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ABSTRACT

VITAL COMMUNITIES
CRITERIA FOR URBAN NEIGHBORHOOD DEVELOPMENT

by
Peter Frederick Smith

It is the goal of this document to explore the issues and physical attributes related to the creation of vital communities. Research into North American and European precedents of planned community design, from the late 19th Century to the present, and the study of the qualities of vitality of two healthy neighborhoods; The Beaches in Toronto, Canada, and the Ironbound in Newark, New Jersey, have demonstrated that the model for neighborhood development is the main street.

Further research determined that Springfield Avenue, in the City of Newark, New Jersey, would provide the armature for the revitalization of an urban neighborhood, because of its former main street quality through the early part of this century. The West Side Park neighborhood, between Bergen Street, Avon Avenue, South 20th Street, and 16th Avenue, was then selected as the site for the application of the design. The design application demonstrated that goals of urbanity, control of the automobile, and increased density are achievable through the physical tools of curb cuts, minimum and maximum building heights and densities, lot coverage, and setback requirements, and that these physical qualities of space can be codified.

VITAL COMMUNITIES
CRITERIA FOR URBAN NEIGHBORHOOD DEVELOPMENT

by
Peter Frederick Smith

A Thesis
Submitted to the Faculty of the
New Jersey Institute of Technology
In Partial Fulfillment of the Requirements for the Degree of
Master of Architecture

School of Architecture

May 1999

APPROVAL PAGE

VITAL COMMUNITIES
CRITERIA FOR URBAN NEIGHBORHOOD DEVELOPMENT

Professor Anthony Schuman, Thesis Advisor — Date
Associate Professor of Architecture, NJIT

Professor Peter C. Papademetriou, Committee Member — Date
Professor of Architecture, NJIT

Professor Antonio Da Souza Santos, Committee Member — Date
Professor of Architecture, NJIT

BIOGRAPHICAL SKETCH

Author: Peter Frederick Smith

Degree: Master of Architecture

Date: May 1999

Undergraduate and Graduate Education:

- Master of Architecture,
  New Jersey Institute of Technology, Newark, NJ, 1999

- Master of Science in Management,
  New Jersey Institute of Technology, Newark, NJ, 1999

- Bachelor of Technology in Architecture,
  Ryerson Polytechnic University, Toronto, Canada, 1995

- Bachelor of Science in Chemistry,
  McGill University, Montreal, Canada, 1990

Major: Architecture

To my family and friends,
and those who wish to make cities
a better place to live

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CHAPTER 1

CRITERIA FOR URBAN NEIGHBORHOOD DEVELOPMENT

Vitality (vy-**tal**-iti) n.- the power of enduring or continuing; lively and animated character; liveliness, vigour, of persistent energy.

1.1 Introduction

It has been said that the city is a living organism that shares many qualities with all living things. It needs support, it needs caring, and it needs proper maintenance to remain vital. The vitality of our urban communities is in jeopardy. Present day patterns of development are creating urban centers and neighborhoods that can no longer flourish, let alone sustain themselves. The practice of urban living is being undermined by the ideal of ownership of a single family home on a large lot in an idealized country setting, beyond the reach of the congested city. Government subsidies, which keep the price of gas low and subsidize homeownership through tax deductions, promote single family detached homes and the creation of the roads and highways that take you there. For the past half century government policy has set society on this course, with rising social and economic costs. The result is a sea of placeless subdivisions, where strip malls and endless parking lots supply the necessary support for the automobile. People spend many hours in their cars traveling to and from work, taking away precious leisure time, which can lead to a lowering of the quality of life. The subdivision was to be the preferable alternative to city life. In turn, it has led to the draining and misuse of the resources of both the countryside and the city.

It is not true that all of our cities are failing. Many districts and neighborhoods are thriving in spite of disinvestment and a lack of maintenance. These existing areas can provide clues about the critical ingredients for the design of new neighborhoods, or the redesign of existing communities that require revitalization.

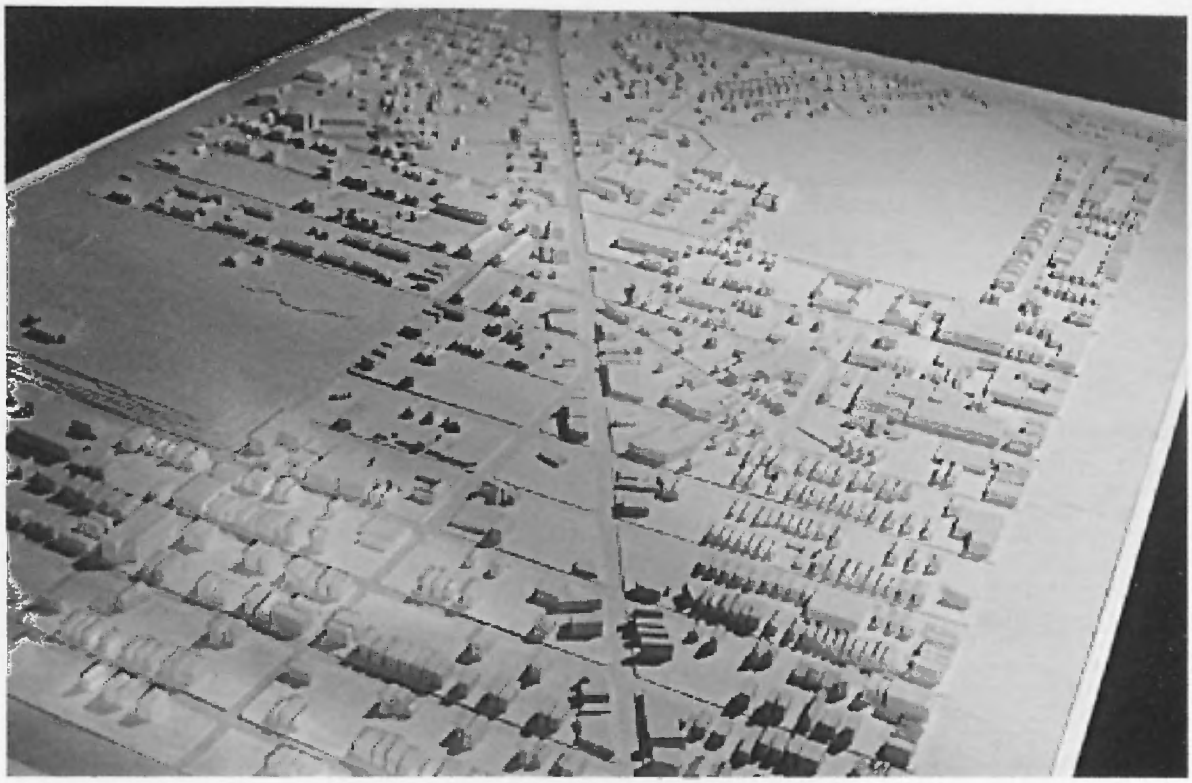


Figure 1: Model of West Side Park Neighborhood.

A vital community provides a strong social and economic network. People help self-police the streets, they support local businesses, and they make decisions which affect their neighborhood. The key is that the community provides choice and it has the potential to grow and change as its needs grow and change. This change often comes from within, but if regulations will not allow for community initiative, or if they make

options difficult to pursue, then people will go elsewhere to places where they can have choice. A vital community is full of choices. Whether to go to the local hardware store or the Home Depot, to buy food at the deli or the supermarket, or to play stickball in the street or at the local park. Choice of alternatives of places to go, housing to live in, local jobs versus commuting to work, people to meet, and things to do add immense richness to communities and cities. A vital community is one where its diversity creates choices for those that live there and those who use its streets on a daily basis.

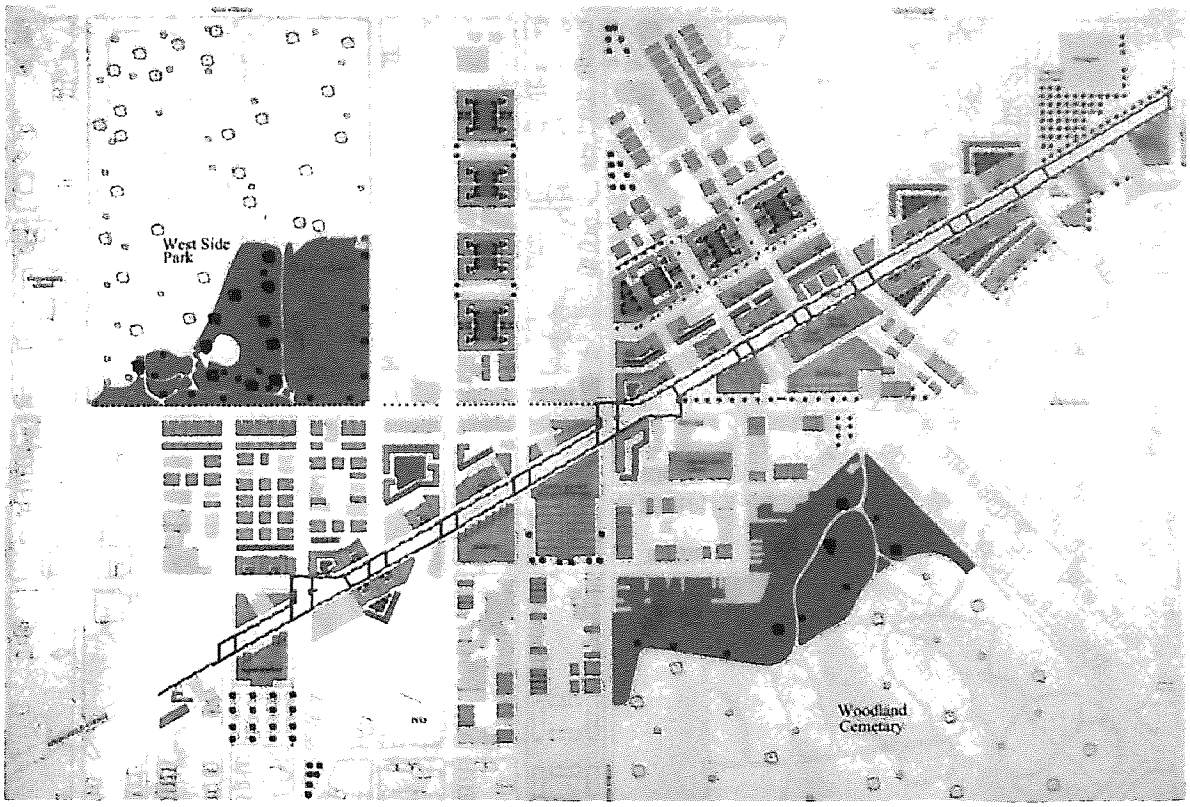


Figure 2: Image of Design Implementation.

Cities and neighborhoods are not instant creations. They grow, change and flourish over time. Such vitality can be designed for. It is through an understanding of

historical precedent and present day cases of vital communities, that a set of design criteria for the creation and revitalization of urban communities can be established.

This paper investigates how architecture and physical planning can support the vitality of the community, and the relationship between the physical framework, social and economic health, and choice. This will include physical issues, such as alternative land use, density, parking, zoning regulations, and building typologies. It is the purpose of this paper to investigate the architectural qualities of vital urban neighborhoods. Recent architectural and planning theory has adopted the principles of neo-traditional design, known as the New Urbanism. These principles have been typically applied to suburban community design, but they can offer clues for the design or revitalization of new or existing urban communities. The history and development of the suburb, while not the main focus of this paper, must be addressed as well in the discussion of the New Urbanism.

Figure 3: Street Pattern of the City of Newark, New Jersey.

I will determine the architectural qualities of vital communities by studying historical and theoretical precedents in planned community design in both Europe and North America. Critical attention will be paid to the design ideas of the New Urbanism and the Toronto Mainstreets urban design competition, which sought to modify the regulatory environment to support and extend the strength of Toronto's street-based neighborhoods. I will derive further design ideas will be derived from case studies of the Beaches neighborhood in Toronto, Canada, and the Ironbound neighborhood of Newark, New Jersey. This will then be synthesized into a new set of architectural criteria for urban neighborhood development.

1.2 Modern History of Planned Communities

1.2.1 European Precedents

The European precedents can be taken far back into history. The single most influential influence from ancient times is that of the Romans. Vitruvius wrote in his *Ten Books On Architecture* about the proper orientation of streets for a healthy environment. The city grid has come from traditional Roman military camp arrangement. There are many more examples of planned city designs from the fortification of medieval cities to the rebuilding of London by Sir Christopher Wren after the great fire of 1666. The Ecole des Beaux Arts in France has also been very influential on city and garden planning with its formal geometric designs. It is this influence which became evident in the City Beautiful movement in the United States, particularly in the designs of Washington, D.C., Philadelphia, and the Daniel Burnham lakefront design for Chicago.

The most important modern European influences come from Ebenezer Howard's Garden City ,Tony Garnier's Cite Industrielle, Le Corbusier's Radiant City, and the codification of the latter in the Athens Charter developed by the Congres Internationaux d'Architecture Moderne (CIAM).

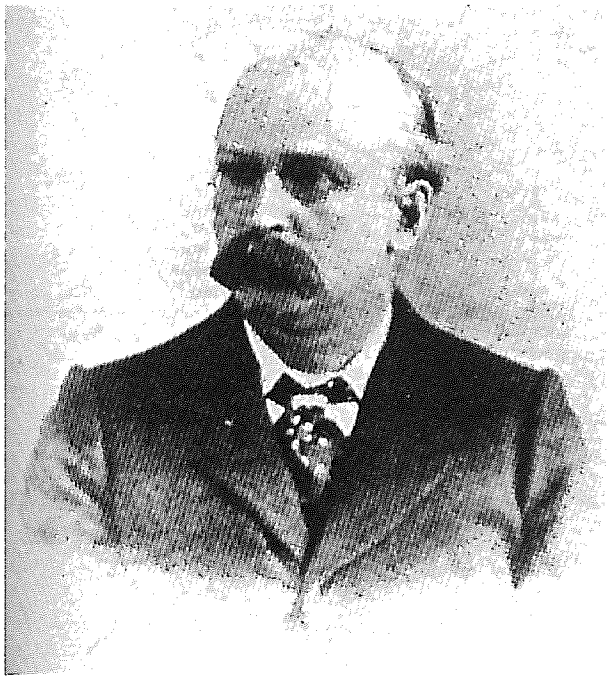


Figure 4: Photograph of Ebenezer Howard. (Fishman, *Urban Utopias in the Twentieth Century*)

Ebenezer Howard, a self-named 'social inventor', had become extremely disenchanted with the urban congestion, corruption, and poor living conditions in late 19th Century London. Howard stated, "I am always haunted by the awfulness of London: by the great appalling fact of these millions cast down, as it would appear by hazard, on the banks of this noble stream, working each in their own groove and their own cell, without regard or knowledge of each other, without heeding each other, without having the

slightest idea of how the other lives- the heedless casualty of unnumbered thousands of men." (Howard, *Garden Cities of To-Morrow*, p.42) Howard felt it was important to get people back to the land. He proposed a community founded on the ideal of combining the best of what the city and the machine age had to offer in the healthy green setting of the countryside.

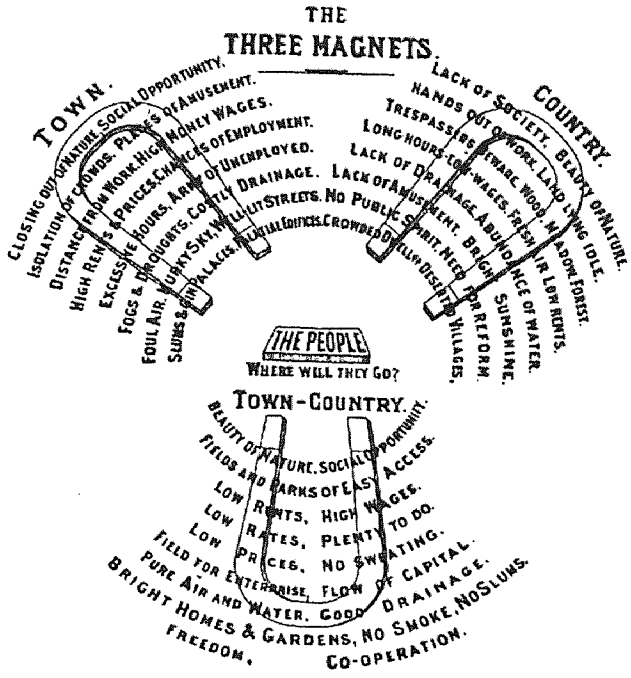


Figure 5: The three Magnets of Living. (Fishman, *Urban Utopias in the Twentieth Century*)

Ebenezer Howard is known for his book, *To-morrow: a Peaceful Path to Real Reform*, published in 1898 and re-issued in 1902 under the better known title of *Garden Cities of To-morrow*. Howard was not trained as either an architect or a planner. He made his living as a stenographer, but he personally longed for rural life, which could capture the best aspects of the city. He proposed the purchase of farmland that would have a community of thirty thousand people housed on approximately one sixth of the land. The

population density was to be limited to twenty-five people per acre. The majority of the land would remain as agricultural land in support of the community. Conceptually, The city was organized radially, with neighborhoods arranged around a city center. However, Howard always maintained that the actual form would be developed according to the local context. The neighborhood would have the school as its most important institution, and the civic center of the city would have the major public institutions such as the town hall, the art gallery, and the library. The core would be surrounded by a park and it is flanked by a shopping gallery, called the 'Crystal Palace', which contains all the shops and retail businesses of the city. Howard felt that the rise of efficient transportation, such as the railroad, meant that the need for cities to be located near bodies of water was no longer necessary.

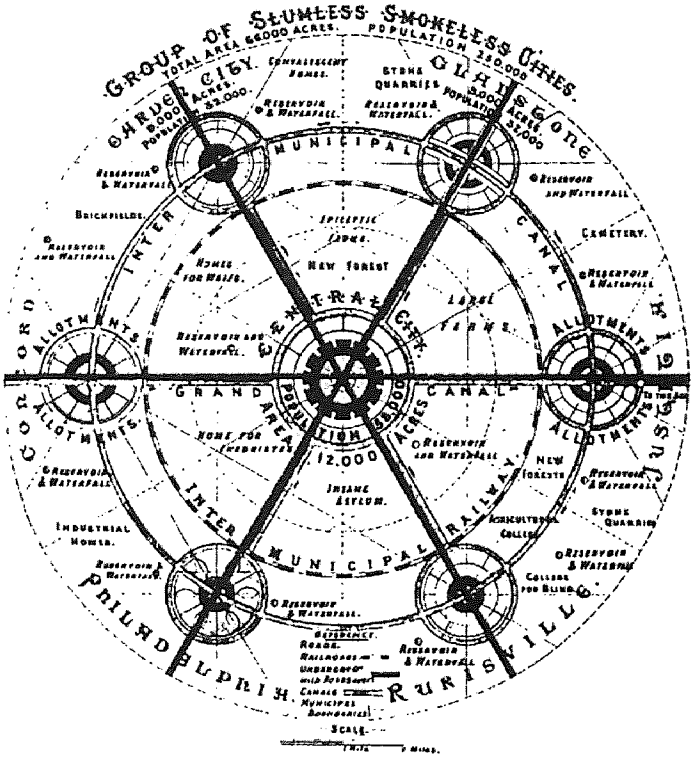


Figure 6: Graphical Model of the Garden City. (Fishman, *Urban Utopias in the Twentieth Century*)

Howard's dominant value for this new community would be cooperation. Historian Robert Fishman elaborates, "Good planning was indeed efficacious in creating social harmony, but only if it embodied a genuine rationality and justice in the structure of society" (Fishman, *Urban Utopias in the Twentieth Century*, p.5). Howard stated, "while others have sought to weld into one large organization individuals who have not yet been combined into smaller groups, or who must leave those smaller groups on their joining the larger organization, my proposal appeals not only to individuals but to co-operators, manufacturers, philanthropic societies, and others experienced in organization, and with organizations under their control, to come and place themselves under conditions involving no new restraints but rather securing wider freedom." (Howard, *Garden Cities of To-Morrow*, p.116) Howard saw this as the ideal form of an industrial society. He conceived of "the garden city as a means of superseding capitalism and creating a civilization based on cooperation" (Fishman, *Urban Utopias in the Twentieth Century*, p.24).

Howard felt that such a city would be financed by a non-profit company issuing bonds at a fixed interest rate, and the residents would eventually buy the land back from the financing company to create a collectively owned city and community. Howard established The Garden City Association on June 10, 1899 in order to build his ideal city, and they formed the Garden City Pioneer Company to raise the necessary funds. In the spring of 1903, the First Garden City ltd. began developing the town of Letchworth, 10 miles north of London, England. His ideas were given physical form by the firm of Parker and Unwin. The second Garden City was built in 1919 in the village of Welwyn. Although Howard's ideas were built in a physical form, the ideal of a cooperative society

was not fully realized. The Garden City was successful as a planning strategy, but not as a vehicle for the creation of a new society because the social system of cooperation, envisioned by Ebenezer Howard, was never implemented. The physical planning aspect of the Garden City movement became so popular that it became the basis for the Town Planning Act of 1946 and the English post-war regional growth strategy.

Figure 7: Photograph of the Garden City of Letchworth. (Fishman, *Urban Utopias in the Twentieth Century*)

Tony Garnier was an architect, trained at the Ecole des Beaux-Arts in Paris, with ideas for a socialist, industrial urban city. Garnier felt that functional requirements would determine the organization of a city physically, but a new communal society would not require any of the traditional, urban building types such as churches, prisons, army facilities, or police. He envisioned an ideal egalitarian society, symbolized by the large communal assembly hall for union and public meetings, which incorporated the architectural materiality (concrete structures) and forms that would later be identified with

modernism. This new society would need new building types such as hostels and unemployment agencies, and the city would be entirely made of concrete to reflect the proper level of industrialization that society was capable of at the end of the 19th century. To that end, the Cite Industrielle was organized around factories, which provided the needed jobs to support an urban population. Garnier sought what he felt was an attainable vision of an architecture applying itself for the bettering of society.

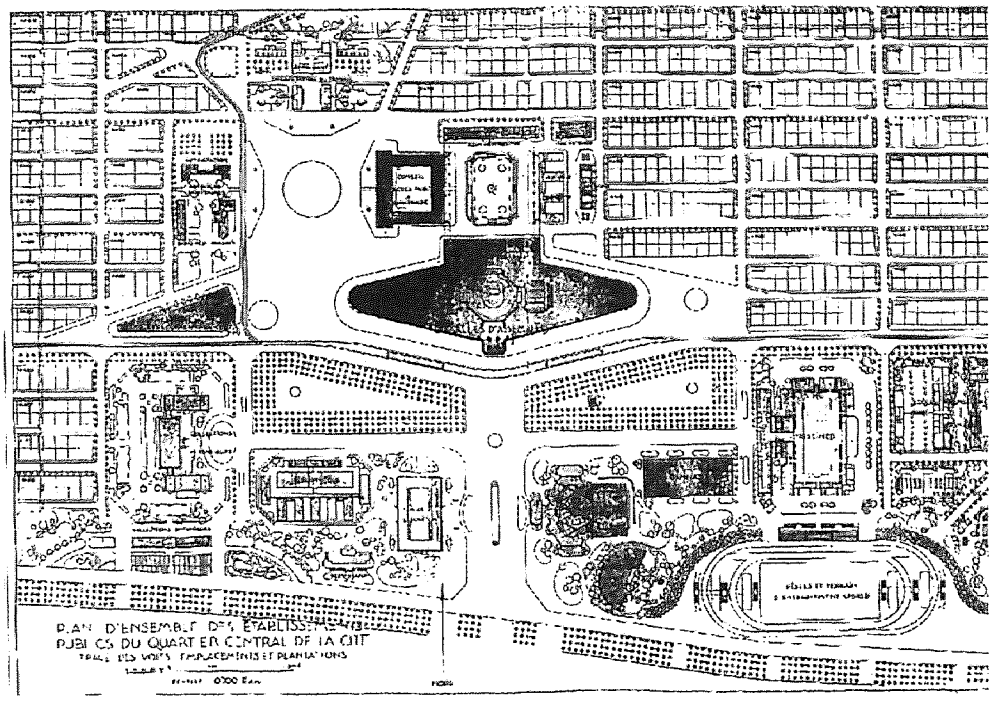


Figure 8: Plan of the Cite Industrielle by Tony Garnier. (Garnier, *Une Cite Industrielle*, p. 36)

"In looking for a situation to better satisfy the material and moral needs of the individual, we were led to create rules concerning this situation, rules for road use, rules for hygiene, and so on, and to suppose that a certain progress in the social order has taken place that would result in a natural adoption of these rules, which present laws do not

authorize. Society would then have free reign over the distribution of land as well as water, bread meat, milk, and medicine, since these products are responsible for its members' well-being." (Garnier, *Une Cite Industrielle*, p.13)

The Cite Industrielle was created by Garnier during his stay at the Villa Medici in Rome after he won the prestigious Prix de Rome. The project was exhibited in Paris in 1904. Garnier held a "belief in the inherently cooperative nature of humankind as well as a belief in the essential satisfaction to be found in work. But it is his belief in the civilizing capacity of the city itself that distinguished his vision" (Schuman, "Ricardo Bofill and the French Ideal City Tradition", *Out of Site*, p.232).

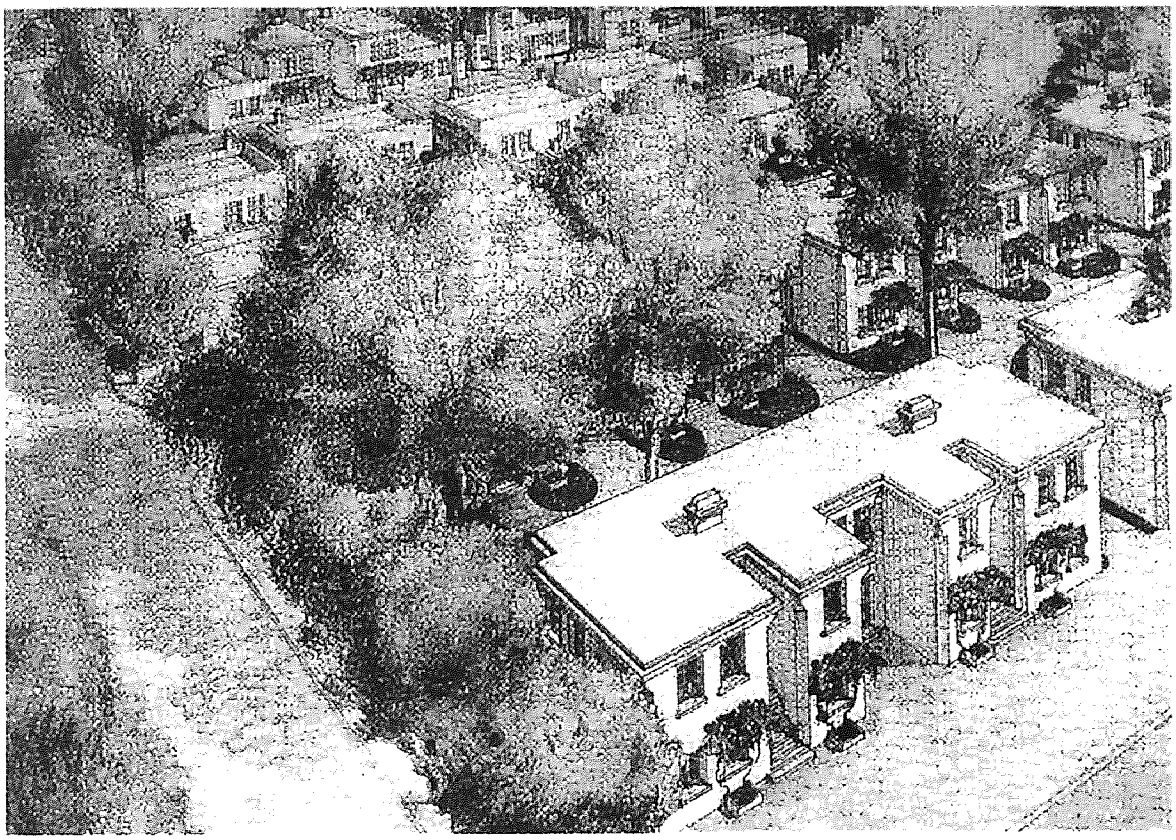


Figure 9: Housing in the Cite Industrielle. (Garnier, *Une Cite Industrielle*, p. 105)

The Cite Industrielle was the first fully designed modern community according to urban historian Jonathan Barnett (Barnett, *The Elusive City*, p.111). The city used low housing densities and carefully placed green belts, and it was probably physically influenced by the work of Howard and socially by theories of Karl Marx. The design coincided with the rise of industrialization and the growth of populations in cities as people moved to the city to find work. This design sought to separate land uses into areas for manufacturing, residences, and recreation. The plan was consistent with Beaux-Arts principles, with grand forms and rigid geometry. The design is notable for the separation of uses, a precursor to zoning, and the allowance for future growth of the city.

Figure 10: Photograph of Le Corbusier. (Fishman, *Urban Utopias in the Twentieth Century*)

Le Corbusier was an architect, painter, and theorist who became deeply fascinated with the expression of the machine in architecture. His utopian vision of the city was the

celebration of the industrialized machine that exploited the reality of high population densities, new, faster forms of transportation, and a new way of living in this industrialized condition. "Le Corbusier's aim was a society in which both cooperation and individualism could find expression" (Fishman, *Urban Utopias of the Twentieth Century*, p.164). This included influences from the Garden City movement, particularly in the designs created by Parker and Unwin. It was their desire "to create an architecture appropriate for a cooperative civilization" (Fishman, *Urban Utopias of the Twentieth Century*, p.165) that delighted Le Corbusier. He too believed that architectural form could change society in a positive manner.

Le Corbusier felt that the machine age "exists to fulfill the mass needs and can only find its highest expression only in large-scale enterprises" (Fishman, *Urban Utopias of the Twentieth Century*, p.180). He also believed that such an endeavor required centralization of authority, both physically and in terms of the hierarchy of society. It was the job of the architect to create a new society for the captains of industry, based on the ideals of harmony and balance.

Le Corbusier took the idea of the modern industrialized city and designed the Ville Contemporaine for three million people in 1922. This design became known for the tower in the park concept, where the towers contained the business offices, not residential housing, as would become a model for housing and community design. The design would then undergo several iterations before it found its last expression as the Radiant City in 1935. The city would make proper use of the technology of the machine age, as Le Corbusier referred to this period of time. The city was designed on a rectangular grid with the major transportation routes passing through the centre of the new city. Aircraft, trains

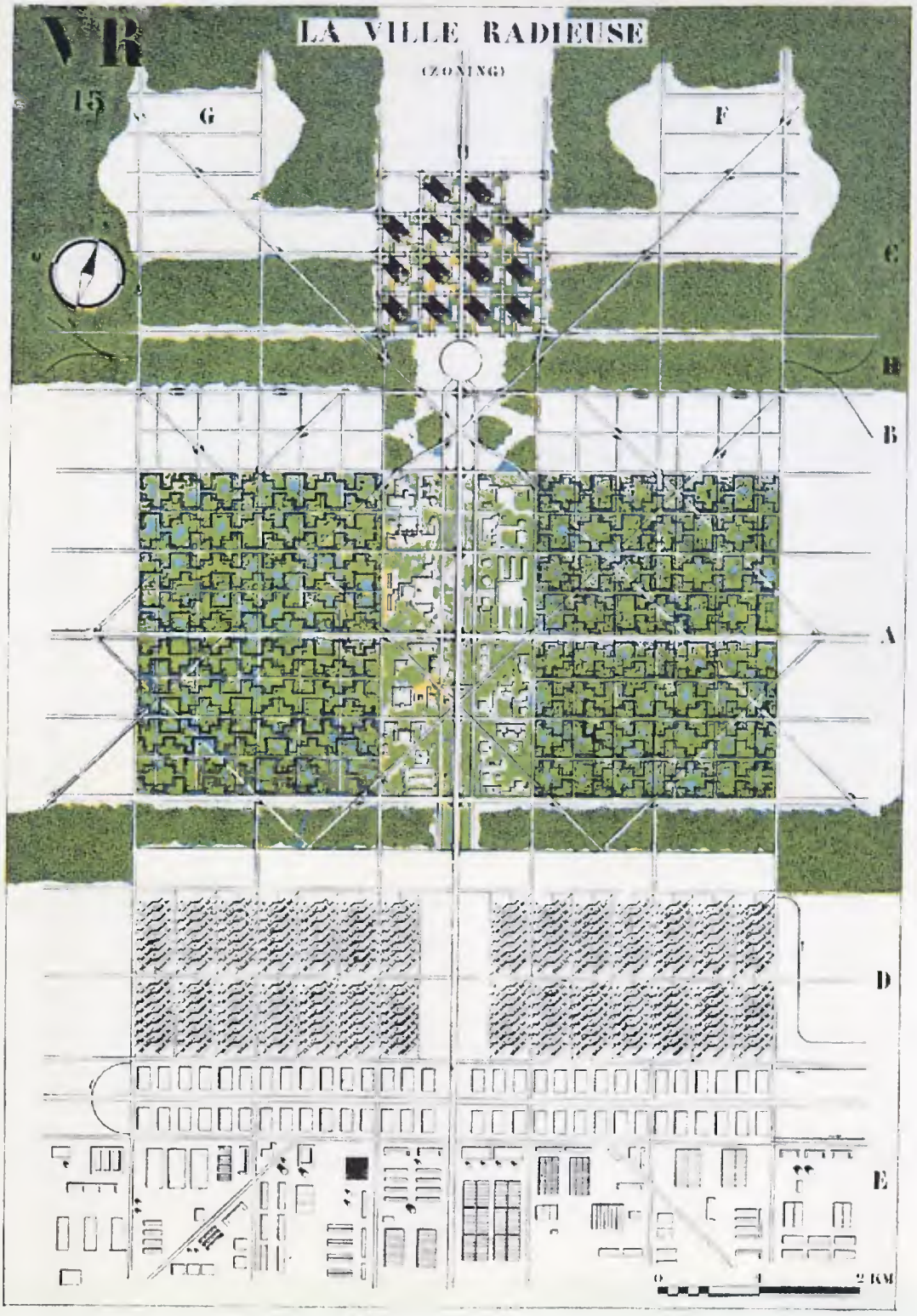


Figure 11: Plan of the Radiant City. (Le Corbusier, The Radiant City, p.170)

and cars would all co-exist in this city, and they all would meet at the center of the city. The main feature of the Ville Contemporaine was the sixty storey cruciform office towers in open park space. Le Corbusier's idea was that people would be in nature, because the city would not consume as much land. This design was created as a way to develop a vertical city with a high population density. He also had lower density residential communities outside of the central core, and he separated land uses which was consistent with earlier community designs.

The central core is contained within a diamond shaped series of secondary roads. The office buildings are located around the core with a multi-level shopping area with pedestrian avenues at the center. Luxury apartments are also located within this core. The remainder of the city is greenspace, with pedestrian paths, and satellite cities, containing the low density, low rise housing for the working class. Le Corbusier felt that the unregulated industrialization of the late nineteenth century had created such poor living conditions in large areas of the city that his vision would solve all the architectural and social ills that industrialization had created (Barnett, *The Elusive City*, p.115).

The Radiant City saw the change of importance of the person and their personal residence. In this final plan, The residence occupies the center and the place of honor. People now live in apartment blocks that he refers to as Unites. The cruciform office towers are now displaced by the residential district, creating what Le Corbusier now believed to be a human city and an egalitarian city. All classes of people live in these Unites, and the size of the apartment is based upon the size of the family, and not by the worker's position in the industrial hierarchy.

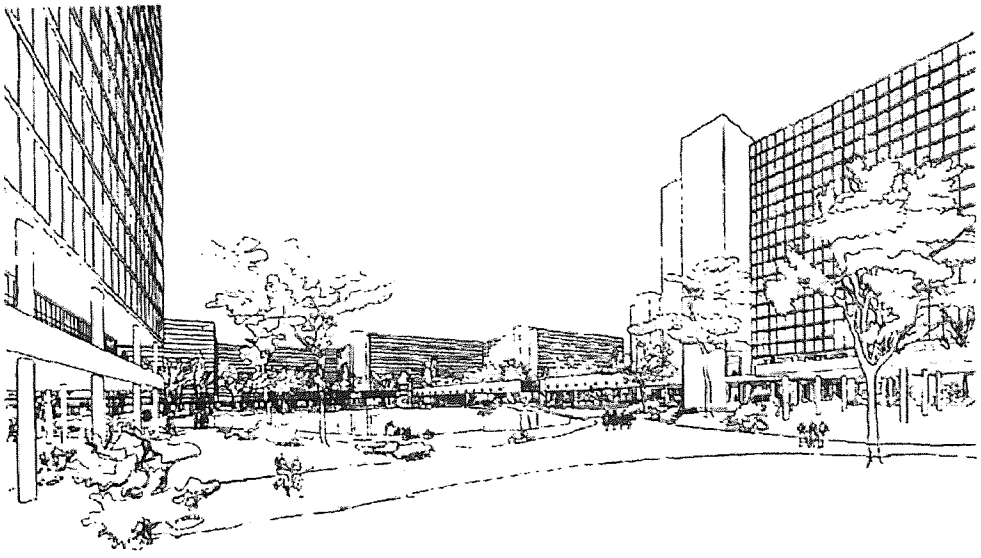


Figure 12: Perspective Sketch of the Radiant City. (Fishman, *Urban Utopias in the Twentieth Century*)

Le Corbusier felt that such a city could only exist with a radical change in society. All of society in the Radiant city was organized around what he referred to as syndicates, or trade guilds. These syndicates would then be responsible for the governance of their own trades and their workers. The syndicates would then interact to conduct business between themselves and other cities, and operate the city. Essentially, this created a powerful, centralized social system of absolute authority over communal living. "His ideal city was based on the belief that the polar opposites of authority and participation could be joined in the building of a new society" (Fishman, *Urban Utopias of the Twentieth Century*, p.252).

Eventually, the ideas of Le Corbusier were joined with the ideas of those of several prominent European architects, including Mies Van der Rohe and Walter Gropius from Germany, when the Congres Internationaux d'Architecture Moderne (C.I.A.M.) was

formed in 1928. They quickly became interested in modern city design and began to codify their design principles. Each C.I.A.M. meeting explored a different central topic. The 3rd and 4th C.I.A.M. meeting, which occurred on a boat that docked in Athens in 1933, produced what became known as the Athens Charter. The Athens Charter set out statements about four critical planning areas. These four areas were dwellings, recreation, workplaces and transportation (Barnett, *The Elusive City*, p.119), and they were to be treated as separate zones within the city.

Most people were to live in tall, widely spaced apartment blocks, living in high densities, where it was deemed appropriate according to the charter. The resulting housing was organized around the capacity of the school system. Work places were to be located near to transportation routes, including the new advent of high-speed highways for automobiles. Ultimately, many of the ideas expressed in the Athens Charter became codified into the zoning of many urban plans. Land use zoning in the United States pre-dated the Athens Charter with the zoning rules adopted by New York City in 1916, but it solidified the idea of segregating land uses into specific zones. It is that type of zoning that has evolved into common urban planning practices.

1.2.2 North American Precedents

Many of the planned communities in North America, particularly those of the United States have adopted the precedents set in Europe and modified them for the ideals and needs of North American society. Many of the earliest planned communities in the United States were based on the Garden City principles or Beaux-Arts ideas.

