DESIGN OF AN URBAN CORE:

STONEHAM, MASSACHUSETTS

bу

George A. Skiadaressis

Dipl. Ing., Munich Technische Hochschule
M.C.P., Massachusetts Institute of Technology

Submitted in Partial Fulfillment
of the Requirements for the Degree of
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Head of the Department of Architecture				
	Lawrence B. Anderson			
Author's Signature	}			

Massachusetts Institute of Technology Cambridge, Massachusetts

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ABSTRACT

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Submitted by George A. Skiadaressis, in partial fulfillment of the requirements for the degree of Master in Architecture

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The subject of this thesis has been the architectural treatment of the problem of renewing an existing town center. This treatment has been based on a preceding planning study wherein the feasibility of a renewal and the method for its realization were indicated.

With the basic approach to the problem defined, the specific requirements for the new buildings and other improvements of outdoor space and circulation have been analyzed, as well as their relationship to the immediate environment and particular existing buildings that play an important role in the central area. Among the new buildings are a commercial center, a theater, including a community center and recreational facilities, and an office building.

The renewed town center is intended to meet the contemporary needs for all central functions of the Town and furthermore to provide an urban environment that would enhance and stimulate common interests and pursuits.

Thesis Supervisor: Pietro Belluschi
Dean, School of Architecture and Planning

Cambridge, Massachusetts
January 19, 1953

Dean Pietro Belluschi School of Architecture and Planning Massachusetts Institute of Technology Cambridge, Massachusetts

Dear Dean Belluschi:

In partial fulfillment of the requirements for the degree of Master in Architecture, I herewith submit a thesis entitled, "Design of an Urban Core: Stoneham, Massachusetts."

Respectfully,

George A. Skiadaressis

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A. PREFACE

This thesis deals with the problem of renewing an existing Town Center. The economic and technical factors involved in such a problem have been analyzed in a preceding thesis by the same author under the title "Study of an Urban Core," which is referred to in this work as "The Planning Stage." For specific information regarding the research on which this design is based, reference is here made to that work, submitted to the Department of City Planning, Massachusetts Institute of Technology, in September 1952, in partial fulfillment of the requirements for the degree of Master in City Planning. The purpose of this thesis is to carry further and to interpret in concrete architectural terms the factors and the ideas that have been laid down at the Planning Stage.

B. GENERAL CONSIDERATIONS

I. Summary of Basic Decisions as Developed from Planning Analysis

1. Functions

The Town Center of this study has to provide for all central functions in a town with a population of 13,229 as of 1950, expected to increase to about 20,000 by 1970. At the time the design is made and on the basis of new residential construction, the population is estimated at approximately 15,000. These functions fall into the general categories of government, commerce and shopping, culture, and recreation. Adequate facilities already exist to satisfy a part of the Town's needs: Town Hall, Post Office, banks, churches, library. New provisions are to be made for shopping, for office space, and for a contemporary theater, which is also intended to serve as the social and cultural center for the Town. Furthermore, and as a part of a long-range program, provision is to be made for a senior high school.

2. Location

The location of the Town Center in its renewed form will be the same as at present. This will make it possible, on the one hand, to take advantage of the existing facilities and enhance their use by improving their surroundings, and, on the other hand, to prevent the run-down of the central area (already in process) should new contemporary buildings, especially for shopping, be located at a different place.

By eliminating from the central area existing buildings which, due to the type of use as well as their physical
condition, do not belong to the Town Center or take any
particular advantage from this location, it was found
economically justifiable and feasible to provide adequate
space for the new buildings as well as the means for their
erection.

3. Interrelationship of Uses

The various uses in the Town Center are to be considered as an interrelated whole. The location of all facilities in the same central area makes their physical proximity possible. Furthermore, the design of the whole area must attempt to interlock the various uses, so far as possible, in such a way that both functionally and visually the maximum advantage is drawn for every one of them. As was pointed out at the Planning Stage, these functions are not only compatible but complementary.

4. Circulation

Most of the functions in the Town Center are located within a large, nearly rectangular block, formed by existing circulation arteries, and through the elimination of present secondary streets inside the block. Both the present access to the town (through Route 28 or Main Street) as well as the future access (through Franklin Street, in case the contemplated by-pass is built) lead directly to the Central block. The layout of buildings and parking areas should achieve a favorable distribution of traffic load on the sides of this block. Attention is to be given to convenient and pleasant access by pedestrians as well as to the bus service. Through-traffic of vehicles in the Center is to be avoided.

II. Basic Ideas of the Design

1. The New Development and the Town

The problem of integrating a new development with an existing environment in a town center is complicated and ambiguous. First it should be borne in mind what are the significant functional and visual elements in this environment (insofar as significant elements exist), how they came about and what their role can be for the present and the In an existing town many of these elements may have lost the practical or emotional meaning they once possessed, like the "Common" of the New England town, which cannot be today the same thing that it was when it was first conceived. (In the town of this design the Common has been a victim of speculation, commemorated in the name of a secondary street in the town center). Other elements may have acquired with time an increased significance and symbolism as monuments, and these must be respected. Others may possess values that subsequent developments or neglect have ignored and which could be brought into full effect again. (Here, an example from this category is the Old Cemetary)

As far as the existing buildings are concerned, forms, techniques and materials are only too much connected with the life and time that has produced them. Their incorporation

into new architecture (even in the most sublime sense) can only lead to a romantic formalism, if no other reason justifies their employment except the link with the old.

