

A GLASS MENAGERIE

A Glass Menagerie
Shopping Center
Indianapolis, Indiana

Laura Lucas
May 1980

A.E. Palmer
Thesis Professor

Design Process
Project Definition
Concepts
Decisions
 Spatial
 Circulation
 Enclosure
Solutions
 Plans
 Sections
 Elevations
 Axonometrics
Addendum
 Author
 Site
 Program

This book reflects the experience and completion of thesis year in architecture at Ball State University. It is an attempt at documentation of thoughts and design process as much as the presentation of the final design solution. The author recognizes and the book emphasizes the changing with time of a design. It is organized to illustrate the sequence of decisions that create a design solution.

The solution is the result of choices among alternatives, decisions that are based on a concept, a concept that is the spatial model of the criteria, criteria that is the synthesis of site constraints and ideas and priorities as programmed.

The format of this book is to demonstrate the evolution from idea to concept to physical form, because the author believes the understanding of the process as crucial to understanding and appreciating the solution.

A GLASS MENAGERIE

Laura Lucas

ABSTRACT

Acknowledging influences on my life and architecture attitudes is a rare opportunity and those mentioned should realize the significance of this occasion.

Rod Underwood
J. Bob Taylor
A.E. Palmer

I appreciate the encouragement and attention to my thoughts and potential abilities from my professors, as well as their influence as role models for my attitudes and ideals about living with architecture.

Valery Glasby Taylor
Bill Warnock
Betsy Roosa
Mark R. Bay

I admit to taking my favorite friends for granted and yet thank them here and now for making my sojourn in Muncietown worthwhile and personally rewarding.

James W. Lucas
LaVerne M. Lucas

I recognize my parents for getting me to Ball State in the first place and for their influence on me, the person, for the first and last 23 years of my life.

Jamie Lucas
Allison Lucas
Dorsi Lucas
David Lucas

And there is the rest of my family to recognize for putting up with me for all these years.

ACKNOWLEDGEMENTS



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Input data
Establish criteria
Conceptualize
Proposals - overall
Decisions
Proposals - concentrated
Decisions
Evaluate to concept
Decisions
Re-evaluate
Document

The designing of this thesis project was a continual process of interpretation of ideas and objectives. It was an evolution from pre-conceptual criteria to conceptual ideas to the physical forms that realize these ideas.

Being able to visualize ideas and consequences and to make design decisions based on an established framework is the basic premise of this design approach.

The choices of design must be based on criteria as set forth and elaborated within the program; the concept becomes the visual and spacial model for making these choices; alternative ideas using architectural elements to achieve the criteria are decided upon; the solution is the chosen physical interpretation of the entire process.

DESIGN PROCESS

Description
Goals

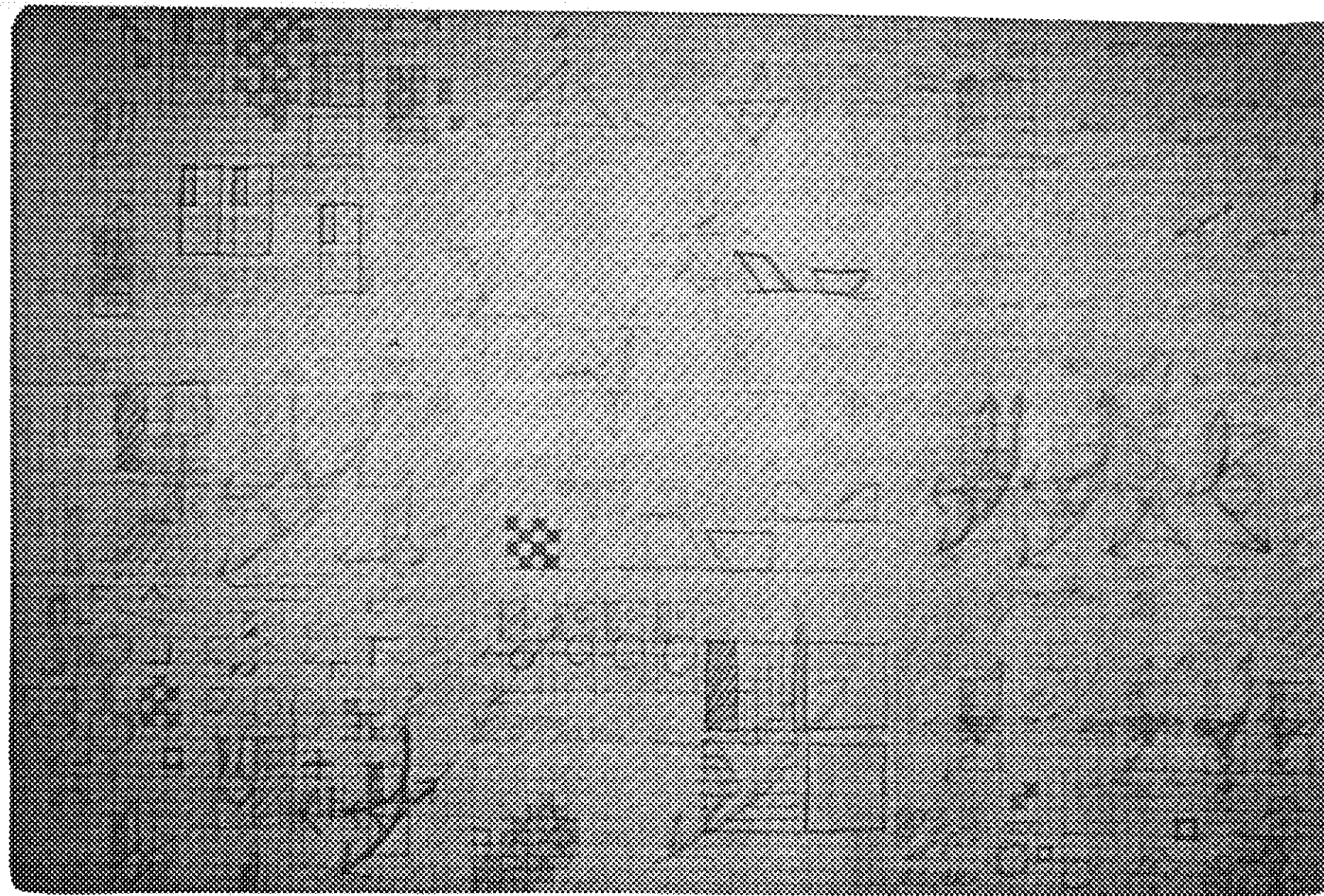
This project which consists of a variety of shops that have a diverse range of products, and a large common space, is designed as the focal point for downtown retailing, as well as being the link between ground and second level walkway. The new building will connect to existing buildings to include them to the amenities and image generated by the new retail center.

The new retail center will offer vivid experiences and a variety of amusements as a result of the interplay of stores and circulation movements. The design must maximize and emphasize social and self appraisal as well as being economically profitable. It must not detract from the existing patterns of street usage, but must work as part of the existing urban situation.

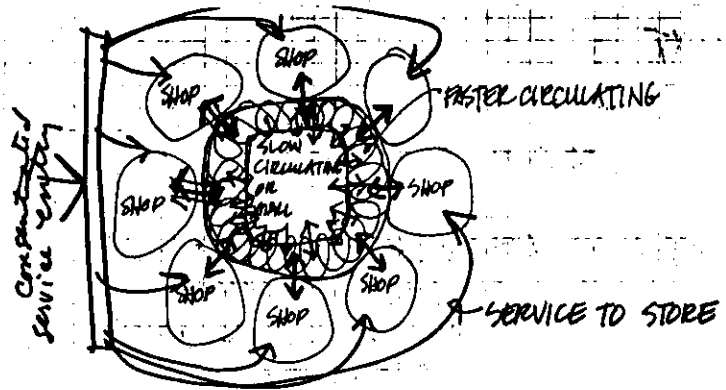
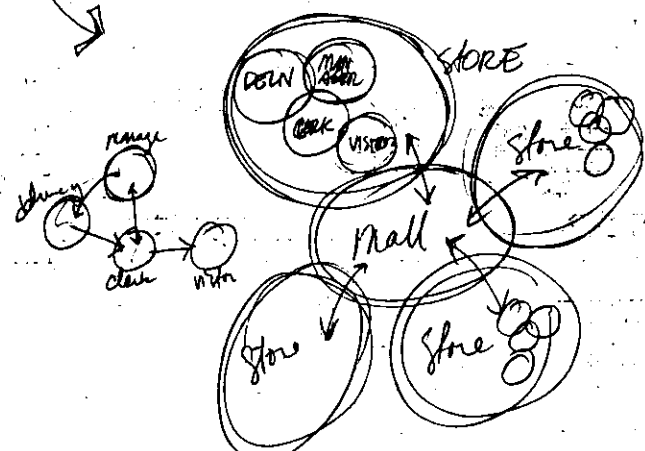
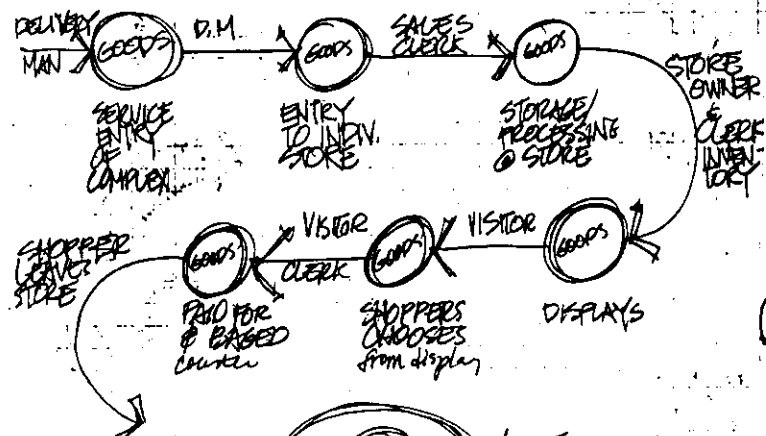
This building must be designed to reveal itself to its users, it must create anticipation of experiences and opportunities that encourage and exemplify the narcissism and exhibitionism of human nature.

See program in ADDENDUM

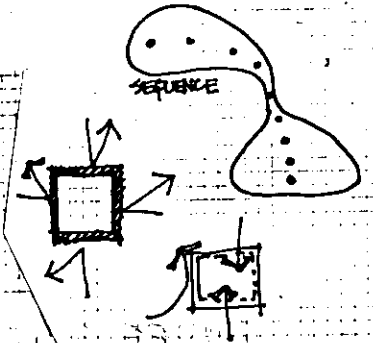
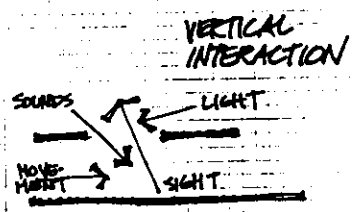
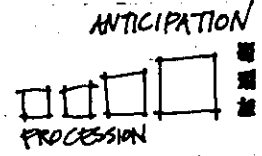
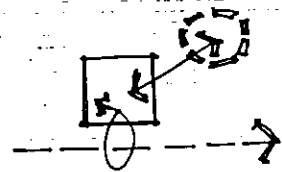
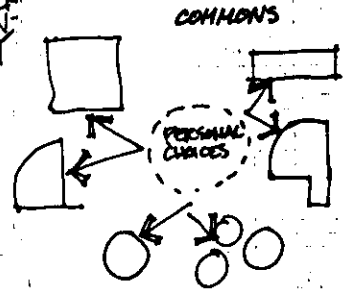
PROJECT DEFINITION



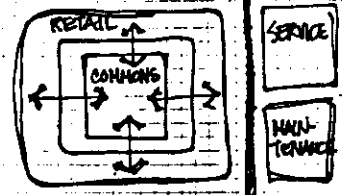
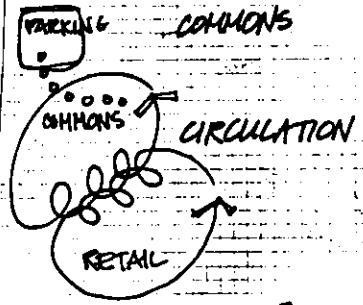
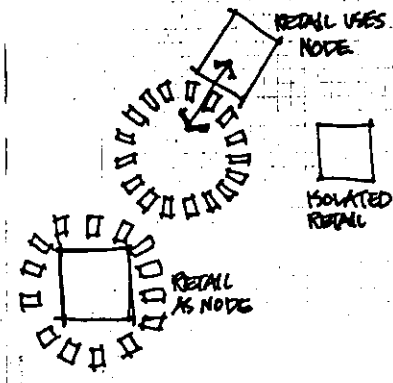
SHOPPING PROCESS



FUNCTION OVERALL PROJECT

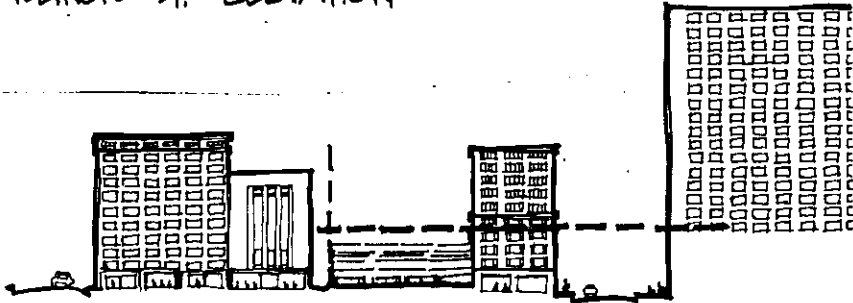


RETAIL PLACEMENT

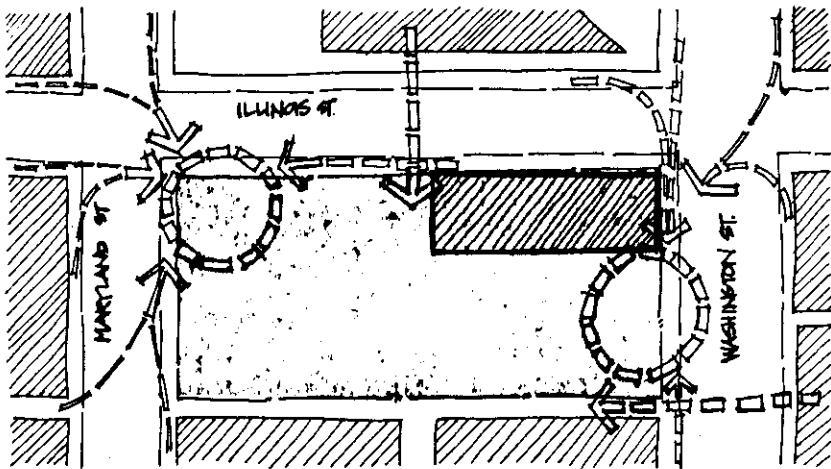




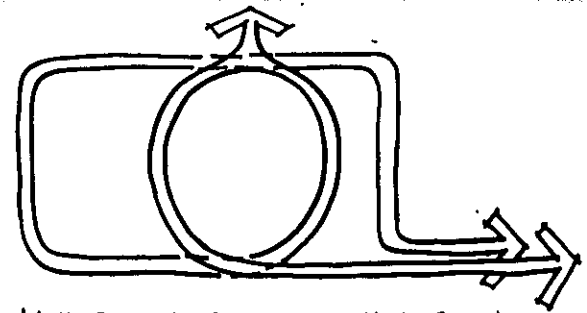
ILLINOIS ST. ELEVATION



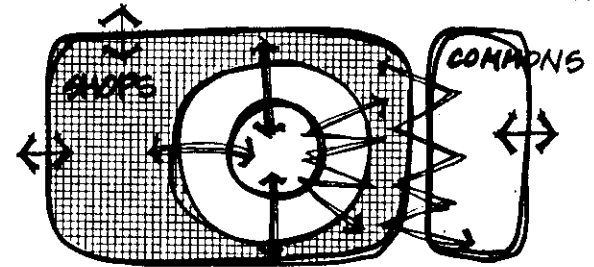
WASHINGTON ST. ELEVATION



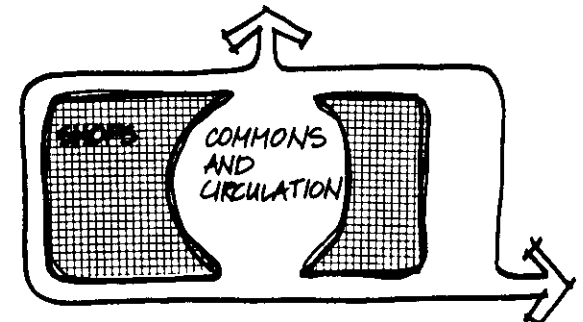
SITE PARAMETERS



MULTI-LEVEL CIRCULATION



COURTYARD RELATIONSHIPS



COMBINED RELATIONSHIPS

PROGRAM PARAMETERS

Ideas

Generator

Diagrams of whole

Structure

Entry

Enclosure

Circulation

Service

Mechanical

Diagrams per floor

Circulation

Service

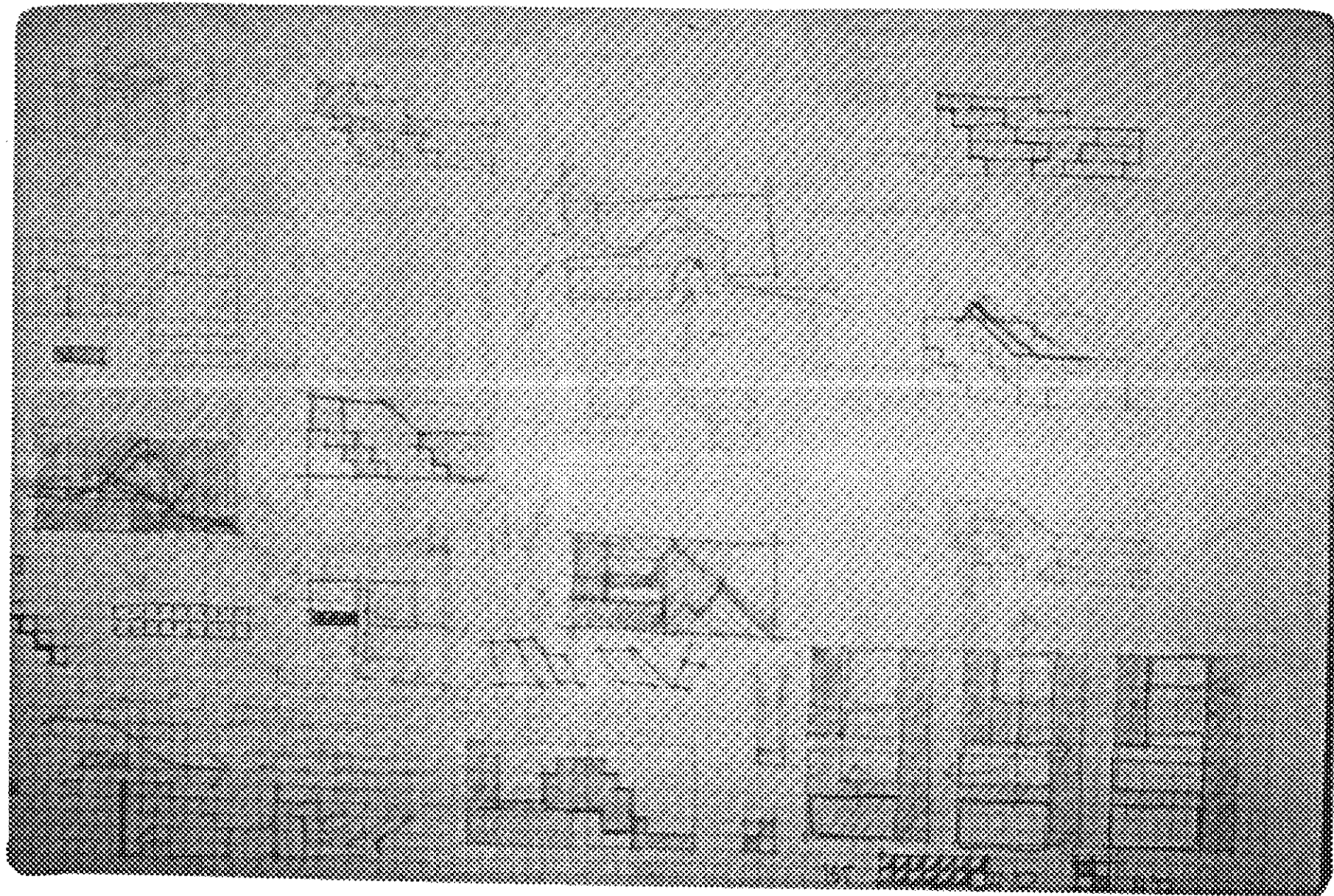
Mechanical

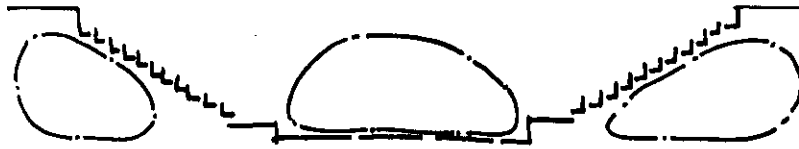
The concept is the visual or spacial interpretation and model of the pre-conceptual criteria which becomes the framework for decision-making.