One of the first major community designs that used the Garden City approach was that of Sunnyside Gardens in the Borough of Queens in New York City, built between 1924 and 1928. It was considered a model community that was designed by architect, Clarence Stein, and planner, Henry Wright. It was financed by the limited-dividend City Housing Corporation, which had been established by real estate developer, Alexander M. Bing, in 1924. Stock was issued to provide a maximum guaranteed six percent annual return on an investment. Ultimately the idea was to have the homes occupied by lower income residents. The corporation referred to it as "better homes for wage earners" (Rowe, *Modernity and Housing*, p114.), and it was to serve as an alternative to tenement living.

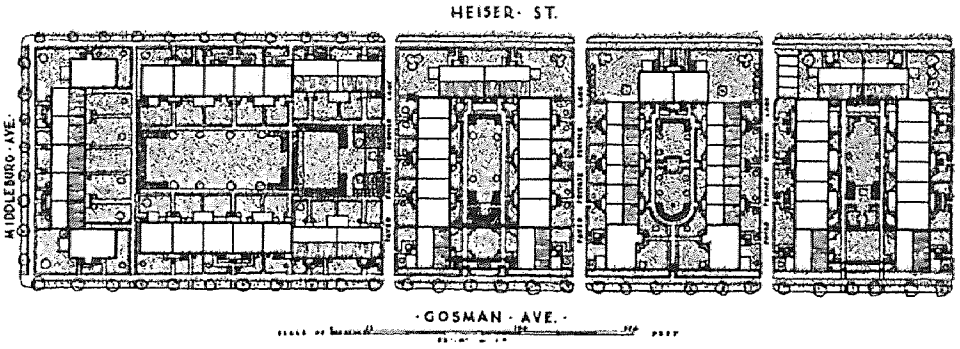


Figure 13: Partial Plan of Sunnyside Gardens. (Stein, *Toward New Towns for America*, p.30)

The design was constricted to the existing city grid pattern, but the architects used this constriction to create large open spaces on the interiors of the blocks. The housing was built to a moderate density of twenty-seven units per acre. There were three basic housing types including garden apartments, single-family attached houses, and two-

family houses. The interesting innovation here was that the central green spaces, containing a portion of each property, were to remain as barrier free common space for all the residents to enjoy. This deed restriction was to last for fifty years from the completion of the neighborhood. Today, there is a strange mixture of fences and open space in these interior courts, as some owners have privatized their rear yards after the expiration of the deed restriction. Parking was placed away from the main streets in order to preserve the importance of the pedestrian. Shops were also provided in the development to provide support services and the whole development was accessible to New York City from a nearby subway stop. This resulted in what is considered one of the most highly successful urban communities to be built in any major U.S. city.

Figure 14: Courtyard at Sunnyside Gardens. (Stein, *Toward New Towns for America*, p.30)

The next major community to be developed by the City Housing Corporation was that of Radburn, in Fairlawn, New Jersey in 1928. This was planned as a complete Garden City, but the Depression caused only a small portion of the community to be built.

Radburn was created with three goals in mind. The first was the need to increase leisure time for its inhabitants. The second goal was to increase the equality of opportunities, particularly social and economic opportunities. The third goal was to develop a community with some degree of modern mechanization to facilitate an increase in the overall standard of living.

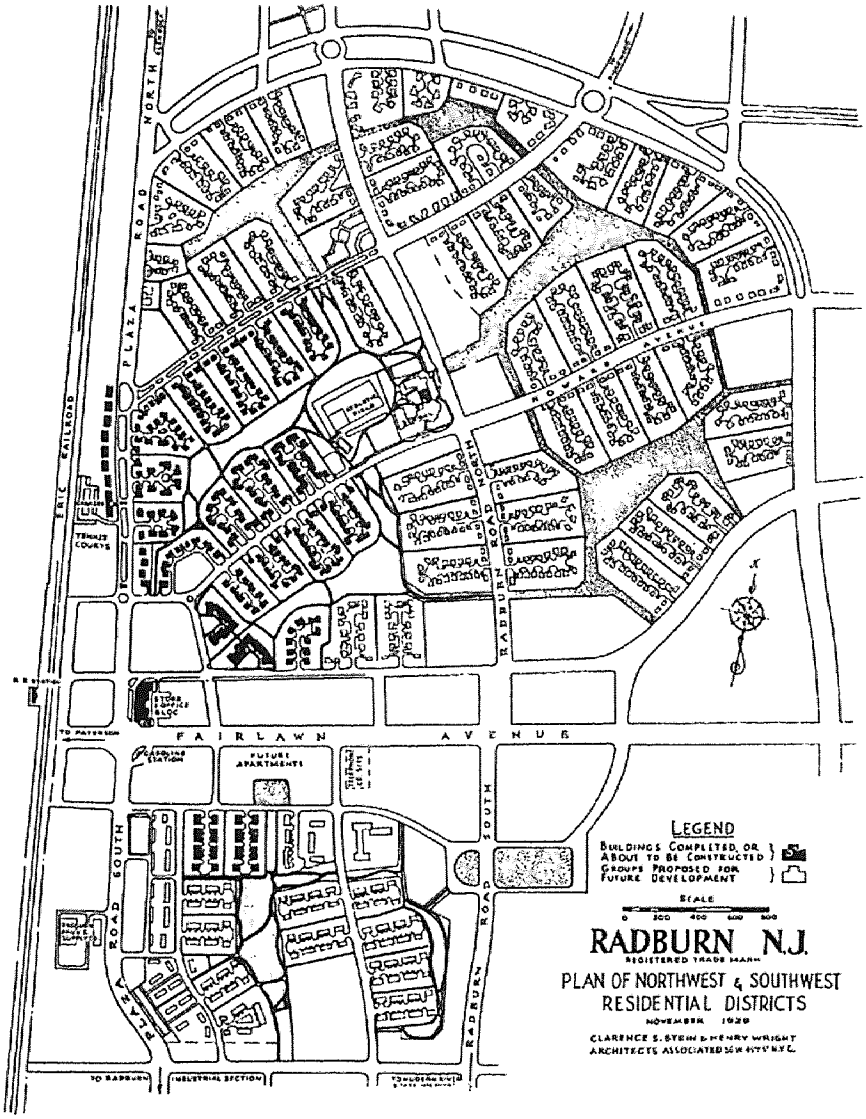


Figure 15: Plan of the Radburn, New Jersey. (Stein, *Toward New Towns for America*, p.43)

The design was organized around cul-de-sacs, where the detached single and two-family housing units were located. This was done in an overall superblock arrangement and created new housing forms for the motor age. Radburn was designed using 30 to 50 acre superblocks organized into neighborhoods of ½ mile radius centered on an elementary school. The development was to have an organizational spine of spaces between the unit clusters with a pedestrian pathway and park system. The concept was to separate pedestrians, namely children, from vehicle in order to have a safe environment. "Its most important feature was its greenway system" (Barnett, *The Elusive City*, p.82). The park was to be the center of the community.

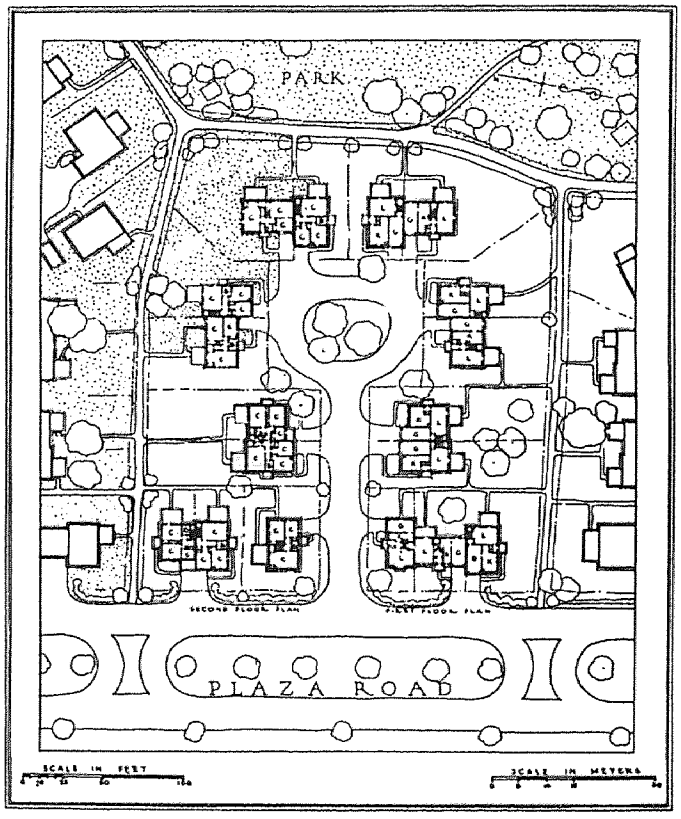


Figure 16: Plan of the Cul-de-sacs in Radburn, New Jersey. (Stein, *Toward New Towns for America*, p.56)

Radburn was to have three planned sections with a high school and other community functions located at the center adjacent to the main road that services the area. It was to house medium income families, but only one section was built containing approximately 8,000 units.

Designers in the United States also experimented with ideals of theoretical community planning. This led to the development of competing visions of Green Belt Cities versus Frank Lloyd Wright's Broadacre City. The vision of the city became polarized into the neighborhood and society versus the house and the family respectively. The Green Belt cities were envisioned as communities based on Howard's Garden City model. They were always planned as mainly residential communities, and their realization saw them become garden suburbs for the nearest major urban center. The most notable of these was Greenbelt, Maryland located ten miles from Washington, D.C.

Figure 17: Photograph of Frank Lloyd Wright. (Fishman, *Urban Utopias in the Twentieth Century*)

Frank Lloyd Wright's concept of the city was highly decentralized and it was based upon the individual and family in society. Wright had seen a gas station and had understood the future impact of cars and highways. Broadacre City is his expression of the individual ideal in American society and the triumph of the car allowing for individual mobility. Wright stated, "We are concerned here in the consideration of the future city as a future for individuality in this organic sense: individuality being a fine integrity of the human race. Without such integrity there can be no real culture whatever what we call civilization may be. We are going to call this city for the individual the Broadacre City because it is based upon a minimum of an acre to the family" (Wright, *The Disappearing City*, p.17).

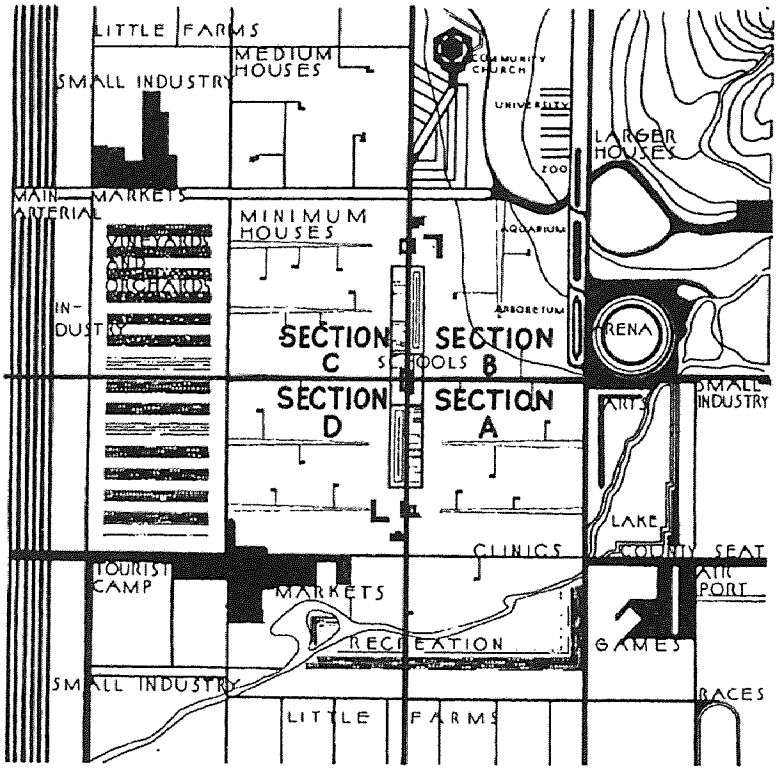


Figure 18: Plan of Broadacre City. (Fishman, *Urban Utopias in the Twentieth Century*)

Robert Fishman noted that "In Broadacre City, decentralization reaches the point at which the urban/rural distinction no longer exists" (Fishman, *Urban Utopias of the Twentieth Century*, p.92). His vision allows for every citizen, or family, to own a home on at least one acre of land. Wright saw the home as "the only permissible shelter for a free society" (Fishman, *Urban Utopias of the Twentieth Century*, p.110). His diagrams and sketches show homes, apartment and office towers, shopping malls, and other buildings all situated apart from one another, with vast tracks of farmland between them. Each home was to be a working farm that would allow for the reconnection of the people to the land, and it would help to provide the food for the family and the city.

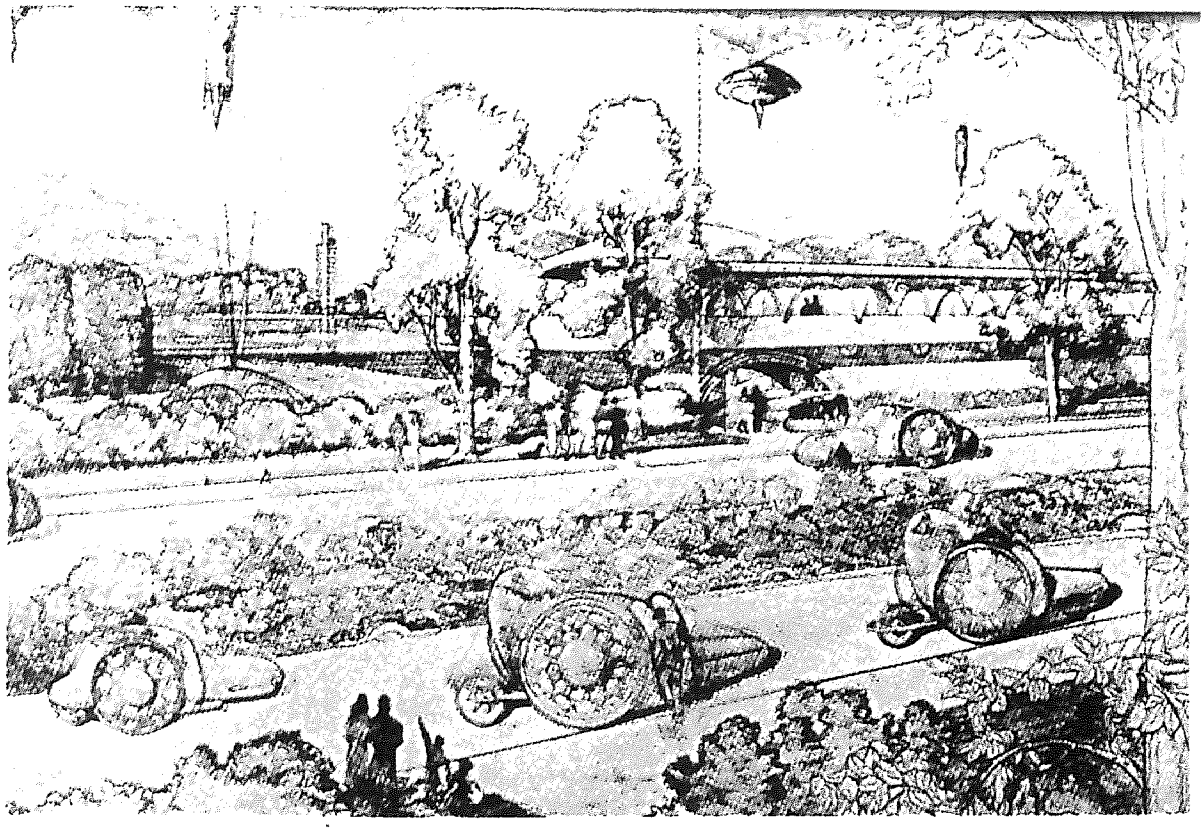


Figure 19: Perspective Sketch of Broadacre City. (Fishman, *Urban Utopias in the Twentieth Century*)

The city would be connected by an intricate network of highways. He even envisioned a type of helicopter that would be used to travel from one locale to another. It is conceivable that such a city could be one hundred square miles in area. This image of the city was never realized as a planned community, but government tax and transportation policy has created suburban communities which now resemble Wright's vision.

One specific example of a housing project that sought to incorporate issues of design, society, and economics into a balanced community design was Columbia, Maryland, created by the late James Rouse. At its core was the belief that communities could be designed that contained diversity, such as a broad range of available housing types and prices, jobs, income groups, lifestyles, and cultures (races), and be self-sufficient economically. Administratively, the town was to be governed by a corporation. Rouse proposed the planned management of an urban environment. It is the management of the community that is of particular interest.

He formed the Rouse Company and secured 13,460 acres for his community and created a joint venture agreement between the Connecticut General Life Insurance Company and Howard Research and Development Corporation for the debt financing of the project. The financial agreement was that the insurance company was to get ½ of the equity of the Howard Research and Development Corporation, and money earned from the commercial property would be used to pay the debt and interest costs of the money used by the Connecticut General. The aim was to create a profit in community development over by meeting long-term public needs, rather than following the traditional course of real estate developers that only look for the most immediate return

on their investment (Apgar, *Managing Community Development: the Systems Approach in Columbia, Maryland*, p.40). The profit was created through the capital appreciation from "value-added" to land by the development process, the cash flows generated by land sales, building development, and operations of income producing properties, and through tax saving from deductions. To ensure its viability, combinations of residential, industrial, and commercial typologies were designed to attract people with varied interests with an enclosed shopping mall at the center of the community. It is the need for the synergy between a residential population and the commercial and industrial ventures, which can make a community economically possible and profitable.

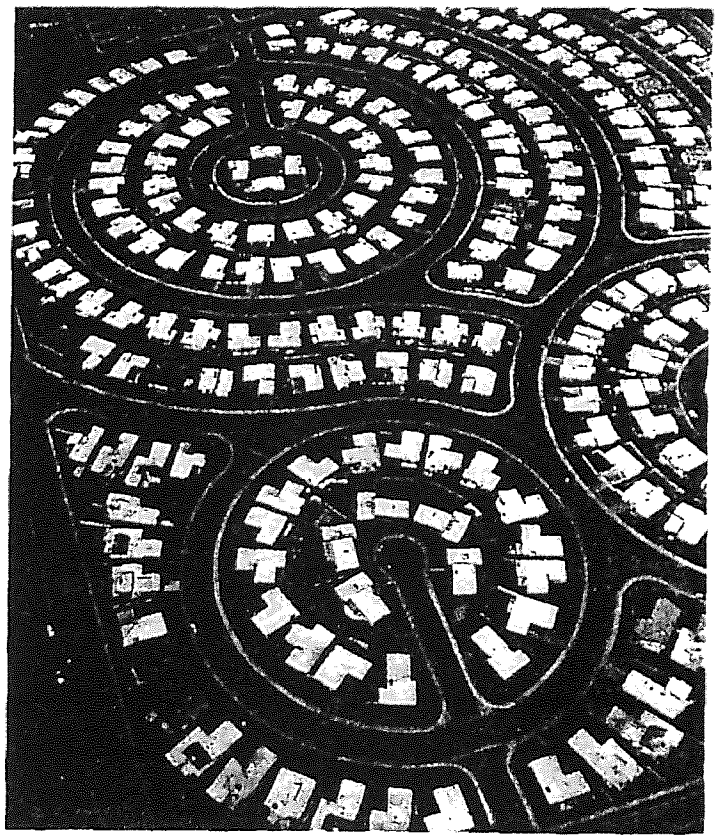


Figure 20: Image of the Suburb. (Yildirim, A Critical Analysis of the New Urbanism, Thesis, NJIT)

The Twentieth century history of community planning in the United States has been the history of government involvement in housing development, both directly and indirectly through private organizations. These policies have been mainly to support private ownership of single family homes in homogenous communities through subsidies. The government had become involved in housing to a large extent during the Great Depression when President Herbert Hoover held a conference in 1931 to establish federal policy towards housing. The conference recommended the creation of long-term, amortized mortgages, the encouragement of low interest rates, and the institution of government aid to house low-income families (Jackson, *Crabgrass Frontier*, p.194). He also created the Federal Home Loan Bank Act in 1932 to support lenders in the promotion of providing capital for the housing market.

President Roosevelt created The New Deal which included the development the Greenbelt Town Program and the Home Owners Loan Corporation. The agency which had the greatest effect on home building in the U.S. is the Federal Housing Administration, created by the National Housing Act of 1934. Its purpose was to stimulate construction by insuring private mortgage lending. The government legislated direct involvement in public housing with the 1937 Housing Act (Rowe, *Modernity and Housing*, p.177). This led to the Federal Housing Act of 1949, which encouraged urban renewal by providing federal subsidies to special local agencies to combat urban blight by clearing 'slums' for redevelopment, and providing some low income housing (Rowe, *Modernity and Housing*, p.178). Government involvement in housing continued with other Acts, such as the Federal Housing Act of 1961 under the Kennedy administration, which provided financial assistance for moderate income families. Federal involvement

began to wane with the housing Moratorium instituted by Nixon in 1973 (Rowe, *Modernity and Housing*, p.228), and it completely disappeared during the Reagan administration in the 1980's.

1.3 Recent Urban Theory

"The importance of place has diminished as global flows of people, ideas, capital, mass media, and other products have accelerated." (Ellin, *Postmodern Urbanism*, p.1) The notion of the traditional boundaries between neighborhoods in the city have become blurred with the rise of telecommunication and the internet. There is no longer a need to have a centralized workplace, or even a city, because of modern communication technology. This is even more so in the suburb. The "Suburbs are small , controlled communities where for the most part everyone has the same living standards, the same weeds, the same number of garbage cans, the same house plans, and the same level in the septic tanks." (Jackson, *Crabgrass Frontier*, p.4) Everything seems to be uniform, free of diversity, and completely sanitized.

The traditional suburban model has become slave to the car and the notion of a detached home on a large lot of land. Suburban sprawl has led to dependence upon the car for mobility. The creation of suburban infrastructure, such as the corporate park and the shopping mall, has diminished the need for the city as a place to go to for work or entertainment. Increased traffic patterns have led to a rise in pollution, and land speculation by developers has caused the disappearance of open farmland, in order to put up large housing subdivisions. People have to commute to commute long distances to work, and they spend more time in the commute that their quality of life suffers and

neighborly interactions are reduced. This has created a reaction to the suburb that looks towards more diversity rather than homogeneity.

Figure 21: Joel Garreau's Edge Cities. (Garreau, *Edge City*, p.19)

The automobile has had a huge affect on the built landscape. As modes of transportation, such as the creation of high speed highways and mass transit commuter trains, have become more rapid and efficient, this has allowed the population to move away from city centers and still travel to work everyday. The car and the rising value of urban land have forced many companies to relocate to suburban areas, where the costs associated with land ownership are reduced. Populations and business have gradually congregated in areas outside the traditional city boundaries, and this has resulted in new centers. This movement of business and people outward from urban centers to intersections of major roadways, which are independent of mass transit, is commonly referred to as sprawl, and it has led to the development of what journalist Joel Garreau refers to as "edge cities."

Edge cities have malls that function as the village squares, and they are tied together by "jetways, freeways, and rooftop satellite dishes thirty feet across" (Garreau, *Edge City*, p.4). Garreau calls these new places edge cities because, "they contain all the functions a city ever has, albeit in a spread-out form that few have come to recognize for what it is," and "because they are a vigorous world of pioneers and immigrants, rising far from the old downtowns, where little save villages or farmland lay only thirty years before" (Garreau, *Edge City*, p.4).

The car is the ultimate expression of the North American desire for mobility individual expression and privatization, and it has aided in the realization of private home ownership. By 1970, the ratio of people to registered vehicles in the United States was two-to-one (Jackson, *Crabgrass Frontier*, p.163). Present day observation of suburban driveways can lead to the belief that the ratio is more likely to be closer to one-to-one.

The city has become a transitory place on the way to the suburbs, and it is not a place to occupy for longer periods of time. One solution has been the embracing of neo-traditional neighborhood design, which borrows nostalgia for the town and village rather then the city. It has been embraced by many architects, urban planners, and government agencies, such as the Department of Housing and Urban Development (HUD). The community is something that is imagineered. This is being applied primarily to new communities, and secondarily to old urban centers, and existing suburban neighborhoods. Traditions are created, histories are borrowed, and the village becomes the ideal place to live. The Disney company, the master creator of images, has created the town of Celebration, a neo-traditional village, outside Orlando, Florida. The goal of such nostalgia is to provide a basis for people to identify with and it is a great marketing tool for the selling of such communities. It gives a perceived urbanity, a center, a meaning. It is a direct response to the lack of clarity which exists in the suburbs and the city. Rob Krier stated, "it is only the clear legibility of its geometrical characteristics and aesthetic qualities which allows us consciously to perceive urban space." (Krier, *Urban Space,* p.15) This is a positive aspect for any community to have, but does it require an image of nostalgia to have these qualities?

The present situation is particularly a result of post World War II housing practices. The end of the war saw the need to use the industrial machinery and a strong industrialized economy to create new housing for returning soldiers. The VA mortgages saw the creation of low interest mortgages promoted the building of privately owned homes. The Federal Highway Act of 1916 and the Interstate Highway Act of 1956, in the United States, saw the subsidizing of the construction of thousands of miles of new

transportation routes to complete the interstate road system, the government control of gas prices, and the massive proliferation of the automobile and the single detached home. If the capital investment into suburban infrastructure was redirected, the money could be channeled back into urban centers for the revitalization of communities.

"The lack of legibility of post-Second World War landscapes incited a desire for the familiar and issued calls for designing 'contextually' with regards to historical and local contexts." (Ellin, *Postmodern Urbanism*, p.4) This romanticism of neo-traditional community design, and architecture is a logical extension of the planned communities that have been thought of and built since the industrial revolution almost one hundred and fifty years ago. This has been central to the work of such architects as Leon Krier, Andres Duany and Elizabeth Plater-Zyberk, and Peter Calthorpe.

1.4 Neo-Traditional City Design

Neo-traditional design is a direct reaction to the increasing social and economic costs of suburban sprawl. It also reacts to the urban design principles and theory of the modern movement, particularly the principles manifested by Le Corbusier and CIAM. The modern movement has "become synonymous with inhumanity, desolation, and devastation" according to architectural critic, Liane Lefaivre (Ellin, *Postmodern Urbanism*, p.9). Neo-traditional design "emphasizes the relationship between buildings and all that surrounds them and has encouraged the design of buildings to enclose public space rather than sit in the middle of it" (Ellin, *Postmodern Urbanism*, p.45). This design philosophy seeks to engage the surroundings rather than retreat from them. It attempts to provide spaces that are semi-enclosed, legible, which connect places that people use. The

aim is to provide a sense of stability in a world that seems to be always in a state of change.

The ideas of neo-traditional design have arisen through the work of several architects. The idea of neo-traditional planning has also been referred to as the new urbanism. It is commonly accepted that the urban theories of Leon Krier have formed the basis for the various neo-traditional design models. His visions of the city have been previously published in Architectural Design monographs in 1984. His theory is based on the preservation of social and physical centers as desirable models of urban living. This involves the recreation of the importance of the street, square, and quarter (neighborhood) (Ellin, *Postmodern Urbanism*, p.15). Krier believes that "industrial production... has destroyed in less than two hundred years those cities and landscapes which had been the result of thousands of years of human labor and intelligence, of culture (Ellin, *Postmodern Urbanism*, p.16). Leon Krier has even gone far enough to describe a formula for the city, which is based on physical form and tight design guidelines.

Leon Krier's City

1. A city can only be reconstructed in the forms of streets, squares, and quarters.
2. These quarters must integrate all functions of urban life, in areas that do not exceed 90 acres and 15,00 people.
3. The streets and squares must present a familiar pattern.
4. Their dimensions and proportions must be those of the best and most beautiful pre-industrial cities.
5. Simplicity must be the goal of urban topography, however complex.

6. The city must be articulated into public and domestic spaces, monuments and urban fabric, squares and streets, classical architecture and vernacular building, within a hierarchy. (Ellin, *Postmodern Urbanism*, p17).

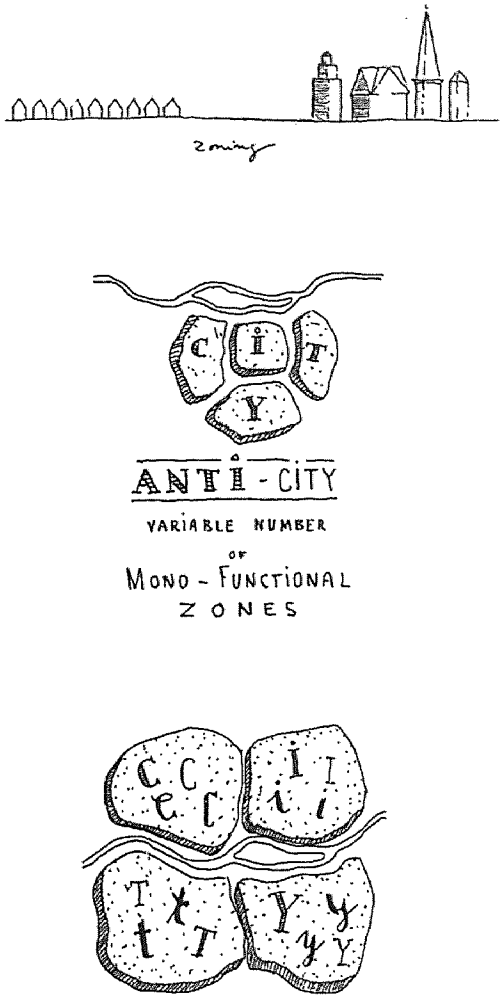


Figure 22: Sketches of Leon Krier's Urban Theory. (Krier, *Architecture: Choice or Fate*, p.92)

Krier elaborated on his urban design theory in a recent book, *Architecture, Choice or Fate*. He states, "urbanism is essentially a matter of public spaces, plot sizes, plot ratios and number of floors. There are specific types, dimensions, ratios and numbers which

allow us to build harmonious cities and others that inevitably lead to suburban sprawl, commercial strips and/or metropolitan congestion. There are forms of high risk mega-developments which produce mega-profits and mega-failures. There are others based on individual talent and enterprise which stimulate civilized competition, and lead to humane and agreeable towns. The traditional city performs the miracle of allowing contrasting and competing ambitions, the most modest and greatest of talents to strive and thrive as neighbors; to build in harmony. That is the definition of urbanity and urban civilization." (Krier, *Architecture; Choice or Fate*, p.86) The city expands properly through organic expansion by duplication and not by creating vast zones of a similar typology as is the case with modern zoning practice. Urban centers tend to overexpand vertically, while suburban peripheries do the same horizontally. The city is an accumulation of complete communities, it is polycentric, not a grouping of uniformly zoned areas. Krier feels that a ten minute walking radius is the ideal maximum size for each community (Krier, *Architecture; Choice or Fate*, p.95). Any potential redevelopment should occur with functional and typological diversity.

The city is designed with quarters (neighborhoods), streets and squares. An urban quarter has a maximum of 80 acres, is a maximum of ½ mile in any direction, it should be rounded in shape, and it should not exceed 10,000 inhabitants. This is based upon a Eurocentric city model, and it approximates the historical size of pre-industrial large European cities. There should be a clear hierarchy of streets and squares, which should form a regular grid, and irregular grid, or some logical combination of the two. The surface area of blocks decreases towards the center, thus increasing the density of the center. Oblong blocks are perpendicular to the main street allowing for the maximum

number of side streets. Each quarter should have at least one main square located on the main street. Cul-de-sacs and one-way streets should be avoided where possible. Boulevards, avenues, large squares, public gardens, and golf courses should not be inside these quarters, but part of their boundaries (Krier, *Architecture; Choice or Fate*, p.128).

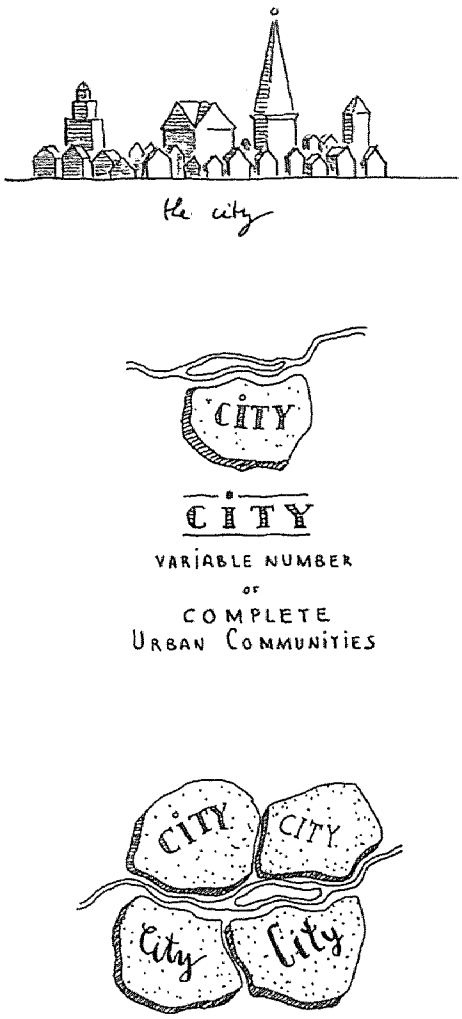


Figure 23: Sketches of Leon Krier's Urban Theory. (Krier, *Architecture: Choice or Fate*, p.93)

Leon Krier also feels that the street should be focused so that it creates space. It must be more than a corridor. The relative proportion of public space of 25-35% (which

probably includes paved areas) is ideal. Land needs to be allotted for industry and craftspeople in order to stimulate jobs and urban enterprises. These activities should co-exist with residential activities within each quarter. Floor ratios historically do not exceed 2:1, which can be accomplished by buildings not exceeding three to five storeys. These are the aspects of Krier's neo-traditional community designs, and many of these ideas have influenced the new urbanism.

1.4.1 The New Urbanism

The New Urbanism is movement in North America based on the ideas neo-traditional design. Two major design theories underlie the work of the founding architects: Traditional Neighborhood Design (TND) by Andres Duany and Elizabeth Plater-Zyberk , and Transport Oriented Design (TOD), or the Pedestrian Pocket (PP), by Peter Calthorpe.

1.4.1.1 Traditional Neighborhood Design (TND): This model has several key principles at its core. These principles are based on the idea that communities can be derived architecturally. Duany and Plater-Zyberk have assumed that community is primarily a function of physical form.

The Traditional Neighborhood Design Model

1. The community is limited in size. The optimal size of a neighborhood is a quarter mile from center to edge. This is a five minute walk for the average person.

2. The neighborhood has a center and an edge to provide a focus and limit to the community.
3. The neighborhood has a balance of activities including dwelling, shopping, working, schooling, worshipping, and recreating.
4. The neighborhood is organized on a fine network of interconnecting streets.
5. The neighborhood gives priority to public space and to the appropriate location of civic buildings. This can create an identity for the neighborhood and create a hierarchy of public spaces.
6. The center is where the key public buildings are located, such as day-care and the post office.
7. The edge shall be defined by greenspace, low density residential tracts, a physical condition such as a river, an urban condition such as a railway, or by areas of increased commercial activity. These are referred to as the corridors between neighborhoods.
8. The neighborhood should be pedestrian friendly and transit oriented so that reliance on the car is reduced. (Katz, *The New Urbanism*, pp. xxi - xxiv.)

Typically, Duany and Plater-Zyberk design a textual and graphical code for the development of the towns that they build based upon the principles of the TND. These principles have "grown out of a more doctrinaire Euro-American Urbanism" (Kelbaugh, *Common Place*, p.130). This becomes a set of graphically expressed rules that blanket the alternatives for the whole community. The rules tend to be much more rigorous about architectural typology, style, and detail. But these principles are not inflexible. Originally,

the TND was limited to a quarter mile radius, but practice has caused Duany and Plater-Zyberk to increase that to a half mile, or the distance that can be traveled in ten minutes by the average adult. The key example of the TND is that of Seaside, Florida, on the Gulf of Mexico coastline, designed by Duany and Plater-Zyberk. Seaside was the first built project based on design principles created to minimize the affects of the car, give the street back to the community, increase pedestrian mobility for all age groups, integrate all racial and social classes, create a pleasant and safe living environment, and form a vital community.

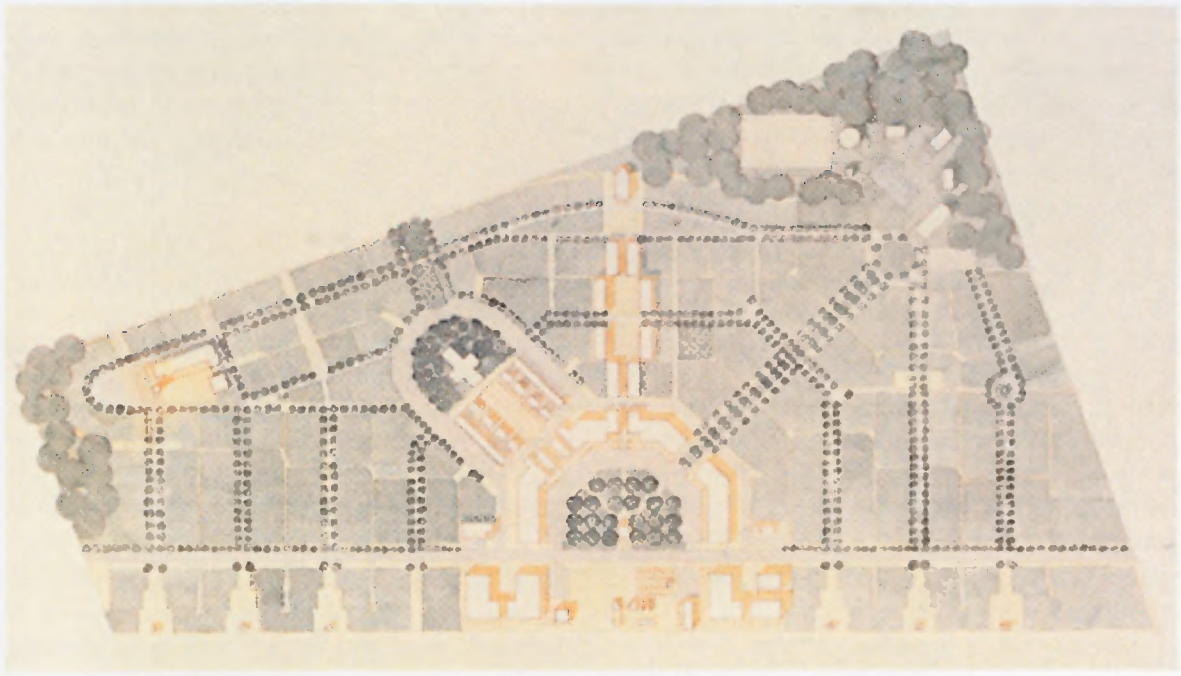


Figure 24: Plan of Seaside, Florida. (Katz, *The New Urbanism*, p.3)

1.4.1.2 Seaside: Seaside was begun in 1981 on 80 acres for developer Robert Davis. The key feature of the design process that was employed for Seaside was the town code. This allowed for many architects to be involved while maintaining a coherent style and image

for the whole community. This code anticipated many details from materials to the placement of the various building types. Their code also defined the spatial qualities of the street and square hierarchies.