In the last analysis the criterion of "fitting" into an existing urban environment for new architecture is whether it expresses or responds to an actual reality. This actual reality, broadly conceived, can be thought of in terms of economic factors (like the magnitude and kind of development that is needed and can be justified), social and emotional factors (like patterns of contemporary life, behavior and habits), constant factors (like climate, orientation), technical factors (the method of construction and materials that best serve the purpose) and so on. It is, of course, needless to point out that, within the framework of this actual reality, any element that can establish a connection between the new and the old, whether it is form or space, material or landscaping, can only be an asset, eventually a very important one.

In the case of this design as far as buildings are concerned, the elements which by their own purpose and nature play an important role in the town center have already been mentioned: The churches to the north, the Town Hall, the post office and its adjacent commercial buildings. They are to be brought into full effect, as integral parts of the renewed Town Center. Further, taking

into consideration the Master Plan of the town and the long-range program of development immediately adjacent to the central core, the new elements are being located so that they can not only best function themselves, but form the proper transition from the one to the other, the old, the new and the anticipated for the future. Thus, the Shopping Area is located on the southern side of the block, where the two major circulation arteries meet. Across the street to the south is the General Business district. The Theater and Community Center have the role of connecting the Shopping Area with the Town Hall. The Office Building is related to the other existing commercial buildings, Post Office and Town Hall to the one side and the Shopping Area to the other.

The relationship of the High School to the Town Center and the adjacent parts of the town is of importance for the choice of the High School site and for the arrangement of the whole area east of the town's core. Thus, the High School should be free of traffic noise and other interferences from the Central Area. At the same time it is directly related to the Town Hall and particularly the Theater and Community Center, the facilities of which will be used by the High School students (stage performances, shops, exhibits). An underpass is intended to provide a direct connection between the High School and the Theater

building. This underpass further connects the Town Center with a walk that goes past the High School to the Old Cemetary and further to the other open spaces and green areas in the town to the north and northeast.

The High School is surrounded by existing residential areas, except for the side looking toward the Town Center. Thus the open space in front of the School Building becomes visually a cohesive part of the Central Area. (This is enhanced by the slight slope of the ground toward the Sports Field ending at its eastern boundary.) The Sports Field facilities, particularly the stadium, are also to be used by the Town. Approaches from all sides already exist for the present playground, which is located there.

A more sudden slope west of the Central block, on the other side of Route 28, opens a view from the Center toward this direction. Now blocked up by a row of deteriorated small stores, the view can be brought into effect when this side is redeveloped.

2. Articulation of the Area

A larger architectural grouping, particularly in a town center, poses definite problems beyond the efficiency or other virtues of the individual buildings. Purely visually, the design of a larger development, in the attempt to be held within the grasp of an organizational discipline, may become oversimplified and monotonous. On the other hand, excessive differentiation of the component elements, besides technical difficulties that it may create in use and circulation, is apt to make a clear perception and orientation in the area difficult and finally cause confusion. To avoid the shortcomings of any of the two extremes is set as an important objective in this thesis.

The various functions in the Town Center in their relative purpose, magnitude and number are to be used as a guide for the visual organization of the area. In the clear distinction of single elements, or groups of related elements, and in the establishment of a hierarchy of visual role in each group, every member should be given the proper expression as a part of a cohesive whole. The limitations imposed by the existing buildings (limitations are not necessarily handicaps!) have, of course, to carry their own weight.

The three existing churches suggest a space of distinct character and symbolism. Through elimination of the one

wide asphalt street and through landscaping, this area can form one characteristic element in the Town Center. It would enhance the role of the buildings and provide for an open space for rest and repose.

The Town Hall, with the new Office Building, the Post Office and the Banks across the street, may form another group. Here openness is more dominant. The position of the Town Hall helps to establish a continuity between the two groups.

The Theater with the Office Building and one side of the Shopping Center create an environment with its own character. The Theater building will play here the more important role as the recreation and cultural center (including a cafe, bowling alley and the Community Center). In this area also belongs the major restaurant of the town.

The Shopping Center forms an area of different atmosphere. An open space that would connect the store groups would have a higher degree of enclosure. It should, however, have the proper visual connection with all points of approach: The parking areas, the bus stop and the pedestrian flow in the town.

C. SPECIFIC CONSIDERATIONS

It is not the purpose of this design to enter into all details of the individual buildings or other parts, but rather to establish the architectural framework within which every single element can be developed in accordance with the basic concept and organization of the Town Center. It is, however, necessary and important, in addition to a general program, to analyze a number of special buildings and other features to the extent that their layout and form play an essential role in the over-all design.

I. The Shopping Center

1. Program and Composition

The volume of sales for which provision of new stores is to be made, as well as the major categories of retail trade into which they fall and the necessary area of stores, were estimated at the Planning Stage. About 100,000 square feet of stores are needed to handle a volume of approximately 7.5 million dollars per year. (The actual figures were 97,040 and 7.396, respectively.) The following factors have been further considered to supplement and eventually to modify the estimates made:

a) In a shopping center of this size which also is the only shopping area of the town, a department store should be included as the major focus of shopping activity. Such a department store, in order to provide an adequate number and depth of departments necessary for an effective operation, should have the size of at least 30,000 square feet and should be able also to increase its capacity in order to handle a higher volume of sales, as expected in the future.