The concept for this project began with a basic premise of maximizing opportunities for personal interactions. This led to the "stadium metaphor" - designing a building that had the spacial-people watching characteristics of a stadium. This idea was the generator of the concept, with the concept itself being a combination of this idea and the criteria of the program and site.

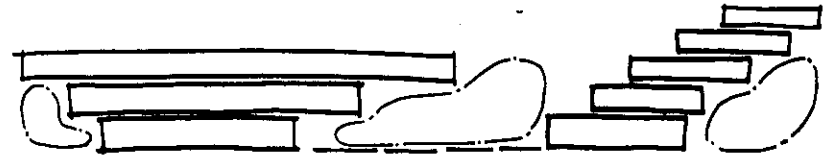
The concept provides the reference point or basis for evaluating the consequences and suitability of design decisions at all stages of the design process.

CONCEPTS

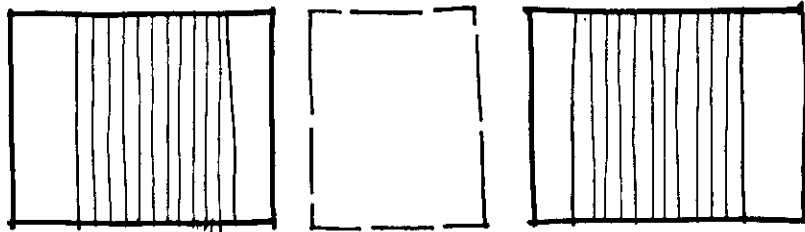




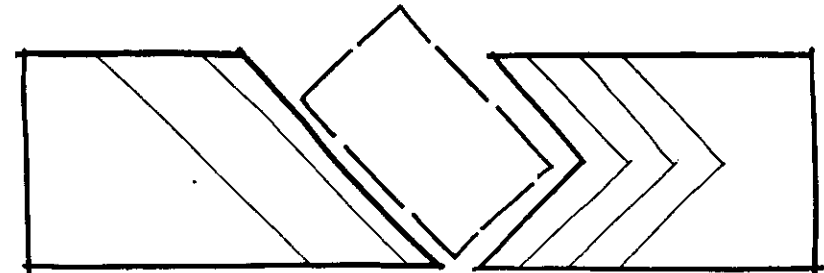
SECTION



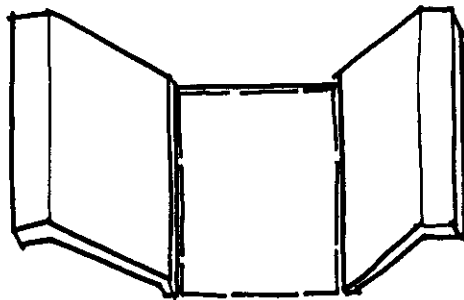
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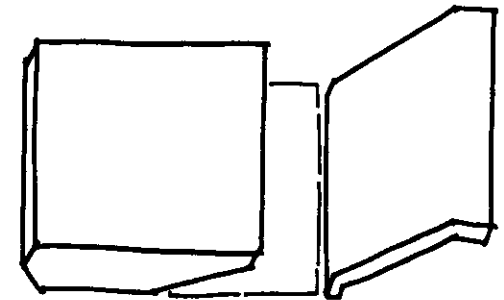
PLAN



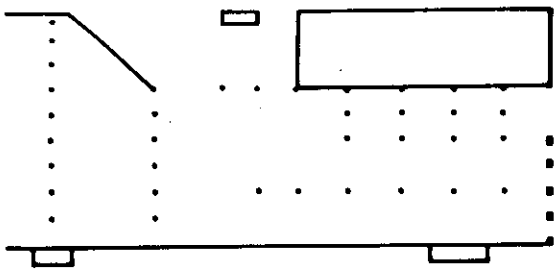
PLAN



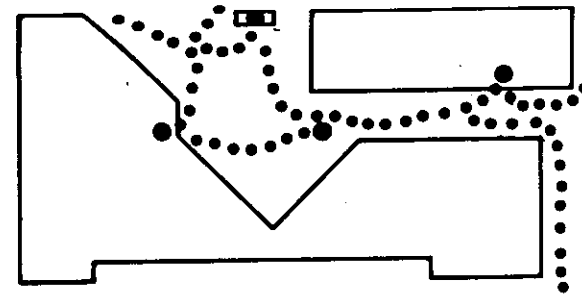
AXONOMETRIC
CONCEPT GENERATOR



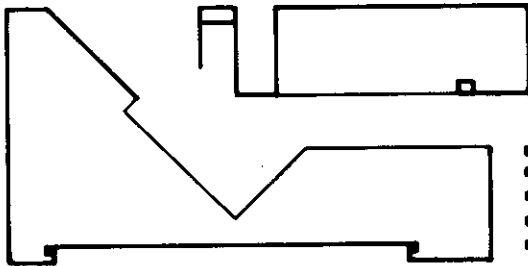
AXONOMETRIC
CONCEPT



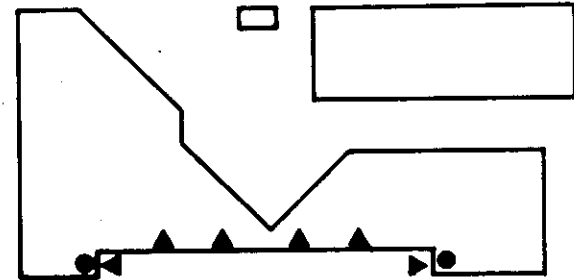
STRUCTURE



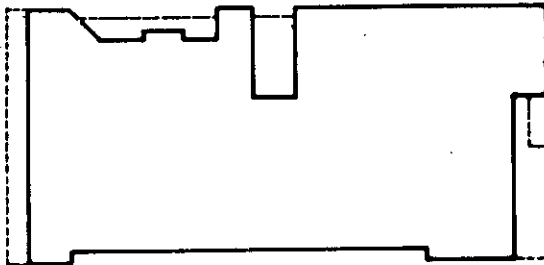
CIRCULATION



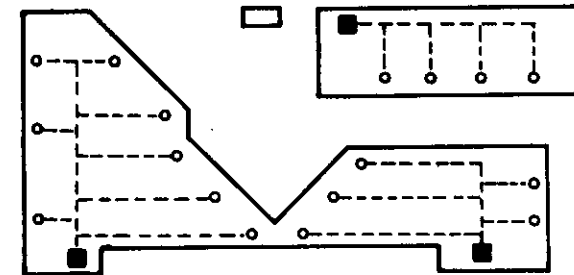
ENTRY



SERVICE

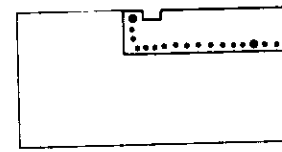
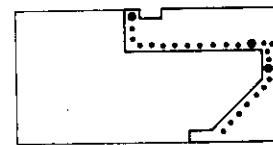
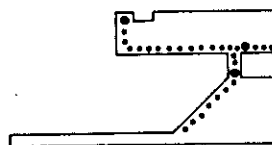
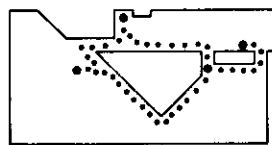
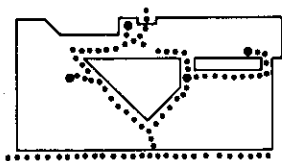


ENCLOSURE

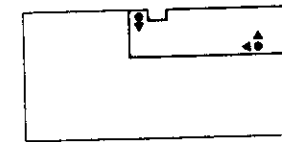
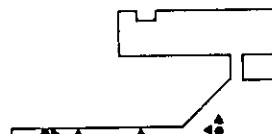
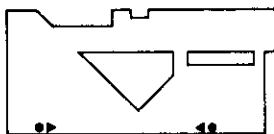


MECHANICAL

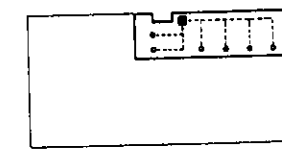
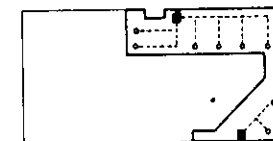
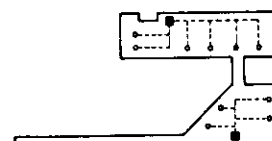
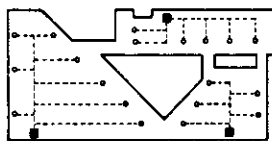
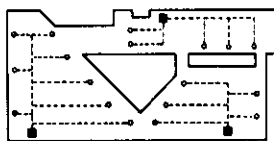
CIRCULATION



SERVICE



MECHANICAL



L2

L3

L4

L5

L6, L7, L8

Spacial
Exterior
Entry
Interior

Circulation

Enclosure
Interior
Exterior

The physical form of a project is a matter of solving the problems of combining the functional requirements with the conceptual ideas. Alternative solutions are conceived and evaluated at several scales concurrently and yet individually too.

The evolution of this project can be seen by following the changes in physical forms as decisions are made as to which architectural solution meets the criteria. Alternatives were considered as they affected both the design as a whole and the individual parts.

Keeping the project as a whole in mind, the projected was separated and grouped to best illustrate the alternatives and choices as they were decided over time.

Although spacial ideas remained similar the floor plans were continually simplified as an idea but increasingly detailed and defined. The enclosure of the space and the delineation of entries and elevations had to be reconsidered in terms of the project image.

DECISIONS

Overall axonometric

Entry perspectives

Preliminary idea

Final image

Escalator perspectives

Preliminary idea

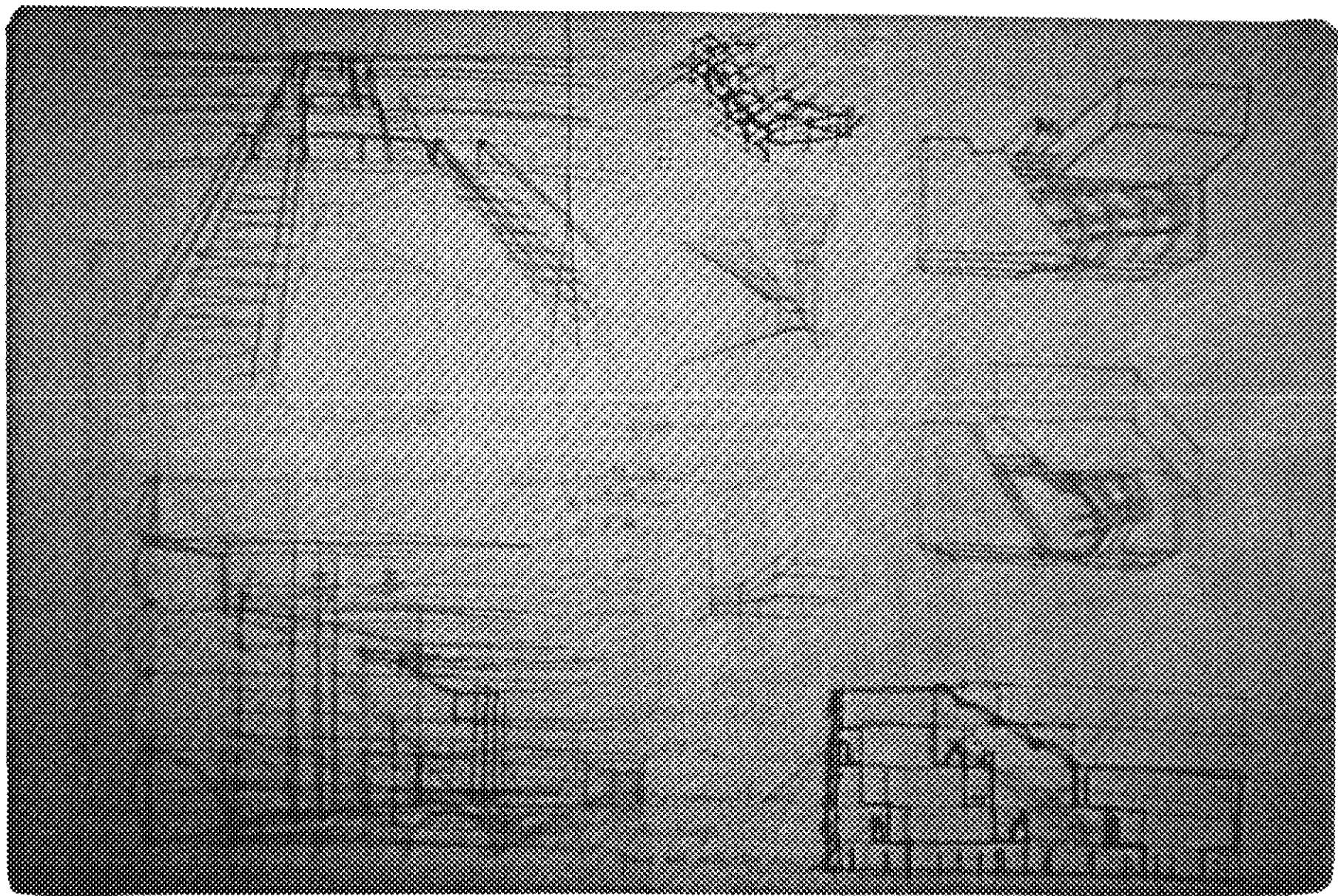
Final image

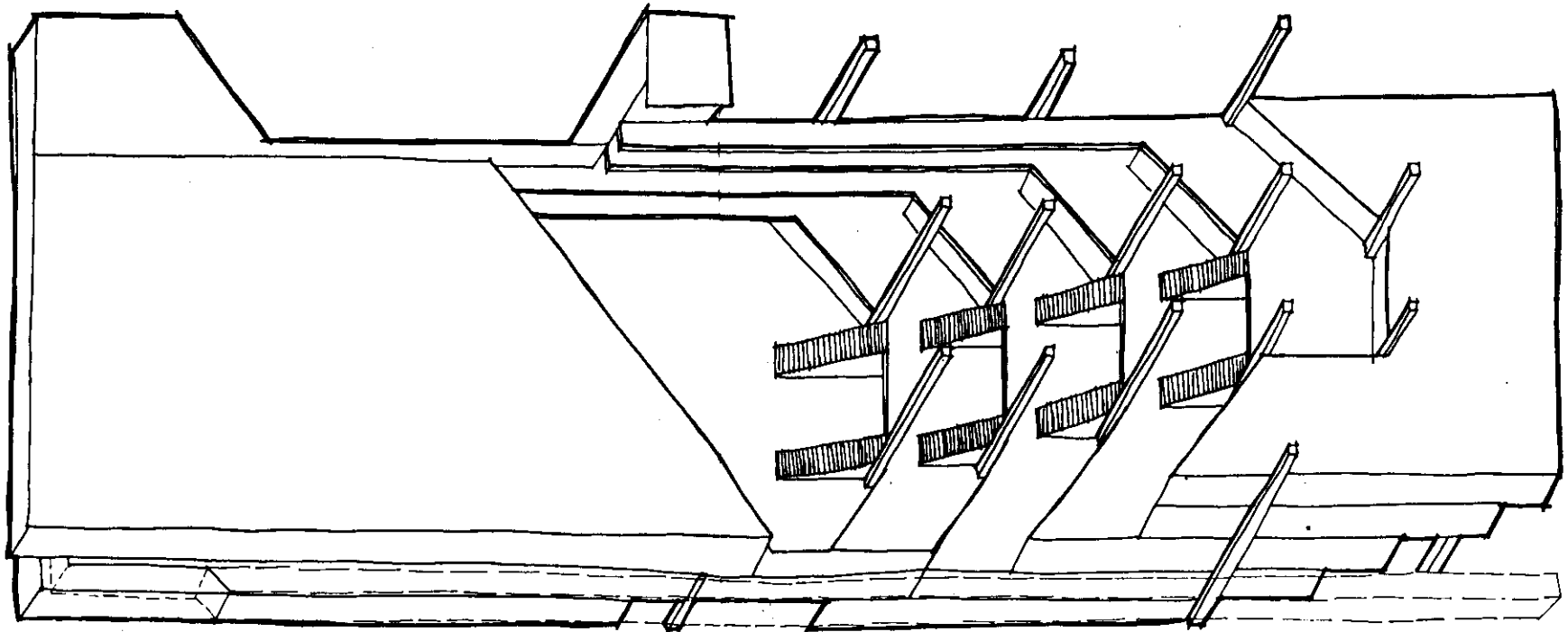
Spacial ideas for the project were visualized early and throughout the design process as goals for the physical forms and to illustrate ideas and concepts to others.