Figure 25: Photograph of Seaside, Florida. (Katz, *The New Urbanism*, p.13)

The town was designed to have a population of 2,000 with 350 houses and approximately 300 other dwelling units such as apartments and hotel rooms. It was to be a new inexpensive beachfront resort community, but it has become more of an upscale resort in terms of its unit costs and physical appearance. It is designed in a fan-shaped form around a civic center which contains the primary public spaces, with the remainder of the community within the five minute radius. The public facilities which have been designed for are a school, a town hall, an open air market, a tennis club, am amphitheater, and a small post office. There is one major thoroughfare which passes through the main

square, and the remaining streets are organized into a strict hierarchy which is evident from the width of the streets and the planting along the edges of the streets. The residential blocks vary widely in shape and width in such a way that the pedestrian has many alternative paths between destinations.

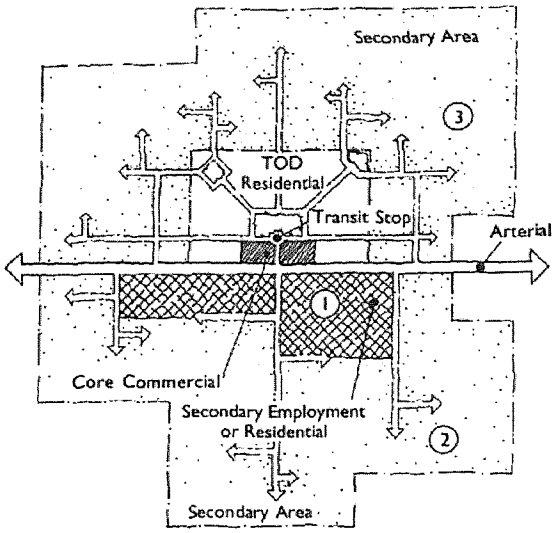


Figure 26: Graphical Diagram of the Pedestrian Pocket. (Calthorpe, The Next American Metropolis, p.45)

1.4.1.3 Transportation Oriented Design (Pedestrian Pocket; TOD): This is the design model that has been developed by architects Peter Calthorpe. Calthorpe came to this model from an environmental point of view of how to create workable communities which did not use land inefficiently or rely solely on the automobile which effects the environment with its emissions. He originally developed these ideas in a book called *Sustainable Communities*, by Sim Van der Ryn. In 1988, he first published his design theory in the *Pedestrian Pocketbook*, with fellow architect Douglas Kelbaugh. The TOD follows many of the principles of the TND but it is not as strict in its controlling of the

architecture. The key feature of the TOD that is different from the TND is that it act as more of a regional design tool. It organizes itself on a backbone of major transportation routes. These routes can be a major roadway, public transportation such as rail, or a combination of the two. The aim is to logically link the neighborhoods with one another, and the city, using the least amount of required infrastructure. "The TOD is a development model for a small walkable community that mixes low-rise, medium density housing for a variety of household and building types, with retail, civic, recreational, and employment centers along a main street - all within about a one-quarter mile radius of a central transportation route, such as a highway, bus route, or rail system (Kelbaugh, *Common Place*, p.129).

Peter Calthorpe took these ideas one step further when he identified the rules for development for communities for the 21st century, in his book, *The Next American Metropolis*. The rules for the Pedestrian Pocket

1. The pedestrian pocket should be limited to a size of 30 - 150 acres in size.
2. The architecture should vary with local differences in culture, climate, building materials, physical constraints, and building practice.
3. The core area will contain the commercial and office buildings for the neighborhood so that they can address the public transportation infrastructure. This will also act as a buffer between the residential area and the main automobile thoroughfare.
4. The walking radius for the community should be approximately ten minutes from center to periphery.
5. The residential area radiates out from a central public, open space away from the commercial core.

6. A secondary residential area may be created beyond the half mile radius where lower density housing can be located.
7. Each basic area of the neighborhood, such as the residential, will have ideal densities and set-backs based upon the building type. For example, commercial set-backs should be 15 - 20 feet, and minimum densities for residential neighborhoods should be 10 - 15 units per acre.
8. Building should be oriented to the street to encourage walking and interaction.
9. Houses should make use of porches to encourage interaction with the street.
10. There should be a hierarchy of streets including back alleys which will aid in removing the presence of the car from the street. (Calthorpe, *The Next American Metropolis*)

He stated that each neighborhood should provide a range of residential types, such as single detached homes, duplexes, studio apartments, and row housing. The interesting feature is that he distinguishes between urban TOD's and Suburban TOD's. In general, urban TOD's should have higher densities of activities compared to its suburban counterpart. He also encourages housing alternatives such as residential apartments over commercial buildings in the core, and granny flats over garages in the rear yard areas of the residential component of the design. The primary example of the TOD is that of Laguna West.

1.4.1.4 Laguna West: Laguna West was designed in 1990 and is located 11 miles south of Sacramento, California. It occupies an 1,045 acre site containing five park oriented neighborhoods. The town contains a planned total of 3,400 units, a 65 acre lake, a

community park, and a town center. One main arterial road serves the entire community. In general, the streets are narrow, tree lined, and oriented to the town square. At least 50% of the houses have front porches with garages in the rear. The plan has a broad mix of housing types from detached suburban type homes to small bungalows to townhouses and apartments. In reality, the built development is mostly housing with some condominiums and town houses.

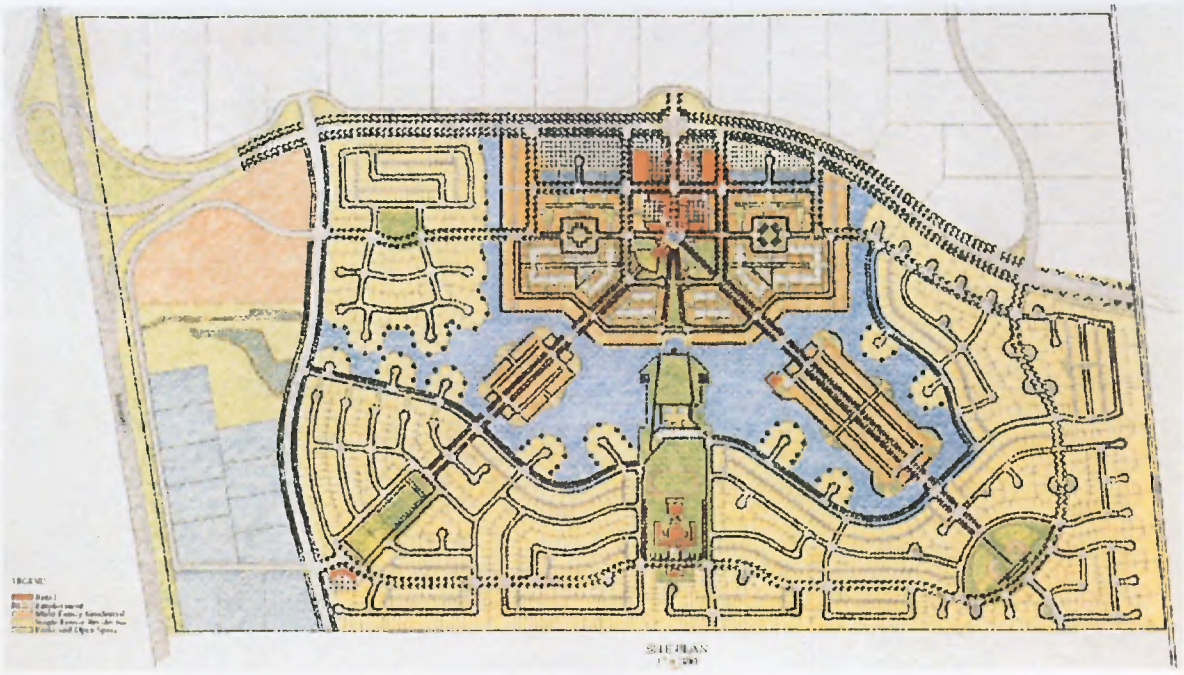


Figure 27: Plan of Laguna West, California. (Katz, *The New Urbanism*, p.19)

The key feature of Laguna West is that light industrial activities are to co-exist with civic, commercial and residential activities. Apple Computer built a new manufacturing plant on the major arterial road, and is a major employer in the community. The park system is interconnected to the main square and it contains pedestrian and bicycle paths. Laguna West has an adequate density to make a light rail

transit connection viable, but the transit connection is not planned. Presently, Laguna West has a bus connection to the city.

Figure 28: Photograph of Laguna West, California. (Katz, *The New Urbanism*, p.28)

1.4.2 The Congress for the New Urbanism (CNU)

Those concerned with the principles of the New Urbanism have established this organization to promote the movement and their ideas. The CNU was formed in 1993 by architects Andres Duany, Elizabeth Plater-Zyberk, Peter Calthorpe, Stefanos Polyzoides, Elizabeth Moule, and Dan Solomon. The CNU seeks to further its agenda by affecting government policy and public opinion about how people should live and work. The CNU

is active in research, education, and publishing as a way to further its core mission. The preamble to their charter states the following;

The congress for the New Urbanism views disinvestment in central cities, the spread of placeless sprawl, increasing separation by race and income, environmental deterioration, loss of agricultural lands and wilderness, and the erosion of society's built heritage as one interrelated community building challenge.

The Guiding Principles of The Congress for the New Urbanism:

1. The metropolis should be made of multiple centers supported by a local and regional transportation system.
2. Development should be in the form of compact, walkable neighborhoods.
3. Neighborhoods should encourage pedestrian activity without excluding automobiles completely. And,
4. A diverse set of activities should occur in proximity, and there should be a variety of housing types for a broad range of incomes, ages, and family types within each neighborhood. (Plater-Zyberk, Pamphlet for the Congress for the New Urbanism)

Preamble for the Charter of the Congress for the New Urbanism

We stand for the restoration of existing urban centers and towns within coherent metropolitan regions, the reconfiguration of sprawling suburbs into communities of real neighborhoods and diverse districts, the conservation of natural environments, and the preservation of our built legacy.

We recognize that physical solutions by themselves will not social and economic problems, but neither can economic vitality, community stability, and environmental health be sustained without a coherent and supportive physical framework.

We advocate the restructuring of public policy and development practices to support the following principles: neighborhoods should be diverse in use and population; communities should be designed for the pedestrian and transit as well as the car; cities and towns should be shaped by physically defined and universally accessible public spaces and community institutions; urban places should be framed by architecture and landscape design that celebrate local history, climate, ecology, and building practice.

We represent a broad-based citizenry, composed of public and private sector leaders, community activists, and multidisciplinary professionals. We are committed to reestablishing the relationship between the art of building and the making of community, through citizen-based participatory planning and design.

We dedicate ourselves to reclaiming our homes, blocks, streets, parks, neighborhoods, districts, towns, cities, regions, and environment. (Plater-Zyberk, Pamphlet for the Congress for the New Urbanism)

1.4.3 Critique of Neo-Traditional Planning

There is really nothing terribly new about the New Urbanism. The concept has more to do with a re-discovery of traditional community planning principles, rather than a completely new paradigm. Yet this urban strategy does incorporate a paradigm shift from the modernist model (the superblock, and the tower in the park), and the wish to halt the process of urban sprawl. The late twentieth century neighborhood and city has to be

thought of in the post industrial context that it now resides. Society is now understood to be pluralistic in nature, full of constant change, and information technology will enable a new definition of the workplace, through such things as telecommuting. Society seems to be searching for stability in our rapidly changing world. This has been manifest in the adoption of Victorian and Colonial imagery for our architecture, particularly our suburban tract homes.

The New Urbanism can be seen as a reaction to the decline of the suburb as an actual viable community. In *Crabgrass Frontier*, Kenneth Jackson identified the characteristics of the suburb as having peripheral location, low density, architectural similarity, and racial and economic homogeneity (Jackson, *Crabgrass Frontier*, p.238). Originally, the suburb led to the creation of increased public transportation, and it allowed people to escape the city. Suburban communities first developed on the outskirts of cities, but they soon expanded, occupying greater tracts of land further out as people fled the city. This led to larger and larger homes on bigger lots. Many acres of farmland have been destroyed in order to accommodate these new developments. Homes no longer have a relationship between one another in many large developments.

The New Urbanism seeks to remedy this through the design concept and rules that the founding architects have developed. The New Urbanism is trying to address the problems of sustainability, suburban sprawl, reduction of the reliance on the automobile, and to create meaningful public spaces. The ultimate aim is to create a sustainable community which will continue to grow and develop into a positive, vital, efficient, and safe neighborhood. The New Urbanism claims to be a practical and feasible alternative to present patterns of suburban and urban development.

Architect Douglas Kelbaugh, editor of *The Pedestrian Pocketbook* and influential figure in the CNU, has drawn a critique of the New Urbanism from the inside. The first criticism of the New Urbanism is that it has been primarily applied to suburban development and not urban centers (Kelbaugh, *Common Place*, p.132). While the New Urbanism models increase densities and provide a framework for communities to develop, they have not proven that they can be viable in an urban setting. If the New Urbanism is such a good model for community development, as its supporters profess, then why has it not been applied to new and existing urban city neighborhoods? The truth is that there have been some developments in urban centers, such as the work of Urban Design Associates, Dan Solomon, and Michael Pyatok, but it is difficult to assemble land for large scale revitalization. Their clients have been primarily private developers who wish to take advantage of the lower land costs outside of the city, but the city is ideal for the New urbanism. The city is a point of population concentration of large size, high density, and heterogeneity of inhabitants (Berry, *The Human Consequences of Urbanization*, p.14.).

Cities have an infrastructure that exists and must be maintained so that it doesn't decay to the point that it would be too costly to repair. All too often, urban areas are left to developers who simply gentrify them, and either exclude the lower income population which needs the housing, or it displaces an existing community in order to reap higher return on investment through increased land values. This mode of operation has to be challenged at a basic level, and this proposal will attempt to address this at a theoretical level.

"Another complaint has been the elitism within the movement" (Kelbaugh, *Common Place*, p.133). The concern is that the Congress for the New urbanism is too closed and does not represent a diverse enough group of people from an economic and cultural point of view. The CNU meets annually to discuss its design philosophy and the impact of external conditions, such as market forces, government policy, and developers, have on their beliefs. The conference where they meet is expensive and only for its members. The problem is that this is exclusionary. To address this problem the CNU is actively seeking to expand its membership in order to get as many effective points of view that can help to develop proper design guidelines.

The next criticism is that the New Urbanism only tentatively addresses the growing social and economic divisions that have been created by the suburbs and urban renewal. This problem has been identified by architect, Michael Pyatok. Kelbaugh feels that the greatest challenge for the New Urbanism is that it is another ideal vision of communities from above and not rooted in specific places and cultures (Kelbaugh, *Common Place*, p.134). The New Urbanism model must be diverse in architecture and uses in their mixture at every level of the design process, or it risks becoming formulaic. The new Urbanism does not really create an instant community, it simply provides the backdrop and framework for a community to develop. The New Urbanism seeks a more humane solution to community development that is limited in size and sustainable.

The New Urbanism has also been criticized for their adoption of historical styles for these communities to create picturesque communities which recall a romanticized history of long ago. The New Urbanists say that they are not style based, but in practice, most designs appear using the Colonial or Victorian style. The CNU feels that the

obsession with the "new" will not necessarily create better neighborhoods (Kelbaugh, *Common Place*, p.132). What is truly "new" is the totality of the design models. They are architecturally detailed and regional in scope. They acknowledge all the scales in their designs.

A further criticism is that the New Urbanism is too "stand-alone" and their developments have not lived up to their promises of integrated transportation. It is very difficult to change the ideas of society about the use of the car. The promotion of the car as the primary source of transportation through continued subsidizing of road construction and low gasoline prices is difficult to undo. The New Urbanism models seek to provide the choice, but the lack of spending on regional public transportation counteracts the potential benefits that these community design models can provide.

The final critique is that the New Urbanism is not becoming the success that it was anticipated to be (Kelbaugh, *Common Place*, p.136). This questions whether they are successfully designed communities and whether the public is actually ready for such communities. There have only been a few TND and TOD designs that have been built by 1996, so it is too early to fully assess the success of the models. Communities need to develop and landscapes need to mature. "The marketplace must eventually accept the New Urbanism if it is to succeed and endure. But only the test of elapsed time with market prices that reflect true costs will determine its true value and validity." (Kelbaugh, *Common Place*, p.136) Ultimately, the New Urbanism is simply a step towards more responsible community development, but it is an important step.

1.4.4 Alternatives to Neo-Traditional Planning

1.4.4.1 Michael Pyatok's 'Real' Urbanism: Architect Michael Pyatok has identified his own challenge to the ideas of the New Urbanism, through his critique of the New Urbanism, which begins to address the social problems caused by the disenfranchisement of central cities and the preferential subsidizing of the suburban region. He feels that any meaningful improvement in the city cannot be made without understanding the larger economic forces which have helped to create the present urban situation. Some of these forces are:

1. The mechanization of agriculture in rural first and third world areas have led to those people moving to the city, and this has resulted in the middle classes moving out of the city and expanding the suburbs.
2. The computerization of manufacturing has left behind communities of unemployed or underemployed, further driving the employed out into the suburbs.
3. And, the rise of more computerization of the financial and service sectors of society has led to the unemployment of many white collar workers, which is affecting older suburbs.

This has coincided with the subsidized expansion of the middle class through HUD's program called "Homeownership Zones" for those whose incomes are just below what lending institutions are normally willing to accept. (Pyatok, *Neighborhood Development in a Democratic City*, p.1) This has led to a NIMBY (Not In My Back Yard) philosophy which excludes the low-middle and lower classes. A democratic

urbanism needs to include those who do not own property and do not have access to capital or subsidies.

Figure 29: Photograph of Michael Pyatok. (Jones, Pettus, and Pyatok, *Good Neighbors: Affordable Family Housing*, inside sleeve)

Pyatok feels that the "rebuilding of the human infrastructure (social support networks) should be the prime purpose, with rebuilding the physical as merely the excuse or the means to achieve that first priority." (Pyatok, *Neighborhood Development in a Democratic City*, p.1) Simply designing a physical environment does not contribute to community organization. But the proponents of the New Urbanism realize this and consider their models to be a framework. What organizations such as the CNU need to do is become more politically involved by insisting on a range of housing prices and advocating for housing subsidies for lower income people and families, so that an ample

amount of decent jobs and strong social networks can be established for the present social situation where many parents are single, or both parents need to work to support themselves.

Figure 30: Photograph of Hismen Hin-nu Terrace by Michael Pyatok. (Jones, Pettus, and Pyatok, *Good Neighbors: Affordable Family Housing*, p.101)

Urban design needs to address the rebuilding of communities through the following activities:

1. reforming present zoning and planning ordinances which retard or prevent development in lower income communities.
2. demanding funds from public and private sources to fuel development.
3. influencing local political bodies to favor policies that encourage development in lower income communities.

4. forming and managing neighborhood based non-profit corporations to implement development, to provide training in development and to employ locals in the process.
5. choosing and supervising professionals - attorneys, architects, engineers, financial consultants, contractors - to carry out community-driven priorities.
6. working closely with planners and architects to give shape to plans and designs ranging in scale from neighborhoods to individual building projects.

It is the direct participation of the people in the community that creates meaningful community designs according to Pyatok (Pyatok, *Neighborhood Development in a Democratic City*, p.3). This is the opposite of the Seaside code which is imposed upon people from above by an omnipresent architect/developer.

Urbanistically, this means that a variety of land uses must coexist, even in the same building. Light industrial and manufacturing cannot be legislated out of the design process because that kind of choice is imperative to the viability of urban communities to lower income people. Architecturally, designs must allow for its occupants to make changes to their surroundings. And administratively, this variety leads to citizen participation to organize future designs in conjunction with design professionals and the need for codes to be more permissive to sustain local participation.

The form of this "real" urbanism and its associated goals

1. Local participation with the goal of economic development in lower income communities must be as much self-inspired as it is government-assisted.

2. Comprehensive Neighborhood Planning with the goal that housing without an economic development strategy will deteriorate regardless of physical planning strategies and since neighborhoods must contain decent paying jobs, good schools, easily available services, retail, and access to mass transit to support lower income families.
3. Neighborhood services and housing opportunities with the goal that housing in mixed-use areas can not only provide the required housing, but also recover some of the services, jobs and retail opportunities that have fled a neighborhood.
4. Housing design and economic opportunities based on the idea that since we have lost much of our industrial base, lower income households must earn additional income from in-home businesses, in-law units, or by subletting their residential space for other uses.
5. Site Planning and security with the goal of creating safe neighborhoods for lower income and single parent families and allowing the streets, centers of blocks, and local parks to be the primary places for recreation.
6. Fitting-in with the desired result that every design for housing or other facilities in lower income communities must carefully analyze historic planning patterns in a neighborhood as well as the prevalent architectural character to insure a coherence in the design.
7. Personalization, which can lead to long-term tenancy which is a deterrent to crime, particularly in rental situations.

Pyatok does not argue that the New Urbanism is not valid, he simply wants to create an awareness that its principles in an urban environment are not adequate. Greater concern has to be paid in an urban environment, and current planning and design ideas have to be more flexible in their application so that renewal is not exclusionary. The 'real' in Pyatok's urbanism stands for the reality of the urban situation and the need to empower lower income people in their communities. It is in conjunction with the ideas of the New Urbanism that urban areas can be designed or re-developed.

1.4.4.2 Michael Sorkin's 'Local Code': Michael Sorkin's *Local Code: the Constitution of a City at 42 degrees N Latitude* is a performance specification for a garden city model. It takes physical ideas of the garden city and seeks to represent them with an invented terminology. Its main innovation is that it seeks to define an architecture without being particularly prescriptive, as is the case with the design codes that the New Urbanists develop. There exists only theoretical models of communities designed using Sorkin's Local Code, and therefore, it is purely a theoretical model for community design. It sets out the requirements for greenspace, roads, housing, formal building organization, and construction, including materials. The code is very confusing in its written organization, and its invented terminology is difficult to follow at best.

The key idea behind the local code is "to strike a balance between individuation and agreement" (Sorkin, *Local Code*, p.11), that is, a balance between the individual and the individual within the community. "The City is in nature, of nature, and second nature. These relations are made manifest in the City's steady state. As an ecology, the City's abiding interests are self-sustenance and diversity." (Sorkin, *Local Code*, p.11) In

specifying the rights of the individual in the arrangement of the city, Sorkin is attempting to address some of the social complexities. The problem is that he acknowledges them, but he does not offer a manner for how they should perform together. In this way, the Local Code fails in the same way as the models of the New Urbanism do. One can only believe that the confusion in the writing can only produce confusing plans in practice, an impression endorsed by the physical products of Sorkin's studio.

Figure 31: Plan of City According to Design Criteria of the Michael Sorkin Studio. (Sorkin, *Wiggle*, p.25)

1.4.4.3 Mainstreets Toronto Competition: The Mainstreets Toronto Competition was held in 1990 and sponsored by Toronto's Housing on Main Streets Office, then part of the city planning department. Its purpose was to invite architects to take a closer look at alternatives as to how housing on the main streets of Toronto could co-exist with commercial and retail spaces. It served to explore zoning alternatives beyond the present code requirements for the City of Toronto. The competition tested the rules concerning density, building height, setbacks and lot coverage, parking, recreation space, and city services. The maximum floor area ratio was limited to a ratio of 3:1, mixed use buildings were permissible, buildings were limited to 45 feet in height or 4 ½ storeys, rear setbacks of 20 feet were required, one parking space per unit was required, communal recreation space had to be planned for, and larger buildings required off street service access. The competition was essentially an urban site assemblage problem, that was oriented towards enhancing the street without changing its existing character. Its agenda was to strengthen the ability of zoning to duplicate and extend successful neighborhoods. It was an attempt to re-codify, reproduce, and support existing successful neighborhoods, such as the Beaches neighborhood in Toronto.

This competition identified the key element of Toronto's historic development as its main streets. The "Main Streets are the commercial and social centers of the neighborhoods through which they pass and carry public transit and utility trunk lines." (Bressi, *Places*, p.48) They are the framework for the rest of the city. The zoning regulations along main streets has led to the slow development of housing along these routes through restrictive zoning which does not allow residential and commercial to

coexist in high enough densities to attract investment for re-development. As with many city centers, vacant lots are converted into parking lots because they can generate more money in an undeveloped state than if they were developed under present zoning regulations. The goal of the alternatives was to get beyond the shortcomings of the existing zoning regulations. These alternatives included mixed housing and retail, higher population densities, a greater mix of income groups, and the lessening of parking regulations.

Several findings were discovered through looking at the structure of Toronto's main streets. The focus of the street forces the recognition of the plurality of the space and the different points of view that demonstrate a cohesion of character through the combined differences. These streets have demonstrated an ability to adapt over time in different neighborhood contexts. As a main street passes from one neighborhood to the next it retains its proportion of building height to sidewalk and street, while reflecting the qualities of a particular neighborhood through which it passes, such as cornice heights, building materials, or shopfront organization. There is also a pattern of small parcel land ownership and small, private enterprise. The buildings along Toronto's main streets are mostly low rise. Buildings range in height from three to six storeys, yet they tend to retain a scale which does not overwhelm the pubic open space of the sidewalks and the street.

"The main streets are also very democratic places. Everybody uses them. All kinds of activities take place along them. At their best they contain no end of conveniences and surprises in compact, short spaces." (Bressi, *Places*, p.51) "They constitute a linear and sequential public space for display and parade. They compound individual and collective

uses. Projected onto the existing city, they act as a catalyst." (Charney, *Places*, p.56) These buildings can then be allowed to change with time to accept different uses.

The adaptability of the spaces in buildings to serve the needs of their tenants creates a variety of uses and types of buildings that operate with the regularity and neutrality in the city, with the city grid as a background. Buildings of different ages and appearance exist side by side, creating a dynamic tapestry of city life. "The co-existence of various cultures and sub-cultures is the most important base for attractiveness and liveliness of the main street." (Christiannse, *Places*, p.69) This diversity still allows for the clear legibility of the space of the main street.

Urban redevelopment often entails the transformation of areas of cities that appear to be in disrepair into upscale communities, in order to extract the maximum potential profit from urban developments. In the quest to improve the tax base, city planners and developers appropriate land from existing communities and replace it with commercial and residential space which elevates rents and displaces businesses and people who formerly made use of the community. The irony of redevelopment is that the "gentrification" of formerly poorer neighborhoods is often based upon a notion of recapturing the historical image of the area, when, in fact, many of the new developments appropriate a history that never really existed in that particular location or context.

Many of the most successful communities in Toronto, such as the Beaches neighborhood, work because its evolution included a mix of all income groups and uses. When housing stock is similar in character, a low-income family can be living beside a middle-income family, and different uses provide choice for the inhabitants and visitors to a neighborhood. It is the vitality that a main street can create that seems to make many

communities successful, and this can provide some guidelines which can be used for community development in urban situations. Two good examples are the Beaches neighborhood in Toronto, Canada and the Ironbound neighborhood in Newark, New Jersey.

1.5 Case Studies

1.5.1 Toronto: The Beaches Neighborhood

The Beaches neighborhood was first settled in 1793 as a farm, by the Ashbridges family. To this day, that part of Lake Ontario is named Ashbridges Bay in their honour. In the late 1800's the area was subdivided and the waterfront park system was developed. This led to the Beaches becoming a summer cottage region for the people of Toronto. By the 1920's, The city of Toronto had expanded to the point that it subsumed the Beaches, and the area was further subdivided for year round residential occupation (Dunkelman, *Your Guide to Toronto Neighborhoods*, p.108).

Figure 32: Map of the Beaches Neighborhood in Toronto, Canada. (*1997 Greater Toronto Streetfinder*, p.69)

The Beaches district in Toronto, Canada provides a paradigm for uncovering the 'rules' for creating successful neighborhoods. The Beaches is a neighborhood that extends inland in layers from the shores of Lake Ontario. From a waterfront park system, to a residential neighborhood, to the main street, Queen Street, which provides the commercial and civic support for the community, to another layer of housing. Secondary streets cross the main thoroughfare at regular intervals, and, in certain places, the park which hugs the lake front extends into the neighborhood, connecting to Queen Street. Housing typologies vary from semi-detached houses comprised of single flat apartments, to apartments in separate buildings and above stores, to semi-detached homes, to detached homes. Queen Street serves as the largest avenue for commercial, civic buildings and the public transportation system, while the secondary streets transversely connect the residential neighborhoods across the main street. Alleys provide access to parking areas behind the homes. Streets are used for parking by people living in the area and by visitors to the lake front park, but overnight parking on the streets is not allowed.

A streetcar system provides the public transportation for Queen Street. This trolley runs east/west through the downtown core, and it allows people to connect up to the city's subway system. Bus routes connect into the streetcar route and travel north/south. These also connect into the subway system of the city. The streetcar travels down the middle of Queen Street, and it serves as a way to control traffic patterns by limiting the speed and movement of automobiles.

The Beaches neighborhood has such facilities as a public library, a community center, An independent movie theater, a fire station, several churches, and 6, public and separate (Catholic), elementary and secondary schools. Housing prices range from

approximately $100,000 to $800,000 (Canadian), which demonstrate that the area is predominantly occupied by middle and high income people and families. Many of the semi-detached homes have been subdivided into flats which are rented. The housing density of the neighborhood is approximately 12 units/acre with a total population of 18, 865 occupying 8,165 units within an area of 1.08 miles^2, or 695 acres.

Figure 33: Photograph of Queen Street in the Beaches Neighborhood in Toronto, Canada.

Queen Street is the district's main street. Toronto is composed of neighborhoods that tend to orient themselves to a main street. There are approximately 25 to 30 main streets in Toronto. A main street does not necessarily create a vital public space in itself. It does provide the armature and structure for a neighborhood to develop.

A constant stream of people activate the spaces created by the streets and the buildings which line it. An existing population is then enhanced by people who occupy its

roadway and sidewalks as a temporary population. This creates an active group of people which is dynamic and always changing. A diverse mixture activities draw people of many social, cultural and economic groups to Queen Street. A permanent population is supplemented by tourists, artists, street vendors, business people, homeless people, and shoppers. These people occupy the street and live in apparent harmony. This provides for a space which is more democratic, because differences create the necessary environment where people can meet and interact.

Figure 34: Photograph of Queen Street in Toronto, Canada.

The buildings which line the Queen Street contain predominantly privately owned retail, entertainment, and commercial facilities. This includes such commercial and retail stores as grocery stores, restaurants, and nightclubs, just to mention a few examples. The businesses that exist provide varied hours of operation, which helps to activate the street. Most stores maintain the more traditional hours of operation (9 a.m. to 7 p.m.), but restaurants, cafes, and night clubs allow for street activation into the early morning hours.

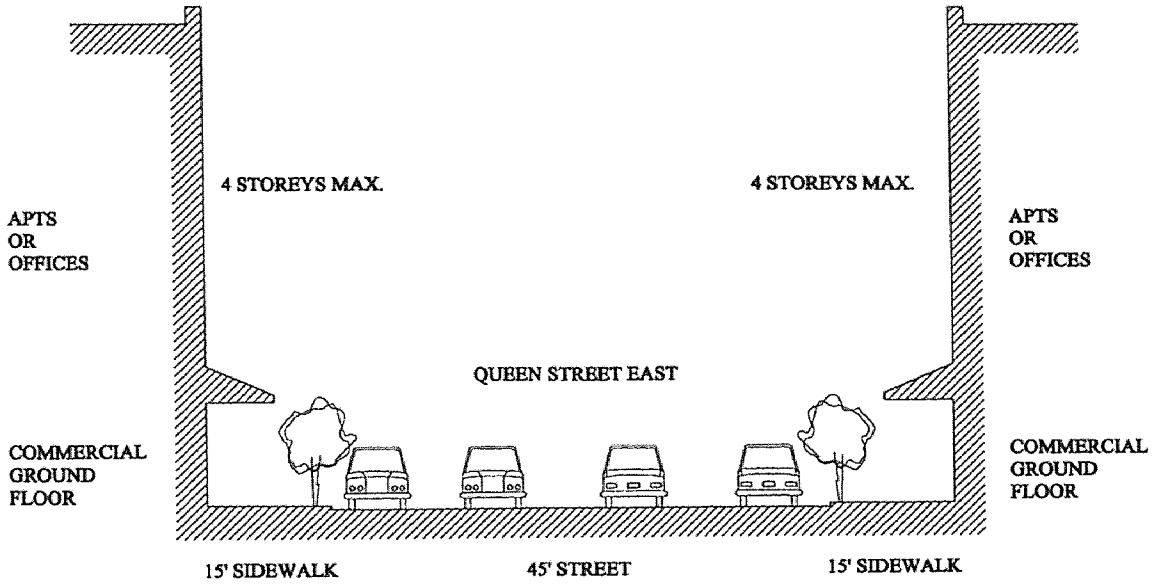


Figure 35: Section Through Queen Street of the Beaches Neighborhood in Toronto, Canada.

In most cases, the buildings on Queen Street front onto a sidewalk, which is approximately 10 feet wide. zoning along Queen Street allows for residential apartments to be above commercial/retail uses at the street level. In some cases, the apartments have been converted to commercial uses. The roadway itself is four lanes wide with space for temporary street edge parking in some areas. Most of the buildings are four stories or less

and this results in a street which is very pedestrian friendly in its scale. None of the physical aspects dominate over the scale of the street, or the people who are using it. Few buildings exceed four stories in height (45 feet) and they front onto a sidewalk which is 10 to 15 feet in width. Queen Street itself is approximately 45 feet wide. This gives an approximate height to width of 3 to 5. This allows the sun to penetrate onto the street for many hours of the day.

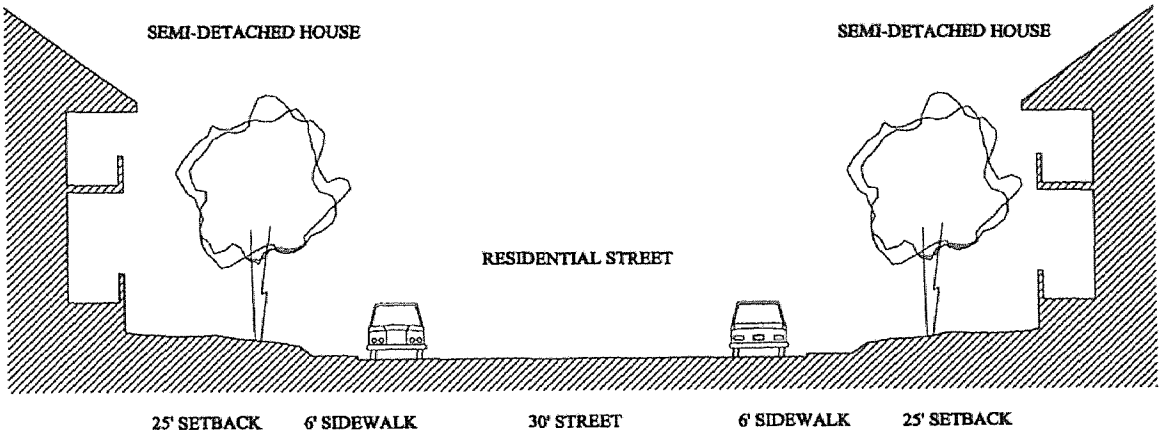


Figure 36: Section Through Residential Street of the Beaches Neighborhood in Toronto, Canada.

The residential streets are approximately 30 feet wide with 4 foot sidewalks. Each lot has a 20 foot front yard setback, required by zoning by-laws, to provide for a lawn or landscaping. The homes are typically 2 stories in height with an attic under a peaked roof. This gives the street a cross section ratio of approximately 3 to 6. The most important feature of the semi-detached homes is the porch. Every story has a porch or balcony and these are used extensively by the residents throughout the year. Many neighbors converse with each other from their porches and watch children as they play on front yards.

The park, which parallels the main street, contains a major bicycle path, a public swimming pool, a boardwalk, and sports facilities such as hockey rinks, basketball courts, and a softball diamond. This provides adequate recreational facilities for the community and the visitors who come to the beaches for the day.

As a result, the Beaches district is one of the most pleasant communities in the City of Toronto. It provides all of the daily necessities for the community population, is ecologically friendly with the park between the lake and the residential housing, and it is vital in its organization.

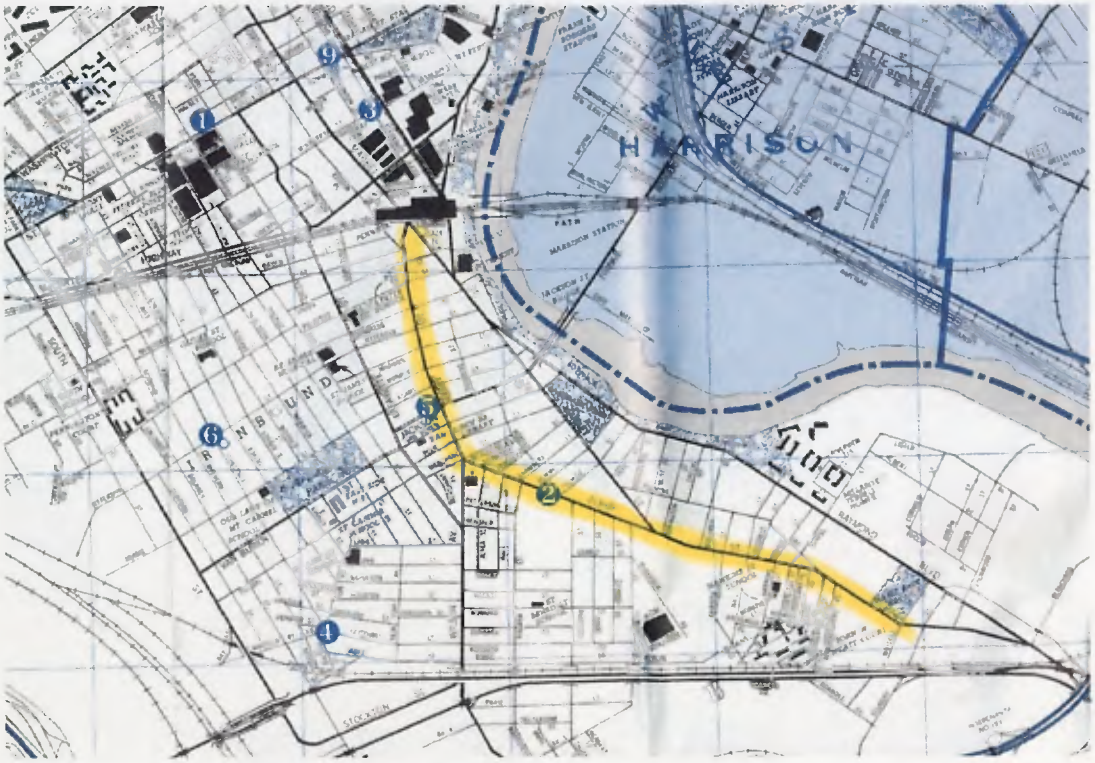


Figure 37: Map of the Ironbound Neighborhood of Newark, New Jersey.

1.5.2 Newark: Ironbound Neighborhood

The city of Newark was originally founded in May of 1666. The original settlers came from the New Haven Colony in what is now Massachusetts. They settled on farms laid out in a grid along the Passaic River. In the early 1800's, and through the early part of this century, Newark was an important commercial and industrial center. After the Second World War, the importance of Newark began to fade because industry moved out of the city, and the white middle class moved to the suburbs. In the late 1960's, Newark suffered through racial upheavals that caused much housing damage. Newark is still recovering from these riots today. A more in depth examination of the history of Newark will be done in part two of this paper.

Figure 38: Photograph of Ferry Street in the Ironbound Neighborhood in Newark, New Jersey.

One neighborhood that has continued to flourish is the Ironbound, named because it is surrounded by rail lines. This area was first known as the Down-Neck because it was located down the neck of the Passaic River near the mouth of Newark Bay. It started as an immigrant neighborhood with Irish, Italian, German, and Slavic settlers. They settled in a residential neighborhood close to the industrial facilities that employed them. The ethnic flavor of the Ironbound has changed over the years, and it has included Polish immigrants and Spanish. The predominant ethnic representation today is Portuguese, who first began to settle in the Ironbound in the 1920's.

