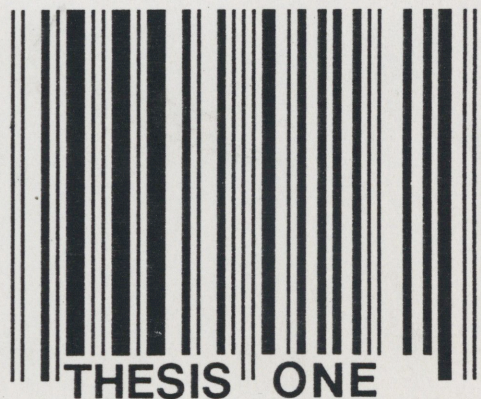


URBAN SUPERMARKET



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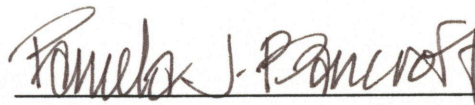
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Urban Supermarket

By Michael Charles Brown

A professional paper submitted in partial fulfillment
of the requirements for the degree of Bachelor of
Architecture

Approved:



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Michael C. Brown 6-1-90
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The use of the Larry's Market name and adaptation of the logo are purly for aesthetic reasons and are not in any way ment to be demeaning or to be used for financial gains.

**This book is dedicated to all those who believe in
a dream . . .**

And to my parents, for all their support in making
my dream come true.

And a special thanks to Jack, the janitor, for all his
supermarket knowledge.

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Preface

For my thesis I have chosen to design a new archetype; the urban supermarket.

The supermarkets we shop in today are mere variations on a theme; large warehouses with a decorated facade and superimposed graphics designating one not so clearly defined department from the other. It is my intention to restructure this theme by rearranging the format and placing it in an urban context.

The scenario I have chosen is that Larry's Market, a progressive supermarket chain based in the Seattle, is interested in developing this concept for an urban supermarket. It has been suggested that I use their existing format, which consists of many deli features, and use this as a basis for my design. The client also feels that using Seattle as the targeted area, with its growing popularity, would be a perfect place to test this prototype.

The book format is such that the first section deals with the requirements of an urban supermarket. The second section, design supplement, is a visual presentation of how these requirements have been used in creating a design solution.

I have recently become aware of the need to provide food stores for the increasing number of people who are returning to the downtown areas to take up residency. The small corner grocery store is no longer adequate for the hundreds of people now living in high-rise apartment complexes. It is my hope that this thesis project will begin to show what can be done to solve this need.

MICHAEL CHARLES BROWN

Introduction to the project

The food retailing industry plays a vital role in the economy of the United States. In a very real sense, the story of the supermarket is the story of America. The supermarket tells the story of the pioneering spirit and the endless availability of goods and services which are the foundation that this country has built itself upon.

"Supermarket institute originally defined a supermarket as a food outlet selling groceries on a self-service basis and doing a minimum volume of \$250,000 annually." ¹ In 1951 this figure was raised to \$500,000 annually and was increased year after year. Now, today's stores sell this volume in one week.

The definition of the store in this project, the urban supermarket, deviates from the standard considerably. One might say its a typical supermarket, only different. What makes it different is the preconceived idea regarding its format; it is going to be vertical and consist of 6 to 8 floors. This is in contrast to the common perception of the standard supermarket being oriented horizontally and having only one floor.

The reasoning for the vertical format is two-fold. First, the need for verticality is dictated by the high land prices found in the urban setting. Second, it is hoped that this vertical format will be efficient and interesting enough to customers that they will return to the store, which in the long run will be profitable for the client.

Purpose

The main objective of this project is to meet the needs of those living and working in the urban setting. In downtown areas there are no large supermarket formats in which consumers can do their shopping. And it is this reason that an urban supermarket prototype should be implemented.

Mental limitations created by the misconception that we can't be too different are the retailer's worst enemy.

Gerald Lewis

Another aspect of the supermarket is the proposal of a deli section. The purpose of the deli is to meet the need of the working public and to provide an other point of attraction to the customer.

Another objective of this project, and this programming book, is to create a prototype for the urban supermarket. Being that the following information is generic in a sense, it would be possible to use this research in designing other urban supermarkets.

Process

In the past, supermarkets have maintained a certain vernacular, if you will. This vernacular is perceived as a large, windowless building imposed upon a sea of parked cars in which shoppers navigate about, entering and exiting from a centrally located opening. Though this is all too familiar, there is also a part of the supermarket vernacular we as shoppers do not see; that of the loading docks and food storage areas. These too have a particular image that must be addressed.

In this project, the supermarket vernacular will be emphasized. To achieve this, I plan to make three studies; each in abstract model form with an accompanying 20 x 20 inch board. This format is quite similar to that taught by professor Clark Llewellyn in his design studio classes.

In the first study, I would like to explore the aspects of "supermarket vernacular" and the symbolism herein. The second study will be an exploration of the specific urban context and its cultural relevance. The final study will then be used to combine the ideas and forms from the previous two studies and will at the same time begin to introduce function into the composition. The next step after completing these three studies will be to introduce the composition into the site and begin developing the form, culminating into a final solution for a working building.

It is my intent by doing these studies to clearly define the appropriate character which this building should express. By doing this early in the project, more time can be spent after developing the building under these self-proclaimed restraints.

[the pervious information on the approach taken for this project was taken from a ARCH 421 Theory paper written by the author and can be found in its entirety in appendix A.]

Goals

The following goal statements are used to point out the main objectives of this project.

- ☐ To develop a distinct consumer and corporate image by emphasizing a store atmosphere which invites the customers back.
- ☐ To provide a service to the "fast-food" needs of the working public.
- ☐ To service the food needs of those living in the downtown areas.
- ☐ To establish a precedent for future urban supermarkets and food retailing in general.

Let's not have change for the sake of change. Unwise. Change, even for the sake of change, is bound to produce constant progress, even when some of the changes are unnecessary or even erroneous.

Robert Chisholm

Endnotes for introduction:

1. Edward Brand, Dr., Modern Supermarket Operation, (New York: Fairchild Publications, Inc.)
p. 3

Supermarket Facts

History of Supermarkets

If the '80's brought an information explosion - with the power and chaos the term implies - then the '90's hold the promise of harnessing that information to make supermarketing more responsive to consumers.

Warren Thayer

Present

The supermarkets we shop in today are mere variations on a theme ; a "cookie-cutter approach to food retailing" 1 if you will.

"Supermarkets have come to have a sameness in appearance which makes distinction by shoppers difficult if not impossible. There is so little difference in design, fixtures, layout, decor, etc., that customers can hardly tell which store they are shopping." 2

The only apparent distinction in the design of supermarkets today is that they just seem to get bigger and bigger.

"Currently, the most significant retailing trend is the increasing dominance of the super warehouse store. Its impact is being felt most by conventional supermarkets, causing them to define more clearly the needs they serve." 3

Though the super warehouse format and its low prices dominated the 1980's, the emergence of the hypermarket and its even larger square footage (200,000 +) took most of the glory in the bigger is better war. Even so, hypermarkets seem only to be living up to their name - pure hype.

"As the industry looks to the '90s, the enthusiasm for bigger is getting smaller. Store size has apparently been a strong deterrent to customers, and the huge sales volume necessary to generate a profit have been slow to develop." 4

Another trend in the world of food retailing is the increase in the remodeling and expanding of older stores to meet the changing needs of today's society.

"Twice as many supermarkets were remodeled in 1985, as compared to 1984, according to a report by the Food Marketing Institute in Washington, D.C. This emphasis on design in the industry indicates that, although customers are still primarily price-motivated, convenience, selection and fun are becoming more important to the grocery trade. Supermarkets are acquiring an upscale appearance and are beginning to look more like their counterparts in the retail industry. Also, many remodeling designs are abandoning

traditional vertical aisle, grid designs for more innovative and visually pleasing layouts." 5

Though successful remodeling has taken place, it seems that the supermarket formats of yesteryear are constraining the technological advancements of today and even the future.

Past

To understand the supermarkets of today and the future, we must first take a look at the past. Being that this country was founded mostly by the hard working farmer, there was not much need for supermarkets in the early days. It wasn't until the late 1800's that food retailing would become a profitable business.

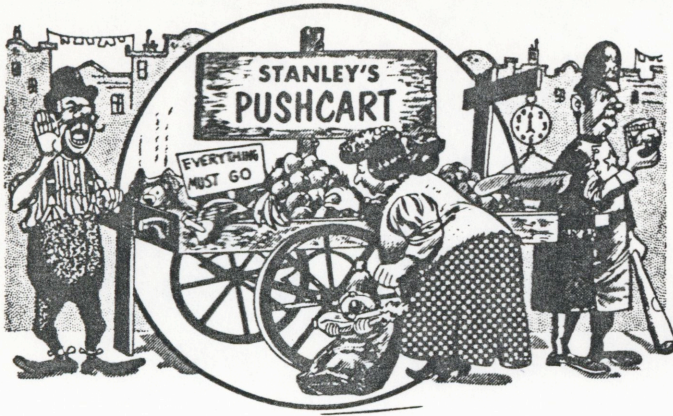
"It all began in 1876 when a skinny, sixteen-year-old boy, thoroughly fed up with life as a hired farm hand, applied for a door-to-door salesman's job with a Cincinnati retailer called The Great Northern and Pacific Tea Co. Barney got the job and armed with coffee, tea, and premiums fearfully set forth. He walked a mile and a half before he could summon enough courage to knock on a door." 6

This skinny boy was Barney Kroger, the founder of one of the largest supermarket chains in the country today.

"Little things often control great destinies, and this may have well been the case of Barney and The Kroger Co. He sold one pound of coffee to the first woman he called on. And a block and a half later, he made his second sale. . ." 7

And the rest they say, is history.

Another interpretation of the history of the supermarket, though more on the satirical side, is the following excerpt from a 1958 Mad Magazine. 8



In the beginning, man purchased meats, fruits, vegetables, and all the other things he needed to live by means of

PUSHCARTS

But man is creative and must progress, so he gathered up some "Pushcarts" under one roof, and called it a "Store."

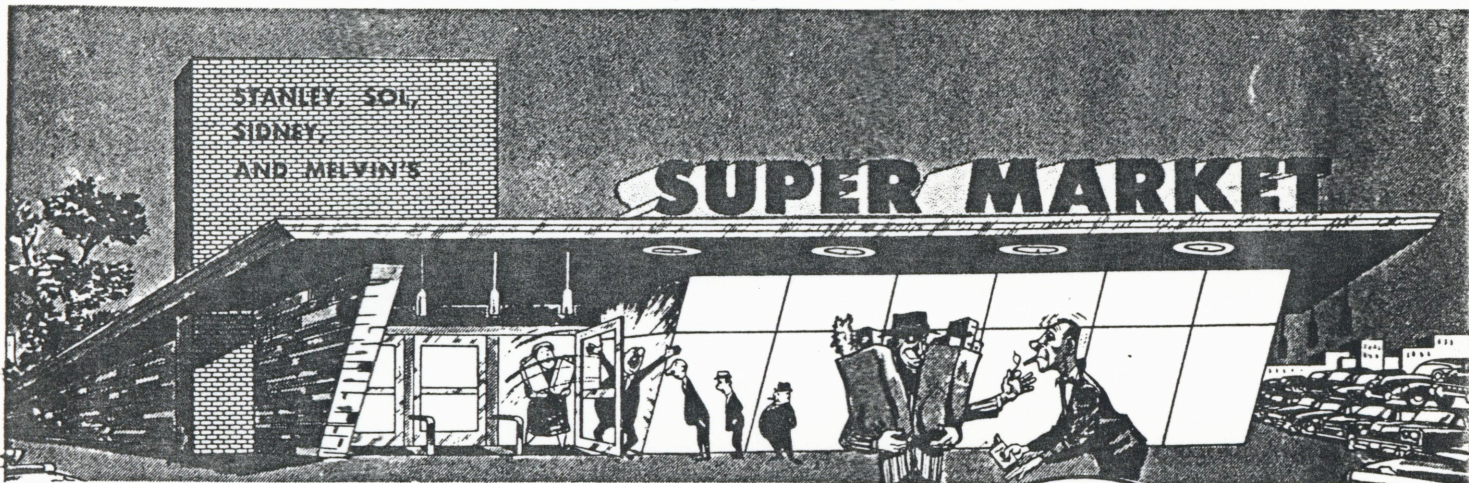


Then man progressed even further. He gathered up some of these "Stores" under one roof, and called it a "Market."



And still man wasn't satisfied. So he gathered up some of these "Markets" under one big roof, equipped the monster with glass-and-chrome, scientifically-calculated displays,

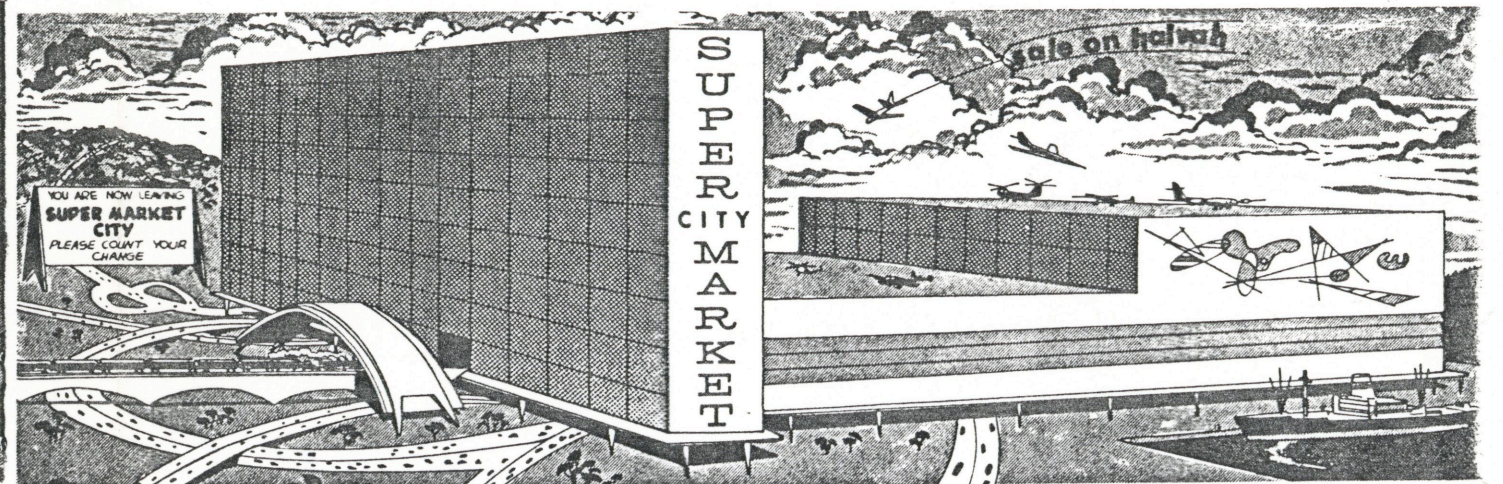
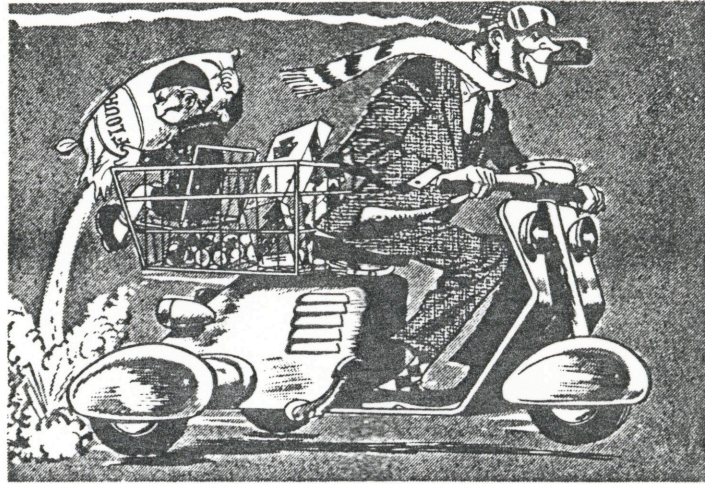
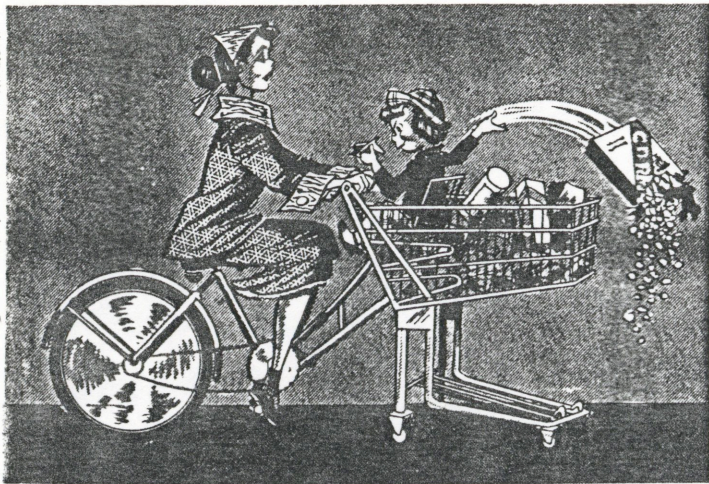
electric-eye door-openers, conveyor belts, cash registers that add, divide and subtract your money, surrounded the place with a parking lot, and called it a "Super Market."



So that, today, through progress and imagination, man still buys all the things he needs to live by means of

PUSHCARTS





But man's creative genius and desire to progress won't stop there. "Pushcarts" will develop into "Cyclecarts" . . .

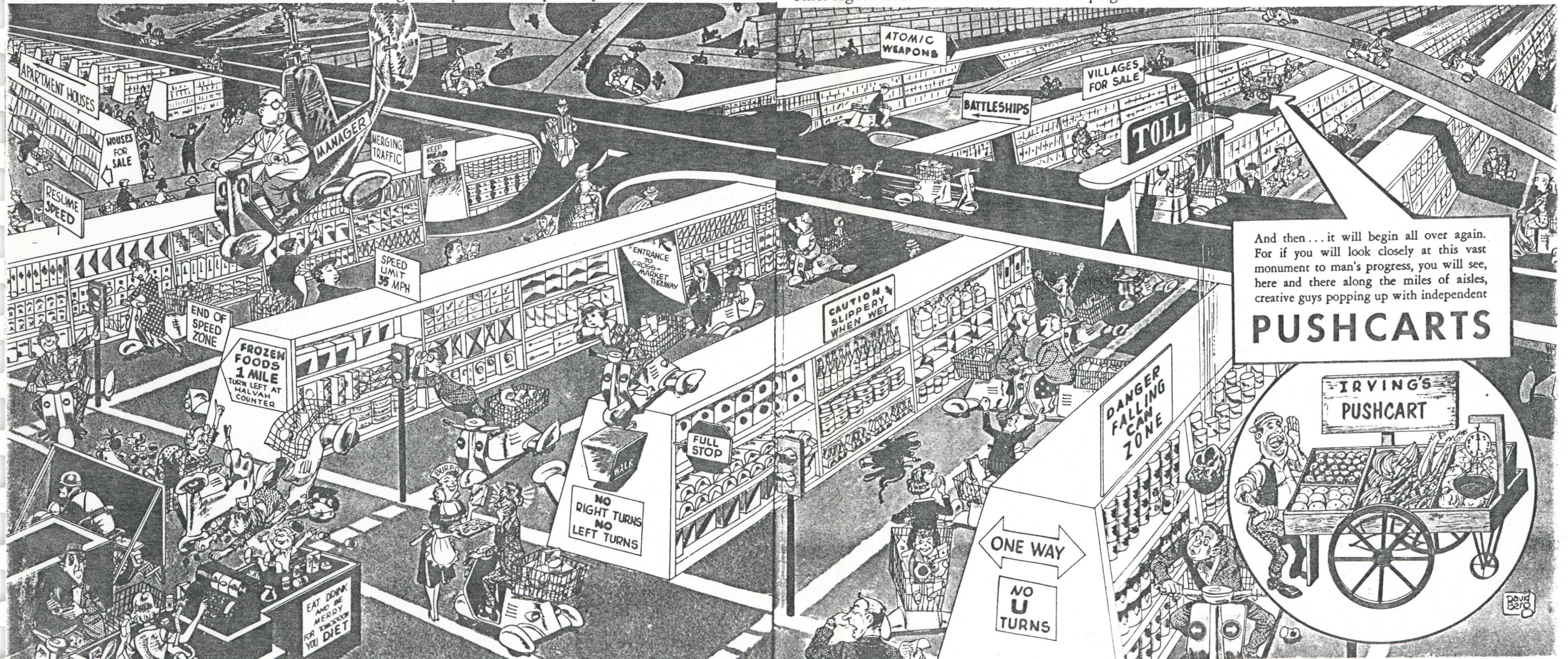
And eventually, man's inventiveness will finally develop the ultimate in shopping convenience . . . the "Motorcart."

This great step, this added mobility to man's purchasing power will open up vast new horizons of progress. "Super-Markets" will spread out over huge tracts of land. They will grow so large, they'll become cities in themselves.

Their aisles will stretch for miles, like super highways, signals, speed limits, police patrol units, and all the

with clover-leaf intersections, full-stop signs, traffic other regulations modern motorists are now plagued with.

Don't cross your bridges if you can beat the toll by going around.



Though the humor in this is quite obvious, it is hard to overlook the visionary qualities of this pictorial. One must wonder if this 'supermarket city' is not viewed the same as the hypermarkets and super warehouse formats of today.

"However, studies of food shopping patterns show that many super warehouse customers do not patronize these mammoth stores for all of their supermarket needs. They go to easier-to-shop, more convenient markets (with more complete assortments of items and sizes) for their fill-in and specialty needs." 9

Have we seen the trend of the superstores run its course?

Future

Though no one really knows what the future brings, many people have made their predictions and the supermarket industry has seen its fair share. Jennifer Cross wrote in 1970 about

"...the automat... where the customer either drives her car or walks onto a moving ramp, is conveyed decorously through the whole store, selects her groceries by viewing samples displayed in lighted wall panels... and chooses her meat and produce via closed-circuit TV." 10

Cross also writes about an other format,

"the teleshop, where each family orders from home via closed-circuit TV, and their groceries are delivered in person, or via some (admittedly science fiction) system of pneumatic tubes." 11

Though the pneumatic tubes are far from existence, a variation of this format is being used today with computers. This format suffers from the same problems as did the small corner grocery store with its phone ordering and delivery system. People complain about the freshness of the produce, extra labor cost to the grocer, etc. This format also deprives the consumer of the sheer enjoyment of shopping and public interaction.

In his book, The Darlings, Robert F. Chisholm looked more closely at events and advancements that would change the supermarket industry. The following are a few of the predictions he made in 1970. [categorized by the author]

Predictions that have come to be:

Optical scanning of cash registers will read codes on products and record product movement. This will prove useful for inventory control at retailer and supplier level.

Computers will link stores, distribution centres, and manufacturing plants quickly and efficiently, and aid in dealing with the overstock bugaboo and stockouts, the costliest waste in marketing.

Sharp changes in manners and morals will be reflected in the merchandising of personal products and contraception products.

Sophisticated, softly-lighted supermarkets, with brightly-lighted merchandise assortments, more like department stores, will be the order of the day.

Predictions that are coming to be:

Check-chasing and credit problems will become a thing of the past; no cash will change hands.

Gourmet foods, more broadly based than in the past, will be hugely increased.

Shopping will be by closed-circuit TV. [computers]

The trend towards away-from-home eating will lead to the supermarket becoming partially a take-out food operation.

Vertical shopping centres will be dictated by the high cost of land.

Predictions yet to be seen:

Edible bottles and other containers will be perfected to obviate the predicted new "glacier age," in which the earth will be covered with a layer of undisposable tin and glass.

There will be a vast proliferation of packaged, ready-to-eat foods with a built-in, chemical-heater component.

There will be more armchair shopping, with the store or the merchandise revolving around the customer.

A real cure for the buggy headache will be practically guaranteed by the year 2000.

The purpose of these predictions is not to see into the future, but rather to help us understand where we are (and where we are not) today in the realm of food retailing. When designing a new prototype, it is important to understand what we are not, (yet to be seen), where we stand today, (come to be) and most importantly, what novel ideas are becoming viable solutions to past problems. With this knowledge, making decisions about the future will become much easier.

Summary

The supermarket industry is an evolutionary process. It began with trading companys and door to door delivery (and pushcarts) which slowly emerged into the super warehouses and hypermarkets of today. But what does the future hold? Will the bigger the better trend subside in hopes that the human will be reintroduced back into the marketplace? Or will we find ourselves making purchases by computers and be totally void of the shopping experience? Only time will tell.

Endnotes for History of Supermarkets:

1. Gerald Lewis, "Store Of The Near Future," Progressive Grocer, January 1984, p. 48.
2. Dr. Edward A. Brand, Modern Supermarket Operation, (New York: Fairchild Publications, Inc., 1963-65), p. 161
3. Gerald Lewis, "Store Of The Near Future," Progressive Grocer, January 1984, p. 48.
4. "New Formats, New Formulas," Supermarket News, January 1, 1990, p. 12.
5. Kevin T. Higgins, "Supermarket Designs Escape the Straight and Narrow," Marketing News, June 6 1986, p. i-ii
6. Progressive Grocer, Consumer Dynamics in the super market, p. k20
7. Ibid., p. k20
8. "Pushcarts," Mad Magazine, December 1958, p. 19-21.
9. Gerald Lewis, "Store Of The Near Future," Progressive Grocer, January 1984, p. 48.
10. Jennifer Cross, The Supermarket Trap, (Indiana: Indiana University Press, 1970-1976), p. 203
11. Ibid., p. 203

Users profile

There are two main groups of people who use supermarkets; consumers and workers. These two groups, which can be broken down into more specific types of people, rely on each other to make the supermarket work. For this project to be a success, it will be important to bring these two groups of people together and make the supermarket an exciting place to be in and work in.

Consumer profile - past

In the early years of supermarkets, marketing was directed to the image of housewife. 'The Darlings', as described by Chishlom in his book by the same name, are those people.

"The Darlings are those enchanting people, the housewives, the purchasing agents of the world to whom we beam our advertising and promotional appeal, and whom we must woo and win in our affairs and our affaires." 1

Also in this book, which was written in 1970, the author describes a typical day in the life of a darling.

"On a typical Friday morning or afternoon, she gets dressed casually but carefully and proceeds to get out the family car, if her husband has left it for her that day. If not, she sighs and reconciles herself to making it a Friday evening expedition with her husband. In either case, she fights her way through the traffic to the local supermarket or shopping centre and circles around a few times to find a convenient spot. Then she enters the mob scene because everyone else in the neighborhood seems to pick just about the same time for shopping. She disentangles a buggy and starts working her way up and down the aisles of the supermarket where she does see a beautiful array of fine merchandise, splendidly presented, and usually in prime condition." 2

Though these days of the typical housewife have disappeared, it is interesting to compare this common trip to the supermarket with that of today's hurried lifestyle.

Consumers Profile - present

Where are 'The Darlings' now? With the role of housewife rapidly declining, the task of marketing is becoming much harder. The passing of the 1980's have brought upon the nation an increase of double income families, in which both male and female now do the grocery shopping. This change has required marketing skills to change as well. And thus, the amount of change can only be determined by a close study of the consumer of today.

