed elegance.

While many aspects of the development are dictated by the existing constraints both from the site and the city, the developer is still confronted with a number of key questions which require his immediate attention before he can effectively proceed: what and where is the market for top-of-the-line luxury condominiums, what amenities and services are expected or should be provided, should the condominiums be finished or unfinished, what management considerations are involved in providing unfinished units, what should the unit sizes be, how does the existing coal storage bunker restrict development opportunities, what can the units be sold for, and finally, what distinguishes this development from all others? In other words, in order to maximize profits and minimize risks, the developer seeks to identify and respond to the market, as efficiently as possible. It is this question that this thesis addresses.

Because of limitations in time and in order to take advantage of the two-phased project, the aforementioned questions address only Lincoln Wharf. Once the first phase, Lincoln Wharf, is complete and the market actually tested, then the developer plans to pay closer attention to the North Ferry Pier. The proforma for Lincoln Wharf, however, does consider a proportionate share of the costs for the publicly mandated contributions, most of which are to be built in the second phase.

In an effort to answer the question addressed by this thesis, an analysis has been conducted through the use of interviews with brokers and prospective buyers and by examining current supply and anticipated supply within the project's market range. The results of this research provide an approximation of the supply and demand conditions which form the basis on which the thesis question is to be answered. All of the questions, however, bear directly on all aspects of the development and therefore will be looked upon in such light. Financial, legal, design and physical as well as market constraints will be fully considered in the evaluation of each development option.

This thesis does not purport to be an exhaustive analysis of both supply and demand conditions. Beyond the limitations of time, (which has inhibited the use of systematic surveys such as direct mailings or the use of focus groups) the modest size of the development is such that it is impossible to use statistical models in analysing market conditions. What the research does provide is an approximation of market conditions based on conversations with brokers and a number of residents and an examination of the sale histories of comparable developments within the specific market area. While a number of questions have ready answers, others are complex and require more extensive examination. It is not the intent of this thesis to answer all, or even a few, of the hundreds of decisions required in such a development. Rather, the intent is to draw conclusions about the major design and marketing decisions in the fullest context of the development effort. These conclusions will serve to direct the work of different members of the development team such as the architect, engineer and marketing consultant.

What emerges from this analysis are five general types of insights: (1) conclusions about who consititutes the market and what their expectations are; (2) conclusions as to how the developer should "position"/image the project; (3) conclusions about how pricing strategies, unit size, unit mix and distribution are made; (4) conclusions regarding the building's internal organization, the degree of finish required for the condominium units and whether some form of concierge service should be provided; (5) finally, conclusions about a market plan and the development's relative position to comaparable projects.

Chapter One introduces the development entity and the current legal and physical constraints of the site. Chapter Two assesses the market conditions both within the specific market area and Boston. From this assessment, conlusions are made regarding absorption and a pricing strategy for Lincoln Wharf. Chapter Three examines, in detail, the design program and the physical design and financial feasibility issues confronting this luxury residential development in an existing structure. Chapter Four reviews the conclusions drawn in Chapters Two and Three and then proceeds to establish a market plan. This thesis is concluded by a review of the Lincoln Wharf's relative position in respect to other comparable developments in Boston.

CHAPTER 1
THE DEVELOPER AND PROJECT CONSTRAINTS

The following chapter introduces the development entity and the current legal and physical constraints which define and direct the development effort. While some of these issues do not bear directly on the design and marketing of the development, they provide the background necessary to understand the development effort as a whole and are therefore briefly reviewed below.

The Developer

The Kenney Development Company was founded in 1977, under the name of Urban Consulting Associates of Boston, by Robert T. Kenney, the former director of the Boston Redevelopment Authority and the Boston Public Facilities Department. In 1981, John Weis joined the company after serving as the director of Boston's Neighborhood Development Agency. Initially a consulting firm, which worked on matters of financial placement, market analysis, development management and project coordination, the company moved its focus to real estate development. While still providing consulting services on a wide range of real estate matters, the Kenney Development Company is currently the general partner for $60,000,000 worth of projects either currently in construction or in the design stage. These projects range from a $10,000,000 office condominium complex in the Charlestown Naval Yard to a $25,000,000 residential condominium development in Newburyport, Massachusetts.

<u>The Ownership Entity:</u>

Lincoln Wharf Associates was formed in the fall of 1983 as a development entity whose sole purpose was to achieve designation and development rights for Lincoln Wharf and the North Ferry Pier. Composed of two general partners, the Kenney Development Company and the Harbour Capital Group, Lincoln Wharf Associates is currently structured as an equally owned partnership. For the purposes of raising capital, in addition to that provided by Harbour Capital Group, this partnership currently plans to sell a 10% share of its interests to a limited partner for $1,000,000.

The Harbour Capital Group is an investment firm which, for the past ten years, has placed monies primarily in residential real estate in New Jersey, New York and Florida. For Lincoln Wharf Associates, the Harbour Capital Group is providing equity financing and maintaining a passive non-management relationship to the development.

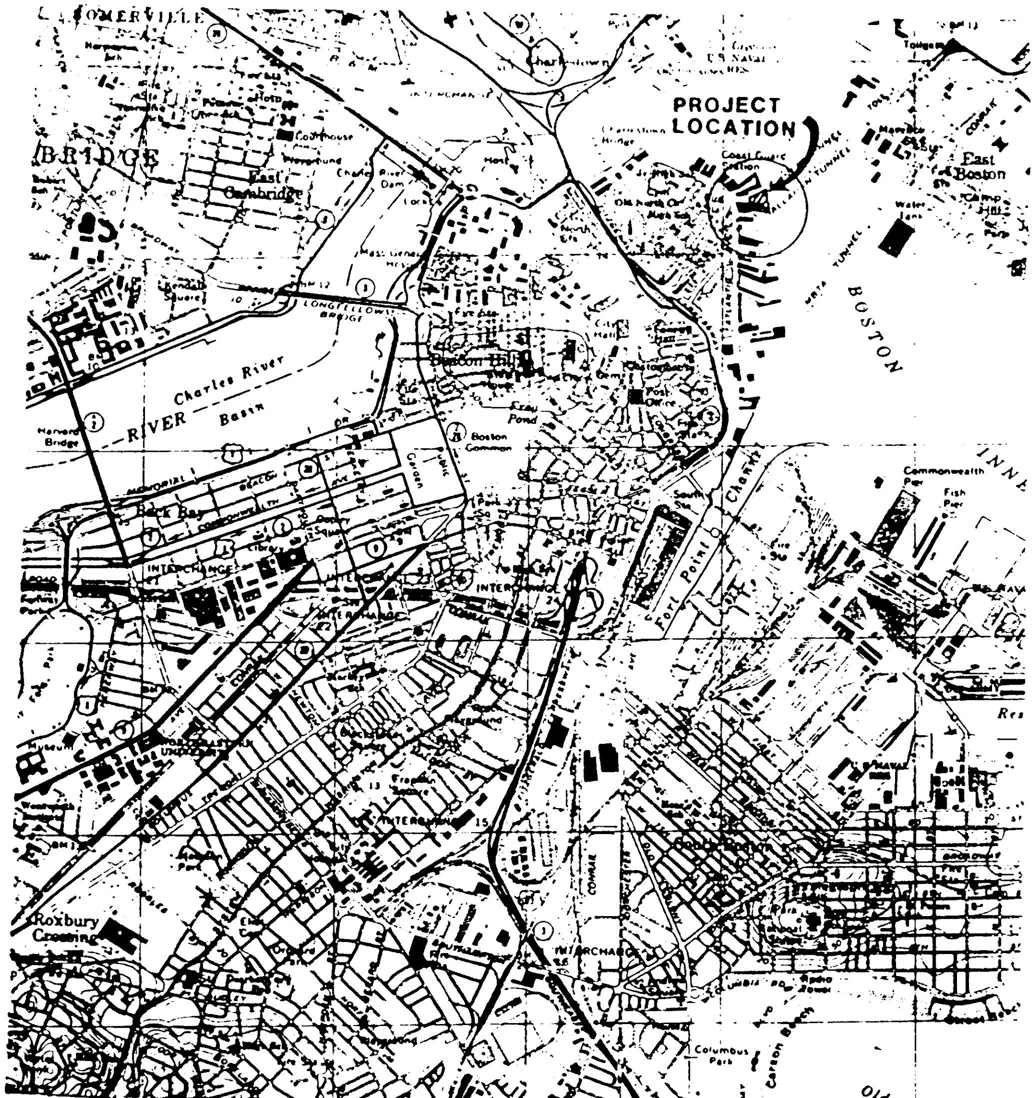
Current Project Constraints

Two types of constraints are found in this project. The first are those presented by the site itself. This includes design constraints and increased construction costs from the deteriorated condition of the wharf. The second regards the legal constraints with both the city and the state.

Physical Constraints

The five story heavy-timber coal pocket structure on Lincoln Wharf stands on a creosote-imbedded timber deck supported by 1,000 wood piles driven into the bottom of Boston Harbor. Just below these wood piles, encased in Boston Blue Clay, is Sumner Tunnel with the adjacent Callahan Tunnel. This is shown in Exhibit 1, as well as a project location map and site map. The tidal movement of the harbor waters has rotted many of the wood piles at the waterline and they need to be recapped. While the coal pocket storage structure has held many tons of coal over the past years, a plan to rehabilitate the structure and to recap the piles has required extensive consultation with the Massachusetts Turnpike Authority, the agency responsible for the tunnels. An approved solution has been reached which provides for the recapping of 350 piles with loading requirements not to exceed a specified amount. The cost of this work has been estimated as $973,000 by the Gilbane Construction Company of

Exhibit 1

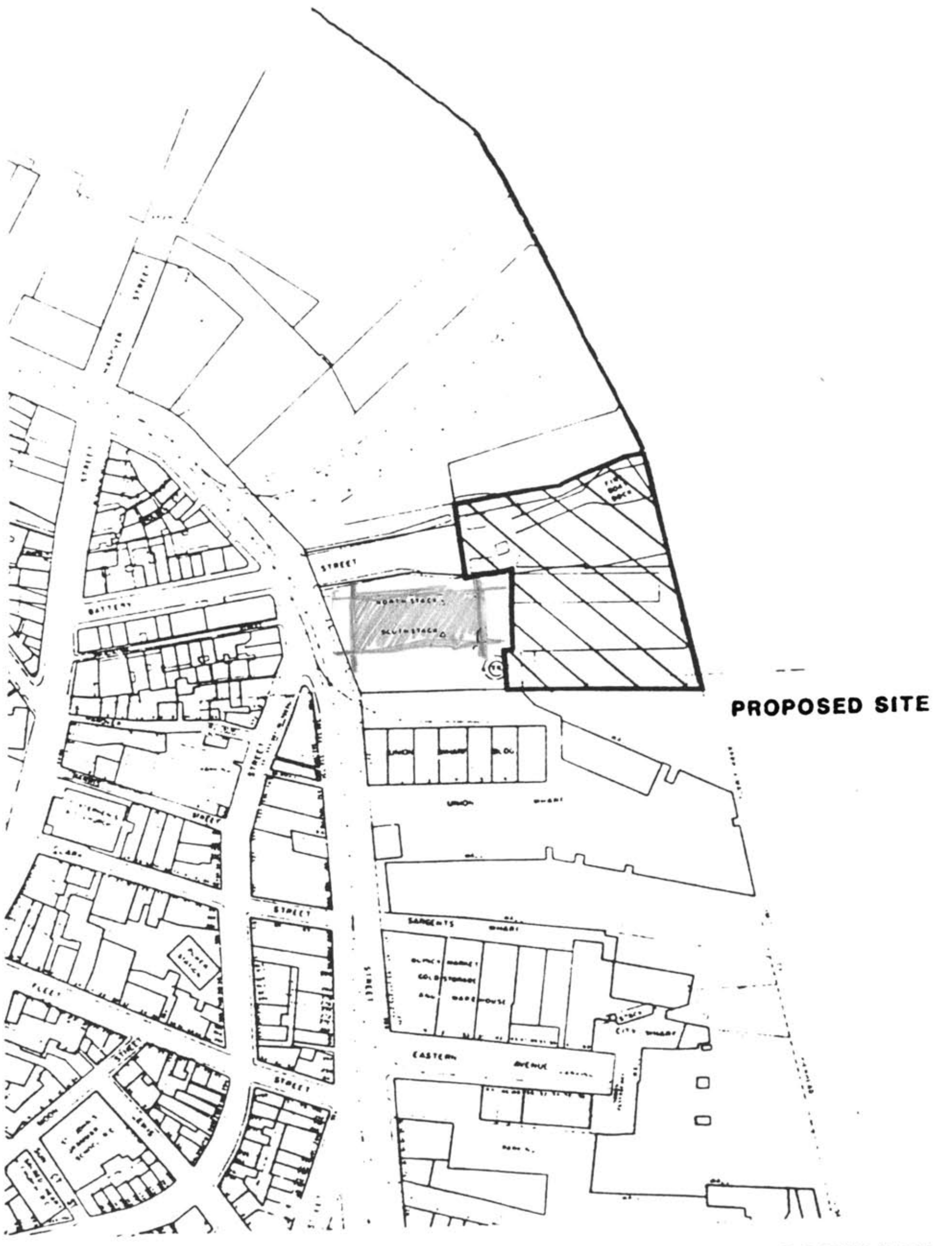


LINCOLN WHARF ASSOCIATES

LINCOLN WHARF

NOTTER FINEGOLD & ALEXANDER INC

Exhibit 1



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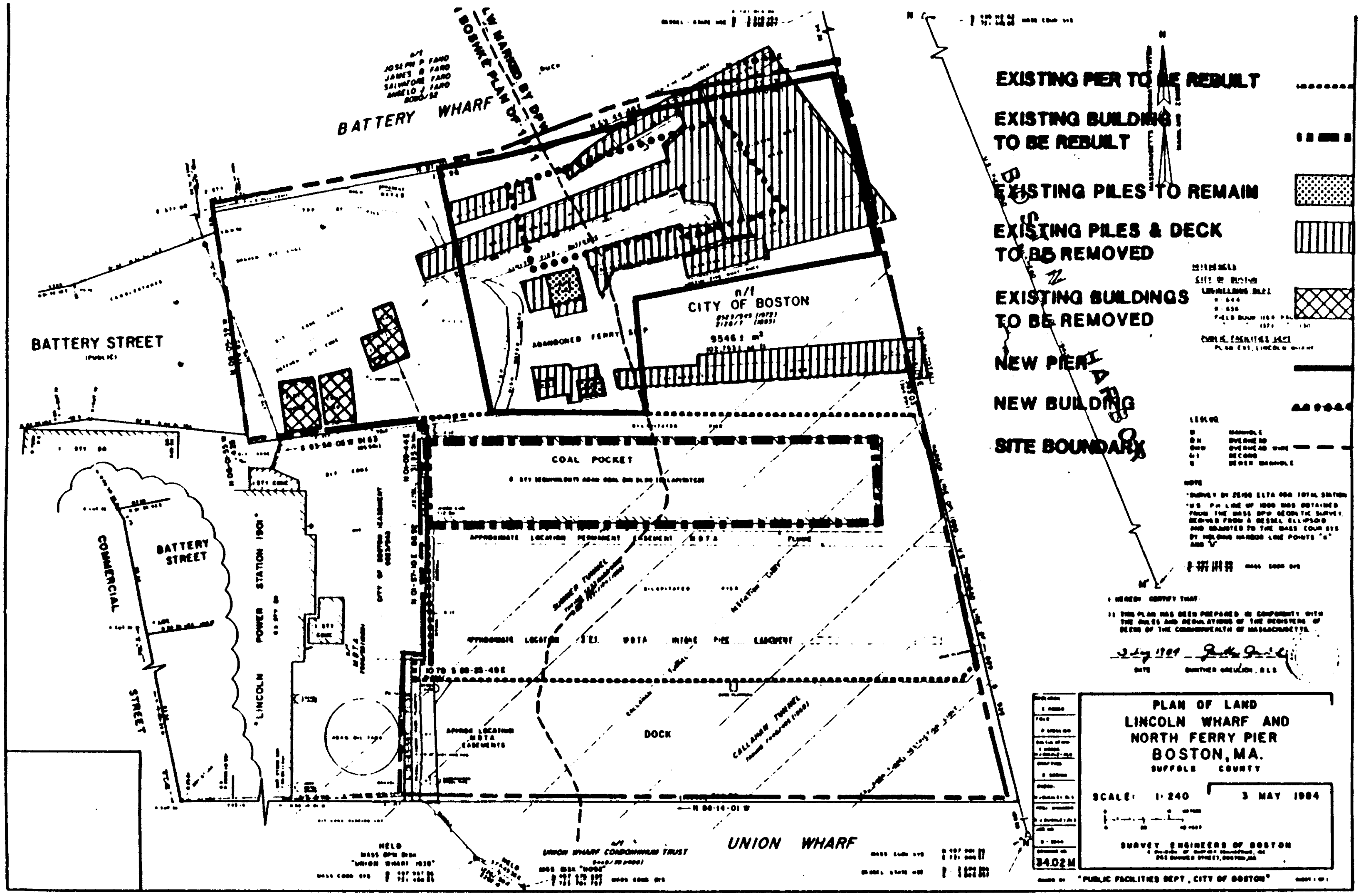

Exhibit 1

LINCOLN WHARF ASSOCIATES

LINCOLN WHARF

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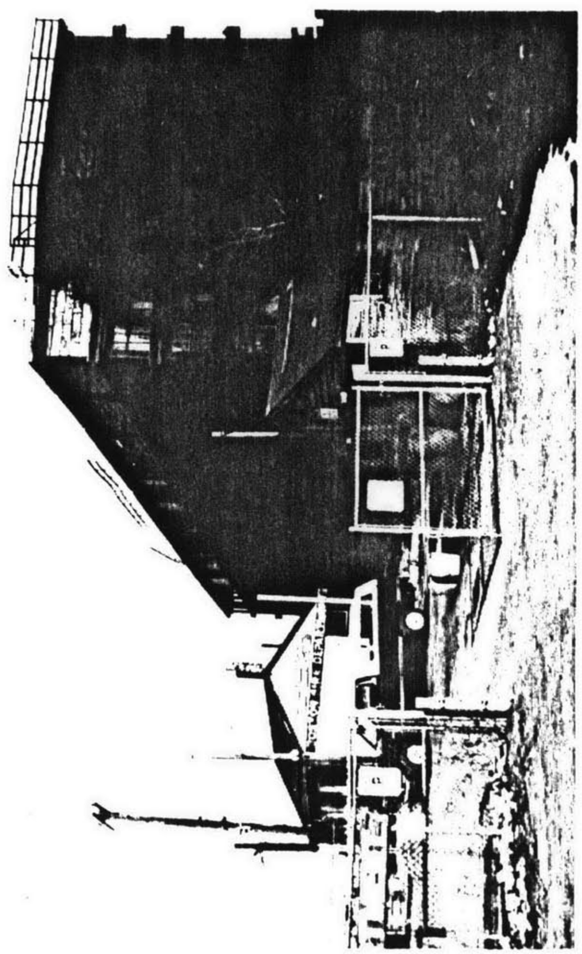
Providence, Rhode Island. Other significant costs to be incurred in the rehabilitation of this structure and wharf include the demolition of portions of the deck and the removal of the roof, siding and other miscellaneous items on the coal pocket structure. This work results in demolition costs of $461,000. The total cost of this work is $1,434,000 or 22% of the total construction budget. A summary of construction costs and their relative relationships for the Lincoln Wharf Development may be found in Table 1.

In addition to these costs, the ten-foot-on-center structural bays that cross the width of the coal pocket structure and the heavy-timber diagonal bracing raise significant design constraints in the arrangement of the residential units. The use of steel angles will mitigate the problem created by the diagonal bracing, but altering the structural bays would be cost prohibitive, as it would require the rebuilding of the entire structure. This issue is considered in detail in Chapter Four. Photographs of the coal pocket storage structure may be seen in Exhibit 2.

Legal Constraints

A host of issues have surrounded this development over the one and one-half years since the original designation. Many of these issues have been resolved through extended and, at times, arduous negotiations with Boston's new mayor,



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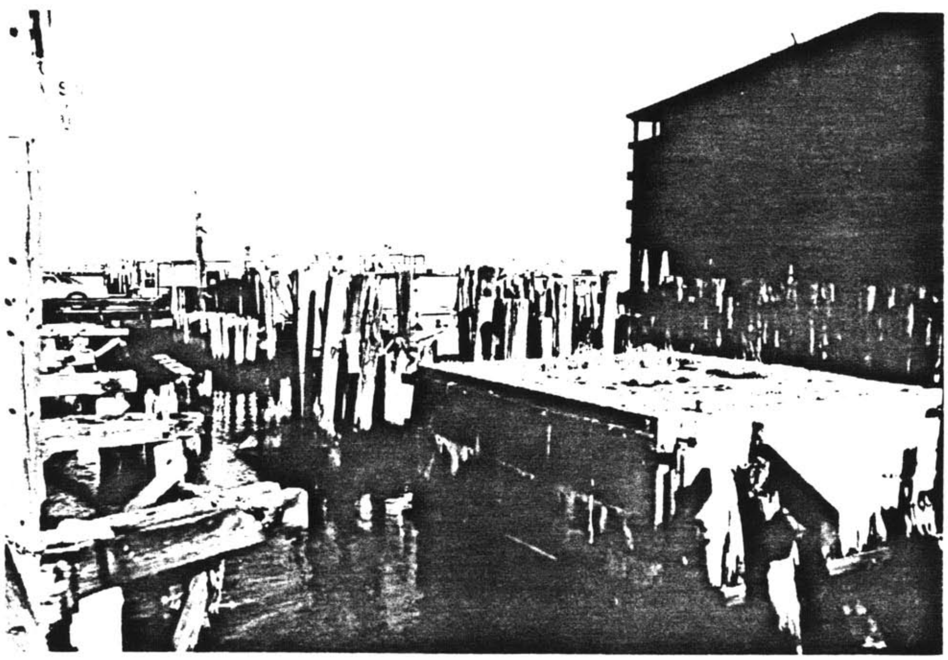


Raymond Flynn, and the Boston Redevelopment Authority. The agreed upon constraints and conditions for development are described below. One central issue, the establishment of clear title to the land, remains outstanding and bears directly on the success of the entire development.

The Commonwealth of Massachusetts is responsible for all tidelands held in the public trust. These tidal lands refer to land, submerged or filled, seaward of the "primitive" low-water mark along the coast of Massachusetts. Lincoln Wharf is located on such property. In the past, such properties have been granted irrevocable licenses by the State for private uses. Two years ago, the Massachusetts Legislature established an administrative licensing process to replace the legislative that, according to an editorial in the Boston Globe on July 28, 1985, relied more on "political muscle than technical evaluation." This legislation was heralded as a great opportunity for the City to insure in the future that the use of public properties would, indeed, be used in the public interest.

As the States Coastal Zone Management Agency began to draft the regulations, it became clear that the new process would only grant revocable licenses. The reasoning for this limitation was to insure that, in fact, properties given to private uses would retain significant portions devoted to public use. However, as some conveyancers quickly pointed out, the granting of revocable licenses would substantially cloud title to these properties. Without clear title, financing for the Lincoln Wharf development, and any other such project, would be impossible.