Figure 39: Photograph of Residential Streets in the Ironbound Neighborhood in Newark, New Jersey.

According to the 1990 census, approximately 37,880 people live in the Ironbound Zip code. There are 14,169 units occupying an area of about 1171 acres. This creates a

density of approximately 12 units/acre. The median income was $27, 852 which suggests that the neighborhood contains people of the lower to middle income range. Very few people in the Ironbound earn more than $100,000. The majority of the units are occupied and rented according to the census data (13,333 occupied units and 9,789 renter occupied respectively). Most of the residents are working class people who work as salespeople, laborers, repair, and administrative assistants.

The Ironbound is served by several New Jersey Transit bus routes, and the main train station for Newark, Pennsylvania Station, is located at its north-western edge. There is a major automobile artery, McCarter Highway, to the west of the neighborhood. There is a fire station, St. James Hospital, many churches, and several schools. The Ironbound is located next to Newark's central business district and in close proximity to the universities, the main public library, the New Jersey Performing Arts Center, and the Newark Museum.

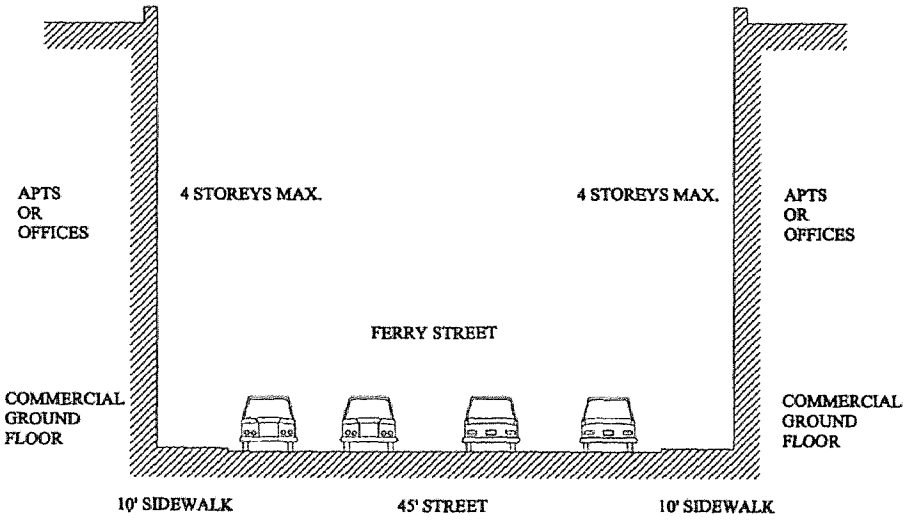


Figure 40: Section Through Ferry Street of the Ironbound Neighborhood in Newark, New Jersey.

The Ironbound has many similarities to the Beaches neighborhood in Toronto. It too is a main street oriented neighborhood. Ferry Street is the main street of the Ironbound. Ferry Street runs north-west to south-east, until it reaches Wilson, and then it becomes a east/west street. On street parking occurs on Ferry Street, which serves to slow down traffic and allow for the pedestrian and the car to coexist. Here too the buildings front onto a sidewalk which is approximately 10 feet wide. Buildings vary in height from one story to four stories, and the street is approximately 45 feet wide. This creates a sectional height-to-width ratio of 3 to 4. Service and retail businesses occupy the street level with apartments, and sometimes, office space above the street level.

Ferry Street is particularly known for its bakeries and Portuguese restaurants. There are also grocery stores, offices, and repair shops. This creates a continuous pedestrian presence until the later evening hours. The abundance of people walking the streets, on street parking, and the presence of buses serve to reduce the speed of the cars passing through the neighborhood.

The road infrastructure in the neighborhood consists of residential streets on a grid layout. What is interesting about the Ironbound is that there are light industrial and manufacturing facilities integrated throughout the neighborhood, along with some commercial and retail activities. This includes restaurants, offices, corner stores, and a large supermarket. The side streets are used for parking and double parking. This leaves just enough space for one car to get down a street.

Most of the housing fronts onto the street with rear yards, often used for parking. The housing stock is composed of tightly packed detached houses, apartment buildings, loft buildings, and row houses. Some of the buildings are set back up to 10 feet to allow

for porches, front stoops, or front yard gardens. The majority of housing is 3 to 4 stories in height with a 6 foot sidewalk and a 30 foot wide street. This creates a cross section of 1 to 1. This is slightly more compressed than the residential street in the Beaches neighborhood, which is due to a lack of front yard setback.

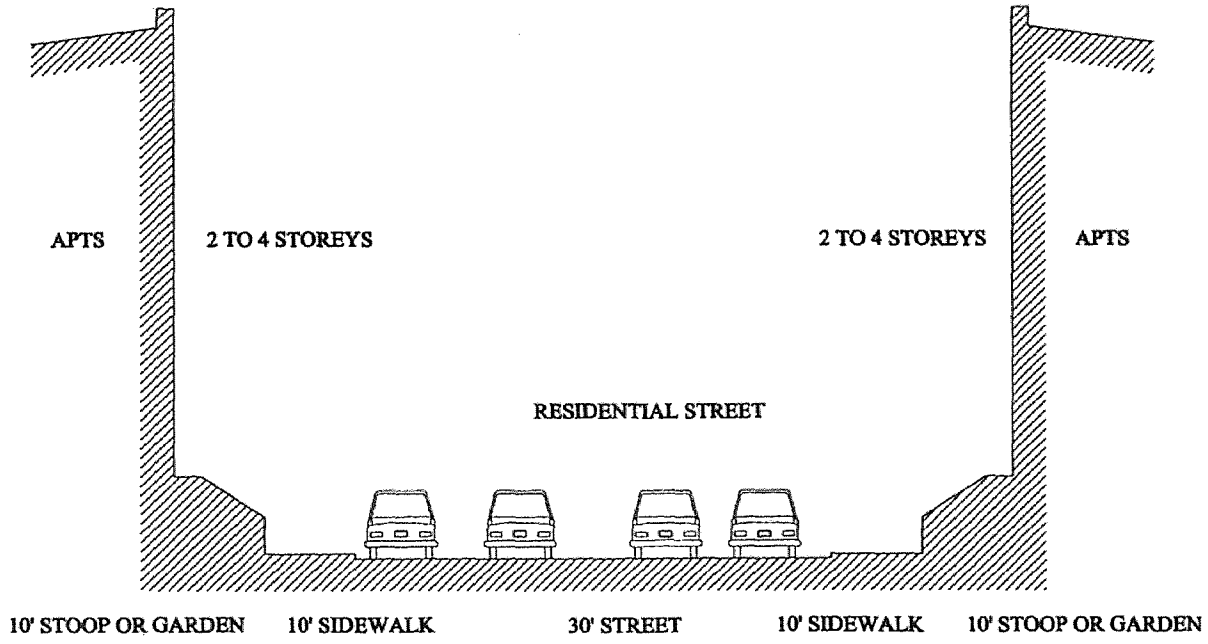


Figure 41: Section Through Residential Street of the Ironbound Neighborhood in Newark, New Jersey.

As a result, the Ironbound is the most pleasant and vital community in Newark. It provides all of the necessities for the community population, and for all of the people who use the neighborhood on a daily basis. Its organization demonstrates many qualities which can be used in developing vital urban communities.

1.6 Elements of Vitality in Communities

1.6.1 The street

The street is a key element in neo-traditional planning and in any community design. A well designed street seeks to make it as pedestrian as possible, while still allowing for the automobile. Wide, planted sidewalks can enclose thinner streets giving business and homes a greater connection and presence on the street. The New Urbanism proposes a definite hierarchy of streets that range in proportion and character as one progresses from the public to the more private and local streets. The streets are considered of prime importance as public spaces for pedestrian travel. All this is to create social interaction and community cohesion.

The existence of a vital urban street, is one of the key factors in designing vibrant neighborhoods in an urban environment. Population movement away from downtown cores has made such streets economically difficult to sustain for long periods of time. Economic sustainability for streets requires a population that will live in the area and spend their disposable income there, as well as a daily population which makes use of what the street has to offer. But what does make a street successful and sustainable. Through observation, several characteristics, such as physical requirements for streets, furnishing, planting, and diversity of uses, can be determined which allow a street to be a vital public space.

The next important consideration is that of the evolution of the street. Streets are not immediate creations which are successful instantly. Sustainability is an issue of social, cultural, and economic vitality, over an extended period of time. Streets based on a single business type, or social-economic group can fail if the people or business move out of the

area, if it becomes an undesirable place to be. The ideal is a street that becomes a mosaic full of diversity. This will occur if there is only one "Main Street" in a given neighborhood. Such a mixing means that no particular business or group dominates the street and controls its well being. Diversity helps ensure vitality.

Vital streets need places for people to gather and greet one another. This allows people to stop and interact. It also creates a neighborhood where people know each other and they can self-police the street. Jane Jacobs identified the "streets and their sidewalks, the main public places of a city, are its most vital organs." (Jacobs, *The Death and Life of Great American Cities*, p.29) And since the streets in urban neighborhoods are always occupied by strangers, the local inhabitants need to be the eyes of the street. "A well-used street is apt to be a safe street." (Jacobs, *The Death and Life of Great American Cities*, p.34) "A city street equipped to handle strangers, and to make a safety asset, in itself, out of the presence of strangers, as the streets of successful city neighborhoods always do, must have three main qualities:

1. there must be clear demarcation between what is public space and what is private space.
2. there must be eyes upon the street, eyes belonging to those we might call the natural proprietors of the street.
3. And, the sidewalk must have users on it fairly continuously, both to add to the number of effective eyes on the street and to induce the people in buildings along the street to watch the sidewalks in sufficient numbers." (Jacobs, *The Death and Life of Great American Cities*, p.35)

It has been suggested that the cul-de-sac and the one way street be eliminated as much as possible in communities. Cul-de-sacs force people to use the same streets, which can potentially create traffic congestion, and they do not offer choice alternate routes for automobiles and pedestrians (*Newsweek*, "15 Ways to Fix the Suburbs", p.49). Wide avenues and boulevards can also be troublesome because automobiles tend to travel more rapidly on wider streets, and this makes it unfriendly for pedestrians to cross such streets. In General, such streets do not promote the interaction of people. Exceptions do exist, such as the Champs Elysee in Paris, which has a great amount of pedestrian traffic due to the design of side lanes for parking and wide sidewalks. It is also a historic avenue which creates much of its pedestrian activity through tourism.

Alan Jacobs identifies the requirements for great streets as being:

1. places for people to walk and socialize with some leisure. This may include sidewalks and small parkettes.
2. places with physical comfort by using trees to control winds and allowing sunlight to penetrate to the street to provide warmth.
3. they have definition between the public and private realms, as well as physical definition where buildings act as the walls of the street.
4. engage the eyes of pedestrians by providing different surfaces and textures to observe. This is achieved through diversity.
5. transparency at the street level that allow pedestrians to see what is beyond the street wall.

6. complementarily where buildings that form the street wall are contextually consistent with one another in terms of such qualities as floor and roof line demarcation.
7. a clear beginning and ending. This creates legibility and familiarity for pedestrians. (Jacobs, *Great Streets*, pp. 270 - 308.)

The physical environment, good public accessibility, the variety of potential activities, the existence of neighborhoods which are linked by the street, and the social, economic, and cultural diversity of the people who live in the surrounding neighborhood, as well as those who use it on a temporary basis, all contributes to the vitality of the street. Each aspect must exist synergistically with the other characteristics to create a vital, successful, and memorable public space.

1.6.2 The Pedestrian

The pedestrian signifies the vitality of a neighborhood. Streets without people are not going to be successful. Busy streets attract more people to an area (Jacobs, *The Death and Life of Great American Cities*, p.37), and create a sense of safety. A variety of activities, such as areas to stop and interact with others, places to eat, and places to watch other people, all offer alternatives and choice. Many activities, which occur and overlap spatially and at different times of the day, can serve to satisfy the needs of the residents of a neighborhood, and It can also attract other people to the neighborhood. Sidewalks, parks, commercial and retail establishments, housing, and local services all need to be pedestrian oriented while still satisfying their basic functions.

1.6.3 The Automobile

The car will never disappear from our streets. It is part of North American society, and it serves as part of our collective self-expression of our individuality. The car needs to be permitted on the streets of our neighborhoods, but its movement needs to be controlled and designed for. Streets that have public transportation and a pedestrian nature to them have the ability to slow down traffic. Public transportation stops regularly, and pedestrians require cross-walks or traffic signals to cross the street. Allowances for on street parking and narrower streets further curtail the rapid movement of vehicles. This often leads to congestion on such streets, which is then taken advantage of by pedestrians who will cross mid-street by jay-walking. This was observed in both of the case study neighborhoods. All of these characteristics allow the pedestrian to co-exist with the automobile on a much more equal basis. Wider streets with fewer traffic signals allow the car to dominate them, and they become more unfriendly to pedestrians.

1.6.4 Diversity

A vital neighborhood has diversity at many levels. Diversity serves to allow for choices within a neighborhood. Ideally, there should be economic and racial diversity in its population. Lower income families should be able to live and work alongside moderate income and high income families. There should be a variety of businesses and working opportunities within the neighborhood. There should be a diversity in building typologies, particularly where housing is concerned. Such diversity should include duplexes, apartments over stores, apartment buildings, single family homes, and single room occupancy spaces (boarding houses). Activities need to be chronologically diverse and

occur throughout the day from the morning until late in the evening. This may include restaurants, retail, and entertainment facilities which have different hours of operation that overlap during the day. This creates a permanent pedestrian population for the neighborhood, which may then attract other businesses and people to the area. Areas that depend on one major activity or group of people offer too little choice and run the risk of failure if the activity or population decide to leave the neighborhood.

1.6.5 Economics

High income single people and families will always be able to afford to live where they choose, the key is to create neighborhoods that will accommodate people from the lower and middle economic classes, while attracting people with greater economic means. This can be done through a variety of different types of ownership alternatives and private and public subsidies. This includes such choices as rental apartments, co-operatives, co-housing, and private ownership. The need for profits from land taxes needs to be addressed too. Governments need to establish longer term plans for revitalization of neighborhoods that allow for moderate and lower income people to be able to afford to live in the city. Lower income people do not have the same flexibility to move to the suburbs, where land costs and taxes are lower. Governments or corporations need to re-evaluate their role in communities. The potential of subsidies from government, or the creation of limited dividend corporations to help subsidize communities exist. Programs such as Section 8 subsidies offer and guarantee a high rate of return for the financing investment.

1.7 Criteria for Vital Communities

Vital communities are a complex mixture of physical space, social structure, and economics. The model which will be described here is empirical in nature, and it will seek to provide a new social and economic framework in conjunction with an spatially defined environment. The model will be fully explored in part three of this thesis and they will be codified in conjunction with a design application on a physical site in the City of Newark in New Jersey.

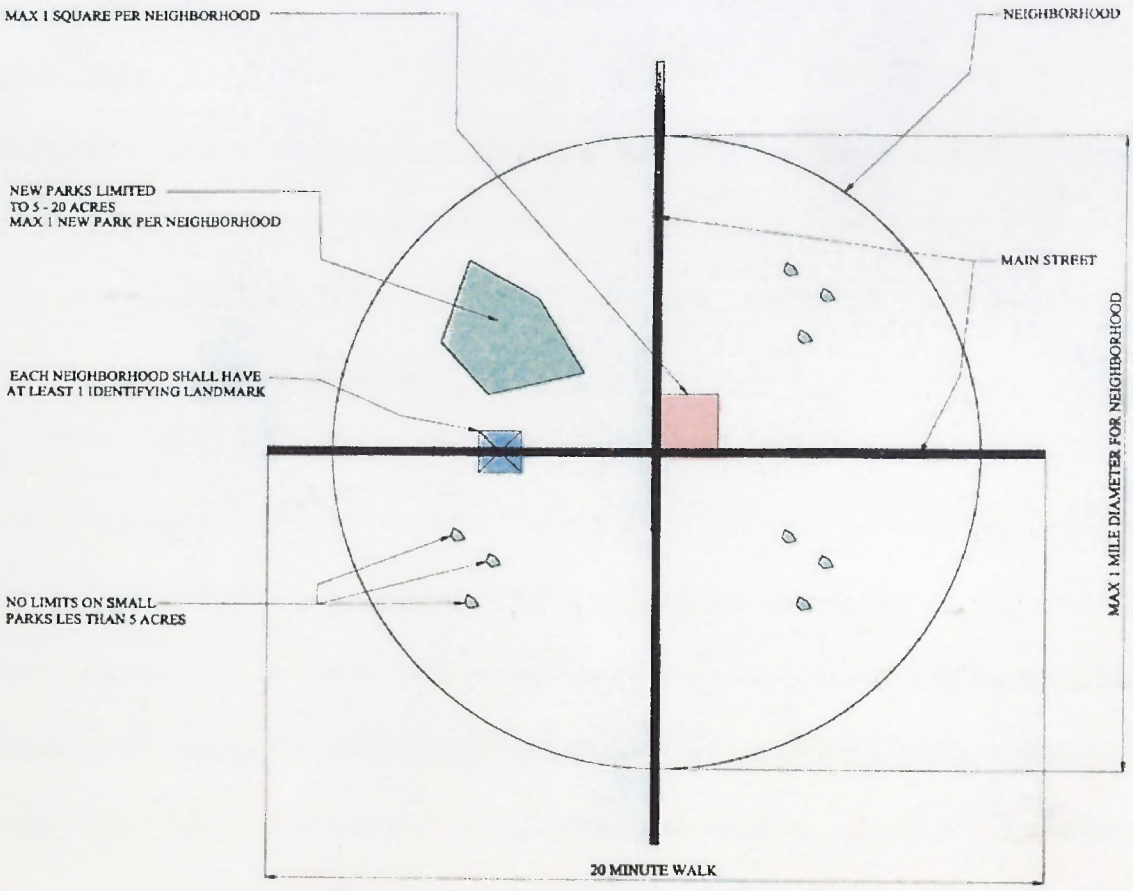


Figure 42: Diagram of the Urban Neighborhood.

The criteria for the creation of vital communities shall be based upon an urban main street model. This decision is based on the fact that the two case studies were successful urban neighborhoods with a main street orientation. It is believed that such an armature is required for a neighborhood to exist. This model shall be oriented to the walking pedestrian, and it will attempt to allow for every resident in the community to feel a connection to that street, both socially and physically. With the main street as the backbone, the relationship of the neighborhood to that street can be established. The rules for such a neighborhood are the following:

1.7.1 Size

The size of any urban neighborhood should be approximately one square mile. This means that the travelling distance perpendicular from the main street is limited to about ½ mile, or approximately a 10 minute walk for an average adult. This will help in defining the boundaries of the neighborhood.

1.7.2 Density

The density of such a neighborhood shall be a minimum average of 12 - 15 units/acre. The maximum average density will depend on the height-to-width ratio of the street that a particular unit fronts. Densities of approximately 40 units/acre are possible. Densities will vary slightly depending upon housing typologies, such as detached houses versus apartments. Densities higher than approximately 40 units/acre should be discouraged because such densities will require taller apartment buildings which remove people from

the street physically, and such buildings will cast longer shadows which removes the sun from the street.

This will produce a neighborhood with approximately between 7,700 units, at 12 units/acre, and 25,000 units, at the maximum of 40 units/acre. Assuming an average of 2.5 people/unit, this creates a neighborhood of between 19,000 and 62500 people.

1.7.3 Diversity

Variety shall be encouraged at every level. It shall be the ideal of any main street community to encourage all income groups to be a part of the neighborhood. A broad range of businesses should be encouraged to line the main street, and some businesses should be encouraged to operate from key locations within the neighborhood as well. The businesses should have hours of operation that vary throughout the day. A variety of housing typologies shall also be a part of such a community. This may include single room occupancy buildings, apartments, townhouses, lofts, semi-detached, and detached homes. Diversity creates alternatives, choice, and interest for the people who live in the neighborhood, and it will serve to attract people from beyond the boundaries of the neighborhood.

1.7.4 Main Street

Despite the need for diversity, the main street should be used to develop the identity for the community. The main street is the primary public space for the community, and it shall be the focus of the community. An identity can be established in several ways; by the largest group of people who live there, such as the Portuguese in the Ironbound; by

the type of architecture present; by a physical feature, such as the beaches on the shore of Lake Ontario for the Beaches community in Toronto; by an interest group that lives in the neighborhood, such as a group of artists; or by some other dominant feature. It is important to create an identity, but care must be taken that the identity does not limit the ability for the community to develop and change over time.

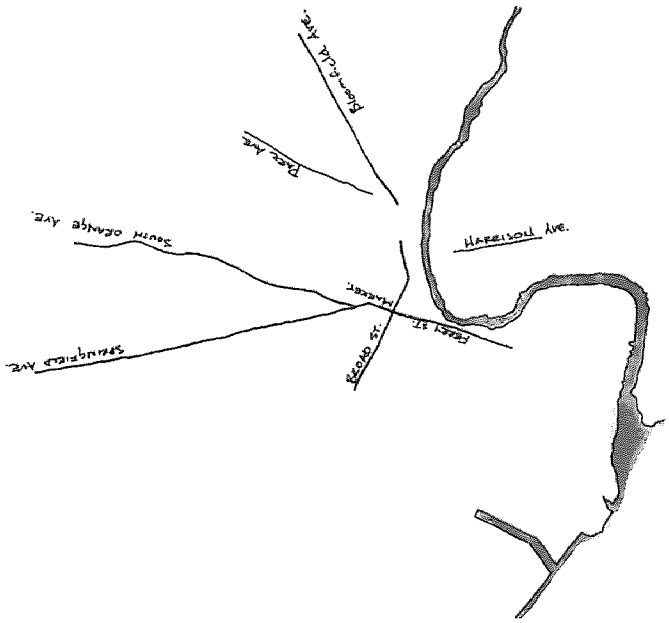


Figure 43: Newark's Main Streets.

There shall be only one main street per neighborhood in order to promote and concentrate activity on that street. The main street shall either be a newly created street, or an existing street which is being redeveloped or revitalized. The main street should be in a north-south orientation if possible to maximize sun exposure.

The overall density, character, parking alternatives, and land use will be identified in the design application in part three.

1.7.5 The Physical Characteristics of the Neighborhood

1.7.5.1 Street Cross Section: The cross section of the main street shall be determined by its orientation to the sun. The maximum height of any building on a north-south main street shall create a maximum angle of 45 degrees from the northern edge of the sidewalk to the top cornice of the building that fronts onto the main street. For east-west main streets, a maximum height-to-width ratio of 1: 1 shall be maintained.

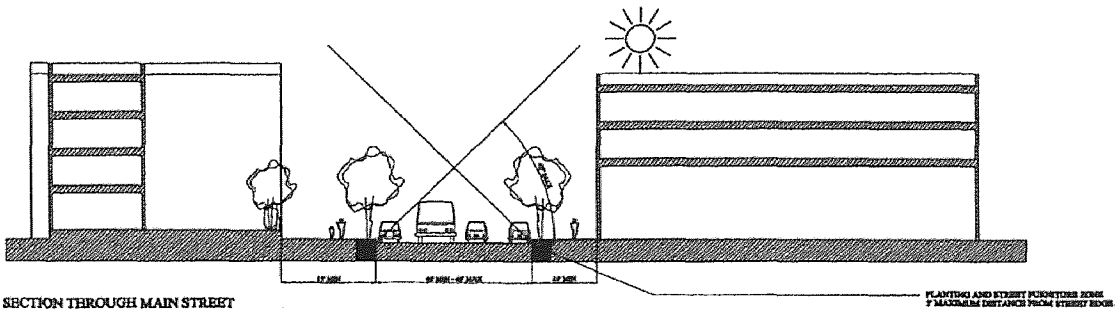


Figure 44: Cross-Section of the Main Street.

The cross section of residential streets, which shall be referred to as a secondary streets, shall follow the same rules as the main street. The case studies demonstrated a variation in the ratio of open space to building height, but in the more urban example of the Ironbound, a ratio of 1:1 was common.

The reasoning for these ratios is to allow for the streets to be adequately defined by the street wall formed by the buildings, and to allow for the penetration of sunlight.

These ratios are for main street communities in temperate environment regions in North America. Much colder or warmer climates would require different physical conditions to mediate the affects of weather.

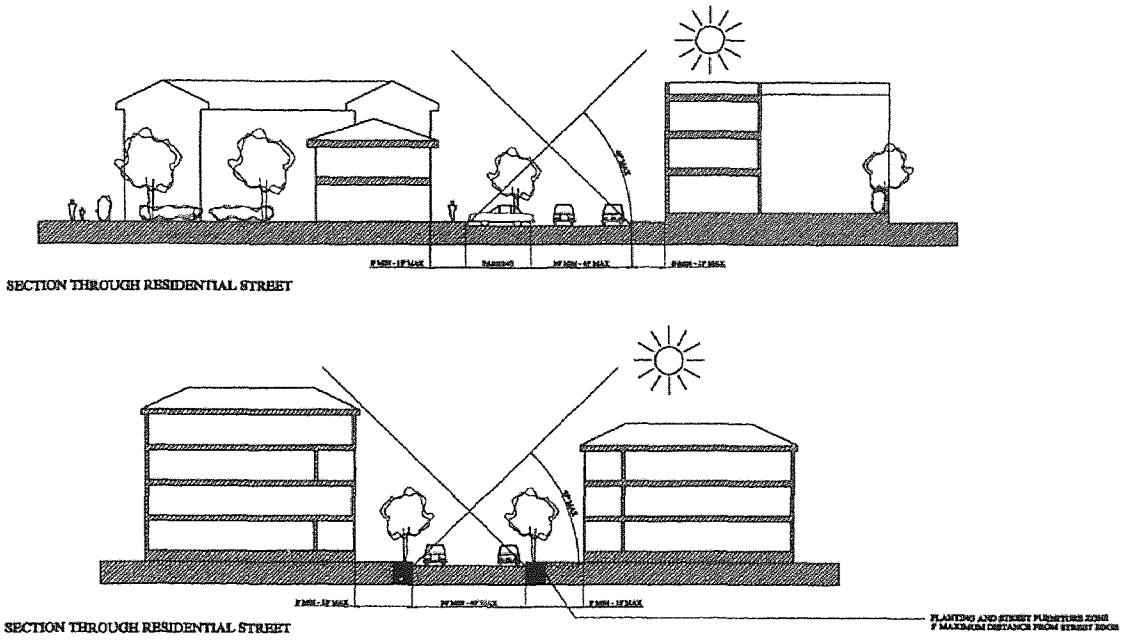


Figure 45: Cross-Sections of Residential Streets.

1.7.5.2 Sidewalks: The sidewalks of the main street shall be a minimum of 15 feet in width. This is a reasonable width to allow for people to stroll and collect in groups on the main street. Smaller widths can create pedestrian congestion problems. The width of the sidewalks in The Beaches in Toronto are about 10 feet wide, and they become very congested during the summer months. Any increase in width between street walls shall be consumed equally by the street and sidewalks. But the northern sidewalk, in the case of a north-south main street, may be made wider than the southern in order to increase sun exposure.

The sidewalks of the secondary streets shall be between 8 and 15 feet in width. This is to ensure that there is an adequate buffer between the street and the street wall, but still allowing for the street to be identifiable as a secondary street.

1.7.5.3 Planting and Furniture: All street planting, street furniture, and above ground service infrastructure (such as power company poles) shall be within the first 2 to 5 feet from the street edge. Planting shall consist of primarily deciduous trees that shall shed leaves to allow for the penetration of sunlight in winter. Such trees will be spaced such that they provide no more than 50% shadow coverage of the sidewalk during the summer. These trees should also be placed in such a way as to ensure that strong winds are reduced. Coniferous trees shall also be planted along streets so that there is some color on a year round basis, and so that winter winds can be reduced. Coniferous trees shall not outnumber the deciduous trees.

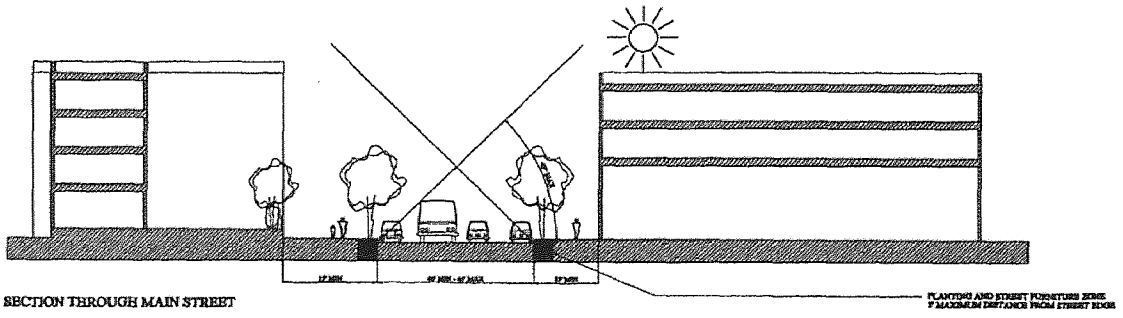


Figure 46: Diagram of Furniture and Planting Placement on Main Streets.

Street furniture shall include bus stop shelters, benches, parking meters, bicycle racks, poster boards, light standards, and planters. They should all be spaced apart from

each other such that they do not cause any undue pedestrian congestion, or difficulty in circulation.

1.7.5.4 Street Widths: The main street shall be a 40 to 45 feet in width. This may or may not include on street parking space. This translates into a street composed of between 4 lanes with allowances for street edge parking on both sides of the street. The width for a secondary street shall be approximately 30 feet in width. Secondary streets may be a maximum of 45 feet in width. This translates into a street composed of 3 or 4 lanes.

1.7.5.5 Alleys: Alleys should be the only one way streets in the neighborhood, and they should be the width required for service vehicles such as fire trucks, garbage collection, or power services to travel down. Alleys are not through streets, and they are the most private of the streets in the main street hierarchy. Alleys shall occur behind the buildings which line the main or secondary streets.

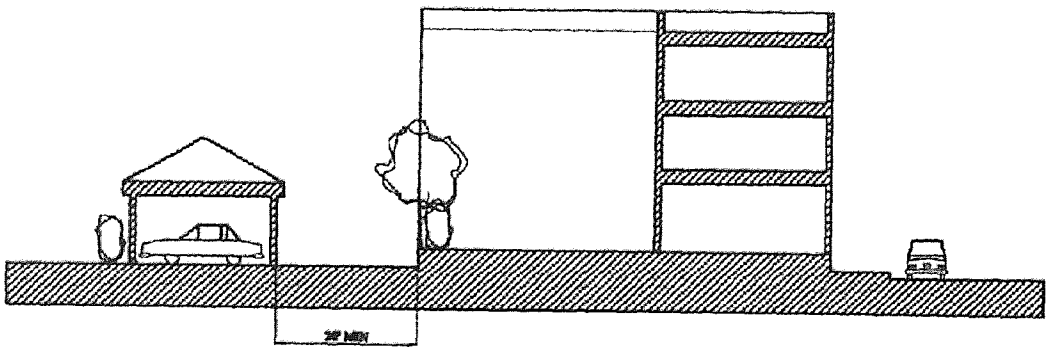


Figure 47: Diagram of Alleys.

1.7.5.6 Hierarchy: The character of the street wall and the street widths shall clearly define a hierarchy for the streets. All streets shall be either the main street, secondary streets oriented towards the main street, or alley ways to support the secondary streets. There shall be no cul-de-sacs, and only the alleys shall be one way streets. All other streets should be bi-directional to allow for choice of movement for cars and bicycles. This is done so that over usage of any particular street can be avoided. Tertiary roadways such as driveways should be eliminated through the use of on street parking and rear lot parking off the alleys.

Figure 48: Diagram of Hierarchy of Streets in Newark.

1.7.5.7 Block Structure: The block structure of the neighborhood shall be based on a grid structure. This may be either with an existing grid in a neighborhood undergoing revitalization, or a newly constructed grid. This grid may be either a traditional rectangular form, irregular (which can be caused by diagonal streets), or a combination of the two. The grid structure should create an easily recognizable pattern. Meandering block structures are discouraged since they are not traditional urban patterns, and they do not provide adequate visual clues as to circulation for strangers to the neighborhood. Unfamiliar urban block patterns can serve to blur the boundaries between what is considered public as opposed to private space in a neighborhood.

No new block shall be longer than ¼ mile in length, or approximately 1200 feet. Existing blocks longer than 1200 feet should be interrupted with a through street if possible. Blocks of 600 to 800 feet are common in urban grids in North America. Widths should be limited by the amount of linear space required for two buildings to exist back to back with an alley wide enough to support service vehicles. This can occur on a block with a width of 200', excluding the sidewalks.

1.7.5.8 Parking: Parking shall be permitted on the main street in the outside lanes or special curb cuts that remove parked cars from the flow of regular traffic. The space immediately behind the buildings on the main street shall be where the public parking lots for the neighborhood are located. Only one parking lot shall be permitted to front onto the main street in any existing or newly created blocks. Parking decks are not encouraged and they shall only be permitted to front onto the main street provided the street level is

designated for commercial and retail space, and their entrance and exit is on to a secondary street.

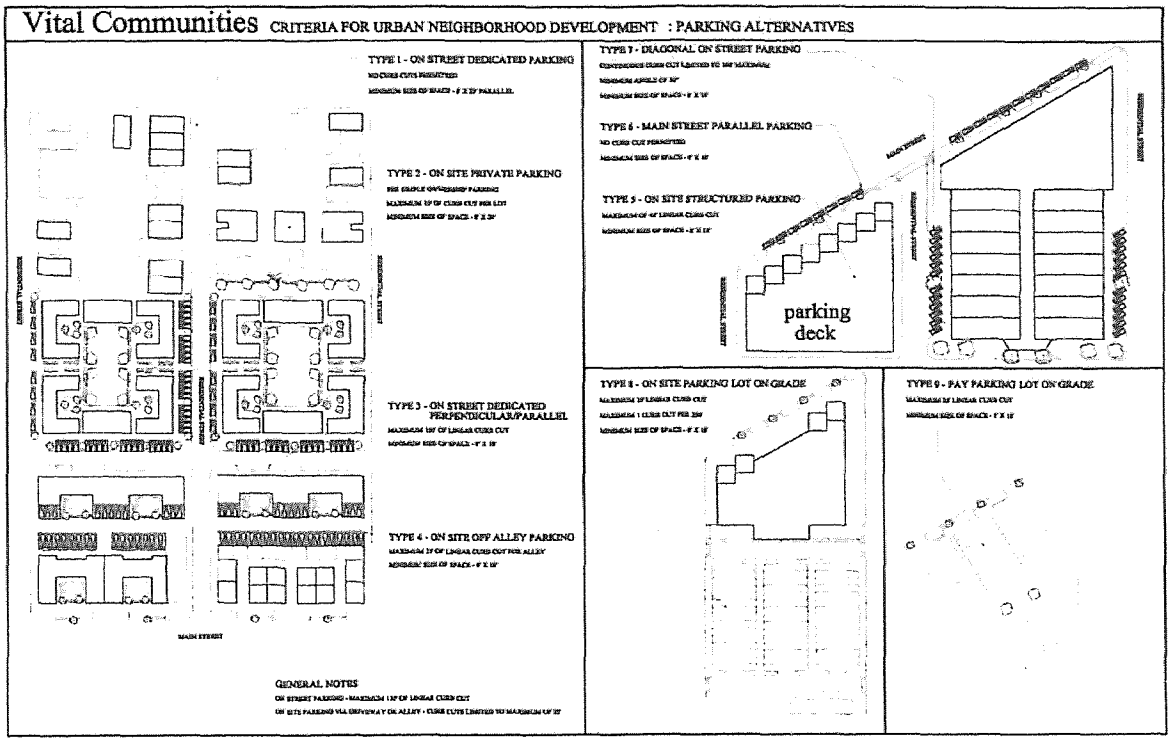


Figure 49: Diagram of Allowable Parking Alternatives.

All parking garages for the housing shall be accessible from the alleys or private driveways. Parking for housing shall be primarily in the alleys in rear lot garages, but parking overflow will be permitted on the secondary streets.

1.7.5.9 Zoning: The zoning regulations for an area need to be flexible so as to allow for new combinations of uses to be explored. Such combinations are meant to allow for people to live and work in the neighborhood without leading to any potential or undue

hazards to the other people who live or visit to community. Zoning laws shall be adjusted to allow for residential to exist above ground floor commercial and retail space if such uses are not already permitted by the existing zoning laws. Zoning should also be adjusted to allow for light industrial uses. These uses should not be on the main street but near to the main street on a secondary street.

Any setbacks that occur on the main street shall be solely for the purpose of creating a seating area for businesses, such as restaurants and cafes, or to create a buffer zone for residential building located on the main street. The street wall should be maintained on the main street. Setbacks on the secondary streets shall be allowed for small front yards to a maximum of 20 feet. Setbacks on secondary streets should be for the creation of front stoops or porches on the fronts of the buildings. The spaces created by the setbacks are to encourage the interaction of the people residing in the building and the street. This becomes the prime transition space between the public street and the private residence.

1.7.6 Infrastructure

1.7.6.1 Public Transportation: Local or regional transportation, or a combination of the two, needs to be provided to the community. This should occur on the main street. If it is a local transit system that serves the neighborhood, then it should tie into a more regional system. Busses are the most common form of public transportation, but alternatives such as trolleys and subways should be explored in an urban environment.

1.7.6.2 Services: Power and natural gas should both be underground in an urban community environment, except where it is too expensive to do so. If the neighborhood does not have modern communications infrastructure, such as high bandwidth wiring for internet connections, this should be provided immediately. The first buildings to get connected should be the schools and the businesses in the neighborhood. This will serve to attract people and business to the area.

1.7.7 Boundaries

Boundaries are important as the demarcation of the passage from one neighborhood to the next. The boundaries between neighborhoods are ideal for uses, services, or activity spaces that serve larger populations, or multiple communities. Such spaces are appropriate for arterial automobile routes, train right of ways, regional schools, regional shopping facilities, community centers, large theatres, stadiums, and parks. These are interstitial spaces that should contain activities that would create too overwhelming a presence if they were nestled within the community.

Boundaries may also be physical in nature such as a lake, river, or valley. These are natural boundaries that already exist. Such physical boundaries should not be created. Gates on any street shall not be permitted, with the possible exception of the alleys. Such a gesture is exclusionary and should not be required if the streets are active with people.

1.7.8 Materials

The choice of materials to be used in the architecture, infrastructure, and paving should provide visual interest to the neighborhood. Materials shall be chosen that provide

complementarity. This requires buildings to be sympathetic to the architecture that surrounds it. All sidewalks shall have pavers placed at the curb edge to define the beginning of the street, and all cross walks shall be either constructed from pavers or concrete. This will serve to clearly define where pedestrians should cross the street, and it will create an awareness for people driving vehicles on the street.

1.7.9 Mix of Uses

It is the mix of uses of public space and building typologies where much of the diversity of the neighborhood can be seen. This diversity needs to be present, and it is the goal of a vital community to be diverse, but the diversity need not be complicated. Rather, it should be straightforward and legible to the people who live in the neighborhood, as well as to those who are visiting. The diversity of public spaces and building typologies shall be based on the needs of needs of the neighborhood. A study of the existing conditions will reveal use and space deficiencies that need to be filled. The diversity will be regulated through a program statement that will provide the guidelines for the neighborhood.