For the conception of an urban supermarket to succeed, a clear and concise definition of the consumer of today must be achieved. In the book *The Nine American Lifestyles* by Arnold Mitchell, nine stereotypical lifestyles are defined. Of these lifestyles, four depict the type of person that would frequent an urban supermarket: Emulators, Achievers, Experiential, and Societally Conscious. The following describes each of these lifestyles. 3

Emulators - Young, ambitious, flashy, trying to break into the system.

Achievers - Middle-aged, prosperous, self-assured; the leaders and builders of the American dream.

Experiential - Youthful, seeking direct experience, artistic, intensely oriented toward inner growth.

Societally Conscious - Mission-oriented, mature, successful, out to change the world.

Though it seems these descriptions define four quite different lifestyles, there are some basic characteristics that are shared by all. These similar attributes are what make the people of these four lifestyles, typical customers who would frequent an urban supermarket, and hence the topic of the following information. [all data based on statistics from 1979]

The people included in these four lifestyles make up 46% of the total population of the United States. While most of these work in urban areas, only 40% actually live in urban areas as compared to the national average of 35%.

Of the people in this sample, 70% work full time and 45% of these have jobs of technical or professional positions. And only a mere 8.5% of the four lifestyles consider themselves homemakers. The average yearly income taken in by these working people is approximately \$25,000.

The education level of this test group is quite high. 33% of the people are college graduates and 18% attended graduate school. An amazing 40% of the people included in the Societally Conscious attended graduate school.

The average age of the people in the four lifestyles is 34 - the national average is 40. 85% of the group is listed as being caucasian and there are 3% more males than females.

It is important to note that the previous data is compiled from national statistics and not from specific city or state demographics. These numbers only reflect what is seen on a nation wide basis and are only being used to define the "typical" consumer that would frequent a prototype for an urban supermarket. A more detailed demographic analysis of the specific location for this project can be found under Site Location Analysis.

Though statistics are important, they do not always reflect the true picture of the situation. There is more than just numbers to be looked at when trying to define the typical customer who would frequent an urban supermarket.

One such characteristic of the urbanite to consider is the means of travel. How does this person get from one place to the other (and back)? The urbanite really has many options. He or she may drive a

car, assuming they have one. He or she may also use some form of public transportation, such as a bus, subway, ferry, or even a high speed train. This urbanite may even choose to walk if the distance of travel is reasonable. No matter which mode of transportation is chosen, all must be addressed in an urban project such as this.

This consumer also has many eating habits and preferences. Though these may not be clearly definable, one thing is for certain. When today's consumer wants something, they want it now. The invention of the micro-wave oven is a perfect symbol of the impatient world we live in. This lack of patience has also provided us with a "no time to cook" lifestyle, creating a need for more prepared and ready-to-eat food. In designing a supermarket for the urbanite, it is important to provide services for this 'fast food' need.

So what is this definition of the typical customer who would frequent an urban supermarket? First and foremost, this person could be described as a caucasian urbanite, approximately 30-40 years old and very well educated. This person does not live the lifestyle of a homemaker. Instead, this person's goals are to be successful and achieve financial satisfaction. The mode of travel this person chooses to arrive on site is not singularly defined, therefore this person is considered to be transportationly independent.

Workers

The user category of "workers" can be subdivided into many different job descriptions. At the top of the chain of command is the job of general manager. The general manager has the responsibility of overseeing the entire operation of the supermarket. He is assisted in this task by the department heads of each section of the store; meat manager dairy manager, head checker, etc. As with any chain of

command, this one can be arranged in many different configurations to suit the needs of the store.

The variety of non-management jobs needed in a supermarket is virtually unlimited. With the advancement of computers and scanning equipment in the market place, the need for checkers is declining. The job description of bag boy has seen good times and bad, and will be the same in the future. With the changes in societal behavior, there has also been a need for new job descriptions. Recently, supermarkets have seen chefs become staff members due to the increased involvement in prepared foods. And the list continues.

Endnotes for Users Profile:

1. Robert F. Chisholm, The Darlings., (New York: Chain Store Publishing Corp., 1970) p. 1

2. Ibid., p. 184

3. Arnold Mithchell, The Nine American Lifestyles., (New York: MacMillan Publishing Co., Inc. 1983)

Case Study

Chuck's Super Markets Mechanicsville, VA

This 35,000 square foot store, which has recently undergone a \$12 million remodel, is the perfect example of the typical supermarket. Its store owner, Charles S. Ylonen, boasts that this store is now the flagship of the 12-store, and growing, fleet of chain stores.

This store also has added many new features. A 64 foot "Wall of Values" is located in the front of the store and displays discounted merchandise on a warehouse rack format. Other additions include a 10 foot salad bar, a rear stocked dairy cooler and a display of prepared seafood items offering deviled crabs, crab cakes, and assorted fresh seafood salads.

Despite the changes, Ylonen still feels Meats are his specialty. "The store recently started to carry value-added, partially prepared products in its gourmet section. These include stir-fry meats. . . 'We can't cut enough stir-fry chicken and beef,'."

[the article this information was taken from can be found in its entirety in appendix b]

Urban Precedent

Supermarket, Housing and Workshops Camden Town, London

Architects: Nicholas Grimshaw and Partners

This supermarket, located in a progressive shopping section in London, includes eleven housing units and workshops to help promote the supermarket itself. Being that it is located in an urban context has brought upon the designers some difficult tasks to solve.

The first problem that arose was about retaining the urban context. The height of a typical supermarket is generally low and does not have the character of an urban market place. Therefore, the designers decided to move the food storage spaces to the second level and create some height to the building. They also removed the sea of parking and placed it underground beneath the supermarket sales floor.

As one might expect, by doing this the designers created another problem. That problem is of vertical circulation, both for food storing and people with shopping carts. The moving of food to the second level was no problem with the use of elevators. The moving of people with shopping carts was more difficult. The solution was brought about by the reworking of the standard shopping cart to fit into the grooves on the escalators. By doing this, shoppers can easily cart their groceries to the escalator and proceed down to the underground parking.

[The original article from which this was taken can be seen in its entirety in appendix C]

Industry innovations

Introduction

The following material is a random sampling of trends and “going ons” in the food retailing industry. Each essay describes briefly the event and how it is effecting the way we shop . All of these concepts do not relate to the urban supermarket parse, but are to be used as an example of the innovations and trends that are happening in the industry today.

Prepared Foods

“The prepared foods merchandising frontier is rich with promise for the supermarket traffic and profits”¹ But what is ‘prepared foods’? “There are three segments to it basically. You’re dealing with ready-to-cook, ready-to-heat and ready-to-eat. Each of those segments plays an important role in sales”² There is much debate about which of these three aspects is more important. Each have their advantages and disadvantages. One point of common ground though, is that supermarkets must allow for this need of prepared food and win back their share of the market lost to restaurants.

In vs. out

There has been a recent increase, which has hurt the supermarket industry, in the amount of people who now prefer to eat away from home over those who do eat at home. In a recent study done by Progressive Grocer, by the year 2000, the amount of people who will choose to dine in will be matched by the number who will choose to eat out. This means food retailers will need to win back some of the business it has lost to restaurants.

Chefs

With the increase of prepared foods in the supermarket, a need for chefs has risen. "the addition of chefs to the deli is being viewed as a more of a move toward the practical than the exotic. In fact, improved management with back-to-basics approach and enhanced customer confidence in the section's prepared foods . . ." ³ So next time you visit the supermarket, don't be surprised to see a chef in a tall white hat and European accent, serving up that potato salad and buffalo chicken wings.

VideOcarts

A recent innovation in the supermarket is the VideOcart, a shopping cart which displays ads to shoppers by means of a computerized video screen. "The VideOcart is actually a flat, 6-inch by 8-inch liquid crystal display video screen mounted on a cart handle. As the shopper moves from aisle to aisle, it plays manufacturer ads for single brands stocked on the shelves being passed. The shopper's route determines the sequence of ads displayed. Between the ads, a continually changing 'video news magazine' showcases store specials, games and other information." ⁴ These carts, which are being tested in several stores, will not be an added cost to store owners or the consumers in any way. Instead, all carts will be owned and maintained by ad agencies who will sell ad "space" on the computer network.

Smart cards

Smart cards will be to the 90's as the credit card was to the 70's and 80's. "Smart cards, which resemble credit cards but have a computer chip embedded, will commonly be used at the point of sale to pay for goods and record transactions. The cards will also be used for such things as accessing

customers' bank accounts, keeping medical records and administering government benefits." 5 Though this advancement of technology may seem a little overwhelming, Peter Abell, president of Abell Automation Consultants, claims that 75% of the nation's population will carry smart cards by 1995. For retailers this will provide a way for recording purchases and fine tuning the store to customer demographics.

Lighting

In recent supermarket remodeling, designers have rediscovered the use of incandescent. "... the incandescent lamp will make a big comeback due to the new technology and more sophisticated store designers who want to 'aim' lights." 6 some experts even say that supermarket lighting must be totally task oriented. "... accidental spill lighting onto a monitor screen will affect its readability. Much of the lighting would be accomplished by florescent within the cases, the point of purchase being 30% brighter than surrounding areas." 7

Equipment

With the trend to introducing design into the market place, equipment manufactures are being forced to create custom equipment. "It used to be that a store was designed around equipment. That's changed. The equipment has to fit into the store design now." 8

Luxury market

In an attempt to lure the upper class, customers at FJ's Blackhawk [Ca.] Market are offered the convenience of cellular phones attached to the brass shopping carts. The phones have become quite practical according to Greg Perreira, operations

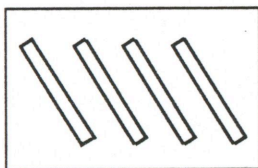
manager. Customers use them to check back at home on food purchases and to conclude those ever so important stock deals. But cellular phones are not all. "There is no Musak here. Shoppers stroll down black-and-white-tiled, softly lit aisles to trains of classical music, played by a tuxedoed musician at the keyboard of a shiny black grand piano." 9

Drive- up window

As a convenience to the rural town customer, Rick's Pick 'N Save installed a drive-up window much like ones found at McDonalds or Burger King. A marquee displays a menu of selected items available to the customer. The customer also has the option of ordering ahead and picking up a put together package. When asked about the reasoning behind the window, the owner replied, "... the climate in Wisconsin is only favorable five months out of the year, so the drive-up window allows the customer to shop without leaving her car." 10

Angled Shelves and Aisles

As a radical approach to store design, Herb Ross Design Associates played with the idea of putting the typical store aisles at a slant to keep customers from rushing through the store. "The store is not only selling more groceries. . . It' selling more per transaction." 11 Despite the slight loss of shelf space the owners are quite pleased. "It gives a department store feel. . . you have time to meander, to look around. You don't feel pressed into a cattle chute." 12



Renovation of a bowling alley

To keep up with competition and desperately in need of more space, Ralph Kushner annexed a local

bowling alley to fulfill his needs. Though bowling alleys are quite suitable for today's supermarket formats, the adventure was not without many problems. "... when you gut or remove the bowling equipment, you're left with a floor at two different levels. You're also left with low ceilings and , consequently, a space that isn't the brightest or most upscale." 13 Now, with all the problems solved, customers boast about past bowling scores and roll shopping carts down the aisles instead of heavy balls.

Endnotes for Industry Innovations:

1. "Prepared Foods, Charting the Course," Supermarket News, September 18, 1989, p. 10
2. Ibid. p. 11
3. "Chefs Carve Niche Without Exotic Menus," Supermarket News, March 6, 1989, p. 34
4. Mary Ann Linsey, "Rolling with the punches," Progressive Grocer, February 1989, p. 104.
5. Warren Thayer, "Electronic Mom and Pop," Progressive Grocer, May 1989, p. 96.
6. Gerald Lewis, "Store of the Near Future," Progressive grocer, January 84, p. 50
7. Ibid. p. 56
8. "New Store Concepts Unleash Creative New Approaches," Supermarket Business, November 1985, p. 30
9. "Store Owner Tries to Lure Upper Class," Billings Gazette, December 10, 1989, 8-D
10. "An Order of Convenience on the Side, Please," Chain Store Age Executive, March 1986, p. 70
11. Frank Hammel, "Angled Shelves Steer Traffic at a Super Shoprite," Supermarket Business, May 1986, p. 71.
12. Ibid., p. 105.
13. Amy Lipton, "'I Scored a 200 in this Aisle'," Supermarket Business, January 1989, p. 39.

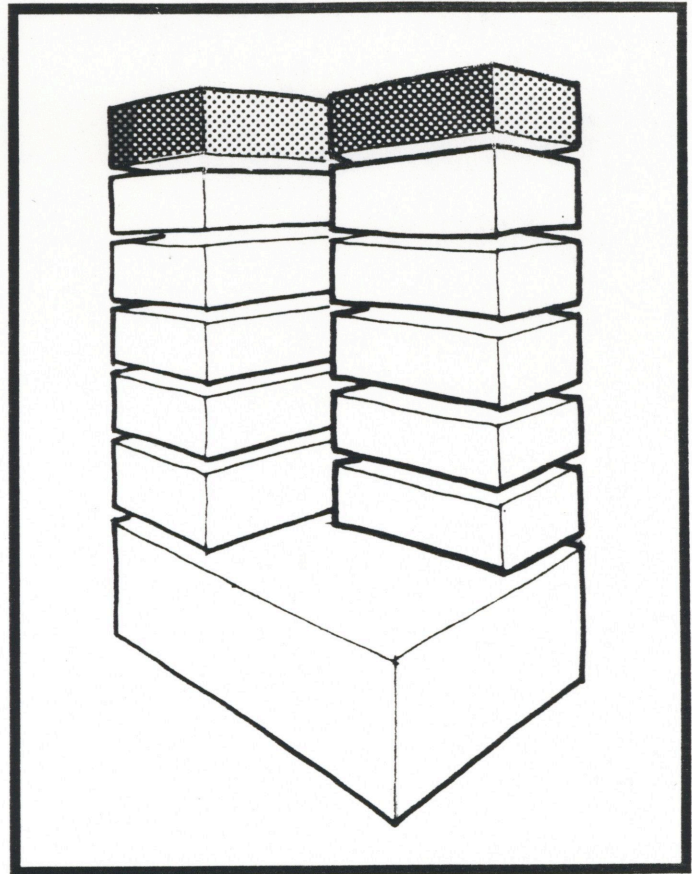
Urban Supermarket Prototype

Determination of Spaces

Grocery Department

Display: 1500 linear feet

Storage: 3750 square feet



Ratios:

2.5 square feet of storage per lineal foot of display

Comments:

Due to large linear footage requirements, the grocery department floors will not include deli departments.

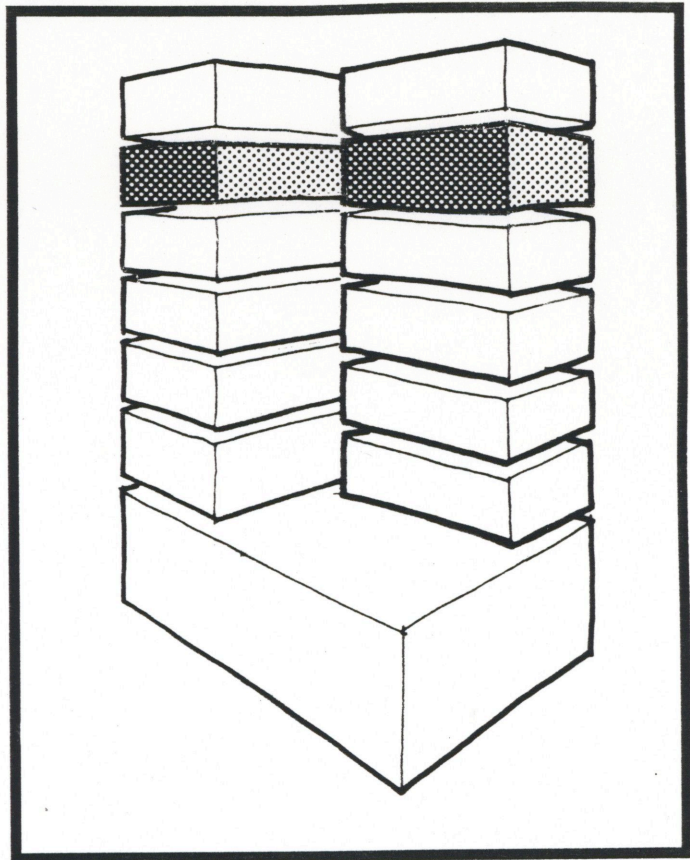
Frozen Foods Department

Display:

floor cases	50 linear feet
enclosed case	200 linear feet
total	250 linear feet

Storage:

Freezer	450 square feet
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Ratios:

1.5 square feet of storage per linear foot of display

Deli requirement:

prep	750 square feet
freezer	350 square feet

Comments:

The department will feature micro-wavable goods.

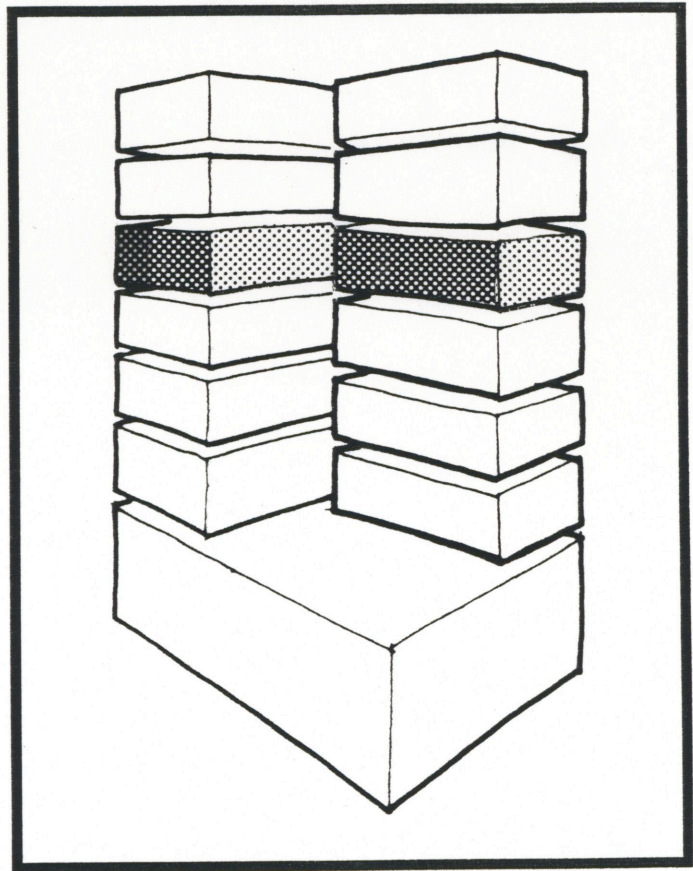
Produce department

Display:

refrigerated	80 linear feet
dry produce	20 linear feet
total	100 linear feet

Storage:

Cooler	250 square feet
Prep	250 square feet
total	500 square feet



Ratios:

5.0 square feet of storage per linear foot of display

Deli requirements:

prep	750 square feet
cooler	350 square feet

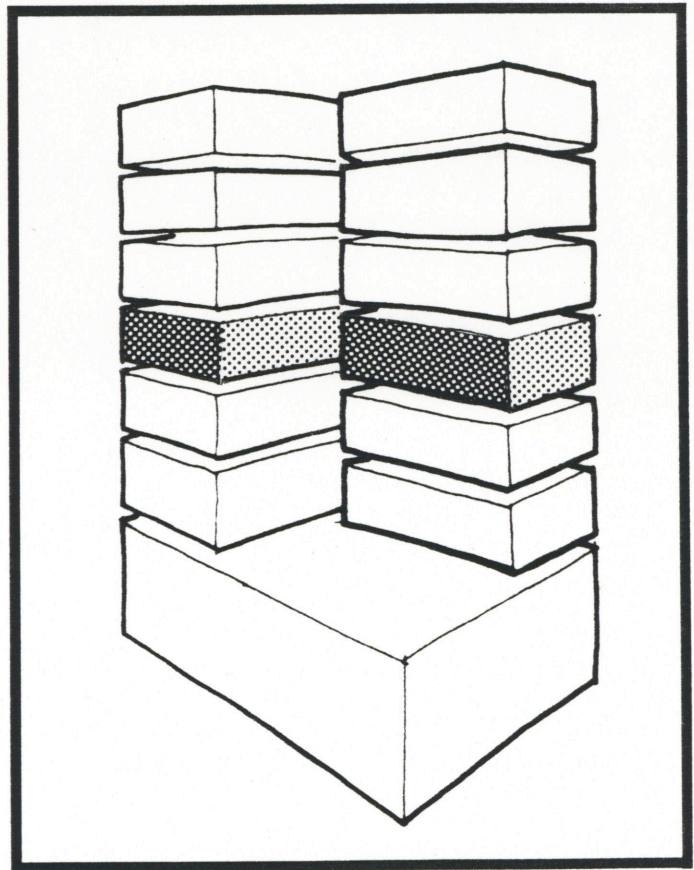
Comments:

The deli section in this department will feature salads and possibly a salad bar.

Dairy Department

Display: 125 linear feet

Storage: 625 square feet



Ratios:

5.0 square feet of storage per linear foot of display

Deli requirements:

prep	750 square feet
cooler	350 square feet

Comments:

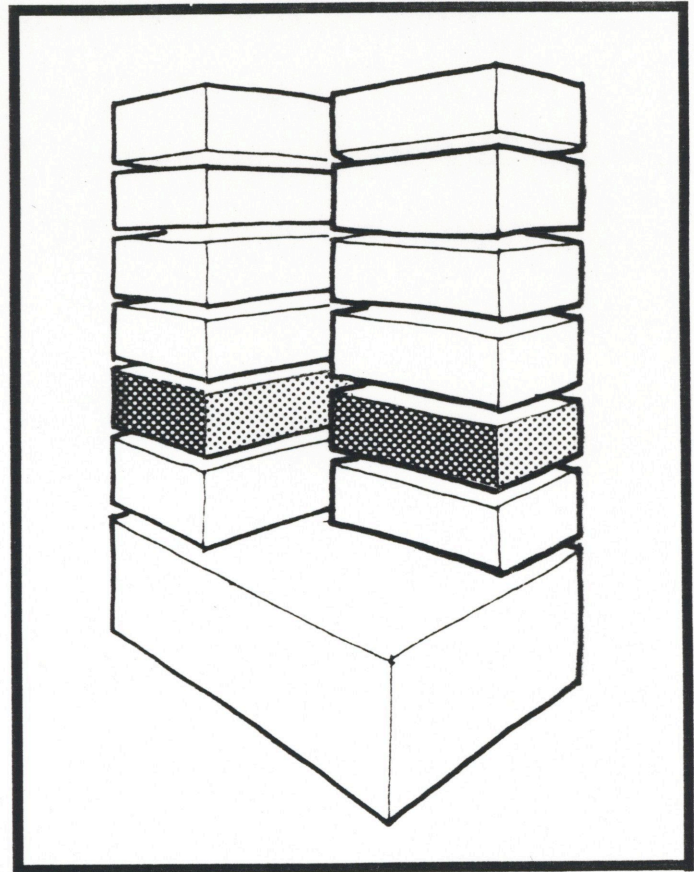
The greater the linear footage of display in this department, the less storage needed.

Bakery Department

Display: 100 linear feet

Storage:

prep 1000 square feet
freezer 200 square feet



Ratios:

12.0 square feet of storage and prep per linear foot of display
10.0 square feet of prep per linear foot of display
2.0 square feet of freezer per linear foot of display

Comments:

The bakery department itself is a form of deli, therefore, there are no extra space allocations under the heading of deli.

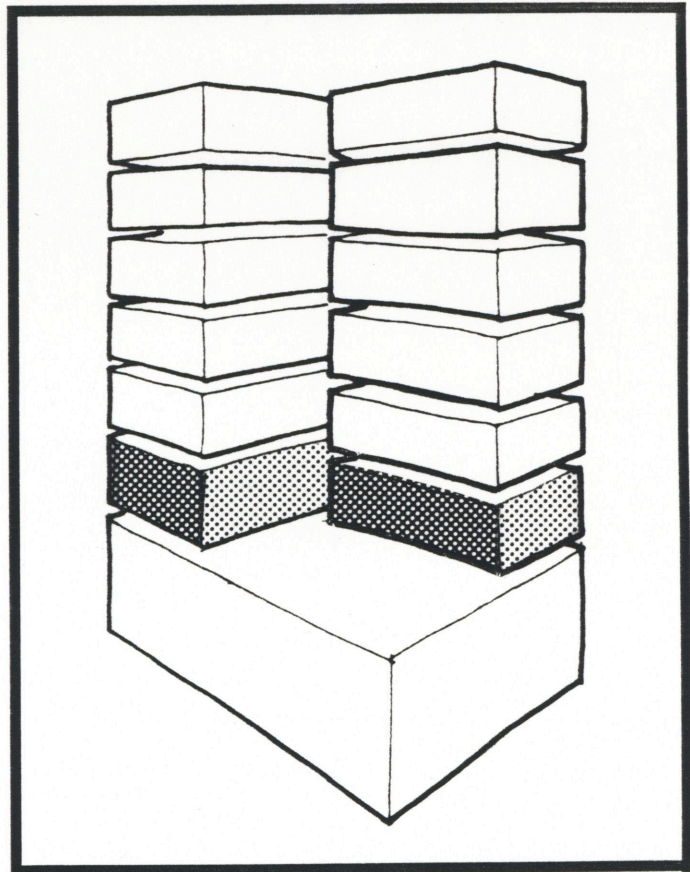
Meat Department

Display:

meat	125 linear feet
seafood	25 linear feet
total	150 linear feet

Storage:

prep	1000 square feet
cooler	650 square feet
total	1650 square feet



Ratios:

11.0 square feet of storage and prep per linear foot of display

6.5 square feet of prep per linear foot of display

Deli requirements:

prep	750 square feet
cooler	350 square feet

Comments:

Along with the meat, a seafood section needs to be provided.