This issue is currently in the thick of debate. There are conveyancers and state officials arguing that title can be clear with a revocable licensed condition for private use. Nevertheless, certain amendments intended to resolve this issue are now being drafted. An alternative solution is the provision of a long-term lease with the City. The use of irrevocable licenses is also not out of the question as the Kenney Development Company currently has a bill filed, by Representative DiMasi (D-Bos) of the North End District, requesting legislative action. At this point, with a number of viable solutions, the Kenney Development Company is fully confident of a positive resolution.

Public Benefits

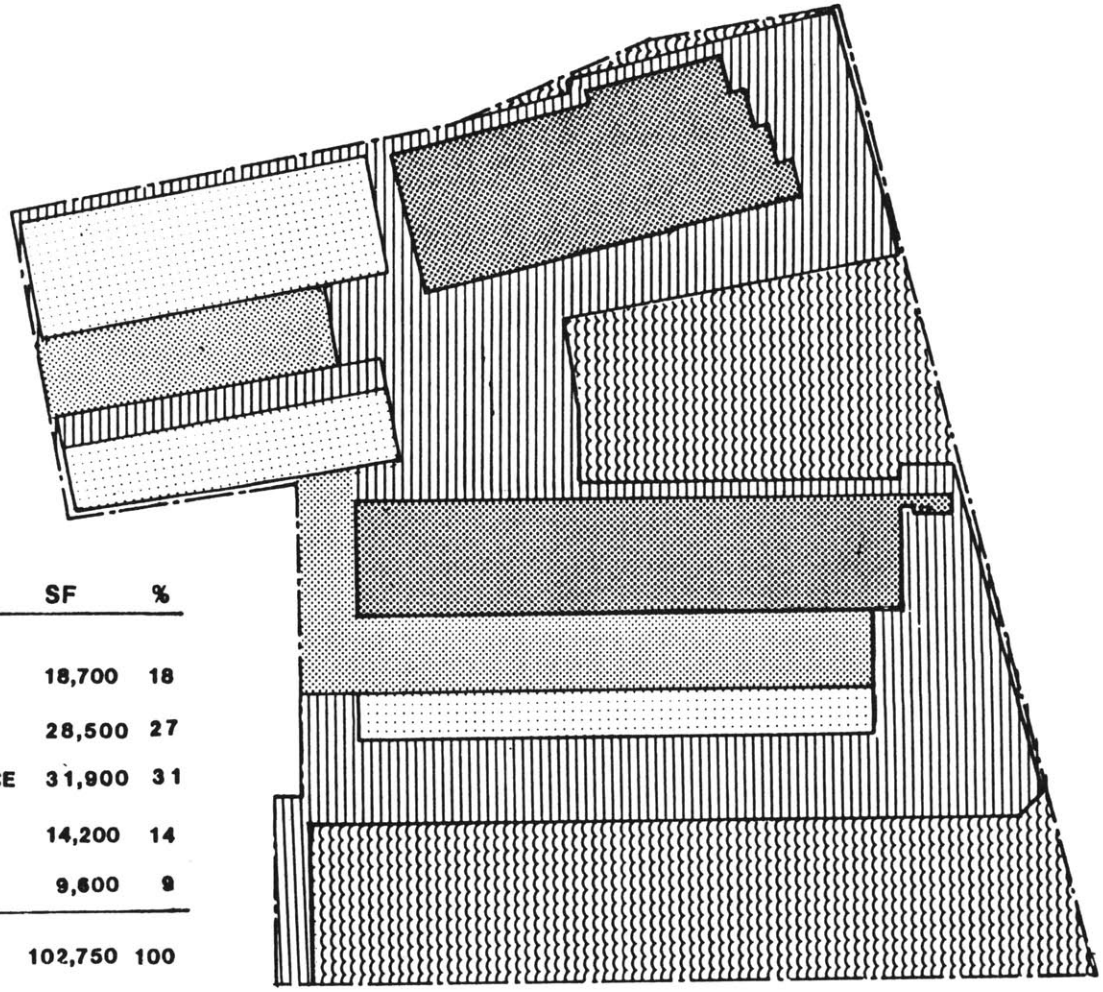
The environment in which the Lincoln Wharf negotiations have been conducted has been directly affected by the transition in the mayor's office and a groundswell of public interest in community-related matters. The developer's original proposal was the only one of the three received that contained public benefits as an integral component of the proposal. These benefits included the construction of new facilities for the Boston fireboats on the North Ferry Pier, a public promenade and a $375,000 contribution to the City's housing program. Nevertheless, given the new Mayor's agenda to open the downtown waterfront to the public through the use of parks and a continuous promenade as well as an avowed reorientation in the city's relationship to private development, the project was "de-designated" in August of 1984. While there were very substantial legal questions regarding the legitimacy of this action, the Kenney Development Company renegotiated a relationship with the city and was redesignated as the developer in August of 1985, one year later.

This most recent designation provides for a maximum of sixty-two condominiums of unspecified size to be built on the 2.36 acre site. A maximum of 44 units may be built on Lincoln Wharf with a total height of no more than seven stories. Furthermore, it has been strongly suggested that the addition of the sixth and seventh floors be stepped back, away from the harbor. A maximum of eighteen newly constructed condominiums may be built on the North Ferry Pier. At the end of the pier, will be five public marina slips and docking and office facilities for the Boston's two fireboats, provided at the developer's expense. A minimum of one parking space per residential unit is required. Full public access around the perimeter of each pier has been agreed upon. A public promenade is also mandated beside the North Ferry Pier. A landing area for the city's new water taxis has also been agreed to. These taxis, part of the Harborpark Plan, will provide direct access to Logan Airport. In addition to these requirements, a lump sum linkage payment of $475,000 is required at seven years time from the date of designation.

In terms of land use, more than 29% of the land area of the development is devoted to public use, 14% is devoted to parking and only 18% is occupied by buildings. 82% of the development land and water area is open. For a graphic description of the various land uses and their relationship to each other, see Exhibit 3.

While many of the actual site and building relationships have been sketched out by the project architect for the purposes of negotiation and assessing potential issues, the developer only now, with the obstacles removed, has begun to determine how this development should be designed within the constraints given and with the objective of building the downtown waterfront's finest luxury residential development.

Exhibit 3



LAND USE	SF	%
BUILDINGS	18,700	18
WATER/MARINA	28,500	27
PEOPLE/OPEN SPACE	31,900	31
CARS	14,200	14
CARS & PEOPLE	9,600	9
TOTAL	102,750	100

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CHAPTER 2
MARKET CONTEXT

For the purposes of assessing market conditions and a pricing strategy for Lincoln Wharf, three perspectives are assumed. The first is an examination of existing supply conditions within the specific market area: what has been developed, how have these projects appreciated in value, and what conclusions can be drawn about pricing strategies? The second perspective analyzes market demand: what has been the market demand in the past and what is the anticipated market demand for Lincoln Wharf? The third perspective considers substantial waterfront projects coming on line in the next three years which may impact the Lincoln Wharf development: how are they similar, how are they different and do they constitute a competitive threat? Based on this analysis, Chapter 2 concludes with a pricing strategy for Lincoln Wharf and a projected absorption rate.

The Market Area

Lincoln Wharf, and its specific market area, is located within the larger fabric of Boston's North End. As an integral part of this neighborhood, the following definition and analysis of the specific market area, is set within the context of Central Boston and the North End-Waterfront Neighborhood. This area is surrounded on two sides by the harbor and on the inland side by North Station, the Government Center, the financial district and Quincy Market. Centrally located, access from Lincoln Wharf to Logan Airport is ten minutes away by car, subway or ferry. Freeway access, north and south, is no more than five minutes by car and the subway is a ten minute walk.

Since the turn of the century, this neighborhood has been a closely knit community of Italian descent. Characterized by small winding streets and simple brick row buildings that once housed those who worked on the waterfront and in the markets, many residents still only speak Italian. Italian bakeries, groceries and restaurants are found throughout residential neighborhoods and the streets are often alive with activity as there are few yards, parks or open spaces.

Over the past ten years this neighborhood has experienced enormous growth and change. This growth has largely resulted from the neighborhood's proximity to the economically resurgent downtown Boston. The Central Boston area (the Downtown, Back Bay, Beacon Hill, North End, Waterfront and South Cove areas), has experienced record levels of investment. From 1978 to 1983 and 1983 to 1988, over 7.1 billion dollars of private development investment has been made or is scheduled. This same area is responsible for 48,000 of the 58,000 net increase in jobs in Boston over the 1976 to 1983 period. The Boston Redevelopment Authority estimates that more dollars have been spent on a per-capita basis for urban development in Boston than any other city in the country. Since 1975, over twenty million square feet of space has been added to the city's building supply.

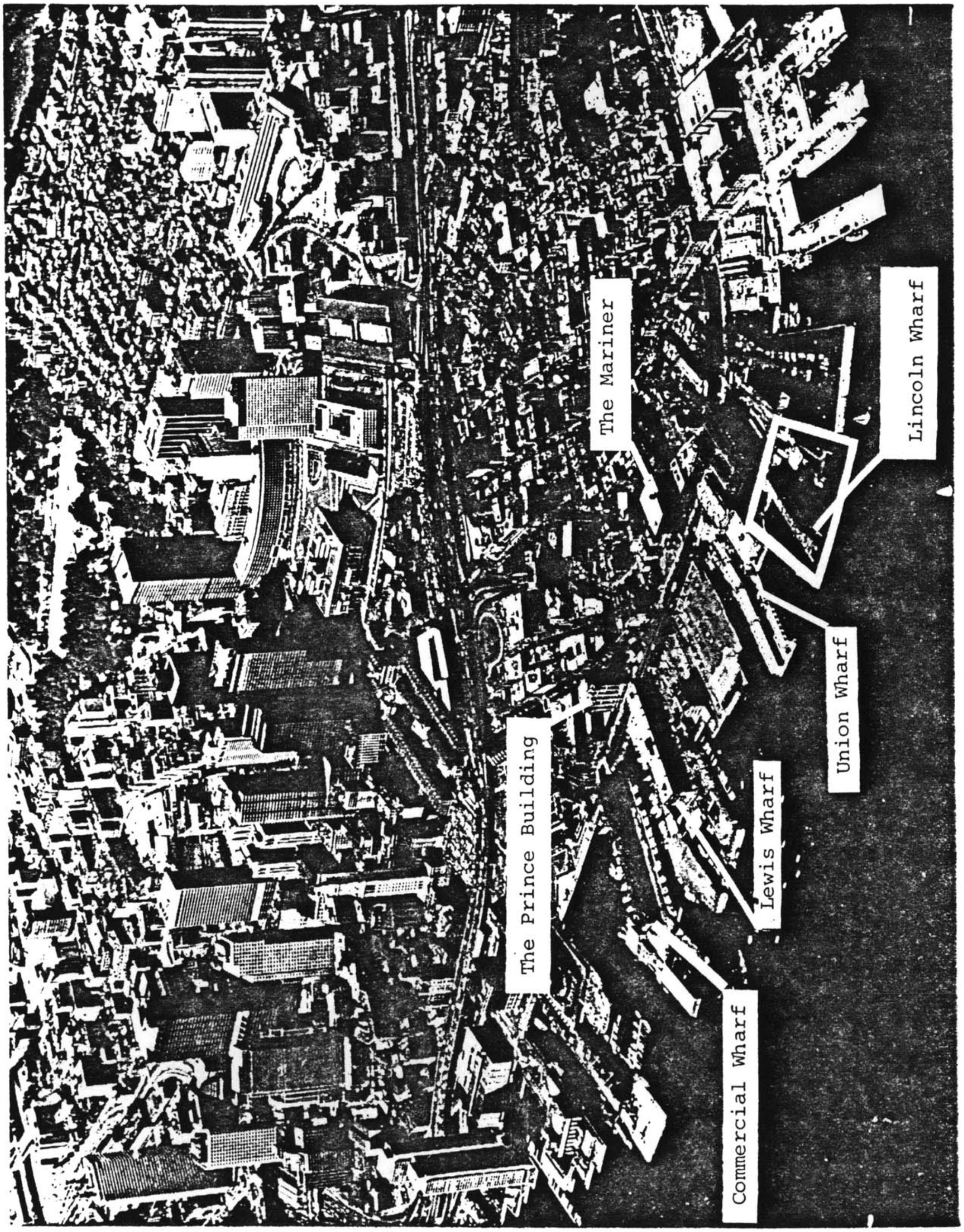
This dramatic growth has had a direct impact on the North End-Waterfront Neighborhood. From 1970 to 1980, the population in this neighborhood increased by 5% while the city's overall population decreased by 12%. Based on projections made in 1982, this neighborhood's population is expected to grow 38% from 1980 to 1990 and the need for housing is expected to grow 46%. This population growth reflects an enormous influx of new residents from outside the community; the profile of this new resident is very different than those currently living there. While Boston's total number of households remained constant from 1970 to 1980, this neighborhood increased by 38.7%, at the same time the total number of families making up those households dropped 38%. Similarly, the average number of people living within each household dropped by 23% to 1.8. This trend, according to the Boston Redevelopment Authority report on this neighborhood, which has provided the information for this section, <u>Boston and the North End</u>, June 1984, is partially due to an increase in the number of elderly living alone, but is predominately the result of the influx of young professionals working in the downtown area.

Brokers state that it is this market and the "empty nester" and divorced persons which has created the great demand for condominiums in this area. From 1969 to 1983, 1,022 condominium units were established in the whole North End-Waterfront Neighborhood through conversion of rental property, rehabilitation of existing buildings and some new construction. This area possesses 17% of Boston's condominiums, based on the 1980 housing stock. But more importantly, an overwhelming 48% of these North End-Waterfront condominiums are in the Lincoln Wharf market area, an area which represents a relatively small portion of the total neighborhood. The size of the private development investment in this specific area has been twice that of the entire neighborhood. The total number of units developed per building is 29 per building in the Lincoln Wharf market area and an average of 15 per building for the entire neighborhood.

The Specific Market Area

Lincoln Wharf and North Ferry, the second phase of the development, currently represent the northern quadrant of the North End waterfront market area, see Exhibit 4. This market area is defined by the harbor on the eastern edge and

Exhibit 4


The Mariner
Lincoln Wharf
Union Wharf
The Prince Building
Lewis Wharf
Commercial Wharf

by the Prince Building and the Mariner (formerly known as the Gerard Freezer building), on the western side of Alantic Avenue and Commercial Street and by Commercial Wharf and Christopher Columbus Park on the south.

The Lincoln Wharf market area, while physically continuous with adjacent neighborhoods, is clearly distinguished by both its waterfront character and the substantial private investment that has been made over the past twenty-five years, but most particularly in the past ten years. Beginning in the mid-1950s with Commercial Wharf, large warehouse structures, both on piers and land, have been rehabilitated. As with Commercial Wharf and the Prince Building, these buildings were initially rental properties, but beginning in the 1960s some condominiums were established. It was not, however, until the early to mid-1970s with the renovation and conversion of the Prince Building into condominiums, that the first signs of a luxury residential neighborhood were seen. While still very much a frontier community, the opening of Lewis Wharf in 1977 heralded the formation of a neighborhood which is now among the most highly valued in the city. In 1978, Union Wharf confirmed this ambition and with the opening of the Mariner in June of this year, this neighborhood, if the developer's objectives are met, may contain the city's most expensive condominiums.

Within the Lincoln Wharf market area there are five substantial luxury residential developments: Union Wharf, Lewis Wharf, the Mariner and two conversion properties, the Prince Building and Commercial Wharf. They are sharply defined visual contrasts between those projects on the harbor side of Alantic Avenue and Commercial Street and those on the city side. Averaging approximately 85 units, the projects on the harbor side - Union Wharf, Lewis Wharf and Commercial Wharf - are rehabilitated granite six-story warehouses built on piers which jut out into the harbor with marinas adjacent to them. These horizontal structures stand in contrast against their two taller and higher-density neighbors across the street. They are both rehabilitated ten-story warehouses.

Existing Market Comparables

Of these projects, Union Wharf and Lewis Wharf are the most similar to Lincoln Wharf and provide the most direct comparative value. The Mariner, while distinctly different in character, has just placed 83 units on the market and therefore, provides the best indication of current sales prices. The Prince Building has an extremely low turnover rate, one unit per year, and therefore, while indicating the high value placed on the building by its owners and thus a very positive reflection on the market area, does not provide comparative data. Commercial Wharf was a rental building developed in the 1950s and has been condominiumized on a unit-by-unit basis since the mid-1960s. As a conversion building with both rentals and condominiums, this building, unlike the Prince Building which received extensive improvements by its developer, has not established itself as a prestigious address nor commanded the values of its neighbors so it is not considered in this analysis. No one development is truly comparable; with this limitation, the intent is to arrive at a cumulative perception of the market conditions.

The sources of information which constitute the basis for the following analysis include interviews with three waterfront brokers and ten residents of Union Wharf and Lewis Wharf, and the sale histories of the discussed buildings over the past three years. An accounting of those interviewed may be found in Table 2. Unless noted otherwise, all per-square-foot values and sizes refer to the units themselves and include the deck or balcony space, as is the common practice.

Lewis Wharf

Developed by Carl Koch, a well-known Boston architect, Lewis Wharf was originally a six-story slate and granite warehouse built on stone piers and fill. It serviced schooners and other freight-carrying vessels during Boston's halcyon days as a seaport. Rehabilitated in 1974 and 1975, this eighty-four unit development went on the market in 1976 and was sold out in a year and a half.

The building is approximately 60% two-bedroom units, averaging 1,300 square feet, and 40% one-bedroom units, one half of which average 850 square feet, the other half averaging 1,120 square feet. Services include 24-hour security and a full-time building manager. Amenities include a marina, a bocce ball court and a small swimming pool built after the completion of the development. Parking is not provided. Almost all units have unimpeded views either to the north, overlooking Sargent's Wharf, or to the south, overlooking the marina and Commercial Wharf. The first floor is occupied by a range of retail stores, which include a Store 24 and Roche-Bobois, a high-end furniture store. Also on the first floor and on parts of the second and third floors are office condominiums, owned by law firms and financial consultants. These offices each have a separate lobby and elevator.

Lewis Wharf has experienced the highest sales values on a per-square-foot basis on the waterfront over the past three years. In 1983, seven units, averaging 1,000 square feet in size, were sold at $219 per square foot (psf). In 1984, only two units were sold at a per-square-foot average of $187. Currently, five units are under purchase and sale agreements. The average per-square-foot value of these transactions is $302. The per-square-foot rate of appreciation for the one year, from the 1983/early 1984 period to 1985, was 44%.

In the period from 1983 to 1985, 71% of the sales were for two-bedroom units. While there were no sales of one-bedroom units in 1985, there were two sales in 1984 and two in 1983. Between those two periods there was no appreciation in value for that type of unit. For the two-bedroom units, however, the rate of appreciation in per-square-foot values, from 1983/1984 to 1985 has been 30%. It can be concluded from this rate of appreciation, when compared to the rate of appreciation for one-bedroom units, that there is a strong market preference for two-bedroom units in this development. The turnover rate of these units is relatively high, see Exhibit 5, but local brokers claim this is coincidental. A summary of the sales history of Lewis Wharf over the past three years may be found in Table 3.

Union Wharf

Very similar in size and physical character to Lewis Wharf, the first phase of Union Wharf, for our purposes, represents a unique view on the market demand: it was

Exhibit 5
The Turnover Rates For Selected Developments In The Lincoln Wharf Market Area

	Lewis Wharf	Union Wharf	Prince Building
1983	8.3%	3.4%	2.2%
1984	2.4%	4.6%	2.2%
1985	6%	3.4%	2.2%
Average:	5.6%	3.8%	2.2%

Note:
-The above turnover rates for Union and Lewis Wharves are based the sales histories of these projects as documented in Table 3, for Lewis Wharf, and Table 4, for Union Wharf.
-The 2.2% turnover rate for the Prince Building is based on one sale per year over the past three years. This information was provided brokers.

developed as raw space and the unit purchasers completed their own units. The developers, Jim Craig and Austin Heath with two limited partners, provided finished lobbies and corridors and rough plumbing and electrical services. The units themselves were offered as shells, with only bare brick walls and a concrete floor slab. Rough unit sizes ranged from 1,175 square feet to 1,800 square feet.

Because the market area was still considered frontier and this development concept virtually untried in Boston, except for the Ritz-Carlton, banks required that the development be sold as quickly as possible in order to test the market. Presales began in the fall of 1977 and completion and exchange of titles occurred in May of 1978 with final sellout in the summer of 1979. The presale market, according to brokers, was initally slow but momentum quickly gained. The average sales price was $75 psf, which was considered high at the time, and construction costs by the owners averaged between $25 to $30 psf to finish off their respective units. The issues raised by the development approach of providing rough space are discussed later, but what is of interest is that 90% of the units were built out by owners as two-bedroom units. While this is in part due to the large sizes of the units sold, it strongly suggests that is the higher-end, "empty nester" and divorced person market, that prefers this approach.

The second phase of the Union Wharf development, completed in 1980, contained twenty-seven row house triplexes at the harbor end of the pier. These units average 2,300 square feet and have unimpeded views to either the inner or outer harbor, while the end units have views in three directions. Sold on a preconstruction basis, these units were approximately 90% sold out by completion in 1980. Their unique position in the market -- the only ground-level luxury townhouses on Boston's waterfront -- was the reason for the success of these units.

Like Lewis Wharf, Union Wharf has a small swimming pool, a marina, 24-hour security and a full-time building manager. Unlike Lewis Wharf, however, there is no retail use and parking is leased to owners. Union Wharf also has office use within its development. Aside from the first floor which is completely devoted to this use, the offices can be found scattered among the second- and third-floor residential condominiums and, most particularly, in the triplexes. These offices are largely occupied by lawyers and financial consultants. One broker estimates that the business ownership represents as much as 10% to 15% of the building.

Over the past three years, Union Wharf has experienced the highest resale prices on the waterfront. In the 1983/early

1984 period, prices ranged from $304,000 to $480,000 for an average of $240 psf. From mid-1984 to January 1985, five sales occurred with prices ranging from $262,500 to $825,000. The average per-square-foot sales price was $266, a 30% increase in one year.

Two units are of particular interest as they have been resold twice in the past two years. Unit 607 is a 1,530 square foot duplex on the North side of Union Wharf. Although its views of the water are blocked by the Alantic Avenue Power Station, this unit sold for $340,000 ($222 psf) in May of 1983. Nineteen months later this same unit sold for $455,000 ($297 psf), representing an annual rate of appreciation of 20%. Unit 18 is a triplex containing 2,286 square feet and faces south with water views. This unit was sold in March of 1984 for $480,000 ($210 psf). Seven months later it was sold for for $575,000 ($252 psf), appreciating at a rate of 34% annually.

The single most outstanding characteristic of the resales from 1983 to 1985 is that 90% of the units resold have been three-bedroom units with an average size of 2,065 square feet. These units represent only 31% of the total unit mix. Of the three-bedroom unit resales in this period, 54% of the transactions, or 60% of the total transactions have been for triplexes. When looking at the resales of the triplexes in the 1983/1984 period to the 1984/1985 period, the per-square-foot values increase from $202 to $277, a 37% annual increase.

