"Z"-SHAPE SLAB.
JOINTED SLABS.
LONG CORRIDORS
CORE PROBLEMS
BAD VIEWS.

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Further detailed study of "Z"-shaped concept.
Bad corners around core.
CONCEPT
TWIN TOWERS WITH
ATRIUM AT PUBLIC LEVEL

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CONCEPT
SKETCH OF TWIN TOWERS

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CONCEPT
V-SHAPE COMPLEX

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Review of Concepts

Diamond on Base -
Bad room arrangements
Atrium, equal wind exposure
Tower too tall.

Slab
Long core.
Bad views, bad winds.
Tower too tall.

"Z" shape
Tower tall
Bad circulation
Bad joint.
SCHEMATIC DESIGN

REVIEW OF CONCEPTS

CYLINDRICAL
TOWER TO TALL
BAD WINDS
BAD VIEWS

SLAB
TO TALL
BAD VIEWS
BAD WINDS

V-SHAPED
BEST AVAILABLE VIEWS
POSSIBLE DEFLECTION OF WINDS
BREAKDOWN OF CORRIDORS

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SCHEMATIC DESIGN

REVIEW OF CONCEPTS

VIEWS FROM DIAMOND

LOOSE FORM
POOR HALLS
BAD STRUCTURE

"V" SHAPE ON BASE
BEST CONCEPT

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SCHEMATIC DESIGN

13.5 30
40 50

13.5 x 30 = 405 ft

Look at difference in sq. footage
Look at changing width of rooms

Look at %- wise building wing is 50%.

Site plan by scale

Look into number of rooms per floor
- check # of rooms per maid.
- 1 maid per wing/ per floor

Study of Room-Corridor Relationship — Exterior facade

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SCHEMATIC DESIGN

The first quarter of thesis was schematic design. The schematic design process was divided into two areas - concepts and then schematic design.

During the concept stage the major problem was to get about 600,000 square feet of building, including 1200 parking spaces, on a site with about 90,000 square feet of buildable area. The site has many influences upon it. The most significant is the city context pattern. The area north of Liberty Avenue is a regular grid while the area south of Liberty Avenue is at a 45° angle to the site. Also, the area directly around the site is of low heights (2-7 stories) while the city grows higher behind the site. These and other influences helped establish the form of the project.

The programatic functions and requirements set up the massing of the project. The services, parking, and commercial shops lend themselves to underground floors. The public and meeting rooms due to their volumes and sizes lend themselves to establishing a base for the project. The guest rooms, due to their number lead to a tower on top of the base. The restaurant and lounge would sit at the base of the tower for good views.

The base lends itself to follow the rectangular grid of the context with the 45° angle cutting into it. The room tower did not have to follow the grid so major concept design went into the room tower shape. The context of the base and the ground level circulation, both pedestrian and vehicular added problems.

Major influences on the room tower were: views, winds, circulation, both vertical and by floor, and form in the context.

The majority of the work was on the stacking on the floors, and the shape of the room tower.

The best concept for the room tower after investigations is the V-shape. It relates to the 45° angle of the city grid and provides the best views on the river. It also provides shorter corridors and a protected plaza area for the pool facility. The project will be based on the rectangular base and the V-shape room tower. The restaurant and lounge will be above the tower at the joint of the room wings.

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SCHEMATIC DESIGN
SCHEMATIC DESIGN

INFLUENCES ON SITE

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SHAPE OF GROUND
DUE TO INFLUENCES
SCHEMATIC DESIGN

RESTAURANT & LOUNGE

TOWER

ENTRY ANGLE TOWER

LOBBY, M.N. 2 STORY
BANQUET/BALL. - 25'

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SCHEMATIC DESIGN

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SCHEMATIC DESIGN

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WORK ON GETTING A SEMI-TRUCK DOWN TO SERVICE FLOOR

SCHEMATIC DESIGN
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SCHEMATIC DESIGN

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Look at focal joints. Form & structural.
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Schematic Design

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Focal Point
Supports on Joint Detail

Show structural exterior.
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SCHEMATIC DESIGN

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DRAWING OF ELEMENT IN SCALE
SCHEMATIC DESIGN

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FINAL BASIC CONCEPT
SCHEMATIC DESIGN

PARKING STUDY

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SCHEMATIC DESIGN

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CTR 17 WITH
JACK

CLARITY
CLEAR

STUDY IN CIRCULATION
AND STACKING
-FIRE EXITS
SCHEMATIC DESIGN

Girder
Initial lift block

Schematic design grid with jack.
Look at saw tooth elevations.