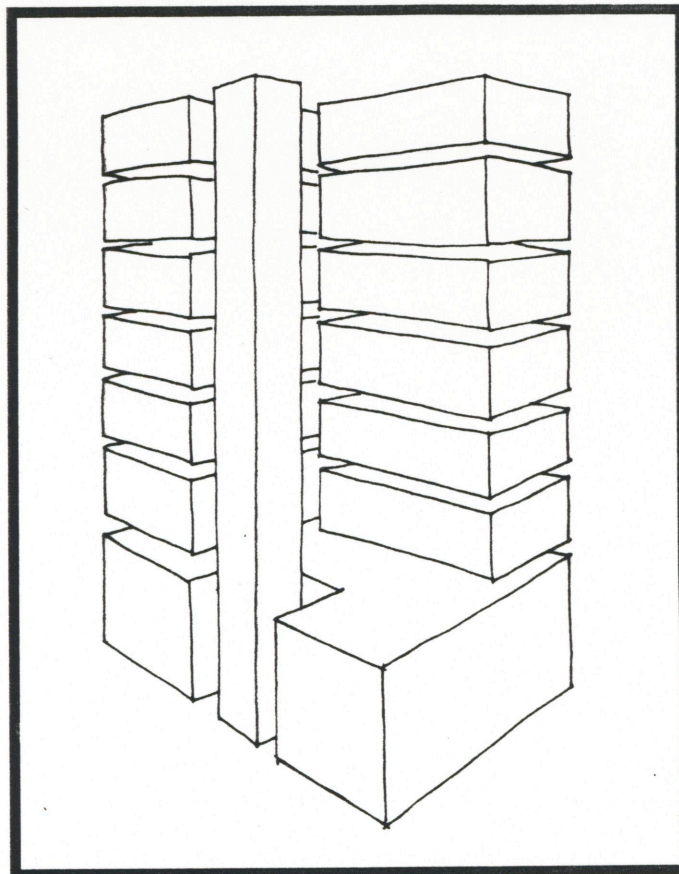
Total footage

44,000 square feet of parking

27,000 square feet of store

18,900 square feet of selling

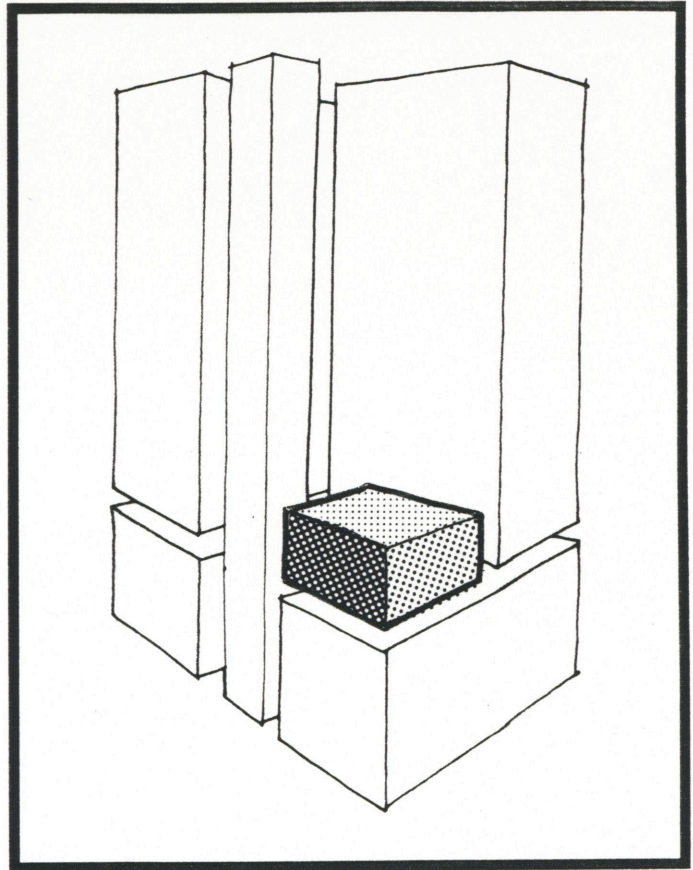
8,100 square feet of storage



Department	storage	display (ln ft)	deli prep
Grocery	3750	1500	-
Frozen foods	375	250	750
Bakery	1200	100	-
Dairy	625	125	750
Produce	500	100	750
Meat	1650	150	750
Total	8100	2225	3000

Front end (checkout)

7 - 10 checkout stations



Ratios:

one checkout per 3,600 square feet of store
one checkout per 150 linear feet of grocery shelving
one checkout per 1,100 square feet of storage

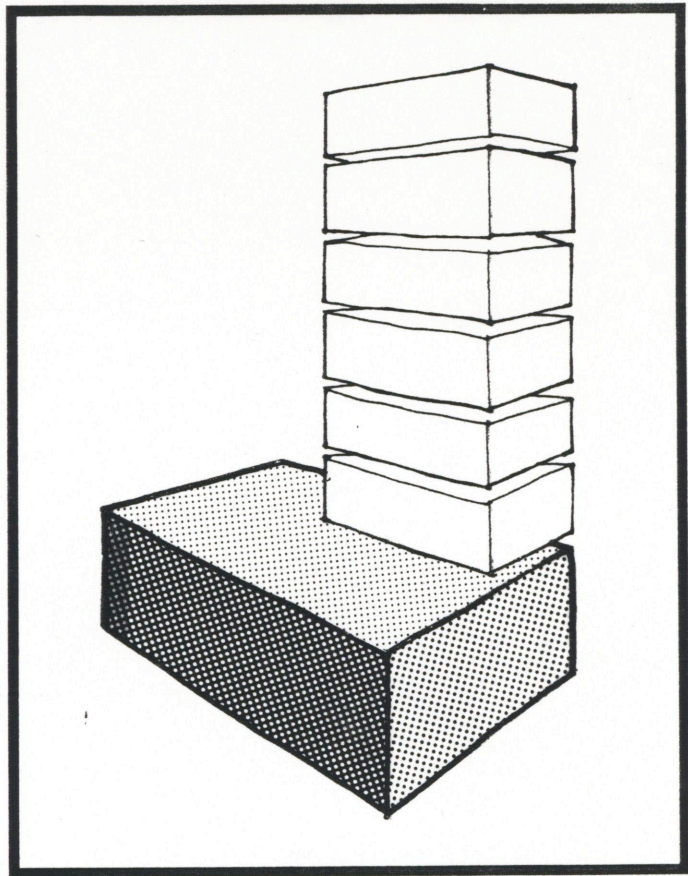
Parking

110 cars
(including employee parking)

Total square footage:

350 - 400 square feet per car
including circulation

38,500 - 44,000 square feet
of parking



Ratios:

266 square feet of store per car
13 linear feet of grocery shelving per car
75 square feet of storage per car

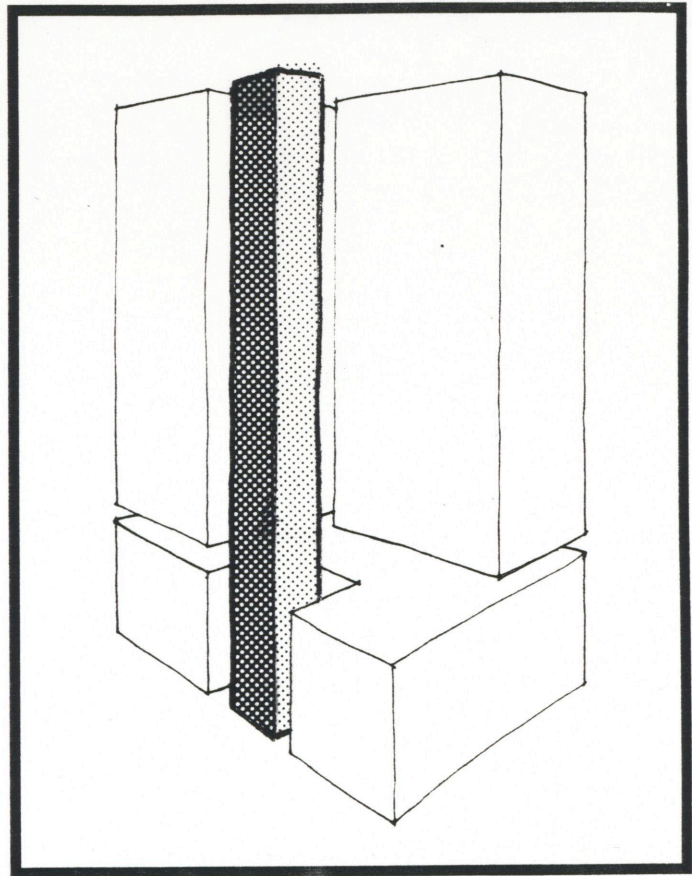
Comments:

These figures have been adjusted to take into account the greater amount of walk-in traffic that is to be expected in an urban setting.

Vertical circulation

Elevators:

Quantity	purpose
2	service
1	shopping cart retrieval
1	passenger only
1	deli express
1	passenger and shopping cart
6	total



Elevators:

[see appendix D for sizes]

Ramps:

ramps may be used for customer circulation from floor to floor

[see Codes for sizes]

Stairs:

[see Codes]

Miscellaneous

Office space:

150 square feet each
(one per department)

900 square feet total

Rest rooms employees:

Rest rooms customers:

Eating area:

12 tables with 4 people each

48 people total

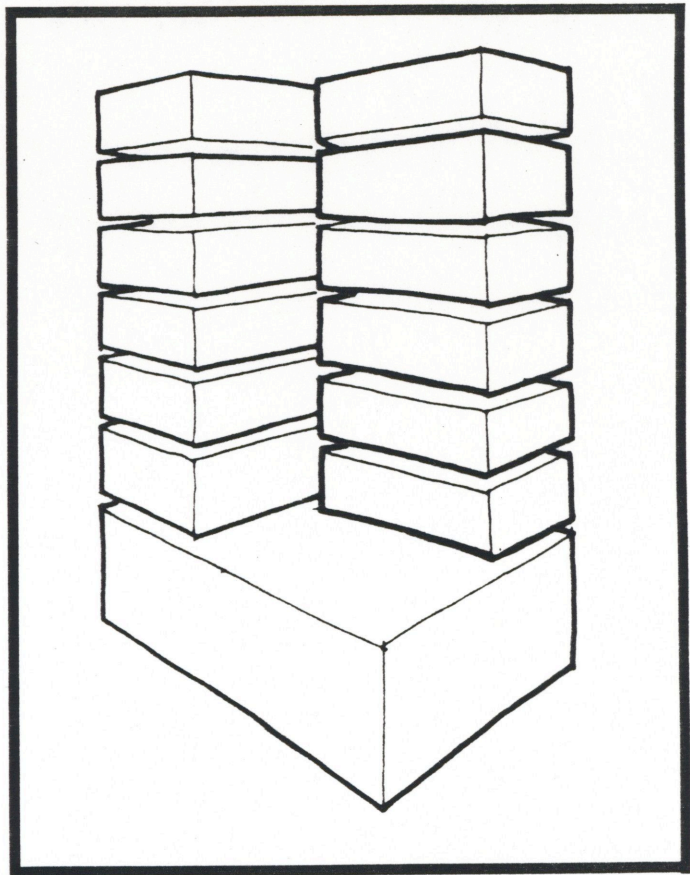
Mechanical:

Electrical room:

1000 square feet

Compressor room:

500 square feet



Building codes

UBC 1985

Occupancy group

B-2

Fire resistance of exterior walls

one hour less than 20 feet

Openings in exterior walls

not permitted less than 5 feet
protected less than 10 feet

Occupancy Separation

1 hour fire resistant

Construction type

II - Fire resistant

Allowable floor area

79,000 square feet

area separation wall
not less than 4 hour fire resistance

Maximum building height

12 stories or 160 feet

Fire resistive requirements

Exterior walls	4 hour
Interior walls	2 hour
Partitions	1 hour
Structural frame	2 hour
Shafts	2 hour
Floors	2 hour
Roofs	1 hour

Parapet required

all exterior walls

Exits

occupant load factor

ground floor - 30, upper floors - 50

square footage

27,000 square feet

occupant load

ground floor 150, upper floors 450

number of exits

ground floor - 3 exits, upper floors - 2 exits

corridor length

20 feet

total width of exits

24 feet

distance between exits

not less than one half of the length of the maximum overall diagonal dimension of the building.

distance to exits

not to exceed 200 feet

door swings required

yes

Corridors

width	44 inches (min.)
height	7 foot (min. lowest projection)
construction	type II fire resistant
openings	not to exceed 25% of corridor area

Stairs

width	44 inch (min.)
rise	4 - 7 inches
run	11 inches
handrails	3 1/2 inches each

Ramps

width	44 inches (min.)
slope	1 vertical to 12 horizontal
landings	top and bottom 1 intermediate for each 5 foot of rise

Atriums

minimum opening	30 foot diameter
minimum area	900 square feet

Sprinklers

yes

Site Location Analysis

Method

The location of a supermarket is its lifeblood. If an appropriate location is not chosen the effectiveness of the supermarket and its meeting the needs of the consumers will be lost. Therefore, it is important that a thorough study be done before an appropriate location for the urban supermarket can be found. The following information is a translation of the methods most commonly used in finding locations for supermarkets. It must be kept in mind that these statistics are rules of thumb and are not 100% correct, but when viewed as a whole, they are quite useful in defining the "perfect" location.

Throughout this study, it will be important to keep in mind the distinction between site and location.

"A piece of land, with such quantifiable properties as depth, frontage and slope, is correctly called site. A site, in its relationship to the surrounding network of streets, population and other cultural features of the landscape, is properly called a location." 1

As this quotation eludes to, this study is of those characteristics of location; streets, population, culture and not those of the common site analysis. The purpose of this, once again, is to key in on those points that will determine the appropriate location of this supermarket.

The first step in location analysis is to establish the trade area zone. The simplest way to begin this is to locate barriers.

"Trade areas are limited by natural barriers which are difficult to cross. Railroads, expressways, rivers, industrial areas, etc. . . These barriers cause the normal flow of traffic away from the barriers causing these limitations of lines to become boundaries." 2

These barriers are especially important in this project due to the high amount of walk-in traffic.

Next, it is important to define what location types are possible within the trade area zone. The possibilities one might choose from are as follows:

Downtown - This is the traditional commercial core of city.

Edge of Downtown - The type is precisely what the name implies.

Secondary Business District (SBD) - The SBD is a downtown in microcosm.

These are by no means all the possibilities but begin to give a sense of the possible types of structures, whether they are freestanding or incorporated into some sort of multi-use project.

Using these location types, one can further the defining of the trade area zone. This is done by constructing circles around the possible site locations as defined above. These circles, which define the area in which the customers are to be located, vary in size as follows:

location type	radial dimension
Downtown	1/2 - 3/4 mile
Secondary Business District	1 - 1 1/4 miles
Edge of downtown	1 1/2 - 2 miles

Once a trade area zone has been defined somewhat, it can be analyzed more intensely. The next aspect which is important to look at is the population. A perfect site may be found but its location may not have the population to support it. Therefore, by studying the population graphically, one may decide which area within the trade area zone can reach the most people. This not only includes number of people, but family size, age and ethnic background.

Once the population is defined, a study of their particular income patterns is important. This information aids the analyst in defining the potential weekly food store expenditure. The trade area zone may be subdivided according to the appropriate expenditure potential level.

Another study to make, is that of the street and highway system. It is important for an urban supermarket to have convenient access to and from the site by vehicular traffic as well as the expected walk-in aspect. The vehicular traffic not only includes customers, but delivery and service as well. If this aspect is not strictly adhered to, the profitability of the supermarket will surely diminish. Another point to address, is the location of parking garages. This prototype for the urban supermarket includes its own parking, but it is also important to consider the person who is working downtown and parking in near-by garages. These people may choose to shop after work and then carry their own groceries to their parked car.

By using these different aspects to one's advantage, a more reliable site can be chosen for the location of the supermarket.

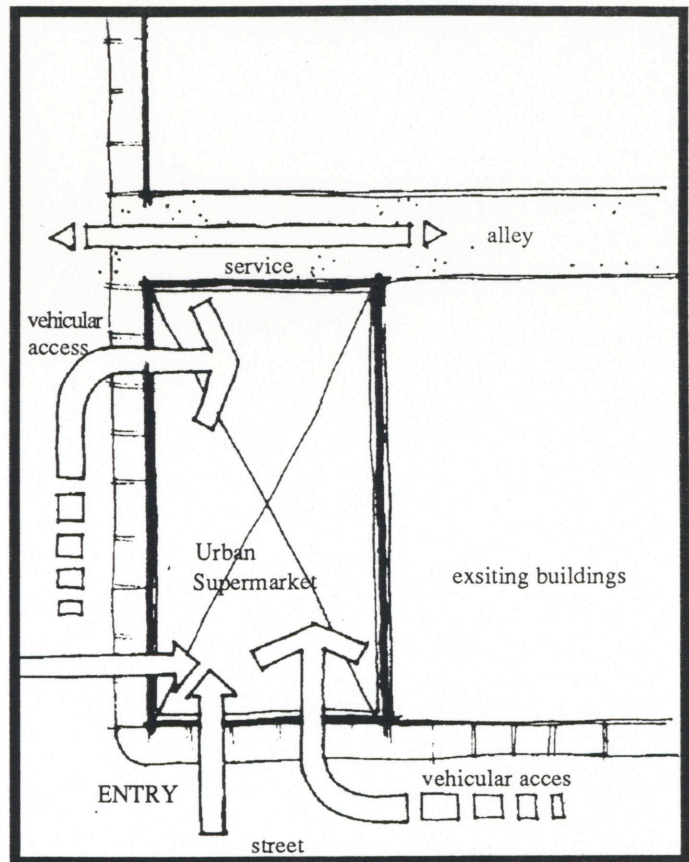
If a person's destination is something fairly unique in character, chances are good that he or she will endure much friction to reach it. But if it is something duplicated in several places, such as a supermarket, then that person is tempted to choose the facility most easily reached.

Bernard J. Kane, Jr.

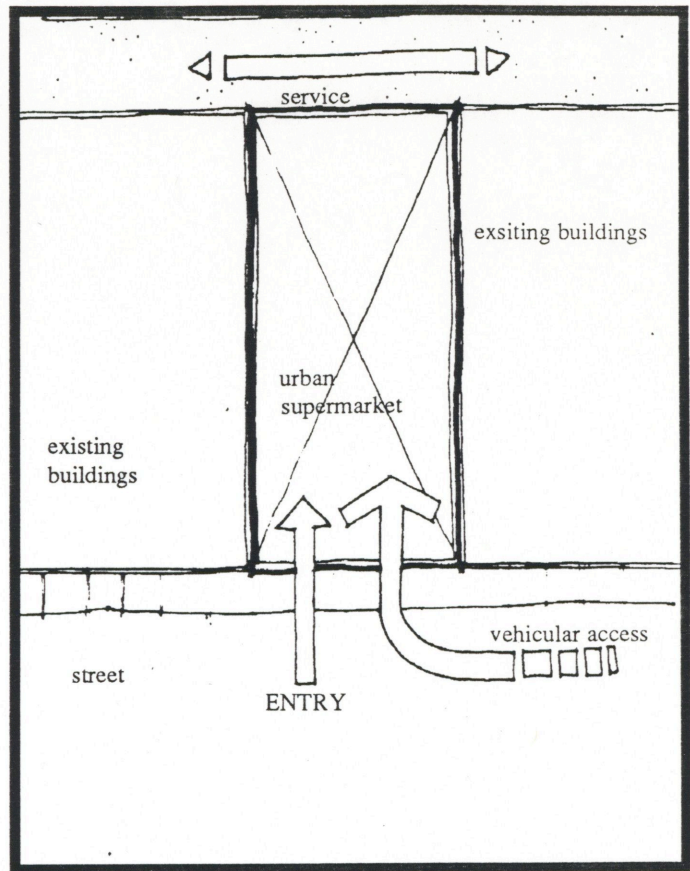
Endnotes for Site Location Analysis:

1. Bernard J. Kane, Jr., A Systematic Guide to Supermarket Location Analysis (New York: Fairchild Publication, Inc., 1966) p. 3.
2. Edward A. Brand, Dr., Modern Supermarket Operation (New York: Fairchild Publication, Inc., 1963-65) p. 152.

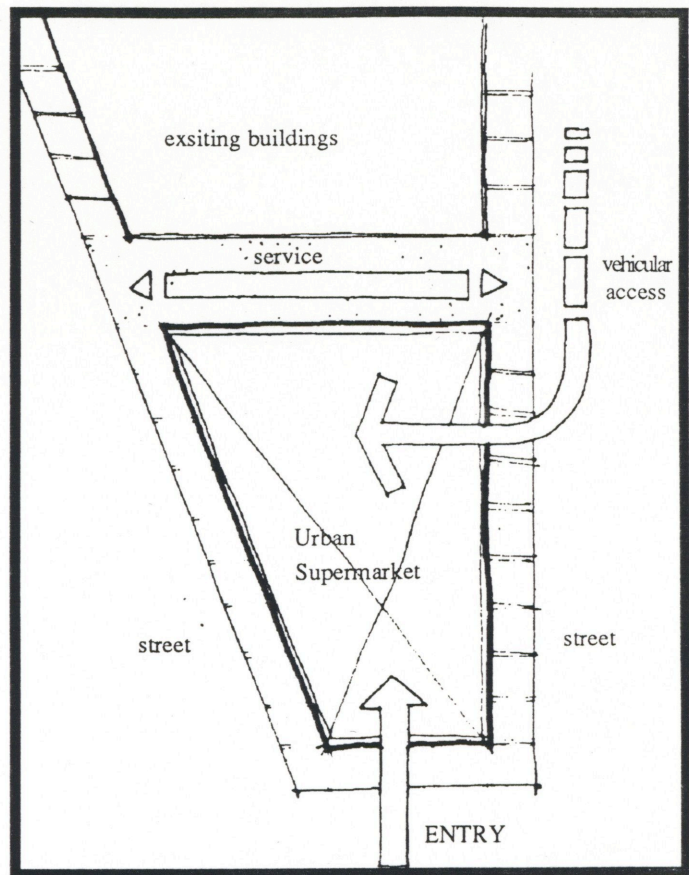
Corner



Mid-Block



Other



Appenixes

Appendix A

**Signs,
Symbols,
Supermarkets &
Synopsis**

by MICHAEL C. BROWN

Arch. 421 Theory
Winter '90 M.S.U.
Prof. Ralph Johnson

Signs, Symbols, Supermarkets and Synopsis

a supplement regarding design theory

In recent history, and mostly due to the modern movement, we have seen a condemnation of ornament and applied decoration in architecture. Many people of the modern movement considered decoration superficial and some have equated it with crime. But none of this is stopping Robert Venturi, who most historians would consider a post-modernist.

Robert Venturi defines architecture, or at least his architecture, as shelter with decoration on it. With this definition, Venturi has changed the thinking of the modern movement and is influencing the way we now view the landscape. In his book, *Learning from Las Vegas*, Venturi suggests that an understanding of the commercial strip is as important to architects as the studying of ancient Roman and Greek cities. "It is in the comparison's between the Roman piazza and the Vegas Strip - illustrating surprising similarities as well as obvious contrasts - that we learned about symbolism in architecture." ¹ It is this symbolism which is the topic of the following discussion.

Signs and Symbols

There seems to be some debate on whether or not sign and symbol have the same meaning. One view sees sign as conveying a message through the use of some form of text. Symbol, as the definition suggests, conveys its message through a more graphical means. These definitions are constrained by the need for a common understanding, such as language, in order to convey their messages.

On the other hand, if one sees sign and symbol as being the same, the definition takes on a slightly different connotation. This definition tends to include anything that implies some sort of added meaning other than the assumed original use. "Examples of representation [signs and symbols] in historicist architecture could be classical columns or hammerbeam trusses cutout as silhouettes which depict but don't reconstruct the originals. . ." ² It is this definition that Venturi uses when describing architecture as shelter with decoration on it. Also, the key point to remember is that symbols (or signs) depict, but don't reconstruct, the message being conveyed. If symbols do not take on this characteristic, shelter would recess into a manner of revivalism.

Though most would agree that revivalism is a thing of the past, one may question the purpose of symbolism and what part history plays in symbolism. "Architects have traditionally used symbolism in architecture to enrich its content and to include other dimensions, some almost literally, which make architecture a not purely spatial medium. Symbolism expands the scope of architecture to include meaning as well as expression, and to promote explicit communication denotative as well as connotative." ³ In this quotation, Venturi points out that symbolism, if used in the correct manner, can be used to enhance the architecture. This symbolism, in contrast to the modern movement, transforms architecture from being a single expression into a multivalent object having purpose as well as meaning. Here Venturi expresses some concern that these objects, "ducks" do not become actual symbols themselves but remain multivalent in their use of symbolism.

Why is it that we have become so intrigued with this symbolism? "An essential reason for using symbolism today is that it can provide a diversity of architectural vocabularies appropriate for a plurality of tastes and sensitive to qualities of heritage and place." ⁴ Venturi is suggesting here that the variety of vocabularies offered to the user of symbolism is virtually unlimited. This is possible because the sources of symbolism are derived from heritage and place which imply limitless possibilities.

With this information, one must investigate further the driving force behind symbolism. What is it, or what is it not, that becomes the source of symbolism? "In recent architecture historicism has been the major manifestation of the new symbolism. But it is important to acknowledge other sources of symbolism, including high art and Pop - Scarlatti and the Beatles - if diversity is to be achieved." ⁵ Here Venturi suggests that symbolism does not necessarily need to be derived from historicism. In fact, the more opposing the sources are of one another the greater the end product will be.

Venturi makes the point that not just any source can be used. "Architecture can be many things, but it should be appropriate. It should have cultural relevance." ⁶ When considering this thought of cultural relevance, one must admire the close similarities between this and Kenneth Frampton's "critical regionalism," in which Frampton calls for an architecture which address the issues of a sense of place derived from the immediate culture. Realizing these similarities, one might suspect that Venturi is a regionalist.

Now that we have investigated to a certain degree why to use symbolism and what the driving forces are, it is important to discuss how Venturi suggests to use symbolism in creating a better architecture. In a previous quotation it was mentioned by Venturi that symbolism is not a spatial medium; rather, symbol is used in the form of applique which is a representation derived from one of the many appropriate sources. "Representation in this context involves the depiction as opposed to the construction of symbol and ornament. Manifestations of this approach to symbolism in architecture are essentially two-dimensional and pictorial."⁷ The reason Venturi makes a distinction between depicted and constructed symbols, is to not make the mistake of becoming a revivalist. If the source for a symbol,

let's say, is a historical structural element, then to literally reconstruct this element would be taking the role of a revivalist. To do this, no reinterpretation or depiction has taken place, which is a necessary task when creating symbolism.

A final consideration in this discussion of symbolism is that of where we use symbolism. Venturi believes that symbolism can be used anywhere. Since symbolism is driven primarily by the context in which it is placed, Venturi uses this to create buildings which appear to be in harmony with their surroundings regardless of their conceived qualities. "The Venturies' [Robert and Denise Scott Brown] insistence on deferring to the environment in which a building is set means that their designs are sufficiently different from one another that no one can really be typical; their buildings grow more from the functional requirements of program, than from a predetermined design ideology such as international style . . ." ⁸ Having a preconceived design ideology, as did the modernist architects, destroys the inherent qualities of that particular context. The point Venturi is making, is that symbolism is not to be used only in the most pleasing of contexts. Instead, we should be trying to work with the context we are given by using it, and symbolism, to create better architecture.

Supermarkets

It is in my interests to further explore this notion of symbolism and how it can be applied in the creation of a building by applying these ideas into my thesis project, the urban supermarket. The supermarket typology, I feel, will easily lend itself to the use of symbolism and will greatly enhance the architecture I hope to create. The following discusses how this may be achieved.

In the past, supermarkets have maintained a certain vernacular, if you will. This vernacular is perceived as a large, windowless building imposed upon a sea of parked cars in which shoppers navigate about, entering and exiting from a centrally located opening. Though this is all too familiar, there is also a part of the supermarket vernacular we as shoppers do not see; that of the loading docks and food storage areas. These too have a particular image that must be addressed.