This disproportionate relationship between the resales of the triplexes and all other units in this period is explained by the high percentage of units owned by businesses. One broker who has handled many of these sales has stated that there has been almost no sales of residential units and that the triplex sales that have occurred have been businesses which have grown in size and need larger facilities.

When looking at the other units sold, the nature of the turnover market becomes even clearer. Unit 607 was sold in 1983 by a couple in their fifties who wanted to renovate a small building just outside the market area and move into it. This couple has moved four times in the past eight years. Their residences in the past have included Lewis Wharf and the Prince Building. Unit 607 was then bought by a younger couple, who sold their condominium in 1985 because they had adopted a child and needed a house with a yard. The sale of this unit twice in the same year accounts for 20% of the sales transactions in this period. The business condominiums account for another 50% with the remaining 30% unaccounted for. From this, it may be surmised that the already low average turnover rate of 3.8% for this three-year period, can be largely accounted for by an increased need for space in both residential and business use, and not due to any lack of desire for the development itself. A summary of the sales history of Union Wharf over the past three years may be found in Table 4.

The Mariner

Formerly a cold storage warehouse, this relatively tall existing eight-story brick and concrete building has been rehabilitated over the past one and a half years. As part of this construction, two stepped-back floors have been added to the top of the building. Developed by the East Mar Corporation, the Mariner opened the doors to its model units on June 23rd of this year and began presales for a January 1986 completion date. The sales prices are among the most ambitious in all of Boston. The per-square- foot sales prices range from a low of $224 for a second-floor studio facing west to North Street with views only of the street to $500 psf for a 1,900 square foot penthouse with spectacular views of Boston Harbor. The $500 per-square-foot selling price for tenth-floor units and the $450 for the ninth-floor units exceeds that of any luxury condominium project in Boston. The Four Season's highest per-square-foot value is $425 and in Charles Place in Cambridge it is $400. Harbor Towers, which is a conversion building with spectacular views in a less desirable neighborhood, is currently selling for $150 to $200 psf. The Mariner's average selling price is $388,205 per unit ($365 psf). This $365 is 20% higher than the average current sales price at Lewis Wharf and 37% higher than Union Wharf, both firmly established prestigious addresses on the preferred waterside of the market area. A summary of the sales prices, unit sizes and unit distribution may be found in Table 5.

Understanding the pricing of the units is further complicated by the project's notable drawbacks. The most expensive units with water views on the lower floors face directly onto Commercial Street which is noisy and dirty. Residents at Union and Lewis Wharves who live more than 100 feet away from Commercial Street cite the noise and dirt created by the street as the single greatest drawback of those developments. The awkward handling of the foyers and the galley-type kitchens combined with a second-rate level of finish -- sprayed on stucco ceilings, exposed sprinkler heads and the like -- does not create the impression that this building is even close to being amongst Boston's finest residential developments, as the pricing would have you believe. Furthermore, no feature services are provided other than valet attendants for indoor parking, and there is no marina.

Nevertheless, the brokers claim twenty-three deposits within the three-week period the development has been for sale. The great majority of these deposits have been for studios and one-bedroom units. The highest per-square-foot value obtained to date is somewhere between $400 to $450 psf, according to the broker. This value is 12% to 26% higher than the highest per-square-foot value paid to date in the waterfront market area. While receiving deposits on 27% of the units within a three-week period is a very strong market response, it should be clearly noted that they are only deposits. In a highly speculative market these deposits can disappear if consumer confidence is not maintained.

Aside from the ambitious sales price objectives of the Mariner, an analysis of the pricing within the development provides several key observations which will contribute to the pricing strategy for Lincoln Wharf. Two types of analysis were conducted. The first looked at the relationship between unit size and the per-square-foot sales price and which the second considered the pricing impact of the available views on different units.

When analysing unit size and per-square-foot selling price, a very clear and notable set of relationships becomes apparent. As you will note in Exhibit 6, there is a direct proportional relationship between the floor the unit is

Exhibit 6
The Mariner:
An Analysis Of The Relationships Between Unit Size, The P.S.F. Sales Price, The Floor Location and Unit Distribution

Analysis of Unit Size, Sales P.S.F. and Floor Hieght Based On Average Sales Prices For The Unit Sizes Indicated.

Floor Number	600 to 900 S.F.	900 to 1,300 S.F.	1,300 to 1,600 S.F.	1,600 S.F. And Above
Two	$258	$309		
Three	$259	$323		
Four	$256	$360		
Five	$321	$360	$356	
Six	$352	$371	$372	
Seven	$378	$382	$386	$388
Eight	$400	$400	$400	$400
Nine		$450	$450	$450
Ten			$500	$500

Analysis of Unit Size, Unit Distribution and Floor Hieght: The following Analysis calculates the number of units within the indicated range size.

Two	9	3		
Three	9	3		
Four	9	3		
Five	6	3	1	
Six	5	2	2	
Seven	3	3	2	2
Eight	4	2	2	1
Nine		2		4
Ten			1	3

located on, its size and its per-square-foot sales price. Units on the second floor ranging in size from 600 to 900 square feet are 20% cheaper on per-square-foot basis than units ranging in sizes 900 to 1300 square feet on the same floor. This relationship repeats itself consistently throughout the building. Unit size and the per-square-foot sales price are directly related. The developer's logic behind this pricing is that larger units are more valuable than smaller units in per-square-foot sales prices. A similar study of Union and Lewis Wharves does not indicate this unusual relationship.

Similarly, the relationship between the views offered and the sales price is, as one might expect, direct. Of greater interest is the strong relationship between the size of the unit and its view and its sales price: the better the view, the larger the unit and the higher the per-square-foot sales price. As you will note, this relationship is more pronounced with those units with little or no views of the city and those with an oblique view of the water as the other three types have optimal views and are approximately in the same price range. The logic of this pricing strategy assumes that with an increase in locational value there is an increase in the desire for space. This reasoning and the logic applied to pricing units in terms of size, is ill-conceived. It does not consider the top-of-the-market purchasers who desire a small penthouse, for example. The results of this analysis may be found in Exhibit 7.

Qualifications do need to be made when considering the view analysis of the Mariner. The writer of this thesis has not seen each of these units and the analysis is based on a limited number of floor plans, visual inspection of the exterior and an inspection of four units. For these reasons, the results of the analysis are approximate and their value is in the approximate patterns they indicate.

These results are not consistent with the sales of Union Wharf and Lewis Wharf. There is not a significant price differentiation between units with views to the north and south or even units with limited views. Floor level does not appear in the analysis as significant. These findings are inconsistent with commonly held perceptions regarding locational value and are probably the result of the limited sales data and the lack of information regarding exact locations of individual units.

Market Demand

Three perspectives are assumed in analysing the anticipated demand for Lincoln Wharf. The first considers the historical demand in this market area; the second, current demand at two

Exhibit 7
The Mariner:
Analysis Of The Impact Of Views On Unit Size
And Price Per Square Foot

FlR #	No City or water View		No City View, Oblique Water		Good City View, Oblique Water		Good Views City Only		Good Views Of Water	
	S.F.	P.S.F	S.F.	P.S.F	S.F.	P.S.F	S.F.	P.S.F	S.F.	P.S.F
2.	607	$225	958	$300					1,254	$325
3.	607	$237	958	$313					1,254	$341
4.	607	$250	889	$350					1,176	$384
5.	585	$282			1,210	$350	840	$344	1,254	$364
6.					1,210	$365	840	$367	1,254	$376
7.					1,198	$380	899	$378	1,378	$385
8.					1,210	$400	899	$400	1,254	$400
9.					1,094	$450	1094	$450	1,656	$450
10.					1,669	$500			1,859	$500
Averages:	600	$249	935	$321	1,265	$408	914	$388	1,371	$392

Note:

-The above analysis is based on sales prices given to brokers. The determination of views and view quality is based on visual inspection of the exterior of the building, a limited set of floor plans and a walk through of four units available for viewing. The data, therefore, is limited to the extent that it shows approximate pricing patterns only.

-Headings describing no views of city, refer to units that look across the street to other buildings. Units with views to city, have expansive views. Oblique views of water refers to units in which one has look out and down the side of the building inorder to see water.

comparable developments outside of the market area; and the third, current demand as assessed by brokers and by the pricing turnover studies reviewed earlier. Profiles of prospective buyers are then described.

Historical Demand

Much of what is known about market demand for Lewis Wharf and Union Wharf is based on information provided by waterfront brokers. Of the three brokers interviewed for this thesis, two were directly involved with the sales at Union Wharf but none were involved with Lewis Wharf. For this reason, this section on historical demand is limited to Union Wharf.

According to the brokers, the sales for the first phase of Union Wharf, the rehabilitated warehouse, were predominately sold to "empty nesters" and divorced persons. Many came from Lewis Wharf and the Prince Building and a smaller amount came from the suburbs of Boston. The large draw from the market area is accounted for by the fact that many residents saw the opportunity to build out their own units as very attractive. Brokers estimate that of those purchasing units in this building, 15% to 20% were bought for investment purposes, 5% to 10% were businesses and the remaining 70% to 80% were those simply buying residences. It is further estimated that 30% of all transactions were speculative and resulted in the selling of deposits and down payments.

The speculative market for phase two of the Union Wharf townhouses was even stronger, brokers and owners claimed that 50% of the units sold were paper transactions. Approximately one half of these units were bought for business purposes. approximately another 10% were bought for investment purposes, with the remaining percentile buying for residential use. For the entire development, only 5% of the sales were to families. The lack of yards, other children and the problem of getting children to schools has eliminated this market.

<u>Comparable Developments Outside The Market Area</u>

Four developments were considered for this analysis: Church Court, Charles Place, the Four Seasons and the Ritz-Carlton. The brokers for the Ritz-Carlton never responded to this writer's inquiries. The broker for the Four Seasons was extremely reluctant to provide any information regarding those who had purchased condominiums. The following information on Church Court and Charles Place was provided by Erin Teach, the broker for Church Court, and Carmine Cerone, the broker for Charles Place.

Developed and designed by Graham Gund, Church Court was completed in the early spring of 1984. According to Erin Teach, the market for Church Court was drawn by the building's "flashy" image and its location on Memorial Drive with views of the Charles River. While located in the Back Bay, the buyers were decidedly not from this area as those living in this neighborhood did not like the building's image. Twenty percent of the buyers were young professionals, ages 32 to 52, all buying one-bedroom units averaging 870 square feet in size; forty percent went to "empty nesters" and divorced persons who bought two-bedroom units averaging 1,270 square feet; and twenty percent went to divorced women who bought the three-bedroom units averaging 1,450 square feet. The remaining percentage is unknown. The unit mix is 20% one-bedroom units, 60% two-bedroom units and 20% three-bedroom units. Prices ranged from $160 to $350 psf and the building sold out in eighteen months.

Carmine Cerone, of Charles Place, estimates that of the seventy-seven units sold to date out of the total of eighty-six, 25% were sold to single young professionals in their late-thirties to mid-forties, 5% were families, 5% were investors looking for long-term appreciation and 50% were "empty nesters" and divorced persons ranging in age from the early-forties to mid-sixties. Forty percent of the buyers had some affilation with Harvard University. The unit mix is

15% one-bedroom units, 55% two-bedroom units and 30% three-bedroom units. Carmine Cerone noted that the buyers in this building were not interested in the Boston market, only in the Cambridge market. Prices have ranged from $250 to $400 psf and the development began presales in January of 1983 and is 90% sold after two and a half years, six months more than the developers, Carpenter and Company, had planned.

These two developments are similar in their market positioning in several key respects. Both are of new construction and have similar unit mixes. And despite the notable differences in locational preferences, as a group, the buyers have similar demographic profiles. This unit mix and demand profile is the same as what the waterfront brokers project as the most appropriate for the Lincoln Wharf development.

Projecting a Profile for Buyers

As the sales value analysis for Union and Lewis Wharves indicated, the strongest market demand appears to be for two-bedroom units and three-bedroom units; they have shown the greatest appreciation. Brokers, nonetheless, state that there is a strong market for one-bedroom units. This market, however, is much more restricted in its ability to pay. As they point out and as may be seen in the structuring of the Mariner, one-bedroom units provide a valuable solution to less desirable locations in the building as they allow the young professional buyers a point of entry.

The young professional is typically a first-time buyer ranging in age from the mid-thirties to mid-forties. This purchase is seen as an investment towards a larger unit at some later time. They desire a prestigious address close to the business and social centers in downtown Boston. These purchasers have limited assets and as such, they are restricted in the total dollar amount they are capable of paying. For this reason and because they do not require large living quarters, this market typically seeks one-bedroom units ranging in size from 750 square feet to 900 square feet (not including the balcony).

The "empty nester" and divorced persons market is typified by a couple or a person ranging in age from the early forties to the mid-sixties. They work full time in Boston, commuting daily by car or train. Most own second or third homes. Almost all are from New England and most have summered along the coast of New England. A significant number have boats. The primary motivation for living on the waterfront is a love of the ocean and the historic character of Boston and Boston's North End combined with the waterfront's direct proximity to the downtown Boston business district. With the children gone, this purchase represents an opportunity to realize the desire to live by the sea while continuing to work in Boston. Accustomed to comfortable living standards and wanting overnight guests, these buyers desire two-bedroom units ranging in size from 1,200 square feet to 1,600 square feet, with the larger units having a study/den. This same market has also shown a limited, but nonetheless accountable interest in even larger units of up to 2,000 square feet. This last market is often called the "penthouse market" as they are looking for the very finest in residential accommodations.

Waterfront Projects Coming on Line Over the Next Three Years

Two residential waterfront projects are slated for completion within the next three years; San Marco, located between Lincoln Wharf and Commercial Street, and Rowes Wharf which is just south of Harbor Towers outside the North End waterfront market area.

San Marco

The San Marco's development, to be constructed in the rehabilitated Alantic Avenue Power Station on Commercial Street, will supply 192 condominium units. The developer is a non-profit community-based organization associated with the Archdiocese of Boston who have publicly committed themselves to selling the units at cost to North End residents. Construction started in July of 1984 and is expected to be completed by July of 1986. Because the project is being sold at cost, it is not really a market-rate alternative for potential buyers of Lincoln Wharf. The physical proximity of this development, however, is of interest as its property directly abuts the Lincoln Wharf site. More than one broker has identified this issue as potentially compromising the high-end luxury image of Lincoln Wharf. While there are limitations to what can be done, a number of architectural design solutions have been proposed to mitigate this issue, one of which considers the location of the lobby in the following chapter.

Rowes Wharf

Rowes Wharf represents a waterfront version of Boston's new combined luxury hotel and condominium developments. Like the Ritz-Carlton, Charles Place and the Four Seasons, this project, developed by the Beacon Companies, will provide 100 luxury condominium units with all of the services and amenities found in a 218-room, luxury hotel. These services include everything from maid and secretarial services to catered meals. As part of a large complex, residents can walk from their condominiums to first-class resturants or a health club without ever leaving the building. Construction started in the spring of 1985, and occupancy is expected in summer 1987, the same period in which Lincoln Wharf anticipates its intial occupancy. In terms of unit size and unit mix, 20% of the units will be one-bedroom units, approximately 800 to 900 square feet, not including the balcony. The remaining unit distributions are as yet undetermined, but it is surmised by brokers that they will roughly approximate those of Church Court and Charles Place; that is, 40% to 60% two-bedroom units and 20% to 30% three-bedroom or deluxe two-bedroom units.

A number of important characteristics should be considered in assessing how competitive this project will be with Lincoln Wharf. While Rowes Wharf will have better views directly out to the harbor, and is closer to the financial district, its location in respect to the central business district has a number of potential drawbacks. Beyond the ominous presence of the Southeast Expressway two-hundred feet away, which breaks the continuity between the city and the waterfront in this particular area, this development could also become associated with Quincy Market. The association of a national tourist attraction with a luxury development is potentially a very negative one. The image of thousands of tourists that flood this part of Boston every summer, is not conducive to the image of high-class residential complex.

While by its very size, it will establish its own "neighborhood", the development is not associated with any existing noted residential neighborhood. Charles Place is on the south end of the Brattle Street neighborhood and the Four Seasons is associated with the Back Bay and will soon have the Arlington-Hadassah development -- a complex of luxury residential townhouses facing Boston Garden -- immediately adjacent. From a practical point of view and aside from the specialty shops at the Faneuil Hall Markets, everyday shopping is a problem.

Given the project size of 650,000 square feet, the most important distinctions between Lincoln Wharf and Rowes Wharf will be one of scale and location. Lincoln Wharf will depend on its small size and its location within an established neighborhood with great character. The image of Lincoln Wharf as a small exclusive enclave within a historical setting directly contrasts against the new polished urbane image of this enormous complex. For these reasons, it is felt by the project manager at Beacon Companies, Carol Gladstone, and by this writer, that while there will be some cross-over market, the two projects will appeal to different taste segments of the upper-scale market.

The Pricing Strategy For Lincoln Wharf

Four factors are considered in the formulation of sales prices for Lincoln Wharf. The first is the average sales price on a per-square-foot basis for the entire development and it serves as a reference point when assessing individual unit sales prices. The second is the range of sales prices: a per-square-foot sales price ceiling and minimum, given the physical characteristics of Lincoln Wharf. The third consideration is the total dollar price which acts as a constraint on both size and per-square-foot values. Finally, within these ranges, the fourth factor establishes a mechanism for differentiating per-square-foot sales prices by floor and view location within the building. As pricing is also a function of the design program, final consideration of sales prices is made in the following chapter. The organizing principles, however, are as follows.

From the preceding analysis we have established a current per-square-foot average value of $296 for Union and Lewis Wharves. Assuming that the broker's evaluation of the Mariner is correct, that units are overpriced by 20%, a recalculated per-square-foot sales price for this project would be $288. This figure is 3% less than the $296 average resale figure for Union and Lewis Wharves.

As has been discussed, the developer intends to produce a product that is similar to Union Wharf and Lewis Wharf, but incorporates a higher degree of finish and sophistication. This consideration, combined with the fact that Lincoln Wharf will be the first construction on the water-side of the waterfront market area in seven years, suggests that we can add a premium -- a 10% value margin, specifically -- when establishing the overall pricing of Lincoln Wharf. In other words, if Lincoln Wharf were on the market today, I would price it 10% above that of Union Wharf and Lewis Wharf. The overall average for Lincoln Wharf is $296 (the 1985 per-square-foot average of Union Wharf and Lewis Wharf), plus $30 psf (10% of $296) leads us to an anticipated overall average sales price of $326 psf, a price 10% less than the average sales price of the Mariner.

The per-square-foot sales price ceiling is a function of the overall luxury market in Boston, of the luxury market in the Lincoln Wharf market area and ultimately of what the product is. Brokers have varied in their assessment of what this value might be for Lincoln Wharf ranging from $360 to $400 psf, if on the market today. Two units, one at Lewis Wharf and one at Union Wharf, have recently achieved values of $357 psf. Rowes Wharf, according to Carol Gladstone, the project manager at Beacon Companies, is assuming $450 psf in today's dollars. As I have mentioned, Four Seasons is currently getting $425 and Charles Place has gotten $400 psf. These last three projects are mixed-use developments with hotels and provide a level of service and amenities which Lincoln Wharf cannot. The distinction between these developments and Lincoln Wharf is discussed later.

If one accepts the presumed 10% value margin on the top current waterfront values of $357 psf, regardless of the $400 to $450 per-square-foot sales claimed by the brokers at the Mariner, one arrives at the top selling price of $390 psf. This figure is 22% below the tenth-floor values at the Mariner and 13% below that of the ninth floor and is approximately between the average square foot sales values of the seventh and eighth floors. More importantly, however, it is 13% below that of Rowes Wharf whose development comes on line at the same time as Lincoln Wharf.

The third factor considers the absolute value as a controlling factor, both in terms of what the maximum amount the market is willing to pay and what it is able to pay. It is assumed that for the high-end units the issue is not the ability to pay but the willingness to pay. The top achievable value is a function of both values of comparable penthouses and the market supply at that time. In the Lincoln Wharf market area, the highest value achieved to date is $825,000 for a townhouse at Union Wharf at the end in January of 1985 and thus serves as a key reference point.

The issue of ability to pay comes more into play with the smaller one-bedroom units directed towards the young professional market. Brokers claim that 80% of these buyers are single and live alone. Being younger with fewer assets and lower earning power, these purchasers, while in the highest income brackets, have limited buying capability relative to other purchasers in this market. As discussed earlier, one-bedroom units over the past three years at Union Wharf and Lewis Wharf have not shown appreciation. While this analysis may be based on very limited information, it indicates a range of absolute values of between $142,000 and $262,000. With 10% down, the mortgage cost at 12% on $173,000, the average absolute value of the five units sold over the past three years, is $1,586 per month. This requires a gross income of $63,000 a year, assuming that 30% of the gross income is covering mortgage costs. Given the same financing terms but for $262,000, the required annual income is $95,000. Brokers have stated that the ceiling for this market is approximately in the range of $250,000.

The fourth factor considers the approach to setting values according to relative location within the building complex. The pricing structure at the Mariner, as discussed, provides a valuable model but which has significant shortcomings. The

Mariner's assumption is that an increase in locational value results in not only an increase in per-square-foot sales price but they have designed their project so that it reflects an increase in size also. This assumption is based on increased expectations. It is also assumed that with an increase in locational value there is a proportional increase in the demand for space. More than one broker has spoken of the single person who desires a one-bedroom penthouse with an excellent view. Size and per-square-foot values are not necessarily positively correlated. For these reasons, the pricing of units at Lincoln Wharf should not follow the pricing structure of the Mariner. The absolute prices are a function of the above discussion and the issues raised in the following chapter on Development Design Scenarios.

Absorption

As indicated in Exhibit 8, the absorption rate for the Lincoln Wharf market area and non-waterfront developments of comparable value has been calculated. Within the Lincoln Wharf market area the range of absorption rates is great. Lewis Wharf is twice that of the second phase of Union Wharf. This is due to the newness of the development type at the time of marketing. The mean value as represented by the first phase of Union Wharf is 1.9 units per month less than Lewis Wharf which is 4.7. It is, however, much more in line

Exhibit 8
Absorption Rates
For The Lincoln Wharf Market Area
And "Comparable" Condominium Projects

Development & Sale Start Date	Presale Period (Months)	Sales Period (Months)	Total # Of Months	Total # Of Units	Absorp. Rate
Waterfront Projects					
Lewis Wharf 1977	9	9	18	84	4.7
Union Wharf Phase One Fall, 1977	8	13	21	59	2.8
Phase Two Winter, 1979	12	0	12	27	2.3
Non-Waterfront Projects					
Church Court N/A	N/A	N/A	18	43	2.4
Charles Place Winter, 1983	29	3	32	86	2.7
Four Seasons Spring, 1984	N/A	N/A	12	42	3.5

with the non-waterfront absorption rates. Union Wharf also provides the most recent data and phase one is the most similar in size to Lincoln Wharf, 59 units as compared to Lincoln Wharf's 44 units. What distinguishes Union Wharf from all others, however, is that it was developed as rough space. Given that Union Wharf's absorption rate is similar to those outside of the market area and because those outside the market area are recent and current, the absorption rate of 2.8 units per month is assumed for Lincoln Wharf.