1.7.10 Parks

Parks within the neighborhood shall not be large. The maximum size for a new park physically inside the neighborhood shall be between 5 and 20 acres in area. Small parks, areas of less than 5 acres, can occur throughout the neighborhood, and the park spaces on the main street should be limited to being small parks, and they shall be limited in number. This is to maintain the continuity of the main street. Large parks, greater than 20 acres, should be placed in the spaces between neighborhoods so that they can support a

greater population. There should be a maximum of one 5 to 20 acre park in any given community, and the number of smaller parks is not limited.

These smaller parks can also be used for urban farming as allotment and community gardens. These gardens shall be semi-private, requiring public hours of operation daily. These types of gardens shall not front onto the main street.

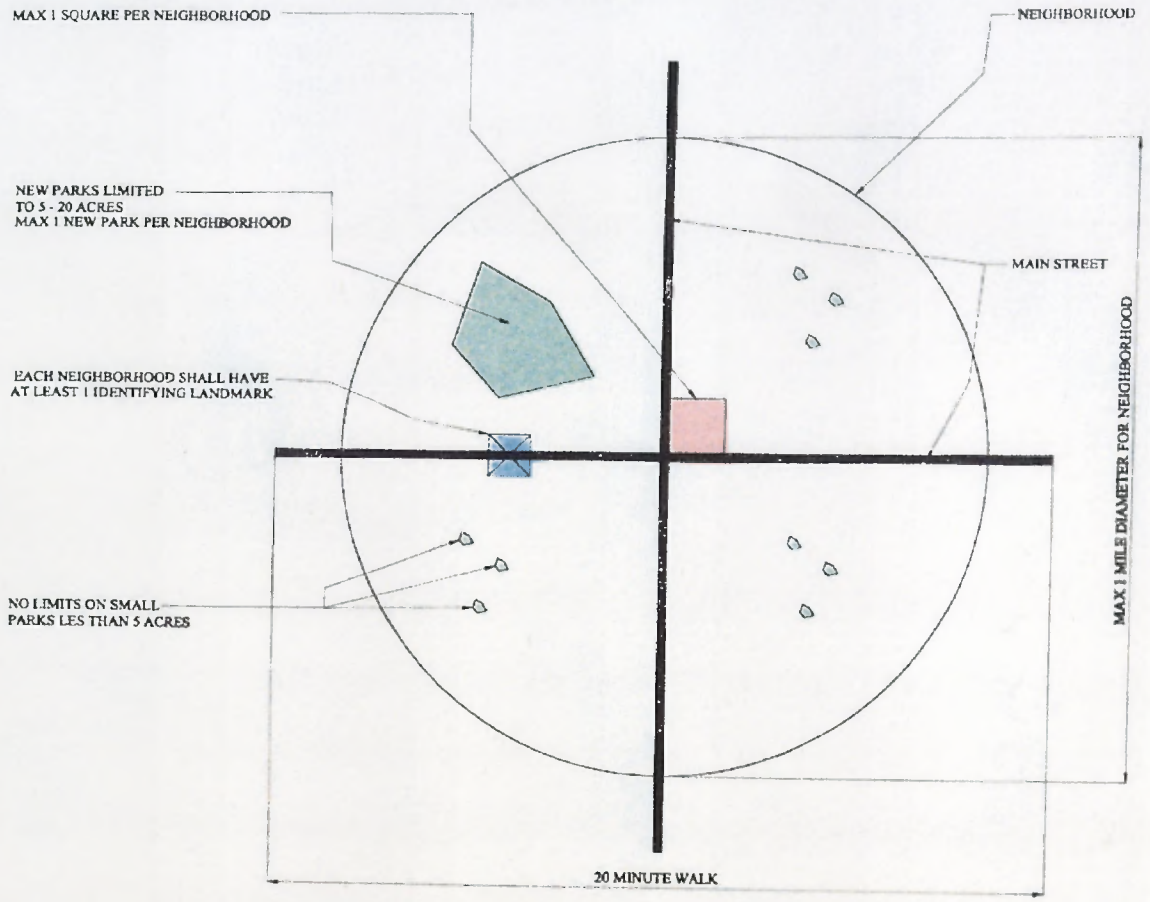


Figure 50: Diagram of Park Types, Squares and Landmarks in Neighborhood.

1.7.11 Squares

A neighborhood can have a maximum of one public square. This square shall be oriented to some building or object, and automobiles shall not be permitted in the square. A main street neighborhood does not require a square to be present. Squares are more logically placed around a building of civic importance, such as a city hall, court house, or museum. The neighborhood is not necessarily considered to be a city in itself, but typically part of a larger grouping of neighborhoods which form the city. Therefore, civic buildings may not be present in a given neighborhood, and there would be no need for a square.

1.7.12 Landmarks

Each neighborhood shall have at least one identifying landmark. This may be a park, an important building, or a space created by an interesting block geometry. Landmarks help to create the character of a neighborhood.

1.7.13 Commercial and Retail

Commercial and retail space should primarily occur on the main street. If a typical 25 - 30 foot urban lot is considered, no single commercial or retail space shall have more than four lots of continuous frontage on the main street. This will allow for chain stores to exist on a main street, but it will limit the amount of physical space and frontage that any store can have on the main street. The above is a maximum situation, where possible, frontages will be limited to two lots. Commercial and retail space can occupy the first or second floors of a given building. Only commercial space can be located above the second floor. Live/work arrangements shall be allowed anywhere in the neighborhood.

Retail and commercial space within the neighborhood shall occur primarily at the ground floor.

All retail and commercial spaces should access the street directly and all entrances shall occur at grade. Raised entrances or storefronts are not as connected to the street, and they do not promote casual interaction between the retail or commercial establishment and the pedestrian at street level.

The concept of business co-operatives and incubation spaces shall be allowed to occupy larger portions of main street frontage provided that no single business in the co-operative occupies greater than the equivalent of two lots of frontage.

1.7.14 Housing

1.7.14.1 Typologies: The neighborhood shall have several alternatives for housing. This housing must be diverse in ownership and type to allow for people of differing financial situations. This will include typology choices such apartment flats, lofts, SRO's, boarding houses, residence hotels, group homes, nursing homes, rowhouses, semi-detached houses, and detached houses. Zoning should also be adjusted so that ancillary flats, at the rear of properties, can be built as free standing housing units, or they can be built over garages.

Alternatives to ownership should also exist in the neighborhood. This will include choices such as rental apartments, limited equity co-operatives, co-housing, full equity co-operatives, and condominiums. Such alternatives will potentially allow people with limited financial resources to live in an urban neighborhood.

When the main street development occurs as a revitalization project, where the development will be composed of new and infill construction, the new housing will be composed of typologies that complement the existing stock. In a revitalization project, the aim of the development will still be towards creating diversity and choice for the people who live there.

1.7.14.2 Housing Orientation: All housing, with the exception of any granny flats, shall be oriented to either the main street or a secondary street. To be oriented to a street means that most of the housing shall front onto the street. All housing should also connect to the street with either an operable window fronting onto the street, access to a front stoop, or with a porch and balcony arrangement.

1.7.15 Future Growth

A main street neighborhood shall be limited to the maximum allotted size in terms of its internal growth. An allowance for a 35% expansion over the one square mile maximum can be considered in an overlap with a contiguous neighborhood. Once a neighborhood reaches this maximum size, the next neighborhood will be established. This may occur along the same main street as an extension of the previous main street, with the understanding that it is another neighborhood. This will be signified by establishing a boundary condition between the two communities.

1.7.16 Regional Growth

The main street neighborhood is to be considered as part of a network of main street communities. This becomes the armature for the creation of a city or town based on this network. Any regional growth should coincide with the development of public transportation to serve the new communities. The eventual form for the city, graphically, can be represented by a series of bounded neighborhoods that are arrayed in a way that they do not overlap.

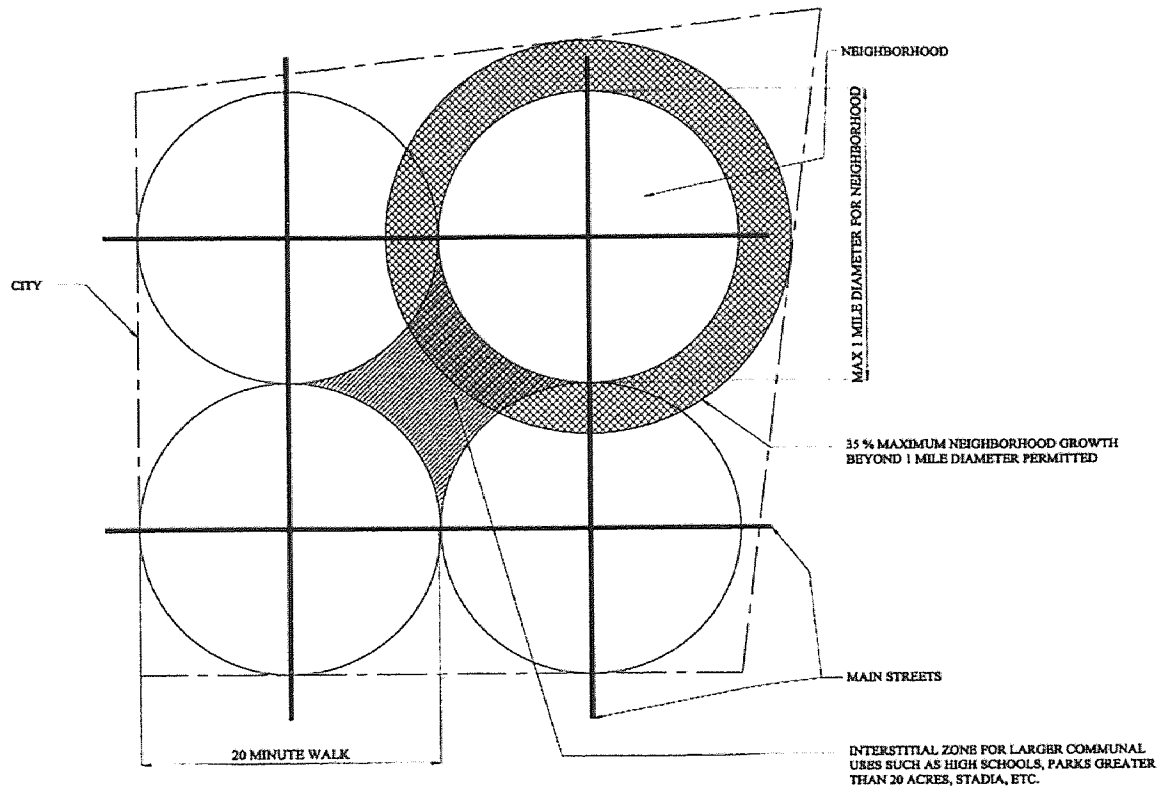


Figure 51: Diagram of Future Growth Possibilities.

1.7.17 Economics

The financing of such community development should occur through joint co-operation between government, private institutions, such as corporations, banks, and limited dividend corporations, and local community groups. Alternatives such as real estate mutual funds are also a consideration that should be explored. New forms of financing should be explored as part of the goal of creating diversity and choice within the neighborhood.

Financing shall be secured through not-for-profit and for-profit joint ventures where investors receive some return on their investment. Such investment shall provide a return based upon the income producing properties that are located primarily on the main street, and those scattered throughout the neighborhood. Any individual in the neighborhood shall be able to invest a property in the neighborhood, and their expected return on investment shall be proportional to that investment.

Financing shall be available through some government programs, such as the Community Development Block Grant, the Housing and Community Development Act of 1992, neighborhood reinvestment corporations, and the Cooperative Housing Foundation. The community Development Block Grant is for communities which are developed people with low to moderate incomes, communities which need aid in the easing of blight and slums, or communities which have some other urgent needs. This grant was created in August of 1974 and its funds are delivered in the forms of entitlements. "The primary objective of CBDG is to develop 'viable' urban communities, by providing decent housing and suitable living environs, and expanding economic opportunities principally for persons of low to moderate incomes." (Van Vliet, *Encyclopedia of Housing*, p.79)

The Housing and Community Development Act allows for capital investment from investors who agree to take a limited, fixed return or dividend on their investment which is distributed from rental incomes. The investors liability is limited to their original investment. This form of financing is also referred to as a Limited Dividend Development.

Neighborhood reinvestment corporations are organizations created to attract commercial banks and insurance companies to invest in local neighborhood housing, and the Cooperative Housing Foundation are organizations which help in the establishment and funding of housing cooperatives. Cooperative living can take the form of limited equity cooperatives, or market equity cooperatives. Housing cooperatives are democratically governed non-profit organizations whose residents are shareholders who jointly own a multiple-unit property. The rent that is generated pays for the collectively held mortgage, operation expenses, and the capitalization of reserve funds. Cooperatives give an air of homeownership because residents have shares in the total property.
It would be possible for a community to buy back their neighborhood from the original investors using a cooperative model, where any profits from income producing properties would then be used to provide a limited return on an individuals investment in the community.

Another subsidy which would be possible to explore in the creation or revitalization of a main street community are property tax abatements, where property taxes are frozen at the pre-development stage. This subsidy is based on the theory that if the costs of land ownership are reduced sufficiently, persons will be encouraged to increase the use of their land in ways that are socially productive, such as urban housing.

The new neighborhood shall make use of some or all of the economic possibilities mentioned above.

1.8 Conclusions to Chapter 1

The goal of this paper is to lay down the foundation for a strong community to grow in an urban environment. The issues raised are the major ones which demand immediate attention. Other issues will develop over time that will also have to be addressed. It is hoped that such a community is future oriented, and that it may provide a model for subsequent community planning in urban centers. This is simply an attempt to create a more vital community that is manageable and sustainable for the future.

Vital cities require an active downtown core with active neighborhoods. Such a city will need well maintained streets through neighborhoods, new transportation links, good schools, community and recreation facilities, commercial establishments, and housing with a reasonable density, so as to provide for a mixture of cultural, economic and social groups. This requires both a permanent population in neighborhoods, and a daily commuting population.

This section is the first part of the investigation into the creation of vital neighborhoods. The subsequent two sections of this study will include the choosing a site in the city of Newark for the development of a main street community, and an in depth site analysis, and the subsequent design and codification for the community. If it is feasible, community involvement in the design process will also be explored as a means of creating a meaningful community for the people who will use it, and for the creation of a neighborhood identity.

The desired result is the design of a community which will be a vital addition to the City of Newark.

CHAPTER 2

SITE ANALYSIS

2.1 Objective

It is the purpose of this section of the paper to analyze the City of Newark, and Springfield Avenue in particular, to establish a site and program for the testing of the Main Street Model established in the previous section of the thesis. This will be done by examining Newark historically, from its creation to present, and then concentrating on physical and statistical aspects of Newark and Springfield Avenue in the Central and South Wards.

2.2 Historical Development of Newark

The history of Newark has been well chronicled by the New Jersey Historical Society and historian, John T. Cunningham, in the book, *Newark.* The city of Newark was originally settled in May of 1666. The original settlers were those who no longer wished to remain in the New Haven Colony in present day Massachusetts. They were puritans escaping religious intolerance for their beliefs in their former community. These early inhabitants settled on farms laid out in a grid along the Passaic River. The original settlement map demonstrates the early organization of the town on a simple grid pattern with the creation of two main parks: Washington and Military park. The key streets, which organized Newark at this time, were Broad Street and Market Street. This intersection is signified by the graphic at the center of figure 52.

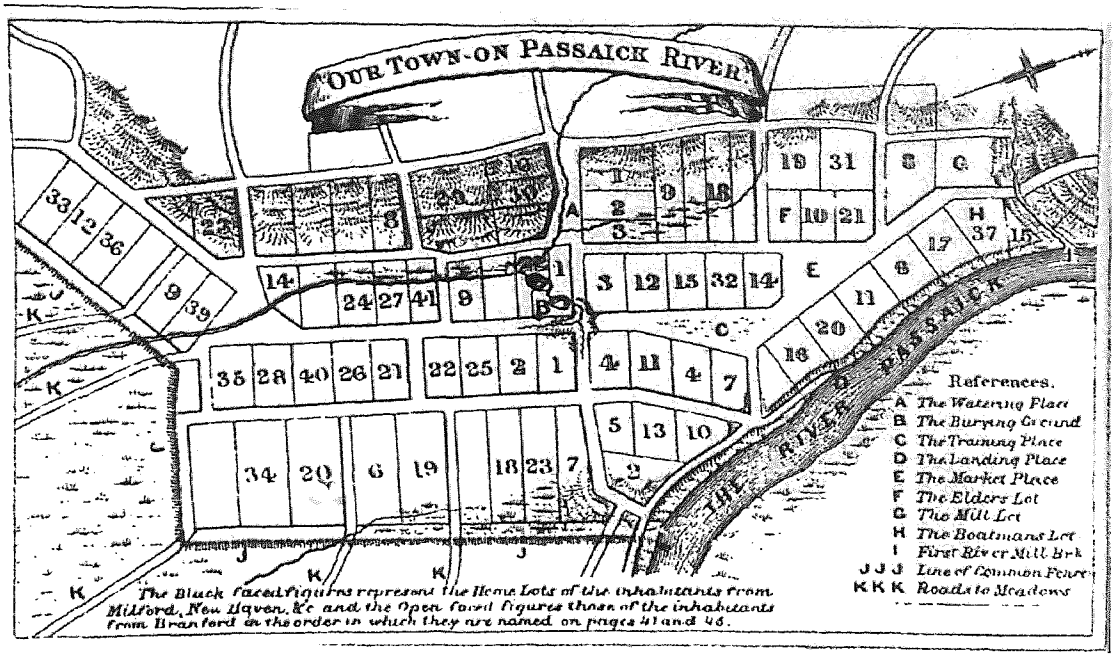


Figure 52: Original Map of the Settlement of Newark. (Cunningham, *Newark*, p.20)

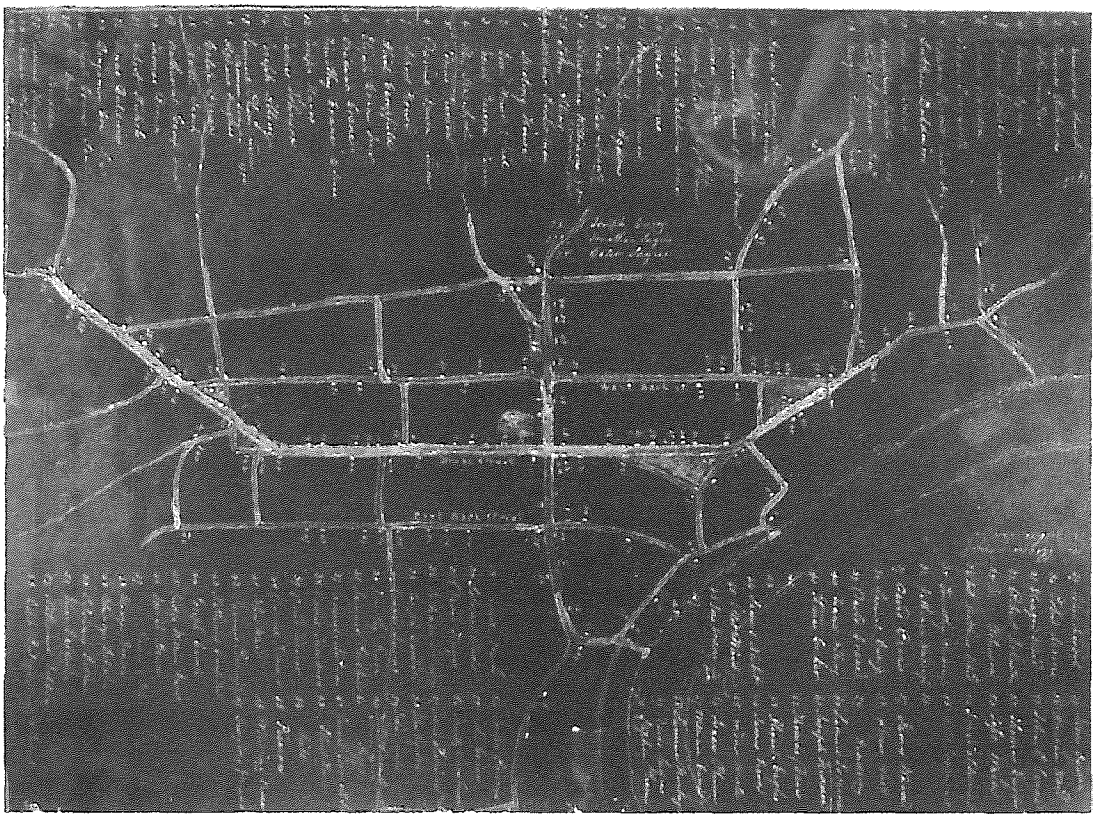


Figure 53: Map of Newark in 1670. (New Jersey Historical Society)

The earliest buildings were constructed of local red brick and brown sandstone. The density of building concentration was understandably low because homesteads required land for food production. At this time, as in other towns, Newark's residents depended on the river for water, commerce and transportation. The course of the Passaic River, and a natural harbor protected by the islands of New York City, would provide Newark with a unique combination of characteristics that would propel it into one of the most important industrial cities in the United States.

By the 1800's Newark was beginning to establish itself as a manufacturing center. The early industries were zinc mining, chemicals, rubber, beer, oil, glue textiles and tobacco. Newark grew as industry and business grew. The Morris Canal was created between Newark and Phillipsburg, Pennsylvania, in 1831, and it can be seen in the 1834 map of Newark. The building of this canal allowed for manufacturers to locate further inland, increasing Newark's industrial capabilities even more.

The corner of Market and Broad Streets are prominent as the largest intersection of the city, and it soon became known as the Four Corners. Other important streets existed by 1834. These include Clinton Avenue to the south, High Street to the west, Ferry Street to the east, and Springfield and South Orange Avenues heading west from the city.

Many of the roads that entered and exited Newark served to link it to nearby towns. By the 1800's, Newark was firmly established as a regional center linked by road and rail to many towns and New York City. By 1850, Newark had a population of 38,894. This number increased to 105,000 people by 1870.

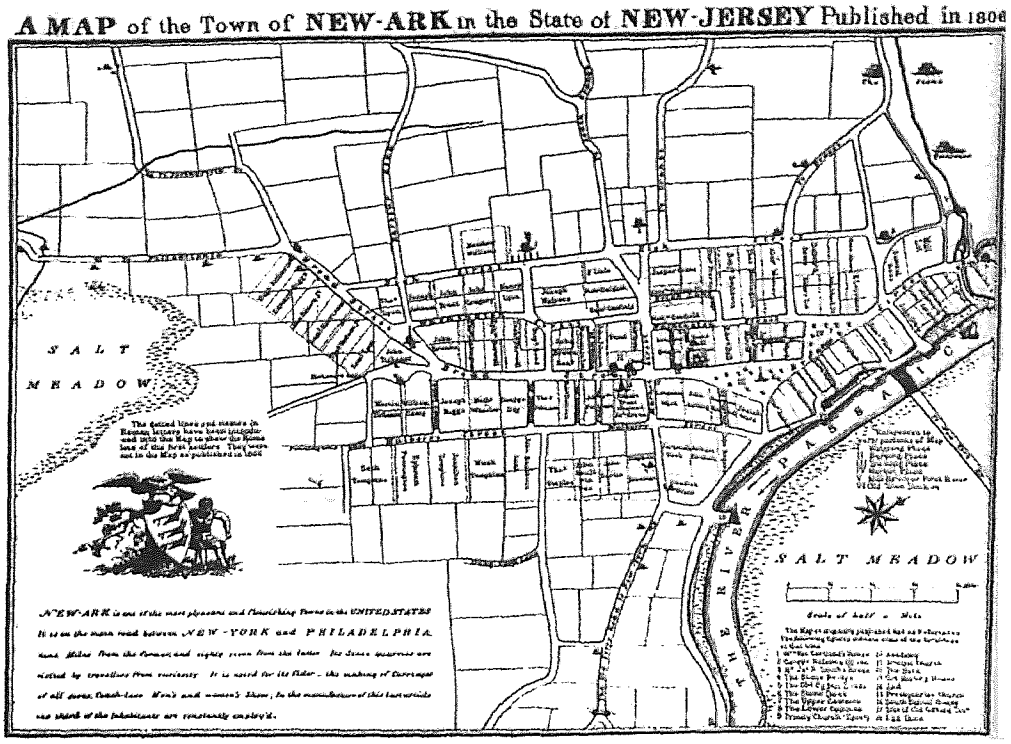


Figure 54: Map of Newark in 1806. (Cunningham, *Newark*, p.90)

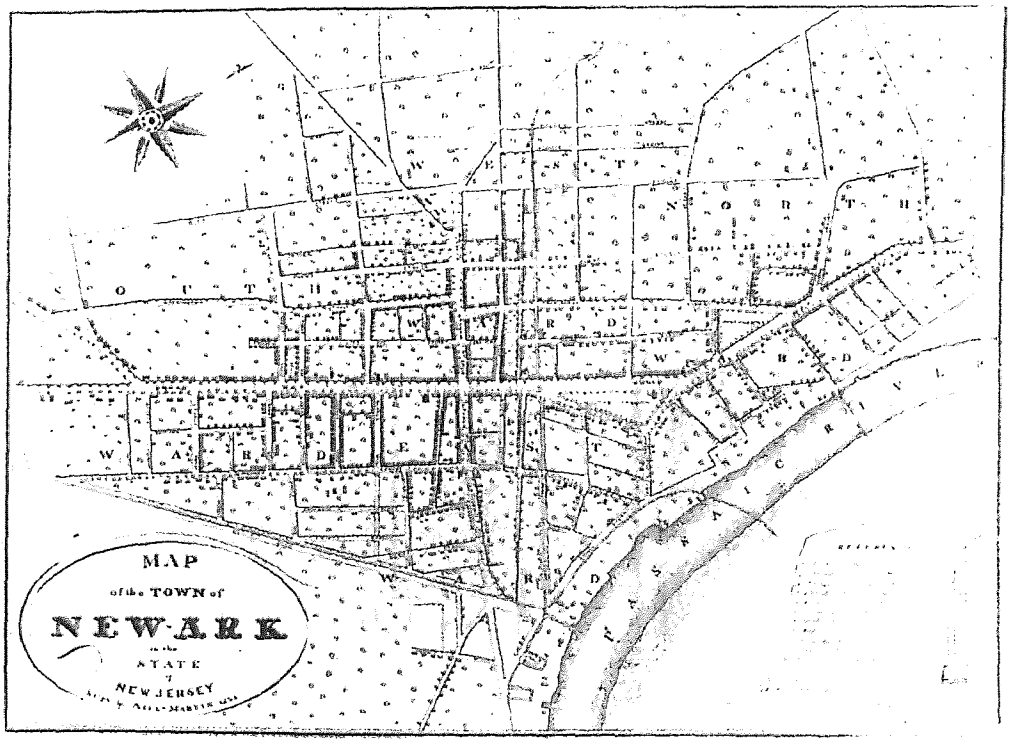


Figure 55: Map of Newark in 1834. (New Jersey Historical Society)

The city soon boasted such establishments as the Ballantine Brewery, Thomas Edison's factory, and Edward Weston's lighting factory on Washington Street. By the turn of the century, jewelry, bakeries, leather tanneries, and machine equipment manufacturing were large industries. In 1925, the city had 1,668 factories with an annual payroll of $90 million.

Newark became a destination for many ethnic groups as it developed its industrial base. Figure 56 represents a social agency directory created by a survey done by the Newark Presbyterian Church. These groups created neighborhoods with strong identities. While the character of Springfield Avenue has changed dramatically during this century, the communities along the Passaic, particularly the Ironbound neighborhood, have changed their identity but remained strong. It was during the 1940's and 1950's that the Ironbound developed its present Portuguese ethnicity.

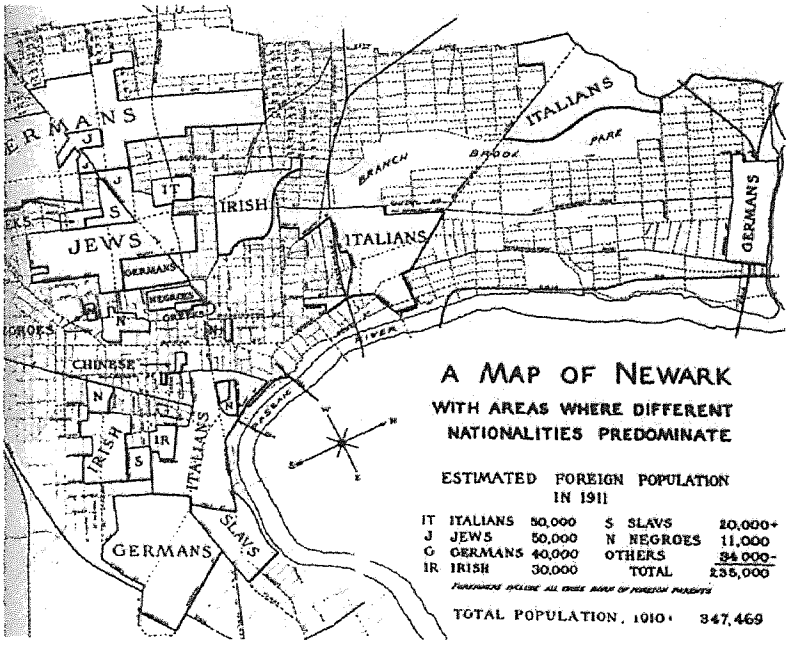


Figure 56: Enclave Map of Newark in 1910. (Cunningham, *Newark*, p.205)

Newark also began to develop a cultural and business base in the 1800's and early 1900's. Law students created the first library in Newark in 1765. The first public library was established in 1845. The Newark Public Library was founded in 1888. The New Jersey Historical Society was formed in 1855. Newark had 1,400 restaurants and saloons in 1918. The city had 63 theaters in 1922 and 46 movie houses. Further entertainment was provided by the Newark Bears baseball team, which played in the International League, and the Newark Eagles in the Negro Leagues. On June 1, 1921 WJZ radio began broadcasting, and the next year, WOR radio established a long-range station.

Figure 57: Panoramic View of Newark from Downtown looking West (ca. 1900). (Cunningham, *Newark*, p.233)

Many banks and insurance companies were created to support Newark's industrial base. Mutual Benefit Insurance Company was established in 1850, and the Prudential Insurance Company started in 1873.

The airport was commissioned in 1928. It provided the first hard surfaced landing strip in the U.S. Newark International Airport was later renovated during the 1950's, and

it has become one of the largest and most important airports on the eastern seaboard. Currently, a new light rail connection is being built to connect the airport's monorail system to Newark Penn. Station.

Newark also became a center for higher education. A technical school begun in 1884, became the Newark College of Engineering in 1919, and then the New Jersey Institute of Technology in 1975. The New Jersey College of Pharmacy, founded in 1892, became Rutgers University in 1927, and New Jersey Law opened its doors in 1908. During the 1960's the campus of Rutgers was redesigned in its present location on Martin Luther King Boulevard. Seton Hall University established itself in Newark in 1946, and built the Seton Hall Law School at the north-west corner of Raymond Boulevard and McCarter Highway. Essex Community College was established in the university heights area in 1977. The fifth major educational institution in Newark, the University of Medicine and Dentistry (UMDNJ) was established in Newark in 1966 as the College of Medicine and Dentistry. There are approximately 45,000 students in Newark every day.

Newark reached its height as a major metropolitan center in the 1920's and 1930's. Major streets were active with the flavor of each neighborhood. Ethnic neighborhoods had much street activity as can be seen in figure 58. And Newark had an efficient trolley system by the turn of the century. All major streets started with horse drawn trolley service, which became electrically based as can be seen in figure 59. This century also saw the beginning of the use of the automobile. By the 1920's, bus service began to replace trolleys and the tracks were removed. In 1923, buses moved over 200,000 people per day, and trolleys moved 330,000 people per day.

Figure 58: Prince Street Prior to World War I. (Cunningham, *Newark*, p.209)

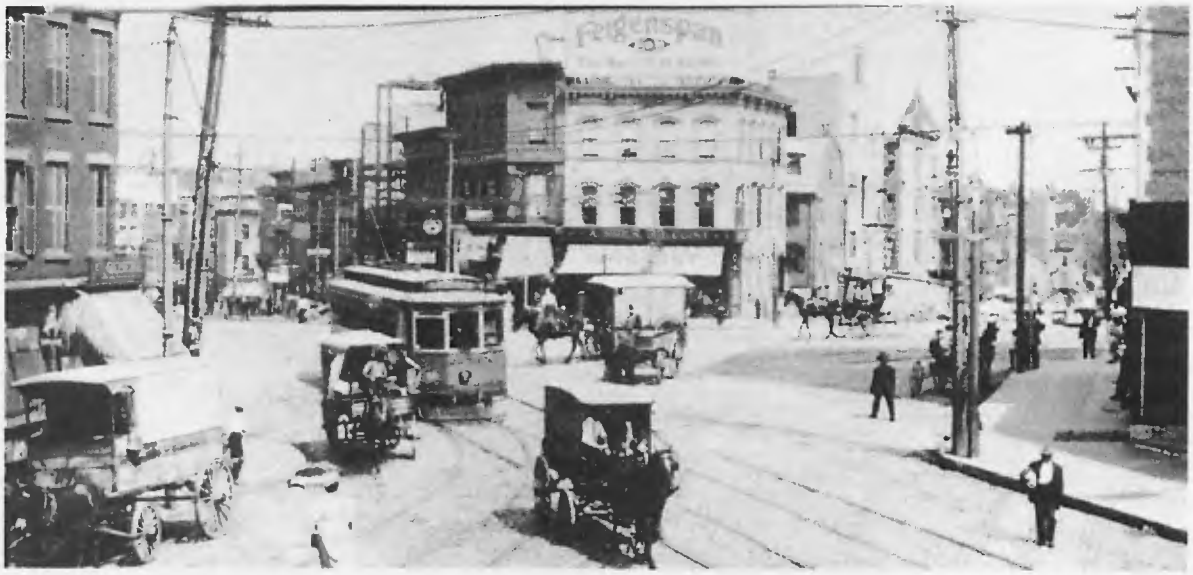


Figure 59: Springfield Avenue and Belmont Street at the turn of the Century. (Cunningham, *Newark*, p.193)

The population of Newark reached its maximum of 442,337 around 1930. People traveled to Newark to shop at Newark's major department stores at the turn of the century. Hahne & Company, L.S. Plaut & Company, and L. Bamberger & Company drew people from New York and New Jersey to shop. This success lasted until the Great Depression in the early 1930's. Newark's industrial base had already begun to decline by this time, but the depression hastened its erosion. "Between 1938 and 1944, Newark lost $300 million of industry." (Cunningham, *Newark*, p.299)

Figure 60: Springfield Avenue in 1915. (Cunningham, *Newark*, p.252)

The rise of the automobile both helped and hurt Newark. In 1910 the first automobiles appeared in the city and this led to improved streets. By 1910, there were more than 50 miles of paved streets. This aided mobility, but it also made the suburbs more accessible. After World War II, a greater portion of the urban population became more mobile with improvements in the automobile and the creation of more roads and

highways leading to the suburban regions around major cities. This allowed companies to relocate to the suburbs where land was cheaper, and the working population was already locating itself there. "Post war mobility hastened the decline of all cities. Jobs were plentiful, money was easy to come by and the G.I. Bill of Rights gave veterans long term mortgages to encourage home building." (Cunningham, *Newark*, p.301)

Figure 61: Street near Springfield Avenue after the 1967 Riots. (Cunningham, *Newark*, p.329)

As the industrial base eroded throughout the 1950's and 1960's, and the population that could afford to move to the suburbs, Newark lost its manufacturing job base and the urban population became disenfranchised. The poorer population of Newark was placed in high rise low-income public housing, which further alienated a predominantly Black population. In the summer of 1967, the dissatisfaction boiled over

into riots, which lasted 6 days and nights. During this period, much of what is now the Central Ward of Newark was destroyed by fire and looting. By the end of the riots, there were 26 dead, more than 1,500 wounded, more than 1,000 businesses were ruined, and firefighters fought more than 250 fires, often amidst shooting.

"The 1967 disorders had ended several generations of dependence on small neighborhood shops and services along most streets in the riot areas. The shops had been modest, struggling little 'mom and pop' enterprises for the most part, usually with high prices, but neighborhood people at least did not need an automobile to get a quart of milk or a loaf of bread. Nearly all shops were closed soon after the riots." (Cunningham, *Newark*, p.350)

Figure 62: USGS Satellite of Newark in 1996.

Despite the problems that have plagued Newark this century, the city has undergone resurgence during the 1980's and 1990's. The Gateway Center was planned immediately following the riots. It was built next to Newark Penn. Station by developers who wished to attract white collar corporate jobs, and the project was underwritten by Newark's largest corporation, Prudential Insurance. The Gateway center created a new problem for Newark though. The plan called for skywalk bridges to link the buildings to the train station, which effectively internalizes the workers and removes people from the street.

The establishment of the Gateway center has attracted other white collar jobs, including regional offices for PSE & G, New Jersey Transit, and Blue Cross.

Figure 63: USGS Satellite of Newark in 1996.

Recent developments have seen the building of new educational and entertainment facilities. The New Jersey Performing Arts Center (NJPAC) was built beside Military Park in the downtown core of Newark in 1997, and a new minor league baseball stadium has begun construction at the corner of Broad Street and Bridge Street in the fall of 1998. The university campuses are expanding, The University Hospital established itself in the Central Ward. New buildings have been added to the New Jersey Institute of Technology, including a new dormitory and a new School of Architecture, and Rutgers is presently building a new law school on their campus. Of special interest to the universities, one of the skyscrapers, at the corner of Broad Street and Raymond Boulevard, in the downtown has been purchased by a developer who wishes to turn it into a residence building for the four major post secondary schools in Newark.

There have been plans to redevelop Halsey Street and the Military Square area by the New Newark Foundation, which has become a powerful not-for-profit redevelopment group. Plans exist for the Lincoln Park area on Broad Street as well. A Science Park has been developed for the areas west of the New Jersey Institute of Technology to create new research facilities. Several of the major public housing projects that have been abandoned, such as Columbus Homes, Scuder Homes, and the Hayes buildings, and they have been removed, or will be demolished, to make way for lower rise affordable housing. And many community groups have begun to rebuild the housing that was lost to the riots and general neglect in the Central and South Wards of the city. Newark is presently developing a new master plan for the city.

In 1891, author and historian, Peter J Leary stated, "It is only of late years that Newarkers themselves have begun to awaken to a realization of what their city really is, and of its magnificent possibilities." (Cunningham, *Newark*, p.222)

This was stated as Newark moved into its golden age at the turn of the century. Despite all that as occurred in this century, Newark is beginning a resurgence and this quote is just as valid today as it was then.

2.3 Transportation

2.3.1 Regional transportation

The regional transportation map demonstrates that Newark is a major center of passenger transit. Newark supports Amtrak, The Path commuter train system, and the regional New Jersey Transit commuter rail service. Newark Pennsylvania Station serves as a center for 11 commuter rail lines. The city has a subway system which connects Penn. Station with the City of Belleville and Bloomfield. And Penn. Station will be connected to Newark International Airport by a light rail system soon. Newark also serves as a hub for commercial rail activity. It was this regional centrality that helped Newark to develop into an important industrial city.

2.3.2 Local Transportation

The area of interest for this section of the thesis is referred to as the West Side Park neighborhood. This area is bounded by Avon Avenue to the south, Bergen Street to the east, South 20th Street to the west, and South Orange Avenue to the north. The main street that passes diagonally through this neighborhood is Springfield Avenue. The site is

well serviced by The New Jersey Transit bus system. Major bus routes are located on South Orange Avenue, Springfield Avenue, 18th Avenue, and Avon Avenue servicing the area in an east-west direction. These lines all converge to Penn. Station Newark and service movement from the downtown to the outer residential areas of Newark and its contiguous cities.

