The photographs on the previous pages outlines the varied and many stages of the design development phase.

This phase in the process becomes somewhat confusing because there is a tendency to jump from one design feature such as a floor plan or landscaping to another such as bathroom or facade detail and back again. It sometimes becomes a one-step forward two-step back process.

Yet after all the design developments are compacted the final design evolves and soon becomes subject only to elegant refinements. My design development phase became the most important stage in my design process simply because it was the phase at which major issues were of utmost concern. Issues such as door placement, lighting systems, sun protection and facade treatment.
The past 16 pages are the result of nine months of hard work in research, analysis, and design. This end product is the result of many phases, each with many stages in the ongoing process of architectural design.

The necessary steps taken to arrive at this solution have been outlined in this book, along with selected examples of each phase. As each phase continues the design becomes more defined until a final solution results.

This is my solution for Sargents Wharf Galleria of which I feel best suits the needs of the client.
Project: Sargents Wharf Galleria

Location: Parcel 105-4 in the North End of Boston, Massachusetts. Bounded on the West by Commercial Street, on the South by Eastern Avenue, and on the North and East by Boston Harbor.

Building Type: Multi-use facility containing offices, shops, housing, and parking space.

Building Size: Approximately 178,000 square feet

Site Size: The Wharf itself - 94, 512 square feet

Goals: 1.) The creation of a structure that would by means of the extensive interplay of functions typify the vitality of the Italian-American community and once again establish the North End's historic relationship with the sea.

2.) A careful integration of the proposed complex with the existing street fabric of the North End to enhance and encourage convenient, eventful access to the sea.

3.) To manifest in architectural terms a respect for and cognizance of the existing significant historic structures that enrich the neighborhood and contribute heavily to the continuity of the urban life experience in the context of the city's total growth.

4.) The complex should develop varied, broad, and public access to the sea, and moreover, should afford a water court for convenient arrivals of public water taxis.

5.) The mass and height of the proposed structure should not exceed the height of the existing Quincy Cold Storage Building (118') and all design efforts should be directed toward achieving a reduction of the visual bulk of the complex.

Client Description:

The North End Businessmen's Association (N.E.B.A.) of Boston is an affiliation of business proprietors whose objective is to improve the community in which they live. The North End Businessmen's Development Corporation is a subsidiary of the N.E.B.A. whose purpose is to guide any and all development in this area, they are the client for this project.

Planning and Related Organizations:

*The North End Businessmen's Association
*Boston Redevelopment Authority (B.R.A.)
*Housing and Urban Development (H.U.D.)
USER AND USER ACTIVITIES:

1.) Primary Users - The tenants are the primary users of this complex therefore the design will be geared toward their needs.
   a.) most work during the day
   b.) want reserved parking
   c.) want privacy of personal spaces
   d.) demand security for the complex
   e.) want convenient laundry facilities
   f.) want safe places for children to play

2.) Secondary Users - The people who work on the site.
   a.) shop deliveries bi-weekly
   b.) trash pick-up bi-weekly
   c.) full time maintenance crew
   d.) shops open to accommodate the tenants

3.) Tertiary Users - Tenant guests and people coming to shop.
   a.) convenient access to complex
   b.) parking space needed
APARTMENTS:

One Bedroom - 40 units
a.) living room  
b.) kitchen  
c.) bedroom  
d.) full bath  
e.) entrance  
f.) storage  
g.) balcony

Total Area-------655 square feet

Two Bedroom - 35 units  
a.) living room  
b.) dining room  
c.) kitchen  
d.) master bedroom  
e.) bedroom #2  
f.) full bath  
g.) half bath  
h.) entrance  
i.) storage  
j.) balcony

Total Area-------1195 square feet

Three Bedroom - 25 units  
a.) living room  
b.) dining room  
c.) kitchen  
d.) master bedroom  
e.) bedroom #2  
f.) bedroom #3  
g.) full bath  
h.) half bath  
i.) entrance  
j.) storage  
k.) balcony

Total Area-------1465 square feet

Commercial Facilities  
a.) shops  
b.) restaurants  
c.) kiosks

Total Area-----25,000 square feet

Offices  
a.) open plan offices

Total Area-----25,000 square feet

Parking  
(one space per dwelling unit, excluding circulation)