CHAPTER 3
DEVELOPMENT DESIGN SCENARIOS

The following chapter discusses the key considerations in formulating the development strategy for Lincoln Wharf. Working within the established framework set by both physical and legal constraints as well as the anticipated character of market demand, three strategic issues are addressed. These issues are addressed in the following section by first looking at the larger organizing principles of the building, itself: what are the fundamental design assumptions which determine the buildings layout. This is then followed by more specific issues. The first issue examines the design program and sketches the outline for the overall development product, given a set of design objectives and the existing building structure. The second issue examines the specific character of the individual condominium unit: whether it should be supplied as finished or unfinished space, given the implications of such a decision in terms of desirability, management and costs. The third issue examines the provision of concierge service, a practice that has become more common in the larger luxury condominium developments in Boston.

The Design Program

The maximum building envelope has been determined through negotiations between the city and the developer. The additional construction cost of adding two floors is far outweighed by the potential sales values. The average construction cost, including the cost of rebuilding the pier and the construction of a new deck, is $124 psf of net sellable building area. The projected average per-square-foot sales value is $375 for the sixth floor and $390 on the seventh floor. The construction cost of building the additional two floors is $1,802,000. The sales return based on net sellable square feet is $4,415,000, a return on investment of 245%. The following analysis, therefore, examines the organization within the seven story building itself. In the following section, three fundamental design objectives are reviewed. Based on these objectives and on the market analysis, final unit sizes, distribution and mix are determined.

Design Considerations

Three fundamental design considerations serve to organize the building. The first objective is to have floor-through units which would provide views north and south. The second considers the optimal location of the lobby and elevator within the building. The third reviews the allowable unit widths and sizes given the existing structural bays.

Circulation and Unit Layout: A Marketing Problem?

The use of floor-through units precludes the use of central-loaded corridors. This provides several distinct advantages. Central-loaded corridors at Union Wharf and Lewis Wharf are described by residents as long, dark and hotel-like. By dividing the building in half, these corridors also create a pricing differential between north- and south-facing units, even though this was not seen in the market analysis. The decision to not use central-loaded corridors is further supported by both the very shallow units they would create in this relatively narrow forty-three foot wide building and by the lost revenues due to unit area displaced by corridors.

The circulation problems created by this objective are as numerous as the advantages. Primary vertical circulation will be by an elevator which services the third and sixth floors, plus individual unit service to those condominiums units directly abutting the elevator from the second floor to the sixth. Horizontal circulation occurs on the north side of the building on the third and sixth floors. Vertical circulation from the third and sixth floors to the second, fourth and fifth will be from four vertical stair towers on the north side, entered from the third and sixth floors. These stair towers will be private and shared by no more than two units.

The travel scenarios are as follows. To get to the third or sixth floor one simply goes up the elevator to these floors and goes to their residence. To get to a fifth floor destination, one goes up the elevator to the sixth floor and walks down the hallway to the stair tower that services their condominium and then goes downstairs to their residence. The same scenario applies to the second and fourth floors. One has to go downstairs from the third floor to get to the second floor and go upstairs from the third floor to get to the fourth floor.

Two problems arise with this organization. The first is the conceptual and practical problem of going up the elevator and then having to go up or down stairs to reach the desired destination. Conceptually, this going up and then going down, seems confusing and cumbersome. Practically, the problem of carrying groceries first up the elevator and then up a flight of stairs sounds laborious. On the other hand, the corridors and stairways will be on the north outermost side of the building with excellent views to the marina and inner harbor. The doorway, entry and the stairway itself will be designed to serve as the formal entry to the residence. While the stairway is shared with one neighbor, for all intents and purposes it is private and it is expected that people will furnish them as such. This arrangement is reminiscent of shared furnished foyers at elevator stops in luxury developments in New York. As will be evident in the discussion below, once the owner has gone up or down the stairs to their unit, they will not be required to use any other stairs to reach the kitchen.

The second problem is more difficult to solve. The corridors on the third and sixth floors separate the units on those floors from the views on the north side. The layouts of the units themselves will be directly affected. Uses such a kitchen, study/den and bathroom, which can have either no windows or high windows, will necessarily occupy the north side of the condominium. This is the logical location anyways, as the living room and master bedroom would be located on the south side with better light and views.

In the organization described above, corridors represent 2% of the total gross square footage and the vertical stairs represent 3% of the total gross square footage. Adding central-loaded or side-loaded corridors on the north side on floors two, four and five would displace 2,970 of sellable square feet. The average per-square-foot value of the three affected floors is $305, which means that the use of this organization would result in a net loss of $670,000 or 12% of the profits based on the proforma for finshed units. This $670,000 does account for the $236,250 saved by not building the vertical stairs. In addition to this, the Boston Redevelopment Authority has acknowledged the vertical stair towers. If they were removed, it is highly unlikely that the city would approve adding horizontal corridors to the entire side of the building, this would be required if the development were to maintain the same amount of sellable square feet as the above scenario, since it would be seen as a virtual horizontal expansion of the existing structure. Therefore, not using this circulation system and going to a more traditional one, a corridor on each floor, would result in the signficant loss of sellable square footage.

This cost analysis combined with both the unquantified but significant value of providing views north and south and the highly attractive hallways, significantly outweighs the marketing concerns raised. Careful architectural attention paid to the entries of the stair towers will substantially mitigate problems perceived by the market.

Location of Lobby and Elevator

The series of events that lead up to the entry of building -- the crossing of the site, either by foot or car -- are important architectural and marketing considerations in the orchestration of a sense of dignity and anticipation. The location of the entry, the lobby and the elevator plays a critical role in this event. These building elements are also vital to the building image. Residents of Lewis Wharf have described long evenings in which the refurbishing of the building's lobby have been discussed at great length. From an efficiency standpoint, the location of the lobby and elevator are key organizing elements as they not only structure the building approach, but also the internal organization of the building as well.

Two schemes are considered for the location of the entry and elevator. The first places the lobby and elevator at the western end of the building. This location capitalizes on the required vehicular entry which passes under the building at this point. This is required because the western edge of the building is adjacent to the property line and no other automobile entry is available. This automobile entry provides a covered entryway for cars to stop and drop off passengers, groceries or luggage. From a security point of view, this single point of entry for both cars onto the wharf and people into the building is optimal.

The second scheme places the lobby in the center of the building, away from the San Marco development, facing south with views of the outer harbor. This scheme serves to disassociate the visitor from the adjacent development and Commercial Street and provides a greater sense of entry as the visitor is required to pass under the building and then out onto the pier with full view of the harbor and the marina. It also minimizes interior travel distances. In the first scheme the maximum corridor distance one would have to walk is 160 feet on the third floor, while in the second scheme this distance is reduced to 80 feet. A covered entry for automobiles would be provided on the middle of the south side.

The cost between the two schemes in terms of lost revenues is marginal. The per-square-foot pricing differential between the two locations is approximately 25%. The cost of 42 square feet (6'x7') times the six floors displaced by the elevator at the west end is $60,000 and at the central location $77,000, a difference of $17,000. A final consideration is the private elevator stops servicing two units on non-corridor floors two, four and five. This would occur in either scheme, but in the first location the elevator would be servicing low-end one-bedroom/studio condominiums and in the central location they would be servicing the more expensive two-bedroom condominiums. The increase in value generated by a private elevator stop will be much greater in the central location and will more than account for the pricing differential. For this reason, in addition to the others above, the central location is assumed in the following analysis.

Designing Under Physical Constraints: Unit Widths and Structural Bays

A key determinate in the layout of Lincoln Wharf is the existing structural bays that cross the width of the building. These measure 10'-0" center to center because the cost of altering the heavy timber structural bays is prohibitive. Modules of half bays, however, do work. Working within this module, the available unit widths are 10"-0", 15'-0", 20'-0", and so on with half bays measuring 5'-0". These unit widths when combined with the 43'-0" depth of the building provide a limited set of options. These options are indicated in Exhibit 9.

A survey of existing comparable developments has indicated that the 15'-0" unit width(14'-0" clear inside dimensions), is seen by the market as a marginal dimension. Carmine Cerone, at Charles Place, found that a 14'-6" room width with windows along the entire length to be the largest marketing drawback for some of their smaller units. The developers of Union Wharf, when building the new triplex townhouses at the end of the wharf, were very concerned with the 18'-0" width of these units(17'-0"+/-, clear). While the development was successful, current owners note the narrowness of this

Exhibit 9
Lincoln Wharf:
Possible Unit Sizes Given Existing Structural Bays

Floors Two, Three, Five and Seven:(no corridor)

Size	Total S.F.	Decks	Total with Deck
15 x 43	645	113	758
20 x 43	860	150	1,010
25 x 43	1,075	188	1,263
30 x 43	1,290	225	1,515
35 x 43	1,505	263	1,768
40 x 43	1,720	300	2,020
45 x 43	1,935	338	2,273

Floors Three and Six: (with 5'-0" corridor)

Size	Total S.F.	Decks	Total with Deck
15 x 38	570	113	683
20 x 38	760	150	910
25 x 38	950	188	1,138
30 x 38	1,140	225	1,365
35 x 38	1,330	263	1,593
40 x 38	1,520	300	1,820
45 x 38	1,710	338	2,048
50 x 38	1,900	375	2,275

width. For these reasons and given the building depth, where possible, the minimum width of any given unit is no less than 20'-0" or 19'-0" inside surface to inside surface. (It should be noted that square foot calculations for sales purposes will be based on dimensions taken from the center of the demising walls and exterior walls and not inside surface to inside surface dimensions.)

Project Plan: Unit Distribution and Mix

Like the Mariner and the other rehabilitated buildings in the waterfront market area, the optimal market objectives have to be tempered by the realities of existing structure. While the desired unit mix, according to some brokers and developers, may be approximately 20% to 30% one-bedroom units and 40% to 60% two-bedroom units, with the remaining percentage occupying deluxe penthouse units, the actual unit mix and even the final unit count is subject to the market. In other words, the goal is not to necessarily build 44 units nor is it to necessarily meet a predetermined unit mix.

Residential and Non-Residential Uses

The first floor is devoted to two uses. As has been discussed, the city has required a minimum of one parking space per residential unit. In order to accommodate this requirement within the limitations of the wharf, eighteen enclosed parking spaces are provided on the south side of the first floor. Given the market for enclosed parking -- $35,000 per space for an 9'x18' space or $216 psf -- this is an efficient use of this space.

Two options have been considered for the north side of the first floor. The first is to make 20'x23' bays which would serve as a bedroom for the second floor, thus making a duplex. The problems with this scenario are twofold. Public access around the pier is mandated and a first floor bedroom, no matter how sensitively treated, will have the perception of being a security problem. Furthermore, the addition of 460 square feet to the second floor units which, as discussed below, are targeted to the young professional market, means a total square footage of 1,320. This unit size is far too large for this market and a first and second floor unit could not be sold to the "empty nester" and divorced persons market.

The second option is to sell this space as office condominiums. For the developers at Union Wharf and Lewis Wharf, this has been highly successful with current per-square-foot values ranging from $225 to $300, but residents have not been pleased by this. At Union Wharf, this is in part a result of office condominiums which have been sold on the second and third levels of the building. At both buildings, the great majority of owners are small law firms. At Lewis Wharf, these units are serviced by their own elevator so that there is no overlapping of use. Lewis Wharf also has retail space on the first floor. This use ranges from the high-end furniture store, Roche-Bobois to a Store 24 on Alantic Avenue. Again, the residents have commented, even more pointedly, on the unattractiveness of this use within their building. The presence of retail stores is seen, by some, as not compatible with the high-end image of the development.

At Lincoln Wharf this space would work well with the residential use as entry on the north side and the overlapping of use would be minimal. The lobby would not be shared and office users would approach the building from the north side by the marina so that the overlapping of use would be minimal. With a good view of marina, the spaces would be highly attractive. Based on the broker's evaluation of this space, per-square-foot values of $250 could be readily obtained.

The residential floors -- two through seven -- are organized on the principles set forth in the chapter on marketing. As was discussed, the obvious relationship between the floor the condominium is on, the views offered and the selling price is direct. Five zones are identified in the building. These zones are defined by relative privacy, floor level and views. The zones are as follows: 1. The western inland end of the building faces the San Marco development and has restricted views to the north and south. This zone, which lacks privacy from the access street and the adjacent moderate-income development, is defined by floors two through five and by the enclosed fire stair required at each end of the building. The fire stair on the harbor side will be constructed on the outside of the building, attached by bridges. 2. The second floor, between the west and the east ends, is the next least attractive because units have restricted privacy and views. 3. The midsection of the building, floors two through five, will have good views which improve as you go up and out towards the harbor. Privacy will also increase as one goes up the different floors. 4. The eastern end of the building, floors two through five, will enjoy a higher degree of privacy than the midsection and will have excellent views of the harbor. The units at the very end will have unobstructed views in three directions. 5. The penthouse units on the sixth and seventh floors will have complete privacy and will have excellent views of the harbor and the north and south waterfront. The stepped back massing provides for very large decks for two units.

Based on the market analysis, four approximate ranges for condominium sizes for the two markets are identified. The following sizes do not include deck/balcony areas. For the young professionals, the range is between 800 and 900 square feet. The "empty nester" and divorced persons market seeks three ranges in the two-bedroom unit size. The smallest is approximately 1,150 to 1,300 square feet. This size provides for, in addition to the master bedroom, a very small bedroom and den/study. The mid-sized range is approximately 1,300 to 1,500 square feet and represents a very generous two-bedroom suite in all respects. Finally, the range with 1500 square foot and above represents the top of the luxury market. These ranges, when combined with the available unit sizes as determined by structural bays, provide a limited but clear set of options. The meshing of these pieces within the stated guidelines has resulted in the following organization.

The second floor is divided into three zones according to the aforementioned organizing principles. The western end -- the first zone -- has two small one-bedroom units averaging 790 square feet. These two small one-bedroom units are also on the third, fourth and fifth floors. The eastern end -- zone 3 -- has two small two-bedroom units at 1,263 square feet apiece(25'x43'). Because of the relative lack of privacy and the fact that it is the second floor, the midsection is occupied by six one-bedroom units totalling 860 square feet(20'x43'). A summary table of all unit sizes, including deck sizes, is provided in Exhibit 10.

Except for the western end, the units on the third floor increase in size as the locational value has increased. The overall average unit depth, however, is decreased five feet by the corridor on this floor. The midsection is occupied by four small two-bedroom units averaging 1,138 square feet(25'x38'). The eastern end is, according to the strategy, more ample with two medium-sized two-bedroom units averaging 1,365 square feet each(30'x38').

The fourth floor units are larger than those of the third floor. In addition to the two one-bedroom units at the western end, six generous two-bedroom units at 1,515 square feet(30'x43') are provided. This includes an average 225 square foot deck. The fifth floor is the same as the fourth floor.

The sixth floor, being the first of two penthouse floors, has two large two-bedroom units averaging 1,620 square feet at the eastern end. This is the first of the two floors which step back. One unit has the rooftop deck of over 700 square feet while the remainder of the floor is occupied by the bottom half of four duplexes averaging 735 square feet(20'x43' and 20'x38' due to the corridor). When combined with the upper half, which constitutes the seventh floor, these units have an average total of 1,645 square feet, not

Exhibit 10
Lincoln Wharf
Summary of Square Foot Calculations

Summary:		% of Total Gross	% of Total Net
Gross	67,795 S.F.	100%	
Net Sellable	60,127 S.F.	89%	100%
Total Residential W/O Balcony	45,010 S.F.	66%	75%
Total Residential W/Balcony	52,387 S.F.	77%	87%
Total Balcony	7,377 S.F.	11%	12%
Total Office	4,140 S.F	6%	7%
Total Parking	3,600 S.F.	5%	6%
Total Circulation	7,668 S.F.	11%	

Approximate Unit Sizes and Distribution:

	Number of	Size w/o Balc.	Size w/Balc.	Total S.F.	% of Total
Floors 2,3,4 & 5:					
One Bedroom	8	790	790	6,320	12%
Floor 2:					
One Bedroom	6	860	1,010	6,060	12%
Two Bedroom	2	1,075	1,263	2,526	5%
Floor 3:					
Two Bedroom	3	1,140	1,365	4,095	8%
Two Bedroom	2	1,330	1,593	3,186	6%
Floor 4 and 5:					
Two Bedrom	12	1,290	1,515	18,180	35%
Floor 6 & 7:					
Two Bedroom	2	1,620	2,020	4,040	8%
Two Bedroom	4	1,825	1,945	7,780	15%
Totals:	39			52,187	100%

Unit Count:

14 One Bedroom units - 35% of total unit count
25 Two Bedroom units - 65% of total unit count

including the deck. It should be noted that the average deck for these units is 415 square feet. Duplexed floors are used for three reasons. The most important reason is their high desirability by this end of the market, according to brokers. The second reason is based on a combination of the stepped-back massing requirements and the circulation system. Given the objective of maximizing sellable floor area and avoiding unnecessary circulation requirements, the duplex is a highly efficient use for these floors. Lastly, with this organization there is a decided marketing advantage in having four units on the top floor instead of two flats.

Two problems arise out of this organization. One of the compromises incurred in changing unit sizes floor by floor is that the demising walls are not aligned vertically. This creates a problem for the plumbing stacks which, for reasons of cost, are best stacked vertically in straight runs. Fireplace flues are considered an important market feature, especially in the upper-end units. Erin Teach, the broker for Church Court, identified the lack of fireplaces as one of the greater drawbacks in the marketing of Church Court. Fireplace flues require straight vertical runs. A number of solutions are available. Stacks and flues can run up through units if carefully done. This exploration requires the attention of the project's architect.

Summary

The relative efficiency of the described organization is very good. Total circulation accounts for a respectable 11% of the gross square footage. Of this total circulation, 25% is occupied by the vertical stairs; these stairs add 3% to the gross square footage and save 4.8% of net sellable square feet. Of the total 69,113 gross square footage, 89% is sellable. This indicates a highly efficient use of the existing structure.

In terms of unit mix and distribution, the organization is equally efficient. The market objective of obtaining a unit mix of approximately 20% to 30% one-bedroom units, 40% to 60% two- bedroom units and 10% to 20% penthouse units has been roughly met. The unit distribution, based on the above scenario, is 36% one-bedroom units, 47% two-bedroom units and 15% penthouse units. The high count on one-bedroom units is due to the undesirable locations both on the western end of the building and the mid-section of the second floor. The unit mix within each of these ranges, while reflecting the incremental increases in value as one goes up and out on the building, provides a varied and positive set of options for the market. Two sizes of one bedroom units and five sizes of two-bedrooms units for a total of seven different unit sizes.

Finished or Unfinished

Luxury residential condominiums have been provided in the Boston market in two fundamental ways. The traditional approach creates a unit which is complete and ready to occupy; the second produces unfinished or raw space, as was done at Union Wharf. From a developer's perspective, this choice involves not only questions of market demand, but those of project and risk management. In terms of the market, the issue is one of control, how much control the developer wishes to have over the ultimate product and what is necessary to achieve it. The following three sections address each of the two options discussed above and the concept of combining both approaches in single development.

As will be seen in the evaluation of the different development scenarios, different returns on investment are found not only between the different scenarios, but also between the relative relationships among the different partners. This is due to differences in equity contributions and management fees. As this thesis is not an evaluation of the partnership relationship and because the relationship between the partners in the different scenarios does not change substantially, the following discussions of development returns assumes the position of the Kenney Development Company, the active general partner. This provides clarity to the comparative analysis.

Finished Condominiums

Finished condominiums can be provided in varying degrees of completion. In addition to the common practice of providing 100% complete units, the luxury market units can be provided anywhere from 95% to 99% complete. Often called "designer ready", this approach provides the market with the option to select out of a limited set of items, the finishes for such things as the kitchen and bathroom floor tiles, carpeting and paint colors. During the purchase and sale period, these items are then selected by the purchaser and the developer installs them. Completion of this work and its acceptance by the purchaser occurs prior to the exchange of title.

For the developer the central issue is based on the axiom that, as the number of available choices to the purchaser increases, so do the requirements of project management and the potential for liabilities. On the market side, the issue is one of expectations -- given the substantial purchase costs combined with a high-end market that is accustomed to having its desires met. This problem becomes less of an issue as the value of the unit increases because, as Carmine Cerone explains, "no options" is only an issue in the lower-end units where purchasers are stretching their resources and cannot afford to make changes. In the relative high-end of these purchases, the buyers can afford to make the changes they desire.

The Market Perspective

Providing a finished condominium has several distinct advantages to the purchaser: final costs are known, the date of occupancy is assured, and most importantly, the ultimate product is a given. The anxieties and difficulties found in the design and construction process, is not added to the already, often traumatic, experience of purchasing a new residence. All of the liabilities remain with the developer. As the total development is to be completed at the same time, issues of on-going construction in an occupied building are not present. The disadvantage with this traditional approach is the sacrifice of control over the determination of how the unit is to be designed and built.

The Supply Perspective

The single largest advantage to the developer is the increased profits from this approach. This is discussed in detail in the following section. With these profits comes increased risk and project management problems and herein lies the disadvantages of this approach. Charles Place provides a good example of the management problems incurred.

As Carmine Cerone explains, early on during the presale and construction period the developers were willing to make changes for purchasers. This willingness, however, decreased proportionately with the degree of completion and responsibility was shifted to the purchasers. The problems which prompted this declining interest were a result of several issues. Owners, not understanding the complications and associated high costs raised in making changes they requested, became difficult. Architects and interior designers hired by the unit owners, who were not from Cambridge Seven Associates, the project architects, were problematic in three ways. Some were inexperienced and did not understand the design constraints presented by the building itself. Almost all required repeated assistance from Cambridge Seven Associates. This became a substantial burden on the architect and the developer. Finally, these designers and, most particularly, the clients had no sympathy for the construction schedule and coordination requirements of the general contractor, Turner Construction.

Turner Construction was a direct recipient of most of the problems. Aside from managing a major construction effort, handling the myriad of redesign issues in individual units became an enormous problem. Fifty percent of the units made substantial changes, 90% of which were done during the construction phase of the development. These changes included significant alterations in the HVAC and plumbing systems which directly impacted the construction efforts of Turner Construction. For example, one unit owner who wished to move the location of a half-bathroom within his unit, effected an entire plumbing chase which serviced twenty other units. Construction is a very linear process and deviations can result in significant delays and added costs.

Other construction problems included a one-day strike of union construction crews because a non-union truck driver made a delivery to the site. On three occasions union construction crews walked off the job because of non-union crews hired by unit owners working within the building. This resulted in tension with the unit owners who, not only had contractual agreements and schedule expectations, but did not want to pay the 25% to 35% higher union scale wages.

These and other problems forced the developer to change course in the middle of the project. Schedules were developed and deadlines were set. Owners were forced to make decisions within specific periods of time or lose the right to choose. This threat forced owners to act.

Four types of problems are identified from this experience at Charles Place. The first concerns the sensitive problem of the typical unit purchaser's relative ignorance of design and construction, combined with a determination to get what they want and to have paid well for it. The second has to do with the two scales of rough and finish construction proceeding at the same time and the overlapping of different unrelated architects and contractors on the same site. The third problem relates to the developer's early willingness to please without the proper safeguards. This resulted in high, and sometimes unmet, expectations. While some of these problems are unavoidable, in another project, several measures could be taken to mitigate these problems and to increase project control.