Being that supermarkets are seen as mere "sheds" anyway, the Venturi theory of decorated shed seems to be a logical point of departure in discovering what this urban supermarket will look like. To achieve this, I plan to make three studies; each in abstract model form with an accompanying 20 x 20 inch board. This format is quite similar to that taught by professor Clark Llewellyn in his design studio classes.

In the first study, I would like to explore the aspects of "supermarket vernacular" and the symbolism herein. The second study will be an exploration of the specific urban context and its cultural relevance. The final study will then be used to combine the ideas and forms from the previous two studies and will at the same time begin to introduce function into the

composition. The next step after completing these three studies will be to introduce the composition into the site and begin developing the form, culminating into a final solution for a working building.

It is my intent by doing these studies to clearly define the appropriate character which this building should express. By doing this early in the project, more time can be spent after developing the building under these self-proclaimed restraints.

Synopsis

Symbolism, in my opinion, is a valid way to approach the creation of architecture. For the most part I agree with Venturi, though I feel it is important to discuss those views with which I do not agree.

First of all, I would disagree that the meanings of sign and symbol are synonymous. I agree that both are used to convey a message, but I believe they achieve this in different ways. To me, signs elude to their meaning by using some form of text. On the other hand, symbol is more of a graphical representation of some meaning.

Though I do not see these as both being totally opposite in nature, there is a common link between the two. Both share the need to have a common understanding between those interpreting and the creator of the sign or symbol. In the case of sign, this common understanding may be language, be it English, French, or what have you.

The common understanding between symbol and interpreter is not as easily definable. If we take the example of McDonalds, let's say, immediately an image of two golden arches placed together to form the letter "M" enters into one's mind. This is an example of common understanding. One does not need to read the English text of McDonalds, but upon visual distinction of the golden arches, one immediately knows this is the place to get a good hamburger. (One might even make the distinction that this hamburger is a Big Mac.)

I feel it is important in architecture to make a clear distinction between sign and symbol. For if this distinction is not clear, architecture transcends into a menagerie of signs that becomes symbol. The perfect example of this, as Venturi proclaims, is the City of Las Vegas. There, the monumental signs with their bright, flashing lights have become symbols and no longer need text to convey their message. And now the "architecture" of the Vegas Strip is virtually nonexistent or at least unimportant. It is my point to express that symbolism is architecture without signs.

I also believe Venturi is a regionalist, even though he may not agree. To me, Venturi makes a strong point to fit his buildings into the landscape no matter what the condition it is in. By trying to be harmonious with the landscape and its surrounding culture, Venturi

crosses over into the realm of what I believe to be regionalism. I feel Venturi may not agree that he is a regionalist because he sees his architecture as primarily being driven by classical precedents. I would argue that are we not all, as architects, part of the culture of world architecture therefore giving us the right to use classicism as "world regionalism."

No matter what one uses as the driving force for symbolism, it is important to remember that it is to be used as a representation and not become a literal reconstruction, thus avoiding revivalism. I believe that the main requirement of symbolism is that it be a reinterpretation. I have recently become aware that my own architecture and even more so, my art work, is very symbolistic and two-dimensional. I hope to improve my work by using symbolism as the basis of a more conscience design making process and therefore creating better architecture.

Endnotes:

1. Robert Venturi, "A Definition of Architecture as Shelter with Decoration on it, and another Plea for a Symbolism of the Ordinary in Architecture", A View from the Campidoglio. (New York: Harper and Row, Publishers, 1984?) p. 62

2. Robert Venturi, "Diversity, Relevance and Representation in Historicism, or Plus ca Change. . . Plus a Plea for Pattern All Over Architecture with a Postscript on my Mother's House", A View from the Campidoglio. (New York: Harper and Row, Publishers, 1984?) p. 112

3. Ibid. p. 109

4. Ibid. p. 109

5. Ibid. p. 109

6. Ibid. p. 110

7. Ibid. p. 112

8. "Less Is More - Mies van der Rohe, Less Is a Bore - Robert Venturi," New York Times Magazine, 17 October 1971, p. 36

Appendix B

STORE OF THE MONTH

An American dream come true



Before Chuck Ylonen retires, he wants to have 20 stores like his Mechanicsville unit—highly profitable supermarkets offering first-class service and perishables.



BY MARY ANN LINSEN

Thirty-three years ago, Charles S. Ylonen and his wife traded in their life savings for a dream, purchasing a tiny, wooden-floored grocery store, which left them with \$80 to their name. Today, that dream has blossomed into a thriving \$60 million-a-year enterprise, with an ultra-modern 35,000-square-foot supermarket serving as the flagship of the couple's 12-store fleet.

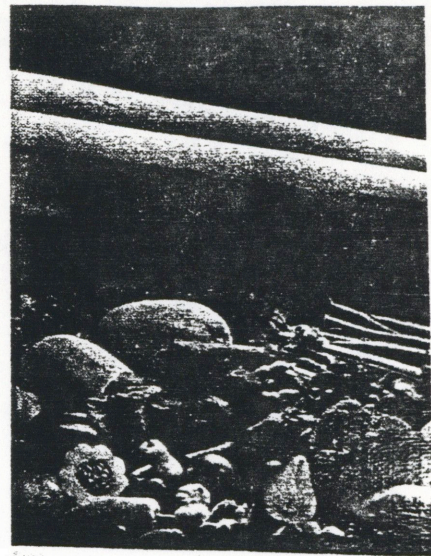
"Look what we did with that \$80," said Ylonen, president of the company that bears his name. "Our first store in Seven Pines (Sandston, Va.) was originally 800 square feet, and then went to 2,700 square feet. It also went from wooden to cement floors," he said, pointing out that he still operates a high-volume, 3,600-square-foot store behind the site of his original unit.

"This is kind of like living in paradise," said Ylonen as he strolled through his largest store. The newly expanded 35,000-square-foot store is a service-ori-

ented conventional in Mechanicsville, Va., and the former meat manager finds it difficult to conceal his pride when he takes in its decor elements, upgraded equipment and split grocery aisles. Besides being a far cry from that first store, the unit also bears little resemblance to the way it did in 1983, when Ylonen acquired it. At that time, the store—a former Grand Union Big Star—was a lackluster conventional half its current size in a run-down strip shopping center.

Back in the early '60s, Ylonen started acquiring additional stores, but was still operating only five units in the 10,000-square-foot range in 1980. "This was a \$20 million to \$22 million company at that time," Ylonen said, explaining that it has since tripled in value. "I was once the smallest customer Richfood (his wholesaler) had," said the grocer. Later, he went on to become the firm's treasurer, and still serves on its board of directors.

His perseverance—and that of his "in-





involved" family—has paid off handsomely. Today, his company has a 6% share of the Richmond market, which is dominated by another local chain, Ukrop's, followed by Safeway and Food Lion.

In middle-to-upper-income Hanover County, where the firm's newly expanded prototype is located, the company (with two area stores) has an 18.5% share of the market, second only to Ukrop's. The growing area of approximately 25,000 to 30,000 people is composed chiefly of dual-income homeowners. While the Mechanicsville store primarily attracts customers from a three-mile radius, it also draws from as far away as 20 miles, according to John Walker, vice president of Chuck's Super Markets.

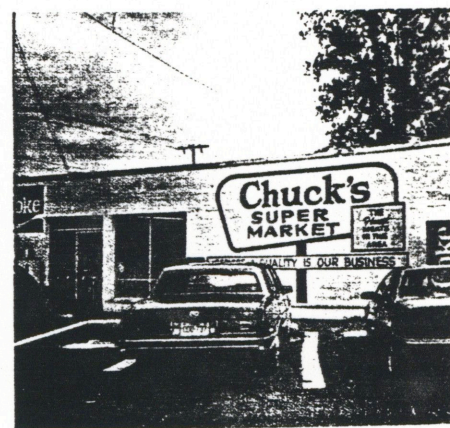
When the company took over the leased store six years ago, it remerchandised and added a small deli. Walker said this helped increase weekly volume from \$70,000 to \$100,000. During those early years, the unit competed primarily with a

"friendly" 15,000-square-foot independent operation across the road. But in 1987, heavy-hitting Food Lion opened an approximately 25,000-square-foot store a quarter of a mile away. This prompted the smaller independent to sell out and Chuck's to expand.

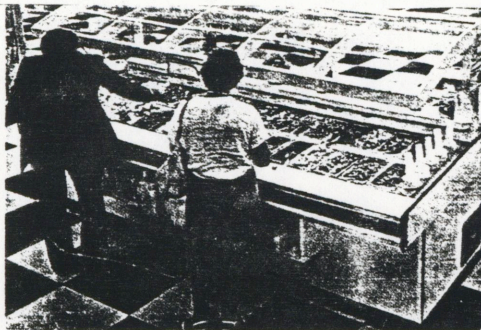
One way Chuck's fought back was to erect a 64-foot Wall of Values, featuring deal merchandise on warehouse racking, which shoppers see as soon as they enter the store. "That's the Food Lion counter," admitted Walker, who added that the two competitors peacefully co-exist today.

"Our reasons for the remodel were not only because of Food Lion, but to guard against someone else coming in to take a piece of our pie. With the old 19,000-square-foot store, with old equipment, anyone could have come in. It was a defensive move to protect our interests," said Walker. "We had an option in our lease to build onto the store, and the current landlord wanted to upgrade

Chuck Ylonen's pride is apparent as he stops to greet a shopper in the produce section of his newly expanded Mechanicsville store. The grocer admits the upscale unit (bottom left) is worlds apart from the first (800-foot) store he opened 33 years ago. Today, a 3,600-footer (bottom right) is still in operation at the original Standston, Va. location.



A 10-foot salad bar at the rear of the produce section, not far from the bakery, is a popular attraction for lunch and dinner among the area's many working women.



the shopping center."

The \$2-million expansion project doubled the size of the store's grocery department. It also provided for expanded perishables departments including frozen foods, meat, dairy and deli-bakery sections, and for the addition of service bakery and seafood counters, as well as for self-service salad and yogurt bars.

The brightly lit store has a contemporary look, thanks to a red, black and white color scheme that even extends to its checkered flooring and grid-patterned aisle markers. "The decor is the cherry on top of the sundae," Walker said.

But most of the store's color comes from its eye-catching perishables, such as mass displays of bulk produce that are designed to stop shoppers early on.

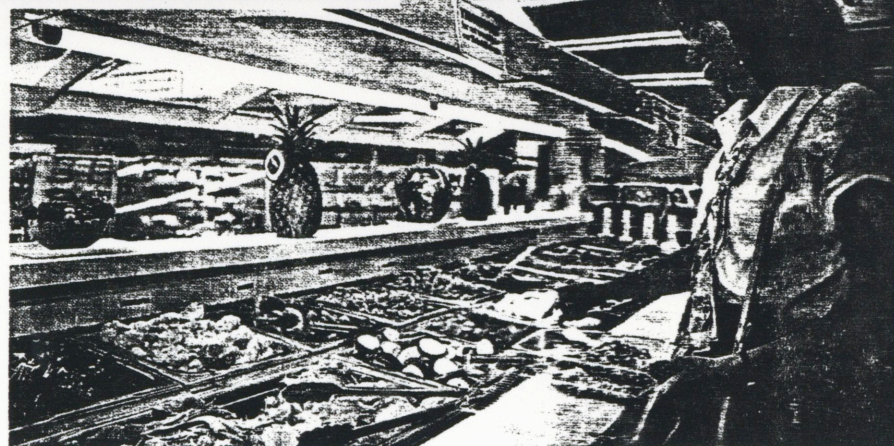
"Our competition is only price. We are quality perishables and service first," said Walker. "With this store, we're not emphasizing grocery. Everybody's canned beans look the same, but it's the meat, produce and deli departments that make you better or worse. Certain people want to buy 'price' and don't care, but some want a trout fillet or a Delmonico steak, and will come here to buy them."

Ylonen agreed. "I think one of the places where people take the worst whipping is in the meat department," he said. The former journeyman meat cutter has long hung his hat on the quality and consistency of his meat and produce departments. "This is where we shine," he said. "Our forte is to cut meat so you could walk by our meat counter, pick up any package and know you will be pleased with it."

New pricing approach

The store's overall gross profit margin is 21%, and grocery margins average 18.5%, according to Store Manager Mike Grattan. Walker explained that where grocery pricing is concerned, there has been a shift from the previous "high-low" approach (offering deep-end deal items, but higher overall prices) to "everyday low prices and a Wall of Values to create a price impression."

The store, which is said to be exceeding projections since its expansion, takes in more than \$200,000 a week. According to Walker, the company recouped most of its expansion investment within two or three months after the store's official grand reopening in October 1988. However, the



unit remained open during construction, shifting the grocery department temporarily from one side of the store to the other. "Our sales and profits were down—but not off—during that two- to three-month period," said Walker. "But after the grand opening, in two month's time, we did over a million in sales."

Despite stressing service and perishables, the firm eschews institutional advertising in favor of its long-established item/price program.

But the best advertising for Chuck's Super Markets probably comes through word-of-mouth, since Ylonen prides himself on running neighborhood stores. "We're neighborhood people. We know you. We cater to your likes. We know how you like your ham steak. If you want oolong tea, we'll get it for you or provide an alternative."

Ylonen said the stores try to conduct two to three demos simultaneously during weekends. "They add romance," he said.

In addition, carryout service is offered in all his stores. "There's no way I would miss it. If I saw a lady carrying out (groceries) herself, I'd take her bags myself. This is a people business, and it starts with the people who work for you."

The Mechanicsville store has 103 employees, more than half of whom are part-timers. Due to the high level of service, the unit's labor factor—at 8% of sales, excluding fringe benefits—is higher than at other stores in the non-union chain.

Ylonen said all of his company's 600 employees deserve credit for his success. "It's not just Chuck, but the people with me who make the difference," he said. "We have good people. And all of my family are also involved in the business.

STORE OF THE MONTH

The people I have are not Ph.D.s in anything but the science of selling groceries, and it's why we'll continue to grow," he added. Walker, for example, started with the firm as a courtesy clerk.

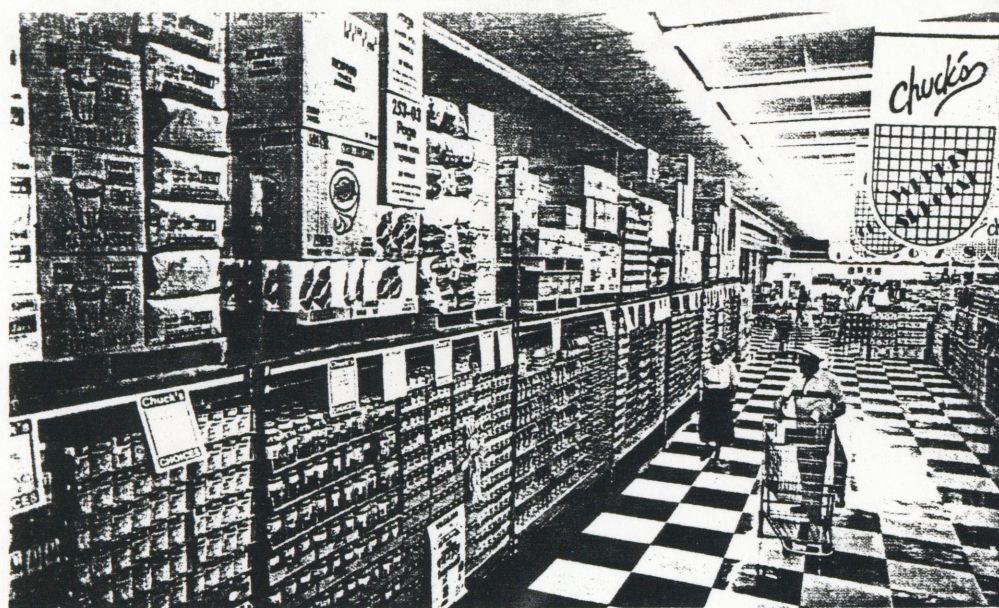
Ylonen believes in sharing company profits with key employees—from Senior Vice President John Nichols down to store personnel at the night crew chief level—through a bonus program.

Walker joined his boss in giving store employees, and others, accolades for making the Mechanicsville expansion such a success. "Chuck's Super Markets is composed of many team players," he said, "all of whom should get special recognition for this project, including our office and supervisory staff, our store staff, our warehouse, Richfood Inc., our aggressive contractors and our M&R (maintenance and repair) group. Most of all, special recognition should go to our owner and his wife. In the beginning, they didn't know from one week to the next how the bills would be paid, and now they run a company like ours."

"We want to be among the best in our field in our area," said Ylonen, who earlier this year opened two additional stores, both former Safeways. Next year, he plans to replace an existing 13,500-square-foot supermarket with a 27,000-square-foot store, which will be modeled after the Mechanicsville store.

"Before I get out of this business, I want to have 20 stores like this one," said Ylonen. "And we may even take a shot at a warehouse store. If there's a heaven, I'm having it now. I am enamored with the very idea that this time in life has come to me. It's marvelous, and all I can see is through rose-colored glasses."

STORE OF THE MONTH



1 WALL OF VALUES: "This is the first (Chuck's) store to have a Wall of Values, and it went over so well" that other stores will have them, too, said Store Manager Mike Grattan. The 64-foot section features deal merchandise sold from warehouse racking. Designed to create a price impression, it helps the store better compete with price operators, such as nearby Food Lion. An open letter to shoppers from President Chuck Ylonen is posted amid the specials. Among other things, it reads, "The lowest food costs are passed on to you because of our forward buys and manufacturers' and distributors' rebates."

2 PRODUCE: Accounting for 7.1% of total store sales, the mostly bulk produce department is the first perishables area in the right-to-left shopping tour. While Produce Manager Scott Kincaid bemoaned the fact that the expansion did not give him additional perimeter space for refrigerated produce, he said it did provide room for more lavish "dry" bulk displays in the middle of the floor. "We try to merchandise as a bulk store," said Kincaid. As an example, Roger Vincent, the company's produce director, pointed out a wooden merchandiser housing approximately 300 whole melons for a "right-off-the-farm look." During Progressive Grocer's visit, cantaloupes and honeydew melons were prominently featured at 99 cents and \$1.69, respectively, as were baking and red-skinned potatoes at 39 cents a pound. "We'll go through three pallets of cantaloupe this week (180 cases) and a pallet and a half (90 cases) of honeydews," said Vincent. So-called value-added items, such as cut melons with berries, also do well in the area, which is composed mostly of convenience-oriented, two-paycheck families. However, there's "low demand for specialty items" or exotics, according to Kincaid.

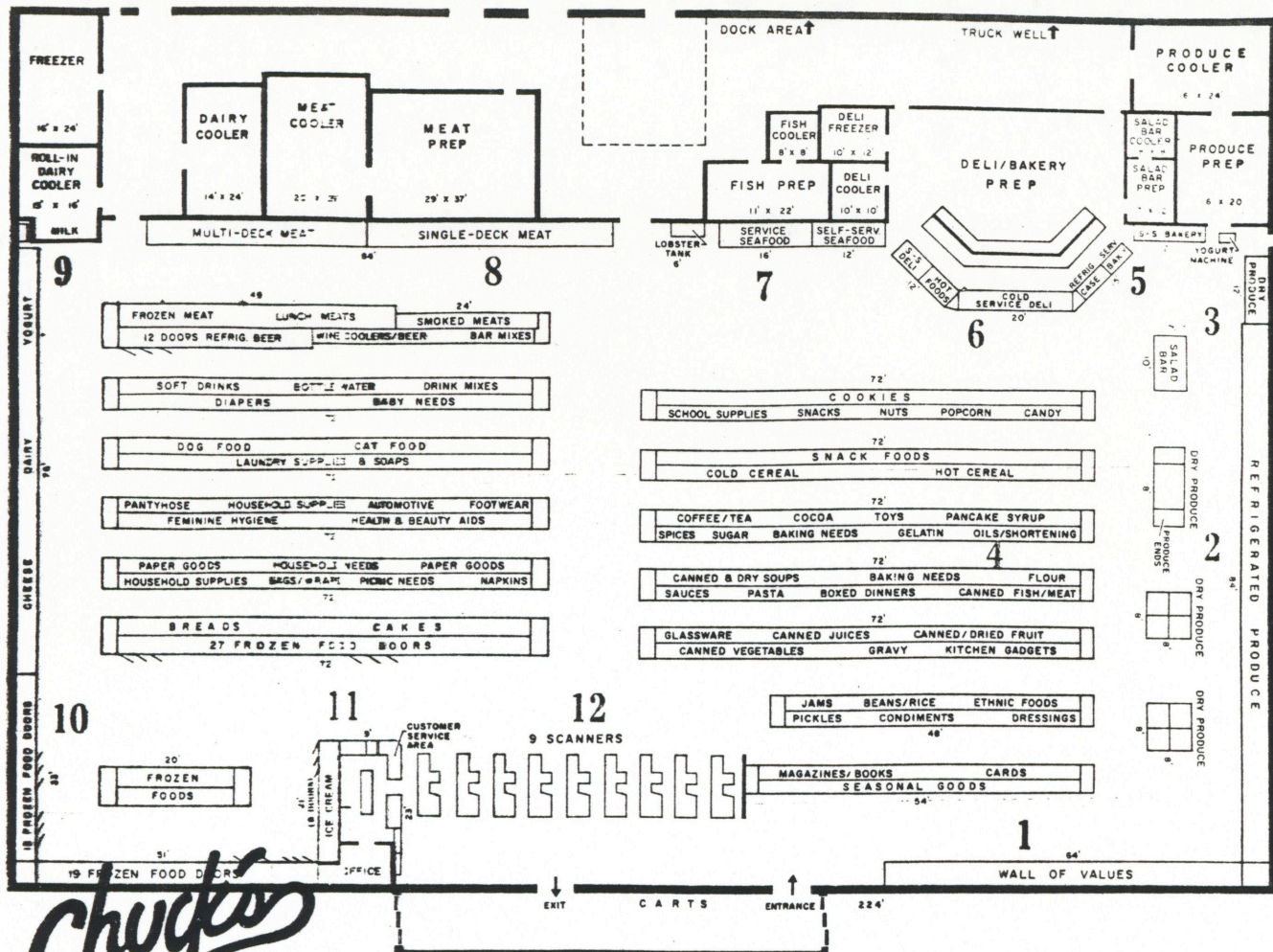
3 SALAD & YOGURT BARS: Together, these separate self-service areas contribute 0.8% to total store sales, and employ one full-timer and two part-timers. One of only two salad bars that the company runs, the 10-foot section features approximately 60 items priced at \$2.29 a pound. Besides more traditional fare, it includes everything from pickled vegetables, fresh melons, pasta salads and hard-cooked eggs, to taco fixings, such as chips, fillings, cheese sauce, peppers and sour cream. Soups are offered during the winter, and party platters are available year-round. The nearby yogurt bar is on the rear wall, next to the bakery. There, shoppers can help themselves to a 12-flavor selection of frozen yogurt at \$1.99 a pound. Three cup sizes are available, as are assorted toppings.

4 GROCERY: Accounting for 69.3% of sales (including dairy and frozen foods), the grocery department houses 15,500 food items and 2,000 GM/HBA products. The department, which has doubled in size as a result of the expansion, stresses national brands, but also integrates the Richfood private label and store-door-delivered specialty items. No generics are carried. The store has recently shifted to an everyday low-price policy for groceries, which have an average gross profit of 18.5%. Store Manager Grattan demonstrated how the split grocery aisles provide "a wide open area in the middle of the store," giving the section a more spacious look. And Vice President John Walker pointed out that the grocery gondolas run "east to west instead of north to south," due to the store's increased width. Endcaps are primarily merchandised with deal or seasonal items, and shelf signs flag in-aisle specials. Explaining that this store primarily stresses food items, Walker said, "We had to have a certain amount of non-foods items, but we didn't go overboard."

5 BAKERY: The 10-foot combination service and self-service section is a balloff operation. Together with the adjoining service deli area, it contributes 5.7% to store volume. Since the remodel, the combined section is four times its original size, according to Deli-Bake Supervisor Starr Boggs. The bakery's service case, which was added during the expansion, houses party cakes, regular layer cakes, pastries, brownies, fancy cookies, muffins, croissants, turnovers, cinnamon buns, Danish and doughnuts. Among its biggest sellers are doughnuts and cinnamon buns, according to Boggs. Layer cakes, such as double chocolate (\$10.99) and Boston cream (\$5.29), also sell well. In the self-service bakery area, breads—especially Italian types—and rolls are big sellers. Boggs said the total bakery area takes in \$3,500 a week, with \$1,000 of it coming from the service case.

6 DELI: The 20-foot service deli case displays bulk cold meats, cheeses, a large selection of salads, pizza fixings and other appetizing offerings. Cold cuts are shaved or sliced to order, said Boggs. Most of the 21 to 30 salad and dessert items, displayed in black racks, are obtained from outside suppliers. Among the popular salad items are "Mrs. Marshall's" potato salad and cole slaw, from a local supplier. Other specialty salads include a sour cream and dill potato salad at \$1.69 a pound. But standard potato salad, cole slaw and macaroni salad, at \$1.09 a pound each, remain the best sellers. "We move 500 pounds a week of regular potato salad vs. 250 pounds a week of specialty potato salads," Boggs said. A 6-foot service case displays approximately five steam table hot prepared entrees a day, most of which are purchased frozen from suppliers such as Stouffer's. They are sold both by the





6617 Mechanicsville Turnpike
Mechanicsville, Va. 23111

Date reopened: October 30, 1988

Type of location: Remodeled strip shopping center

Overall area: 34,573 square feet

Selling area: Approximately 25,000 square feet

Hours of operation: 7 a.m. to midnight

Parking capacity: 175 cars

Architect: Thomas Hamilton & Associates

Decorator/designer: Avery Graphics & Decor

Cost of remodel: \$2,000,000

Cost of opening inventory: . . . \$500,000

Grocery shelving: 1,712 linear feet

Display cases: (linear feet)

Produce: 100

Salad bar: 10

Bakery: 10

Deli: 20

Seafood: 22

Meat: 132

Dairy: 84

Frozen foods: 219

Full-timers: 35

Part-timers: 68

Average weekly volume: \$213,239

Store manager: Mike Grattan

Wholesaler: Richfood, Inc.