The criterion for the maximum size of a department store in such a center would be mainly the necessary balance, in terms of sales volume and number, with the rest of the stores that make up the Shopping Center.* This balance can be achieved within the estimated total sales and area of stores. (A 30,000-square-foot department store with \$60 per square foot average sales will have a yearly sales volume of up to \$2,000,000.)

b) Since the Shopping Center is not large enough to provide for a larger number and range of types in all lines or categories. of stores, the area estimate will have to be

^{* &}quot;....In addition (to the department store) we plan at least double this sales volume in a balanced selection, according to consumers' normal desires, of a multitude of some fifty other stores and services." See Kenneth Welch, "Regional Shopping Centers," <u>Journal of the American Institute of Planners</u>, Fall 1948, page 7.

modified in some cases in order to meet that demand which is most felt in the town and which requires an adequate number of stores in order to provide enough variety of selection and stimulus for a new center. This applies primarily to the apparel stores, as is also indicated by experience.*

c) The existing pattern of trade in the town and the relocation of tenants in the new Center, so far as possible, after the Town Center is redeveloped, should also influence the design of the Shopping Center.

On the basis of the estimates made and the factors mentioned above, the following program and composition of stores is suggested to serve as a guide for the design of the Shopping Center:

Type of Store	Number	Approx. Area (sq.f	t.)
Department Store Food Market Other Food Stores Restaurants Apparel Stores Radio and Appliances 5 and 10 Store Variety Store Drug Stores All Other Stores	1 4-5 3-4 10-12 3-4 1 1 3-4 15-20	30,000 12,000 3,000 15,000 12,000 4,000 5,000 4,000 4,000	
Total	42-53	100,000	

^{* &}quot;...In a center of limited size it may be advisable to increase the number of these stores (women's apparel) at the expense of a more rounded selection, such as would be normally advocated." See G. Baker and B. Funaro, "Shopping Center Design and Operation," page 10.

The following qualifications have been further introduced for the application of the above program.

- a) Within the approximately 100,000 square feet of site which is provided for the actual Shopping Center (not including the parking area) it should be attempted to maintain the sale areas on the ground level as far as possible. Only the department store and eventually the 5 and 10 and the variety store would make use of a second level, because of their relative size and organization. Service stores and shops, like beauty salons, barber shops, tailors, etc., could also be located on a second level. This second level should be conceived not only as an integral part of the ground-floor stores that may use it, but also as a cohesive, interconnected area in itself, easily accessible and attractive to the public. An outdoor space at this level could take advantage of the view of the Town Center and enhance the use of the facilities at the second floor.
- b) Since not all specific tenants can be exactly determined at the time the Shopping Center is designed and, furthermore, changes in tenancy may be expected in the future, the design should provide the least possible degree of rigidity for subdivision of stores into an adequate variety of sizes and for a free layout within every single unit. With the exception of the Department Store, the Food

Market and eventually the restarants, which have to be designed as such, the remaining parts of the Center should be able, through subdivision or assembly if single units, to be used by any general type of store.

The degree to which basements will be used to full advantage by every store cannot be exactly calculated. This often depends on the organization of one and the same store (i.e., whether it is a branch, chain or independent store). Experience shows generally that less use of basements is made in "outlying" shopping centers (e.g., Shoppers' World, Framingham, Mass.) than in those located in the Central area of a town (e.g., the new Shopping Center in the Center of Medford, Mass.). It is thought safer not to include the basement in the estimated area for the various stores but to provide a full basement for all. This basement should be usable by all stores that may be expected to need it (primarily the Department Store and the Food Market). Besides, it should contain all service accommodations that can be located there, such as a mechanical core for heating, ventilation, etc. of the whole group, toilets and lockers for individual larger stores and others, located at convenient points, that will be used in common, as well as by the public. Service of the stores (deliveries, shipments, etc.) should also take place as far as possible at the basement level in order to avoid interference with the

circulation of vehicles and pedestrians on the ground level and to eliminate back yards.

The initial cost of the basement will be further justified by the fact that it will allow a more efficient use of the ground level for an increased capacity of the stores with the expected future increase of the sales volume. It will also serve for a possible expansion of the sales areas when needed. This should also be considered in the design.

2. The Traffic Flow in the Area

The reasons for locating the Shopping Area on the southern part of the Town Center have already been mentioned. Besides, as was pointed out at the Planning Stage, a concentration of a greater part of the parking area to the eastern side of the grouping, along Pine Street, would result in a more even distribution of the vehicular traffic on all sides. The eastern side is also expected to have a lower pedestrian circulation than the other sides and particularly Main Street.

Based on these general conditions the distribution of the stores is developed with the following additional aspects in mind: Among the various types of stores, those that will depend most on the available parking facilities (because of their type and volume) will be the Department Store and the Food Market. They should therefore be directly accessible from the side, or sides, best served in terms of parking. Moreover, the Department Store in particular should be clearly recognized as a distinct visual element, creating an accent in the form of the whole Shopping Center. dominance in the Center, however, should not be carried to the extent of overshadowing the other parts. The prevailing atmosphere inside the Center should be the one of a pleasant urban environment, with the different elements arranged, both functionally and visually, for the best convenience and effectiveness.

The Department Store, the Food Market, and the 5 and 10 and variety store near the entrance at the bus stop on Main Street, create an intensive pedestrian traffic along which the other stores are located according to their type. For the group of apparel stores, which is also located near the bus stop and takes advantage of the vehicular and pedestrian traffic to the other parts of the Town Center and the town in general, it is thought important to provide also the possibility and proper setting for a more leisurely approach.

3. The Department Store

The Department Store is planned on the following general principles:

a) It should provide for the following functions in the proper relationship: Receiving and marking of merchandise, remote stock (in this case it would be in the basement), forward stock (on the sales floors), fitting rooms and deliveries.

The basement will serve (except for stock) for receiving and marking and deliveries. It will also provide space for the service rooms for the personnel and an office connected with receipts and deliveries.