Possible Project Control Measures For Lincoln Wharf

The first measure is to not have presales of condominiums. For Lincoln Wharf, this choice is as much based on marketing position as it is on project control. The marketing-based decision not to have presales is discussed in the final chapter. With no presales, project control is greatly enhanced by minimizing change orders and allowing the architect and general contractor to proceed unhindered. Maintaining a degree of choice for the purchaser is a key element in the marketing effort. In order to provide this service specific items will be left incomplete; walls will be primed but not painted and bathroom and kitchen tiles will not be installed. Final paint colors and tiles will be selected by the purchaser from a preselected set of items known to be in stock with identified costs. Items such as kitchen cabinets, wood floors or carpeting will not be considered because of the potential for complications and delays. If the purchaser insists on a product not from the preselected items, it becomes their responsibility to provide a substitution at their cost. All choices must occur within a predetermined and mutually agreed upon schedule. If this is not done by the purchaser, they lose the opportunity for the service and the task becomes their responsibility. A reference list of contractors will be provided as a courtesy only.

From the management perspective, this service will be provided by a small general contractor or by a small team from the general contractor for the development. All items provided by this service will be part of a general contract with the general contractor and will be bid as specific unit items. In other words, the contract will include line items for each possible selection so that all costs are known. This allows the developer to give the purchaser a fixed and known cost during marketing.

This work will occur after the 10% purchase and sale deposit so that in the event of default by the purchaser, the cost of improvements will be more than covered by the deposit. In order for the developer to be free and clear once title is transferred, these improvements must be complete. Delay of purchase by the developer because the improvements have not been made or are unacceptable to the purchaser, can give cause for delay claims or 93A claims (product not as advertised). Any form of written conditions which releases the developer from these conditions, such as no guarantees, will not be acceptable to the purchasers or their lawyers. The items provided for selection, therefore, must not only have a required date by which time the purchaser must select, the items available for selection must also be limited in the number of trades involved and the specific work required. Ample time for contingency purposes must be accounted for in the scheduling. The conditions of such an arrangement will be clearly acknowledged in a written agreement between the developer and the purchaser.

Unfinished Space

Two luxury residential projects in Boston have been developed offering unfinished space in the past five years -- Union Wharf and the Ritz-Carlton. Both projects provided studded-out space with rough plumbing and rough electrical services to the individual units. Lobbies, hallways, elevators and all other common spaces were provided complete. In addition to the studded-out space, windows, exterior doors and balconies were necessarily provided.

The Market Perspective

The primary advantage to unfinished space is the unit owner's freedom to design and build the unit as he/she chooses. As will be discussed, the unit purchaser also has the opportunity to make significant savings on the finished product. While this approach allows great freedom, it requires a very substantial amount of attention and work on the part of the purchaser. An architect and contractor have to be hired and managed. Small scale residential projects with owners managing the overall process can be very difficult experiences. Expectations are very high and there are often problems with either the architect or the general contractor. Because of this arrangement, final construction costs are not known until after the purchase. The timing of unit construction can come into conflict with the construction of other units and disturb those already living in the building. Issues of liability, in terms of the building and the unit, are transferred to the unit purchaser. Not being familiar with the complexities of residential construction, these purchasers are relatively ignorant of the various problems which can be incurred. In short, with the higher degree of freedom comes a higher degree of exposure and risk.

These problems, while present, did not hinder the market demand at Union Wharf. Of the five residents interviewed at Union Wharf, of whom all are original purchasers, all felt that they would do it again. While all of them mentioned the unit construction as difficult and not unproblematic, they found the experience of building their own unit to be ultimately very exciting. The shared experience of the purchasers collectively building their own units created a sense of community in which people shared ideas and looked at each other's condominiums. The very low turnover rate, as discussed in the last chapter, is in part explained by the high initial commitment required by building one's own unit and the degree of satisfaction it creates.

Purchasing unfinished space requires acquisition and construction loans. The loan required is essentially a small developer's loan and banks can be highly resistent to provide such financing. According to one broker, however, given the high personal wealth of these purchasers, banks will be accommodating in order to please substantial or potentially substantial clients. The financing costs, however, will be higher as the management requirements by the bank are far greater.

The Developer's Perspective

This approach substantially reduces the development risk in several key respects. The construction period is three months shorter. Fewer trades on the site reduce the potential for management problems and strikes. The construction costs are reduced by 20% and the financing costs are reduced by 29%. As the finish work is the most difficult stage of construction to manage and the one in which the greatest delays can occur, in that so many trades are required, the liability problems of delay claims and 93A claims are significantly avoided. While the sale of unfinished units substantially reduces the legal exposure of the developer, the developer still has the professional reponsibility and the marketing incentive to maintain an orderly unit-by-unit construction process within the building.

Nevertheless, substantial problems have occurred with this approach. The Ritz-Carlton, initially developed by Gerard Blakely and completed by John Hall and Ted Saint-James Raymond, had many problems, the largest of which was obtaining a certificate of occupancy from the Boston's Department of Buildings. Purchases of units were made at different times and the construction of individual units occurred at even greater intervals. Some people bought condominiums and then left the city for extended periods of time. Not anticipating the need to fully complete the sprinkler systems and to install all of the required smoke detectors as required by the Fire Code and necessary for the Certificate of Occupancy, the developers were confronted with a major problem of having people ready to live in their condominiums but not legally allowed to do so. All of the condominium owners had to be contacted and arrangements were made to satisfactorily complete the safety systems. This problem resulted in a series of delay claims and 93A claims.

Union Wharf did not have this type of major problem; the problems it faced were much more mundane -- damage to the corridors, lobby and elevator from contractors, elevator access monopolized by contractors so that residents were forced to use the stairs, and so on. Getting materials in and out of the building was eventually solved by the use of cranes and "cherry pickers" which loaded materials directly into the units from both sides of the building. Once the building was relatively complete, the lobby, elevator and corridors were restored.

All three brokers in the waterfront market area have stated that there is a "definite" demand for unfinished space and recommend this approach for Lincoln Wharf. The question of what this market will pay, however, is much more difficult to answer with only two comparables in the city, both of which are more than four years old. Relying on the advice of the brokers is not reassuring as all three varied in their evaluation of what was an achievable price. One broker, who stated that the top sales price of $400 psf was possible for finished space, felt that $250 psf was an accurate estimate in today's market. The second broker was less definite, claiming sales prices of $200 to $250 psf were realistic. Assuming that $250 psf is the top sales price achievable, this figure is 36% below that of the highest sales price at Lincoln Wharf, $390 psf. The implied per-square-foot reduction of $140 is very substantial, especially when considering construction costs and the margin of profit scarificed.

The construction costs and soft costs for finishing rough space is approximately $45 to $50 psf for a finished condominium of good quality and relatively high grade of finish but with few customizations. This figure could easily run as high as $75 psf for a condominium with luxury features and a high level of customization. A figure of $100 psf is possible.

Employing these construction costs in a cost/benefit analysis and distinguishing between potential markets, provides several key insights into the pricing of unfinished space. For the value-conscious purchaser, it is crucial to the marketing effort to create a cost-saving incentive, given both the merits and complexities of such an undertaking. This, of course, is much less of a concern for the top-end purchaser whose primary goal is to build the exact product desired, to a certain extent regardless of price. Given these characterizations and their associated per-square-foot cost of construction of $50 and $75 respectively, and assuming a $100 per-square-foot sales price reduction on the pricing of finished space, both purchasers are given savings incentives and margins for construction overuns. As you will note in Exhibit 11, For a 1,000 square unit sold to a value-conscious purchaser for $150 psf, this reduction results in a savings of 20% ($50,000). For the high-end purchaser, who is spending $75 psf in improvements, this reduction realizes a savings of 10% ($25,000) for the same unit. When looking at the most expensive units, in this scenario, of $290 psf, the actual dollar amount saved is the same but the percent saved is reduced in relation to the increase in total price. For the value-conscious buyer the savings are 25% and for the high-end buyer the savings are only 6.25%; the amount being saved remains at $25,000. These are significant savings and the sales prices are approximately 20% more than those suggested by the brokers. When calculating the returns to the developer, however, the $100 reduction on per-square-foot

Exhibit 11
Cost/Benefit Analysis For Purchaser
Of Unfinished Unit At $100 P.S.F. Reduction In
Price From Finished Space

Savings Generated From Purchasing Lower Cost Unit:

	Value Conscious Buyer	Top-End Buyer
P.S.F. Sales Price Finished	$250	$250
P.S.F. Reduction	($100)	($100)
P.S.F. Unfinished	$150	$150
Construction Cost P.S.F.	$50	$75
Total P.S.F. Cost	$200	$225
Unit Size	1,000 S.F.	1,000 S.F.
Total Cost For Unfinished	$200,000	$225,000
Total Cost For Same Unit but Finished	$250,000	$250,000
Total Amount Saved From Not Buying Finished Space	$50,000	$25,000

sales prices results in a very significant 31% reduction in the return on investment when compared to that for finished space. For a summary see Exhibit 12. Please note that in Table 6 the cost reductions and proforma assumptions for unfinished space are carefully detailed. Summaries of hard and soft costs are provided in Table 7.

When solving for a reduction in per-square-foot value which gives the same return on investment as finished space to the Kenney Devlopment Company, the value is $104- psf. In other words, a $390 per-square-foot finished unit would have to sell for $286 psf in order for the developer to gain the same return on investment. The equity requirements for the two approaches vary greatly, as may be seen in Exhibit 12. While the return on investment calculations is an appropriate measure for comparison because the equity requirements are so different, when looking at the profits the distinction between the different scenarios becomes even clearer. The total return for finished space is $6,596,789 and for unfinished space the return is $4,477,086, 32% less. When calculating for the highest recommended unfinished sales prices given by the brokers, the total return is only $2,588,569, 61% less than that for finished space and 40% less when calculating the return on investment to the Kenney Development Company.

Exhibit 12
Lincoln Wharf:
Investment Return Summary

Summary of Return On Investment For the Three Development Scenarios

	Equity	Gross Return	R.O.I.
Finished Space:			
KDC	$303,665	$3,102,176	1022%
HCG	$303,665	$2,859,229	942%
Limited	$1,000,000	$635,384	64%
Unfinished Space @Minus $104 P.S.F.:			
KDC	$201,983	$2,079,090	1029%
HCG	$201,983	$1,961,997	971%
Limited	$1,000,000	$435,000	44%
Unfinished Space @Minus $140 P.S.F.:			
KDC	$201,983	$1,229,257	609%
HCG	$201,983	$1,112,164	551%
Limited	$1,000,000	$247,148	25%

Note:
Lincoln Wharf Associates:(LWA)

-KDC - Kenney Development Company - 45% interest in LWA
-HCG - Harbour Capital Group - 45% interest in LWA
-Limited - Limited Partner - 10% interest in LWA

-For Proformas for the three scenarios, see Appendix
-For Proforma Assumptions for each scenario, see Table 7

With the increase in profits, there is the increase in risk. With unfinished space the construction period is reduced by 20%, the construction and financing costs are reduced by 30% and the equity reqiurements are 33% less. These are substantial incentives, but in a market where the demand is high and the supply is low, the developer can be confident in assuming a higher risk profile given the substantial profit incentive. Furthermore, without recent comparables and given the need to create incentives, the margin between what the brokers suggest and what is necessary to justify the approach in terms of profits is too great. The risks in this market call are far greater than the management and liability risks found in the approach for finished condominiums.

Finished and Unfinished

This option of combining both approaches offers the worst of both approaches without the benefits of either. Offering both types of units within the single development does not solve the problem of building control either way. While the number of finished units would be less, the developer will not necessarily be out of the development any sooner. Selling finished units in a building which will have ongoing unit-by-unit construction for as long as two years will create very difficult relations within the building, even if done strategically.

As has been suggested, the two approaches draw different types of markets. The finished units will appeal to people who are busy or do not have the need or desire to design and build their own unit. Significant portions of this market will have no desire to be associated with any construction efforts. From a marketing standpoint, the development image becomes muddled with these two markets desiring very different products. These problems combined with the risk found in the sale prices discussed in the last section renders this approach as unacceptable.

Building Services & Amenities

At Charles Place, the Four Seasons and, more importantly, at Rowes Wharf, the large luxury mixed-use developments are providing a wide range of in-house hotel services to the condominium owner. In addition to these services, such amenities as swimming pools and health clubs are also provided at Charles Place. It is not known at this time whether Rowes Wharf will contain such features. In the Lincoln Wharf market area, in addition to 24-hour security and full-time building managers, these services have been limited to valet parking at the Mariner and laundry pick-up service at Lewis Wharf. Both Union and Lewis Wharves have small swimming pools as well Clearly, the overhead costs of the large developments are great and far beyond the reach of Lincoln Wharf, which is not part of a large hotel. Also, it is decidedly not the intent of the marketing effort to compete with Rowes Wharf.

Nevertheless, for the small but anticipated crossover market from Rowes Wharf, these services will be a consideration. More importantly, however, it is the intent of the development effort to distinguish this development in terms of quality from all others in the Lincoln Wharf market area that have preceded it. From this perspective, providing services is an important distinguishing feature. Rather than provide in-house services, which is completely unfeasible, relationships with outside facilities will be made. High-quality catering, laundry, cobbler, maid, cleaning and like services will have a structured relationship with the deveplopment. An in-house facilitator, not the building manager, will provide this coordination and management. If dogs need to be walked or plants watered while residents are away, this will also be done. A unit owner can also call this facilitator and ask that dinner be arranged for the unit owner and guests. Billing will be handled through the monthly condominium association fees as an additional charge.

There are a range of condominium fees in the Boston luxury residential market. For a two-bedroom unit at the Four Seasons, the condominium association fee is $2,000 per month, according to the broker for the development. This fee includes only the basic common area cleaning and maintenance, plus access to the main heating system. Each unit has its own electric meter. Valet parking is also provided. A similar two-bedroom unit at Charles Place has a $400 per month fee and provides essentially the same services but without heating or valet parking. At Union Wharf, the fee is also approximately $400 per month. Both local brokers and the residents interviewed have expressed a concern about high condominium fees. The assessment of the Lincoln Wharf market, in this regard, is fairly clear. While people are willing to spend substantial sums of money for a condminium, which they see as an investment, they are not willing to pay high monthly charges.

Calculating for the added cost of a facilitator, assuming that Lincoln Wharf will have the same approximate association fees as Union Wharf which has approximately the same land area but more units, an annual salary of $25,000 is assumed for a person. Considering overhead expenses and using a low multiplier of 1.5, this cost is $37,500 annually. This works out to $940 per unit per year or $78 per month. With Union Wharf as a base reference, this would add an approximate average of 20% to the monthly association fees paid by unit owners. This additional cost is not seen as any significant encumbrance on the purchaser who is not interested in the services provided, except possibily the young professional market. While the fee is still well within the relative range of comparable projects in and outside of the market area, the ultimate decision of whether to provide this service, as it could possibly impact the young professional market, depends on interest rates and market conditions at the time of maketing.

If one considers that eventually the condominium association will decide on the ultimate merit of the service within the building, once the building has achieved normal operations, this issue may be seen as primarily a marketing one for the developer. Half of the residents interviewed on the waterfront stated a strong interest in such a service. A summary of the decisions made in this and in the previous chapter is made in the following chapter.

CHAPTER 4
SUMMARY AND MARKETING PLAN

The following chapter contains three sections. The first is a brief review of the conclusions drawn in the preceding two chapters. The second section considers the development "image" and the market plan. Because the supply of housing is sensitive to interest rates, this factor is also briefly considered in this section. The thesis is then concluded by a characterization of the development and its anticipated sales prices in the larger context of the waterfront market area and Boston as a whole.

Review

Chapter Three, The Market Context, discussed the rapid formation and maturation of the highly desired luxury residential neighborhood in the Boston's North End. This growth and change has been a direct result of the market area's highly attractive waterfront location and its direct proximity to Downtown Boston's resurgent economy. The market analysis of Union Wharf and Lewis Wharf confirmed this perception of continued growth through the high rates of appreciation found in the resales and the high absolute sales values achieved to date. These sales histories, when combined with the low turnover rates, confirm local brokers' characterization of this market as one of high demand and very limited supply. The ultimate success of the Mariner's ambitious sales prices and their pricing strategy will provide a key reference for Lincoln Wharf in the near future.

Chapter Three also reviewed historical and current demand in the market area. Two distinct markets were identified and characterized, the young professional, the "empty nester" and divorced person. Two comparable developments outside the market area were also reviewed -- Charles Square and Church Court. These developments provided valuable references as to what constitutes a luxury residential development in the larger Boston-area market and how they have fared. This was then followed by an evaluation of developments coming on line on the waterfront in the next three years. Distinctions were drawn between the San Marco Development and Rowes Wharf and Lincoln Wharf. Finally, a pricing strategy was established. This strategy and the other conclusions discussed above, provided the base assumptions from which the development scenarios in Chapter Four were established.

Four conclusions were drawn in Chapter Four. A cost/benefit analysis of the addition of two floors onto the existing coal pocket storage structure showed that this would be a profitable option. A detailed assessment of the question of unfinished versus finished space determined that finished space, while creating increased management and liability risks, was ultimately less of a risk. This was due to the higher profit margin found in the provision of finished units. It was also because of the wide gap between the sales prices suggested by the brokers and what the proforma analysis determined was a minimum sales price in order to gain the same return as finished space. A building facilitator was determined to be a desirable feature in lieu of concierge service. And finally, a critical examination of the building's internal organization was made, based on perceptions of the market and building efficiency. Having established the broad principles for the project, more detailed design conclusions were drawn regarding the circulation system, the location of the lobby and elevator, unit size and unit distribution. These conclusions were then evaluated in terms of relative building efficiency and financial implications.

The Market Plan

The intent of this section is not to review item-by-item the many distinct features Lincoln Wharf offers. These have been discussed throughout the thesis and reviewed above. Instead, the intent is to identify the means by which these disparate features come together in concert to provide a cohesive whole; a marketing "image" which serves to organize all other elements in the market plan. Under this guiding image, the market plan is established through the consideration of presales, the identification of an agent to handle sales and the marketing devices to be employed in this effort.

The Marketing Image

As a member of the established and prestigious waterfront community, the image of Lincoln Wharf is to be distinguished from its predecessors in the market area by it's small size, timber construction and intimate relationship with the harbor. Physically separated from the busy traffic of Commercial Street and the tumultuous goings-on of the city, this small enclave offers the tranquility of the harbor steps away from the North End neighborhood and Downtown Boston. A resident of Lincoln Wharf can easily walk to work in the financial district, the Government Center or go to a Celtics or Bruins game at North Station. Unlike the urbane and polished image of Rowes Wharf, Lincoln Wharf will be historic in character and continuous with its surroundings. And unlike the "brick and beam" look of Union and Lewis Wharves, Lincoln Wharf will provide a more finished and sophisticated image.

Most importantly, however, the market is drawn to the waterfront by a love of the sea and the casual lifestyle that it represents. To this market, Lincoln Wharf offers the opportunity to realize the desire to live by the sea while still working in and enjoying the benefits of Boston. Lincoln Wharf will have a quiet demure and a sense of underplayed elegance. Saturday afternoon attire is seen as casual boating attire, topsiders and short-sleeved shits, rather than the blue blazers found at some non-waterfront developments. This sense of casualness and waterfront life will be expressed in the architecture. The choice of materials will be among the finest, but discreet in execution.

The image of restrained elegance and waterfront casualness will characterize the marketing effort. Brochures will be elegant but underplayed. The sense of respite and discretion will be emphasized. The waterfront location will be played upon through the use of a sailing yacht for a sales office in the Lincoln Wharf marina. The development will not be advertised. This accentuates the exculsive and precious character of the development. Carpenter and Company, the developers of Charles Place, did not advertise for this expressed purpose. As Don Zagorian, a waterfront broker, observes, word will travel and the lack of advertisement will add a distinct aura to the development image.

Presales

Presales or limited presales are another device for generating market interest. Limited presales, in particular, can build market anticipation. The use of presales can also limit profits and raise the specter of change orders from purchasers, as discussed in the preceding chapter. In a market where the annual rate of appreciation ranges from 20% to 40%, presales can mean that potential revenues are lost due to the high rate of appreciation during the presale period.

When solving for the revenues generated by a presale period, a number of assumptions are necessary. Given the high rate of appreciation, a relatively short six-month presale period is assumed in order to limit the risk from misjudging the market rate of appreciation. The absorption rate of 2.8 units per month, calculated in Chapter 3 is also assumed. The proforma for a six-month presale period results in a significant 50% savings in financing costs but only a 10% increase in profits ($554,130). This 10% increase in profits can be easily matched or improved upon when calculating for the rate of appreciation. On the other hand, while raising the problem of change orders, the use of presales does mean that the developer is out of the project six months earlier. This is a substantial consideration. Because the profit margin between the two approaches is relatively close and because this margin is a result of market conditions, the ultimate decision of whether to use presales or not weighs on the market conditions during the early construction period. If appreciation rates are low and interest rates high, then presales will make economic sense. In today's market they do not.

An In-House Broker?

Who sells the development is a central question to the marketing plan. A number of approaches are available. The more traditional approach would identify one broker from the local community to handle sales. These brokers are expert at this market and provide an excellent resource. Commissions from sales generated from other brokers would be split. The total commissions for Lincoln Wharf at a rate of 5%, is $845,426, or 16% of the total profits.

An alternative approach considers the hiring of an in-house broker. This person must have significant experience with luxury residential developments in Boston. Graham Gund used such a person for Church Court and Bulfinch Square. The broker was paid a regular salary with significant bonuses based on the success of the sales. Even if such a person were paid a total of $100,000 for the fourteen-month period, the developer would save 88% of the proceeds that would otherwise go to the brokers. The advantages of such an arrangement go beyond financial considerations. This person would have sole allegiance to the development and would have an intimate knowledge of the developer and the development.

There are problems with this approach. The Mariner went to a Brookline broker, Condo World, to handle sales. Commissions from co-brokering in the local community have been limited to a low- fixed rate, by the developer. This has created animosity among the local brokers. As these brokers are influential, the potential for a negative market image is great and could significantly work against the marketing efforts of the Mariner. There is little question that any choice will disappoint some local brokers. It is critical, however, that co-brokering commissions for Lincoln Wharf be on par with common practice so as to encourage positive relations with local brokers. This approach will both generate sales and reduce the money saved by using an in-house person. Nevertheless, the money saved will be substantial.

Interest Rates

The issue of changing market conditions is critical to the marketing plan and to the success of the development as a whole. Clearly, many of the assumptions discussed so far in the formulation of the marketing plan are based on optimal market conditions: high demand, limited supply and interest rates that have been in steady decline over the past few years and are now at a seven-year low. In the Lincoln Wharf market area the supply will continue to be low. What is of concern to this development, is a significant increase in interest rates over which the developer has no direct control.

A substantial portion of the anticipated market demand are "empty nesters" and divorced persons. The great majority of this market is leaving homes in the suburbs or condominiums on the waterfront to live in Lincoln Wharf. If interest rates are high, this market will not be able to sell their existing homes. As you will note in Exhibit 13, the cost of owning the average condominium at Lincoln Wharf at current fixed rates of 12.5%, with a 20% down payment is $3,414 a month. Going from an interest rate of 12.5% to 13.5% adds $273 a month to financing costs. Assuming the purchaser can not leverage more than 20% of the purchase price, this 1% change in interest rates requires an increase in income from $135,194 to $146,000, or 8%. A two percent increase over the current rate requires an annual salary of $156,000, or a 16% required increase in salary from the base case.