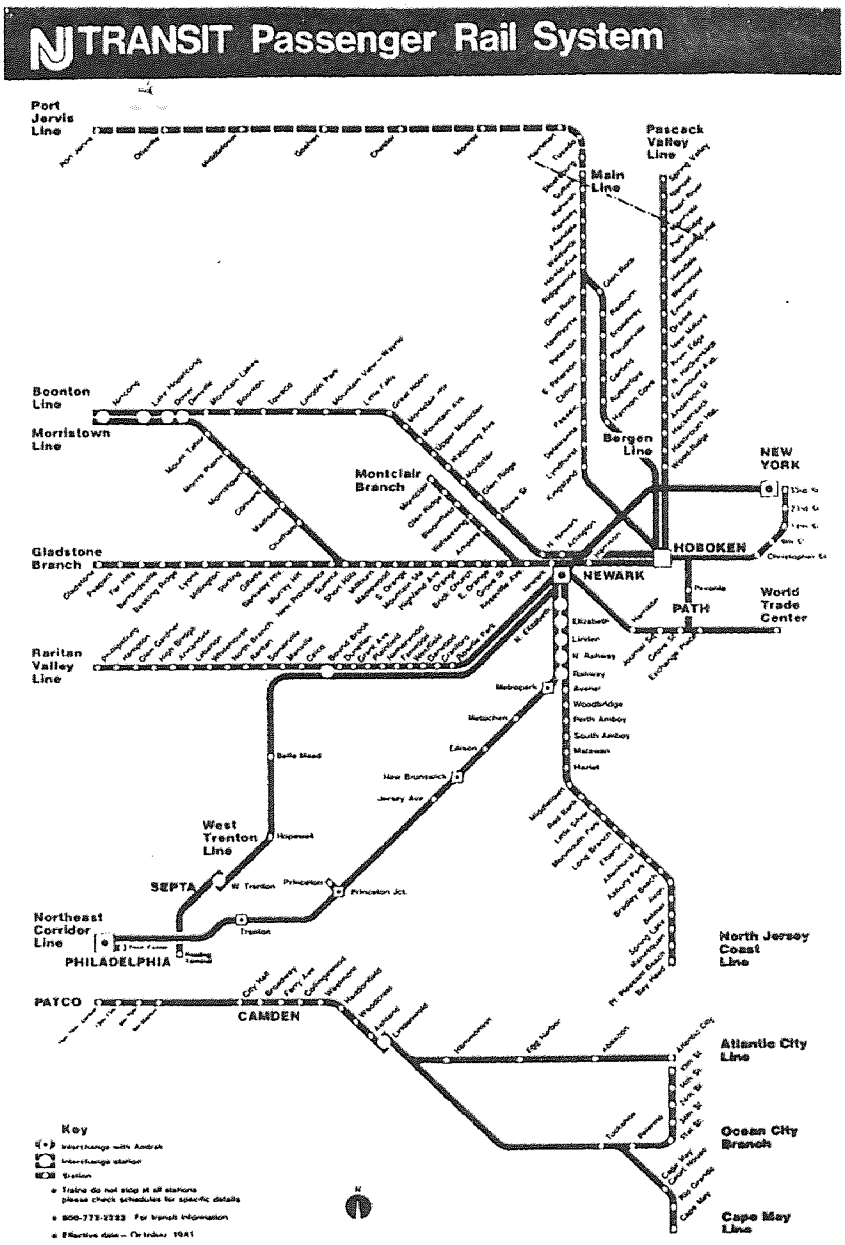


Figure 64: Regional Transportation Map for New Jersey Transit. (New Jersey Transit)

Bus routes transversely connect to these primary bus routes connecting the West Side Park area (WSP) to other districts in the city. The transverse routes are located on South 19th and 18th Streets, South 10th Street, and Irvine Turner.

2.3.3 Public Transit

Newark once had an extensive trolley based system, which was replaced by a bus system in the first third of this century. In 1947, The city transit plan demonstrated a desire to bring back trolley lines to Newark. Bloomfield Avenue, Broad Street, Orange Street, and Springfield Avenue were to support the trolleys. At present, the city is planning to build a light rail rapid transit line north from Penn. Station Newark, as well as to the airport to the south, as previously mentioned. This new line to the north is ultimately to be connected to the existing city subway at the Broad Street station.

Figure 65: New Jersey Transit Bus Route Map for Central and South Wards. (New Jersey Transit)

2.4 Streets

2.4.1 Local Streets

Figure 66 represents the nature of the streets of Newark. Of prime interest are the arterial status of South Orange Avenue, Springfield Avenue, Martin Luther King Boulevard, and Bergen Street. These are the streets which have the greatest impact on the West Side Park neighborhood. This diagram was developed as part of the Newark Master Plan for 1964, and the street typologies are still valid for present day conditions. Observation of the area has demonstrated that S.10th Street, Avon Avenue, and 18th Avenue are also important streets in the community, but only locally. These are simply busy local streets in the overall street network.

Figure 66: Transit Plan for Newark in 1947. (*Newark Master Plan,* 1978, p.55)

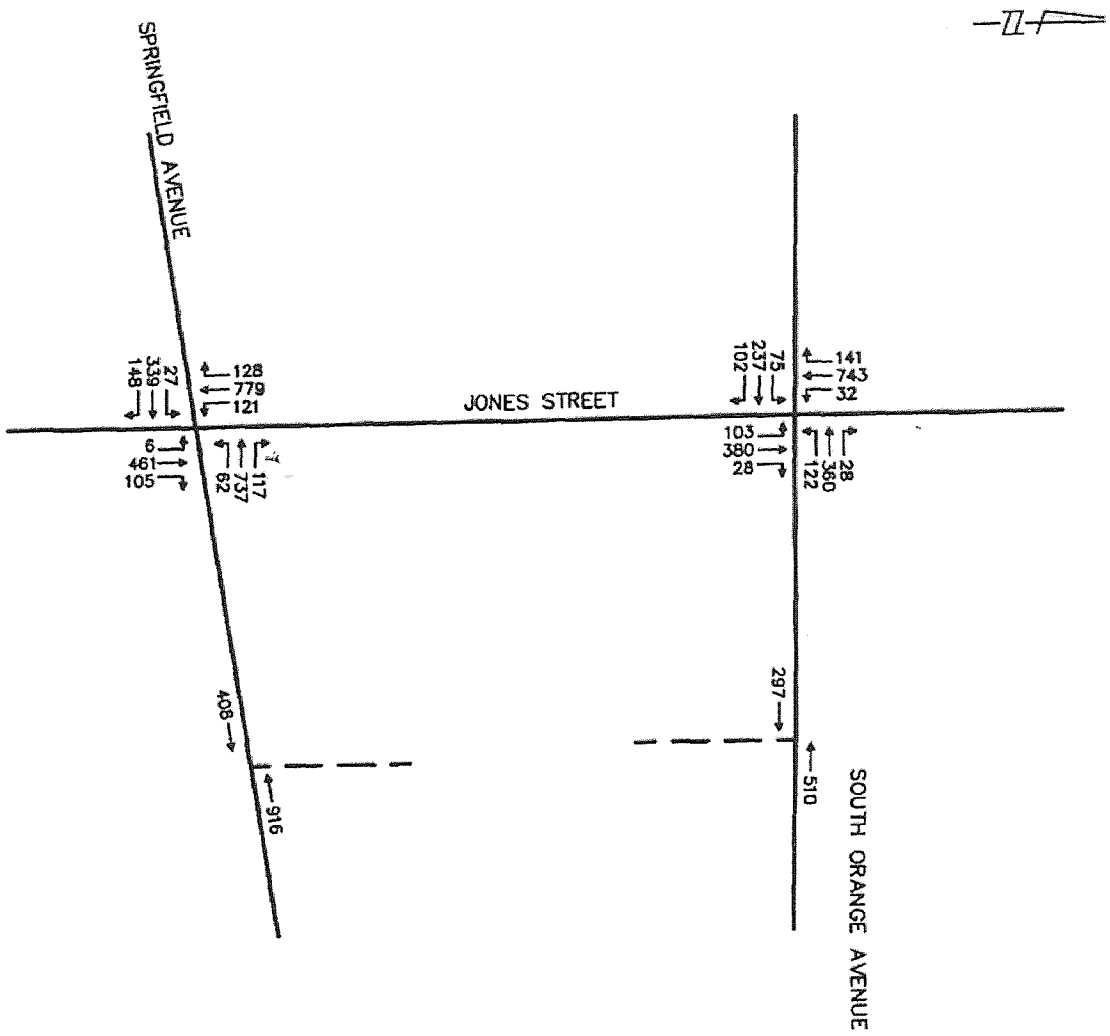


Figure 67: Traffic Count Data. (Newark Department of Engineering)

TABLE: Vehicle Counts / Prince Street

COUNT NUMBER	BEGINNING TIME	Pedestrians Crossing	Prince Street Southbound		
		Prince Street	Left Turn	Through	Right Turn
1	8:30 AM	2	5	10	1
2	7:45 AM	6	5	2	4
3	9:00 AM	1	3	9	2
4	9:15 AM	3	5	14	3
TOTAL VOLUME		12	18	35	10

TABLE: Vehicle Counts / Springfield Avenue

COUNT NUMBER	BEGINNING TIME	Pedestrians Crossing	Springfield Avenue Eastbound			Springfield Avenue Westbound		
		Springfield Avenue	Left Turn	Through	Right Turn	Left Turn	Through	Right Turn
1	8:30 AM	6	2	218	0	3	118	3
2	7:45 AM	8	6	187	3	4	121	2
3	9:00 AM	2	8	98	2	7	115	6
4	9:15 AM	1	3	111	8	8	101	1
TOTAL VOLUME		17	19	614	13	22	455	12

Figure 68: Traffic Count Tables. (Newark Department of Engineering)

2.4.2 Traffic Information

The diagram and charts, on the previous page, represent traffic counts for specific intersections along Springfield Avenue. The numbers suggest that Springfield Avenue serves as a major arterial street connecting downtown Newark to the suburbs. The volume of traffic is high on Springfield and South Orange because these streets directly lead to the Garden State Parkway and the Towns of Irvington and South Orange. A large number of people commute to Newark along these streets. Their destination is either Newark, for work, or as passage during the commute to New York City and its environs.

2.5 Population

2.5.1 Demographic Trends in Newark

The population of Newark reached its maximum of 442,337 around 1930. Since that time the city population has been in decline. The population has declined drastically within the city since the riots in 1967. Of particular note is the change in population from 1970 to 1990, which has changed from 382,417 people to an estimated total of 276,221. This change reflects the damage to housing stock as a result of the riots and landlord neglect. It is also reflected by the economic change of society from an industrial base to a service oriented society, an increase in mobility, and the desire to live in areas with a perceived higher quality of life.

The population of the city began to decline during the 1930's and 1940's as industry and manufacturing began to leave the Newark metropolitan area. People began to move to the suburbs as roads were built and government supported mortgages were

made available. This made the cheaper suburban land available for single family housing. This figure demonstrates the areas that lost population during this period.

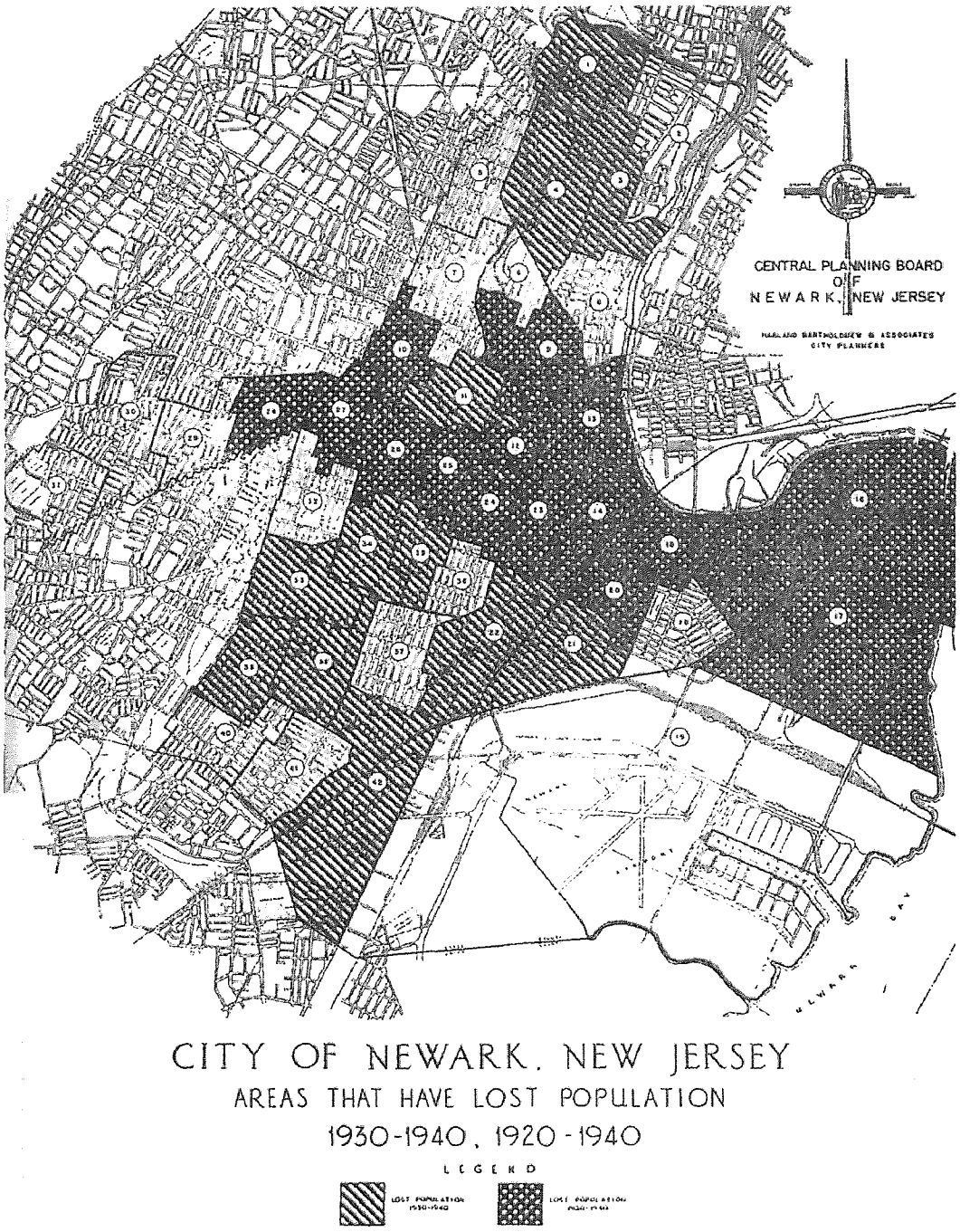


Figure 69: Areas that Lost Population During the 1930's and 1940's. (*Newark Master Plan*, 1947, p.19)

Figure 69 graphically demonstrates that while most of Newark lost population during the period of 1920 to 1940, the West Side Park neighborhood did not suffer as big a loss of population. In some cases, the population actually increased in the area during this period. Other areas, such as the Ironbound neighborhood, Weequahic, and the North Ward also remained mostly stable during this period. It was only during the latter half of this century that the population in many areas began to decline drastically. Today, The North Ward, the Ironbound, and Weequahic are still successful.

Newark changed from an 83% white majority in 1950, to a 59% black majority in 1990, according to 1990 census data. This was reinforced by the trend towards the disinvestment of the population as private sector employment dropped from 23% between 1975 and 1992. At present, only 23% of Newark's land is taxable. Newark's per capita income is $9,424, while Essex County's is $17,574, and the state's is $18,714. The city has a homeless population of approximately 7,000 to 12,000 people.

The median household income for Newark rose from $6,191 in 1970, to $10, 118 in 1980, and $ in 1990. While the median income for Essex County grew from $8,461 to $16,186 to $ respectively. The poverty threshold for Newark in 1979 was $7,412, and therefore there were 106,895 persons living below the poverty level. Of the 23,677 families below the poverty level in 1979, 73.4% of them were headed by a female parent only. According to the 1980 census, 20.2% of those people below the poverty level were white, 37.7% were black, and 41.2% were of Spanish origin (1990 Newark Master Plan).

2.6 Land Use

2.6.1 Historical Land Use

The general land use diagram for Newark demonstrates its heavy dependence upon industrial uses and residential areas to house the population for the industry. The central business district is very clear in the diagram and major commercial avenues can be seen. The two major commercial avenues are Bloomfield and Springfield Avenues. This helps to clarify the main street quality of both Bloomfield and Springfield Avenues.

Figure 70: Landuse in Newark in 1964. (*Newark Master Plan*, 1964, p.24)

2.6.2 Industry

Figure 71 demonstrates that Newark's historical industrial base has been in decline during this century, particularly since 1970. Every major employment type has declined in the last 30 years with the exception of state and local government jobs. Between 1947 and 1980, the number of manufacturing jobs in Newark declined from 92,291 to 41,000. (*Newark Master Plan 1947*, Table K) The eroding job base has also served to force the population to move away from Newark. This change left behind an unskilled and semi-skilled unable to compete for service sector jobs.

TABLE 6
NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT
BY BROAD INDUSTRY SECTORS, CITY OF NEWARK, NEW JERSEY,
1970-1981
(In Thousands)

	1970 Number	1975 Number	1980 Number	1981 Number	Change, 1970-1981 Number	Percent
Manufacturing	62.7	43.5	41.0	38.8	-23.9	-38.1%
Construction	6.4	3.8	3.7	2.3	- 4.1	-64.1%
T.C.U.[1]	28.9	26.1	22.5	22.4	- 6.5	-22.5%
Trade	38.0	27.6	23.0	23.1	-14.9	-39.2%
Wholesale	(16.2)	(10.7)	(8.2)	(8.5)	(-7.7)	-47.5%
Retail	(21.8)	(16.9)	(14.8)	(14.6)	(-7.2)	-33.0%
F.I.R.E.[2]	28.9	22.8	16.3	15.2	-13.7	-47.4%
Services & Misc.	41.2	28.1	28.9	29.2	-12.0	-29.1%
Government	29.5	32.2	34.0	33.3	3.8	12.9%
Federal	(5.0)	(4.8)	(4.4)	(3.9)	(-1.1)	-22.0%
State & Local[3]	(24.5)	(27.4)	(29.6)	(29.4)	(4.9)	19.7%
Total	235.6	184.1	169.4	164.3	-71.3	-30.3%

1) Transportation, communications and public utilities.
2) Finance, insurance and real estate.
3) Preliminary estimates.

SOURCE: Based on Covered Employment Trends published by The New Jersey Department of Labor and Praful Shah & Associates, Inc.

Figure 71: Change in Industrial Base in Newark.

If a new housing stock is to be added to the city, then there needs to be a coinciding increase in jobs. This will entail a re-establishment of some light manufacturing, new retail, and new service based employment that will offer training.

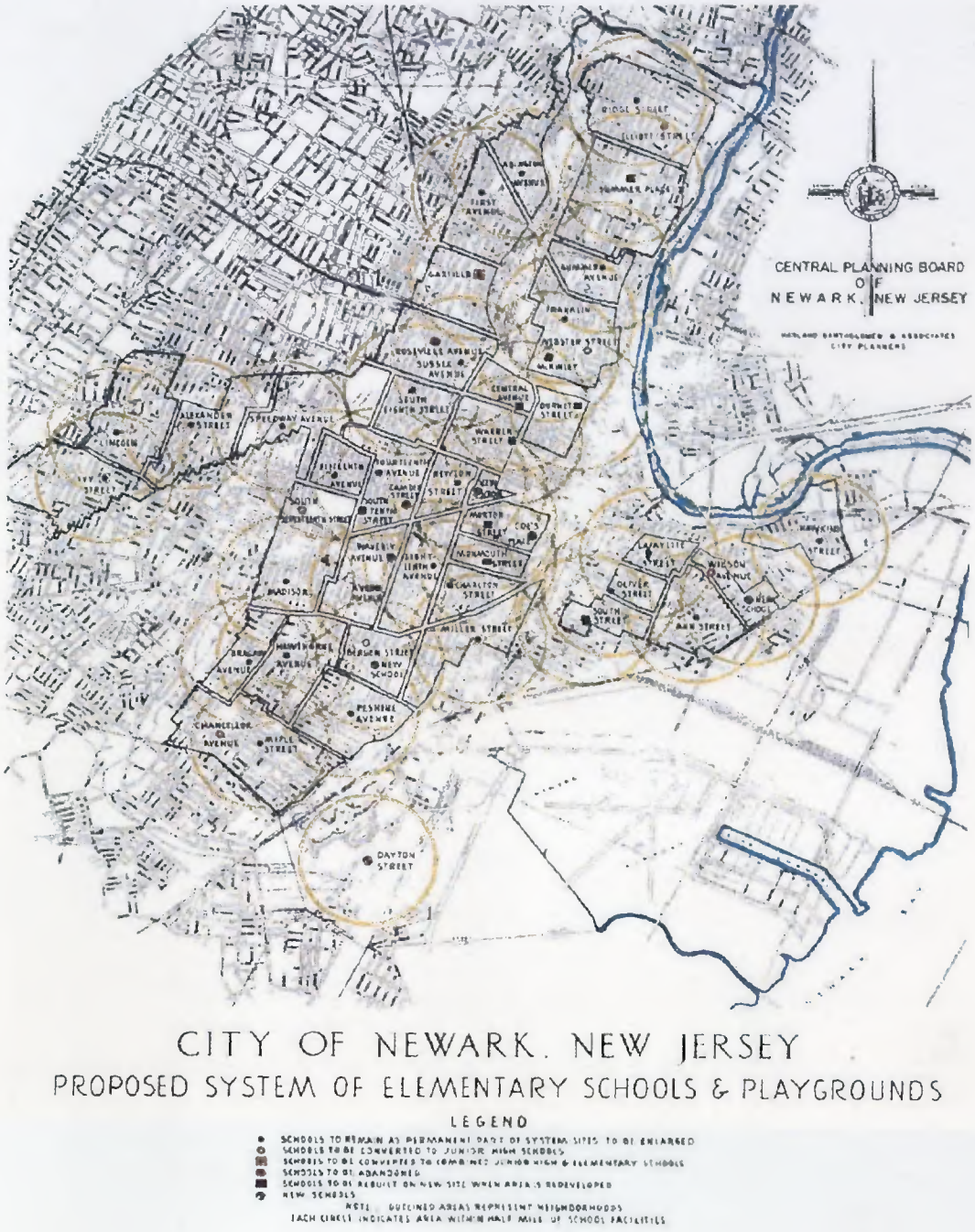


Figure 72: Elementary Schools in Newark. (*Newark Master Plan*, 1947)

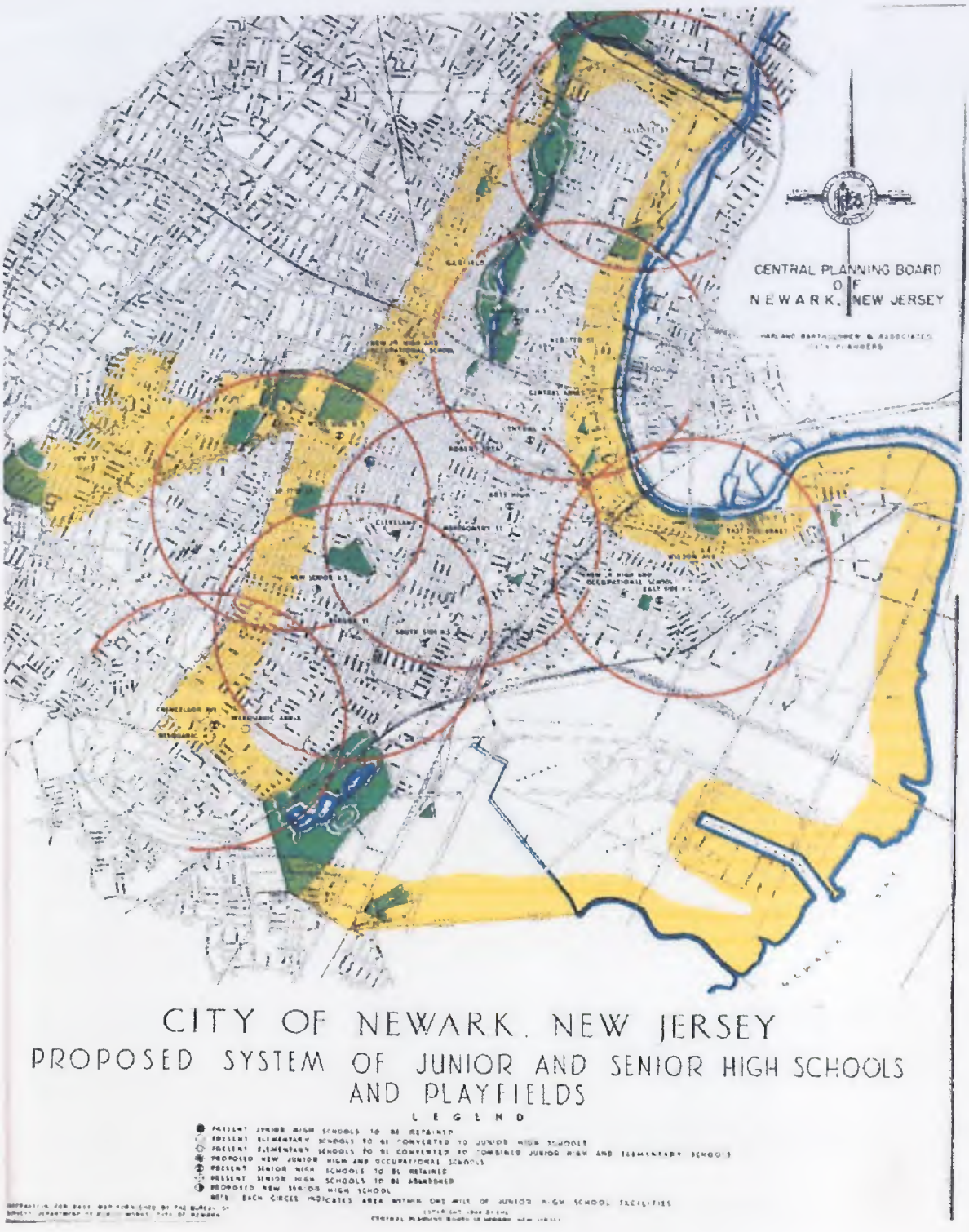


Figure 73: Junior and High Schools in Newark. (*Newark Master Plan*, 1947)

2.6.3 Schools: Condition and Education Quality

Newark has an extensive system of elementary schools throughout the city. Most areas of the city have an adequate number of schools available for the student population. The concern must be to ensure that the facilities are in good condition. The physical environment must be reasonable to allow children to go to school. The West Side Park area is serviced by several elementary schools. These buildings should be rehabilitated as needed.

The junior and senior school system in Newark has been identified as being poor for years. Figure 72 demonstrates that changes were needed in 1947. At present, Newark's schools are in receivership, but they are being renovated and reorganized. The 1947 proposal suggests that the West Side Park area needs a new high school and junior school. If the area increases its available housing and attracts families, there will be a demand for new junior and high schools. If new schools are not to be built then the renovation of existing school facilities is a possible alternative.

2.6.4 Housing

2.6.4.1 Projected Housing: This diagram represents the desired density for neighborhoods in the city. The area of West Side Park was projected to have a density of 20-39 du/acre, or a low-medium designation (Newark Master Plan, 1978). The strip along Springfield Avenue has been unidentified because it is designated as commercial and retail. The 1990 Master plan suggests that major arterial streets should have a density between 40 – 115+ units/acre. This density seems high and the earlier suggested density is more consistent with the main street model that will be applied to the area.

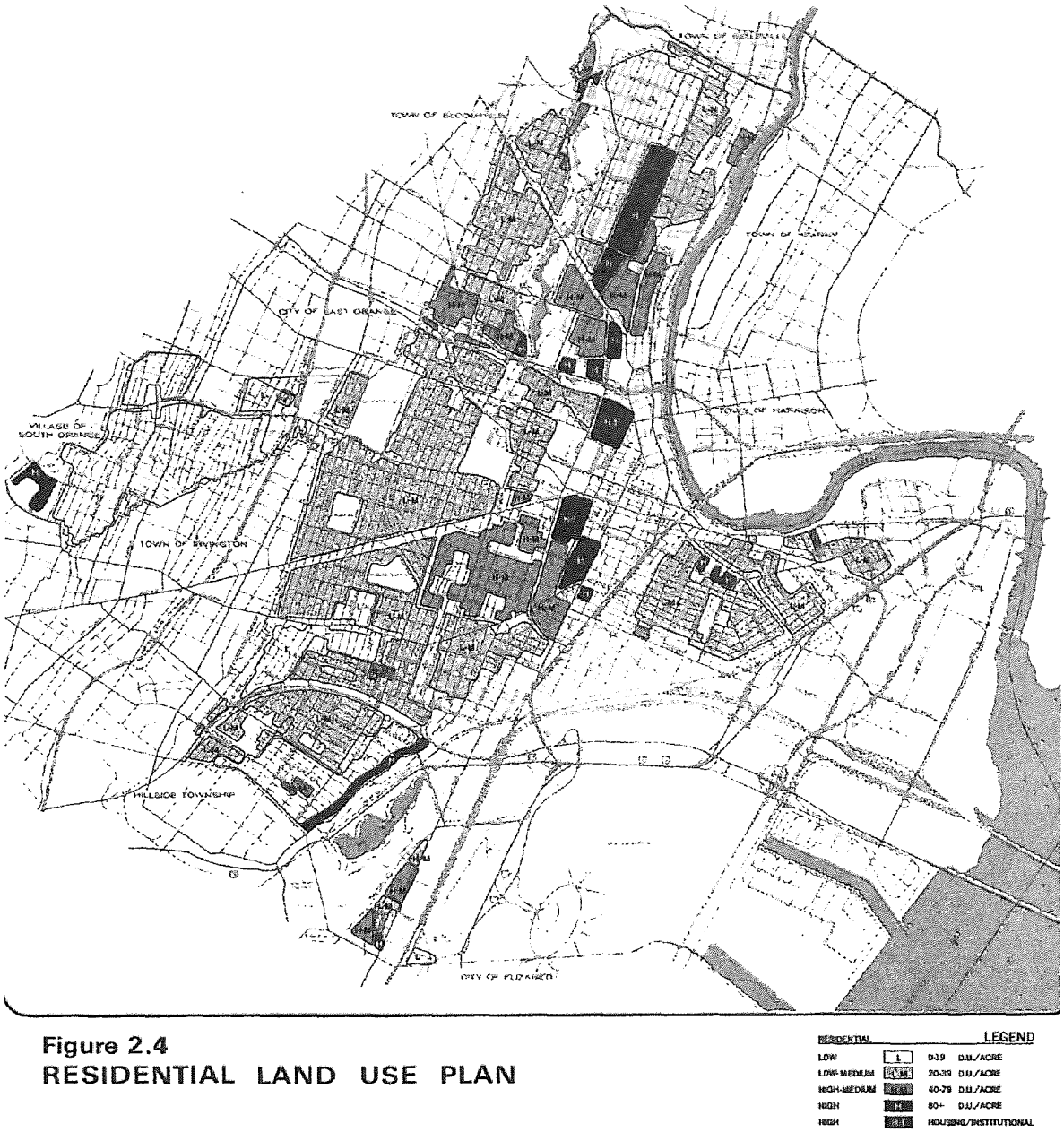


Figure 74: Residential Landuse Plan for Newark. (*Newark Master Plan*, 1978, p.2-17)

2.6.4.2 Housing Conditions: A survey of housing conditions in Newark suggests that a large portion of the housing stock in the city needs substantial upgrading or clearing. While many of these boundaries have shifted from their designation in 1947, many

housing areas in Newark still require extensive upgrading. The West Side Park area is presently undergoing redevelopment, and much of the housing stock is being upgraded.

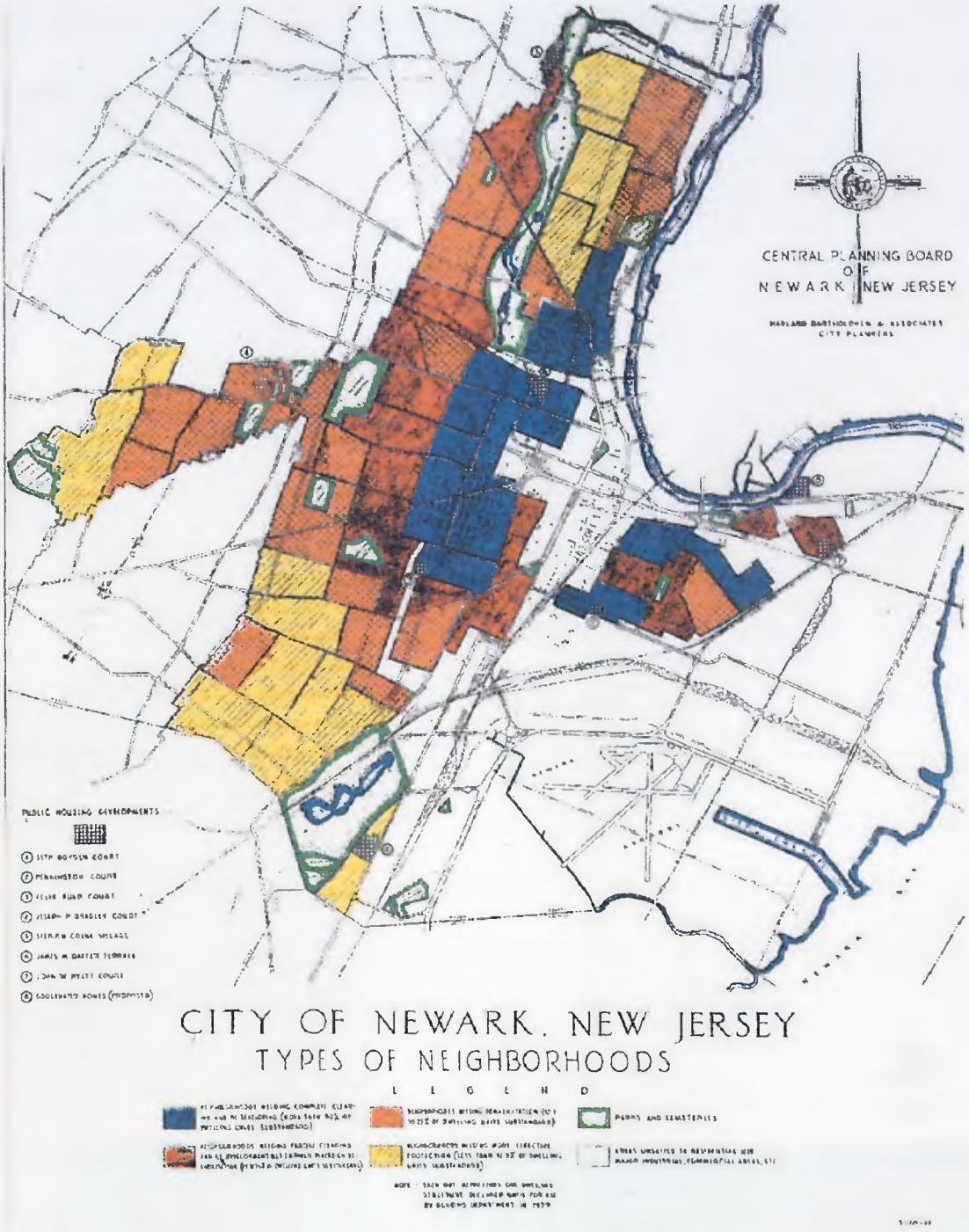


Figure 75: Neighborhood Conditions in 1947. (*Newark Master Plan*, 1947, p.45)

Figure 75 suggest that Newark's housing will require upgrading. Each diagram suggests the continual decline in the housing stock. The area of Springfield Avenue is contained within the areas of the 1947 map that are obsolete, needing clearance, and areas that are blighted, requiring rehabilitation. The table suggests that not much has changed since 1947 in terms of the tendency towards a housing stock that is in decline. Between 1970 and 1978, the percentage of houses that are in fair to deteriorating condition has increased. The decline in the amount of dilapidated housing is probably due to the clearing of those houses.

The 1990 Master Plan demonstrates that the decline in housing stock for the City of Newark has continued. Between 1980-89, approximately 23,975 housing units were lost, leaving a total of 95,621 of available housing units. In 1980, 21.1% of the units were owner occupied.

2.6.5 Community Facilities and Open Space

2.6.5.1 Community Facilities: Figure 77 represents the distribution of community support facilities for Newark. There is a concentration of facilities in the central business district of the city. Proposed new facilities are circled. The distribution of facilities seems to be fairly even throughout the city, but the West Side Park area lacks such facilities as a branch library.

2.6.5.2 Open Space: The 1978 proposal for recreation facilities in Newark demonstrates a concern for the well being of the city's neighborhoods from a planning perspective. The Central and South Wards contain the largest proportion of these facilities in the city.

Unfortunately there is not enough population and housing density to make these areas completely safe.

Figure 76: Recreation Space in Newark. . (*Newark Master Plan*, 1964, p.80)

The West Side Park area is centered around a park by the same name, which was designed in 1895 by Fredric Law Olmstead's office as part of the first county park system

in the United States. That office is also responsible for the design of Branch Brook Park in the North Ward and Riverside Park in the Ironbound neighborhood.