The ground floor, except for display at the periphery, will be efficiently utilized by being supplied with stock directly from the basement through lifts located at the required points. The necessary space for stock at this level will thus be decreased to a minimum. Some of the lifts will continue to the second floor.

The second floor will contain relatively more stock than the ground floor as well as service facilities (e.g., fitting rooms). The administration office can also be located there. The distribution of the various departments among the two levels would be according to the general practice of impulse, convenience and demand, with more of the first on the ground floor. The second level will be

directly and easily connected with the other functions of the Shopping Center located there. Provision for an elevator in the Department Store is believed to be advisable.

4. The Food Market

Accessibility from the parking area to the east as well as from the opposite side along the pedestrian flow in the Shopping Center calls for at least two entrances, one on each side. Provision for checking counters should therefore be made on both sides.

It is unlikely that the Food Market may use another level as a sales area. On the other hand, it will make more intensive use of the basement for service and stock than any other store. Stock arranged underneath the sales departments on the ground floor could be forwarded by means of lifts directly to the ground floor.

Provision should be made for a parcel pick-up station. This station should be related to both checking counters and easily accessible from the parking area. Cars should be able to stop in front of it.

5. The Play Garden

It is thought desirable to include in the program an area where parents may leave their children to play, eventually under supervision, during the time they are busy in the Shopping Center or in any other part of the Central Area. Such a garden already exists near the Town Hall and it would be sufficient to improve it, if no other reason makes its relocation necessary.

6. Parking

In the layout of the parking area the objectives sought are, on the one hand, maximum utilization of the available space, which in a town center is inevitably limited (in this case, nearly 200,000 square feet directly adjacent to the Shopping Center). For this purpose it was decided to use 90-degree parking with 9 x 18-foot stalls and 24-foot lanes. On the other hand, it should be attempted to decrease the unattractive visual effect of concentrated larger parking areas. Besides the green strips for pedestrian circulation and access, the planting of trees between the rows of parking stalls will contribute to this purpose.

The higher proportion of parking space on the eastern side helps to reduce direct visibility from the sides where the Shopping Center is directly connected with other important aspects of the Central area, particularly along Main Street. Considerations of access and convenience may justify, however, the allocation of a smaller proportion of parking on this side.

II. The Theater Building

1. General

This building is conceived as one of the most important elements in the Town Center. Its function will be manifold. Namely, it will comprise a cinema suitable for occasional stage performances and concerts, a community hall for meetings and exhibits, shops, a cafe and a bowling alley. It is believed that the combination of these functions in one building will not only make it feasible to provide adequate facilities for each one of them within the limited area of the Town's Center, but it will also result in a more effective use of them through their mutual attraction. This combination will further enable a more effective visual expression of the cultural and recreational center of the Town.

2. The Theater

The Theater will have a seating capacity of about seven hundred. It is thought desirable to provide a part of these seats (about two hundred) in a balcony. The purpose of the balcony will be to keep all seats within a reasonable distance from the stage (about 80 feet) and to offer a choice, or useful differentiation, in the type of seating.

Besides the actual House, the following spaces should be foreseen:

Lobby	Approx.	1000	sq. ft.
Foyer	11	750	11
Lounge	τŧ	750	11
Coat room	11	200	II
Manager's office	11	100	11

Also a box office, projection booths, and the necessary toilet facilities according to standards. The House, lounge, coat room and toilets should be directly connected with the foyer, which again should be the next area to be entered after the lobby.

When use of the stage is made, it will be mostly for amateur performances in connection with the High School. It is therefore suggested to use the simplest and most inexpensive type of stage facilities, such as a revolving stage, hand-operated. An orchestra pit should also be provided.

Adjacent to the stage will be the stage shop, dressing rooms (one for women and one for men for about ten persons each), a costume and dyeing shop and dress storage. These should have a separate entrance.

Although intended primarily for moving pictures, the Theater should satisfy, insofar as possible, the acoustical and other technical requirements of stage and musical performances.

3. The Community Hall

The Community Hall will consist of one large room with a capacity of up to two hundred seated persons or an area of 2,500 to 3,000 square feet. It will be used for meetings of the private organizations and groups in the town (the Town Meetings are held in the Town Hall). This Hall will also be used for exhibits and should be connected with a number of shops (approximately 1,000 square feet). Subdivision by means of movable partitions will often be desirable. An adjacent outdoor area with enough privacy could be used for various occasions in summer, as well as for outdoor exhibits. Provision should be made for service rooms (eventually the same that are needed near the stage, in order to avoid unnecessary duplication).

The Community Hall should be accessible from the lounge of the Theater as may be desirable on special occasions.

However, it will not be used in regular practice as an entrance to the Theater.

4. The Cafe and Bowling Alley

The Cafe will be of moderate size (about 2,000 square feet). It should be conveniently related to the Theater, from which it will draw a considerable proportion of its patrons. A direct connection with the Theater's lobby would be desirable. Provision should also be made that the lounge of the Theater may be directly serviced by the Cafe during intermissions. The Cafe will not operate as a regular restaurant and therefore no special kitchen facilities are needed.

The Bowling Alley will be located in the basement but not underneath the Theater, for acoustical reasons. It can be best combined with the Cafe, with which it may also have a common entrance. The Cafe and Bowling Alley should have their own service facilities.

5. Further Aspects

The position of the Theater Building between the Town Hall on the one side and the Shopping Center on the other gives it the visual role of a link between the two. Due consideration should be given to the Town Hall, as regards its location and whatever it represents or symbolizes for the Town. It will be necessary to keep the volume of the Theater Building as low as possible in order not to compete with the heavy mass of the Town Hall and to avoid causing a feeling of crowding.