While many of these purchasers have substantial equity in

Exhibit 13

Lincoln Wharf:

The Impact of Interest Rates On the Average Condominium

Interest Rate	Loan Amount	Equity Required	Monthly Payment	% Change in Monthly Payment
11%	$327,774	$81,943	$3,005	-12%
11.5%	"	"	$3,141	-8%
12%	"	"	$3,278	-4%
12.5%	"	"	$3,414	0%
13%	"	"	$3,551	4%
13.5%	"	"	$3,687	8%
14%	"	"	$3,824	12%
14.5%	"	"	$3,961	16%

Note:

- Quoted Averages are from proforma for finished space, see Appendix for support data.
- Loan Assumptions:
  - Thirty-year mortgage
  - Base case interest rate is 12.5%
  - 20% Equity
  - Average Unit Size is 1,309 S.F.
  - Average Sale Price is $313 p.s.f. or $409,717

their existing homes, which means that the quoted financing costs represent a maximum amount, the real impact of increased interest rates on this market is on the young families who are trading up to the homes being sold by the "empty nesters" and divorced persons. If this young family market is unable to assume the increased financing costs, then the "empty nesters" and divorced persons will not be able to sell their homes and move to Lincoln Wharf. For the young professional, on the other hand, there is a direct relationship between income and the cost of financing. Incremental increases in interest rates will incrementally narrow the young professional market.

Clearly, if the market demand becomes soft due to a change in interest rates, then the marketing effort will shift from the confident and passive one described to a more aggressive one. A more aggressive approach would employ advertising, possibly an increase in the number of options available to the purchaser and would even consider some form of seller financing. This marketing position will be a function of its competition and the exact market conditions at the time of sales. If Rowes Wharf, for example, lowers it projected sales prices as it comes on the market, so may Lincoln Wharf in order to maintain its 10% to 15% pricing advantage. These measures assume a moderate increase in interest rates.

Once title is exchanged and construction begins, the level of investment is such that there is no turning back, the project must be completed. Assuming a more serious increase in interest rates than that already explored, the type of measures which serve minimize risk become more substantial. A hard cost-cutting look at construction costs will be made. Once again, unfinished space will be considered. The increase in interest rates will create a market which is much more interested in cost-saving measures. At the same time and as we have seen, the developer, while loosing potential profits with this approach, could significantly reduce development risk. The construction period would be shortenned by three months and the amount financed would be reduced by 30%. Presales would commence as early as possible so that purchasers could take advantage of the most current interest rates. Again, as we have seen, this would also significantly reduce the financial exposure to the developer. Similarly, arrangements would be made to construct the model showrooms and to begin the marketing efforts as soon as possible. The type of measures employed in such risk management, are necessarily a function of where the development effort stands at the time interest rates increase.

Lincoln Wharf and the Boston Market

The relative positioning of Lincoln Wharf in terms of sales prices and market image to comparable luxury residential developments in the market area and in Boston is, while ambitious, not at the very forefront. Lincoln Wharf does not offer the luxurious services of the large mixed-use developments, nor does it provide the height of prestige found at the Ritz-Carlton. And unlike the positioning of the Mariner, Lincoln Wharf is not seen as commanding the highest sales prices in Boston, but one that assumes a very close second position.

Lincoln Wharf will position itself, in contrast to the comparable developments discussed, as a discreet but exotic gem; the last and most treasured along the waterfront. This positioning combined with the development image of restrained elegance and casual waterfront living will clearly distinguish Lincoln Wharf from Rowes Wharf. Lincoln Wharf's top selling price of $390 per square foot acknowledges this close second position by being 13% below the top selling price of Rowes Wharf. This top selling price is 3% below the top selling price of Charles Place and 8% less than that of the Four Seasons. The unit mix is very similar to these developments and provides variety in the size and type of units.

As with interest rates, the luxury residential market has experienced enormous change over the past ten years. Over the next two years, during the design and construction of Lincoln Wharf, many of the conditions assumed in this thesis can and will change. The ultimate sales values and absorption rate achieved by the Mariner in the coming year will offer a key reference to the Lincoln Wharf development.

TABLES

Table 1
Lincoln Wharf
Summary of Construction Costs

At the request of the developer and based on preliminary design documents provided by the project architect, Notter, Finegold & Notter, Inc., the Gilbane Building Company of Providence, Rhode Island provided a line item estimate to the Developer on October 9, 1984. This estimate projected construction costs for the first quarter of 1985. According to the developer, the rate of construction cost increases has been less than that projected by the estimate. For this reason, the estimate is considered valid for today's dollars.

In some instances, the estimate does not fully break-down costs into distinguishable elements. For this reason, certain gross assumptions have been made based on the construction experience of this writer. The construction cost summary below, breaks apart only costs which in some manner bear on the subject of this thesis.

Summary:

Construction Totals:

Finished	$7,475,288
Unfinished	$5,146,965

Item:	Total Cost Finished:	% of Total:	% Saved When Unfinished:	Amount Saved When Unfinished:
Demolition:	$461,000	7%		
Piles & Deck:	$973,000	15%		
Concrete:	$1,427,650	23%		
Masonary:	$10,790	0%		
Misc. Metals:	$198,800	3%		
Rough Carp.:	$454,180	7%		
Finish Carp.:	$550,000	9%	68%	$374,000
Caulking(68%):	$7,480	0%		
Roof & Flash.:	$56,000	1%		
Glass & Glaz.:	$35,000	1%		
Interior Fin.:	$318,000	5%	75%	$329,000
Gypsum:	$262,000	4%	85%	$222,700
Misc.:	$20,655	0%	100%	$20,655
Res. Equip.:	$112,000	2%	100%	$112,000
Elevator:	$65,000	1%		

Table 1
Page 2

Item:	Total Cost Finished:	% of Total:	% Saved When Unfinished:	Amount Saved When Unfinished:
Plumbing:	$320,000	5%	50%	$160,000
HVAC:	$319,000	5%	80%	$255,000
Fire Protect.:	$72,000	1%		
Electric:	$569,000	9%	65%	$370,000
Site Imp.	$60,000	1%		
Sub-Total:	$6,292,330	100%	28%	$1,753,555

General Conditions And Contigency:

	Finished	Unfinished
		$6,292,330
		(1,753,555)
Sub-Total:	$6,292,330	$4,538,775
Gen. Cond.(8%)	$503,386	$140,284
	$6,795,716	$4,679,059
Contingency(10%)	$679,572	$467,906
Total:	$7,475,288	$5,146,965

Table 2

The Following is an accounting of the brokers interviewed for the analysis of the Lincoln Wharf Market Area.

==

Brokers:

Kevin Ahearn
Otis & Ahearn, Inc.
Altantic Avenue
Boston, Massachusetts

Roland Kelsch
Waterfront Reatlty, Inc.
Lewis Wharf
Boston, Massachusetts

Don Zagorian
Don Zagorian Associates, Inc.
Union Wharf
Boston, Massachusetts

Table 3

LEWIS WHARF - RESALE PRICES OVER THE PAST THREE YEARS

Lewis Wharf:						
L615	786 N	3/1/1	6	5.31.83	$142,500	$181 North End
L326	815 N	3/1/1	3	7.21.83	$160,000	$196 Marina
L314	1000 N	4/2/1	3	7.29.83	$155,000	$155 Marina
L622	973 N	4/2/1	6	8.2.83	$180,000	$185 South Harbour
L538	1320 small	5/2/2	5	9.2.83	$298,000	$226 South Harbour
L637	1064 small	4/2/1	6	12.2.83	$250,000	$235 North Harbour
L637	1064 small	4/2/1	6	12.2.83	$380,000	$357 North Harb*ur
L324	825	3/1/1	3	6.28.84	$150,000	$182 South/Marina
L617	786	3/1/1	6	4.13.84	$150,000	$191 North Harbour
L514	1050	4/2/1	5	current	$235,000	$224 South Harbour
L435	1300	5/2/2	4	current	$360,000	$277 South Harbour
L532	1170	4/2/1	5	current	$400,000	$342 South Harbour
L431	1200	N/A		current	$372,000	$310 North/North End
L638	1064	N/A		current	$380,000	$357 South Harbour

Notes:

-Rehabilitated in 1974 and 1975 as finished space

-Building completed and marketing started in 1976

-Sold out in 1978, eighteen month sellout

-Unit mix: 40% one bedroom units, 60% two bedroom units

-Average sizes: 50% of one bedrooms, 850 S.F., 50% 1,120 S.F., two bedrooms 1,300 S.F.

Table 4

UNION WHARF - RESALE PRICES OVER THE PAST THREE YEARS

Unit #:	S.F. w/Balc.:	Balc.:	# of Rms/bedr./bath	Flr.:	Date of Sale:	Total Sales Price:	Price P.S.F.:	Views:
Union Wharf:								
U607	1530	Deck	6/2.5/2	5&6	5.27.83	$340,000	$222	partial water
U302	1786	Y	6.5/3/2	3	9.15.83	$340,000	$190	city
U5	2311	Y	6.5/3/2.	Triplex	10.14.83	$460,000	$199	North Harbour
U23	2283	Y	6.5/3/2.	Triplex	1.17.84	$450,000	$197	North Harbour
U18	2286	Y	6.5/3/2.	Triplex	3.8.84	$480,000	$210	South Harbour
U7	2281	Y	6/3/2	Triplex	7.84	$500,000	$219	water
U18	2286	Y	6/3/2	Triplex	10.84	$575,000	$252	water
U27	2296	Y	6/3/2.5	Triplex	1.85	$825,000	$359	water
U503	1288	N/A	4/1/1	5	1.85	$262,500	$204	street
U607	1530	Deck	6/2.5/2	5&6	1.85	$455,000	$297	partial water

Notes:
Indented units have been sold twice in the past three years

Phase One - Unfinished Space
-Rehabilitated in 1976
-Presales began in the Fall of 1977
-Building completed in May of 1978
-Development sold out in summer of 1979, twenty-one month sellout
-Unit mix: 10% one bedroom units, 90% two bedrooms
-Average sizes: 1,175 to 1,800 S.F., A few at 2,000 S.F.

Phase Two - Unfinished Space
-Construction started in early 1979
-Presales began before construction start
-Buildings completed in 1980
-Development sold out in 1980, twelve month sellout
-Unit mix: 100% three bedrrom triplexes
-Average size: 2,300 S.F.

Table 5
The Mariner - Sales Price, Unit Size and Mix Analysis

Average Unit Size:	1,064 Square Feet	Unit mix:	
Average Cost(w/Balc.):	$365 P.S.F.	One Bed.	54%
Average Total Cost:	$388,205 per unit	Two Bed.	35%
		Three Bed.	12%
Total # of Units:	83 units		
Total S.F.:	88,344 S.F.		

Average Floor Prices:(with Balcony)

Floor Two	$265	Floor Seven	$383
Floor Three	$275	Floor Eight	$400
Floor Four	$303	Floor Nine	$450
Floor Five	$336	Floor Ten	$500
Floor Six	$360		

Average Unit Sizes by Floor:(with Balcony)

Floor Two	807	Floor Seven	1,281
Floor Three	807	Floor Eight	1,370
Floor Four	772	Floor Nine	1,782
Floor Five	978	Floor Ten	1,764
Floor Six	978		

Note:
-Summary based on data provided by East-Mar Corporation, the developers, to brokers.

Formerly Known as the Gerard Freezer Building
Located at 316 Commercial Street in Boston's North End
Presale marketting commenced on June 23, 1985
Completion Date: January, 1985
Ten Story Building
Total Commercial Square Footage: 27,794 S.F.

Table 6
Lincoln Wharf:
Proforma Assumptions

All three proformas have been constructed under the following assumptions. Items which have been altered because of the different development approach are noted at the end.

The proforma assumes 100% financing based on the Developer's current informal understanding with financing sources. As all calculations in the thesis are based on current dollars, a 12% interest rate with a 1% financing charge is assumed. It is also assumed by the developer that the loan used during the marketing phase will be the same as the construction loan.

As you will note, the soft costs have been broken down into three columns. The first indicates the total anticipated soft costs by the developer. The second indicates those soft costs to be spent prior to the exchange of title and the placement of financing. The exchange of title, the placement of financing and the commencement of construction are all assumed to occur on the same day. The third column indicates the soft costs to be spent once construction commences. These costs are included in the financing costs.

An accounting of the different soft costs is as follows. Architectural and engineering costs are calculated as 5% of the construction cost. Survey and testing, insurance, legal and accounting, permits, marketing and real estate taxes have been provided by the developer. Development management and contingency expenses are 5% of the total development cost.

The cost of acquisition is also 100% financed. This is clearly noted in the proforma. When calculating the proportionate amount of soft costs devoted to each of the forty condominiums and other revenue generating items in the proforma, a figure of $749,792 is used for acquisition costs. This figure represents 68% of the total acquisition cost and is based on the percent of gross square footage devoted to each of the two phases of this development. This, and other square foot calculations are provided in the proforma. This breakdown is also provided in the proforma but is based on the total acquisition cost for both phases. All square footage counts are based on the calculations for Lincoln Wharf found in Exhibit 10, and those provided by the architect for the second phase. The Proformas may be found in the Appendix.

The construction costs are based on the calculations found in Table 1. The construction period for finished units is fourteen months as provided by the Gilbane Building Company in their constuction cost estimate.

The cost of the public contributions -- the linkage payment of $475,000 and the fireboat facility for $70,000(as estimated by the Gilbane Building Company) -- is considered in the profroma breakdown of soft and hard costs. The linkage payment is due in seven years from the date of designation and the expenses for the fireboat facility is expected in two years. The 68% share of these two items for Lincoln Wharf has been calculated for present value at 10%. This is may be found in the proforma breakdown of hard and soft costs. The present value of these contributions is considered in the calculation of total costs. The summary of hard and soft costs found in Table 7 is based on actual development costs and therefore does not include the cost of public benefits but does include the full acquisistion cost.

Unfinished Space

The following items have been changed based on the discussion of this approach in Chapter Three.

The construction period has been reduced by 20%. This time saving is based on discussions with the Developer and a detailed review of of the construction items affected. This reduction in time is less than the cost savings for this approach, 29%. This disportionate relationship is explained by the large construction items which are not impacted by the change in approach -- demolition and the reconstruction of the piles and deck -- and the unchanged mobilization period at the beginning of the job.

The change in construction costs is detailed in Table 1.

Other items affected include management fees which are reduced from 5% to 3.5%, contingency costs are reduced from 5% to 4%, taxes during construction are reduced by 29%, insurance by 20% and the architectural fee is reduced by 20%. The disporportionate decrease found many of these items are a reflection of the reduced economies of scale.

Table 7
Lincoln Wharf:
Summary of Hard And Soft Costs For "Finished" Units

	Total Cost:	Cost P.S.F. For Net Sellabe S.F.:	% of Total Cost:
Hard Costs: 77% of Total Costs			
Acquisition Cost:	$1,100,000	$18	9%
Construction Cost:	$7,475,288	$124	60%
Construction Interest:	$744,367	$12	6%
Marketing Interest:	$356,661	$6	3%
Soft Costs: 23% of Total Costs			
Marketing Commissions:	$422,713	$7	3%
All Other:	$1,360,152	$42	20%
Total Cost:	$11,459,182	$209	100%

Note:
- Summary based on Proforma for finished space.
- The two following summaries are based on the two proformas for unfinished space in the Appendix
- Per-square-foot calculations based on total net sellable square feet as calculated in Exhibit 10.
- All cost quoted will be actual expenses. Future costs such as public contributions are not included in the calculations.

Table 7
Page 2
Summary of Hard And Soft Costs For "Unfinished" Units
At A $104 P.S.F. Reduction

	Total Cost:	Cost P.S.F. For Net Sellable S.F.:	% of Total Cost:
Hard Costs: 85% of Total Costs			
Acquisition Cost:	$1,100,000	$18	13%
Construction Cost	$5,416,965	$90	63%
Construction Interest:	$412,560	$7	5%
Marketing Interest:	$233,507	$5	4%
Soft Costs: 15% of Total Costs			
Marketing Commissions:	$308,064	$5	4%
All Other:	$1,009,442	$17	12%
Total Cost:	$8,210,538	$142	100%

Note:
-See Note on Page 1 of this Table.

Table 7
Page 3
Summary of Hard And Soft Costs For "Unfinished" Space
At A $140 P.S.F. Reduction

	Total Cost:	Cost P.S.F. For Net Sellable S.F.	% of Total Cost
Hard Costs: 85% of Total Costs			
Acquisition Cost:	$1,100,000	$18	13%
Construction Cost:	$5,146,965	$90	63%
Construction Interest:	$440,867	$7	5%
Marketing Interest:	$319,732	$5	4%
Soft Cost: 15% of Total Costs			
Marketing Commissions:	$268,377	$5	4%
All Other:	$1,039,272	$17	12%
Total:		$142	100%

Note:
-See note on Page 1 of this Table.

APPENDIX

LINCOLN WHARF PROFORMA FINISHED UNITS PAGE 1

Last Revised: 8.16.85 — 7 Stories — Total Development Period: 28.25 Months

Development Costs	Soft Costs	Spent Prior to Const.:	To be Spent begin'gw/Cons	68%-Lincoln Wharf:	32% - North Ferry:	Cost per Unit	% of Total Cost
Acquisition:	$1,100,000		$1,100,000	$749,792	$350,208	$27,500	10%
Arch&Eng.(5%):	$373,764	$280,323	$93,441			$9,344	3%
Survey & Testing:	$100,000	$90,000	$10,000			$2,500	1%
Insurance:	$25,000		$25,000			$625	0%
Legal&Accounting:	$150,000	$37,500	$112,500			$3,750	1%
Permits:	$50,000	$50,000	$32,500			$1,250	0%
Marketing:	$400,000		$400,000			$10,000	4%
Develop. Man.(5%):	$373,764	$149,506	$242,947			$9,344	3%
Contingencies(5%):	$373,764		$373,764			$9,344	3%
R.E.Taxes/Const.:	$50,000		$50,000			$1,250	0%
R.E.Taxes/Marketing:	$20,000		$20,000			$500	0%
Financing(%):	$89,354		$89,354			$2,234	1%
Total Soft Cost:	$3,623,622	$607,329	$2,460,152				
			($1,100,000)minus Aquisition				
			$1,360,152				

Hard Costs:		Cost per Unit	As % of Total
Construction Cost:	$7,478,288	$186,882	66%
Const. Interest:	$744,367	$18,609	7%
Marketing Interest:	$356,661	$8,917	3%
Aquisition:(Lincoln)	$749,792	$18,745	7%
Soft Costs:			
All Other:	$1,360,152	$34,004	12%
Marketing:	$422,713	$10,568	4%
Public Benefits:	$234,270	$5,857	2%
Total:	$11,343,244		
+32% North Ferry:	$350,208		
-Public Benefits:	($234,270)		
	$11,459,182 Total Cost for Phase One		

Marketing Costs:		2.50%
Condominium:	$345,240	
Marina & P.:	$36,737	
Office:	$40,737	
	$422,713	

PROJECTED SALES PRICES FOR FININISHED UNITS

Type	# of	TotalS.F.w/Balc	Price P.S.F	Aver.Unit Value	Total
Second Floor:					
One Bedroom	8	7,064	$220	$194,260	$1,554,080.00
Two Bedroom	2	2,526	$275	$347,325	$694,650.00
Third Floor:					
One Bedroom	2	1,580	$240	$189,600	$379,200.00
Two Bedroom	6	8,034	$300	$401,700	$2,410,200.00
Fourth Floor:					
One Bedroom	2	1,580	$270	$213,300	$426,600.00
Two Bedroom	6	9,090	$325	$492,375	$2,954,250.00
Fifth Floor:					
One Bedroom	2	1,580	$300	$237,000	$474,000.00
Two Bedroom	6	9,090	$340	$515,100	$3,090,600.00
Sixth Floor:					
Two Bedroom	2	4,040	$365	$737,300	$1,474,600.00
Bottom of Duplex	2	3,740	$365	$682,550	$1,365,100.00
Seventh Floor:					
Top of Duplex	2	4,040	$390	$787,800	$1,575,600.00
	40	52,364			$16,398,880

Average size of Unit 1,309.10 s.f. — Average P.S.F $313

LINCOLN WHARF PROFRMA PAGE 2

Const. Per.:	14	Market Per.:	14.25 Months

Financing Expenses

Construction Period

Const.Cost:	$7,475,288
+Soft Cost:	$1,360,152
+Aquisistion	$1,100,000
-Equity	($1,000,000)
Loan Amount:	$8,935,440
Interest Rat	12.00%
Points:	1.00%
Term(months)	14

Marketing Period

Loan Amount:	$10,235,081
Interest Rat	12.00%
Points:	0.00%
Term(months)	12

Area Calculations:

		% of Total S.F.
Gross S.F.	69,323	100%
Net Sellable	61,655	89%
Total Res. S.F. w/o Balconey	47,580	69%
Total Res. S.F. w/Balconey:	53,915	78%
Total Balcon	6,335	9%
Total Office	4,140	6%
Total Park.:	3,600	5%
Total Circ.:	7,668	11%

Non-Condominium Revenues

Type:	Pricing	# of		Aver. Unit Value
Office(20x43	860 $250 P.S.F.	9		$215,000 Per Unit
Parking:				
Indoor	$35,000.00	18	$630,000	
Outdoor				
Assigned	$30,000.00	11	$330,000	
Floating	$25,000.00	11	$275,000	
Marina Slips	$30,000.00	17	$510,000	
		57	$1,745,000	$30,614 Per Unit

Square Foot Cost and Return Analysis

Building:	Gross	% of Total	Net Sellable	% of Total
Total Cost	$164		$184	
Const. Cost	$108	66%	$121	66%
Soft Cost	$30	19%	$34	19%
Interest	$16	10%	$18	10%

Building + Land, Pier and Water: 107,123

	Gross	% of Total
Total Cost	$106	
Const. Cost	$70	66%
Soft Cost	$20	19%
Interest	$10	10%

LINCOLN WHARF PROFORMA PAGE 3

Total Development

	Building Area	Land/Pier Area	Marina	Parking	Totals	% of Totals
Lincoln Wharf Net:	61,655		9,180	8,000	78,835	78%
North Ferry Net:	12,338		4,320	6,000	22,658	22%
Lincoln Wharf Gross:	69,323	37,800	18,600		125,723	68%
North Ferry Gross	14,972	37,150	6,600		58,722	32%
Total Dev. Net:	73,993		13,500	14,000	101,493	55% of total developed area is sellable
Total Dev. Gross:	84,295	74,950	25,200		184,445	

Public Benefits:

	Costs	Payment Due	% Share Net Lincoln W.	$ Share Lincoln W.	N.P.V. @10%
Contribution	$475,000	7	68%	$323,774	$189,334
Fireboat:	$70,000	2	68%	$47,714	$44,936
Total:	$545,000				$234,270