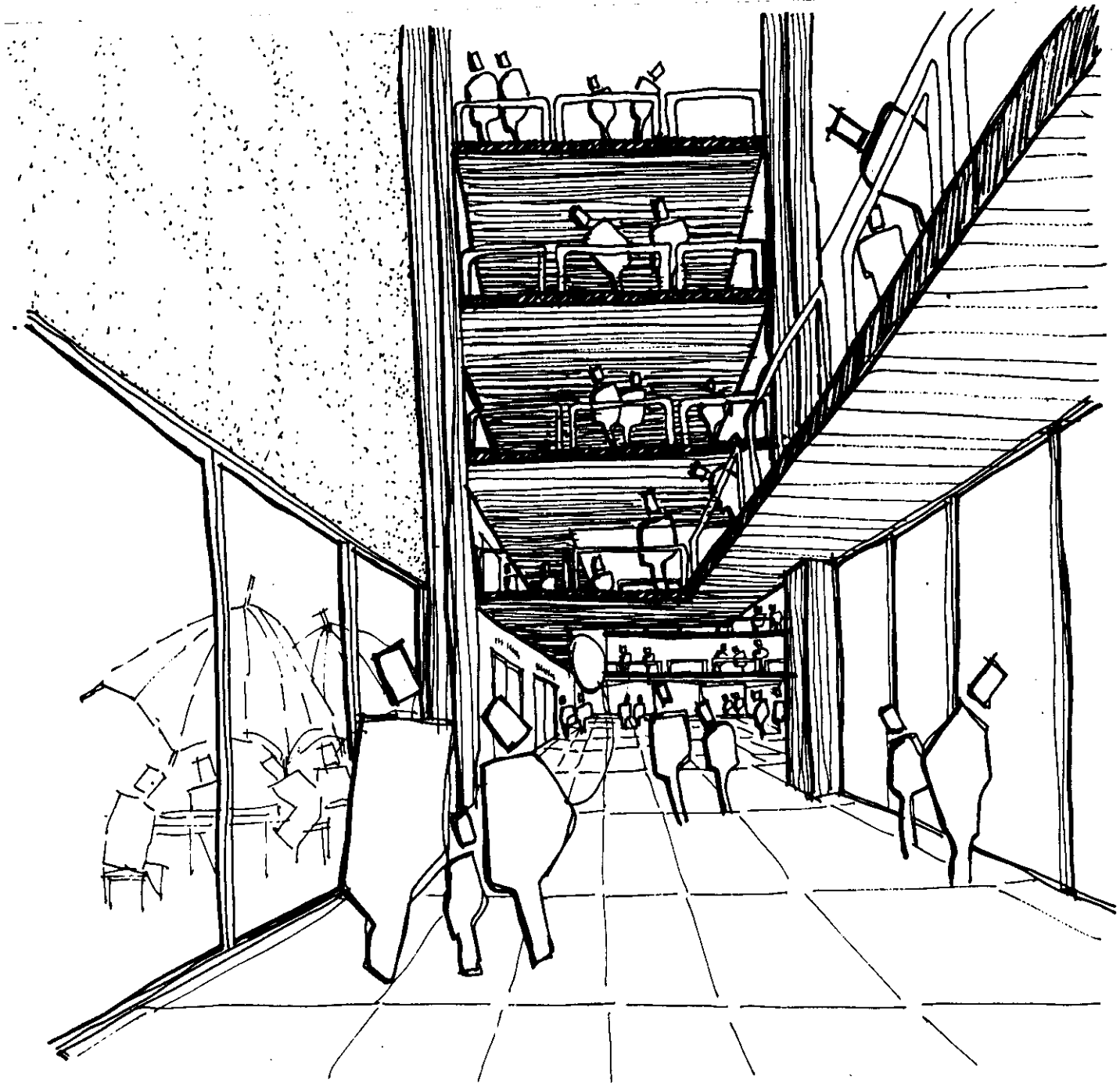
Ideas of how a space should be were described on paper most often as perspectives in a rough form to be developed and detailed as the design progressed.

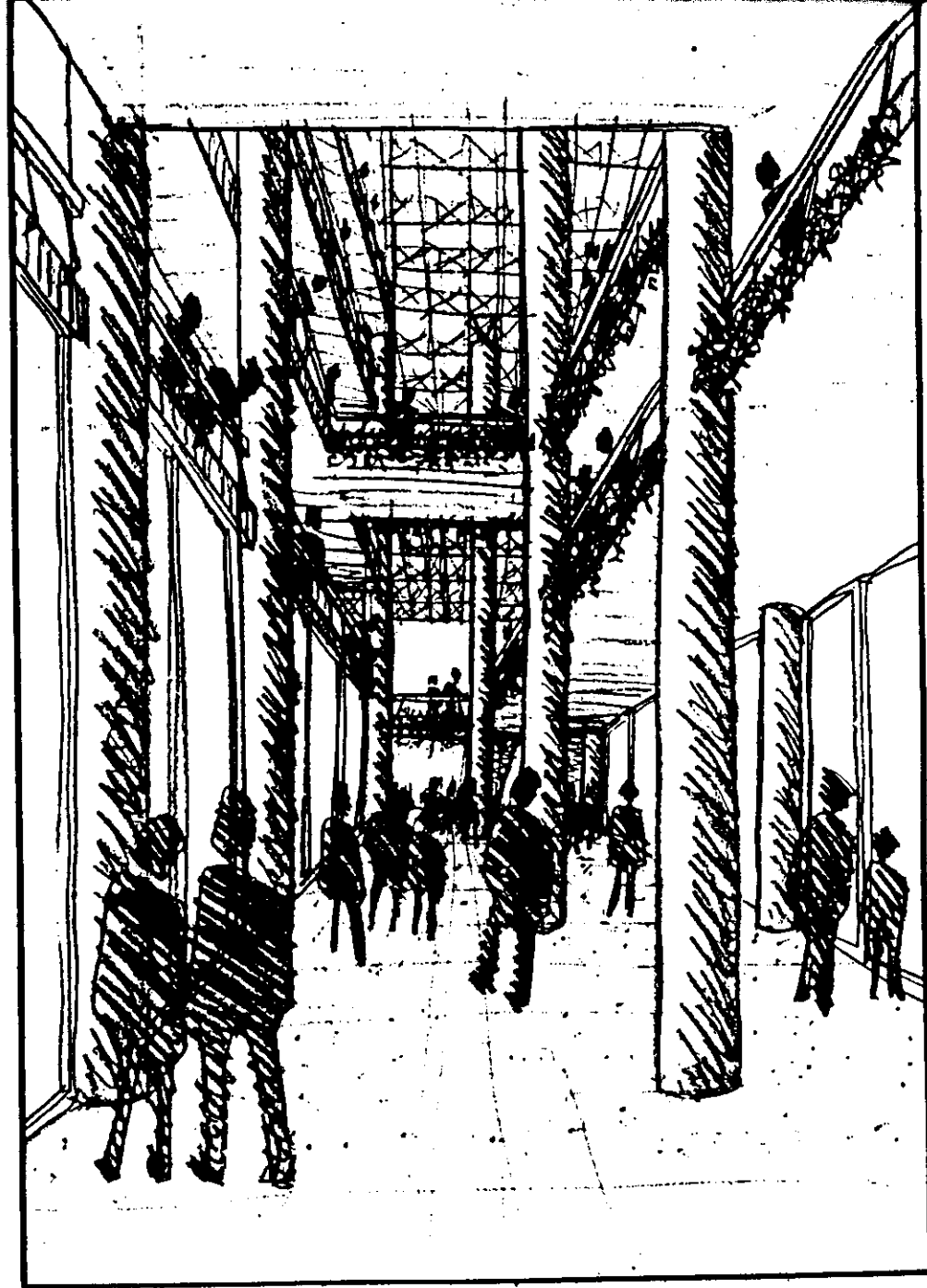
By spacially defining the design during the process, the compromises and decisions between concepts and physical forms could be better visualized and the consequences better evaluated.

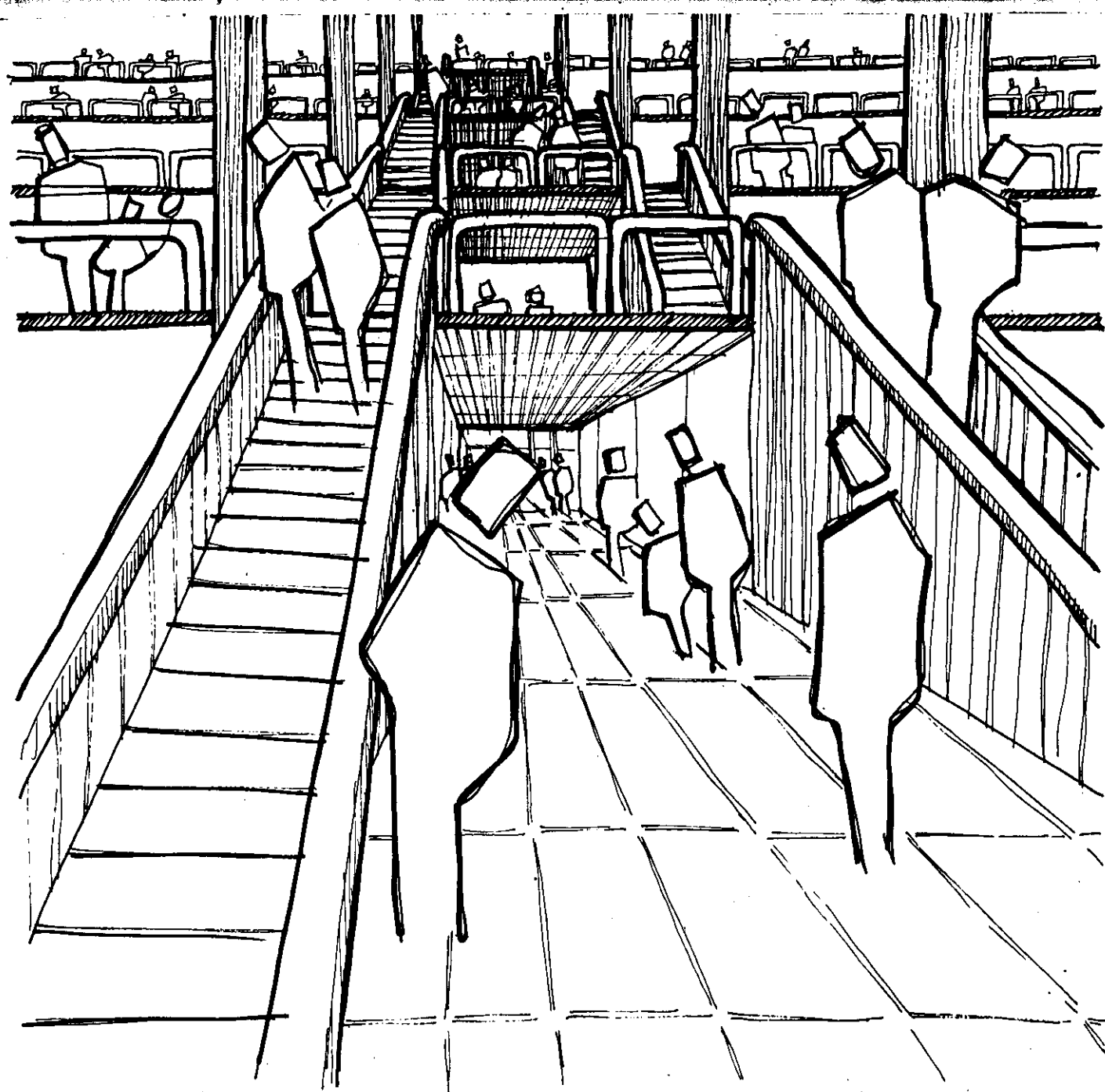
SPACIAL













Inconsistent per floor
Escalators emphasized
Gallery at North entry
and service corridor
Structural bay at 40'
and 45° pathways
West entry overlook

Because circulation is so crucial to the success of the design as a whole, its development shows the most change as the design progressed.

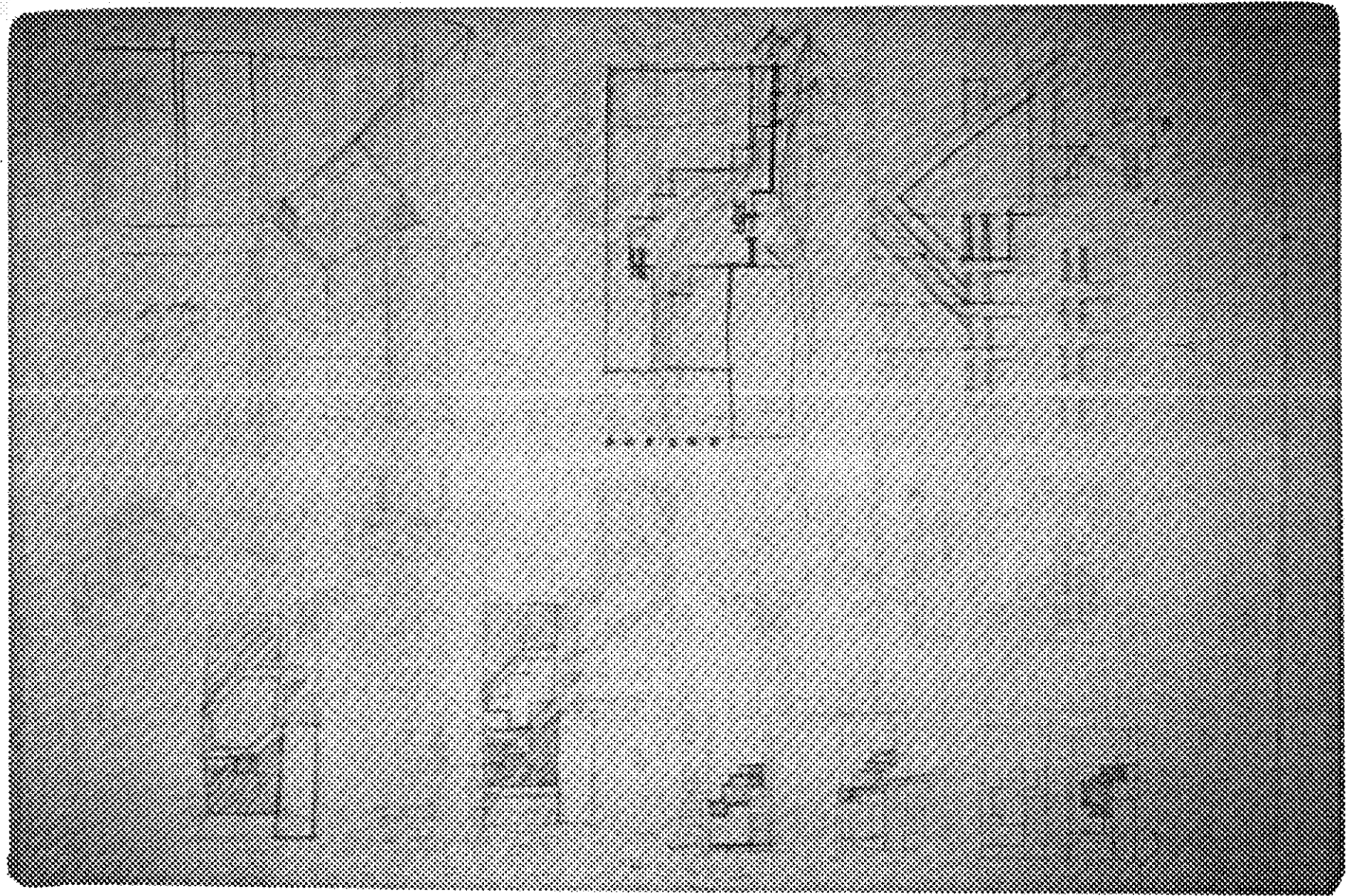
The concepts for circulation remained similar to the original ideas yet became more sophisticated and more fitting to the criteria as the design progressed.

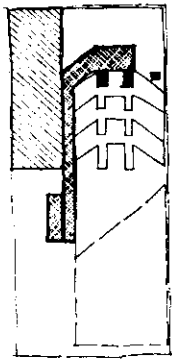
The desire for an easily identifiable pathway that would offer a variety of spacial experiences was difficult to resolve, and many alternatives were considered.

Changes in the actual pathways can be seen in terms of consistency of image; the location and emphasis on the vertical circulation elements; the size of structural bays and the angle of the pathways; and the treatment of circulation elements at the entries.

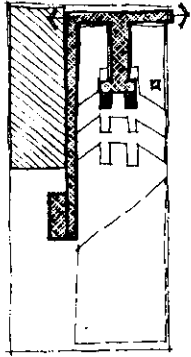
The circulation as an idea became simplified and yet with increasing detailing the spacial experiences became more varied and defined.