Trade Area Statistics:*

Median age: 34.9

Average household size: . . . 2.70 people

Average household income: . . \$24,869

Median education: 12.3 years

% owner-occupied housing: . . . 83.5%

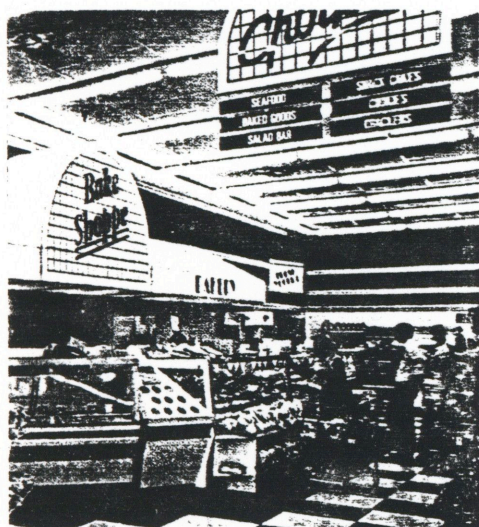
% working women: 51.3%

% white collar: 61.1%

% non-white: 7.5%

% single-family dwelling units: . 91.7%

*Source: DSR/Urban Decision Systems



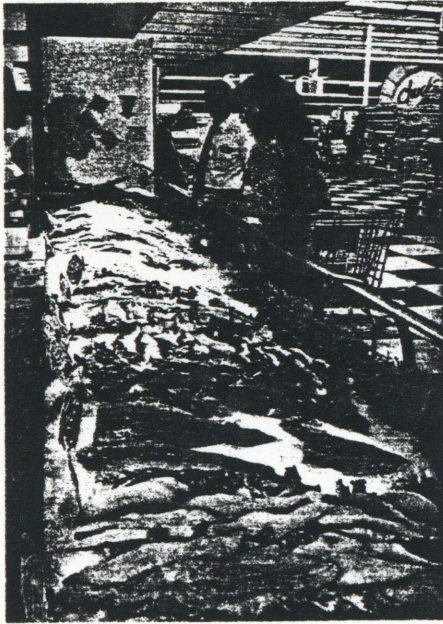
pound and as complete dinners with vegetables. Offerings include basic fare such as lasagna and macaroni and cheese. Fried and barbecued chicken are prepared on the premises, and eight to 10 cases of fried chicken pieces are sold weekly. Party platters can also be ordered; a meat and cheese tray for 15 costs \$22.99. Adjoining the service deli case is a self-service merchandiser holding prepared sandwiches, packaged salads and dessert novelties.

7 SERVICE SEAFOOD: The 16-foot service section, added as part of the expansion, offers approximately 45 seafood items on ice. During the time of Progressive Grocer's visit, the selection in-

cluded fillet of flounder at \$4.49 a pound and salmon steaks at \$7.99 a pound, as well as mackerel steaks, grouper, black-tip shark, pan trout, bluefish and frog's legs. Precooked jumbo shrimp for \$12.99 a pound was available, as well as raw shrimp in medium and large sizes. Prepared seafood items, such as deviled crabs, crab cakes, and assorted fresh seafood salads, are also offered. A nearby tank held live lobsters, which were selling for \$7.99 a pound. This is currently the only Chuck's Super Market with a service seafood case, and Senior Vice President John Nichols is not convinced that the section will be viable for all future stores. "We would look hard at the neighborhood, and if the demographics dictated

STORE OF THE MONTH

it, we would put one in. This one—at 1.3% of total store sales—does real well,” he said. There’s also an adjoining frozen seafood case. Of the three seafood department employees, one works full-time.



8 MEAT: “Meats are our specialty. Our logo once read, ‘Finest meats in the area.’ This is still what we are known for,” said Vice President Walker. At the expanded Mechanicsville store, the 132-foot self-service meat department accounts for 15.8% of store volume. According to Meat Manager Gene Martin, all beef (USDA Choice) is trimmed to one-eighth of an inch, and the company also offers an “extra lean” line that is com-



parable in price to its standard fare. Beef is the top seller in the department, followed by chicken and pork, he said. The store recently started to carry value-added, partially prepared products in its gourmet section. These include stir-fry meats. “They are really doing better than I expected,” Martin said, adding that the items carry margins of 38% to 40%. The popular stir-fry chicken, beef or pork—all selling for \$4.99 a pound—are cross-merchandised with packaged vegetables from the produce area. “We can’t cut enough stir-fry chicken and beef,” said Brent Terrill, a meat cutter, and one of seven full-timers.

9 DAIRY: The expanded 84-foot dairy section’s sales contribution is combined with the grocery distribution figure, which also includes frozen foods. “This section does a lot of volume and we put a great deal of emphasis on dairy and frozen foods in the remodel,” said Store Manager Grattan. The section has one full-

timer and two part-timers. Milk is the top dairy item and is merchandised right from its rear-stocked cooler. The amount of space devoted to yogurt, the section’s second biggest seller, was doubled following the expansion, said Grattan. The number-three item in the department is carton juice, which the store sells more of than its frozen counterpart. The cheese area and other dairy sections are merchandised via special shelf extenders.

10 FROZEN FOODS: This 219-foot department, at the tail end of the shopping tour in its own alcove, tripled in size as a result of the expansion. It consists of more than 60 doored uprights, as well as a 40-foot coffin case run with two end-caps. Frozen vegetables are good sellers. In fact, private label broccoli is the top-selling item in the department, followed by frozen pizza and private label frozen concentrated orange juice. Carton ice cream and ice cream novelties are also very popular in the family-oriented area.

11 SERVICE COUNTER: This front-of-store area sells lottery tickets and handles lottery redemptions, film processing orders (which are developed outside), check cashing and check approvals, store refunds, customer service inquiries and payouts for COD merchandise.

12 FRONT END: Since the expansion, this has become one of only five Chuck’s Super Markets that scan. The store has nine checkouts, one of which is express, and utilizes NCR scanning equipment. According to Vice President Walker, scan data are used “to monitor our gross in certain key areas, as well as for movement and reset purposes.” He added that the firm also sells the scanning information it gathers to data research firms. Cindy Wright, assistant store manager in charge of front-end operations, said the store has 22 baggers and 25 cashiers, most of whom are part-timers. ■

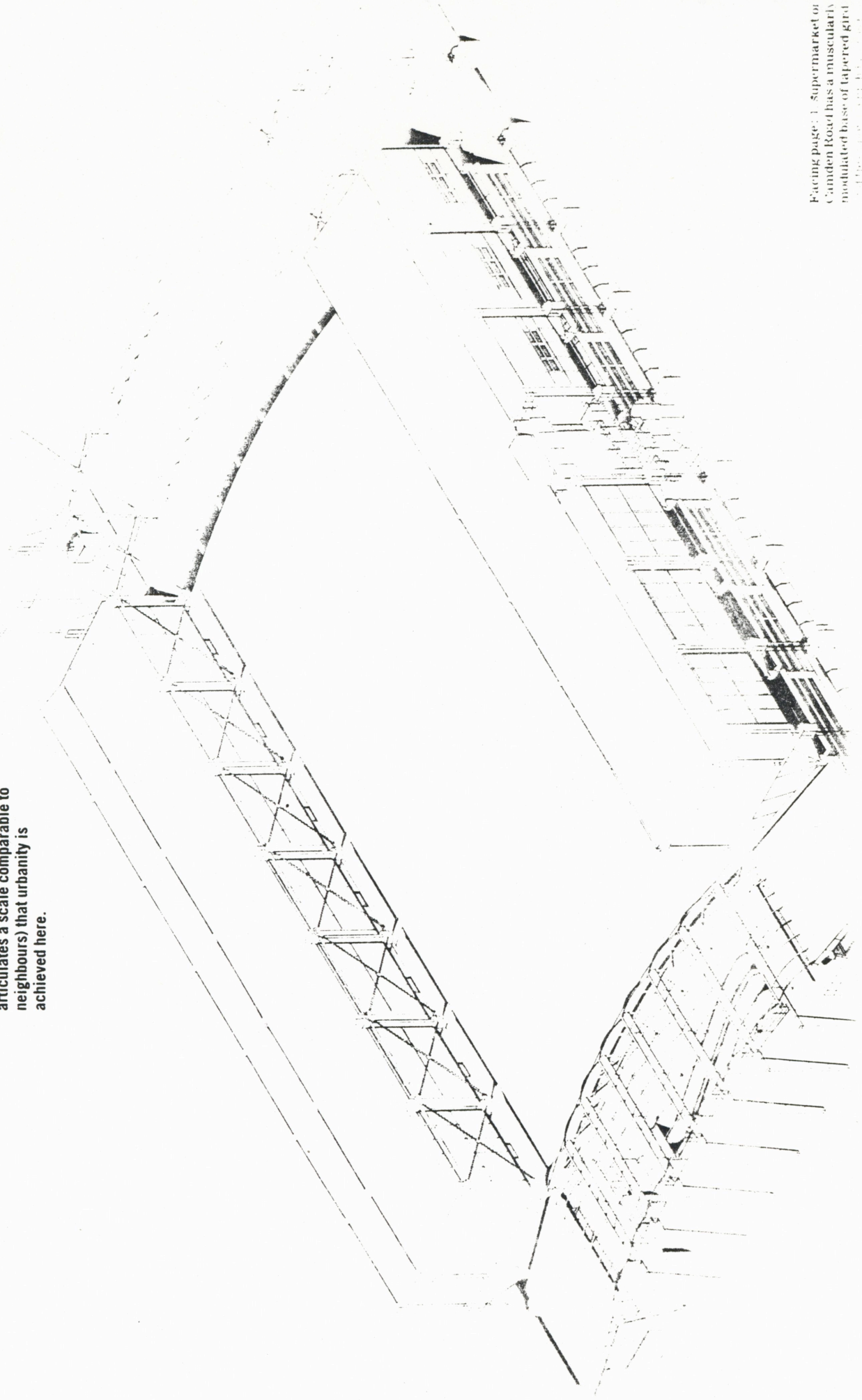


Appendix C

**SUPERMARKET, HOUSING
AND WORKSHOPS,
CAMDEN TOWN, LONDON
ARCHITECTS
NICHOLAS GRIMSHAW
& PARTNERS**

Both High-Tech architecture and giant supermarkets are often thought to be essentially anti-urban. Nicholas Grimshaw & Partners' Sainsbury supermarket development in Camden Town proves these assumptions wrong. Indeed it is through technological invention (the ingenious moving ramp) and bold display of advanced construction (the tensile rod 'order' that articulates a scale comparable to neighbours) that urbanity is achieved here.

URBAN GRIMSHAW



Facing page: 1. Supermarket at Camden Road has a muscularly modulated base of tapered grid columns.

**SUPERMARKET, HOUSING
AND WORKSHOPS,
CAMDEN TOWN, LONDON
CRITICISM
PETER DAVEY**

The urban problems of supermarkets mostly relate to transport. Conventional wisdom has it that shoppers should be able to park on the level of the sales floor so that they can wheel their purchases directly to their vehicles. Equally, the storage areas are supposed to be on the same level to facilitate transport of goods from warehouse to sales shelves.

These two provisions alone generally make supermarkets into single-storey blind boxes, surrounded by seas of car parking, and with no other uses anywhere to be seen—the very antithesis of urban building. Hence they are often to be found in the unloved rubbishy grey areas, neither town nor suburb nor country, that are located on the fringes of proper places or in the unconsidered interstices between them. Such areas are often near major urban roads, and indeed are often caused by them. Supermarkets add their own element of gritty and tawdry meretriciousness, so contributing to an ever downward spiral.

The bottom end of the Camden Road in north London is far from being as dreadful as this, even if it is a bit grim. For many years, the unused hulk of the ABC bread factory had lowered over the early nineteenth-century Classical terrace of houses and shops on the other side of the street. The site is important, being in Camden Town, one of the most vigorous local communities in London and a shopping centre of ever-increasing popularity.

Camden Council was determined that the site should be developed with a mix of uses—

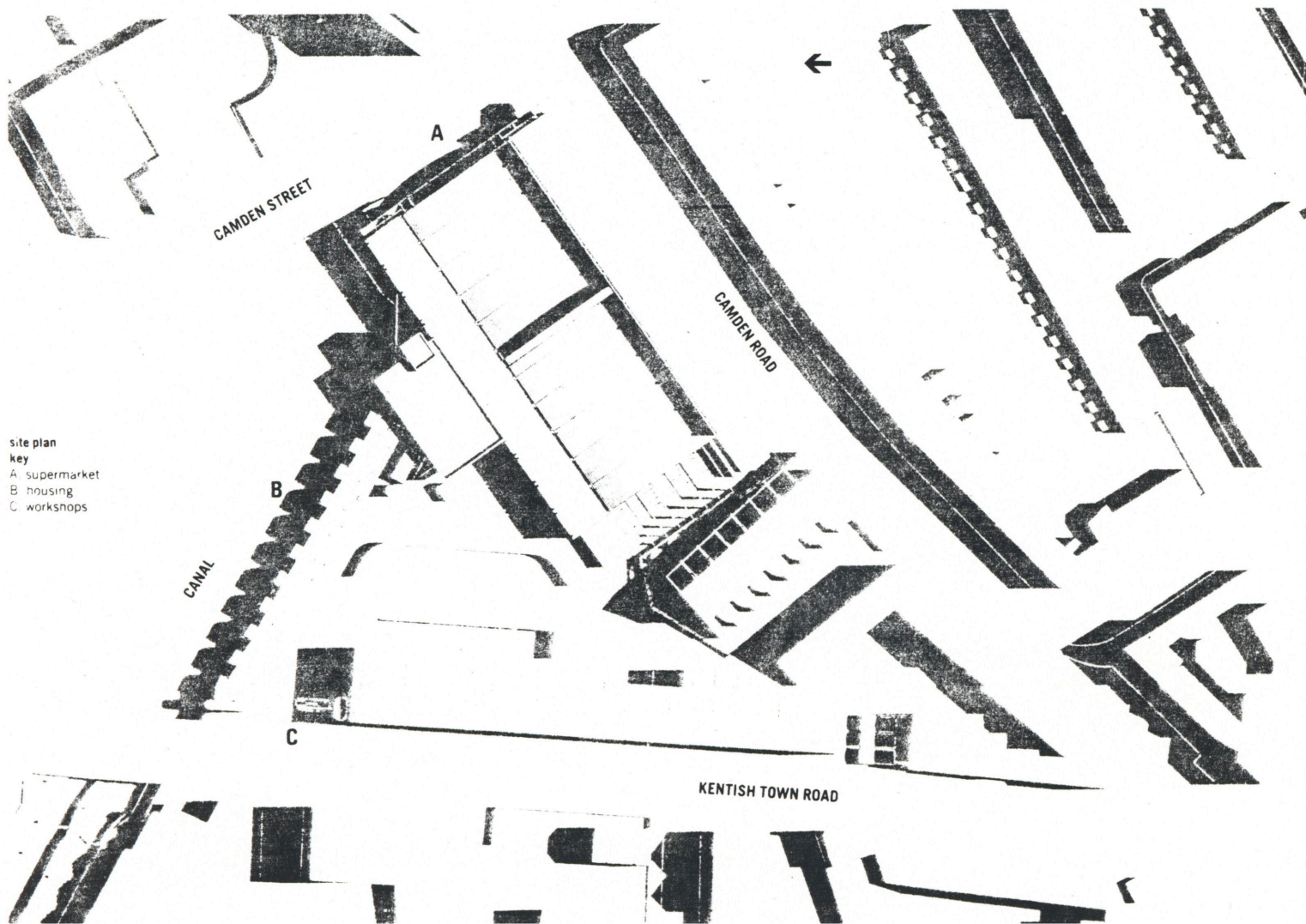
even if the prime generator was to be retailing. Sainsbury's were equally determined to have a supermarket but neither the site nor the council would allow Sainsbury's usual one-storey shed decorated with pseudo vernacular wrapping paper, a curiously schizophrenic approach in a firm directed by people who in their private capacities (using the profits from the shops) have commissioned some very distinguished modern buildings, for instance the Sainsbury Centre by Foster at the University of East Anglia (AR December 1978), and the Sainsbury building at Worcester College, Oxford, by MacCormac, Jamieson & Prichard (AR September 1983).

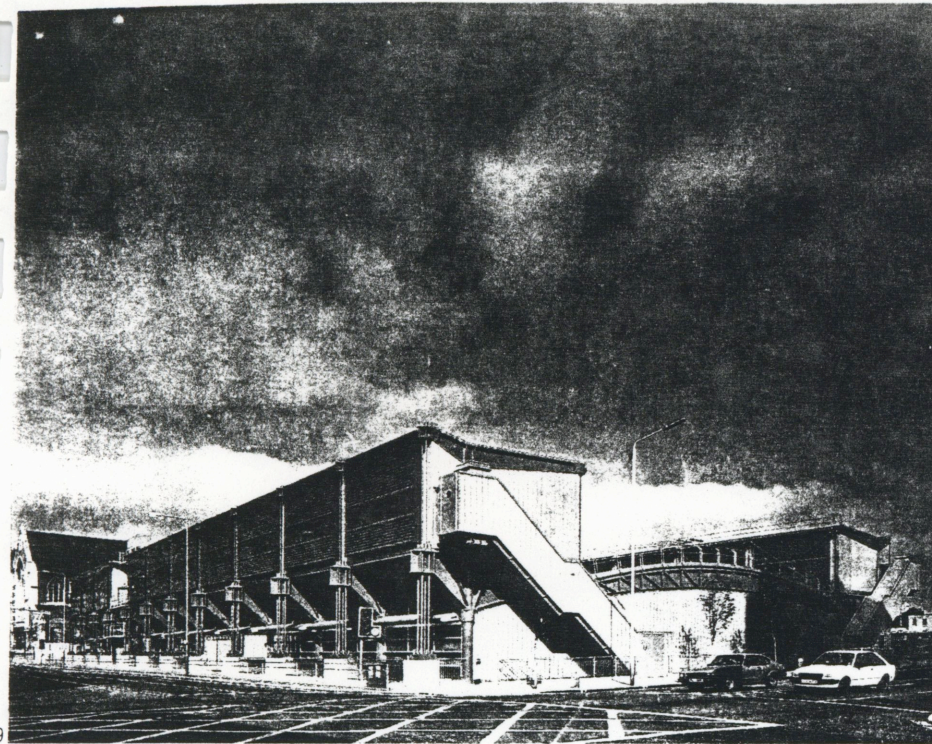
In Camden, the struggle between Sainsbury's and the Council raged and after one firm of developer's architects had thrown virtually every style at the problem (all refused by Camden), Sainsbury's very sensibly took the advice of their architectural adviser, Colin Amery, looked at a short list of good architects and appointed Nicholas Grimshaw & Partners.

It was a brave choice, for Grimshaw's had done few urban buildings; their expertise was largely in big, highly sophisticated but virtually single-volume structures on open sites (for instance the Oxford Ice Rink—AR March 1985).

Perhaps it was this very background that drew the client to them. The architects had to sort out two strategic issues right at the start: how to bulk up the building to give it urban presence in this three- and four-storey part of

- 6, close-up of part of end wall of supermarket on Camden Street where curving roof truss meets end of tapered girder. Above latter is plant room and beside it an enclosed stair.
7, escape stair on Camden Road.
8, close-up of structure and cladding of staff/plant rooms as seen from roof of supermarket.



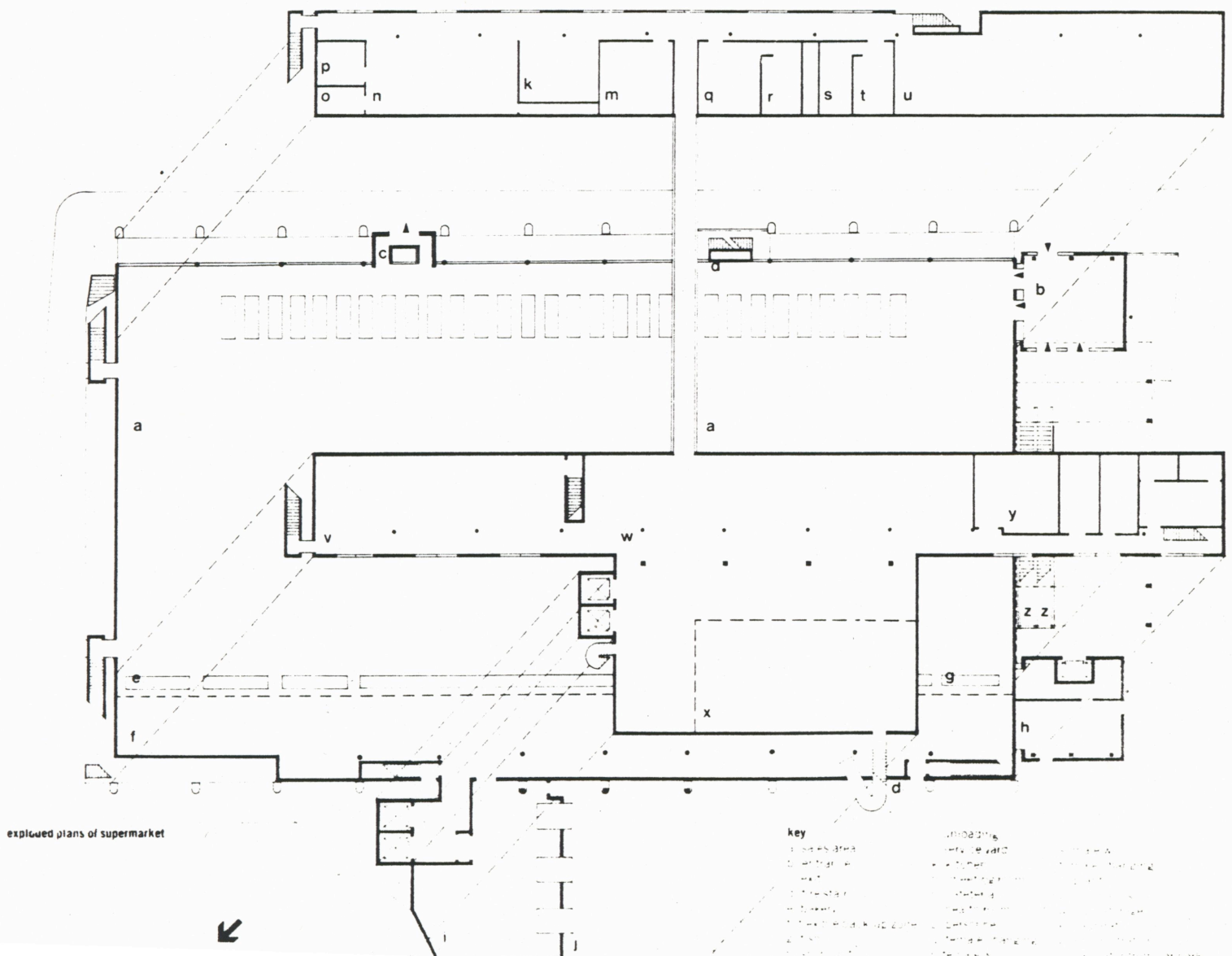


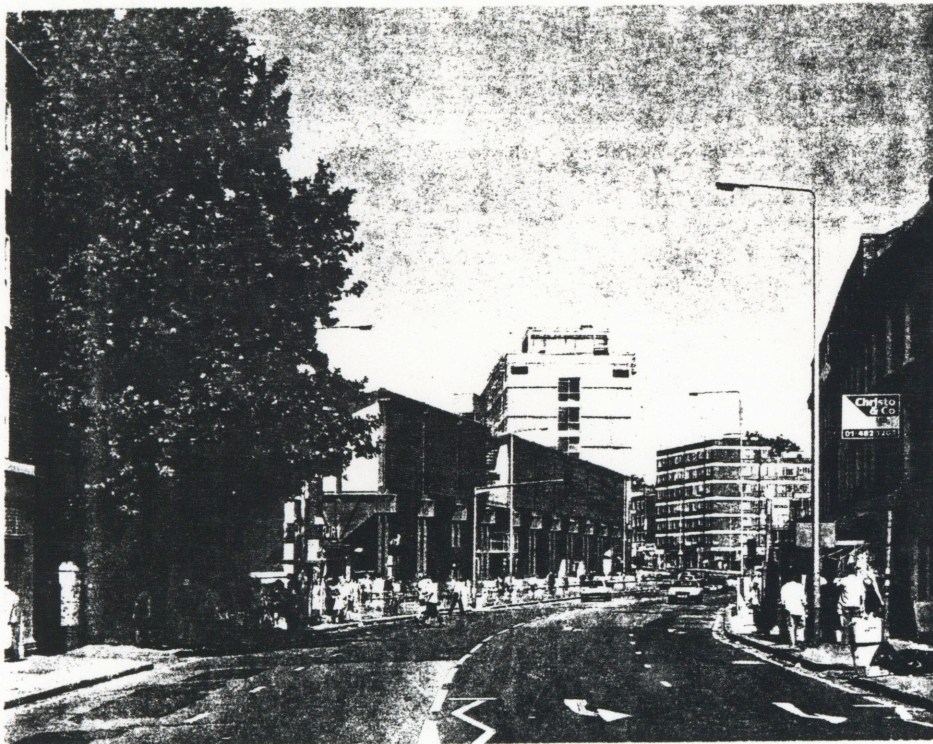
restricted site.

Early on, the architects decided that the bulk of the parking must be underground, with a little at street level and some above (the latter was dropped by the client fairly late on in the design process). So it was vital that some way of getting trolleys (carts) from level to level should be evolved which was both efficient and safe. Lifts would be too slow and cumbersome—static ramps, such as are found in airports would have been too off-putting and, perhaps, too dangerous. The client came up with a simple but brilliant device. Each trolley leg terminates in a fixed centre piece 22 mm wide with, on each side, a thin rotating piece of slightly greater diameter than the fixed part. The trolley runs on these thin rotating flanges. Ramps of moving metal plates connect the underground car park with the shopping floor at street level. Each plate is grooved, so when a trolley hits the ramp, the flanges on each foot sink into the grooves. The central, fixed part of the foot is flattened at the bottom where it has a friction pad. The pads sit on the ridges between the grooves and hold each trolley safely in place on the moving ramps by gravity and friction. As soon as the trolley reaches the end of a ramp, it rolls on the flanges and becomes freely mobile again.

the city, and how to get the car parking either above or below ground to ensure the building would not be surrounded by a sea of cars—and that enough cars could be got on to the

This device could revolutionise the design of supermarkets, making possible not only what has been achieved at Camden but the notion of





10

9. supermarket seen from corner of Camden Road and Camden Street. From here structural solution is immediately legible though robbed of much of its inherent drama by lowness of central arch.
10. supermarket in context of Camden Road.

the supermarket as part of multi-use building.

In some ways, the design of the building has been as elegantly and simply ingenious as that of the trollies. The client was determined that the shopping hall itself should remain a single-storey shed. This was partly because Sainsbury's have evolved a most efficient heating system which relies on extracting waste heat from refrigeration plant and the lights into a plenum between roof and ceiling. A deep and preferably lightweight structure is needed—perfect for a trussed system.

To get everything on to the site, as well as to ensure that the building had an urban presence on Camden Road, it was imperative to stack up accommodation on both sides of this big shed. At an early stage, it was decided to put staff accommodation and plant in a strip over the southern (Camden Road) side of the shed, and to put the storage in a strip over the northern side. The architects were determined to achieve a clear, columnless span in the shopping hall which meant that supports had to be at the outer wall planes, with the inner edges of the two upper strips supported on cantilevers. From the inner edges of the cantilevers, the curved trusses of the main spans over the shopping hall were suspended; the ceiling (the underside of the plenum chamber) could then flow in a shallow smooth curve over the whole hall, following the line of the trusses and then that of the tapered plate girder cantilevers out to the columns in the glazed wall on Camden Road. To prevent the cantilevers toppling inwards towards the middle of the hall, the girders project beyond the plane of the wall of the hall and are held down by groups of four 50 mm ties—a kind of tensile order somewhat similar to that proposed by Arup Associates for Paternoster Square (AR November 1988).