Both buildings can have the same parking area, as they are used at different hours. If this area is large enough, it could also be used by the employees of the Shopping Center.

III. The Office Building

1. Program

The estimated office space to be replaced in the redevelopment process of the Town Center is 20,000 square feet. However, since this figure also includes lodging space, which now will be provided in the Community Hall as well as some vacancies in the older buildings, it is suggested not to provide more than 15,000 square feet in one new office building. Considering that, for obvious reasons, all of this space cannot be on a ground level, it is believed that a three-story building with elevator service will be more efficient than a two-story one without elevator. It is therefore suggested that most of the office space be provided on the two upper levels, allowing thus the use of the ground level mainly for stores.

Some additional office space will be provided on the second level of the Shopping Center, as it is likely to be needed, especially in connection with the other activities in that area and the General Business district across the street.

For the stores that will use the ground floor (mostly small) a basement is not necessary. Provision should be made, however, in this level for a mechanical room and janitor and toilet facilities for the ground-floor tenants.

2. Further Aspects

The Office Building performs a similar role as the Theater, forming a link between the Town Hall and the Post Office and Banks, and also faces the Town Center. Attention should be given to the fact that it will be approached from both sides.

Automobile access will be by means of a driveway, with one-way traffic, which will also serve the Town Hall. This driveway will lead to the parking area and back to the circulation artery. It is believed preferable to locate the parking area near the circulation artery, however not next to the Office Building but a little further to the north, near the first church, not only for aesthetic reasons but also because in this location it could also be used by people visiting the churches at a different time.

IV. Construction

Considering the type and character of the new buildings, their role in the Town Center and the fact that they will represent a long-range investment (the method of financing has been analyzed at the Planning Stage), they have been conceived in a durable fireproof construction. Reinforced concrete would be a suitable material for almost all buildings.

In the Shopping Center the spacing of columns should be adapted to the requirements for flexibility of layout and subdivision of space. For the stores in a row, consideration should be given to the possible subdivision into suitable minimum store units. The use of lally-columns is thought advantageous.

By adopting a certain unit or module in spanning the slabs, it will be possible to achieve economies in construction through the use of structural precast members. This will also make possible or easier the accessibility to the basement at any point where it may be needed in the future.

With the structural framework established, the actual materials and arrangement of the front of every store should be adaptable to the type and needs of the particular tenant. However, the form and structure of the whole Shopping Center should be able to unify the various independent elements of the individual store-units.

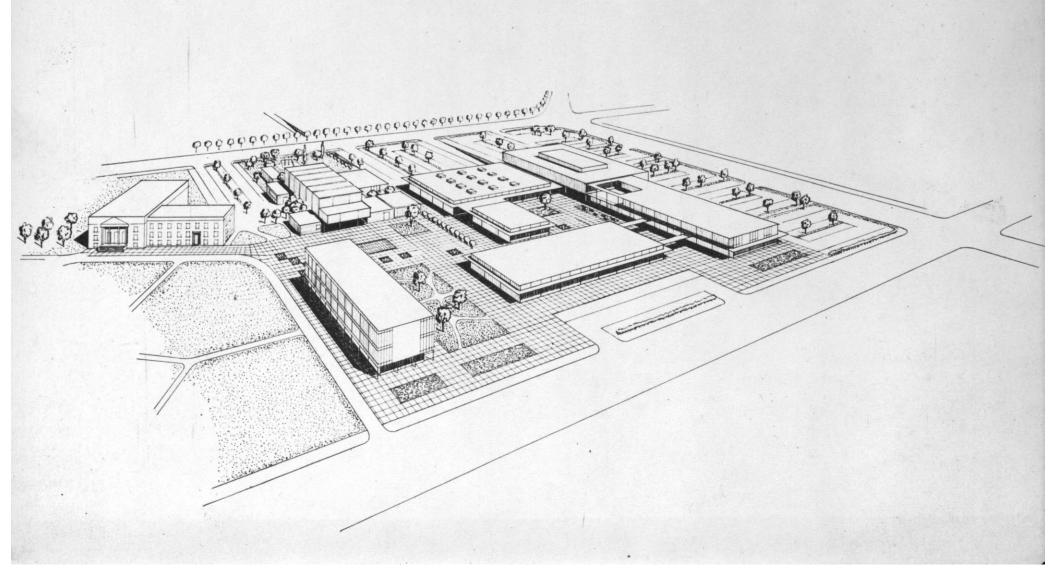
BIBLIOGRAPHY

D. BIBLIOGRAPHY

- Adolf Abel, "Regeneration of Towns," Erlenbach Verlag, Zuerich, 1950.
- Adams, Howard and Greeley, "A Master Plan for the Town of Stoneham, Massachusetts," January, 1952.
- Architectural Record, "Sunset Community Center, San Francisco," March 1952, pp. 121-131.
- The Architectural Review, "In Search of a New Monumentality," A Symposium, September 1948, pp. 117-129.
- Tracy B. Augur, "City Planning and Civic Progress," The Architectural Forum, September 1931, pp. 265-273.
- Geoffrey Baker and Bruno Funaro, "Shopping Centers. Design and Operation," Progressive Architecture Library.
- Pietro Belluschi, "Shopping Centers," in Talbot Hamlin, "Forms and Functions of Twentieth Century Architecture," 1952, Vol. 4, pp. 114-139.
- S. R. De Boer, "Studies in City Planning--Shopping Districts," American Planning and Civic Association, 1937.
- Boston City Planning Board, "General Plan for Boston," Preliminary Report, 1950.
- Milton P. Brown, "Operating Results of Department and Specialty Store Branches. A Survey as 1950," Harvard University Graduate School of Business Administration, Bureau of Business Research, Bulletin Number 136.
- Harold Burris-Meyer and Edward C. Cole, "Theaters and Auditoriums," Reinhold, New York, 1949.
- CIAM 8, "The Heart of the City," edited by J. Tyrwhitt, J. L. Sert and E. N. Rogers, Pellegrini and Cudahy, publishers, New York, 1952.
- P. D. Converse, "New Laws of Retail Gravitation," <u>Journal</u> of <u>Marketing</u>, Vol. 14, 1949, pp. 379-384.
- Gordon Cullen, "A Scheme for the Center of Birmingham," The Architectural Review, February 1951, pp. 91-97.