CIRCULATION

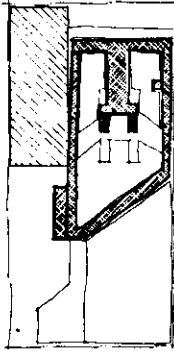




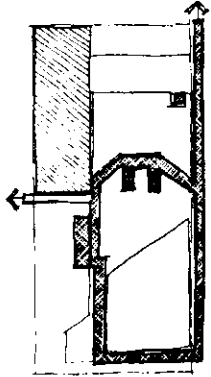
5TH LEVEL



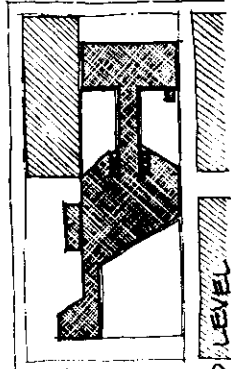
4TH LEVEL



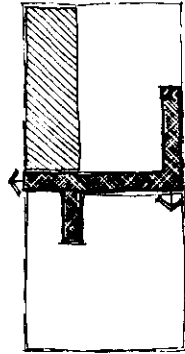
3RD LEVEL



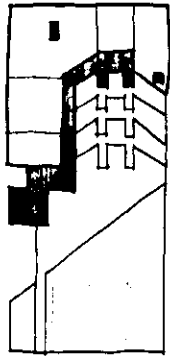
2ND LEVEL



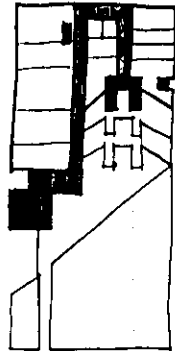
GROUND LEVEL



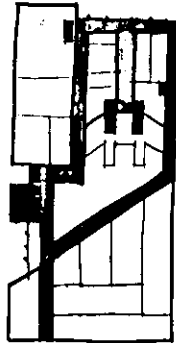
GARAGE LEVEL



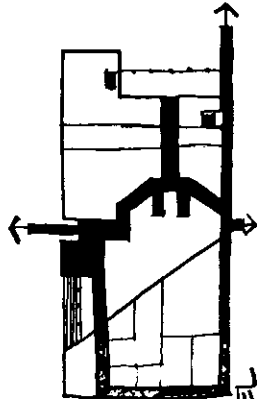
5TH LEVEL



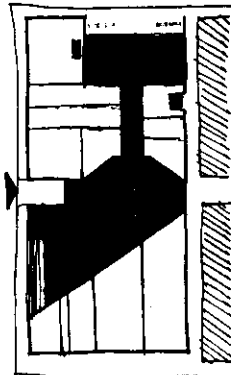
4TH LEVEL



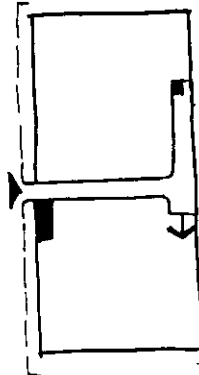
3RD LEVEL



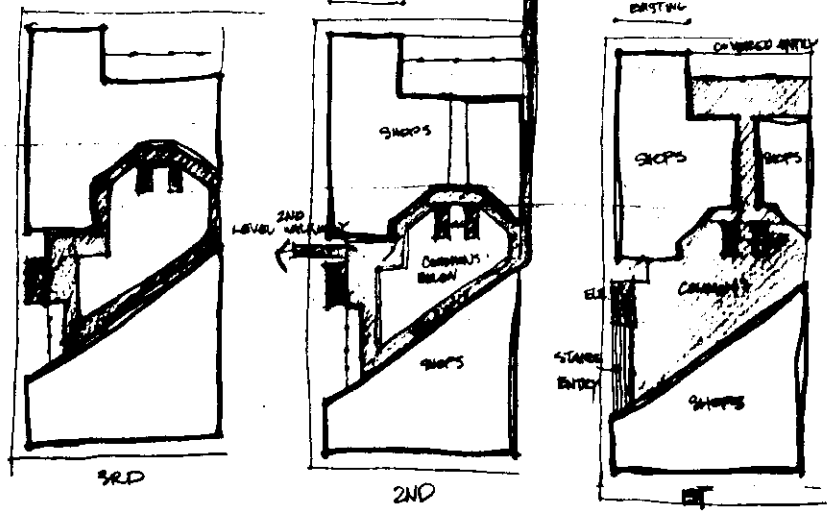
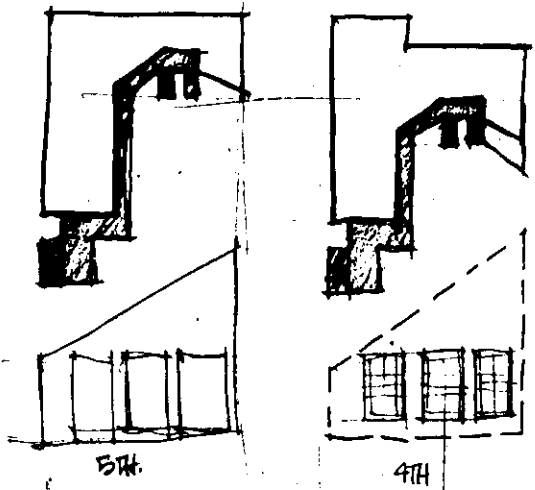
2ND LEVEL



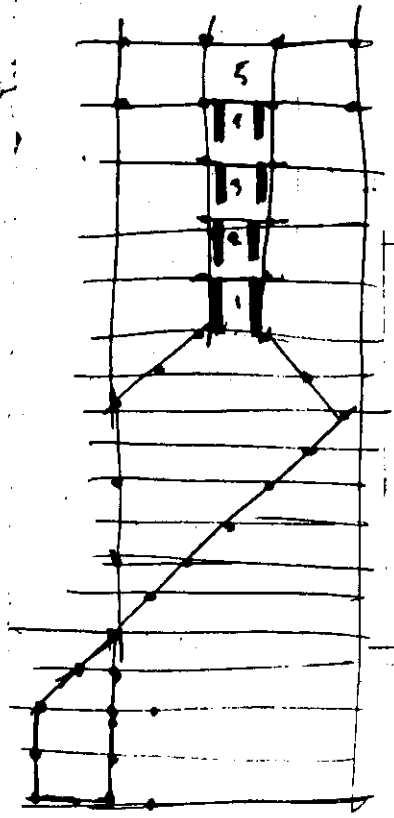
GROUND LEVEL



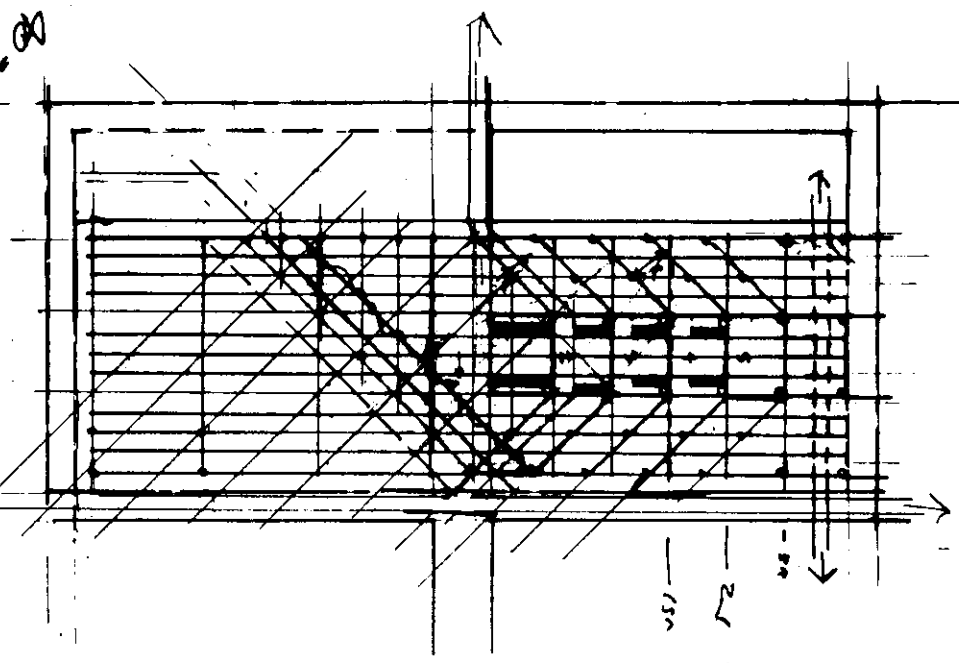
GARAGE LEVEL

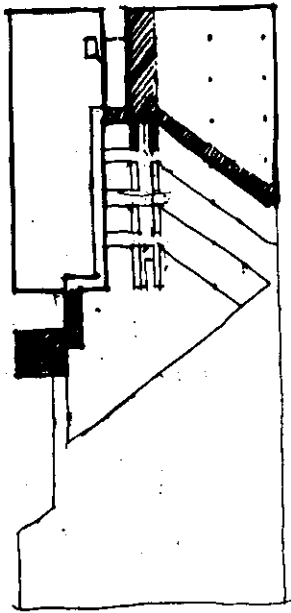


*Overall
Mid Width*



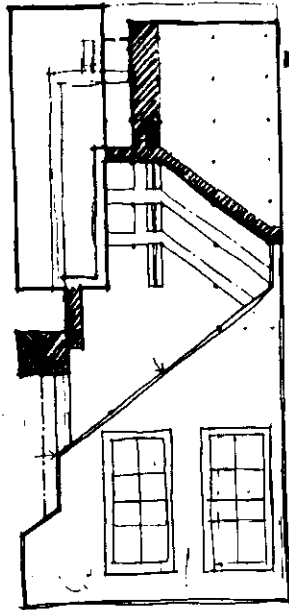
01-00



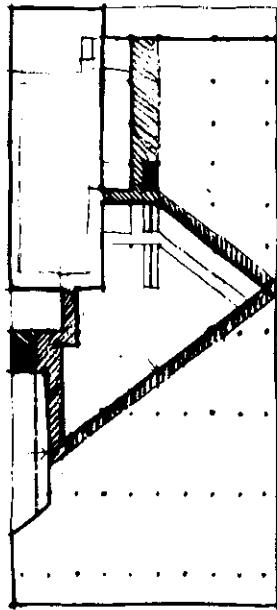


5TH

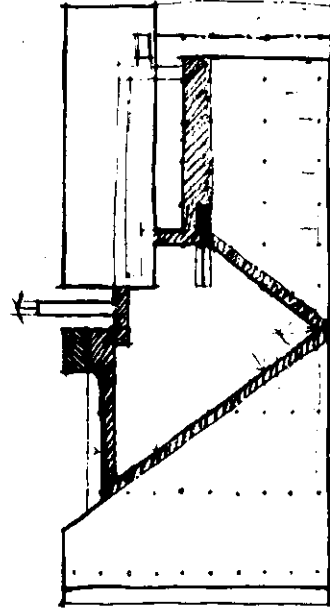
Dec. 10



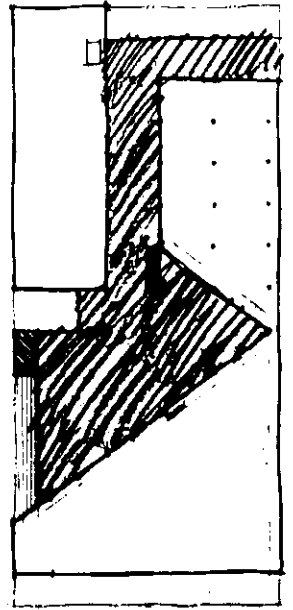
~~5TH~~



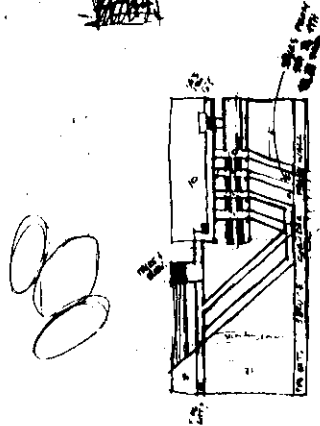
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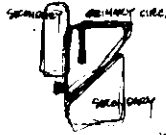
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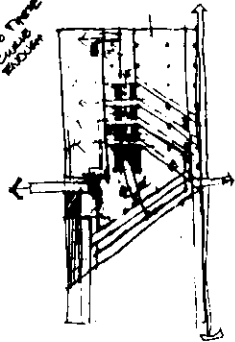
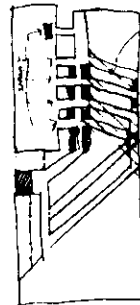
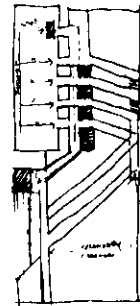
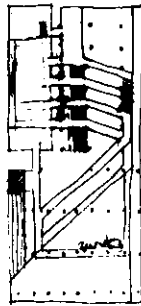
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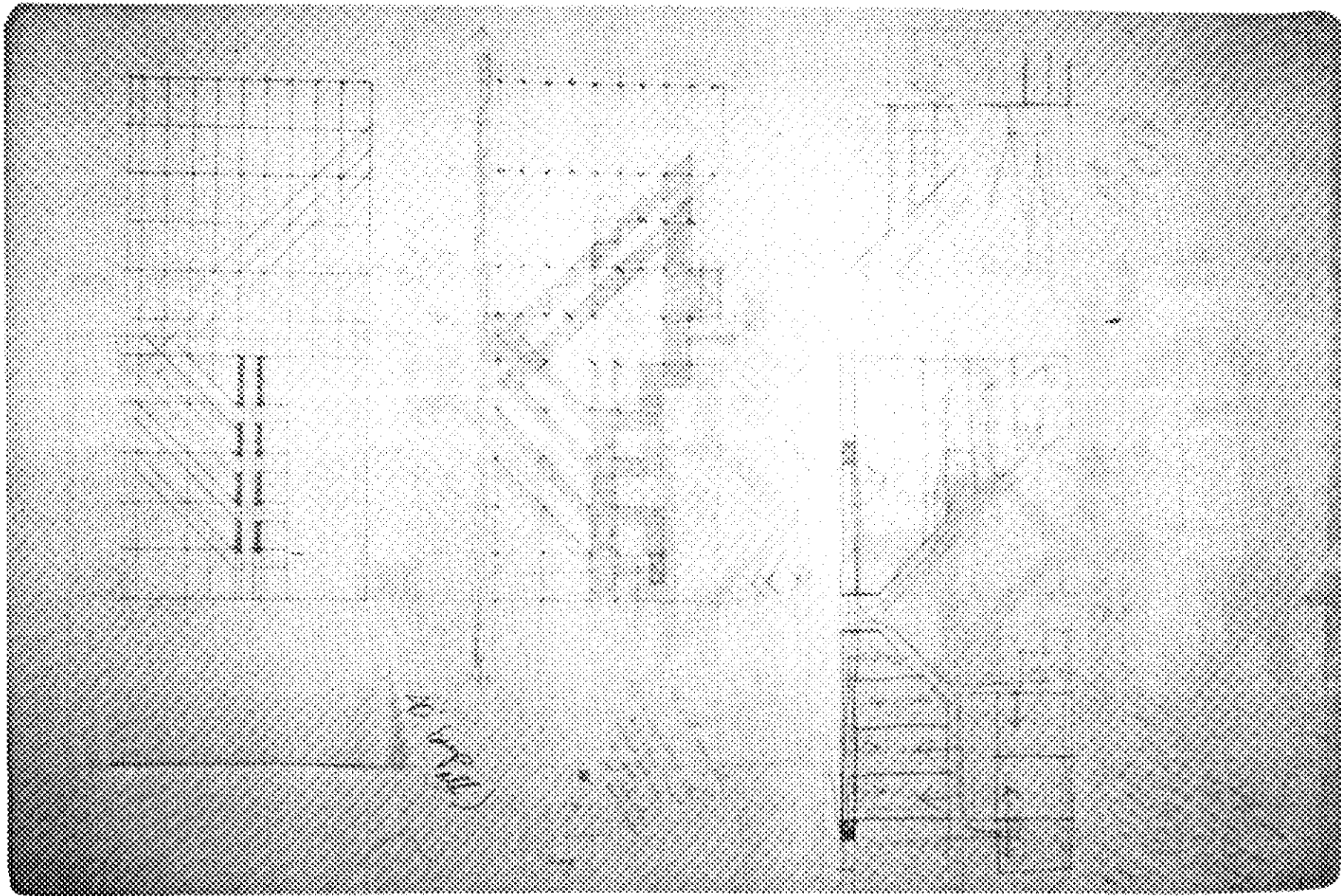


CIRCULATION BETWEEN STAIRS

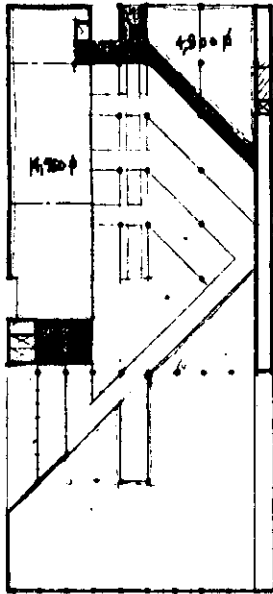


CIRCULATION BETWEEN STAIRS



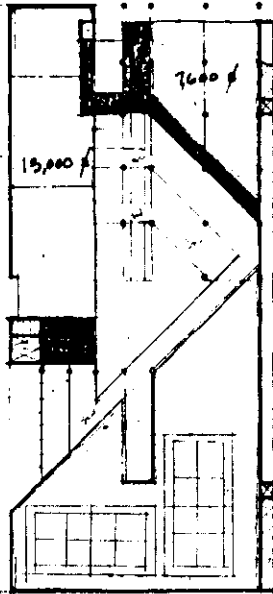


RETAIL 19,750 ϕ



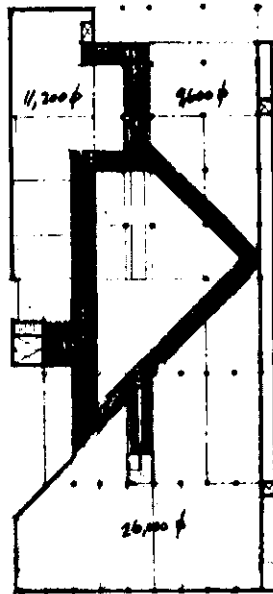
5TH

RETAIL 20,000 ϕ



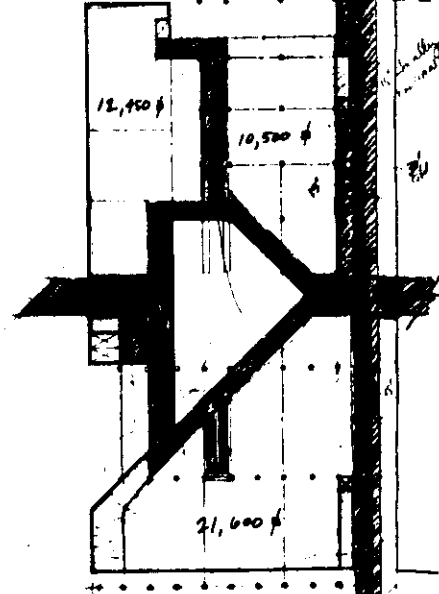
4TH

RETAIL 46,000 ϕ



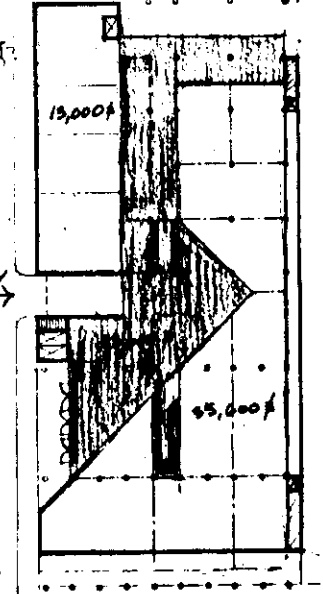
3RD

RETAIL 44,550 ϕ



2ND

RETAIL 48,600 ϕ
 COMMONS 18,600 ϕ 27% GFA
 67,200 ϕ



1ST

gallery and escalators

Entry enclosure and
structure

Space-frame levels

North entry -
columns or
spaceframe

Facade materials
and forms

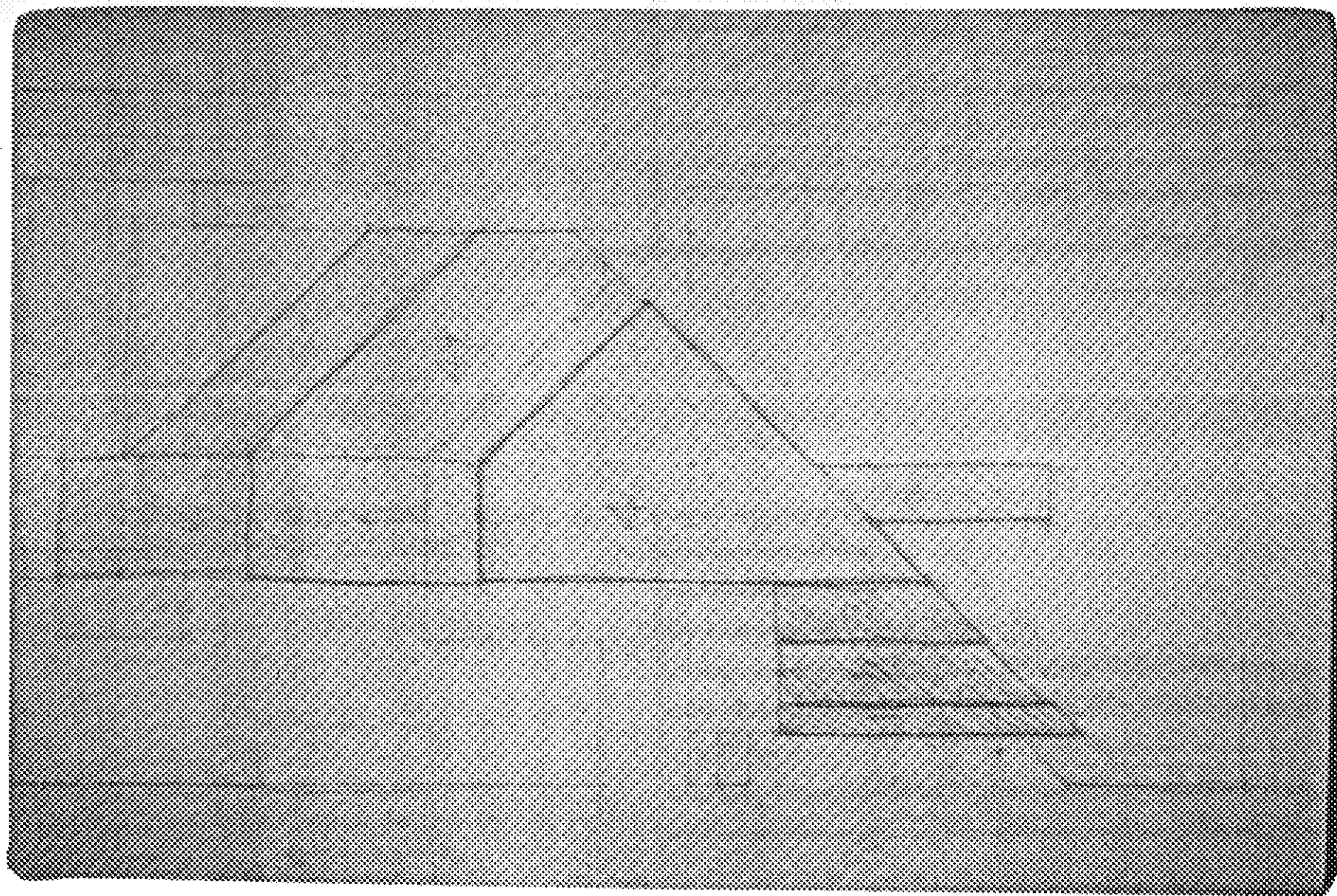
Enclosing the space was important in establishing the image and dynamics of the project as a whole. The enclosure was first thought of in terms of its purpose and relation to the rest of the design.