The ties are what give the building its rhythm on Camden Road, and enable its great bulk to be broken down into visual units not dissimilar in height and width from the houses over shops in the terrace opposite. But having established a certain affinity of scale, the architects have made everything else

floors have grey pressed aluminium panels with horizontal strip windows. Horizontality is pronounced on the ground floor too, with long fixed louvres presenting sun penetration through the glazed wall into the sales hall.

This big space can, of course, be seen directly from the street with the line of the checkout counters running parallel to the glazed wall, so virtually at any time of day or night, there is action to be perceived within—a great improvement on the first generation of urban supermarkets, mostly now outmoded, which either presented a blank wall to the street or windows covered with stickers. But it must be admitted that Camden's animation and transparency takes place fairly far back from the street. The immediate impression to a pedestrian walking along beside it is of the immensely tough battleship-like detailing of the plate girders, the ties and the concrete bases which hold them down. (The effect is different and rather less daunting from the other side of the street or from a vehicle.)

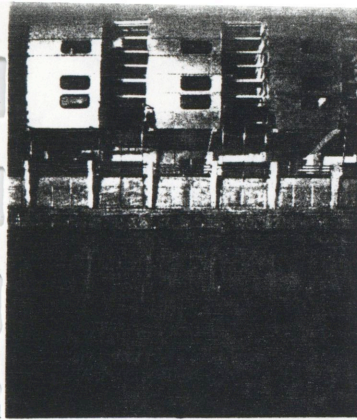
The muscularity abates at the entrance—a single-storey structure looking as if it has slid out from underneath the end cantilever. The entrance hall opens out at the back to a court for trollies with an elegant transparent roof. To the right of the entrance as you go in is the main sales area, about which little need be said because it is dominated by Sainsbury's standard mediocre signs and shop fittings. (Apparently, the company has a plan to improve its standard designs; it is a pity that it could not have been implemented in time for the Camden building.) Only the shallow and elegant curve of the ceiling makes the space more distinguished than a normal supermarket hall.

ENLIVENING THE STREET

The Sainsbury site is roughly triangular and, while the Camden Road side is, in urban terms, the most important, the one on Kentish Town Road to the west is almost as long. This stretch of the street is much less animated than it becomes further north and it could certainly do with the injection of some new life. Camden requested that Sainsbury's should provide some light industrial workshops and these are placed two storeys up in a simple concrete framed building. There is a small crèche at the southern end of the site and a couple of (as yet untaken) shop units. But it seems a pity that one of the architects' original design proposals was not implemented: most of what is now ground level car parking would have been on a mezzanine and there would have been a whole row of shops along the street. Instead, one now looks glumly through railings at the small car park—scarcely an inviting prospect and one which does nothing to improve the quality of the street. But it is still not too late to go back to the original proposal which may seem more attractive now that the workshops have been given B1 status.

The third side of the triangular site is bounded by the Regent's Canal. Here are the houses required by Camden Council, arranged in a single aspect terrace facing north over the canal and backing on to Sainsbury's car park.

These difficult circumstances have been sorted out with great aplomb. A private path runs along the edge of the canal giving access to the front doors which lead to the entrance



11. part elevation of housing seen across canal.

12. workshops on Kentish Town Road—an extended but centralised linear composition with a High-Tech clad concrete frame.

SUPERMARKET, HOUSING AND WORKSHOPS, CAMDEN TOWN, LONDON

key

- a. workshop floor (double height)
- b. mezzanine to workshops
- c. wc pod
- d. crèche
- e. shop unit
- f. service yard
- g. car parking (possible future mezzanine level)

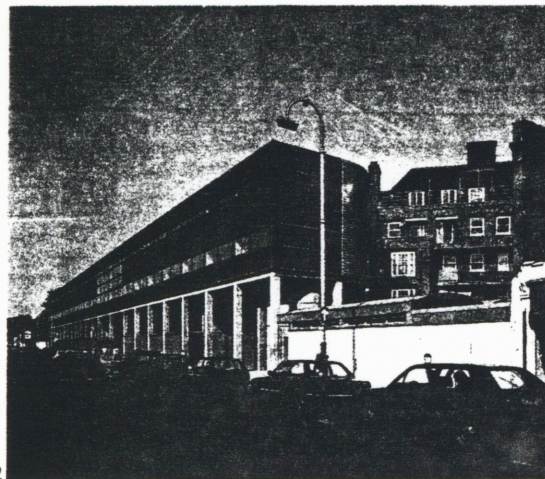
completely glazed wall looking out over the canal. The bottom half of the wall can be raised electrically so that the space flows out on to the nautically detailed balcony perched over the water. For much of the day, at least in summer, sunlight floods down into this volume from inclined glazed strips in the roof which are directed roughly south-west. Even so, when I was there long before midday in July, the whole volume was luminous with sunshine.

From the outside, the terrace is rather more problematical. Most views from outside the site are oblique glimpses which emphasise the curved aluminium cladding of the living room and master bedroom; the curves are relieved only by three thin slots of gasket-surrounded glazing. It looks as if some expressionist factory from the early twentieth century has been reawakened with the kiss of modern technology. (In fact, the technology is far from revolutionary: the houses are of simple cross-wall construction with concrete floors and only clad in metal front and back.) Seen from the towpath on the opposite bank of the canal (and as they will be seen from the

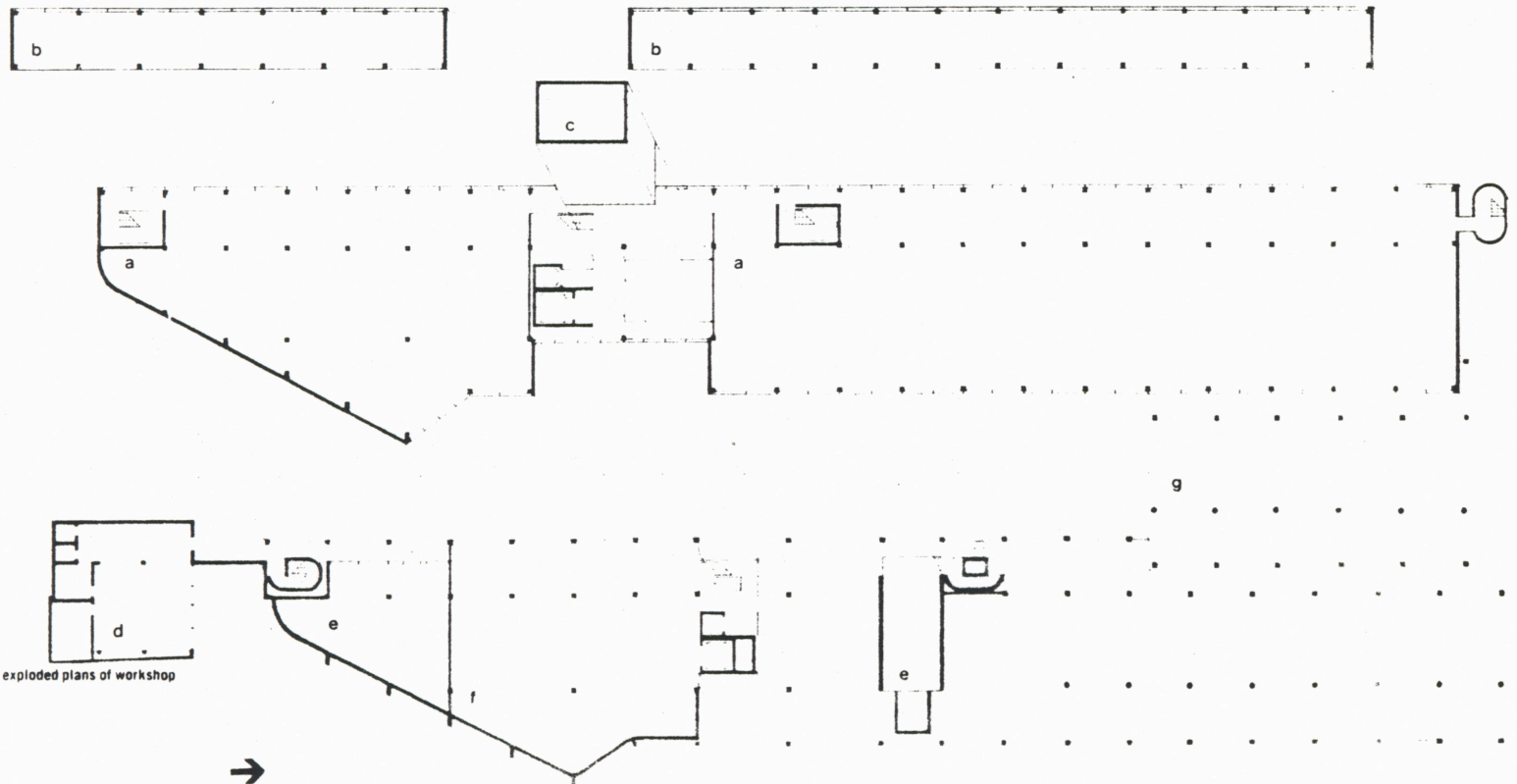
and more domestic. The architects explain their love of the curves by saying that they are designed to minimise buckling in the cladding, to provide privacy on the balconies and to enhance the view of the water from the living rooms. Doubtless the curves do all these things, but it is not difficult to imagine them appearing on dozens of student drawing boards in quite different contexts, which could well be disastrous.

Undoubtedly the new Sainsbury's complex is a good thing for Camden Town: 350 jobs have been created; for those of us who are customers, the general quality and variety of food has improved; there are new workplaces and a crèche (if the Council can find the funds to run it). Though the store does a roaring trade, Kentish Town Road has not been jammed as some predicted it would be—indeed the car park has never been full because the site is excellently served by public transport. Nor, after nearly three-quarters of a year, have predictions about wide-scale closure of local small shops been justified—yet at any rate. There may be reservations about aspects of the design—for instance, I find the colour very dark and rather oppressive; what Camden Town needs more than anything else is a good clean, and a gleaming new silver building might have had an invigorating effect.

But Council, clients and architects all deserve praise for beginning to tame a previously intractable building type. Unless the Prince of Wales and Leon Krier are successful in their attempts to roll back the twentieth century (AR August 1989, p4), we shall want to go on having the convenience and quality of good supermarkets. If so, then they must be brought into conversation with the multivalent fabric of the city without destroying it. To achieve that, as Camden shows, all the technical and programmatic resources of Modernism are needed.



12



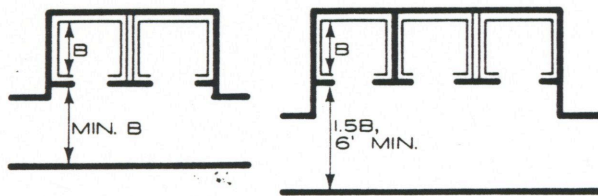
Appendix D

Hydraulic Elevator Systems

GENERAL NOTES

Lowrise buildings may use either the hydraulic or the electric elevator systems. Elevator selection, arrangement, and design of lobby and cars are similar in both cases. The primary differences between the two systems are in their operational requirements. The hydraulic elevator system is described below; the electric elevator system on the next page.

The major architectural considerations of the hydraulic elevator are the machine room, normally located at the base, and the hoistway serving as a fire protected, ventilated passageway for the elevator car. Adequate structure must be provided at the base of the hoistway to bear the load of the elevator car and its supporting piston or cylinder.



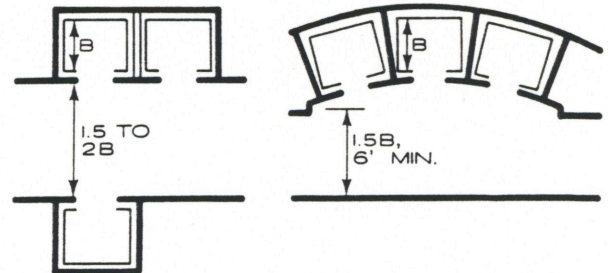
TWO CAR,
SIDE BY SIDE

THREE CAR,
SIDE BY SIDE

B = DEPTH OF CAR

NOTES

Certain guidelines lead to effective placement, grouping, and arrangement of elevators within a building. Elevators should be: (a) centrally located, (b) near the main entrance, and (c) easily accessible on all floors. If a building requires more than one elevator, they should be grouped, with possible exception of service elevators.

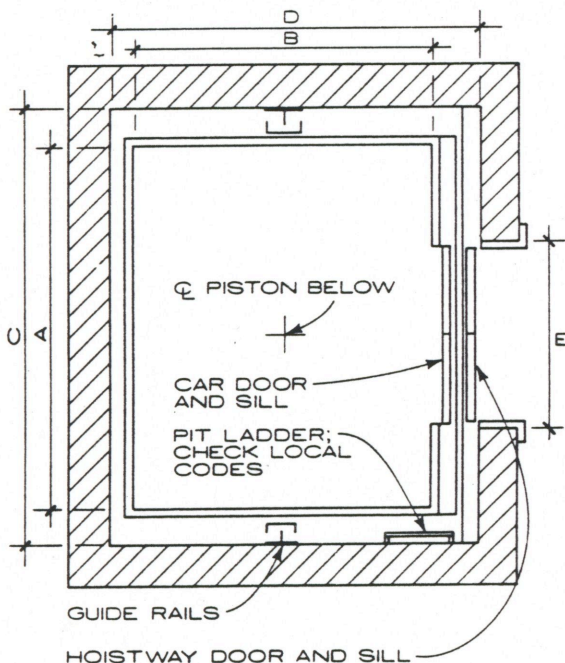


TWO OR THREE CAR,
OPPOSITE

THREE CAR, SPECIAL
ARRANGEMENT

Within each grouping, elevators should be arranged to minimize walking distance between cars. Sufficient lobby space must be provided to accommodate group movement.

ELEVATOR ARRANGEMENT, TWO AND THREE CARS (TYPICAL FOR LOWRISE APPLICATIONS)



HYDRAULIC ELEVATOR DIMENSIONS

RATED LOAD (LB)	DIMENSIONS (FT.-IN.)				
	A	B	C	D	E
1500	4-10	5-0	6-8	5-9	2-8
2000	6-0	5-0	7-4	5-9	3-0
2500	7-0	5-0	8-4	5-9	3-6
3000	7-0	5-6	8-4	6-3	3-6
3500	7-0	6-2	8-4	6-11	3-6
4000	5-8	8-9	7-4	9-8	4-0

Rated speeds are 75 to 200 fpm.

NOTES

Elevator car and hoistway dimensions of the preengineered units listed above are for reference purposes only. A broad selection of units is available. Representatives of the elevator industry should be contacted for the dimensions of specific systems.

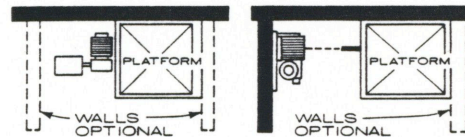
Hoistway walls normally serve primarily as fireproof enclosures. Check local codes for required fire ratings. Guide rails extend from the pit floor to the underside of the overhead. When excessive floor heights are encountered consult the elevator supplier for special requirements.

The SELF-SUPPORTING FREIGHT ELEVATOR is similar to the sidewalk elevator illustrated and operates within a building up to three stories (rise varies with manufacturer). Weight of the car is transferred through the supporting guide rails to the elevator pit.

With the electric winding drum machine, machinery must lift the full weight of car and its load. The drum must be anchored to the floor to resist uplifting forces. Safety codes forbid use of electric winding drum machines for passenger elevators and restrict their use on freight elevators to a speed not exceeding 50 fpm and a travel not exceeding 40 ft; they shall not be provided with counterweights.

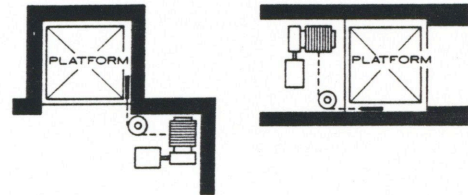
SELF-SUPPORTING ELEVATOR DIMENSIONS

CAPACITY (LB)	PLATFORM		HOISTWAY	
	WIDTH	DEPTH	WIDTH	DEPTH
1,500	5'-4"	6'-1"	6'-11"	6'-9"
2,000	6'-4"	7'-0"	7'-11"	7'-8"
2,500	6'-4"	8'-0"	7'-11"	8'-8"



SIDE MOUNTED

WALL MOUNTED



AROUND THE CORNER MACHINE IN BACK

MACHINE LAYOUTS - WINDING
DRUM TYPE

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"Prepared Foods, Charting the Course." Supermarket News, September 18, 1989, pp. 10-12.

"Pushcarts." Mad Magazine, December 1958. pp. 19-21.

"Store Owner Tries to Lure Upper Class." Billings Gazette, December 10, 1989, p. 8-D.

Design Supplement



THESIS TWO

Site Analysis

The site I have chosen for this project is located in downtown Seattle, Washington.

The legal description for the site is as follows:

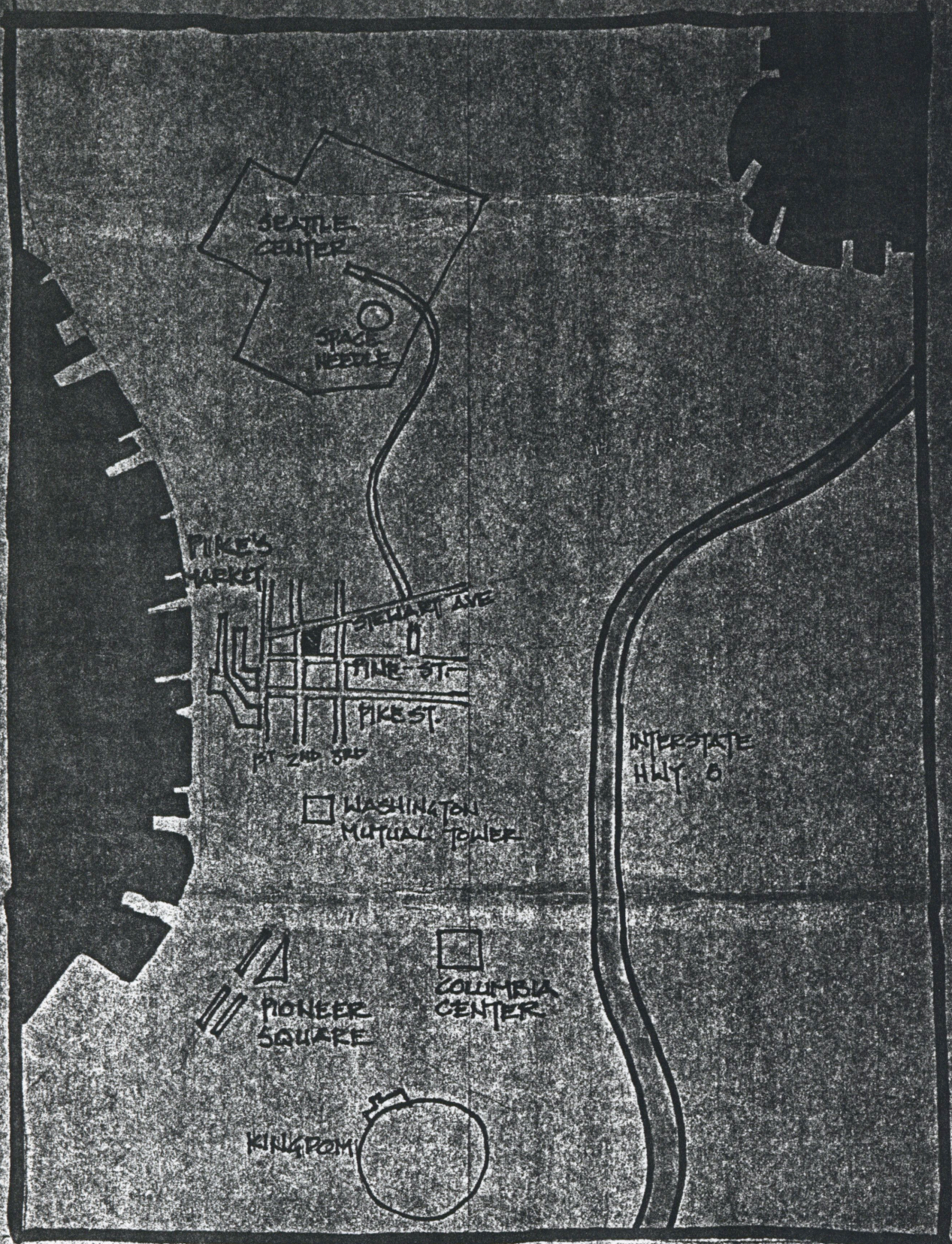
Block 45.

Lots 4, 5, 8, 9, and 12.

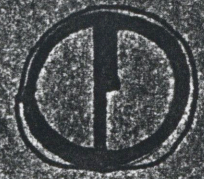
The Streets that border the site are:

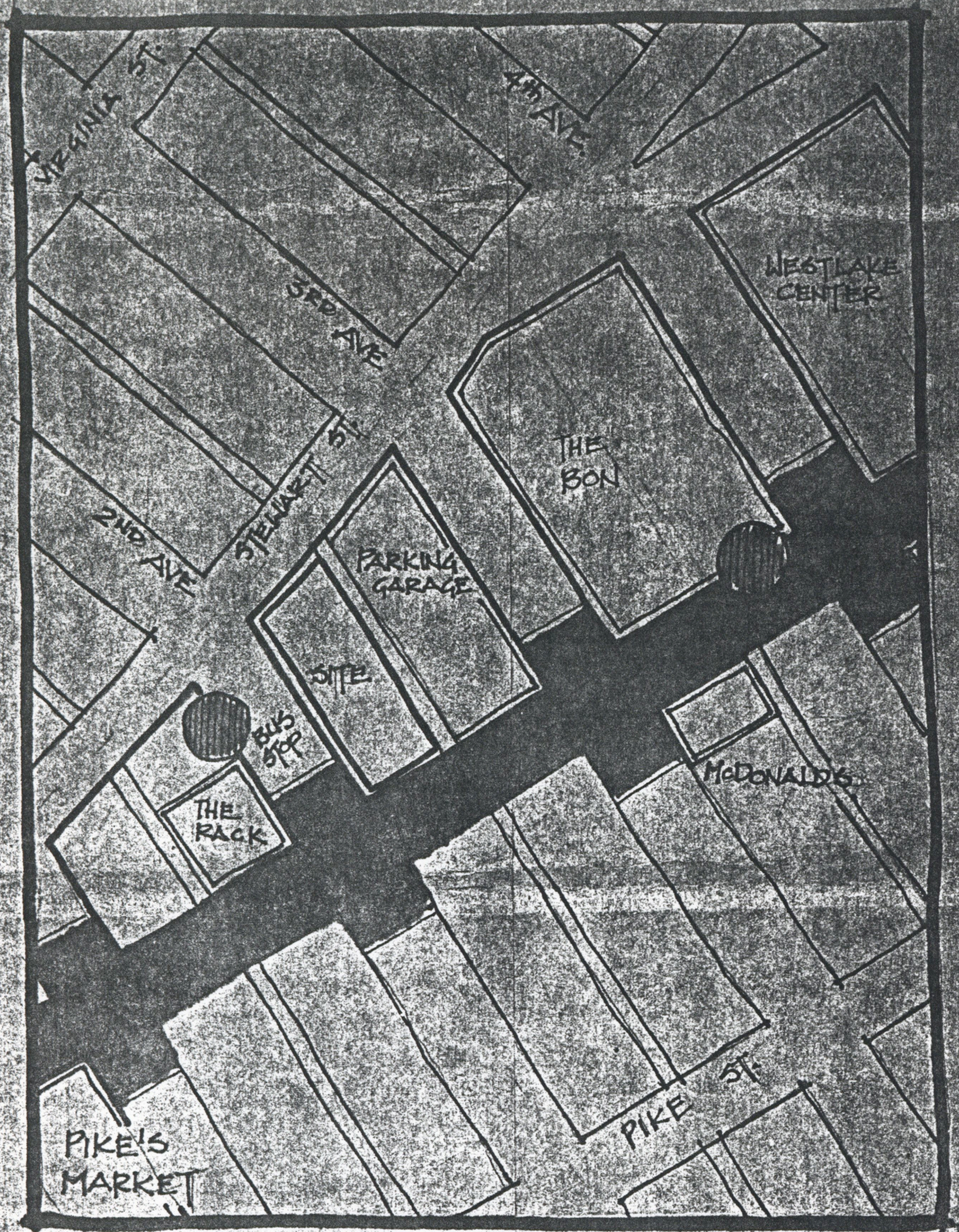
2nd Avenue
Stewart Street
Pine Street

The following pages show this information graphically as well as some of the physical characteristics that have influenced the overall design solution.