Equity Sources:		% of Equity	% of Ownership
KDC:*	$303,665	19%	45%
HarbourC.:**	$303,665	19%	45%
10% Limited:	$1,000,000	62%	10%
Total:	$1,607,329		

*50% of PreConst. Dev. Costs
**Paid at Closing of Loan and exchange of Title:
Note: Development to be 100% financied

Return to Lincoln Wharf Associates

	Total $	% of Total
Revenues:		
Condominium	$16,398,880	84%
Marina &P.:	$1,432,737	7%
Office	$1,588,737	8%
Sub-Total:	$19,420,354	
Costs:		
Sub-Total:	($11,459,182)	
	$7,961,171	
Limited:	($1,000,000)	
Generals:	($607,329)	
Total:	$6,353,842	

Entity	Gross Return	+Dev. Man.	Total	ROI
KDC@45%	$2,859,229	$242,947	$3,102,176	1022%
HarborC.@45%	$2,859,229		$2,859,229	942%
Limited@10%	$635,384		$635,384	64%

LINCOLN WHARF PROFORMA PAGE 4

EXHIBIT 1 COST PROJECTIONS		1	2	3	4	5	6	7
Construction Loan	$8,935,440	$638,246	$638,246	$638,246	$638,246	$638,246	$638,246	$638,246
Acquisition	(in Loan)							
Arch&Eng.(5%):	$93,441	$6,674	$6,674	$6,674	$6,674	$6,674	$6,674	$6,674
Survey & Testing:	$10,000	$10,000						
Insurance:	$25,000	$885	$885	$885	$885	$885	$885	$885
Legal&Accounting:	$112,500	$12,500						
Permits:	$32,500	$32,500						
Marketing:	$400,000							
Development Man.:	$242,947	$8,600	$8,600	$8,600	$8,600	$8,600	$8,600	$8,600
Contingencies(5%):	$373,764							
R.E.Taxes/Const&M.:	$70,000	$2,478	$2,478	$2,478	$2,478	$2,478	$2,478	$2,478
Financing(1%)	$89,354	$89,354						
Total Expenditures:		$801,237	$656,883	$656,883	$656,883	$656,883	$656,883	$656,883

EXHIBIT 1	8	9	10	11	12	13	14	15
Construction Loan	$638,246	$638,246	$638,246	$638,246	$638,246	$638,246	$638,246	
Acquisition								
Arch&Eng.(5%):	$6,674	$6,674	$6,674	$6,674	$6,674	$6,674	$6,674	
Survey & Testing:								
Insurance:	$885	$885	$885	$885	$885	$885	$885	$885
Legal&Accounting:								$8,333
Permits:								
Marketing:						$75,000	$75,000	$17,544
Development Man.:	$8,600	$8,600	$8,600	$8,600	$8,600	$8,600	$8,600	$8,600
Contingencies(5%):								
R.E.Taxes/Const&M.:	$2,478	$2,478	$2,478	$2,478	$2,478	$2,478	$2,478	$2,478
Financing(1%)								
Total Expenditures:	$656,883	$656,883	$656,883	$656,883	$656,883	$731,883	$731,883	$37,840

EXHIBIT 1	17	18	19	20	21	22	23	24
Construction Loan								
Acquisition								
Arch&Eng.(5%):								
Survey & Testing:								
Insurance:	$885	$885	$885	$885	$885	$885	$885	$885
Legal&Accounting:	$8,333	$8,333	$8,333	$8,333	$8,333	$8,333	$8,333	$8,333
Permits:								
Marketing:	$17,544	$17,544	$17,544	$17,544	$17,544	$17,544	$17,544	$17,544
Development Man.:	$8,600	$8,600	$8,600	$8,600	$8,600	$8,600	$8,600	$8,600
Contingencies(5%):								
R.E.Taxes/Const&M.:	$2,478	$2,478	$2,478	$2,478	$2,478	$2,478	$2,478	$2,478
Financing(1%)								
Total Expenditures:	$37,840	$37,840	$37,840	$37,840	$37,840	$37,840	$37,840	$37,840

EXHIBIT 1	26	27	28	28.25
Construction Loan				
Acquisition				
Arch&Eng.(5%):				
Survey & Testing:				
Insurance:	$885	$885	$885	$885
Legal&Accounting:	$8,333	$8,333	$8,333	$8,333
Permits:				
Marketing:	$17,544	$17,544	$17,544	$17,544
Development Man.:	$8,600	$8,600	$8,600	$8,600
Contingencies(5%):				
R.E.Taxes/Const&M.:	$2,478	$2,478	$2,478	$2,478
Financing(1%)				
Total Expenditures:	$37,840	$37,840	$37,840	$9,460

LINCOLN WHARF PROFORMA FINISHED UNITS PAGE 46

EXHIBIT TWO FINANCING REQUIREMEN CONSTRUCTION PERIOD			INTEREST RAT	12.00%				
Month	1	2	3	4	5	6	7	8
Beginning Balance	$0	$809,250	$1,480,794	$2,159,053	$2,844,096	$3,535,988	$4,234,800	$4,940,599
Presale Revenues								
Expenditures	$801,237	$656,883	$656,883	$656,883	$656,883	$656,883	$656,883	$656,883
Outstanding Balance	$801,237	$1,466,132	$2,137,677	$2,815,936	$3,500,978	$4,192,871	$4,891,682	$5,597,482
Interest	$8,012	$14,661	$21,377	$28,159	$35,010	$41,929	$48,917	$55,975
End - Balance:	$809,250	$1,480,794	$2,159,053	$2,844,096	$3,535,988	$4,234,800	$4,940,599	$5,653,457

EXHIBIT TWO						
Month	9	10	11	12	13	14
Beginning Balance	$5,653,457	$6,373,443	$7,100,629	$7,835,087	$8,576,890	$9,401,860
Presale Revenues						
Expenditures	$656,883	$656,883	$656,883	$656,883	$731,883	$731,883
Outstanding Balance	$6,310,340	$7,030,326	$7,757,512	$8,491,970	$9,308,773	$10,133,743
Interest	$63,103	$70,303	$77,575	$84,920	$93,088	$101,337
End - Balance:	$6,373,443	$7,100,629	$7,835,087	$8,576,890	$9,401,860	$10,235,081

EXHIBIT THREE SALES SCHED.:		1	2	3	4	5	6	7
# of Units:	0	# of Parking/Marina Units:		0	Price per unit			
Sell Out Period:	12							
Parking/Marina		4.00	4.00	4.00	4.00	4.00	4.00	4.00
Units Sold		2.81	2.81	2.81	2.81	2.81	2.81	2.81
Offices		0.63	0.63	0.63	0.63	0.63	0.63	0.63

EXHIBIT THREE	8	9	10	11	12	13	14	14.25
# of Units:								
Sell Out Period:								
Parking/Marina	4.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00
Units Sold	2.81	2.81	2.81	2.81	2.81	2.81	2.81	0.70
Offices	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.16

EXHIBIT FOUR REVENUES/CONDO SALE(In marketing period only)				Average Sale	$313.17	1,309.10		
Month:	1	2	3	4	5	6	7	8
Cash from Sales	$1,150,799	$1,150,799	$1,150,799	$1,150,799	$1,150,799	$1,150,799	$1,150,799	$1,150,799
Less Commission(2.5%	($28,770)	($28,770)	($28,770)	($28,770)	($28,770)	($28,770)	($28,770)	($28,770)
Cash BeforeFinancing	$1,122,029	$1,122,029	$1,122,029	$1,122,029	$1,122,029	$1,122,029	$1,122,029	$1,122,029

EXHIBIT FOUR							
Month:	9	10	11	12	13	14	14.25
Cash from Sales	$1,150,799	$1,150,799	$1,150,799	$1,150,799	$1,150,799	$1,150,799	$287,700
Less Commission(2.5%	($28,770)	($28,770)	($28,770)	($28,770)	($28,770)	($28,770)	($7,192)
Cash BeforeFinancing	$1,122,029	$1,122,029	$1,122,029	$1,122,029	$1,122,029	$1,122,029	$280,507

LINCOLN WHARF PROFORMA PAGE 6

EXHIBIT FIVE REVENUES FROMPARKING & MARINA SLIPS Average Sale $30,614

Month:	1	2	3	4	5	6	7	8
Cash from Sales	$122,456	$122,456	$122,456	$122,456	$122,456	$122,456	$122,456	$122,456
LessCommission(2.5%)	($3,061)	($3,061)	($3,061)	($3,061)	($3,061)	($3,061)	($3,061)	($3,061)
Cash BeforeFinancing	$119,395	$119,395	$119,395	$119,395	$119,395	$119,395	$119,395	$119,395

EXHIBIT FIVE

Month:	9	10	11	12	13	14	14.25
Cash from Sales	$122,456	$122,456	$122,456	$122,456	$122,456	$122,456	$30,614
LessCommission(2.5%)	($3,061)	($3,061)	($3,061)	($3,061)	($3,061)	($3,061)	($765)
Cash BeforeFinancing	$119,395	$119,395	$119,395	$119,395	$119,395	$119,395	$29,849

EXHIBIT SIX REVENUES: OFFICES

Month:	1	2	3	4	5	6	7	8
Cash from Sales	$135,789	$135,789	$135,789	$135,789	$135,789	$135,789	$135,789	$135,789
LessCommission(2.5%)	($3,395)	($3,395)	($3,395)	($3,395)	($3,395)	($3,395)	($3,395)	($3,395)
Cash BeforeFinancing	$132,395	$132,395	$132,395	$132,395	$132,395	$132,395	$132,395	$132,395

EXHIBIT SIX

Month:	9	10	11	12	13	14	14.25
Cash from Sales	$135,789	$135,789	$135,789	$135,789	$135,789	$135,789	$33,947
LessCommission(2.5%)	($3,395)	($3,395)	($3,395)	($3,395)	($3,395)	($3,395)	($849)
Cash BeforeFinancing	$132,395	$132,395	$132,395	$132,395	$132,395	$132,395	$33,099

EXHIBIT SEVEN FINANCING REQ.'s: MARKETING PERIOD INTEREST RAT 12.00%

Month:	1	2	3	4	5	6	7
Beginning Balance	($10,235,081)	($8,988,093)	($7,728,636)	($6,456,585)	($5,171,813)	($3,874,193)	($2,563,597)
Net Sales Revenues	$1,373,818	$1,373,818	$1,373,818	$1,373,818	$1,373,818	$1,373,818	$1,373,818
Expenditures	($37,840)	($37,840)	($37,840)	($37,840)	($37,840)	($37,840)	($37,840)
Outstanding Balance	($8,899,102)	($7,652,115)	($6,392,658)	($5,120,607)	($3,835,834)	($2,538,215)	($1,227,619)
Interest	($88,991)	($76,521)	($63,927)	($51,206)	($38,358)	($25,382)	($12,276)
End Balance	($8,988,093)	($7,728,636)	($6,456,585)	($5,171,813)	($3,874,193)	($2,563,597)	($1,239,895)

EXHIBIT SEVEN

Month:	8	9	10	11	12	13	14	14.25
Beginning Balance	($1,239,895)	$96,083	$1,432,062	$2,768,040	$4,104,018	$5,439,996	$6,775,974	$8,111,953
Net Sales Revenues	$1,373,818	$1,373,818	$1,373,818	$1,373,818	$1,373,818	$1,373,818	$1,373,818	$343,455
Expenditures	($37,840)	($37,840)	($37,840)	($37,840)	($37,840)	($37,840)	($37,840)	($9,460)
Outstanding Balance	$96,083	$1,432,062	$2,768,040	$4,104,018	$5,439,996	$6,775,974	$8,111,953	$8,445,947
Interest	$0	$0	$0	$0	$0	$0	$0	$0
End Balance	$96,083	$1,432,062	$2,768,040	$4,104,018	$5,439,996	$6,775,974	$8,111,953	$8,445,947

LINCOLN WHARF PROFORMA FOR UNFINISHED SPACE @ $104 PER SQUARE FOOT BELOW THAT OF FINISHED SPACE

Last Revised: 8.1.85 Unfinished Units 7 Stories Total Development Period:MO 25.25

Development Costs	Soft Costs	Spent Prior to Const.:	To be Spent begin'gw/Cons	68%-Lincoln Wharf:	32% - North Ferry:	Cost per Unit	% of Cost	Total
Acquisition:	$1,100,000		$1,100,000	$749,792	$350,208	$27,500		14%
Arch&Eng.(4%):	$205,879	$154,409	$51,470			$5,147		3%
Survey & Testing:	$100,000	$90,000	$10,000			$2,500		1%
Insurance:	$20,000		$20,000			$500		0%
Legal&Accounting:	$150,000	$37,500	$112,500			$3,750		2%
Permits:	$50,000	$50,000	$32,500			$1,250		1%
Marketing:	$400,000		$400,000			$10,000		5%
Develop. Man.(3.5%)	$180,144	$72,058	$117,093			$4,504		2%
Contingencies(4%):	$205,879		$205,879			$5,147		3%
R.E.Taxes/Const.:	$40,000		$40,000			$1,000		0%
R.E.Taxes/Marketing:	$20,000		$20,000			$500		0%
Financing(%):	$62,564		$62,564			$1,564		1%
Total Soft Cost:	$2,875,867	$403,966	$2,109,442					
			($1,100,000) minus Aquisition					
			$1,009,442					

Marketing Costs:		2.50%
Condominium:	$230,590	
Marina & P.:	$36,737	
Office:	$40,737	
	$308,064	

Hard Costs:		Cost per Unit	As % of Total
Construction Cost:	$5,146,965	$128,674	64%
Const. Interest:	$412,560	$10,314	5%
Marketing Interest:	$233,507	$5,838	3%
Aquisition:(Lincoln)	$749,792	$18,745	9%
Soft Costs:			
All Other:	$1,009,442	$25,236	12%
Marketing:	$308,064	$7,702	4%
Public Benefits:	$234,270	$5,857	3%
Total:	$8,094,600		
+32% North Ferry:	$350,208		
-Public Benefits:	($234,270)		
	$8,210,538		

PROJECTED SALES PRICES FOR UNFINISHED UNITS @MINUS $104 P.S.F.

Type	# of	TotalS.F.w/Balc	Price P.S.F	Aver.Unit Value	Total
Second Floor:					
One Bedroom	8	7,064	$116	$102,428	$819,424.00
Two Bedroom	2	2,526	$171	$215,973	$431,946.00
Third Floor:					
One Bedroom	2	1,580	$136	$107,440	$214,880.00
Two Bedroom	6	8,034	$196	$262,444	$1,574,664.00
Fourth Floor:					
One Bedroom	2	1,580	$166	$131,140	$262,280.00
Two Bedroom	6	9,090	$221	$334,815	$2,008,890.00
Fifth Floor:					
One Bedroom	2	1,580	$196	$154,840	$309,680.00
Two Bedroom	6	9,090	$236	$357,540	$2,145,240.00
Sixth Floor:					
Two Bedroom	2	4,040	$261	$527,220	$1,054,440.00
Bottom of Duplex	2	3,740	$261	$488,070	$976,140.00
Seventh Floor:					
Top of Duplex	2	4,040	$286	$577,720	$1,155,440.00
	40	52,364			$10,953,024

Average size of Unit 1,309.10 s.f. Average P.S.F $209

LINCOLN WHARF PROFORMA "UNFINISHED" PAGE 2

Const. Per.:	11	Market Per.:	14.25 Months

Financing Expenses

Construction Period

Const.Cost:	$5,146,965
+Soft Cost:	$1,009,442
+Aquisistion	$1,100,000
-Equity	($1,000,000)
Loan Amount:	$6,256,407
Interest Rat	12.00%
Points:	1.00%
Term(months)	14

Marketing Period

Loan Amount:	$0
Interest Rat	12.00%
Points:	0.00%
Term(months)	12

Area Calculations:

	S.F.	% of Total
Gross S.F.	69,323	100%
Net Sellable	61,655	89%
Total Res. S.F. w/o Balconey	47,580	69%
Total Res. S.F. w/Balconey:	53,915	78%
Total Balcon	6,335	9%
Total Office	4,140	6%
Total Park.:	3,600	5%
Total Circ.:	7,668	11%

Non-Condominium Revenues

Type:	Pricing	# of		Aver. Unit Value
Office(20x43	860 $250 P.S.F.	9		$215,000 Per Unit
Parking:				
Indoor	$35,000.00	18	$630,000	
Outdoor				
Assigned	$30,000.00	11	$330,000	
Floating	$25,000.00	11	$275,000	
Marina Slips	$30,000.00	17	$510,000	
		57	$1,745,000	$30,614 Per Unit

Square Foot Cost and Return Analysis

Building:	Gross	% of Total	Net Sellable	% of Total
Total Cost	$117		$131	
Const. Cost	$74	64%	$83	64%
Soft Cost	$25	22%	$29	22%
Interest	$9	8%	$10	8%

Building + Land, Pier and Water: 107,123

	Gross	% of Total
Total Cost	$76	
Const. Cost	$48	64%
Soft Cost	$16	22%
Interest	$6	8%

LINCOLN WHARF PROFORMA "UNFINISHED" PAGE 3

Total Development

	Building Area	Land/Pier Area	Marina	Parking	Totals	% of Totals
Lincoln Wharf Net:	61,655		9,180	8,000	78,835	78%
North Ferry Net:	12,338		4,320	6,000	22,658	22%
Lincoln Wharf Gross:	69,323	37,800	18,600		125,723	68%
North Ferry Gross	14,972	37,150	6,600		58,722	32%
Total Dev. Net:	73,993		13,500	14,000	101,493	55% of total developed area is sellable
Total Dev. Gross:	84,295	74,950	25,200		184,445	

Public Benefits:

	Costs	Payment Due	% Share Net Lincoln W.	$ Share Lincoln W.	N.P.V. @10%
Contribution	$475,000	7	78%	$368,958	$189,334
Fireboat:	$70,000	2	78%	$54,373	$44,936
Total:	$545,000				$234,270

Equity Sources:

		% of Equity	% of Ownership
KDC:*	$201,983	14%	45%
HarbourC.:**	$201,983	14%	45%
10% Limited:	$1,000,000	71%	10%
Total:	$1,403,966		

*50% of PreConst. Dev. Costs
**Paid at Closing of Loan and exchange of Title
Note: Development to be 100% financied

Return to Lincoln Wharf Associates

	Total $	% of Total
Revenues:		
Condominium	$10,953,024	78%
Marina &P.:	$1,432,737	10%
Office	$1,588,737	11%
Sub-Total:	$13,974,498	
Costs:		
Sub-Total:	($8,210,538)	
	$5,763,960	
Limited:	($1,000,000)	
General:	($403,966)	
Total:	$4,359,994	

Entity	Gross Return	Dev. Man.	Total	ROI
KDC@45%	$1,961,997	$117,093	$2,079,091	1029%
HarborC.@45%	$1,961,997		$1,961,997	971%
Limited@10%	$435,999		$435,999	44%

LINCOLN WHARF PROFORMA "UNFINISHED" PAGE 4

EXHIBIT 1 COST PROJECTIONS		1	2	3	4	5	6	7
Construction Loan	$6,256,407	$568,764	$568,764	$568,764	$568,764	$568,764	$568,764	$568,764
Acquisition	(in Loan)							
Arch&Eng.(5%):	$51,470	$4,679	$4,679	$4,679	$4,679	$4,679	$4,679	$4,679
Survey & Testing:	$10,000	$10,000						
Insurance:	$20,000	$792	$792	$792	$792	$792	$792	$792
Legal&Accounting:	$112,500	$12,500						
Permits:	$32,500	$32,500						
Marketing:	$400,000							
Development Man.:	$117,093	$4,637	$4,637	$4,637	$4,637	$4,637	$4,637	$4,637
Contingencies(5%):	$205,879							
R.E.Taxes/Const&M.:	$60,000	$2,376	$2,376	$2,376	$2,376	$2,376	$2,376	$2,376
Financing(1%)	$62,564	$62,564						
Total Expenditures:		$698,813	$581,249	$581,249	$581,249	$581,249	$581,249	$581,249

EXHIBIT 1	8	9	10	11	12	13	14
Construction Loan	$568,764	$568,764	$568,764	$568,764			
Acquisition							
Arch&Eng.(5%):	$4,679	$4,679	$4,679	$4,679			
Survey & Testing:							
Insurance:	$792	$792	$792	$792	$792	$792	$792
Legal&Accounting:					$7,018	$7,018	$7,018
Permits:							
Marketing:			$75,000	$75,000	$17,544	$17,544	$17,544
Development Man.:	$4,637	$4,637	$4,637	$4,637	$4,637	$4,637	$4,637
Contingencies(5%):							
R.E.Taxes/Const&M.:	$2,376	$2,376	$2,376	$2,376	$2,376	$2,376	$2,376
Financing(1%)							
Total Expenditures:	$581,249	$581,249	$656,249	$656,249	$32,367	$32,367	$32,367

EXHIBIT 1	15	16	17	18	19	20	21
Construction Loan							
Acquisition							
Arch&Eng.(5%):							
Survey & Testing:							
Insurance:	$792	$792	$792	$792	$792	$792	$792
Legal&Accounting:	$7,018	$7,018	$7,018	$7,018	$7,018	$7,018	$7,018
Permits:							
Marketing:	$17,544	$17,544	$17,544	$17,544	$17,544	$17,544	$17,544
Development Man.:	$4,637	$4,637	$4,637	$4,637	$4,637	$4,637	$4,637
Contingencies(5%):							
R.E.Taxes/Const&M.:	$2,376	$2,376	$2,376	$2,376	$2,376	$2,376	$2,376
Financing(1%)							
Total Expenditures:	$32,367	$32,367	$32,367	$32,367	$32,367	$32,367	$32,367

EXHIBIT 1	22	23	24	25	25.25
Construction Loan					
Acquisition					
Arch&Eng.(5%):					
Survey & Testing:					
Insurance:	$792	$792	$792	$792	$198
Legal&Accounting:	$7,018	$7,018	$7,018	$7,018	$1,754
Permits:					
Marketing:	$17,544	$17,544	$17,544	$17,544	$4,386
Development Man.:	$4,637	$4,637	$4,637	$4,637	$1,159
Contingencies(5%):					
R.E.Taxes/Const&M.:	$2,376	$2,376	$2,376	$2,376	$594
Financing(1%)					
Total Expenditures:	$32,367	$32,367	$32,367	$32,367	$8,092

LINCOLN WHARF PROFORMA "UNFINISHED" PAGE 5

EXHIBIT TWO FINANCING REQUIREMEN CONSTRUCTION PERIOD	INTEREST RAT 12.00%						
Month	1	2	3	4	5	6	7
Beginning Balance	$0	$705,801	$1,299,921	$1,899,981	$2,506,043	$3,118,165	$3,736,408
Presale Revenues							
Expenditures	$698,813	$581,249	$581,249	$581,249	$581,249	$581,249	$581,249
Outstanding Balance	$698,813	$1,287,050	$1,881,170	$2,481,230	$3,087,292	$3,699,414	$4,317,657
Interest	$6,988	$12,871	$18,812	$24,812	$30,873	$36,994	$43,177
End - Balance:	$705,801	$1,299,921	$1,899,981	$2,506,043	$3,118,165	$3,736,408	$4,360,833