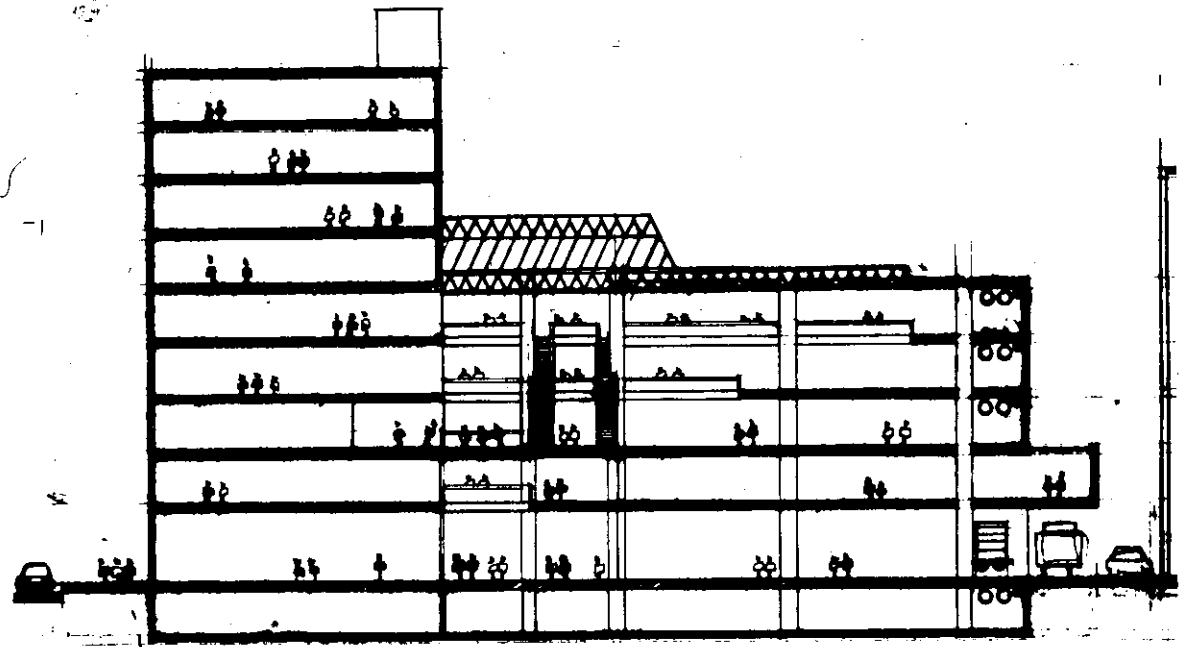
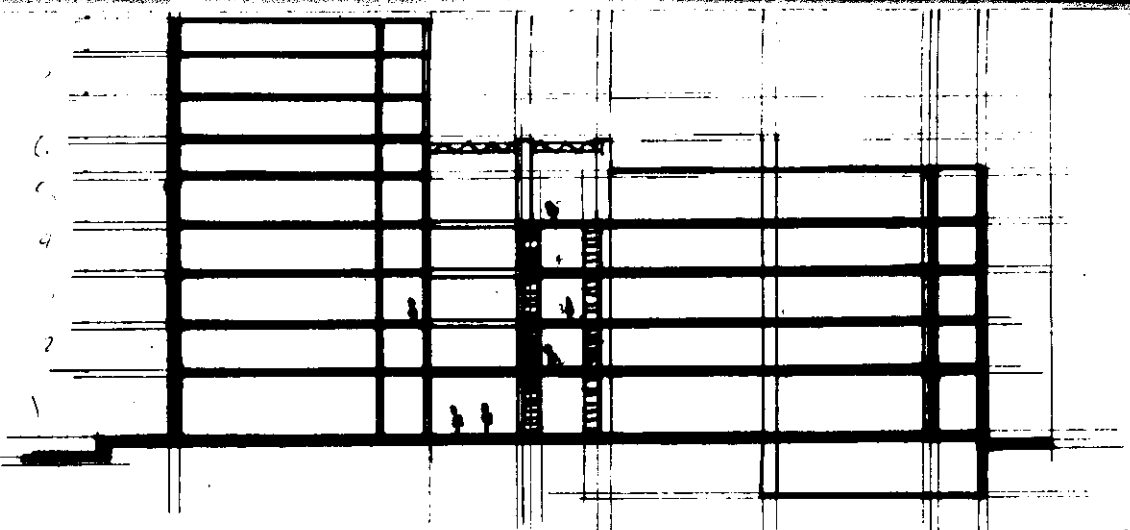
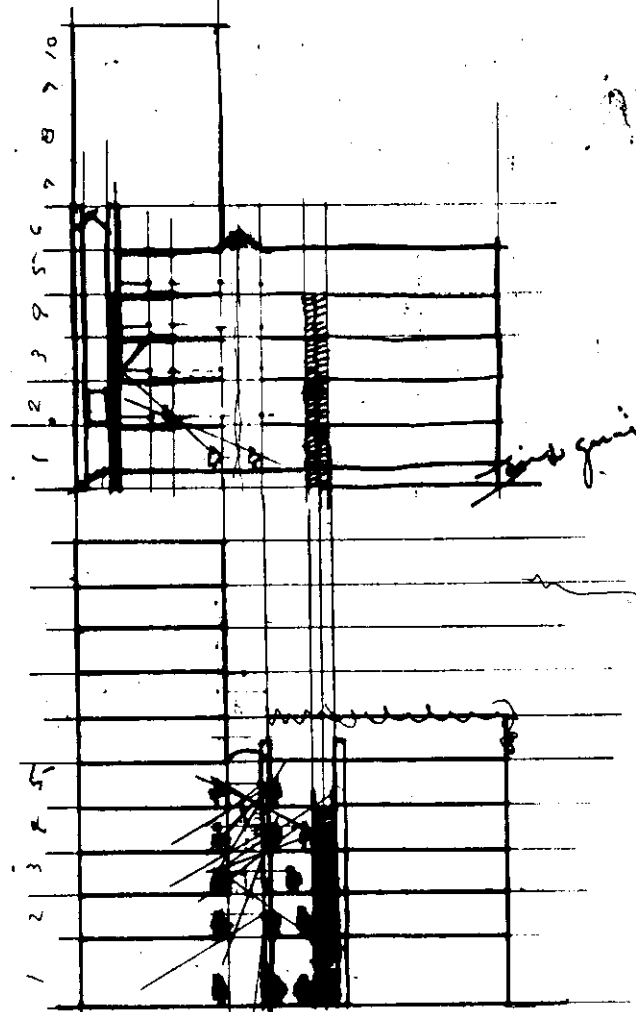
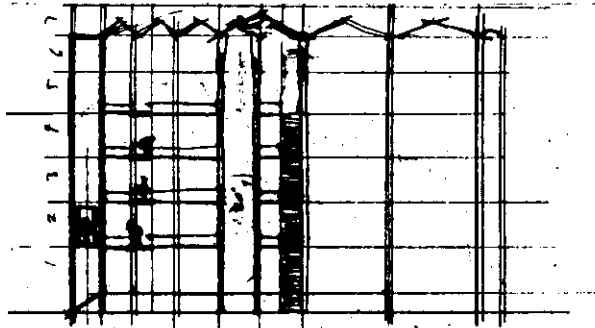
The roof enclosure was very much a part of the concept and thus crucial to successful design development. It had to be considered both from within and without at the same time and with the proper emphasis on the interior.

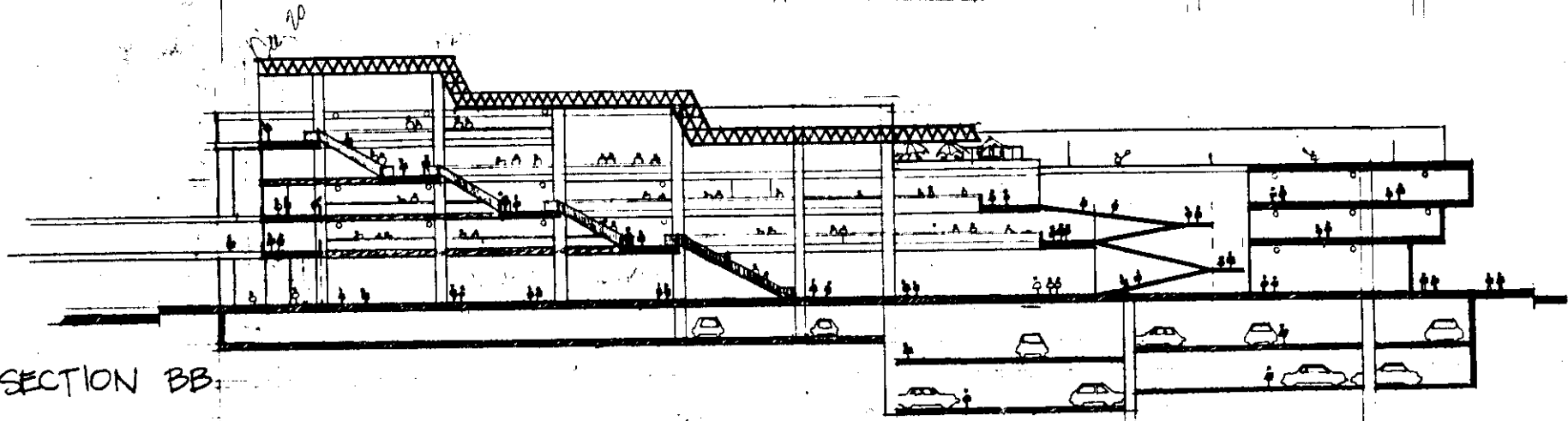
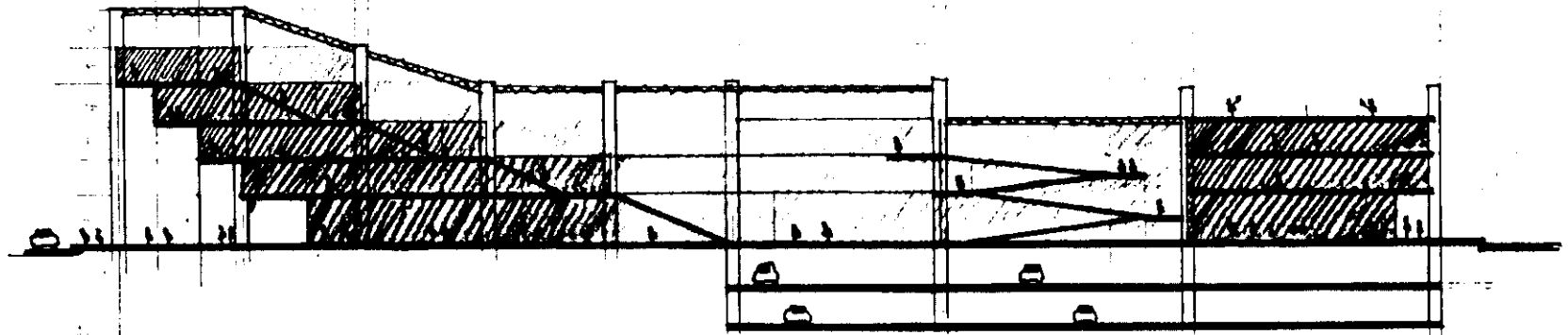
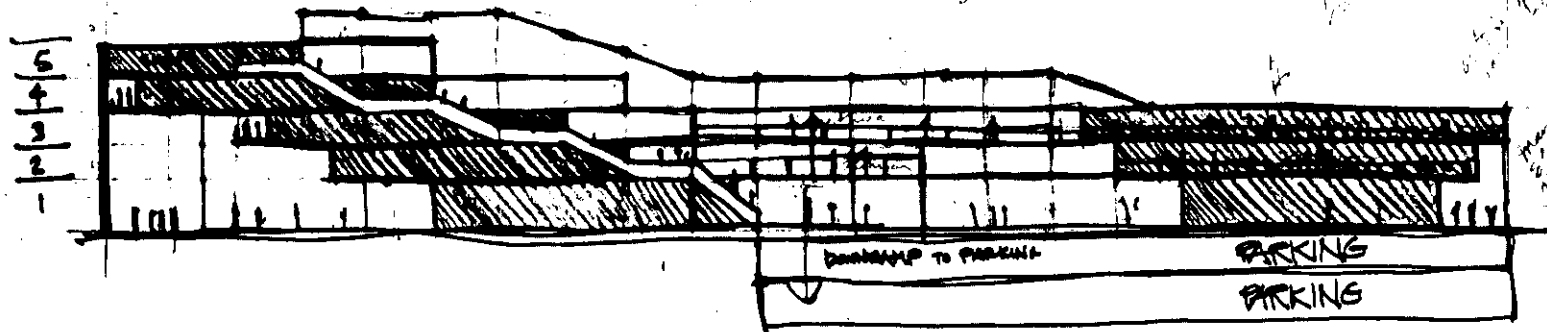
The wall enclosure had both functional and aesthetic requirements that had to be weighted, in making decisions. It was important as the setting for the roof enclosure as it could detract from the impact of the roof as an image generator.

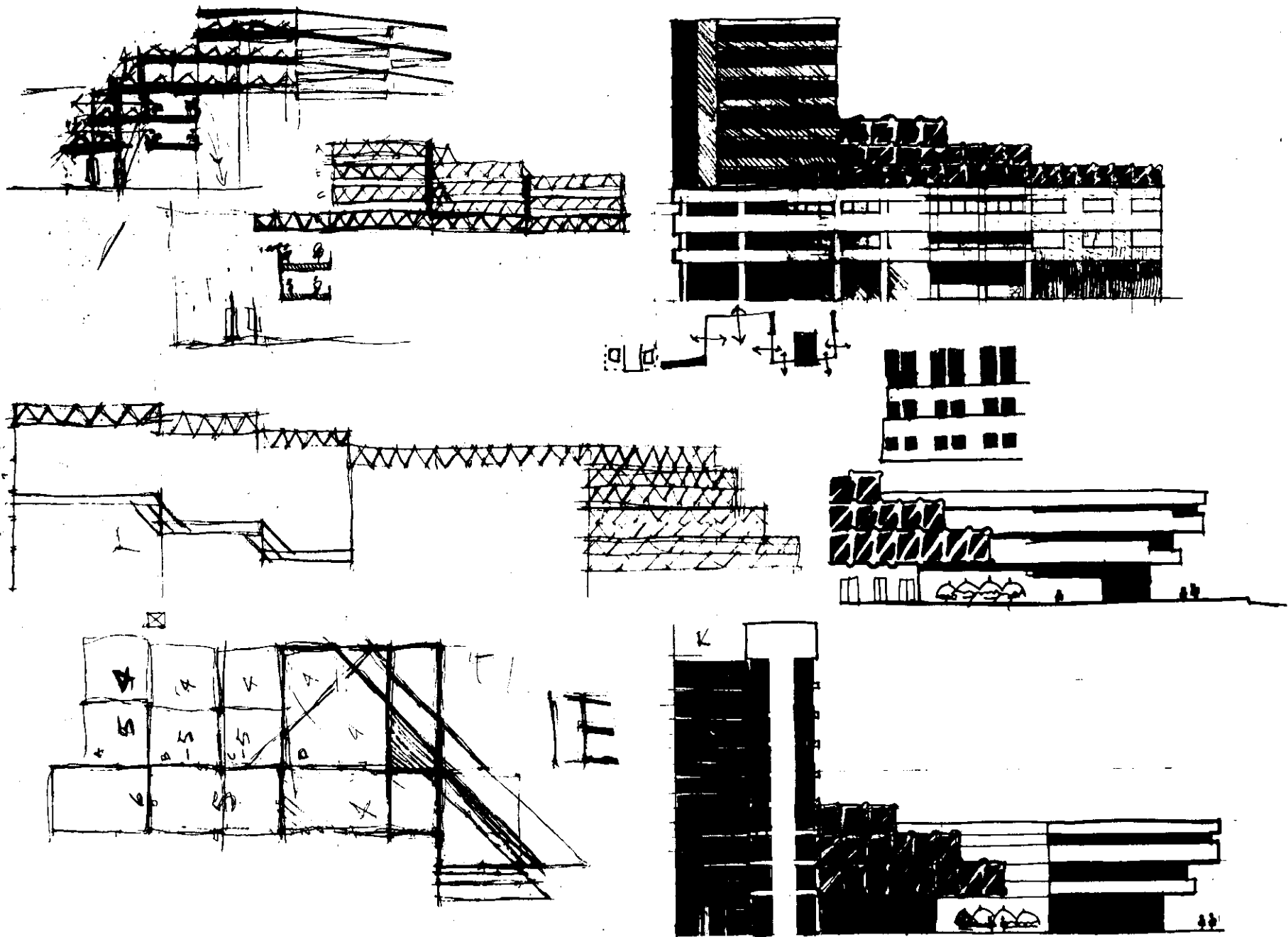
The progress of the enclosure design can be seen in terms of the degree of detail; the suitability with the structural design; the interfaces between roof enclosure and facade; and the actual facade materials and form.