Total Area-----16,200 square feet
HOUSING:
   a.) 1 BR. 40% - 40 units @ 655 sq.ft. = 26,200
   b.) 2 BR. 35% - 35 units @ 1195 sq.ft. = 41,825
   c.) 3 BR. 25% - 25 units @ 1465 sq.ft. = 36,625

COMMERCIAL FACILITIES:
   a.) shops Total = 25,000

OFFICE FACILITIES
   a.) open plan offices Total = 25,000

PARKING FACILITIES
   a.) tenant spaces-100 @ 162 sq.ft. = 16,200
   b.) guests spaces- 45 @ 162 sq.ft. = 7,290

TOTAL COMPLEX AREA = 178,140 sq.ft.
TOTAL SITE AREA = 194,512 sq.ft.
PRIVACY:

a.) Strong entry doors with viewing devices are encouraged
b.) Dwelling units must be able to be closed off from rest of complex when desired
c.) Balconies must provide privacy from adjacent units, the ground, and any nearby existing structures
d.) No unit entrance door may be located directly opposite a public entrance
e.) Bathrooms must not be in view of other active areas
f.) Sleeping spaces shall be easily closed off from other active areas

CIRCULATION AND ACCESS:

a.) Elevators should provide service to all users, be large enough for large pieces of furniture, have indicators designating floors, have a speed which does not require long waiting; and have a central location in a bank form.
b.) Entrance doors to all spaces must be large enough for any desired furnishings to be transported.
c.) Public halls, paths and stairways must be large enough for people to pass one another without inconvenience.

SOUND:

a.) All large public spaces that are located adjacent or near private spaces must have accoustical buffers.
b.) Dwelling units should have good insulation so as not to interfere with adjacent units.

LIGHT AND AIR:

a.) Natural cross ventilation is desirable
b.) All dwelling units are to have operative windows
c.) Insect screens are desirable on all window openings.
d.) Natural lighting shall be provided whenever possible.
e.) Exhaust fans in kitchens and restrooms are demanded

STORAGE:

a.) Bicycle storage desired
b.) Kitchen storage (for food and utensils)
c.) Clothes storage in bedrooms
d.) Coat storage at entrances
e.) General household storage

MAINTENANCE:

a.) Access panels to any HVAC chambers are required
b.) Easily maintained windows

GARBAGE:

a.) Central garbage pick-up area for shops and offices is desired
b.) Normal space allocation for storage of garbage within dwelling units for 24-48 hours
c.) Central garbage collection space on each floor of housing units
d.) Easily cleaned garbage containers are desired
DELIBERIES:

a.) A central mail receiving and pick-up area for tenants
b.) Adequate space for delivery trucks for commercial spaces is desired
PRIVACY:

a.) Dwelling units shall be so arranged so that it is impossible to look directly into another unit from less than 15 feet away.
b.) When and if two units are directly opposite each other, then the area between those units must be 20 or more feet.

SAFETY:

a.) All publicly active areas should be visible from dwelling units.
b.) Any crossings between vehicles and pedestrians should be minimized.
c.) Handrails must be provided for on-ramps, stairways, and balconies which rise over three feet.
c.) All paths and roads must be easily cleaned of snow and ice.

CIRCULATION AND ACCESS:

a.) Any pedestrian circulation paths must be wide enough to handle peak traffic flow.
b.) Perimeter circulation is demanded.
c.) There shall be clearly defined, direct pathways to main complex entrances.
d.) Conflicts between vehicular and pedestrian traffic should be avoided.

IDENTIFICATION:

a.) All publicly active areas must be clearly identified.
b.) Unit identification is demanded.
c.) All fire exits and automatic transportation systems are to be clearly defined.
d.) All entrances and exits must be marked.
e.) A central information booth or kiosk should be provided for clear layout of public spaces and transportation systems.

LIGHTING:

a.) Adequate lighting shall be provided in all public spaces so as to discourage theft or vandalism.
b.) All entrances must be well lit.
c.) Lighting must be adequate in all parking areas.
d.) All fire exits must be well lit and marked.

NATURAL FEATURES:

a.) All landscaping to be kept in scale with proposed complex.
b.) All plant material will be selected with respect to its color, shape, texture, size, seasonal characteristics, and adaptability to the site.