EXHIBIT TWO				
Month	8	9	10	11
Beginning Balance	$4,360,833	$4,991,503	$5,628,480	$6,347,576
Presale Revenues				
Expenditures	$581,249	$581,249	$656,249	$656,249
Outstanding Balance	$4,942,082	$5,572,752	$6,284,729	$7,003,825
Interest	$49,421	$55,728	$62,847	$70,038
End - Balance:	$4,991,503	$5,628,480	$6,347,576	$7,073,863

EXHIBIT THREE	SALES SCHED.:	1	2	3	4	5	6	7
# of Units:	0	# of Parking/Marina Units:		0	Price per unit			
Sell Out Period:	12							
Parking/Marina		4.00	4.00	4.00	4.00	4.00	4.00	4.00
Units Sold		2.81	2.81	2.81	2.81	2.81	2.81	2.81
Offices		0.63	0.63	0.63	0.63	0.63	0.63	0.63

EXHIBIT THREE	8	9	10	11	12	13	14	14.25
# of Units:								
Sell Out Period:								
Parking/Marina	4.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00
Units Sold	2.81	2.81	2.81	2.81	2.81	2.81	2.81	0.70
Offices	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.16

EXHIBIT FOUR REVENUES/CONDO SALE(In marketing period only) Avarage Sale $209.17 1,309.10

Month:	1	2	3	4	5	6	7	8
Cash from Sales	$768,633	$768,633	$768,633	$768,633	$768,633	$768,633	$768,633	$768,633
Less Commission(2.5%	($19,216)	($19,216)	($19,216)	($19,216)	($19,216)	($19,216)	($19,216)	($19,216)
Cash BeforeFinancing	$749,417	$749,417	$749,417	$749,417	$749,417	$749,417	$749,417	$749,417

EXHIBIT FOUR							
Month:	9	10	11	12	13	14	14.25
Cash from Sales	$768,633	$768,633	$768,633	$768,633	$768,633	$768,633	$192,158
Less Commission(2.5%	($19,216)	($19,216)	($19,216)	($19,216)	($19,216)	($19,216)	($4,804)
Cash BeforeFinancing	$749,417	$749,417	$749,417	$749,417	$749,417	$749,417	$187,354

LINCOLN WHARF PROFORMA "UNFINISHED" PAGE 6

EXHIBIT FIVE REVENUES FROMPARKING & MARINA SLIPS Average Sale $30,614

Month:	1	2	3	4	5	6	7	8
Cash from Sales	$122,456	$122,456	$122,456	$122,456	$122,456	$122,456	$122,456	$122,456
LessCommission(2.5%)	($3,061)	($3,061)	($3,061)	($3,061)	($3,061)	($3,061)	($3,061)	($3,061)
Cash BeforeFinancing	$119,395	$119,395	$119,395	$119,395	$119,395	$119,395	$119,395	$119,395

EXHIBIT FIVE

Month:	9	10	11	12	13	14	14.25
Cash from Sales	$122,456	$122,456	$122,456	$122,456	$122,456	$122,456	$30,614
LessCommission(2.5%)	($3,061)	($3,061)	($3,061)	($3,061)	($3,061)	($3,061)	($765)
Cash BeforeFinancing	$119,395	$119,395	$119,395	$119,395	$119,395	$119,395	$29,849

EXHIBIT SIX REVENUES: OFFICES

Month:	1	2	3	4	5	6	7	8
Cash from Sales	$135,789	$135,789	$135,789	$135,789	$135,789	$135,789	$135,789	$135,789
LessCommission(2.5%)	($3,395)	($3,395)	($3,395)	($3,395)	($3,395)	($3,395)	($3,395)	($3,395)
Cash BeforeFinancing	$132,395	$132,395	$132,395	$132,395	$132,395	$132,395	$132,395	$132,395

EXHIBIT SIX

Month:	9	10	11	12	13	14	14.25
Cash from Sales	$135,789	$135,789	$135,789	$135,789	$135,789	$135,789	$33,947
LessCommission(2.5%)	($3,395)	($3,395)	($3,395)	($3,395)	($3,395)	($3,395)	($849)
Cash BeforeFinancing	$132,395	$132,395	$132,395	$132,395	$132,395	$132,395	$33,099

EXHIBIT SEVEN FINANCING REQ.'s: MARKETING PERIOD INTEREST RAT 12.00%

Month:	1	2	3	4	5	6	7	8
Beginning Balance	($7,073,863)	($6,166,073)	($5,249,206)	($4,323,170)	($3,387,873)	($2,443,224)	($1,489,128)	($525,491)
Net Sales Revenues	$1,001,207	$1,001,207	$1,001,207	$1,001,207	$1,001,207	$1,001,207	$1,001,207	$1,001,207
Expenditures	($32,367)	($32,367)	($32,367)	($32,367)	($32,367)	($32,367)	($32,367)	($32,367)
Outstanding Balance	($6,105,023)	($5,197,234)	($4,280,366)	($3,354,330)	($2,419,033)	($1,474,384)	($520,288)	$443,349
Interest	($61,050)	($51,972)	($42,804)	($33,543)	($24,190)	($14,744)	($5,203)	$0
End Balance	($6,166,073)	($5,249,206)	($4,323,170)	($3,387,873)	($2,443,224)	($1,489,128)	($525,491)	$443,349

EXHIBIT SEVEN FINANCING REQ.'s:

Month:	9	10	11	12	13	14	14.25
Beginning Balance	$443,349	$1,412,189	$2,381,029	$3,349,868	$4,318,708	$5,287,548	$6,256,388
Net Sales Revenues	$1,001,207	$1,001,207	$1,001,207	$1,001,207	$1,001,207	$1,001,207	$250,302
Expenditures	($32,367)	($32,367)	($32,367)	($32,367)	($32,367)	($32,367)	($8,092)
Outstanding Balance	$1,412,189	$2,381,029	$3,349,868	$4,318,708	$5,287,548	$6,256,388	$6,498,598
Interest	$0	$0	$0	$0	$0	$0	$0
End Balance	$1,412,189	$2,381,029	$3,349,868	$4,318,708	$5,287,548	$6,256,388	$6,498,598

LINCOLN WHARF PROFORMA UNFINISHED UNITS @minus $140 psf FROM FINISHED UNITS PAGE 1

Last Revised: 8.13.85 | 7 Stories | Total Development Period: 25.25

Development Costs	Soft Costs	Spent Prior to Const.:	To be Spent begin'gw/Cons	68%-Lincoln Wharf:	32% - North Ferry:	Cost per Unit	% of Total Cost
Acquisition:	$1,100,000		$1,100,000	$749,792	$350,208	$27,500	14%
Arch&Eng.(4%):	$205,879	$154,409	$51,470			$5,147	3%
Survey & Testing:	$100,000	$90,000	$10,000			$2,500	1%
Insurance:	$20,000		$20,000			$500	0%
Legal&Accounting:	$150,000	$37,500	$112,500			$3,750	2%
Permits:	$50,000	$50,000	$32,500			$1,250	1%
Marketing:	$400,000		$400,000			$10,000	5%
Develop. Man.(3.5%)	$180,144	$72,058	$117,093			$4,504	2%
Contingencies(4%):	$205,879		$205,879			$5,147	3%
R.E.Taxes/Const.:	$40,000		$40,000			$1,000	0%
R.E.Taxes/Marketing:	$20,000		$20,000			$500	0%
Financing(%):	$62,564		$62,564			$1,564	1%
Total Soft Cost:	$2,875,867	$403,966	$2,109,442				
			($1,100,000) minus Aquisition				
			$1,009,442				

Hard Costs:		Cost per Unit	As % of Total
Construction Cost:	$5,146,969	$128,674	64%
Const. Interest:	$412,560	$10,314	5%
Marketing Interest:	$276,606	$6,915	3%
Aquisition:(Lincoln)	$749,792	$18,745	9%
Soft Costs:			
All Other:	$1,009,442	$25,236	12%
Marketing:	$268,377	$6,709	3%
Public Benefits:	$234,270	$5,857	3%
Total:	$8,098,013		
+32% North Ferry:	$350,208		
-Public Benefits:	($234,270)		
	$8,213,951		

Marketing Costs:	2.50%
Condominium:	$190,904
Marina & P.:	$36,737
Office:	$40,737
	$268,377

PROJECTED SALES PRICES

Type	# of	TotalS.F.w/Balc	Price P.S.F	Aver.Unit Value	Total
Second Floor:					
One Bedroom	8	7,064	$80	$70,640	$565,120.00
Two Bedroom	2	2,526	$135	$170,505	$341,010.00
Third Floor:					
One Bedroom	2	1,580	$100	$79,000	$158,000.00
Two Bedroom	6	8,034	$160	$214,240	$1,285,440.00
Fourth Floor:					
One Bedroom	2	1,580	$130	$102,700	$205,400.00
Two Bedroom	6	9,090	$185	$280,275	$1,681,650.00
Fifth Floor:					
One Bedroom	2	1,580	$160	$126,400	$252,800.00
Two Bedroom	6	9,090	$200	$303,000	$1,818,000.00
Sixth Floor:					
Two Bedroom	2	4,040	$225	$454,500	$909,000.00
Bottom of Duplex	2	3,740	$225	$420,750	$841,500.00
Seventh Floor:					
Top of Duplex	2	4,040	$250	$505,000	$1,010,000.00
	40	52,364			$9,067,920

Average size of Unit 1,309.10 s.f. Average P.S.F $173

LINCOLN WHARF PROFORMA   PAGE 2

Const. Per.:	11	Market Per.:	14.25 Months

Financing Expenses

Construction Period

Const.Cost:	$5,146,965
+Soft Cost:	$1,009,442
+Aquisistion:	$1,100,000
-Equity	($1,000,000)
Loan Amount:	$6,256,407
Interest Rate:	12.00%
Points:	1.00%
Term(months):	14

Marketing Period

Loan Amount:	$0
Interest Rate:	12.00%
Points:	0.00%
Term(months):	12

Area Calculations:

		% of Total S.F.
Gross S.F.	69,323	100%
Net Sellable	61,655	89%
Total Res. S.F. w/o Balconey	47,580	69%
Total Res. S.F. w/Balconey:	53,915	78%
Total Balcon	6,335	9%
Total Office	4,140	6%
Total Park.:	3,600	5%
Total Circ.:	7,668	11%

Non-Condominium Revenues

Type:	Pricing	# of		Aver. Unit Value
Office(20x43)	860 $250 P.S.F.	9		$215,000 Per Unit
Parking:				
Indoor	$35,000.00	18	$630,000	
Outdoor				
Assigned	$30,000.00	11	$330,000	
Floating	$25,000.00	11	$275,000	
Marina Slips	$30,000.00	17	$510,000	
		57	$1,745,000	$30,614 Per Unit

Square Foot Cost and Return Analysis

Building:	Gross	% of Total	Net Sellable	% of Total
Total Cost	$117		$131	
Const. Cost	$74	64%	$83	64%
Soft Cost	$25	22%	$29	22%
Interest	$10	9%	$11	9%

Building + Land, Pier and Water: 107,123

	Gross	% of Total
Total Cost	$76	
Const. Cost	$48	64%
Soft Cost	$16	22%
Interest	$6	9%

LINCOLN WHARF PROFORMA PAGE 3

Total Development

	Building Area	Land/Pier Area	Marina	Parking	Totals	% of Totals
Lincoln Wharf Net:	61,655		9,180	8,000	78,835	78%
North Ferry Net:	12,338		4,320	6,000	22,658	22%
Lincoln Wharf Gross:	69,323	37,800	18,600		125,723	68%
North Ferry Gross	14,972	37,150	6,600		58,722	32%
Total Dev. Net:	73,993		13,500	14,000	101,493	55% of total developed area is sellable
Total Dev. Gross:	84,295	74,950	25,200		184,445	

Public Benefits:

	Costs	Payment Due	% Share Net Lincoln W.	$ Share Lincoln W.	N.P.V. @10%
Contribution:	$475,000	7	78%	$368,958	$189,334
Fireboat:	$70,000	2	78%	$54,373	$44,936
Total:	$545,000				$234,270

Equity Sources:

		% of Equity	% of Ownership
KDC:*	$201,983	14%	45%
HarbourC.:	$201,983	14%	45%
10% Limited:**	$1,000,000	71%	10%
Total:	$1,403,966		

*50% of PreConst. Dev. Costs
**Paid at Closing of Loan and exchange of Title
Note: Development to be 100% financed

Return to Lincoln Wharf Associates

	Total $	% of Total
Revenues:		
Condominium	$9,067,920	75%
Marina &P.:	$1,432,737	12%
Office	$1,588,737	13%
Sub-Total:	$12,089,394	
Costs:		
Sub-Total:	($8,213,951)Total Costs	
	$3,875,443	
Limited:	($1,000,000)Paid back to Limited Partner	
Generals:	($403,966)	
Total:	$2,471,477	

Entity	Gross Return	+Dev. Man.	Total	ROI
KDC@45%	$1,112,164	$117,093	$1,229,258	609%
HarborC.@45%	$1,112,164		$1,112,164	551%
Limited@10%	$247,148		$247,148	25%

LINCOLN WHARF PROFORMA "UNIFINSHED" PAGE 4

EXHIBIT 1 COST PROJECTIONS		1	2	3	4	5	6	7
Construction Loan	$6,256,407	$568,764	$568,764	$568,764	$568,764	$568,764	$568,764	$568,764
Acquisition	(in Loan)							
Arch&Eng.(5%):	$51,470	$4,679	$4,679	$4,679	$4,679	$4,679	$4,679	$4,679
Survey & Testing:	$10,000	$10,000						
Insurance:	$20,000	$792	$792	$792	$792	$792	$792	$792
Legal&Accounting:	$112,500	$12,500						
Permits:	$32,500	$32,500						
Marketing:	$400,000							
Development Man.:	$117,093	$4,637	$4,637	$4,637	$4,637	$4,637	$4,637	$4,637
Contingencies(5%):	$205,879							
R.E.Taxes/Const&M.:	$60,000	$2,376	$2,376	$2,376	$2,376	$2,376	$2,376	$2,376
Financing(1%)	$62,564	$62,564						
Total Expenditures:		$698,813	$581,249	$581,249	$581,249	$581,249	$581,249	$581,249

EXHIBIT 1	8	9	10	11	12	13	14	15
Construction Loan	$568,764	$568,764	$568,764	$568,764				
Acquisition								
Arch&Eng.(5%):	$4,679	$4,679	$4,679	$4,679				
Survey & Testing:								
Insurance:	$792	$792	$792	$792	$792	$792	$792	$792
Legal&Accounting:					$7,018	$7,018	$7,018	$7,018
Permits:								
Marketing:			$75,000	$75,000	$17,544	$17,544	$17,544	$17,544
Development Man.:	$4,637	$4,637	$4,637	$4,637	$4,637	$4,637	$4,637	$4,637
Contingencies(5%):								
R.E.Taxes/Const&M.:	$2,376	$2,376	$2,376	$2,376	$2,376	$2,376	$2,376	$2,376
Financing(1%)								
Total Expenditures:	$581,249	$581,249	$656,249	$656,249	$32,367	$32,367	$32,367	$32,367

EXHIBIT 1	16	17	18	19	20	21	22	23
Construction Loan								
Acquisition								
Arch&Eng.(5%):								
Survey & Testing:								
Insurance:	$792	$792	$792	$792	$792	$792	$792	$792
Legal&Accounting:	$7,018	$7,018	$7,018	$7,018	$7,018	$7,018	$7,018	$7,018
Permits:								
Marketing:	$17,544	$17,544	$17,544	$17,544	$17,544	$17,544	$17,544	$17,544
Development Man.:	$4,637	$4,637	$4,637	$4,637	$4,637	$4,637	$4,637	$4,637
Contingencies(5%):								
R.E.Taxes/Const&M.:	$2,376	$2,376	$2,376	$2,376	$2,376	$2,376	$2,376	$2,376
Financing(1%)								
Total Expenditures:	$32,367	$32,367	$32,367	$32,367	$32,367	$32,367	$32,367	$32,367

EXHIBIT 1	24	25	25.25
Construction Loan			
Acquisition			
Arch&Eng.(5%):			
Survey & Testing:			
Insurance:	$792	$792	$198
Legal&Accounting:	$7,018	$7,018	$1,754
Permits:			
Marketing:	$17,544	$17,544	$4,386
Development Man.:	$4,637	$4,637	$1,159
Contingencies(5%):			
R.E.Taxes/Const&M.:	$2,376	$2,376	$594
Financing(1%)			
Total Expenditures:	$32,367	$32,367	$8,092

LINCOLN WHARF PROFORMA "UNFINISHED" PAGE 5

EXHIBIT TWO FINANCING REQUIREMEN CONSTRUCTION PERIOD		INTEREST RAT	12.00%					
Month	1	2	3	4	5	6	7	8
Beginning Balance	$0	$705,801	$1,299,921	$1,899,981	$2,506,043	$3,118,165	$3,736,408	$4,360,833
Presale Revenues								
Expenditures	$698,813	$581,249	$581,249	$581,249	$581,249	$581,249	$581,249	$581,249
Outstanding Balance	$698,813	$1,287,050	$1,881,170	$2,481,230	$3,087,292	$3,699,414	$4,317,657	$4,942,082
Interest	$6,988	$12,871	$18,812	$24,812	$30,873	$36,994	$43,177	$49,421
End - Balance:	$705,801	$1,299,921	$1,899,981	$2,506,043	$3,118,165	$3,736,408	$4,360,833	$4,991,503

EXHIBIT TWO			
Month	9	10	11
Beginning Balance	$4,991,503	$5,628,480	$6,347,576
Presale Revenues			
Expenditures	$581,249	$656,249	$656,249
Outstanding Balance	$5,572,752	$6,284,729	$7,003,825
Interest	$55,728	$62,847	$70,038
End - Balance:	$5,628,480	$6,347,576	$7,073,863

EXHIBIT THREE	SALES SCHED.:	1	2	3	4	5	6	7
# of Units:	0	# of Parking/Marina Units:		0	Price per unit			
Sell Out Period:	12							
Parking/Marina		4.00	4.00	4.00	4.00	4.00	4.00	4.00
Units Sold		2.81	2.81	2.81	2.81	2.81	2.81	2.81
Offices		0.63	0.63	0.63	0.63	0.63	0.63	0.63

EXHIBIT THREE	8	9	10	11	12	13	14	14.25
# of Units:								
Sell Out Period:								
Parking/Marina	4.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00
Units Sold	2.81	2.81	2.81	2.81	2.81	2.81	2.81	0.70
Offices	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.16

EXHIBIT FOUR REVENUES/CONDO SALE(In marketing period only)				Average Sale	$173.17	1,309.10		
Month:	1	2	3	4	5	6	7	8
Cash from Sales	$636,345	$636,345	$636,345	$636,345	$636,345	$636,345	$636,345	$636,345
Less Commission(2.5%	($15,909)	($15,909)	($15,909)	($15,909)	($15,909)	($15,909)	($15,909)	($15,909)
Cash BeforeFinancing	$620,437	$620,437	$620,437	$620,437	$620,437	$620,437	$620,437	$620,437

EXHIBIT FOUR							
Month:	9	10	11	12	13	14	14.25
Cash from Sales	$636,345	$636,345	$636,345	$636,345	$636,345	$636,345	$159,086
Less Commission(2.5%	($15,909)	($15,909)	($15,909)	($15,909)	($15,909)	($15,909)	($3,977)
Cash BeforeFinancing	$620,437	$620,437	$620,437	$620,437	$620,437	$620,437	$155,109

LINCOLN WHARF PROFORMA "UNFINISHED" PAGE 6

EXHIBIT FIVE	REVENUES FROMPARKING & MARINA SLIPS			Average Sale	$30,614			
Month:	1	2	3	4	5	6	7	8
Cash from Sales	$122,456	$122,456	$122,456	$122,456	$122,456	$122,456	$122,456	$122,456
LessCommission(2.5%)	($3,061)	($3,061)	($3,061)	($3,061)	($3,061)	($3,061)	($3,061)	($3,061)
Cash BeforeFinancing	$119,395	$119,395	$119,395	$119,395	$119,395	$119,395	$119,395	$119,395

EXHIBIT FIVE							
Month:	9	10	11	12	13	14	14.25
Cash from Sales	$122,456	$122,456	$122,456	$122,456	$122,456	$122,456	$30,614
LessCommission(2.5%)	($3,061)	($3,061)	($3,061)	($3,061)	($3,061)	($3,061)	($765)
Cash BeforeFinancing	$119,395	$119,395	$119,395	$119,395	$119,395	$119,395	$29,849

EXHIBIT SIX	REVENUES:	OFFICES						
Month:	1	2	3	4	5	6	7	8
Cash from Sales	$135,789	$135,789	$135,789	$135,789	$135,789	$135,789	$135,789	$135,789
LessCommission(2.5%)	($3,395)	($3,395)	($3,395)	($3,395)	($3,395)	($3,395)	($3,395)	($3,395)
Cash BeforeFinancing	$132,395	$132,395	$132,395	$132,395	$132,395	$132,395	$132,395	$132,395

EXHIBIT SIX							
Month:	9	10	11	12	13	14	14.25
Cash from Sales	$135,789	$135,789	$135,789	$135,789	$135,789	$135,789	$33,947
LessCommission(2.5%)	($3,395)	($3,395)	($3,395)	($3,395)	($3,395)	($3,395)	($849)
Cash BeforeFinancing	$132,395	$132,395	$132,395	$132,395	$132,395	$132,395	$33,099

EXHIBIT SEVEN FINANCING REQ.'s:	MARKETING PERIOD			INTEREST RAT	12.00%			
Month:	1	2	3	4	5	6	7	8
Beginning Balance	($7,073,863)	($6,296,344)	($5,511,050)	($4,717,903)	($3,916,824)	($3,107,735)	($2,290,555)	($1,465,203)
Net Sales Revenues	$872,226	$872,226	$872,226	$872,226	$872,226	$872,226	$872,226	$872,226
Expenditures	($32,367)	($32,367)	($32,367)	($32,367)	($32,367)	($32,367)	($32,367)	($32,367)
Outstanding Balance	($6,234,004)	($5,456,485)	($4,671,191)	($3,878,044)	($3,076,965)	($2,267,876)	($1,450,696)	($625,343)
Interest	($62,340)	($54,565)	($46,712)	($38,780)	($30,770)	($22,679)	($14,507)	($6,253)
End Balance	($6,296,344)	($5,511,050)	($4,717,903)	($3,916,824)	($3,107,735)	($2,290,555)	($1,465,203)	($631,597)

EXHIBIT SEVEN FINANCING REQ.'s:							
Month:	9	10	11	12	13	14	14.25
Beginning Balance	($631,597)	$208,262	$1,048,121	$1,887,980	$2,727,839	$3,567,698	$4,407,557
Net Sales Revenues	$872,226	$872,226	$872,226	$872,226	$872,226	$872,226	$218,057
Expenditures	($32,367)	($32,367)	($32,367)	($32,367)	($32,367)	($32,367)	($8,092)
Outstanding Balance	$208,262	$1,048,121	$1,887,980	$2,727,839	$3,567,698	$4,407,557	$4,617,522
Interest	$0	$0	$0	$0	$0	$0	$0
End Balance	$208,262	$1,048,121	$1,887,980	$2,727,839	$3,567,698	$4,407,557	$4,617,522