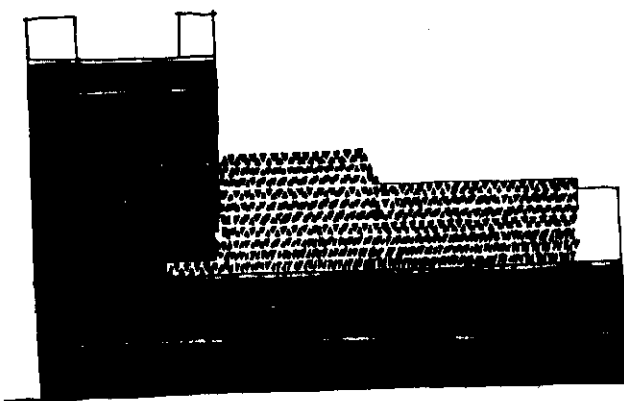
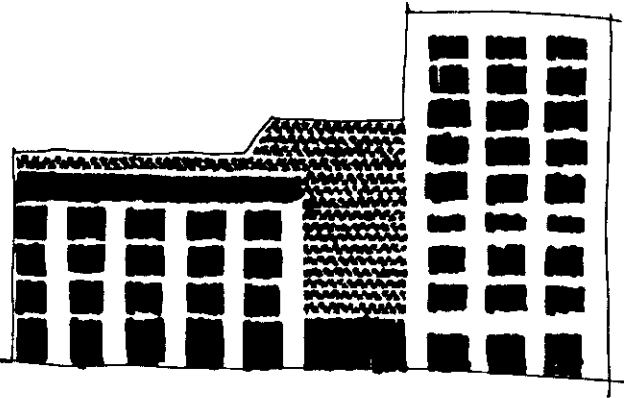
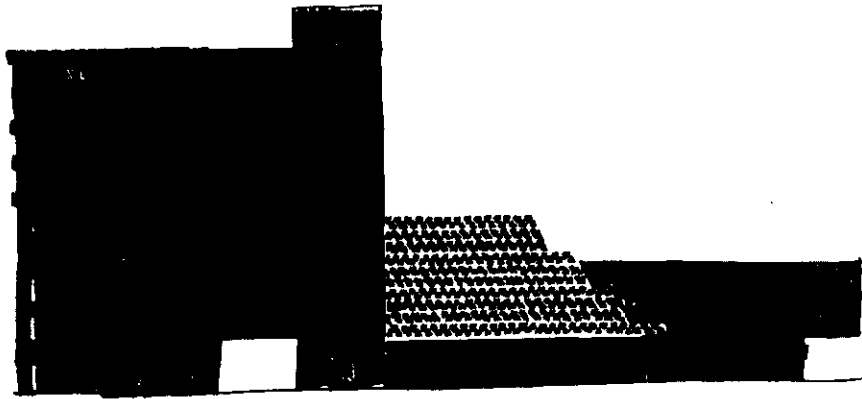
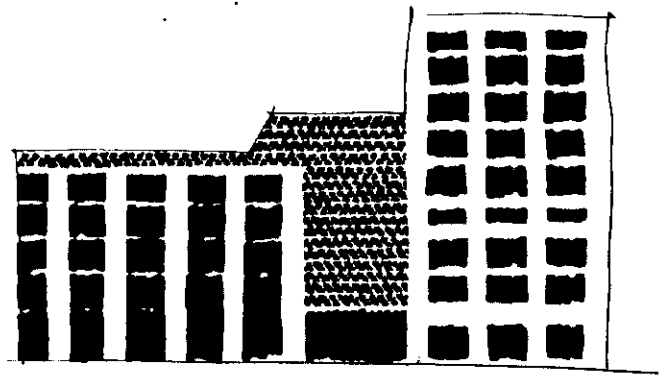
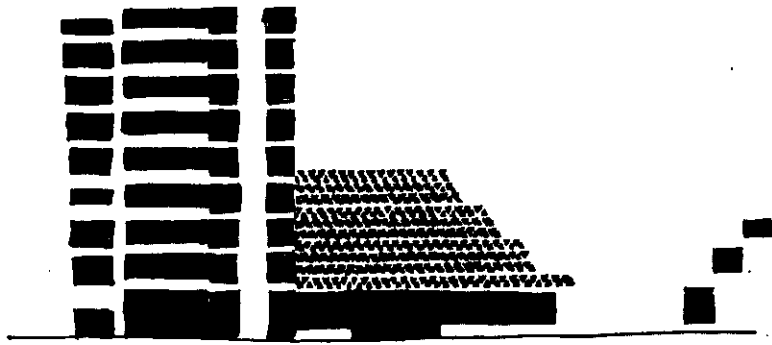
ENCLOSURE











Plans

Site

Level 1

Level 2

Level 3

Level 4

Level 5

Level 6

Level 7 & 8

Sections

East-West

North-South

Detailed

Elevations

North

West

South

Axonometrics

Enclosed

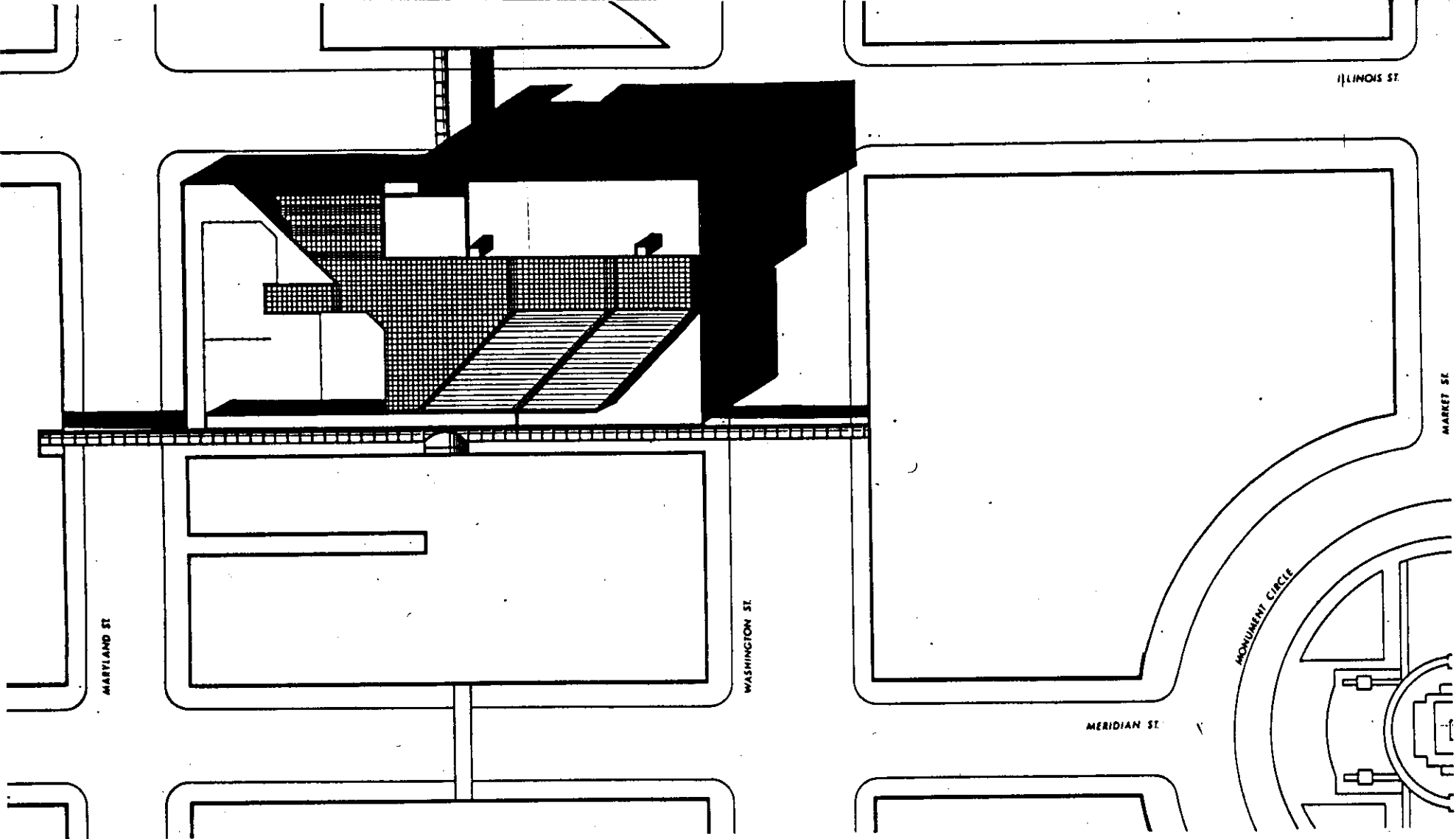
Semi-enclosed

Interior

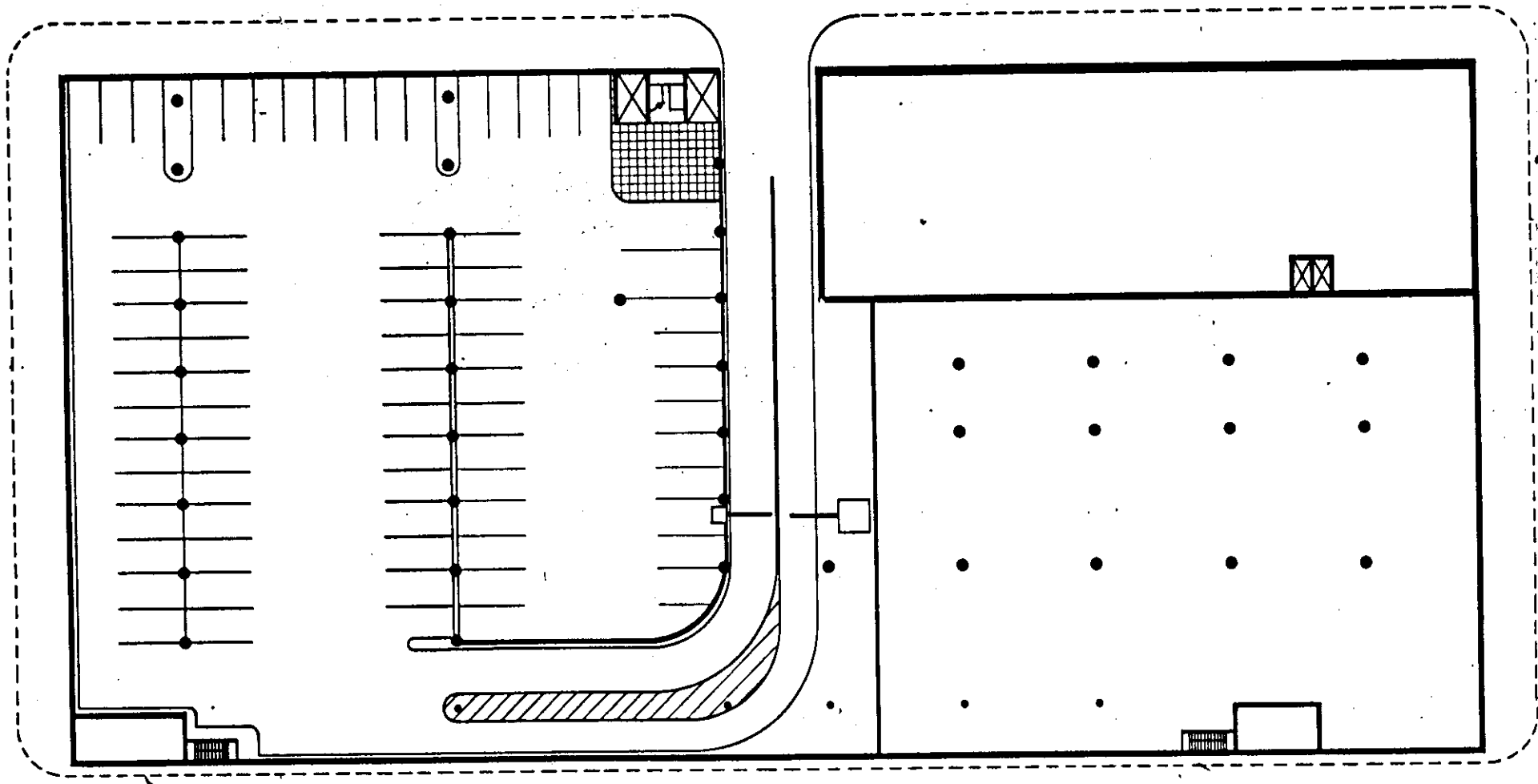
The solution of this project is the presentation of ideas at a greater degree of detail and in a way to best show off the design. The merging of conceptual and functional ideas is complete, as the buildability of the design has been resolved and shown in the drawings.

Being both part of and the result of the design process, the solution is best understood by realizing how and why it is as it is.