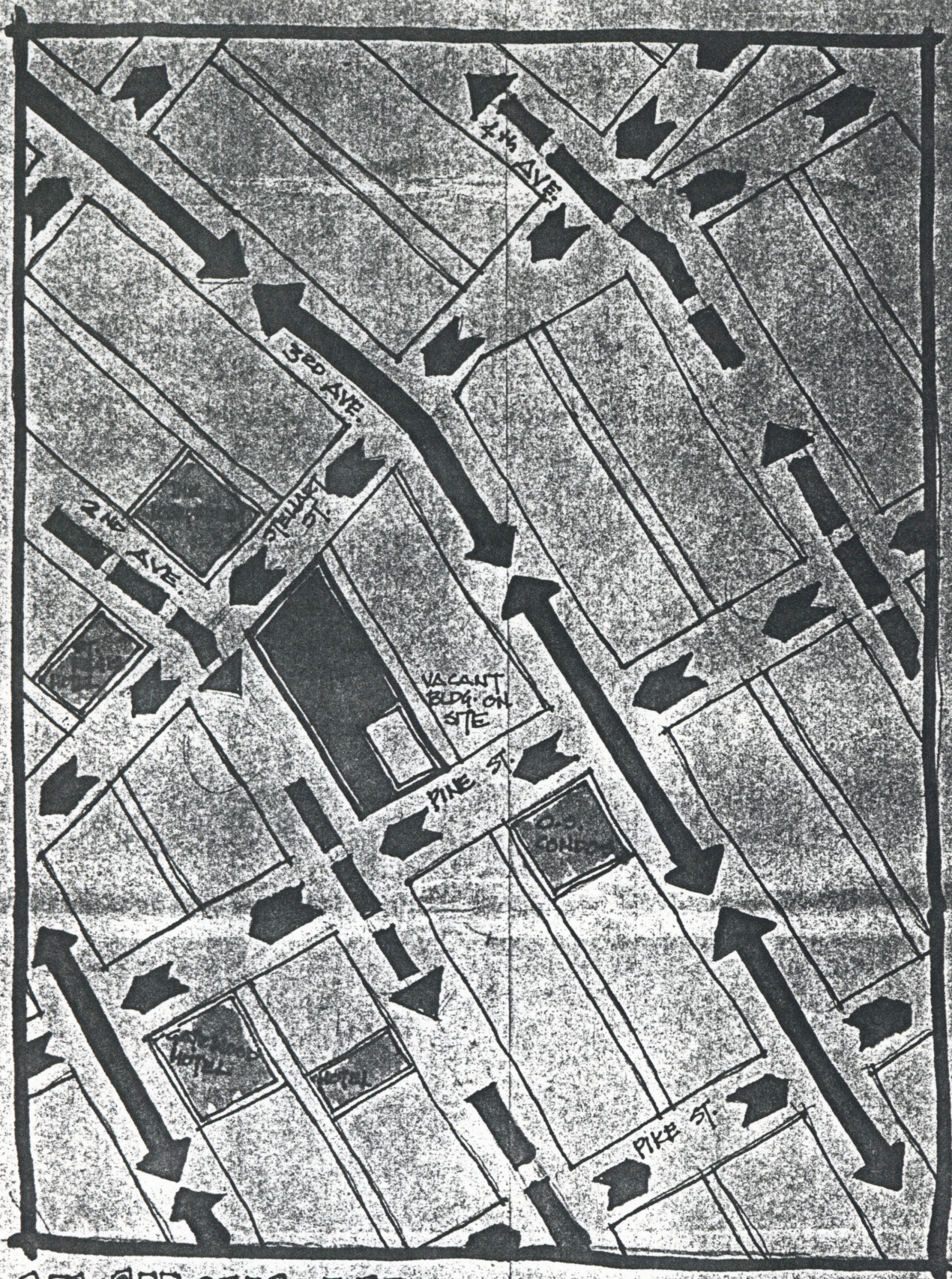
**DOWNTOWN
SEATTLE**





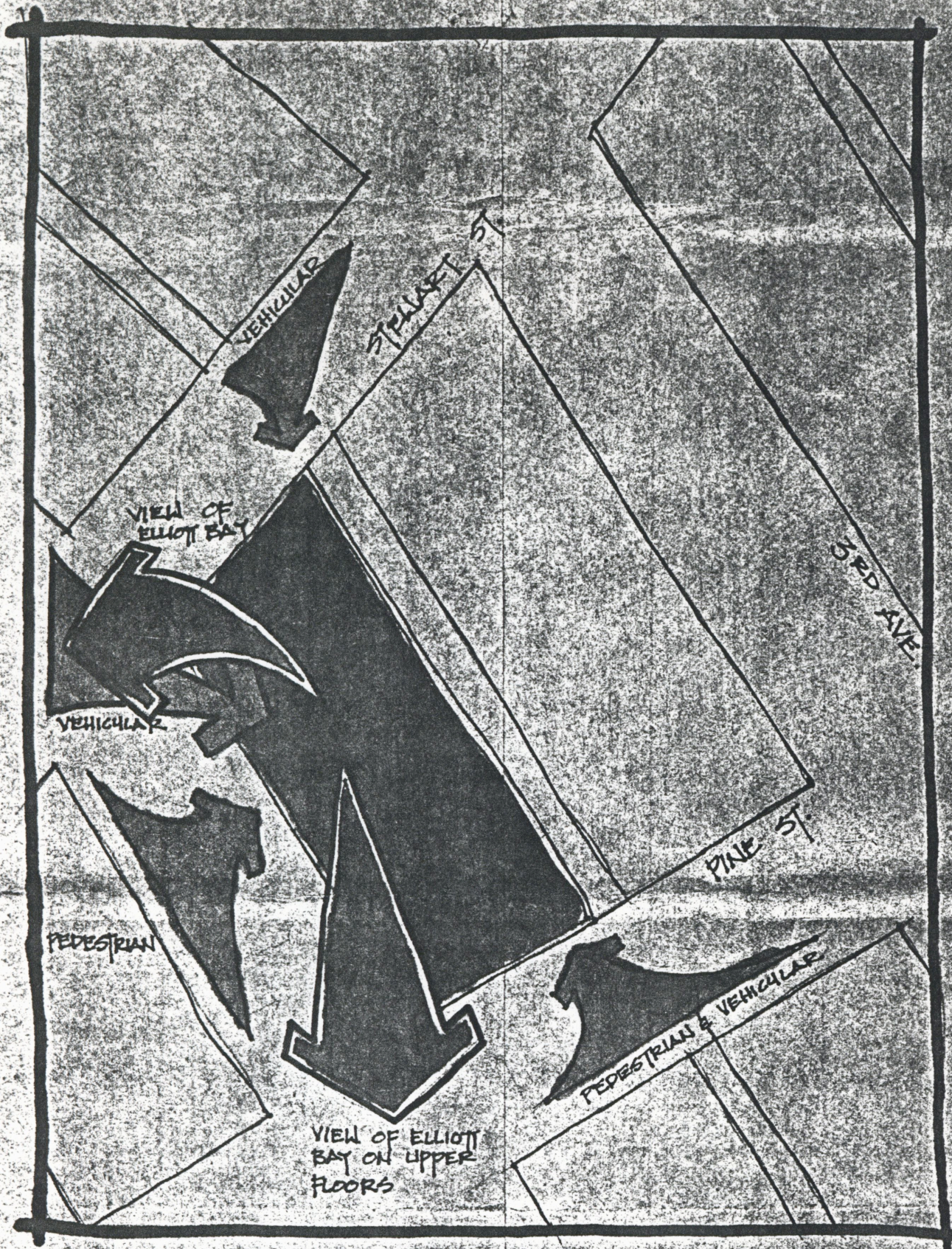
**RETAIL
SHOPPING
DISTRICT**



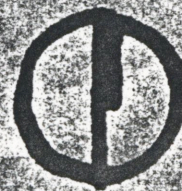


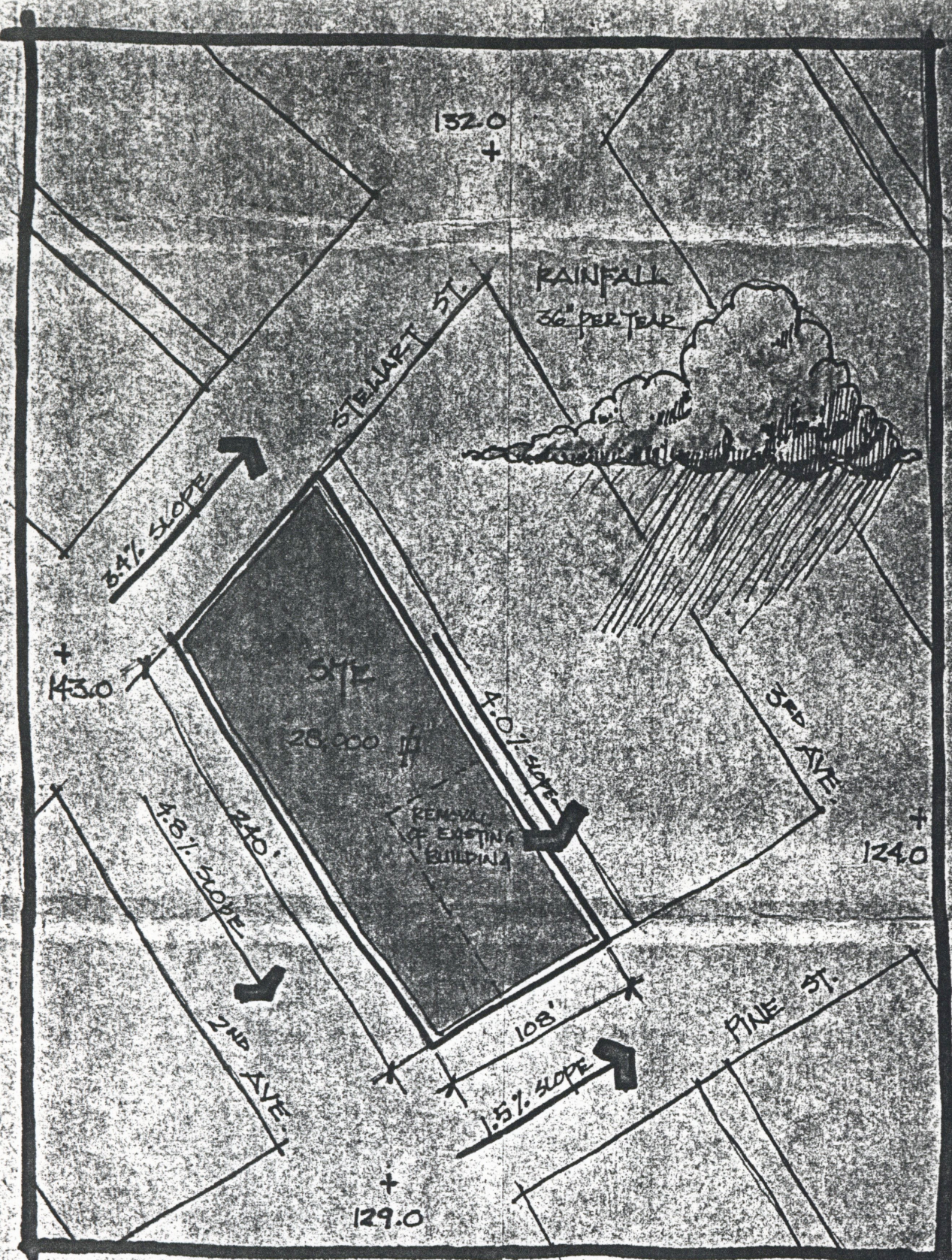
**VEHICULAR
CIRCULATION
& HOUSING**





VIEWS





**HARD
DATA**



Design Solution

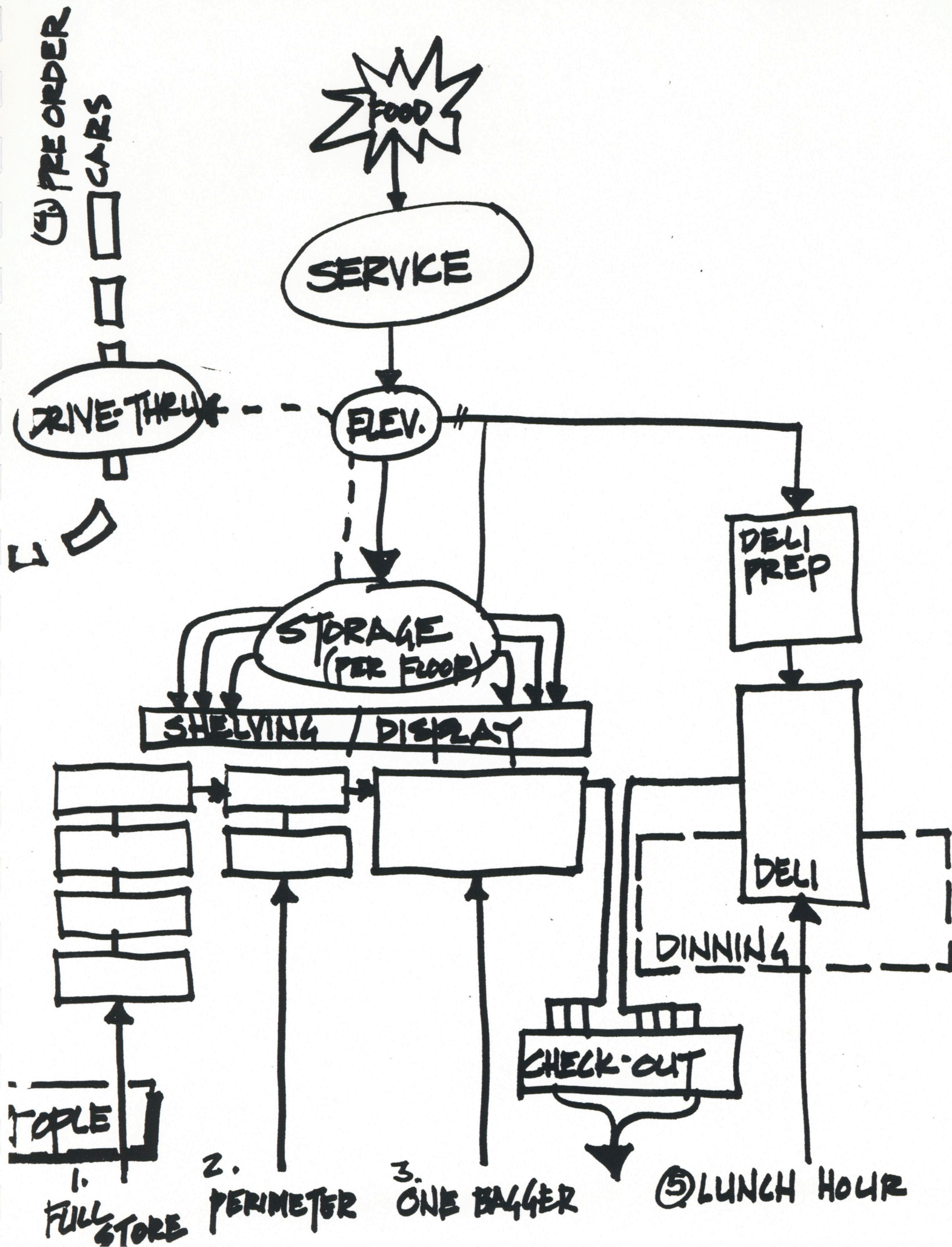
The following pages are a sampling of the sketches, diagrams and rough floor plans that lead to the final solution shown in the slides.

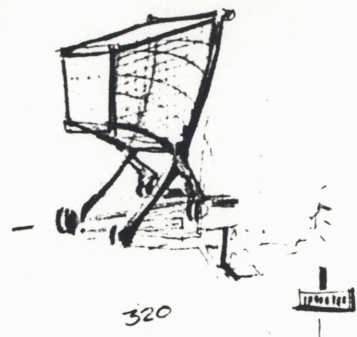
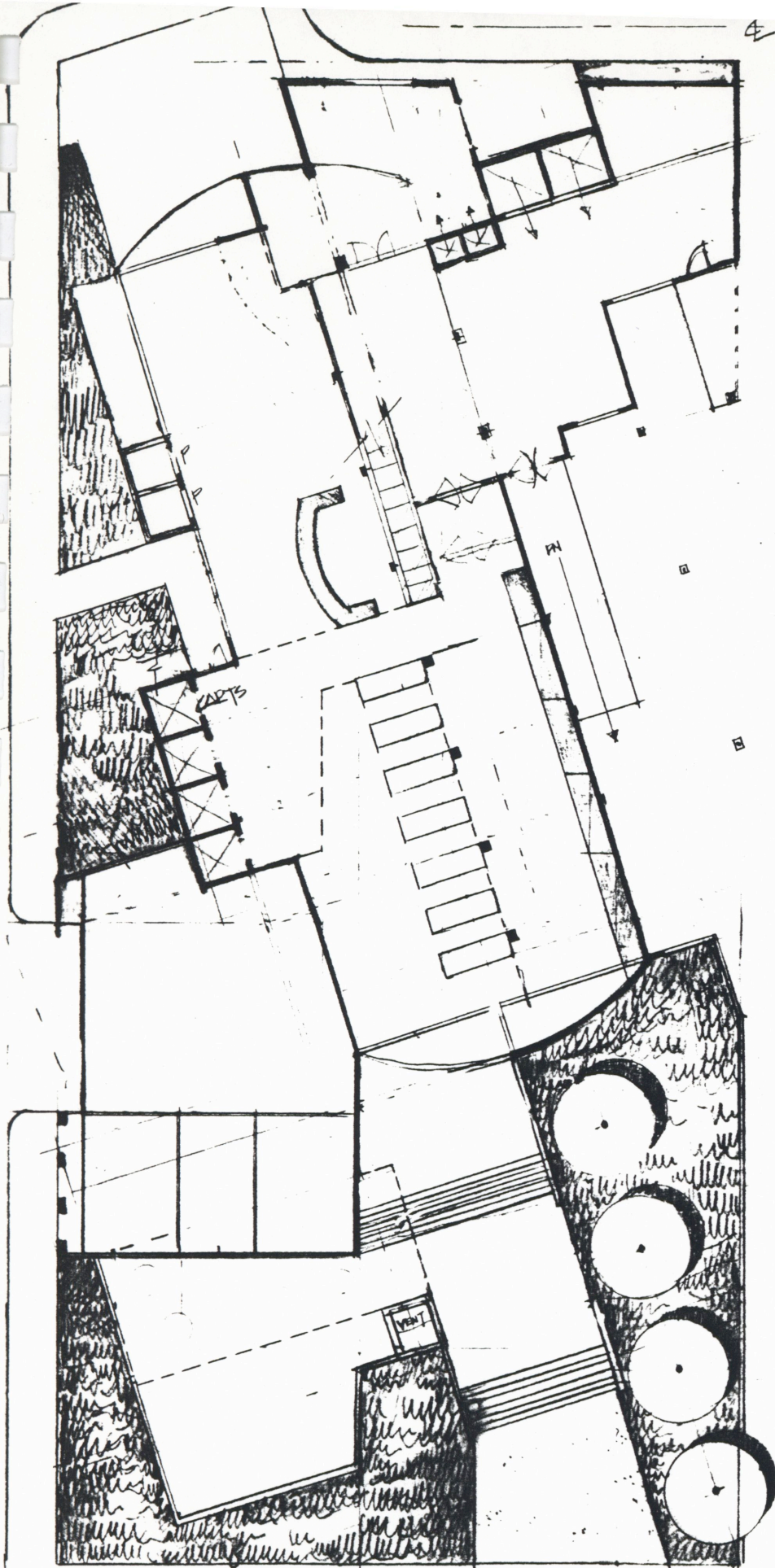
MULTIPLE OPTION SHOPPING

⑤ TYPES OF CUSTOMERS

- ① FULL STORE (ALL ISLES)
- ② PERIMETER (DAIRY, MEAT, PRODUCE, BAKERY)
- ③ ONE BAGGERS (CONVIENCE)
- ④ PREORDER (DRIVE-THRU)
- ⑤ LUNCH HOURS (DELI SHOPPERS)

DOES THIS SUPERMARKET HAVE
TOOTHPASTE AND PAPER TOWELS?