SECURITY:

a.) All outdoor fixtures for public use shall be designed to prevent any vandalism of the apparatus.
1.) Permitted Uses

a.) The site should be primarily used for housing (with the requirement of one parking space per dwelling unit).

b.) Ancillary general business and recreational uses will be permitted.

c.) Ground floor facades should be "live" with active use, especially along Eastern Avenue and Commercial Street.

2.) Maximum Total Floor Area Ratio (F.A.R.)

a.) For new construction, not to exceed 2.0

3.) Maximum Building Height

a.) Maximum permitted building height is 118' - that of the highest point previously existing on the parcel.

4.) Access

a.) Vehicular access must be from Commercial Street.

b.) Pedestrian flow must be maintained along Eastern Avenue from Commercial Street to the sea.

c.) Maximum possible pedestrian access should be maintained around the perimeter of the wharf. Pedestrian access to the end of the wharf is mandatory.

5.) Landscaping

a.) All landscaping must be in character with the waterfront.

6.) Massing

a.) In general, the massing concept traditional to the Boston Waterfront is encouraged (finger piers with structures whose long axis are perpendicular to the shore line), however any variation to this scheme is acceptable if all design requirements are met.

7.) Materials

a.) The use of traditional waterfront materials is encouraged.

b.) Granite, brick, slate, concrete and glass are suitable, but the primary character of the proposal should be masonry.

8.) Transparency

a.) The ground floor lobby, circulation, and retail spaces should be of transparent quality.

9.) Sign Control

a.) Signs are to be considered an integral part of the architecture.

10.) Parking

a.) No open parking is permitted on the parcel.

b.) One parking space for each dwelling unit is required.

11.) Controls

a.) Setbacks on Eastern Avenue are discouraged.
b.) Pedestrian connections through the building mass is encouraged.

c.) The building must be maintained within the site - it cannot be cantilevered over the water or outside the property lines.
BOSTON REDEVELOPMENT AUTHORITY
WATERFRONT PROJECT R77 PARCEL NO. 105-4

10TH FLOOR PLAN - STRUCTURE A

COFFIN & RICHARDSON, INC. CONSULTING ENGINEERS
BOSTON 9, MASSACHUSETTS C/R ACC. NO.1321
BOSTON REDEVELOPMENT AUTHORITY
WATERFRONT PROJECT R77 PARCEL NO. 105-4

2ND FLOOR PLAN - STRUCTURE B

COFFIN & RICHARDSON, INC. CONSULTING ENGINEERS
BOSTON 9, MASSACHUSETTS C/R ACC. NO. 1323
Notes:
(1) Cold Air Flues vary slightly in size and location from floor to floor.
(2) Cold Air Flues on easterly side end at the 6th floor.
BOSTON REDEVELOPMENT AUTHORITY
WATERFRONT PROJECT R77 PARCEL NO. 05-4

1st FLOOR PLAN - STRUCTURE C

COFFIN & RICHARDSON, INC. CONSULTING ENGINEERS
BOSTON 9, MASSACHUSETTS C/R ACC. NO. 1377
BOSTON REDEVELOPMENT AUTHORITY
WATERFRONT PROJECT R77 PARCEL NO. 105-4

2ND FLOOR PLAN - STRUCTURE C

COFFIN & RICHARDSON, INC. CONSULTING ENGINEERS
BOSTON 9, MASSACHUSETTS C/R ACC. NO. 1326
Note:
Cold Air Flues vary slightly in size from floor to floor.

Scale: 1" = 20'

BOston redevelopment authority
Waterfront project r77 parcel no. 105-4

3rd - 10th floor plans - structure c

Coffin & Richardson, Inc. consulting engineers
Boston 9, Massachusetts C/R acc. no. 1327
BOSTON REDEVELOPMENT AUTHORITY
WATERFRONT PROJECT R 77 PARCEL NO. 105-4
1st FLOOR PLAN - STRUCTURES D & E

COFFIN & RICHARDSON, INC. CONSULTING ENGINEERS
BOSTON 9, MASSACHUSETTS C/R ACC. NO. 1329


Boston Redevelopment Authority, 1965/1975 General Plan for the City of Boston and the Regional Core.