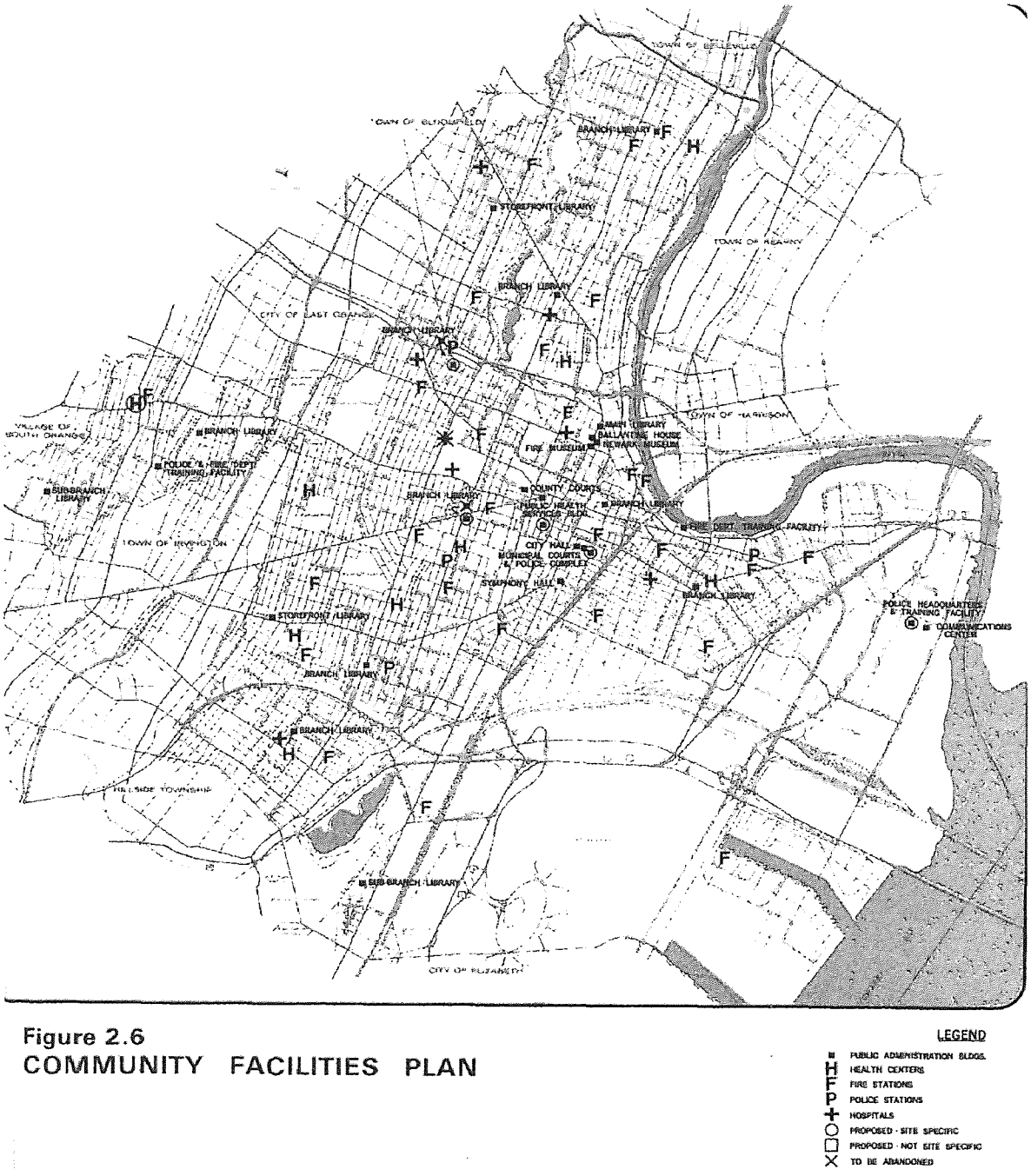


Figure 77: Community Facilities in Newark. . (*Newark Master Plan*, 1978, p.2-52)

The master plan for 1964 identified all of the major recreational spaces as being deficient in terms of size for the populations that they were supposed to serve. With the current rehabilitation of the housing stock of Newark, and the desired increase of retail, commercial and entertainment facilities, The deficiencies will be apparent once again as Newark grows. Of particular interest is West Side Park which was identified as having a shortfall of approximately 127 acres.

Figure 78: Site Location Map.

2.7 West Side Park Community

2.7.1 Site Location

The chosen site is bounded by South 14th Street in the west, 17th Avenue to the north, Holland Street and South 17th Street to the east, and Avon Avenue to the south. This area is a part of the West Side Park Neighborhood. The neighborhood is located in one of the most neediest parts of the city of Newark. The light yellow hatched region represents the full extent of the site that will have the main street model applied to it. The design will involve renovation and new construction. In many cases, the new construction will be infill.

2.7.2 Development Activity as of October 1998

The Urban Coordinating Council is an initiative to bring together 5 prominent community based organizations in the West Side Park neighborhood of Newark. The organizations are Corinthian Housing Development Corporation, the International Youth Organization and the CREST Community Development Corporation, the Tri-City People's Corporation, the United Community Corporation, and the New Community Corporation. This group has set out to improve the quality of life for the residents of this area through the improvement of housing, creating economic development, and improving education, public safety, recreation, and social services. The UCC has conducted a partial survey of the area to identify where the community needs improvement. The community is mostly located in the Central Ward, with some portions located in the South Ward.

Figure 79: General Map for Location of Site in Newark.

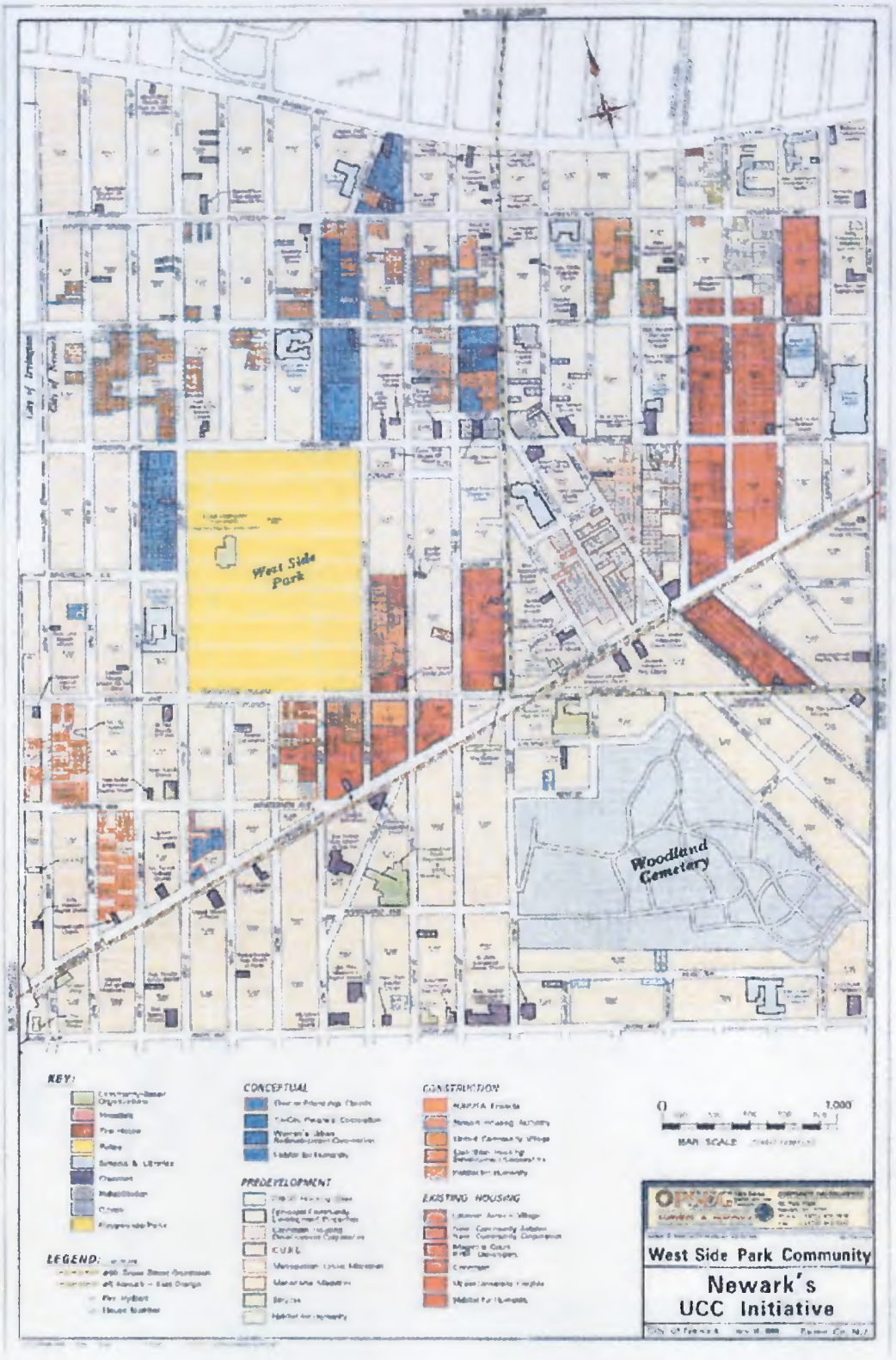


Figure 80: Community Groups Building Housing in the West Side Park Area. (Urban Coordinating Council, 1998)

The Newark Community Development Network is directing the community organizations, and a Neighborhood Empowerment Council is representing the interests of the community.

Table 1: A Chronicle of Decline, Newark From 1940 to 1995

Census Variable	1940	1950	1960	1970	1975	1980	1990	1995
Population	429,760	438,776	405,220	381,930		329,248	275,221	
White	383,534	363,149	265,889	168,382		101,417	77,771	
Black	45,662	74,965	138,035	207,458		191745	160,885	
Employment		196,200						110,056
Mfg Employment		71,000	58,800	50,600		35,550*		17,627
Pvt. Employment					145,659		112109*	
Med. HH income		$16,058	$20,395	$20,855		$16,049	$21,650	
Poverty Rate		28.9%		22.5%		32.8%	26.3%	

Chart from: Report to the Corinthian Housing Development Corporation by the Center for Urban Policy Research at Rutgers University
Data Source: US Census of Population 1940-1990, Rutgers Regional Report, 1996
Note: All dollar amounts in 1990 constant dollars
**1982 data*
*** 1992 data*

Table 2: 1990 Census Data Indicators for WSP, the City and the State

	New Jersey	Newark	West Side Park
RACE			
White	79%	29%	2%
Black	13%	59%	92%
American Indian, Eskimo, or Aleut	0%	0%	0%
Asian or Pacific Islander	3%	1%	1%
Other race	4%	11%	5%
HOUSEHOLD TYPE			
Married	55%	35%	18%
Male Headed	8%	6%	8%
Female-Headed	20%	28%	48%
Nonfamily households	17%	30%	25%
EDUCATIONAL ATTAINMENT			
Less than HS Education	23%	47%	49%
High school graduate (includes GED)	31%	28%	31%
Some College or Higher	68%	24%	20%
Median household income in 1989	$ 40,927	$ 21,650	$ 17,251
HH With Social Security income	27%	24%	22%
HH With Public Assistance income	6%	22%	36%

Source: 1990 Census

Table 4: Business Direction in the Past Year

Business Direction	Number	Percentage
Growing	26	28.3
Stable	38	30.4
Declining	28	41.3
Total	92	100

Source: EOSMA, 1998

Figure 81: General Demographics. (West Side Park Community Action Plan)

2.7.3 Demographics

There are presently 15,000 residents in this 20 block area. 36% of the families in this area receive public assistance, while the city has a public assistance rate of 22%, and the state has a rate of only 6%. Almost 1 in 5 people in this area are unemployed according to research done on the commercial corridors of Springfield Avenue and South Orange Avenue by Rutgers University for the Corinthian Housing Development Corporation and the New Community Corporation.

Prior to the riots, the West Side Park neighborhood was a predominantly working class community. Springfield Avenue was the hub of commercial activity, with a variety of commercial typologies. Several residents even recall that the community was racially integrated prior to the riots. There was a large number of Irish, African American, and Jewish residents.

Presently, almost half of the households in the area are headed by women (U.S. Census, 1990). This suggests that the community will require family support facilities for the single mother households. Nearly half (49%) of people in the neighborhood have not completed their high school education. There will be a need to train some of the residents in such facilities as vocational schools.

2.7.4 Property Analysis

There are 183 properties on Springfield Avenue, of which 90 are zoned as business properties, 29 buildings are vacant, and 31 properties have no building. This is evident in figure 82. These statistics apply to the full length of Springfield Avenue in Newark. The majority of the vacant lots and empty buildings are within the West Side Park

community. These diagrams emphasize the former main street qualities of Springfield Avenue, and the need to re-establish the qualities of the main street if a new community is to grow and become vital.

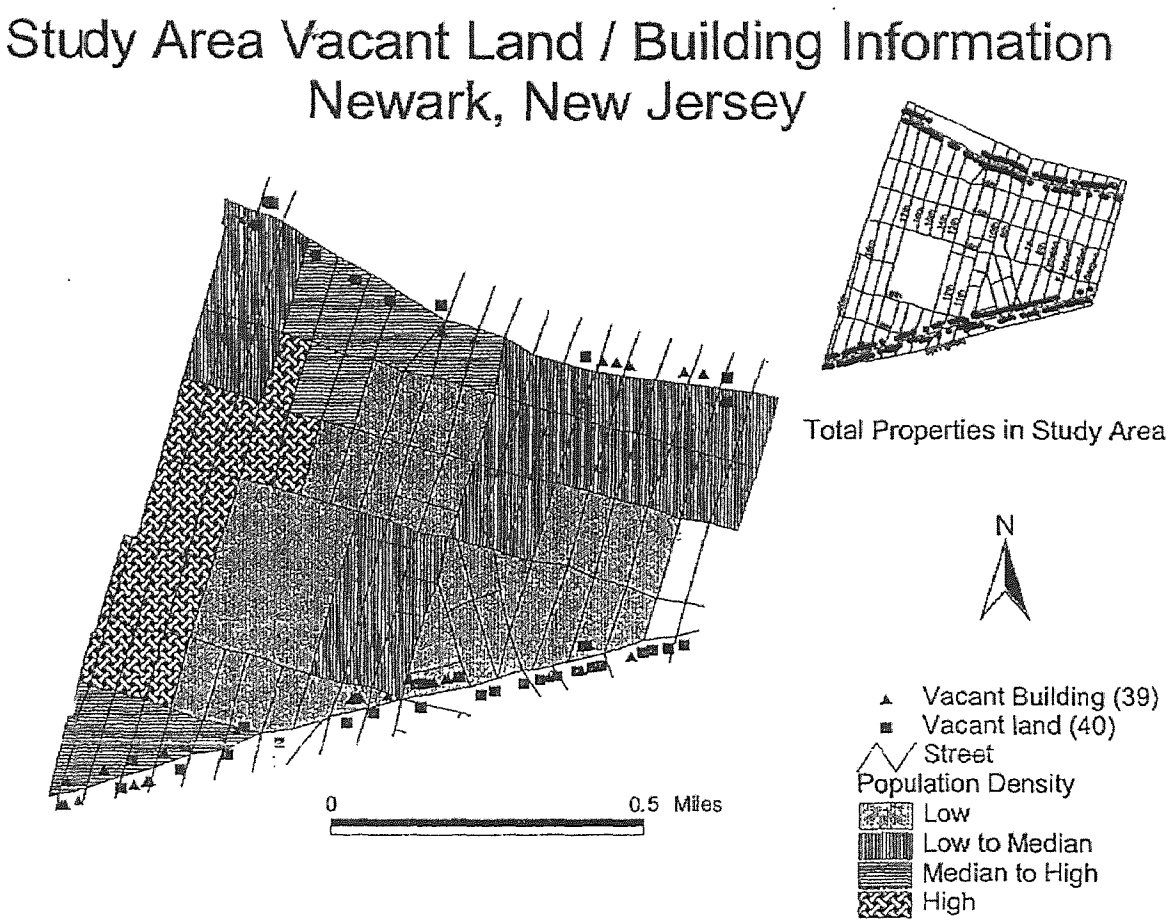


Figure 82: Property Usage Survey. (West Side Park Community Action Plan)

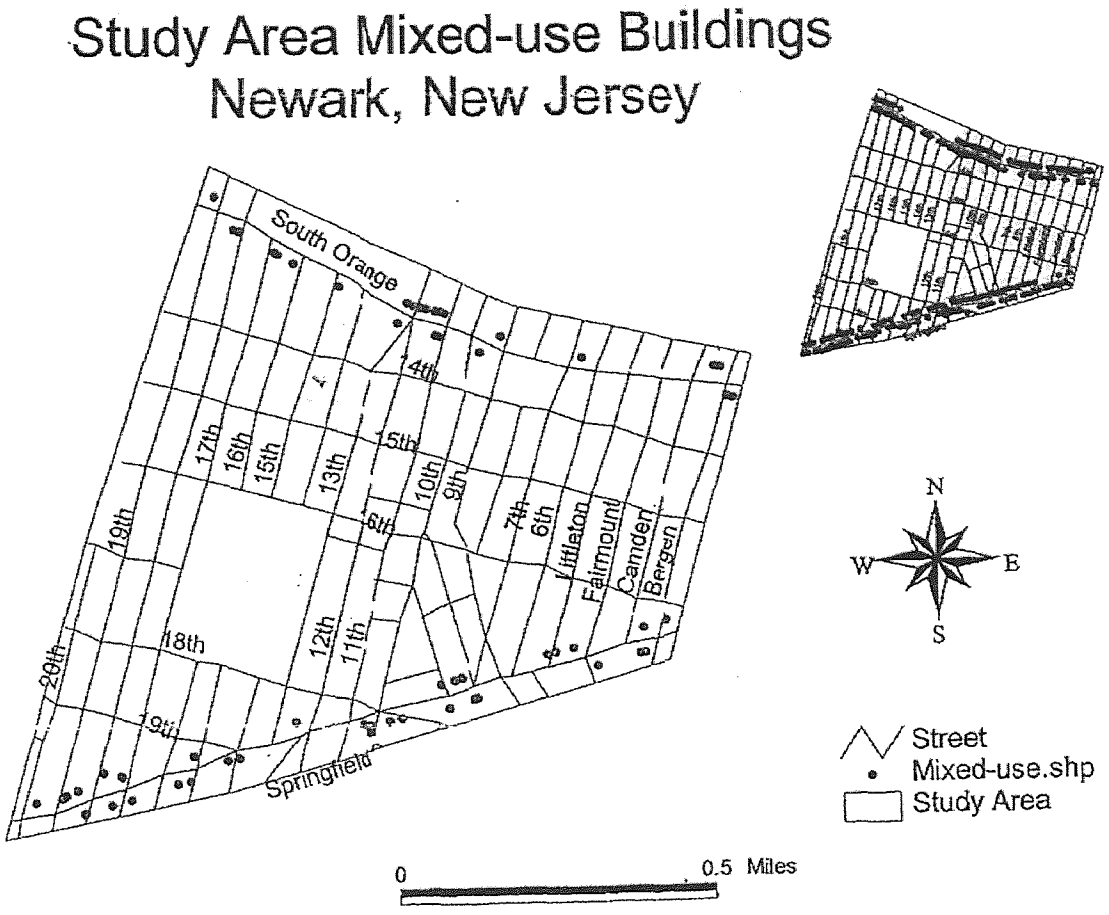


Figure 83: Mixed- Use Property Survey. (West Side Park Community Action Plan)

2.7.5 Programming Requirements

Joseph De Chiara has identified the relationship between building uses and certain activities, required population, and the maximum walking distance that a person will travel to reach a building, or space, with a particular use. In *Time-Saver Standards for Housing and Residential Development*, uses are separated into categories based upon the maximum travel distances by foot, and then the population requirements are assigned. This can be seen in figure 84. For example, an elementary school has a pedestrian travel area of approximately ½ mile, and it requires a population of 1,000 – 5,000 people in the

community it serves. In comparison, a bar requires a population of between 5,000 – 8,000 people, but it operates within the same travel distance area of ½ mile.

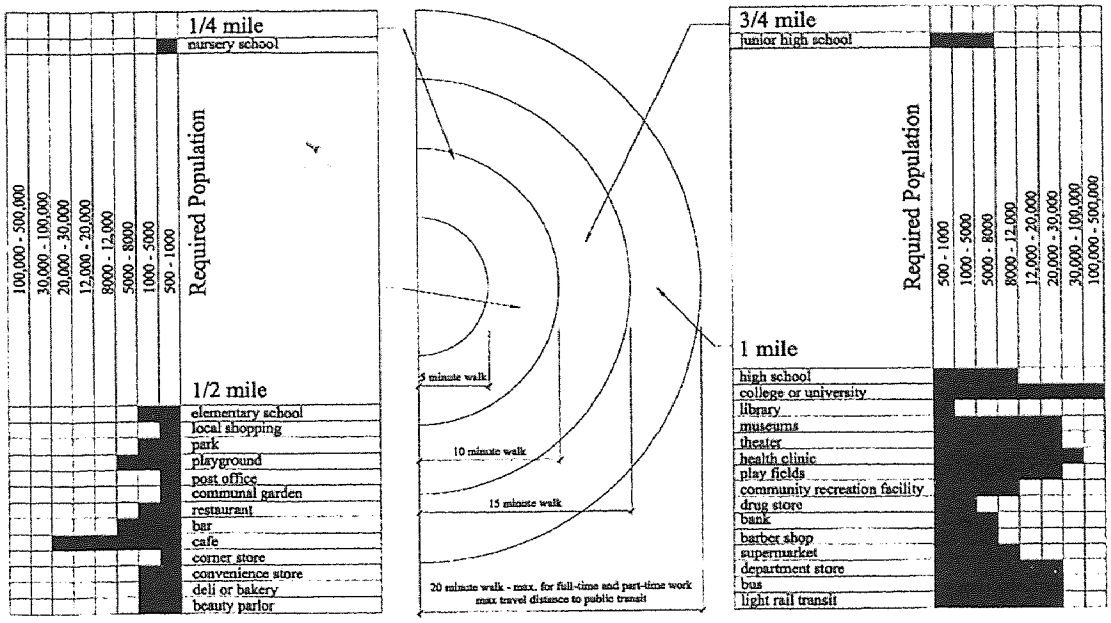


Figure 84: General Programming Requirements. (Based on *Time-Saver Standards for Housing and Residential Development*)

In general, the population requirements to support a use increases with the distances that people are willing to walk to get to that building, activity, or space. A community recreation facility operates within a one mile area of pedestrian activity, but it requires a larger population of approximately 8,000 – 12,000 people. Activities, such as the use of light rail transit, require a large population between 20,000 – 30,000 people in order to make such a system viable. It is these factors which must be accounted for in the

determination of what activities and building uses that any new or revitalized community, such as the West Side Park neighborhood, can support.

Table 3: Businesses Residents Would Like to See in the Neighborhood

Business	Number	Percentage
Supermarket	93	32.4
Retail	56	19.5
Fast Food Restaurant	28	9.8
Bank	20	7.0
General Merchandise	15	5.2
Laundromat	11	3.8
Health Clinic	9	3.1
Beauty Salon	9	3.1
Cleaners	8	2.8
Barber Shop	7	2.4
Day Care	7	2.4
Pharmacy	6	2.1
Computer Store	5	1.7
Club/Bar	5	1.7
Real Estate	4	1.4
Specialty	4	1.4
Total	287	100

Source: EOSMA, 1998

Figure 85: Programming Survey of West Side Park. (West Side Park Community Action Plan)

2.7.6 Neighborhood Programming

A survey of 287 residents was conducted and the 5 most requested uses that were identified were a supermarket, retail shops, fast food restaurants, banks, and general merchandise stores. See figure 85 for a complete list of surveyed uses. Discussions with Mr. Darrin Sharif, Chief of Staff for Councilman Cory Booker of the Central Ward of Newark, has suggested that the communities of the ward are interested in establishing service skill training centers which are directly linked to new and existing business in the

community. It is hoped that private business initiative could teach residents in the neighborhoods the business and service skills needed. This could include cooperative businesses and incubator type businesses which allow people to combine resources and eventually become private business operators in the community.

The following is list of programming alternatives for the site.

1. corner general stores
2. commercial and retail establishments on Springfield Avenue with residences above restaurants, Laundromat, bank (neighborhood requests)
3. supermarket (neighborhood request)
4. health care facilities
5. light industry facilities
6. different residential typologies including apartments, duplexes, row houses, and detached homes.

The final program will be dictated by analyzing programming possibilities based upon density requirements, exploring design alternatives, and by meeting with community representatives and integrating their needs. This will be done in conjunction with the application of the main street model developed in the first section of the thesis.

2.8 Conclusion to Chapter 2

There are several issues that must be addressed for the development of a vital community along Springfield Avenue in Newark. Presently, the Housing Authority of Newark has adopted a philosophy of applying a suburban density to any new housing developments. Densities of approximately 12 – 15 units per acre, with front yard setbacks, detach people

from the streets and it will not provide a high enough population density to support community building uses, such as a supermarket.

The promotion of home ownership by the City of Newark, which can serve to increase pride in one's community through care for one's own property, is important but not to the detriment of preventing other types of ownership such as condominium, co-operative, and rental. The thrust of this thesis is that a variety of ownership types balances a community and provides choice for those who live in the community based upon their economic means and personal aspirations.

Newark also needs to take an active role in the vision it has for the city. The development of properties by developers based upon a piecemeal infill approach will do nothing for creating an overall character for any particular neighborhood. Newark is said to be undergoing a renaissance with all of the new development that is occurring, such as the building of a new baseball stadium, the New Jersey Performing Arts Center, the expansion of the university campuses, and the new transit links to the airport, but the character of the residential neighborhoods that will provide some of the support for the city are not receiving the same level of attention.

Recent development attempts to revitalize a neighborhood have been done by K. Hovnanian in Society Hill in Newark, which has an urban density that is approaching 32 units per acre, but the residences face inward away from the city streets that surround the development. This is probably done for reasons of security, but it does not reinforce any sense of urbanity. Urbanity can be suggested by facing the street and creating high enough densities to support building uses and activities that are enjoyed by neighborhoods and cities.

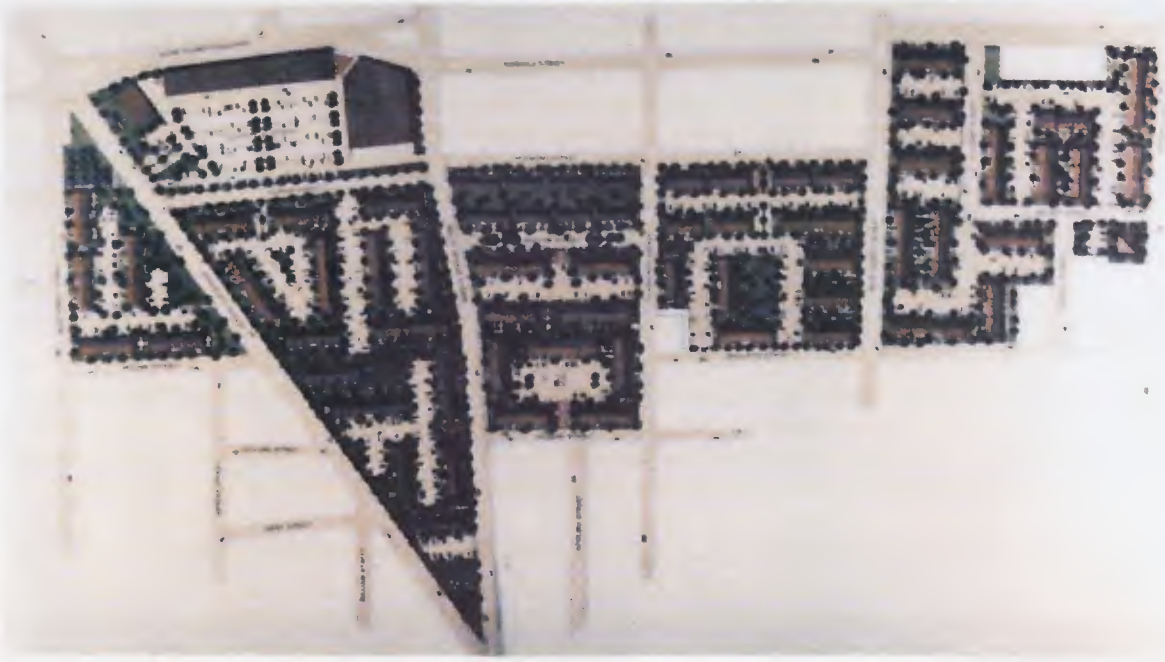


Figure 86: Site Plan for Society Hill in Newark. (K. Hovnanian Enterprises)

Figure 87: Site Location Plan for Society Hill in Newark. (K. Hovnanian Enterprises)

The West Side Park Community needs to establish a clear identity for itself and it must question its present direction for development. The community must embrace the new service based economy and provide training for the people who formerly relied upon Newark's industrial base for employment. The armature for this development already exists in the form of Springfield Avenue. As a former main street, there is always the possibility that it can undergo a resurgence that could return it to its former importance in the city. Springfield Avenue may or may not return to its form as a continuous commercial boulevard, which suggests that housing on the main street with convertible ground floor space may be an alternative. In any case, the creation of a space of the street with dense enough street walls is important to reinforce a main street quality.

Springfield Avenue has also served as an arterial street for Newark since very early in its creation. Many automobiles travel the street daily with commuters coming to the downtown core for work or on their way to New York City. This creates a wonderful opportunity for any business that may wish to locate on this main street corridor. The West Side Park Community and the City of Newark needs to embrace this opportunity to attract people and commercial activity back to the street. Businesses with hours of operation that vary throughout the day need to be encouraged to set up shop in the community and along Springfield Avenue.

The West Side Park community should also look to the universities as a source of some of the potential population that may reside there. There are 5 major colleges that have a daily population of approximately 45,000 people. Many of these students are attending school full time and require accommodation. The universities also attract a

diverse population from a variety of cultures and economic groups, and this could be a basis for a reasonably stable, if somewhat transient, population.

The key to the revitalization of this neighborhood is the utilization of the opportunities that are already present in the neighborhood and the city. The main street can provide the armature, and many of the tools needed are already in place. Newark simply needs to have a clear vision for its neighborhoods, and the strength to properly direct development towards those goals. The next section of the thesis will involve the design of a main street community within the designated site boundaries.

CHAPTER 3

DESIGN PROPOSAL

3.1 Objective

The objective of this final chapter will be the empirical testing of the main street model of community design through an application of the principles developed in the previous two chapters of this thesis. The design application will then be codified in such a way as to graphically demonstrate the criteria that is required for urban neighborhood development.

3.2 Goals

The goals of this design are to control the automobile, to provide for an adequate density so that a variety of commercial uses are viable in the neighborhood, and to create a greater sense of urbanity.

3.3 Tools

The tools that will be used to define the criteria will be a minimum and maximum allowable density, control of setbacks, control of allowable frontage, maximum allowable curb cuts, minimum and maximum building heights, and lot coverage. The density issue refers to the need for an adequate density to support commercial and institutional activities in the neighborhood, as well as to create a greater sense of urbanity through larger and more densely packed buildings. Setbacks and frontages are used to maintain a greater relationship between the street and the buildings which line them.

They also help to control the presence of the car by forcing parking to be on street or on site, at the rear of a lot. The maximum linear footage of curb cuts also controls the presence of the car and it will minimize the number of driveways that can break up a streetscape. Maximum lot coverage maintains a clear relationship between the public nature of the street versus the private nature of a contained shared greenspace, or a private backyard. Building height control serves to ensure a space forming presence of any particular grouping of buildings and the street area that they define. They will help in creating that sense of urbanity, but they will still permit for sunlight to penetrate to the sidewalk and the pedestrian zone of the street.

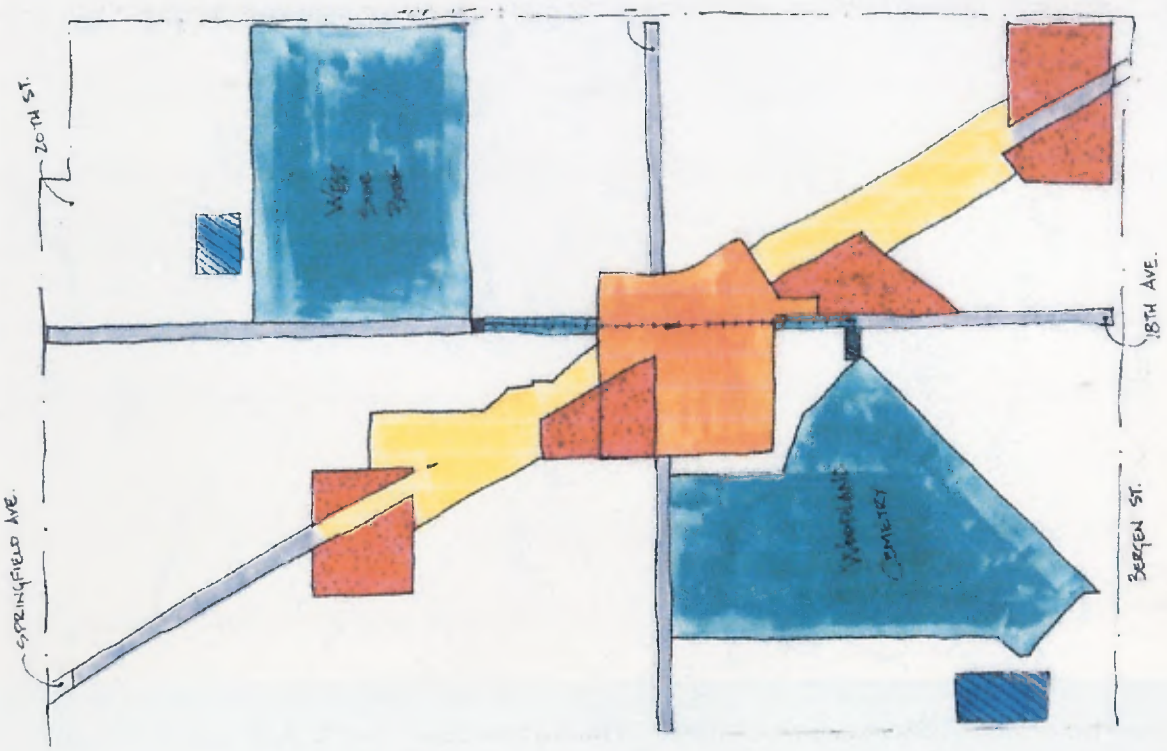


Figure 88: Design Intent Diagram.

3.4 Design Intent

The design intent, as demonstrated in figure 88, is based around a central core in the West Side Park neighborhood, which is called the Hub. This area is to become the primary commercial area of the new main street armature on Springfield Avenue. This is located at the confluence of South 10th Street, Springfield Avenue, and 18th Avenue. This area is then connected to a commercial area that would allow for some regional commercial and institutional facilities to exist. The edges of the neighborhood at Bergen Street, South 14th Street, and Springfield Avenue, are then defined by areas with more regional facilities. It is then hoped that the areas along the main street would fill in between these nodes with commercial and residential uses. The last element of the design intent is to link the two major greenspaces, West Side Park and Woodland Cemetery, along the axis of 18th Avenue.

Such a design would entail the demolition of several buildings along Springfield Avenue and on interior blocks, so that land could be grouped together to create more meaningful urban interventions then are presently being built in the neighborhood in a suburban model. The existing figure-ground and the suggested demolition diagrams demonstrate the opportunity to group land and prepare it for an urban densification.

3.5 Land Use

The proposed land use as derived by the current master plan development by the City of Newark does not allow for the full revitalization of Springfield Avenue into a commercial main street. The current plan promotes a nodal development with no allowances for a continuous commercial corridor to develop. The opportunity for

continuous commercial activity to evolve on Springfield Avenue must be permitted, even if it never develops. The proposed land use plan supports the evolution of the commercial main street and it increases the mixing of uses in the area.

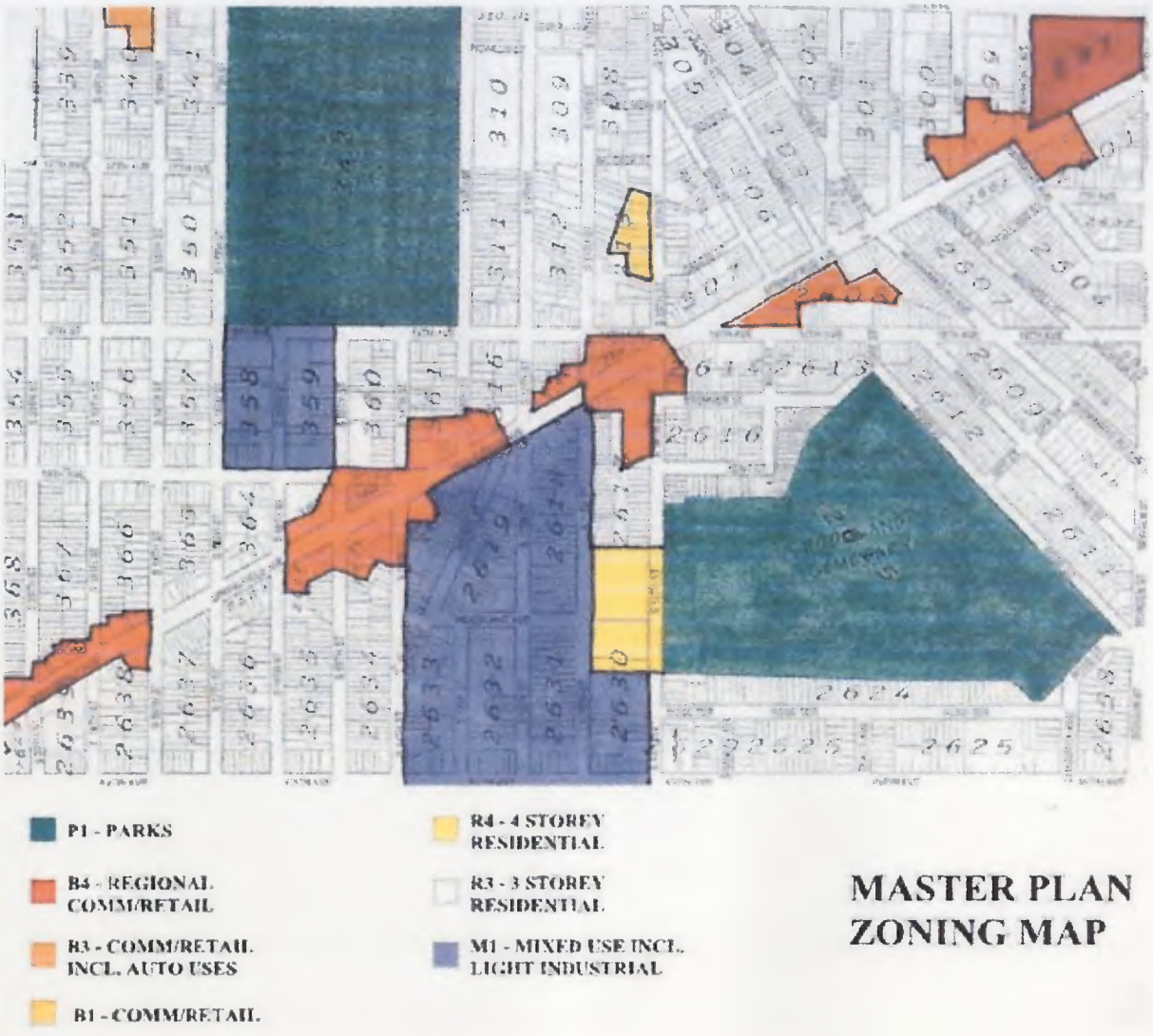


Figure 89: Proposed Master Plan Land Use.