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Room CR7
with carpenter
7/24/78

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SCHEMATIC DESIGN
SCHEMATIC DESIGN

Typical Room
CR17 WITH
CARPENTER
9/26/78

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SCHEMATIC DESIGN DRAWINGS
PARKING LEVELS
7 FLOORS

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SCHEMATIC DESIGN

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SERVICE LEVEL
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SWIMMING POOL LEVEL
SCHEMATIC DESIGN

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TYPICAL ROOM LEVEL
57 ROOMS PER FLOOR
9 FLOORS
SCHEMATIC DESIGN

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Restaurant Level
SCHEMATIC DESIGN

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SCHEMATIC DESIGN

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PICTURES OF SITE CONTEXTS MODEL
SCHEMATIC HOTEL IN CITY CONTEXT

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SCHEMATIC DESIGN

SCHEMATIC HOTEL IN CITY CONTEXT MODEL

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SCHEMATIC DESIGN

MASSING MODEL OF PROJECT
SCALE: 1/16" = 1'-0"

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SCHEMATIC DESIGN

MASSING MODEL OF PROJECT
SCALE: 1/16" = 1'-0"

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During the concept stage one room tower shape stood out, that of a V-shape. It provides the best views, short corridors and only one of four exterior walls exposed to winter winds. The base concept leads to a rectangular shape with areas for entrances cut into it. The entrances lead to the 45° angle influence.

The ground floor for with its circulation problems is compounded with a double lobby, registration and interior circulation. There was major time spent on the laying out of the ground floor. The other floors were laid out in schematic floor plans due to the problems of stacking functions and vertical circulation. At this time the floor plans were taken to a schematic stage due to additional complexity of the vertical stacking of the functions that will be considered in the design development stage. The stacking of the floors were refined from the concept. The functions were laid out by floor and functions that needed vertical circulation links, like the kitchens were placed above each other.

A large service and delivery entrance was the next major consideration. Due to the size of the site a large delivery entrance caused major design considerations. The first concept was to ramp the semi-trucks down to the service floor. Two levels below the street level. Due to the clearance height for a semi and the angle of the ramp, this created major design problems. The commercial floor requires a clear height of 25 feet and the ramp for the semi would not permit this height. The delivery area was then located on the ground floor and produce delivered will be lowered to the service floor by elevator.

Parking was the next major consideration. The zoning codes required 1,200 parking spaced for the hotel complex. The problem came in placing 1,200 spaces on a site of less than 90,000 square feet. Several concepts were considered. Conventional ramping was the first concept considered. The size of the ramps cut the commercial and service floors considerably. Investigations into automatic parking systems were made but due to the small floor area and short site length automatic systems did not produce a benefit to justify the cost so the conventional ramping system will be used.

The form of the room tower was considered next. The V-shape room tower provides the best views, short corridors, and limited wind facing, but it slices the base into three pieces. This form poses one great problem, that of structure. The typical structural concept of hotels is that of load bearing walls or columns between each guest room. This would be impossible.
in the V-shape concept due to the fact it would slice the base levels into three unusable pieces. To prevent the slicing up of the base, the room tower is clear spanned across the base. The ends of the wings and the point where they join is the structural support points. The floors set up a modified verendale truss system. The horizontal members are 30"x 15" steel box beams and the vertical members are 12" wide flange columns. The base is a typical column, waffle slab system. The parking and service floors are made up of pre-cast concrete tees.

The point at which the room wings join is a major element in the project. It contains the massive structural load points and two elevators for the lounge and restaurant. The other vertical circulation is located next to the joint in the building. The guest elevators are view elevators and open to the exterior at the start of the room tower.

Small studies were done on parking circulation, fire exit circulation and exterior facade.

The final drawings were done at a scale of 1" = 50'-0". The drawings contained schematic floor plans and a building section.

The jury at the end of the first quarter was very positive and no major changes were required. There were several comments on getting additional land for the service delivery, but it would produce major problems in produce circulation. The final schematic design was ready for the design development stage.
DESIGN DEVELOPMENT
DESIGN DEVELOPMENT

At the end of the first quarter I had completed the schematic design phase. The schematic design process had produced the basic building form, stacking of levels, functional relationships, circulation and the relationship with the city context.

In the design development phase of the project the concept will be taken into greater detail. The project will be taken from a schematic form to a finished design. Major effort will be spent on the public areas, circulation, exterior elevations, guest room design and the structure of the guest room towers. Other areas will be designed in detail. Each of the areas in the complex will be taken to a greater depth.

The major areas of design will be spent on the public areas and the exterior elevations. The window treatments in the guest rooms will be used as a scaling element, to provide a view and allow natural ventilation.

Each of the elements while being studied individually must be designed as an element of the entire project.
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BREAK DOWN OF PUBLIC AREAS
BREAK DOWN OF PUBLIC AREAS
LOOKING AT OPENING THE FLOORS
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FINAL DESIGN FOR CINEMAS
CONCEPT FOR NIGHT CLUB
FINAL DESIGN FOR NIGHT CLUB

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FINAL DESIGN FOR POOL AND FACILITIES

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DESIGN DEVELOPMENT

FINAL DESIGN OF POOL DOME

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EAPLY DRAWING
OF LOUNGE