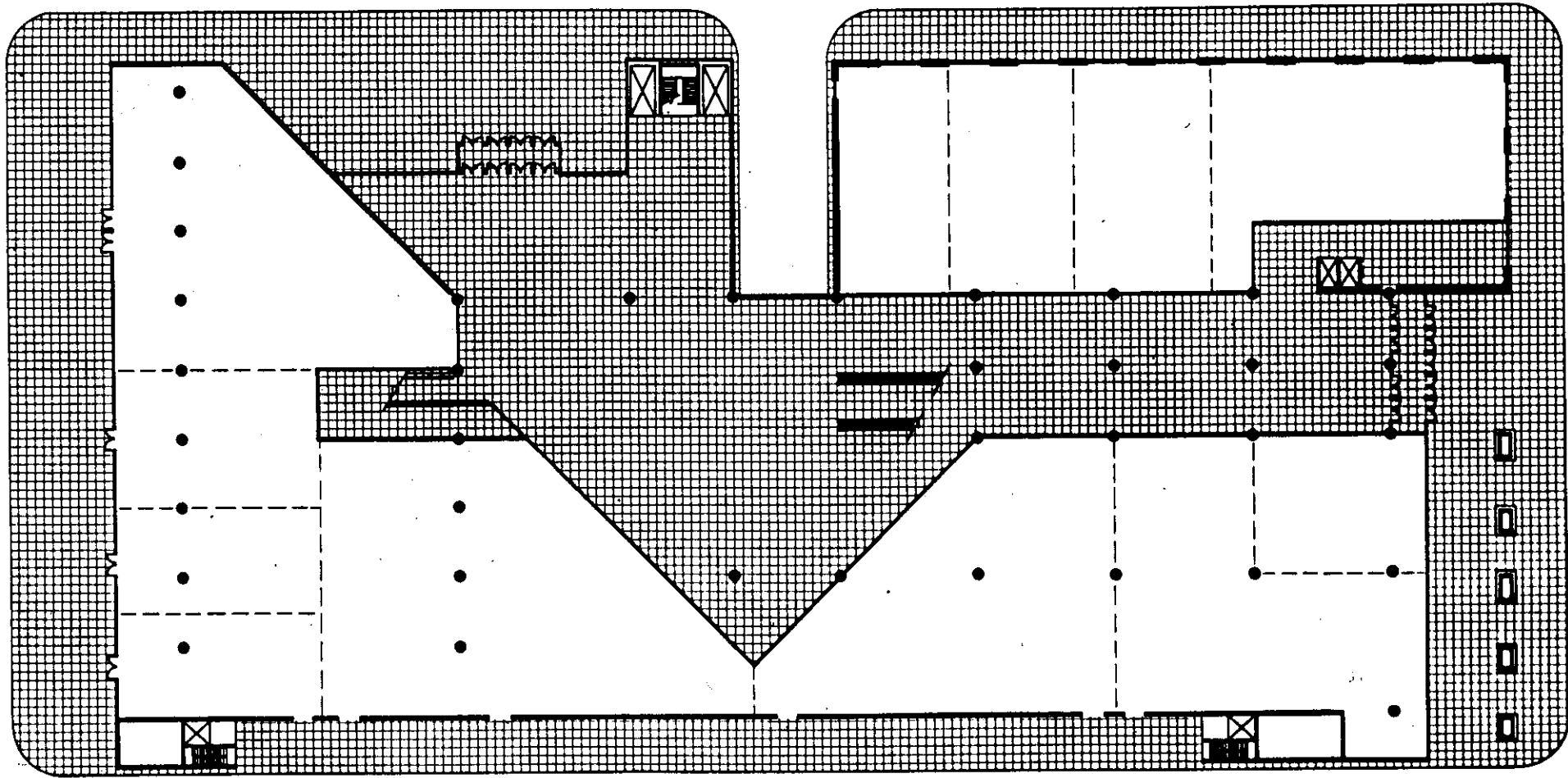
SOLUTIONS



SITE

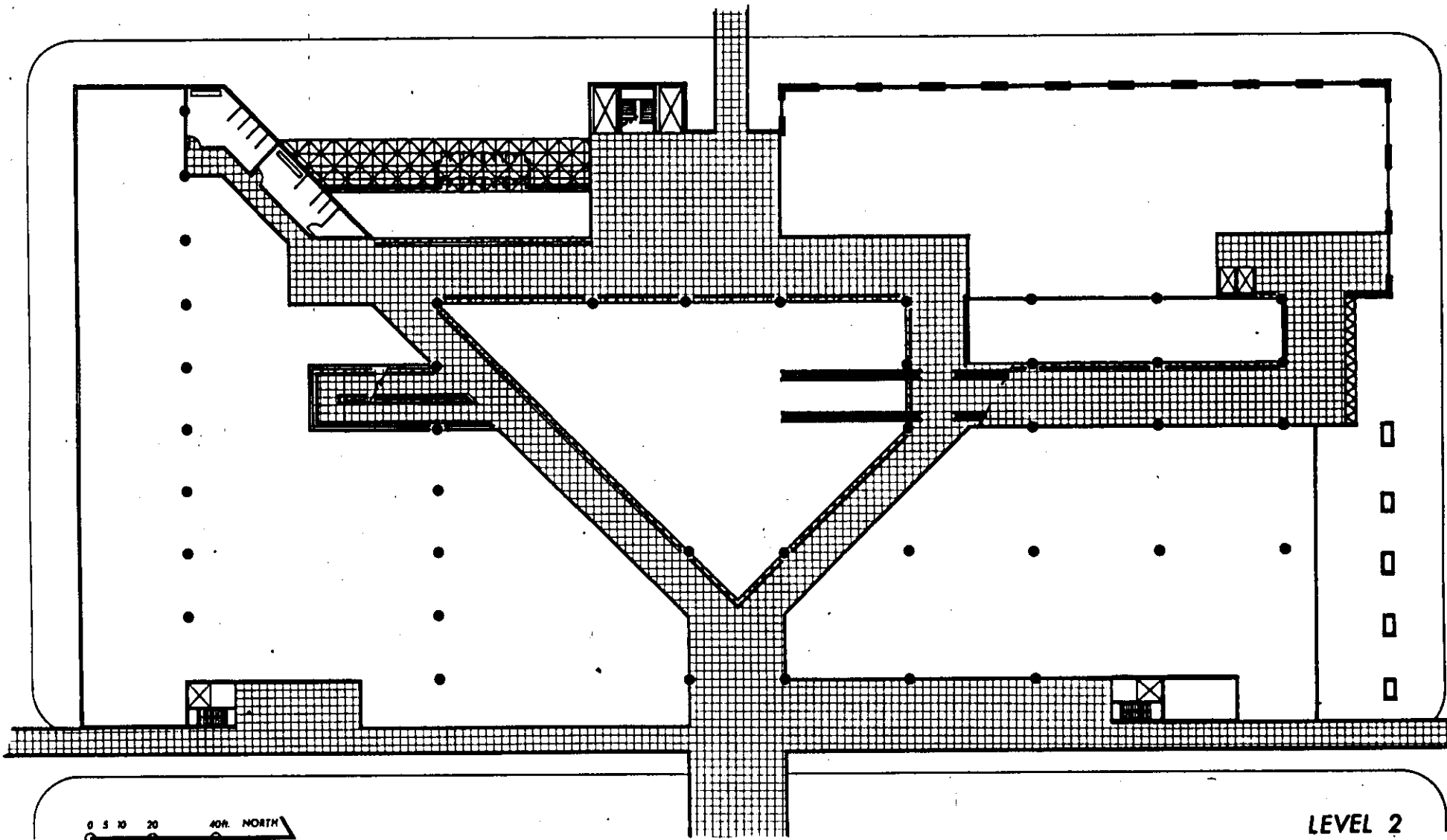


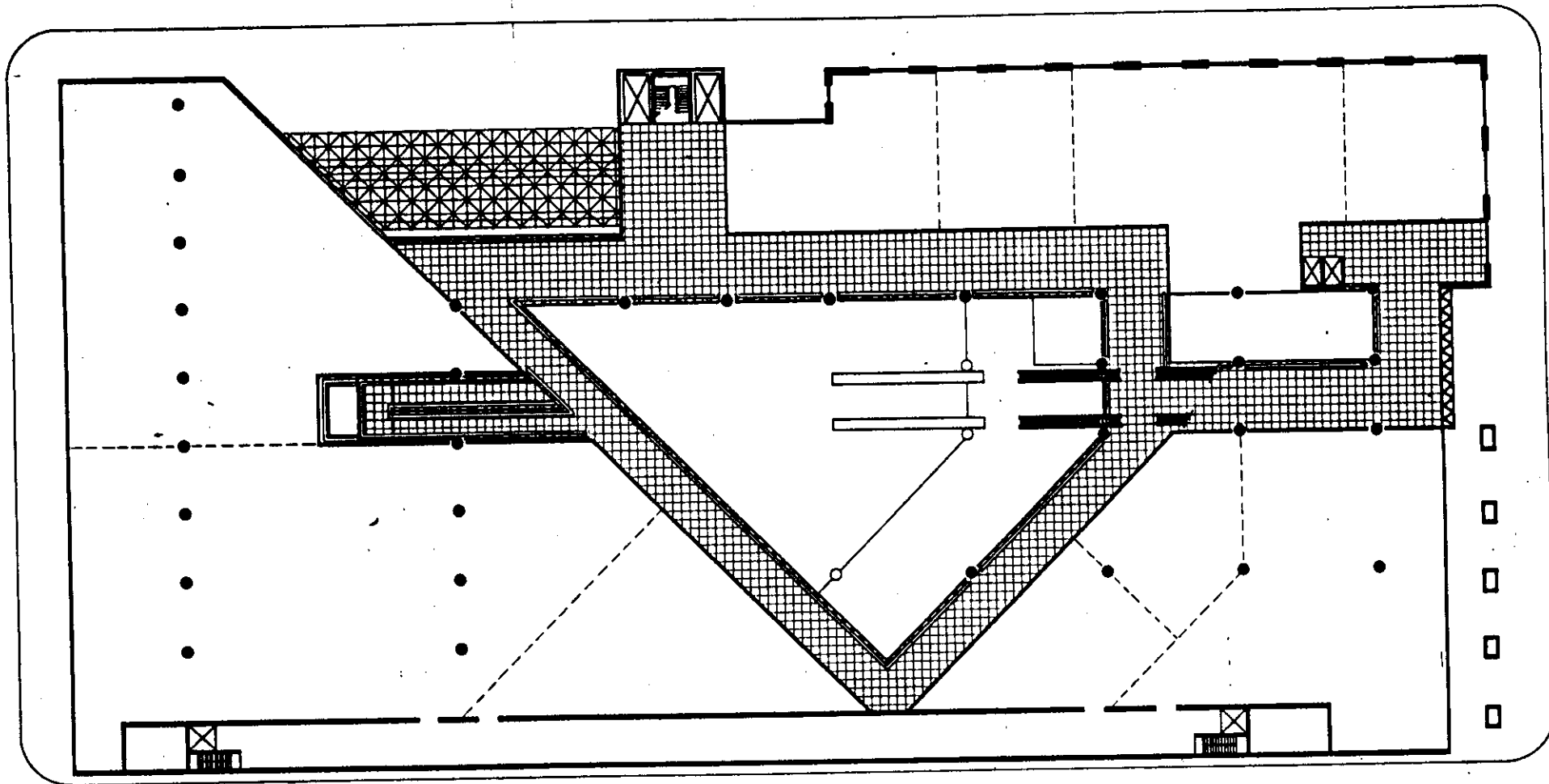
SUBLEVEL 1



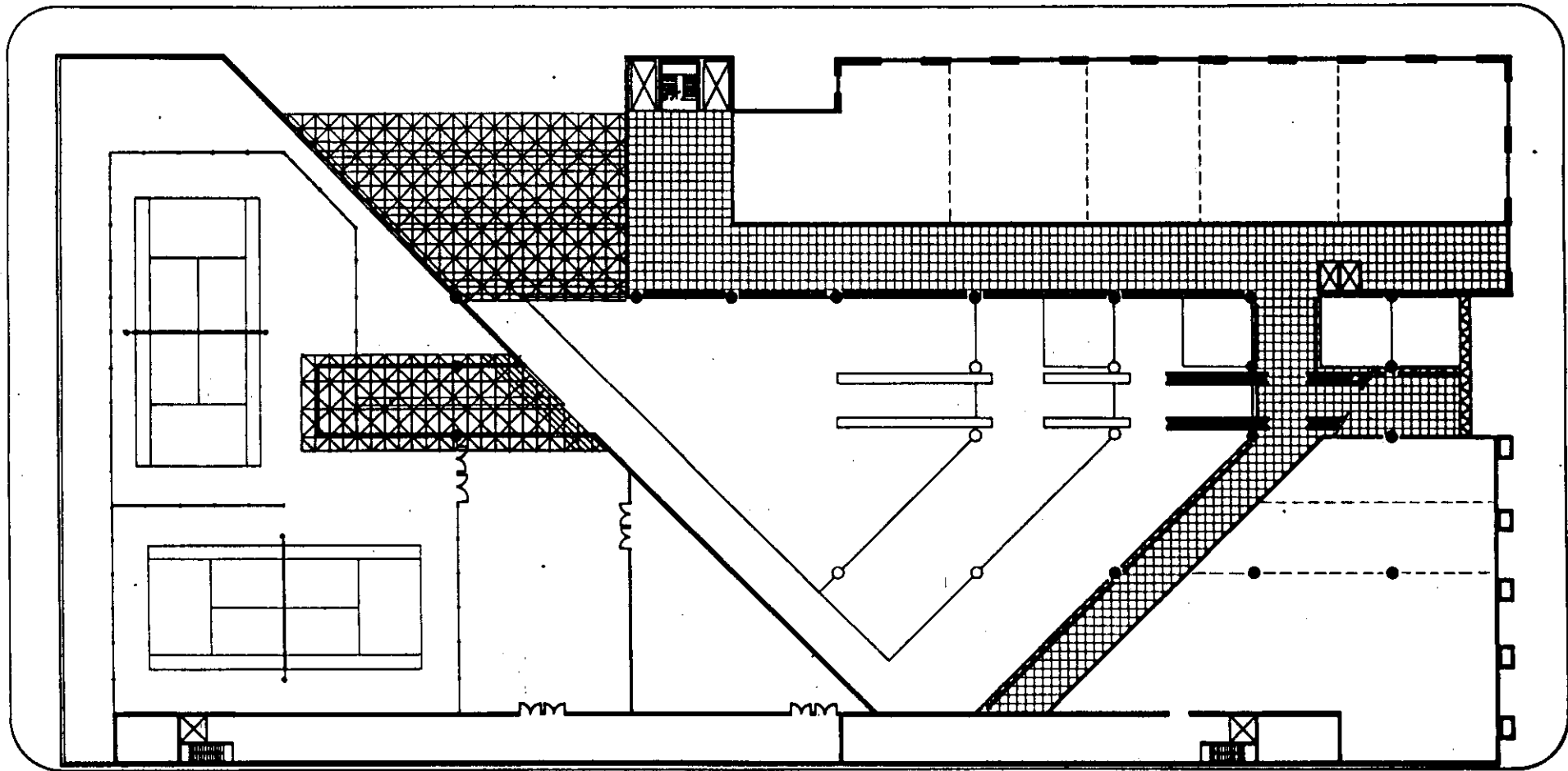
0 5 10 20 40ft. NORTH

LEVEL 1



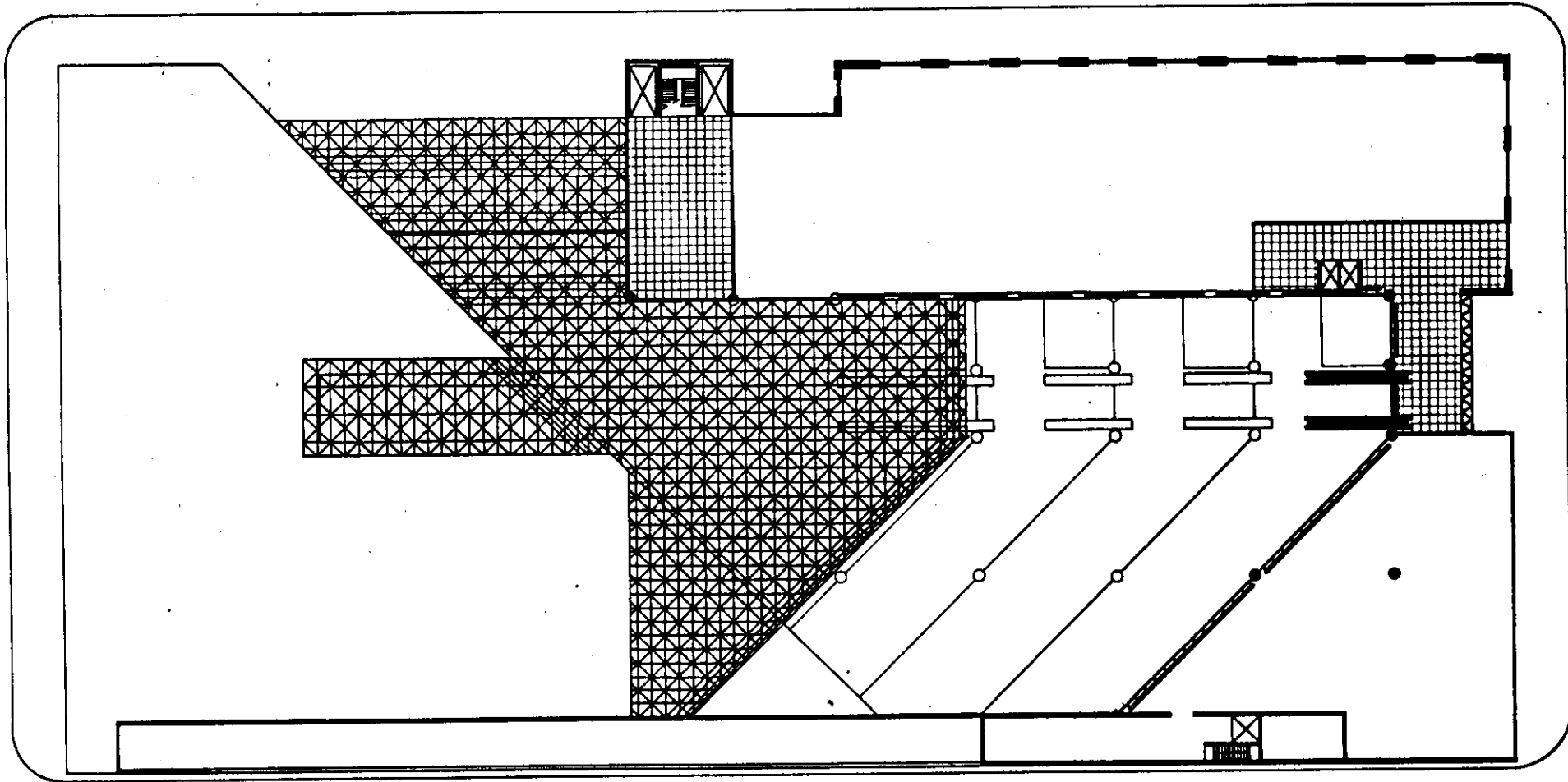


LEVEL 3

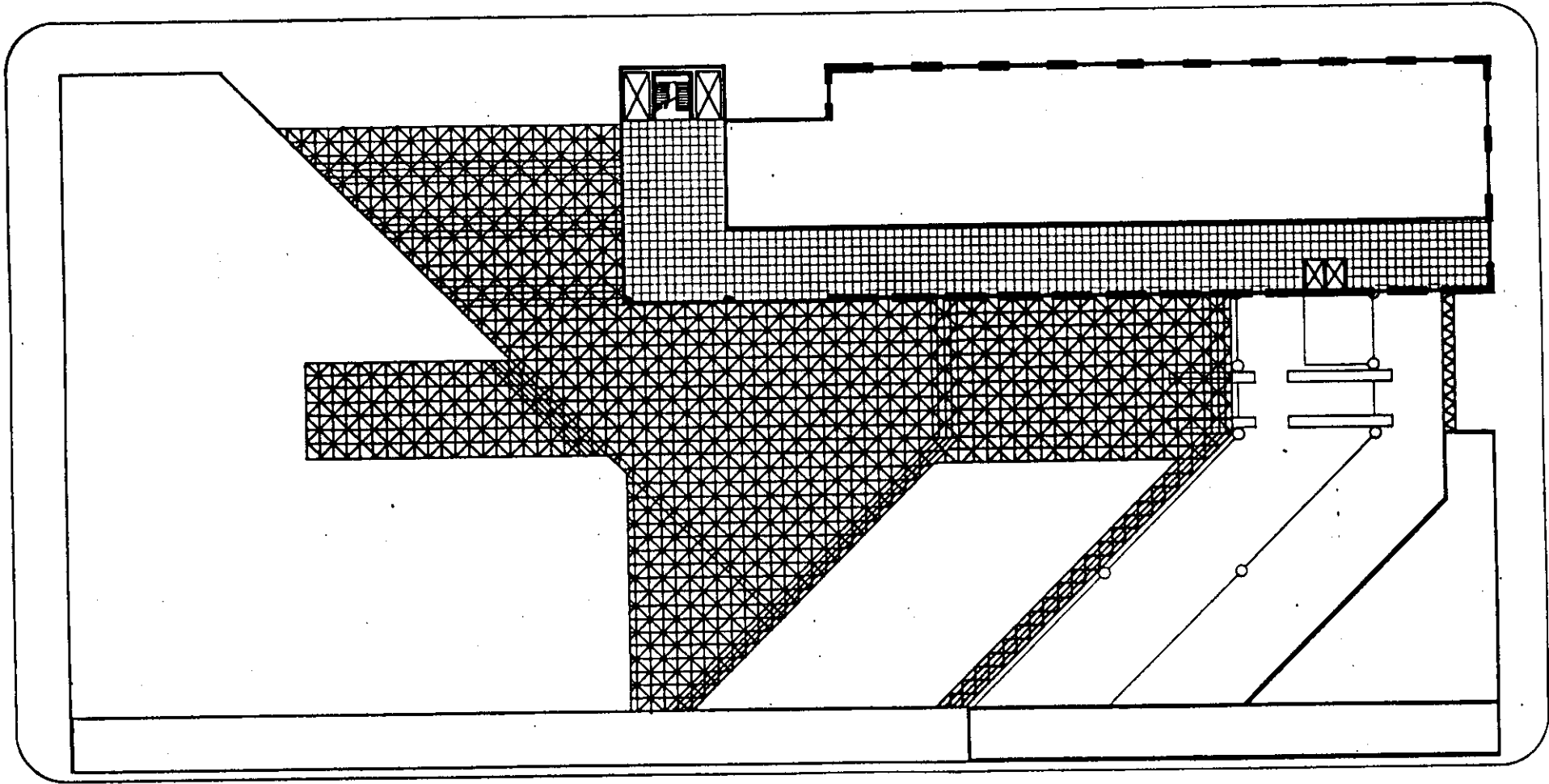


0 5 10 20 40 ft. NORTH

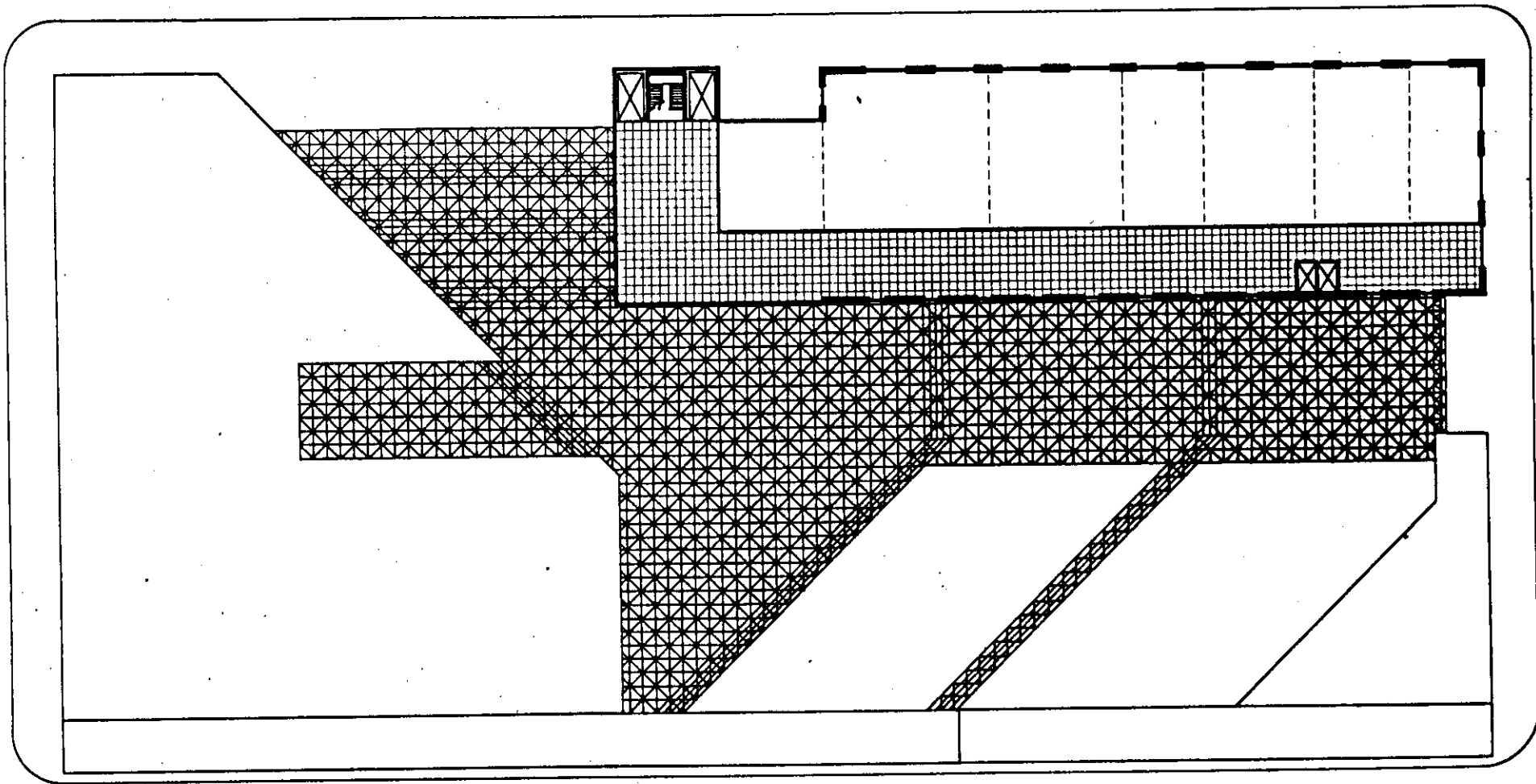