- Gordon Cullen, "Townscape Casebook," The Architectural Review, December 1949, pp. 363-74.
- Garrett Eckbo, "Landscape for Living," F. W. Dodge Corp., 1950.
- Leon W. Ellwood and Robert H. Armstrong, "Shops, Stores, and Shopping Centers," Parts I, II and III, <u>The Appraisal</u> <u>Journal</u>, January 1952, pp. 13-20; April 1952, pp. 194-206; July 1952, pp. 294-303.
- Howard T. Fisher, "Traffic Planning Opportunities in Shopping-Center Design," Traffic Quarterly, October, 1951.
- Sigfried Giedion, "Die Humanisierung der Stadt," Werk, November 1952, pp. 345-352.
- Erno Goldfinger, "Elements of Enclosed Space," The Architectural Review, January 1942, pp. 5-8.
- Victor Gruen and Lawrence Smith, "Shopping Centers, The New Building Type," <u>Progressive Architecture</u>, June 1952, pp. 67-106.
- W. G. Holford, "Design in City Centers," <u>Journal of Town</u> <u>Planning Institute</u>, March 1949, pp. 73-86.
- Homer Hoyt, "An Economic Analysis of the Rye Business District," A Report to the Rye Planning Commission, June 1945.
- Homer Hoyt, "Market Analysis of Shopping Centers," <u>Urban</u> Land Institute, Technical Bulletin No. 12, October 1949, pp. 1-7.
- Morris Ketchum, Jr., "Shops and Stores," Progressive Architecture Library.
- Alexander Koch, "Ladenbauten," Alexander Koch GMBH, Stuttgart, 1950.
- The Magazine of Building, "Shoppers' World" and "Marshall Field's New Shopping Center," December 1951, pp. 180-199.
- Ministry of Town and Country Planning, "The Redevelopment of Central Areas," London, His Majesty's Stationery Office, 1947.

- Seward H. Mott and Max S. Wehrly, "Shopping Center, An Analysis," <u>Urban Land Institute</u>, Technical Bulletin No. 11, July 1949, pp. 1-46.
- Lewis Mumford, "Monumentation, Symbolism and Style," The Architectural Review, April 1949, pp. 173-180.
- J. C. Nichols, "Mistakes We Have Made in Developing Shopping Centers," <u>Urban Land Institute</u>, Technical Bulletin No. 4, August 1945, pp. 1-15.
- Richard U. Ratcliff, "Urban Land Economics," McGraw-Hill Book Company, Inc., New York, 1949.
- Walter Schwagenscheidt, "Die Raumstadt," Verlag Lambert Schneider, Heidelberg, 1949.
- Camillo Sitte, "Der Staedtebau, Nach Seinen Kuenstlelischen Grundsaetzen," Verlag Von Karl Graesez and Kie., Wien, 1922.
- Herbert W. Stevens, "A Caution Concerning Civic Centers," The American City, April 1946, pp. 81-87.
- Christopher Tunnard, "A City Called Beautiful," <u>Journal of</u>
 <u>The Society of Architectural Historians</u>, March and May, 1950.
- Martin Wagner, "Wirtschaftlicher Staedtenbau," Julius Hoffman Verlag, Stuttgart, 1951.
- Kenneth C. Welch, "Regional Shopping Centers," <u>Journal of</u> the American Institute of Planners, Fall 1948, pp. 4-9.
- I. de Wolfe, "Townscape," The Architectural Review, December 1949, pp. 354-62.