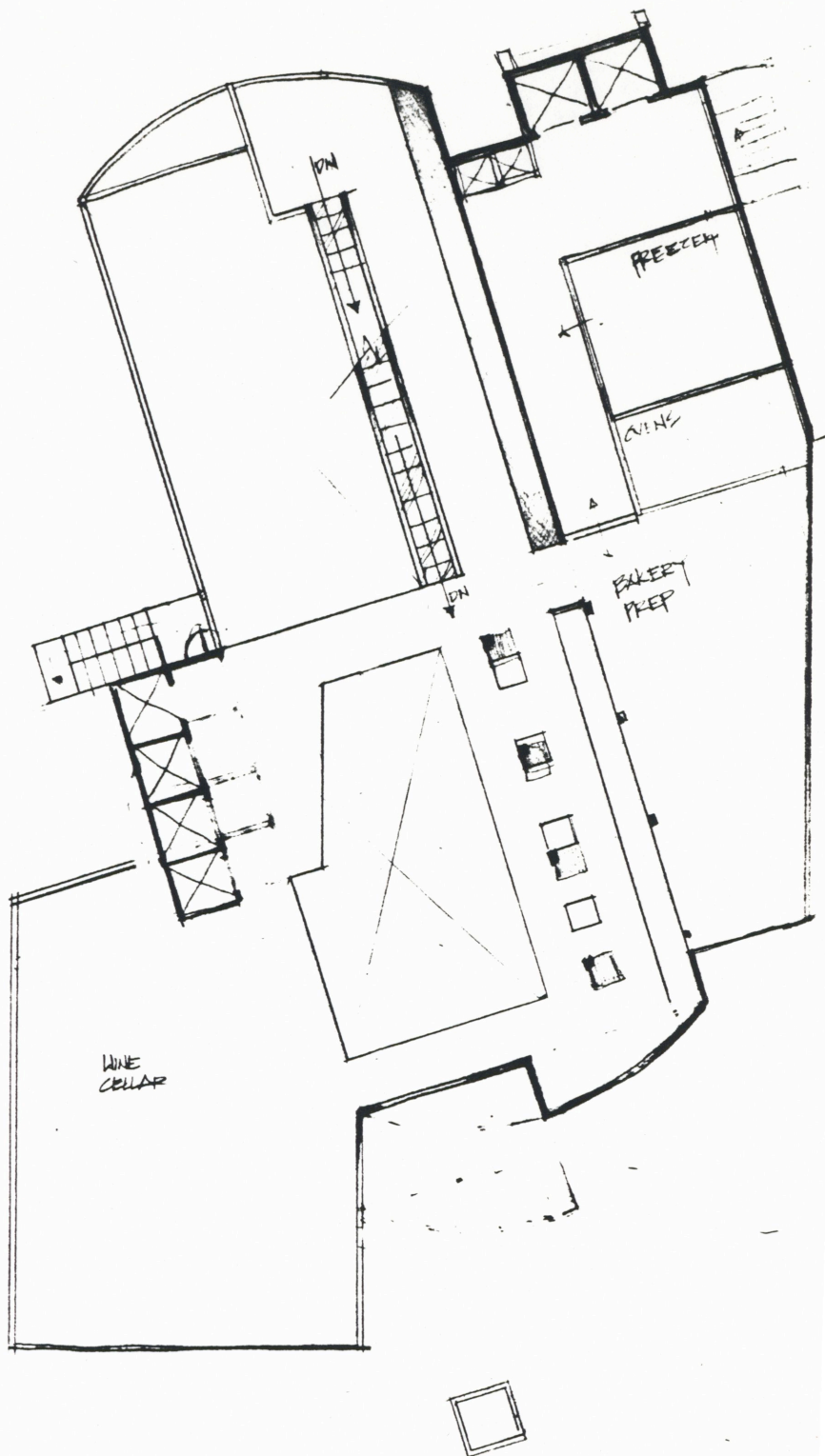
$T = \frac{E \cdot T_{max}}{E}$

41.44

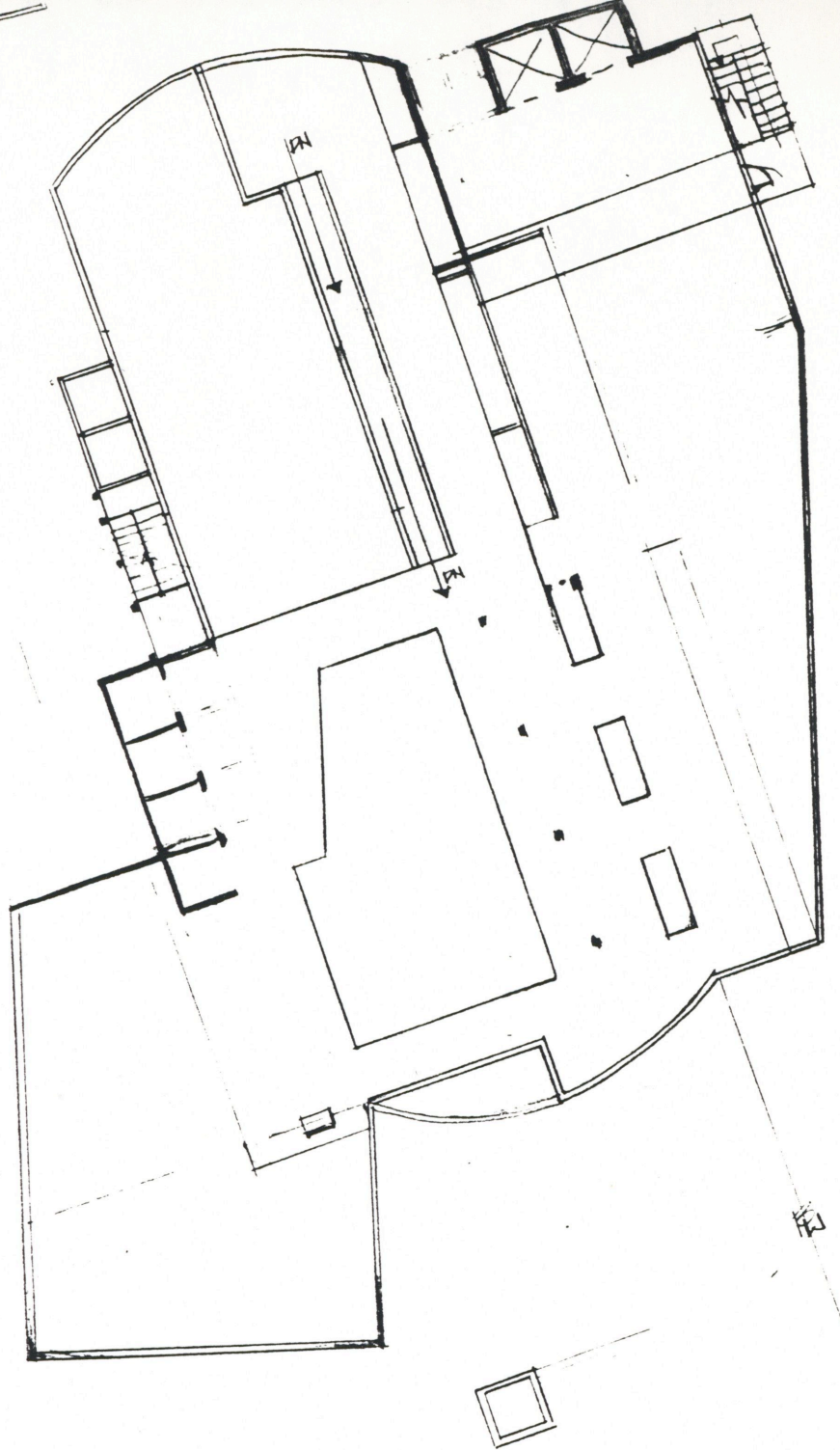
$E = R.740$

54-21

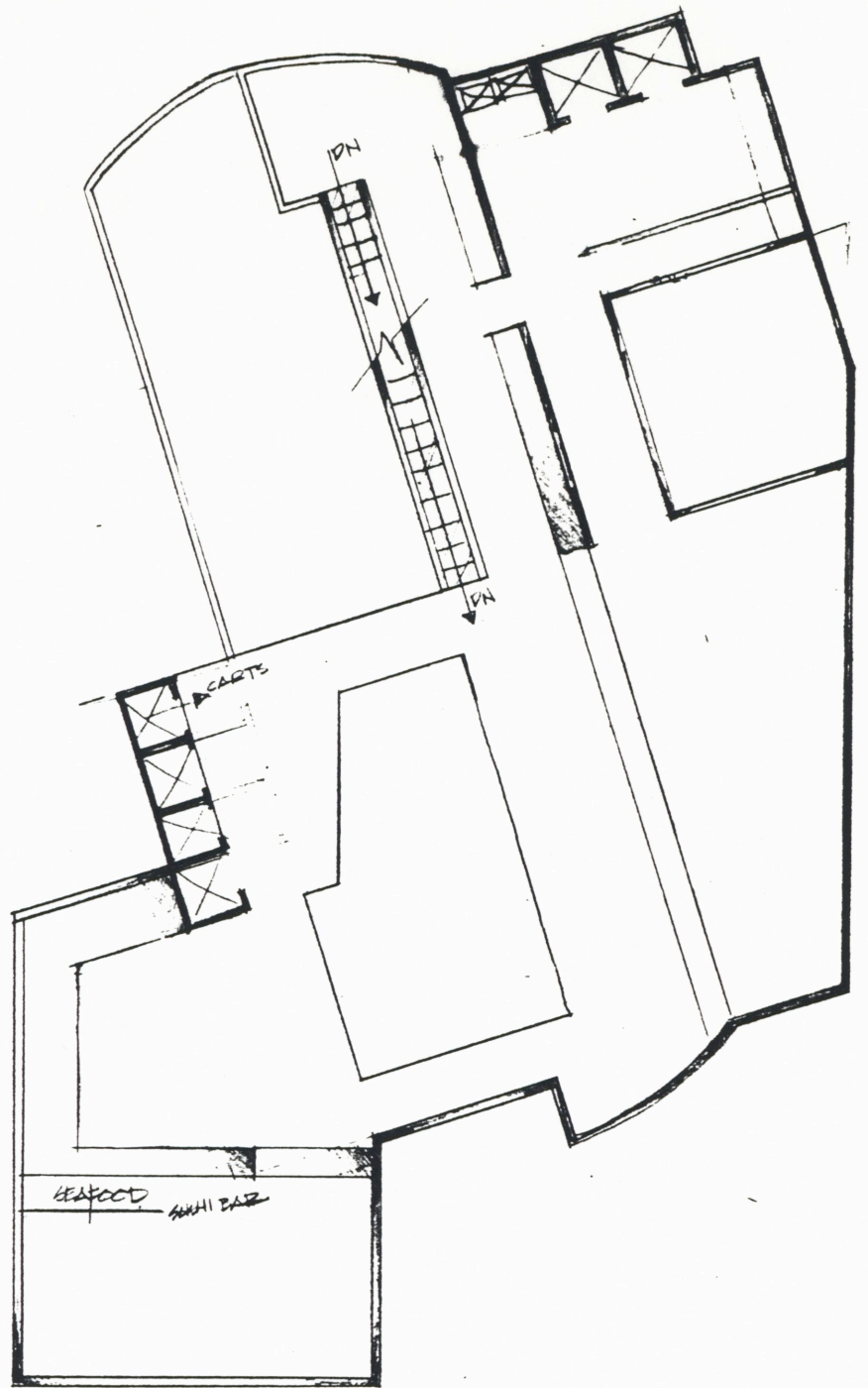
① GROUND



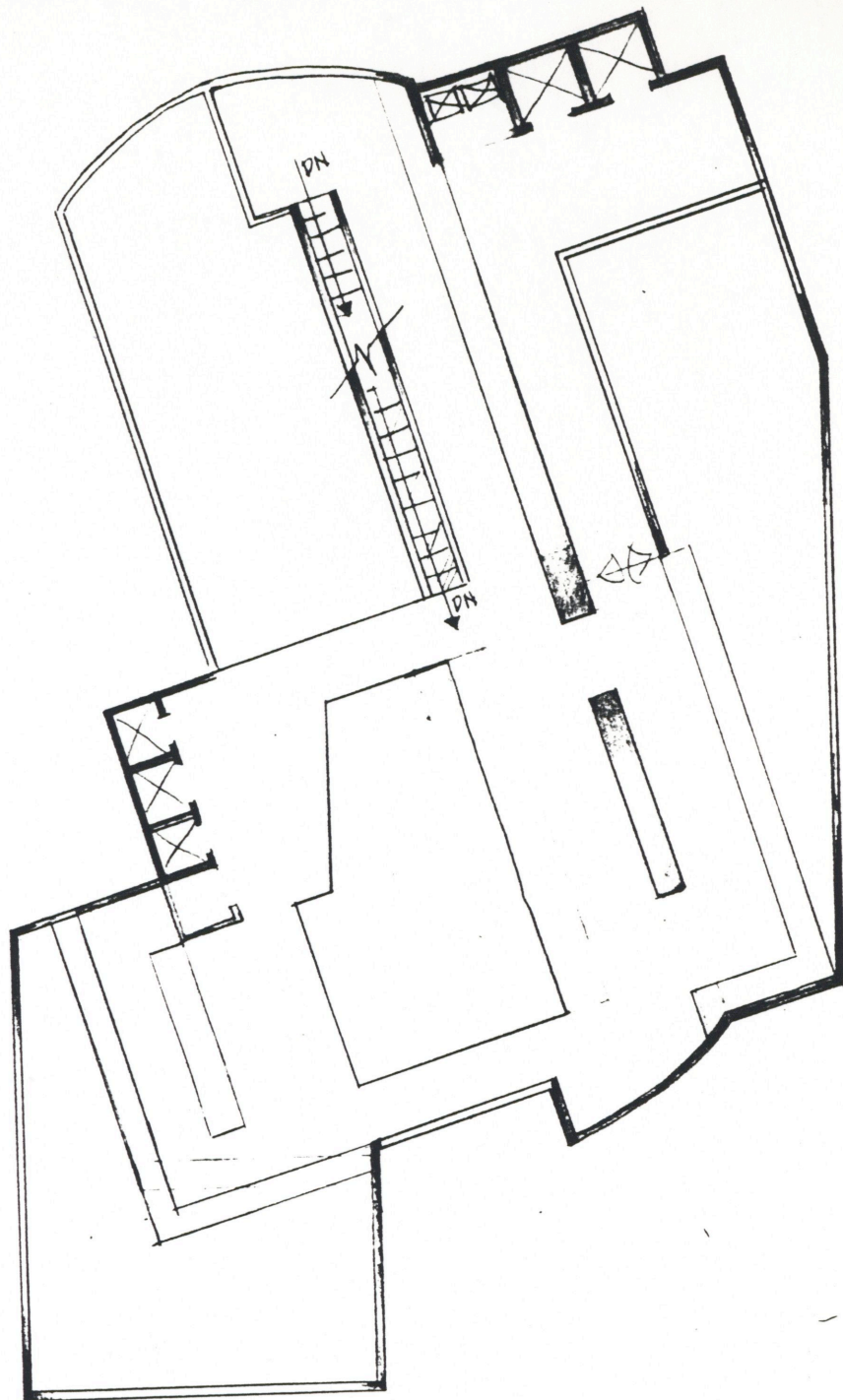
BAKERY



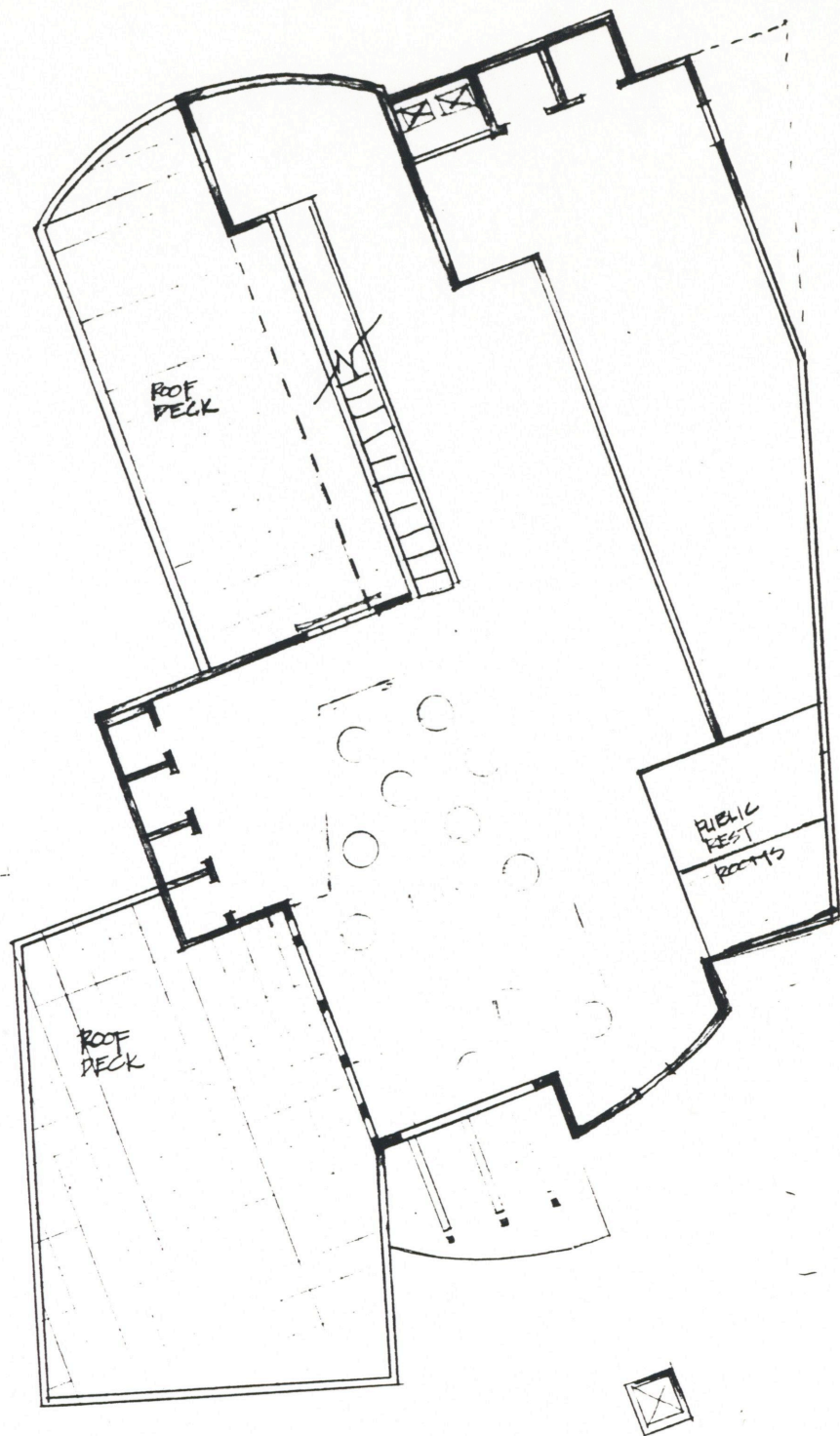
PRODUCE



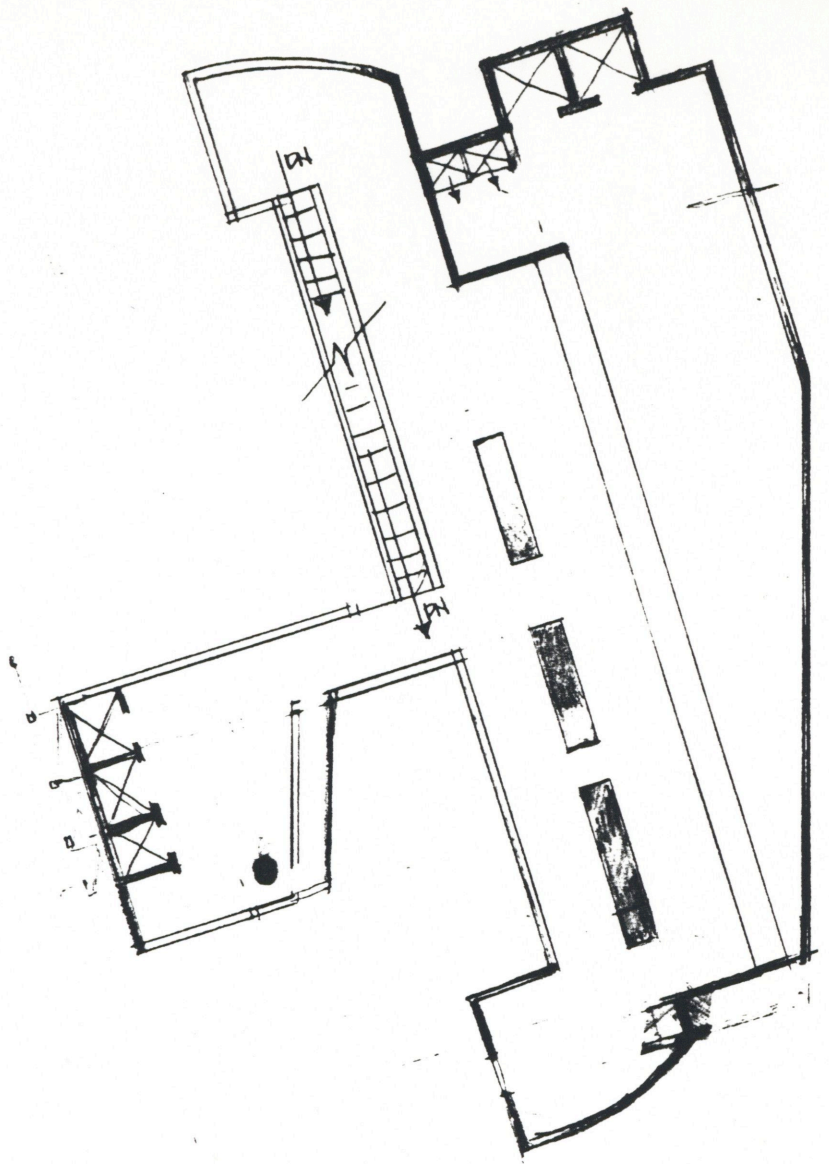
MEAT



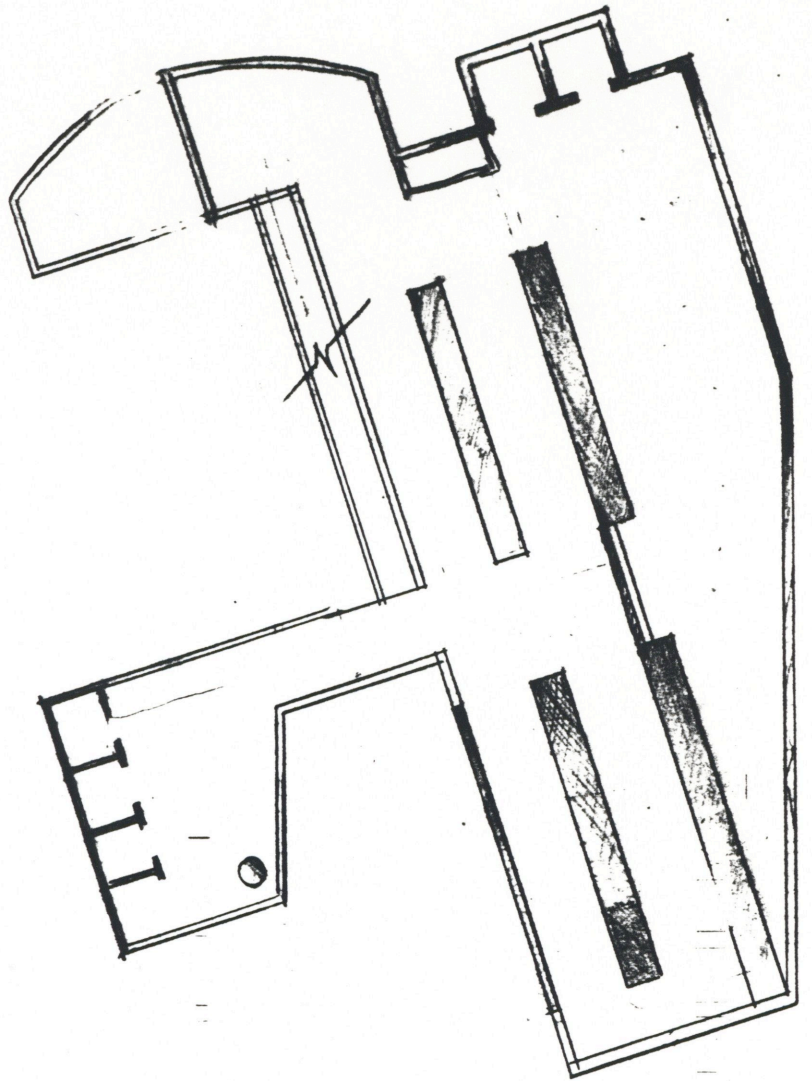
DAIRY



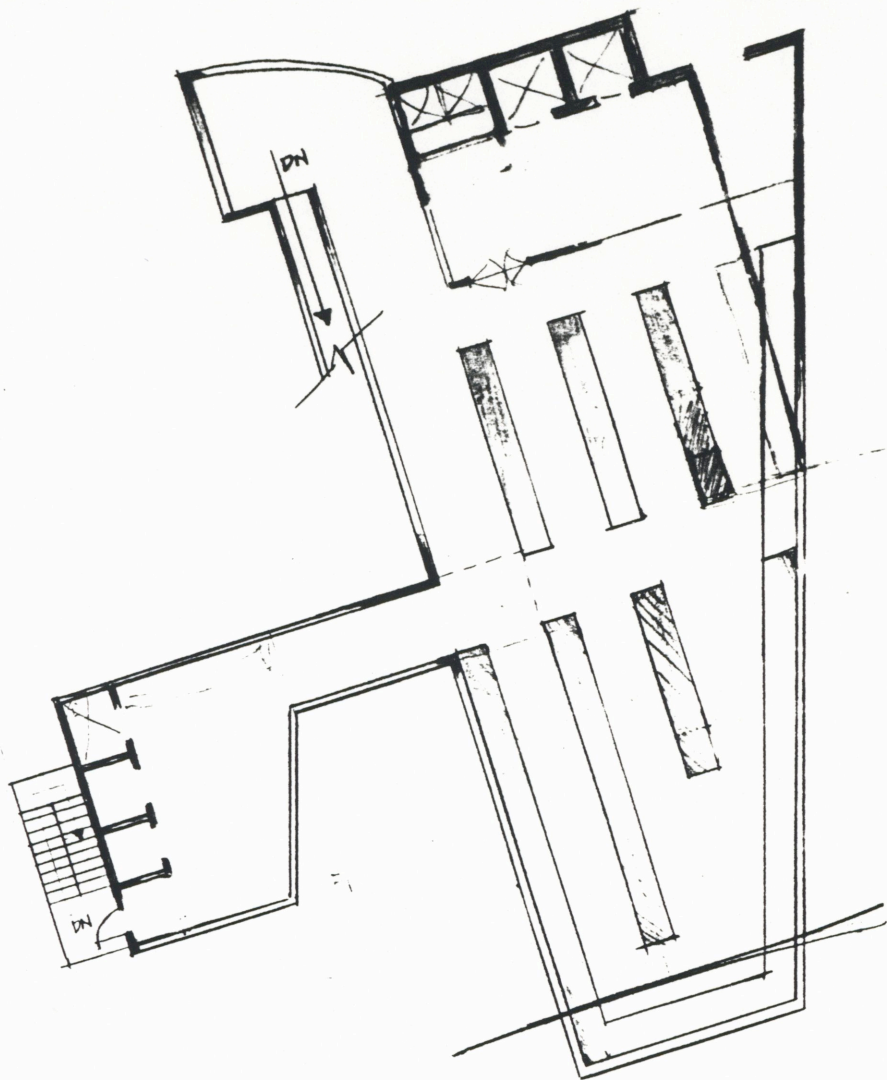
DELI (READY-TO-EAT)



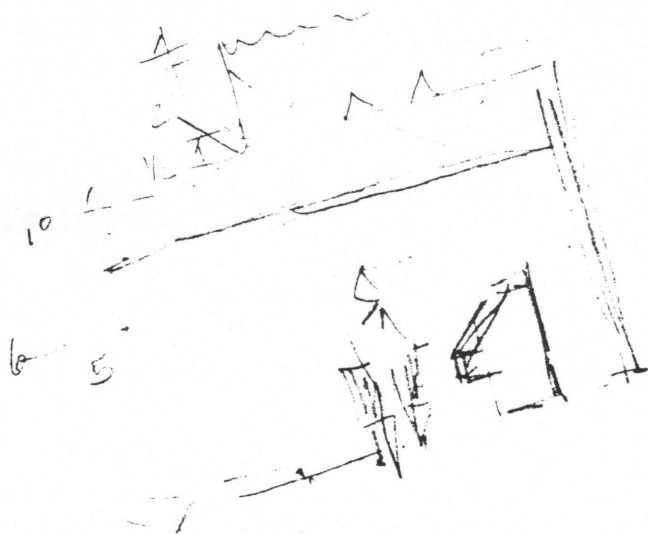
FROZEN

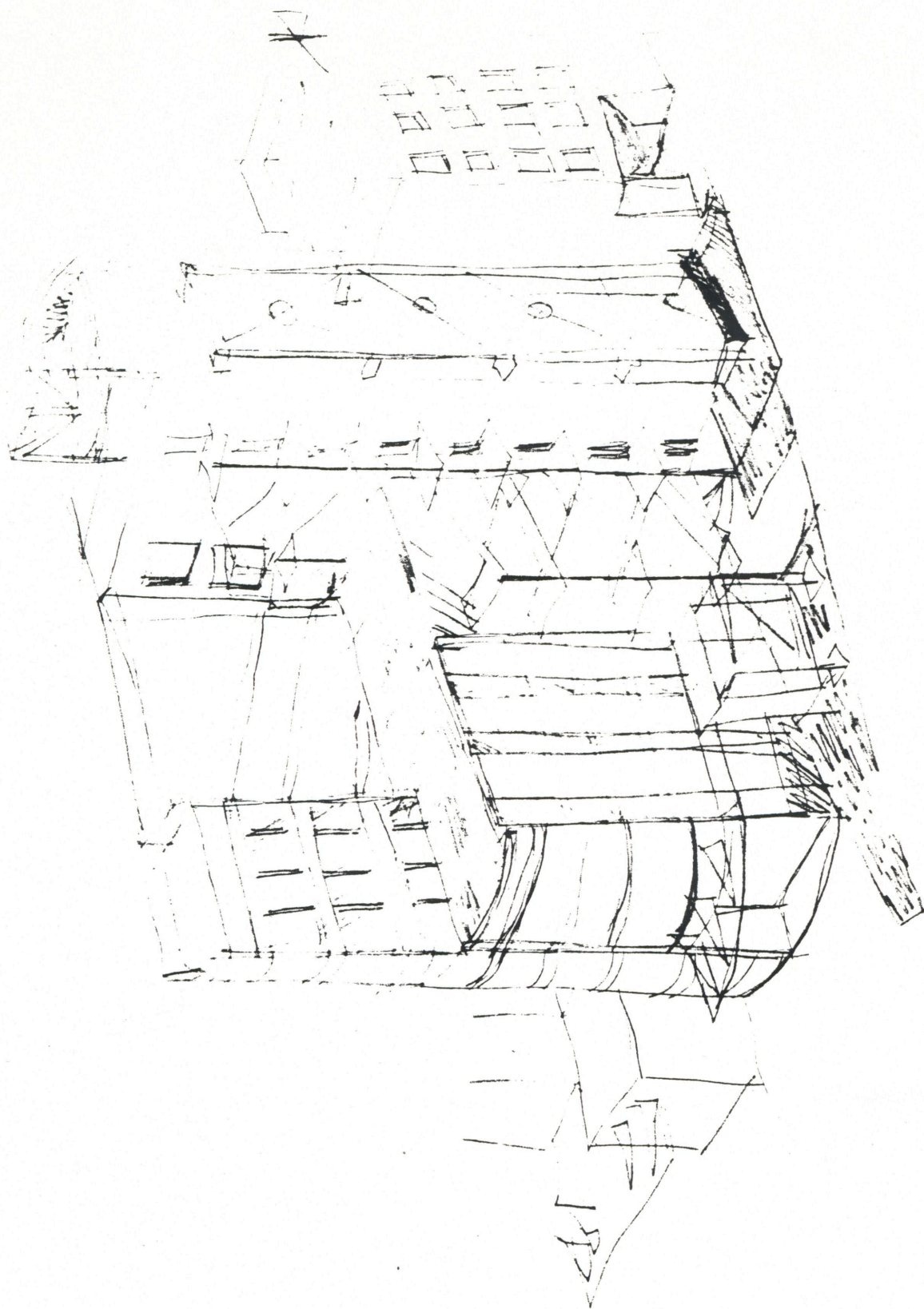


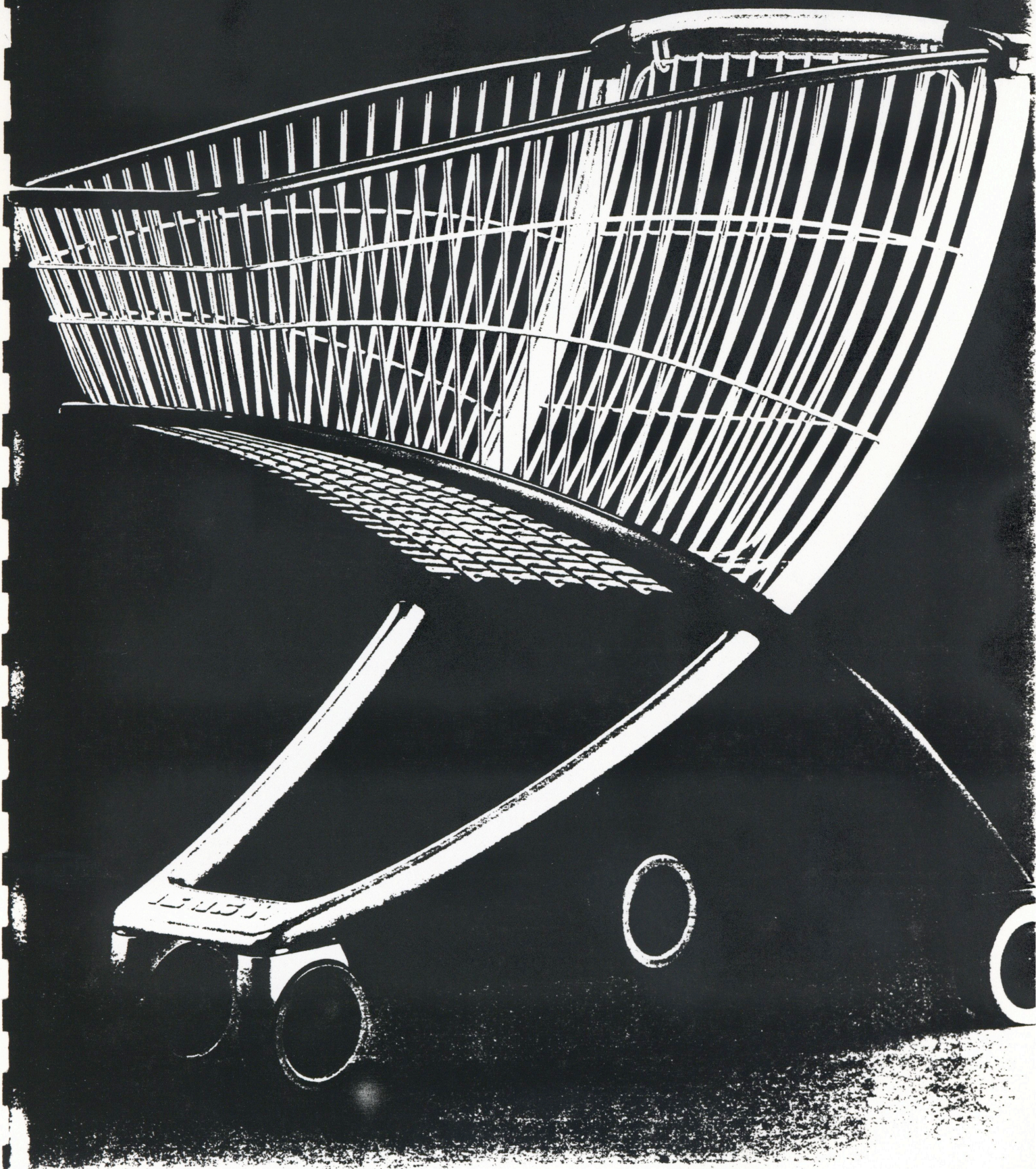
GROCERY



GROCERY







THE FAR SIDE

By GARY LARSON



4-18

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Inconvenience stores