LEVEL 4



LEVEL 5

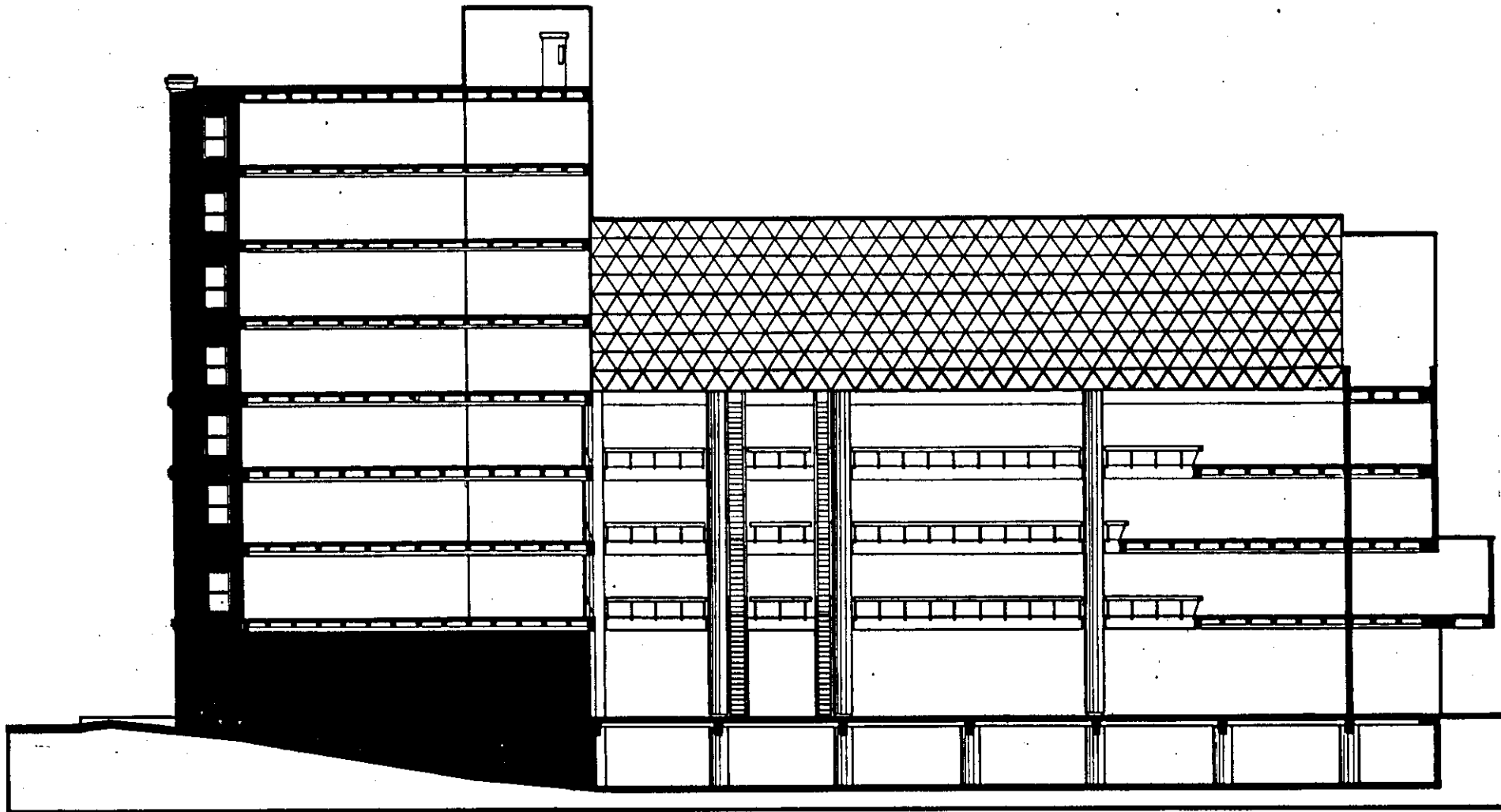


LEVEL 6



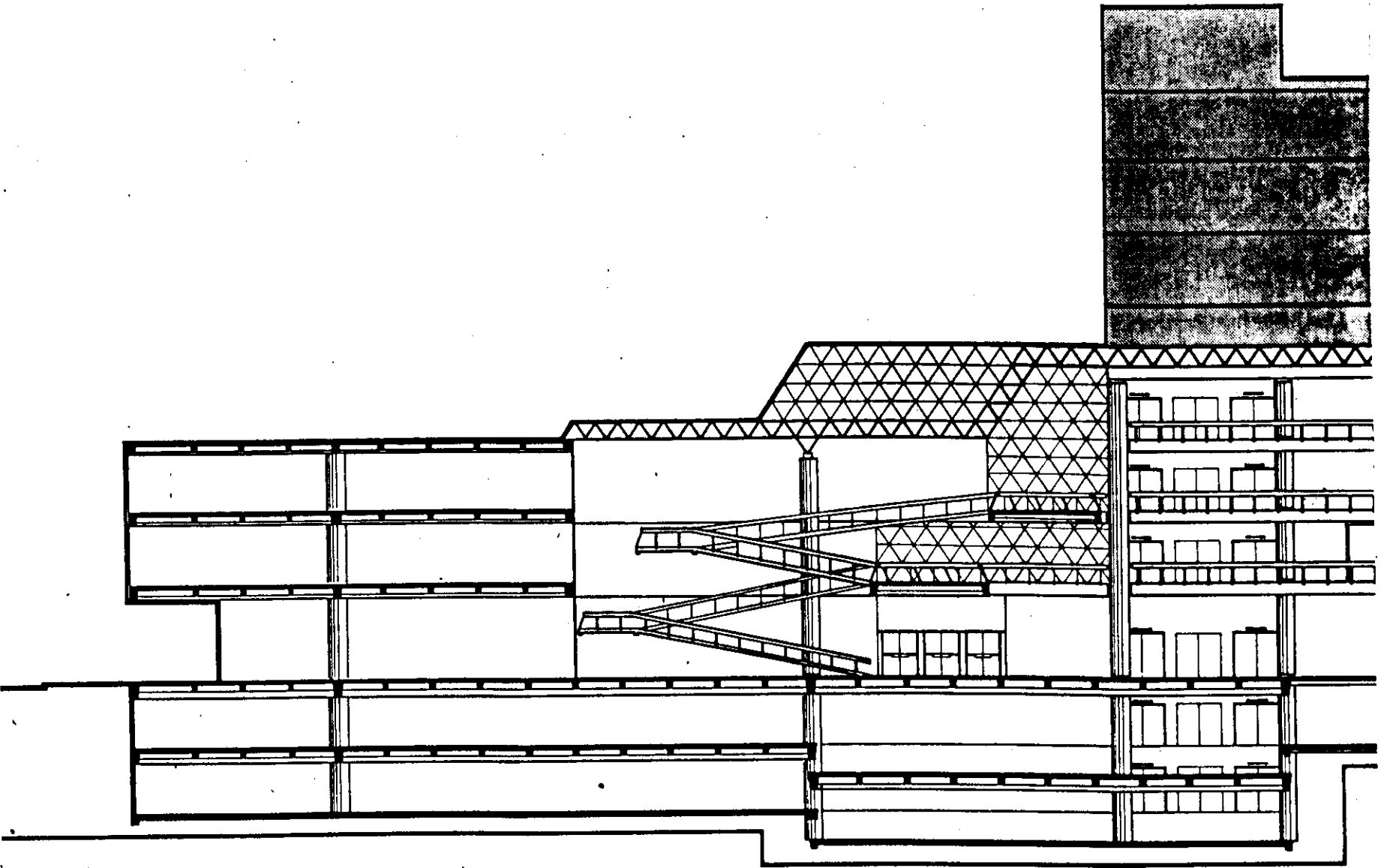
0 5 10 20 40ft. NORTH

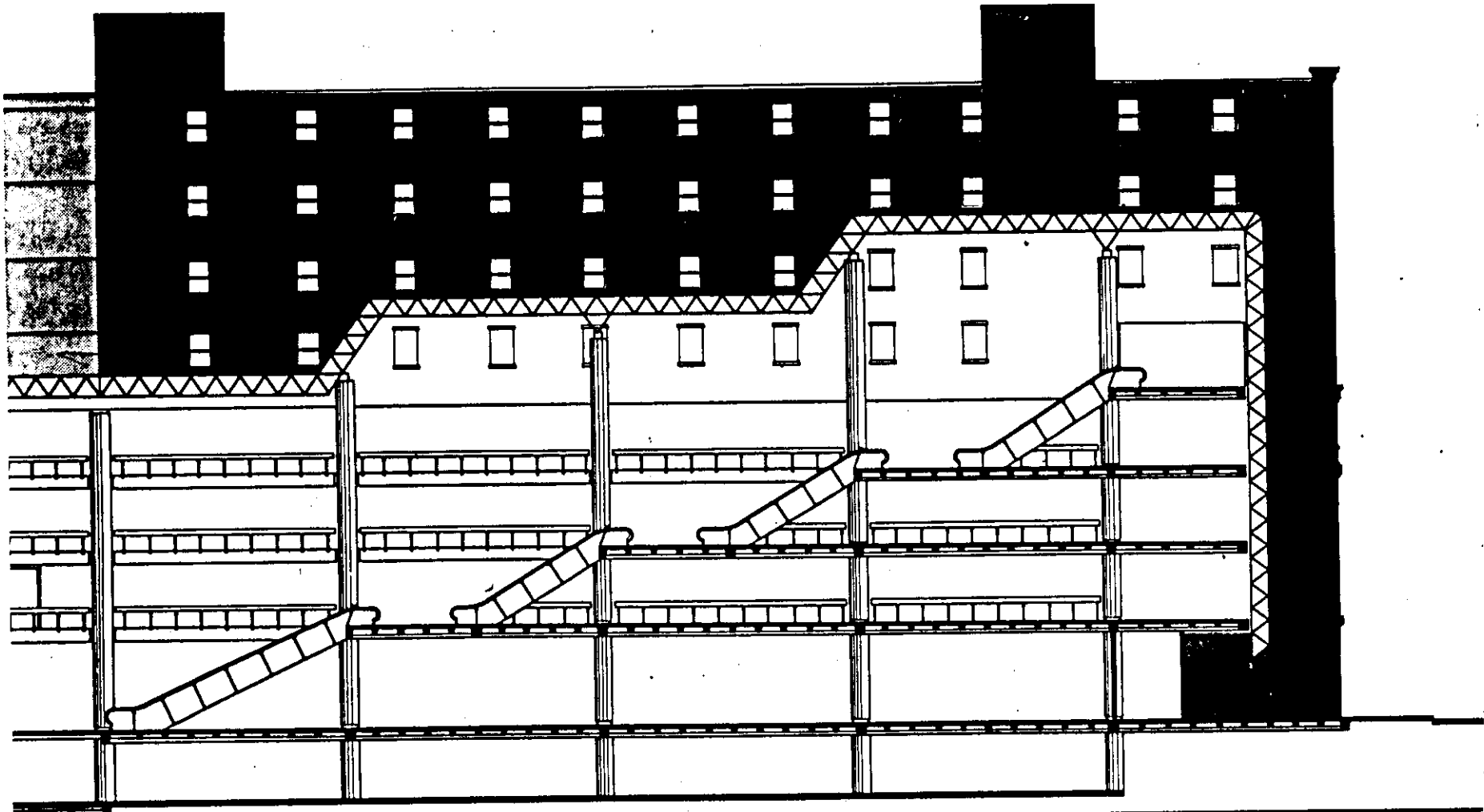
LEVELS 7 & 8



0 2 4 10 20 40 ft.

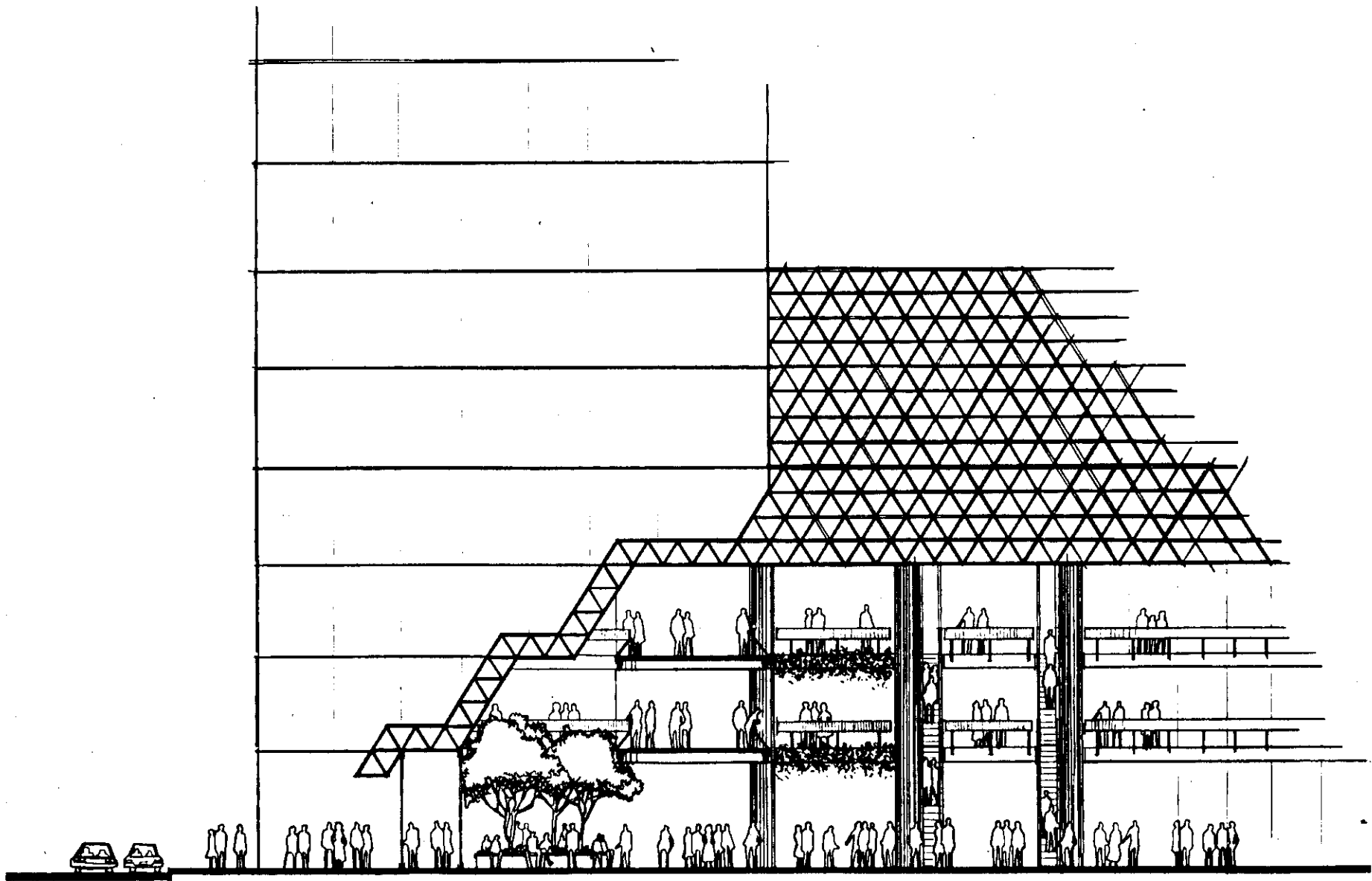
EAST-WEST

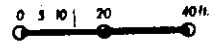
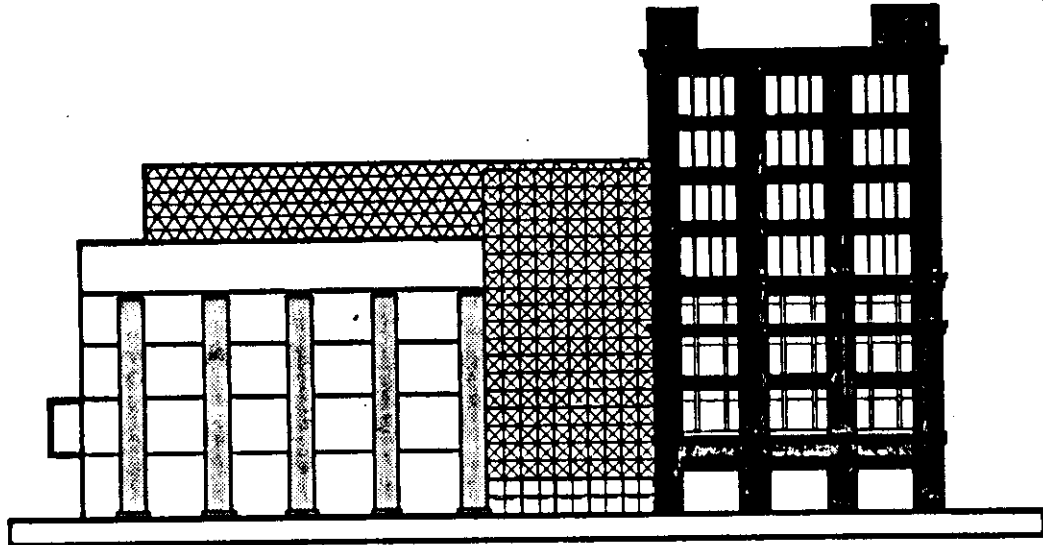




0 24 48

NORTH · SOUTH





NORTH