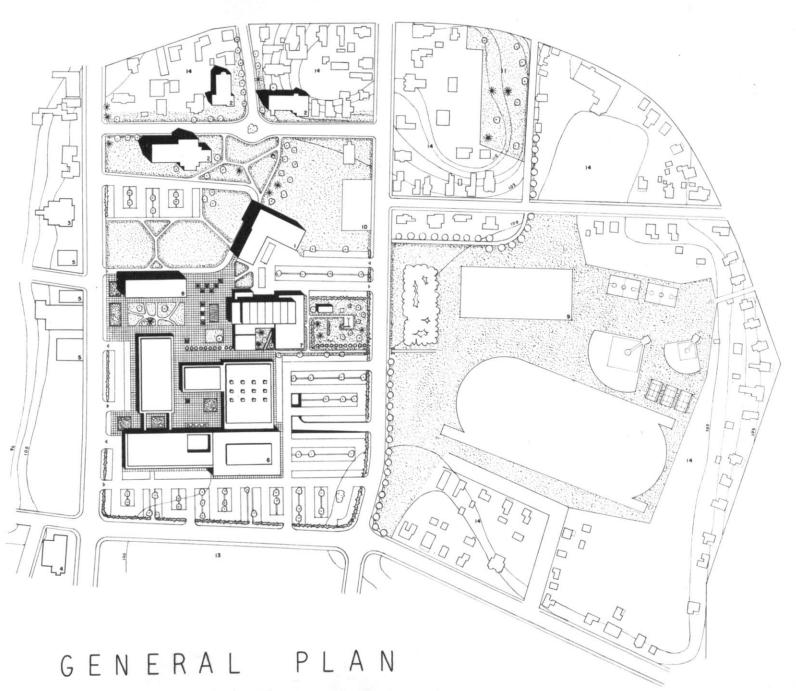








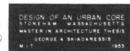


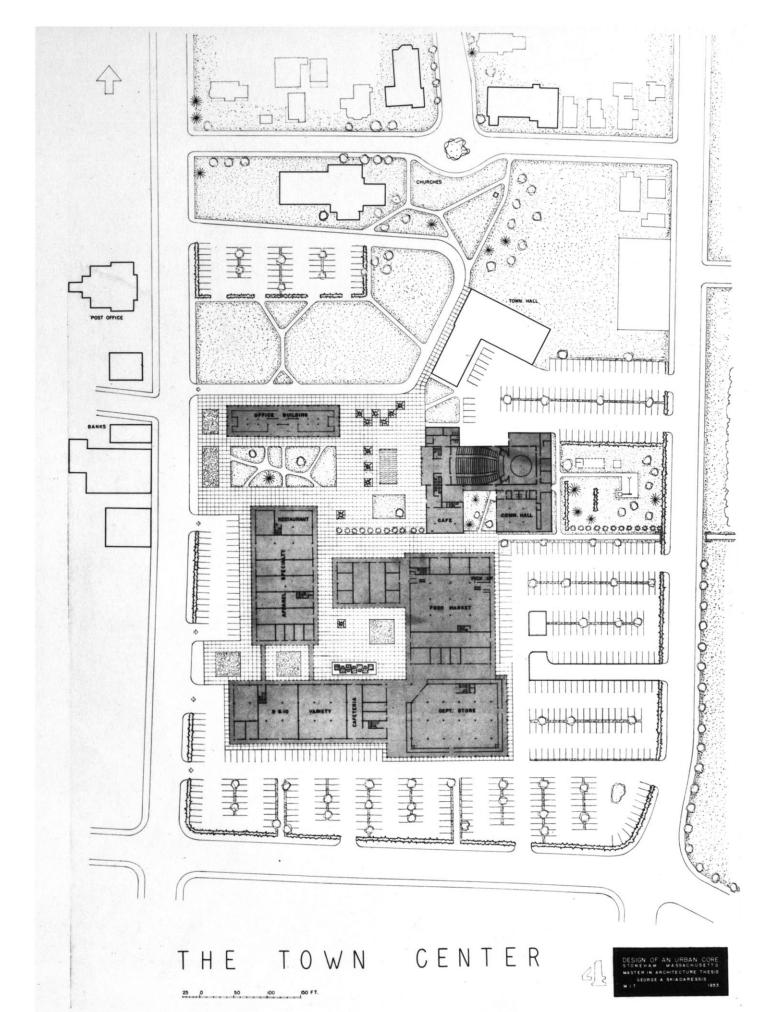


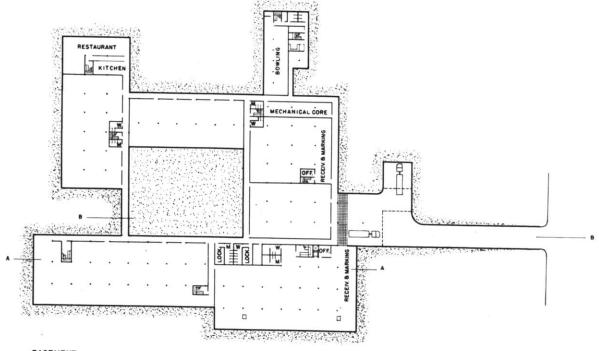


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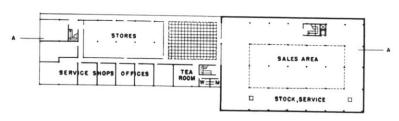
- I TOWN HALL
- 2 CHURCHES
- 3 POST OFFICE
- 4 LIBRARY
- 5 BANKS 6 SHOPPING GENTER
- THEATER BUILDING
- 8 OFFICE BUILDING
- 9 SENIOR HIGH SCHOOL IO FIRE & POLICE STATION
- II OLD CEMETERY
- 12 PLAY GARDEN
- 13 GENERAL BUSINESS
- 14 RESIDENCE



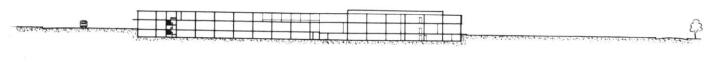




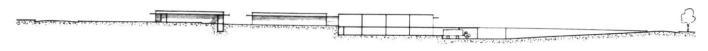
BASEMENT



SECOND LEVEL



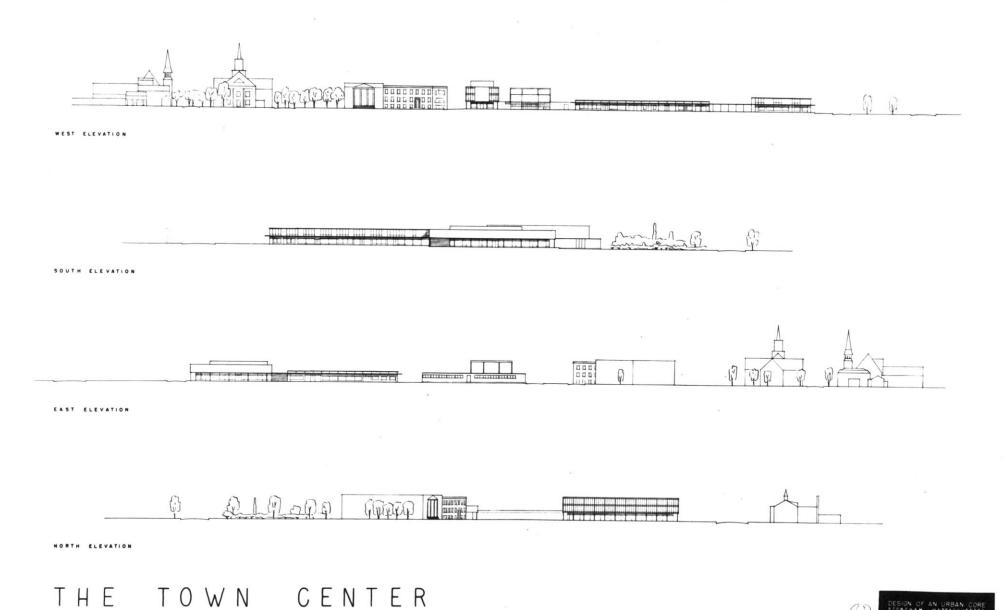
SECTION A-A

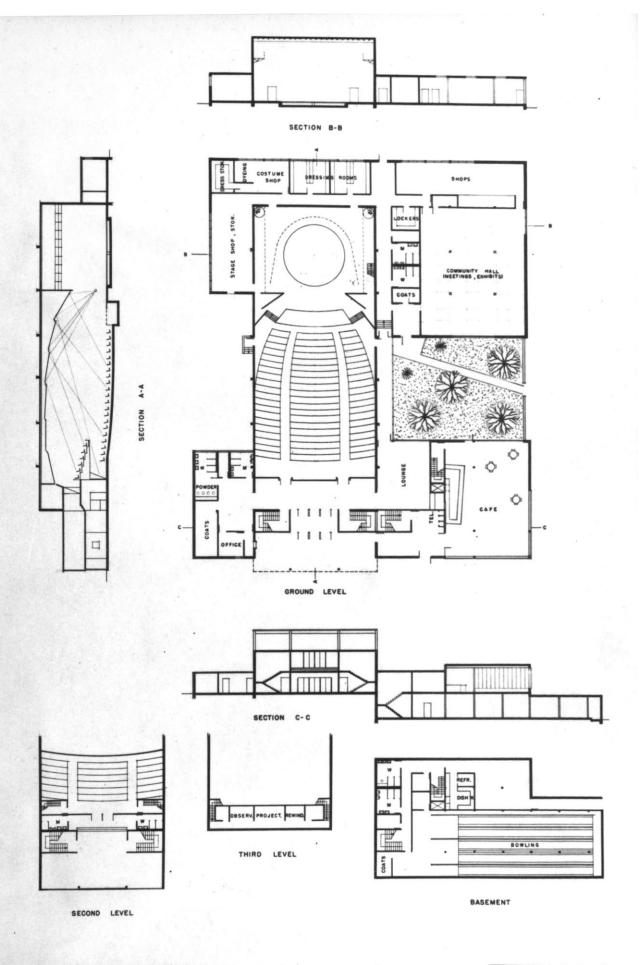


SECTION B-B

THE SHOPPING CENTER

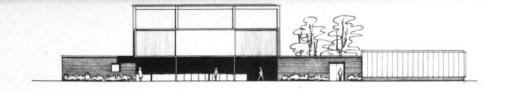




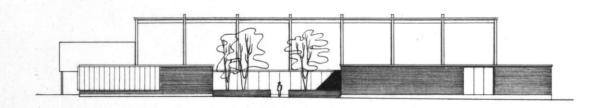


THE THEATER BUILDING

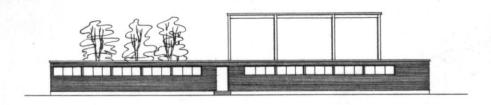




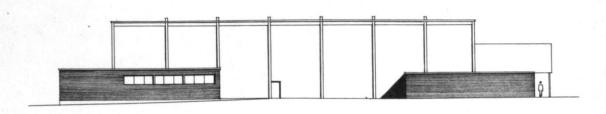
WEST ELEVATION



SOUTH ELEVATION



EAST ELEVATION

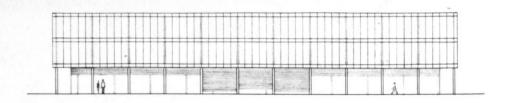


NORTH ELEVATION

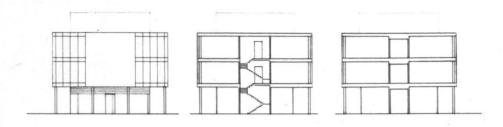
THE THEATER BUILDING







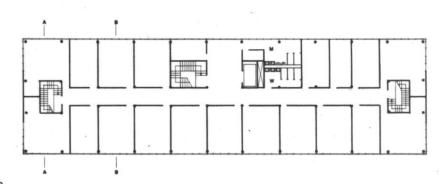
MAIN ELEVATION



SIDE ELEVATION

SECTION A-A

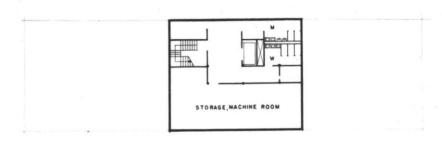
SECTION B-B



FIRST AND SECOND FLOOR



GROUND FLOOR



BASEMENT

THE OFFICE BUILDING



DESIGN OF AN URBAN CORE STONEHAM MASSACHUSETTS MASTER IN ARCHITECTURE THESIS GEORGE A SHIADARESSIS M.11