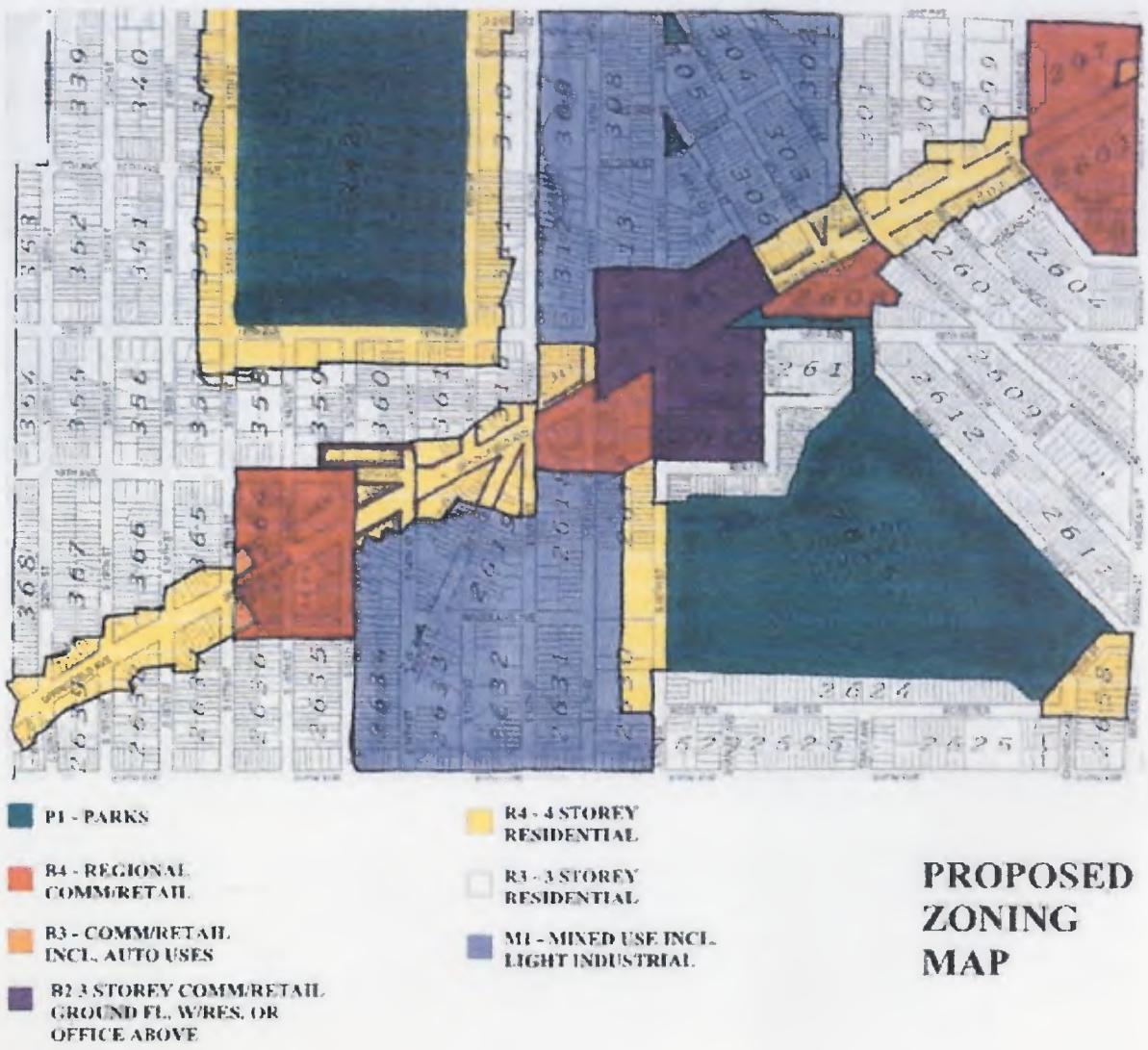


Figure 90: Proposed New Land Use.

3.6 Proposed Design

The proposed design interweaves all the aspects of a vital community into one coherent design. The intervention includes new buildings on 36 blocks of the West Side Park neighborhood. Two new residential streets are to be created to break up the existing block structure and allow for greater continuity.

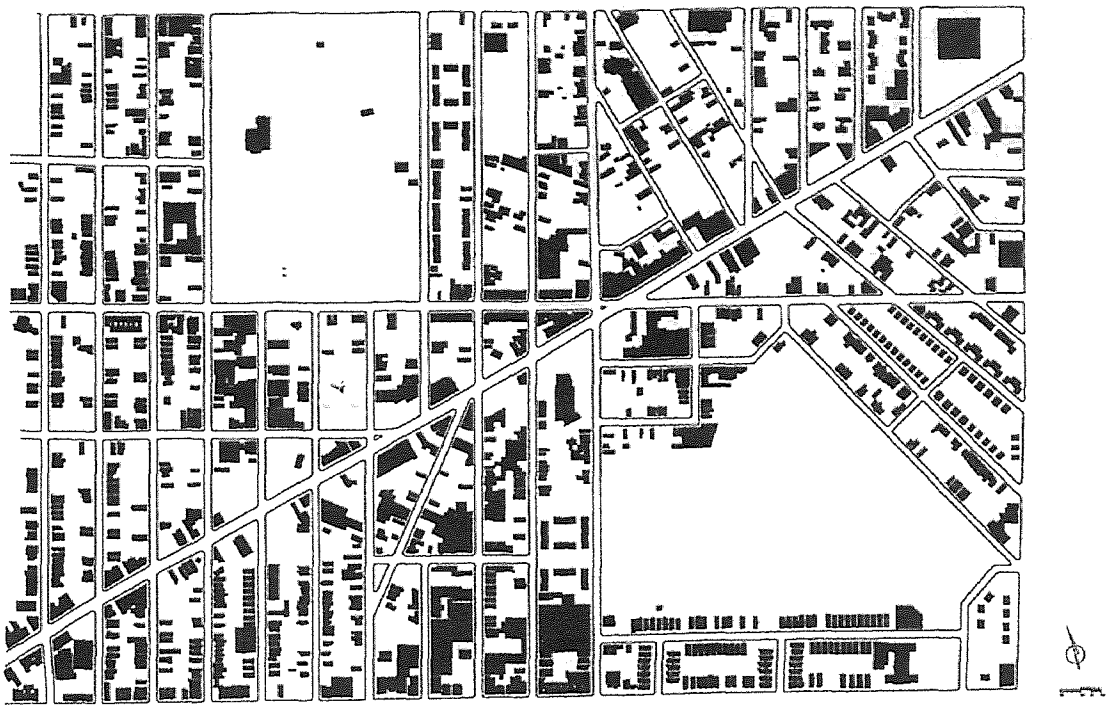


Figure 91: Existing Figure Ground Diagram.

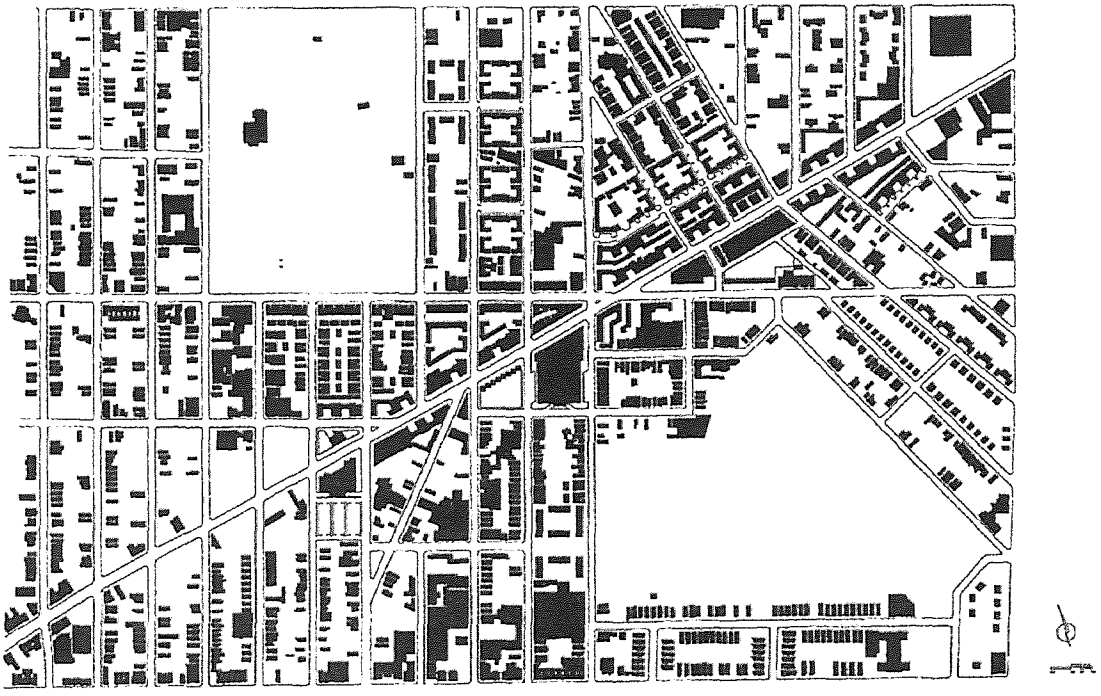


Figure 92: Proposed Design Figure Ground Diagram.

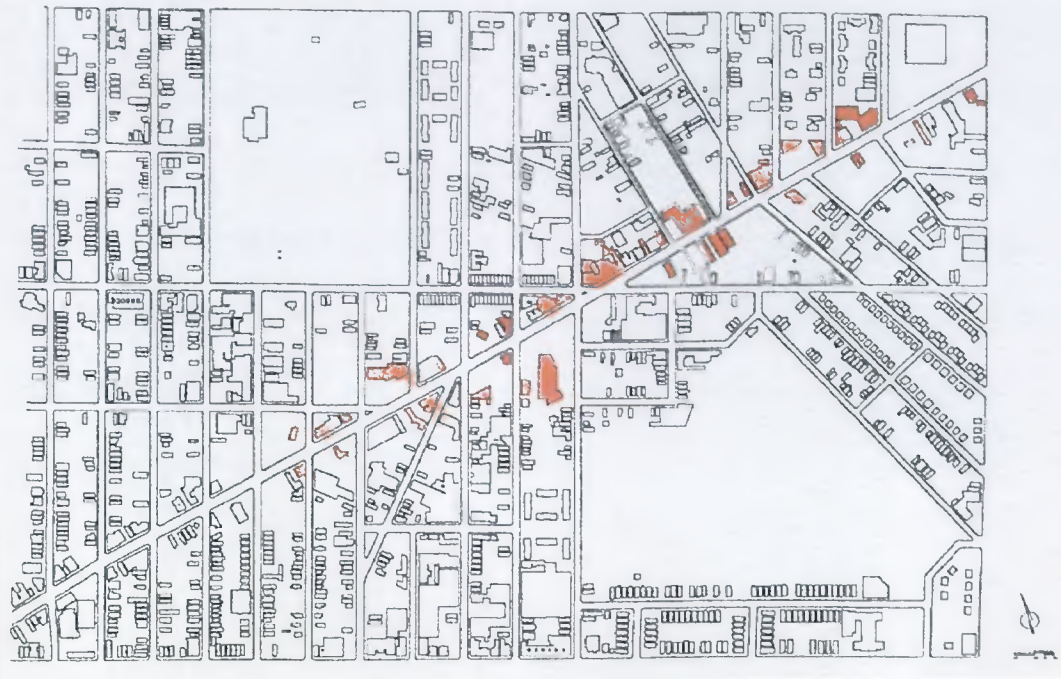


Figure 93: Proposed Demolition Diagram.

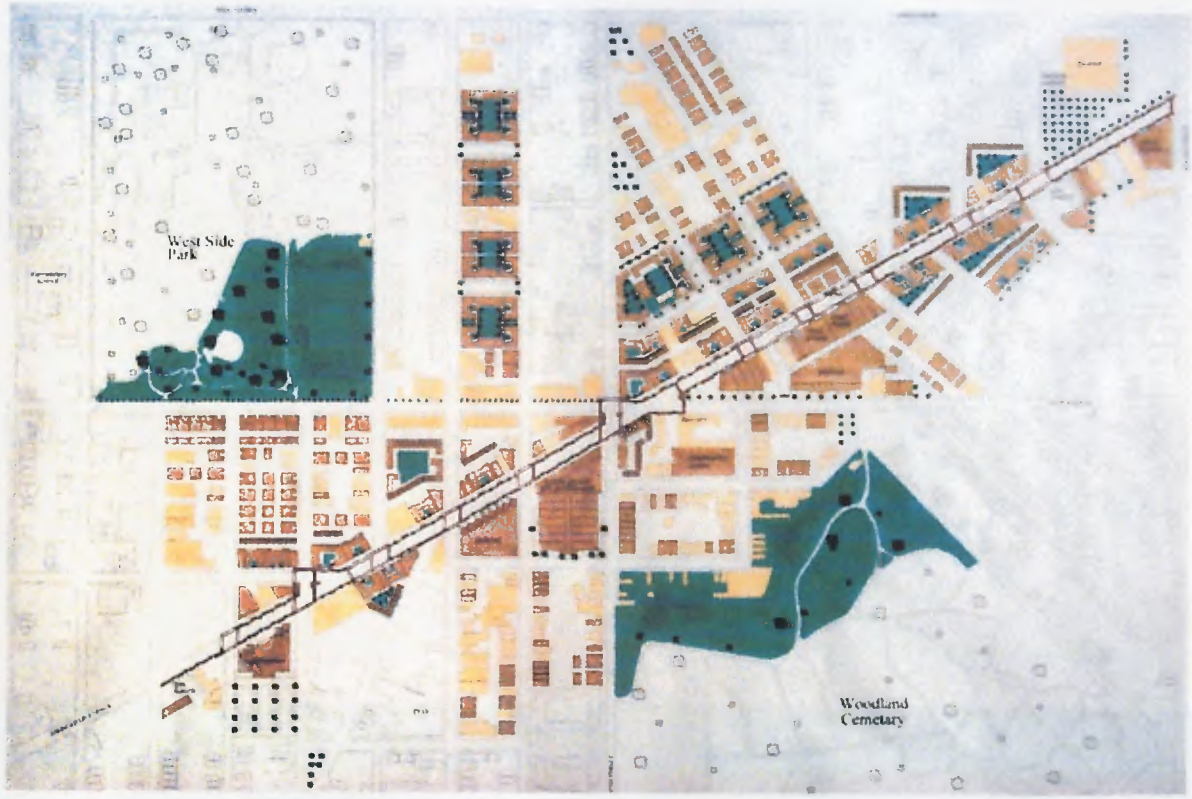


Figure 94: Proposed Design.

The graphical interpretation of the design demonstrates a mixture of both on-site and on-street parking arrangements. Sidewalks are maintained between any street space and the automobile. And the sidewalk along the main street, Springfield Avenue, shall have an edge treatment which may include street furniture, planting, and public art. Parking is generally permitted on-street. Streets are to be designated as two way, with the exception of South 10th and South 11th Streets, which shall remain one way in their present orientation south of Springfield Avenue.

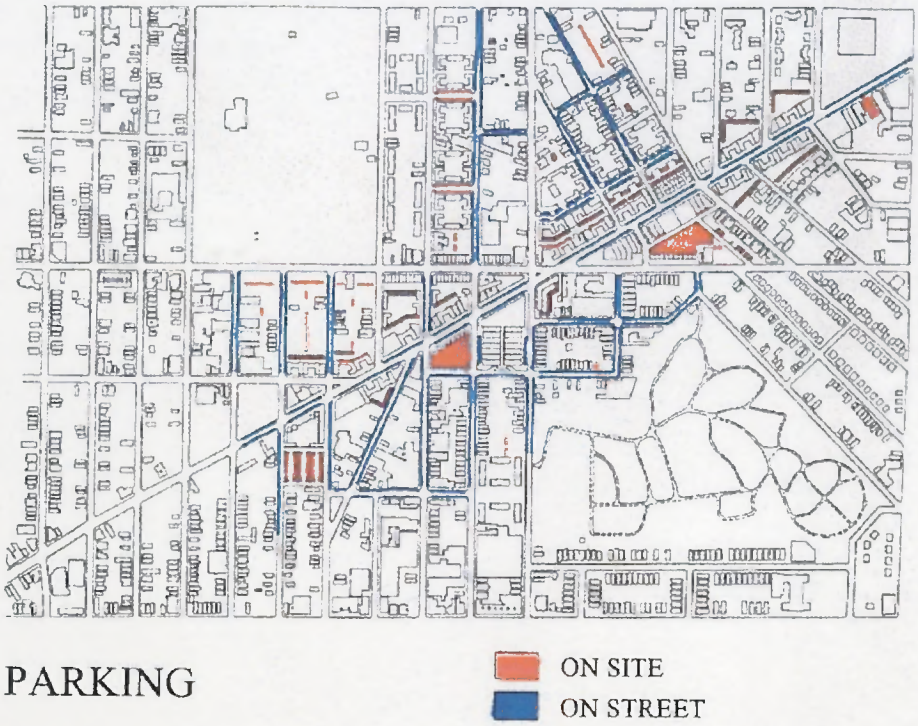


Figure 95: Parking Type Diagram.

Eight specific typologies have been created from the design development. These include 5 residential typologies which range from rental, condominium, or co-operative

to fee simple (private) ownership. The types are parterre apartments, garden apartments, semi-detached housing, detached housing, and rowhouses. The key feature of these types are their inclusion as a building typology to be located on the main street. In this design, each residential type on Springfield is a parterre apartment that is separated by a minimum of 30 inches from the sidewalk level. This allows for homes on Springfield Avenue, where the ground floor of any particular building that fronts onto the street is convertible between a residential or commercial use. The remaining typologies are a mixture of commercial, retail, or residential apartments. The key type to be proposed here are the studio/workshops, which shall act as lower rent incubation spaces for local artists or entrepreneurs.

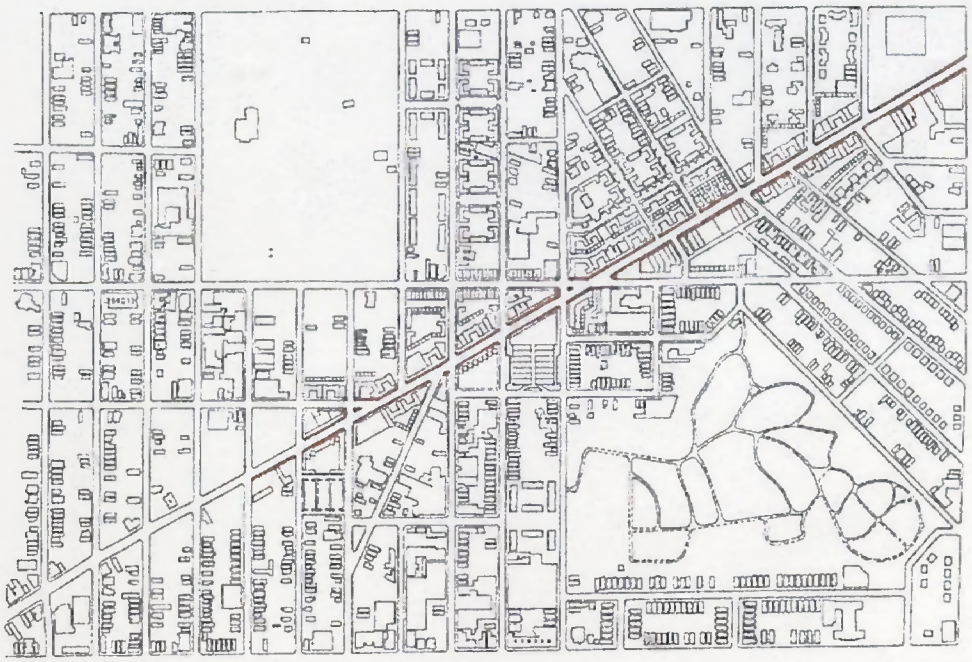


Figure 96: Sidewalk Treatment Diagram.

The spatial hierarchy shall be more clearly delineated in the proposal. Space shall range from public to semi-public to semi-private to private. In all cases, and typologies, the street and the sidewalk are considered to be fully public spaces. Spaces that are semi-public front onto the street, and semi-private spaces are those which are internal, but shared by the residents. This is demonstrated by the parterre apartments and the garden apartments respectively.

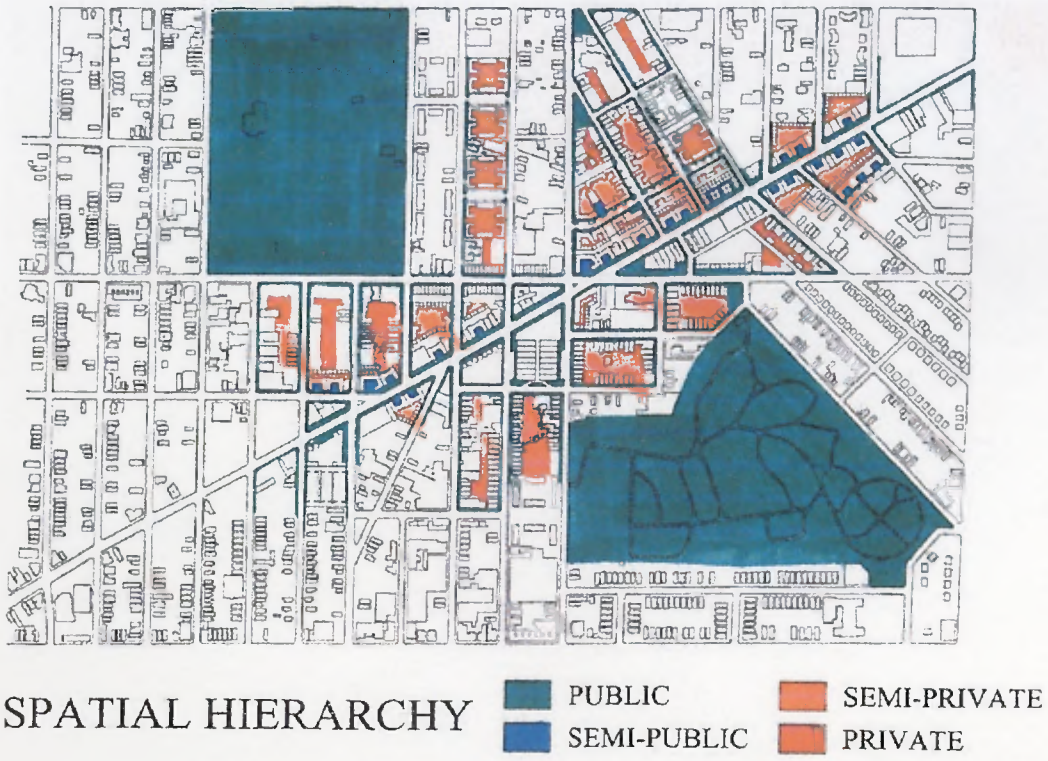


Figure 97: Hierarchy Diagram.

Careful attention has been paid to create a series of greenspaces that are interwoven into the design. Trees along 18th Avenue provide a visual clue to the link between the park and the cemetery. It is anticipated that the cemetery shall be cleaned up

and than used as a public greenspace. And trees shall also be planted along Springfield Avenue to help create a transitional zone at the street edge.

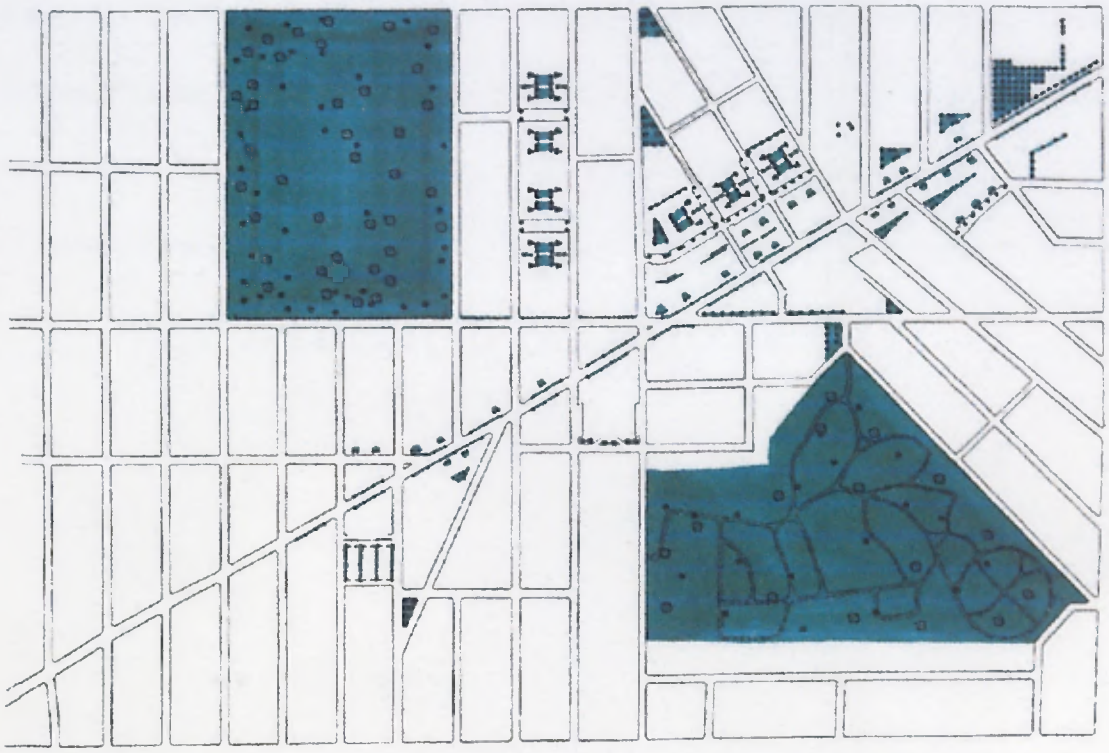


Figure 98: Greenspaces Diagram.

The design shall also be phased. The very first issue to be resolved shall be the renovation of the street edge. The width of Springfield Avenue shall be reduced and the sidewalks shall be rebuilt. Crosswalks shall created with either concrete or bricks, to be put into the road to delineate pedestrian zones on the street. And the community shall have new high speed, high bandwidth communication technology infrastructure installed.

The first building phase shall comprise the Hub and the majority of the commercial core. Phase two shall create the anchors at the borders of the designed community. The third phase shall be the creation of some of the supporting residential neighborhoods, and the fourth phase shall be the filling in of residential and commercial uses along Springfield Avenue. During any of these phases, infill residential and/or commercial building shall occur. It is anticipated that this design would occur over a period of approximately 10 to 15 years. The overall development of the neighborhood into a cohesive whole would then probably occur over a period of 20 to 25 years.

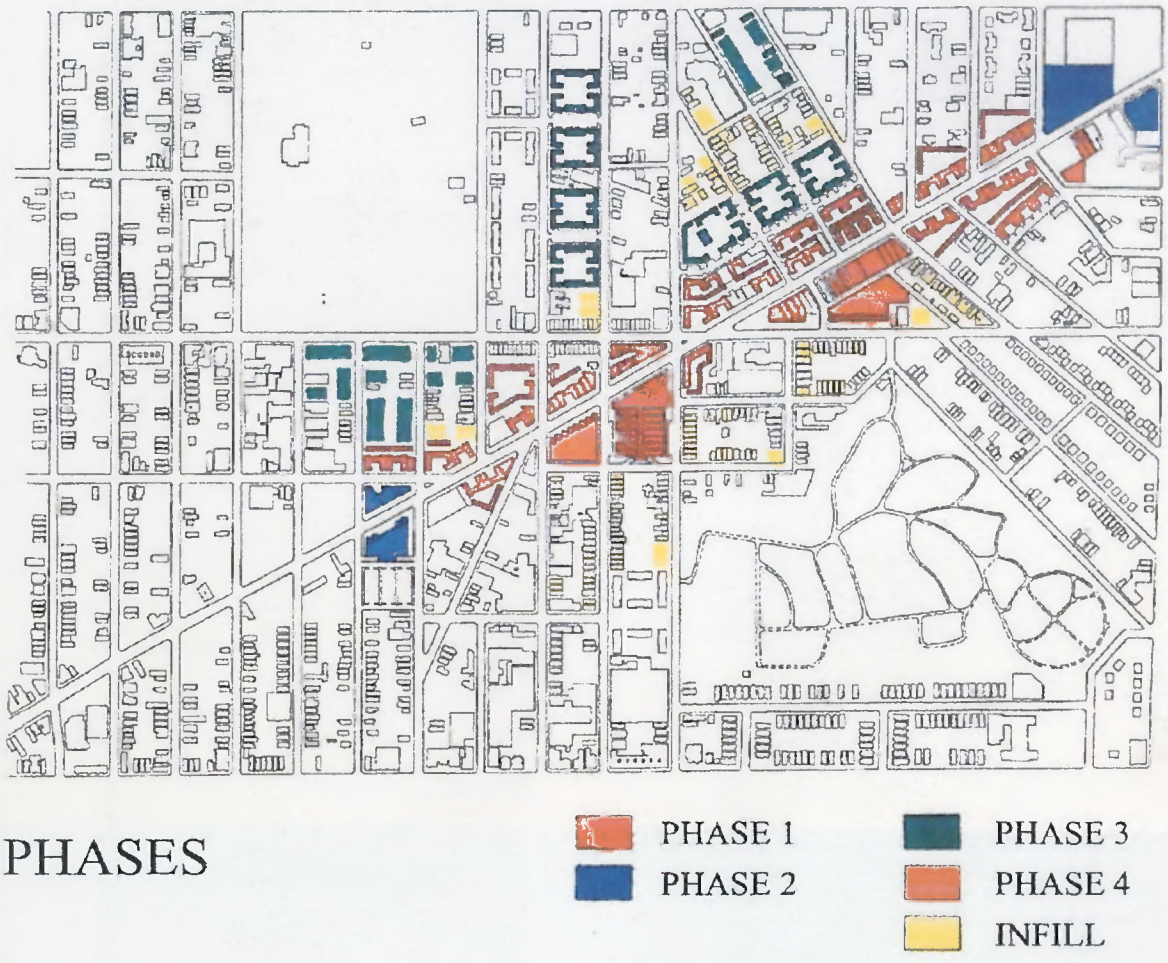


Figure 99: Phasing Diagram.

Financing for this neighborhood would have to come from grants and private enterprise. Municipal, State and Federal Governments could help to stimulate development through tax abatements, guaranteed low interest construction loans, and below market interest rate (bmir) loans.

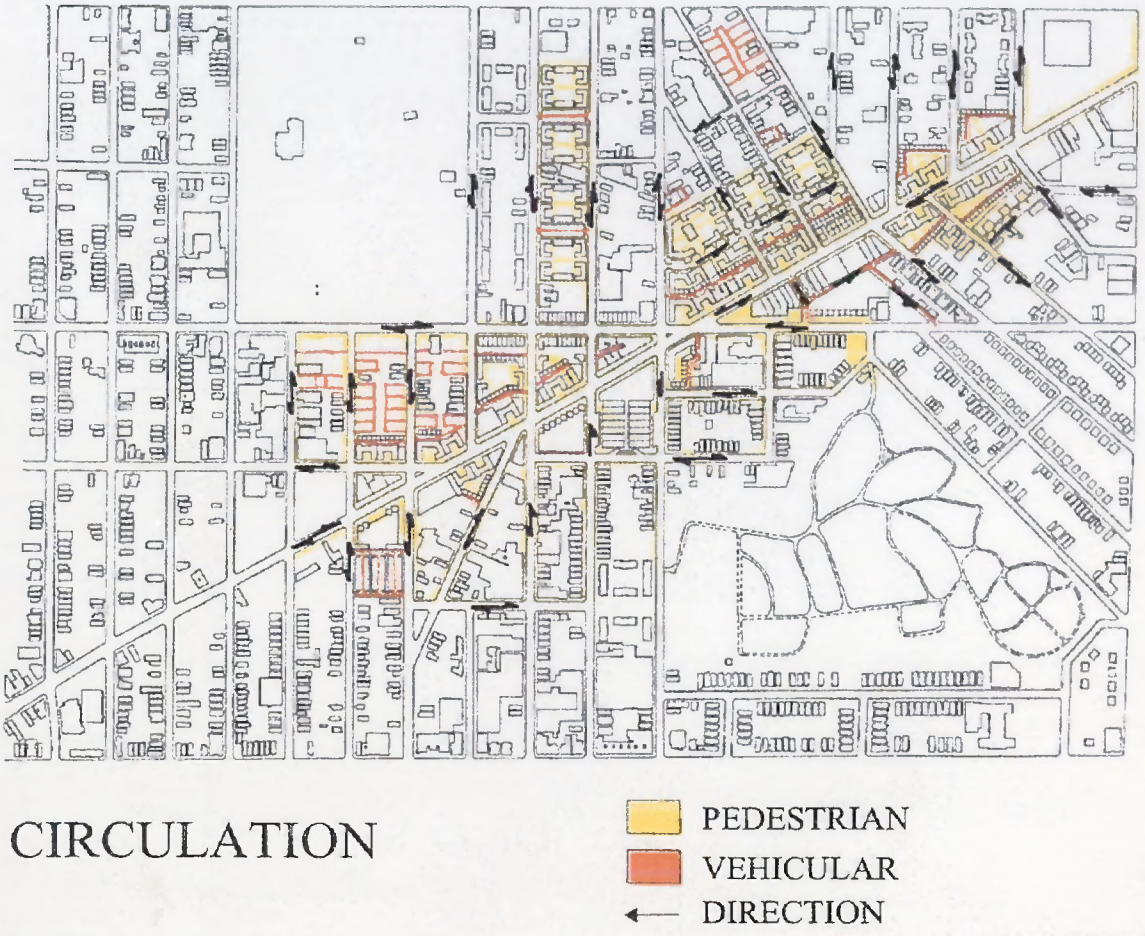


Figure 100: Circulation Diagram.

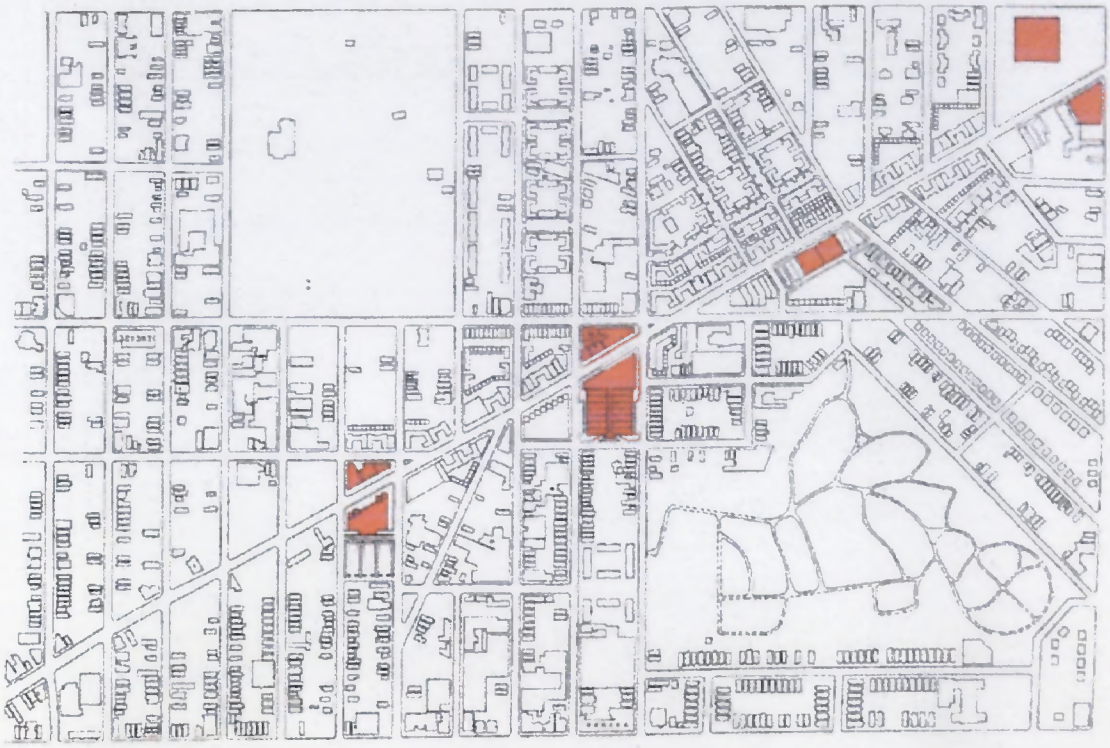


Figure 101: Anchoring Facilities Diagram.

3.7 Elements of Recognizable Vitality

The vitality of any given neighborhood can be measured by both objective and subjective means. Objectively, statistical measures can be used to evaluate the health of a neighborhood. The following represents a list of possible measures.

1. median income
2. percentage of homeownership
3. percentage of vacant buildings or land
4. percentage rise in land values
5. profitability of the businesses in the neighborhood

6. number of new businesses in the area
7. educational level of residents
8. number of employed residents
9. number of residents that shop in neighborhood

Subjectively, there are observational measures that can be used to compare past appearances with the present which may suggest vitality. These measures are generally non-scientific and relate more to the impressions of visitors and residents of a neighborhood. The following are possible observations of vitality.

1. cleanliness of the streets, buildings and properties
2. level of automobile and pedestrian traffic at different times of the day
3. impressions of personal quality of life
4. impressions of personal safety

Such observations can be made empirically or through the use of surveys. While no single measure would suggest an overall level of vitality for a neighborhood, multiple variables which reinforce the same conclusion would indicate the direction of the neighborhood.

Present indicators of the West Side Park neighborhood suggest that it is not very vital. While there are many new home starts by not-for-profit organizations, with the aim of leading towards private home ownership, observations of Springfield Avenue and the surrounding streets, in conjunction with statistical information, suggest that the neighborhood is not very vital (Please see figures and analysis in the previous chapter). The difficulty can be expressed in the question, what percentage amount of change

indicates a motion towards vitality? There is no specific answer to that question, but any improvement in the indicators of vitality is positive in direction.

3.8 Conclusion to Chapter 3

The goal of this chapter has been to express a long-term vision for the West Side Park community based upon the main street armature of the revitalization of Springfield Avenue in the Central Ward of Newark. This vision has been codified graphically to demonstrate that there are physical attributes to the built environment that can aid in the creation of a vital community.

Further design and research on this topic would progressively get more and more microscopic in its nature. Issues such as street signage and the percentage of front elevation aperture should be examined. The design could even go so far as to explore specific designs for the building typologies that have been codified. At each level of introspection the level of detail would most likely increase. Although, it is the philosophy of this paper that the issues of style and materials should not be restricted, in order that the streetscapes can evolve over time. It is believed that rigid criteria regarding style and materials tend to restrict alternatives that can create identity for a neighborhood.

Figure 102: Computer Model of Existing Springfield Avenue.

Figure 103: Computer Model of Proposed Design for Springfield Avenue.

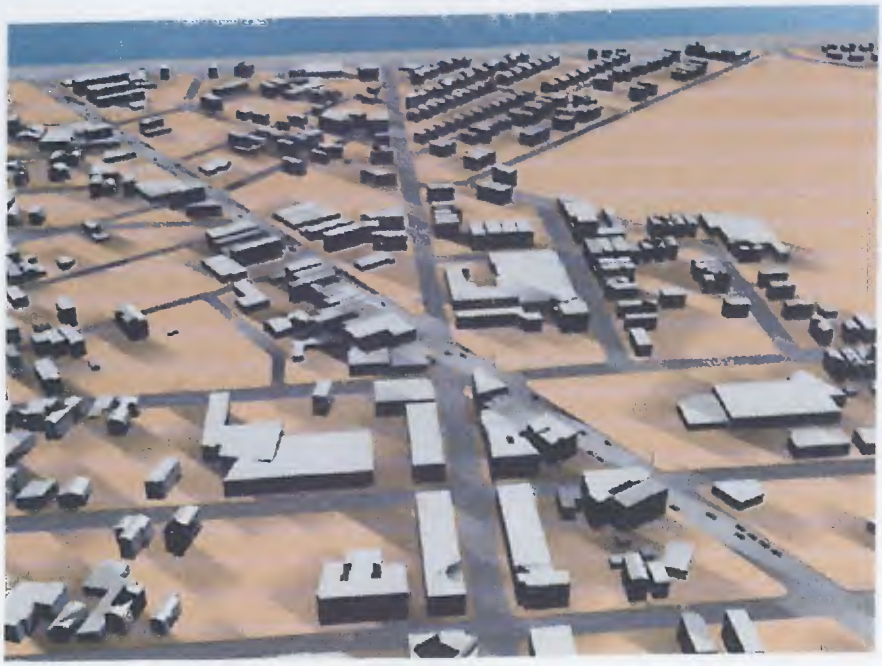


Figure 104: Computer Model of Existing Springfield Avenue.

Figure 105: Computer Model of Proposed Design for Springfield Avenue.

CHAPTER 4

CONCLUSION

It has been the goal of this document to explore the issues and physical attributes related to the creation of vital communities. The research began with an investigation into North American and European precedents of planned community design from the late 19th Century and the work of Ebenezer Howard and Tony Garnier, to the present movement of the New Urbanism under the guidance of Andres Duany, Elizabeth Plater-Zyberk, and Peter Calthorpe. Research was also conducted by looking to the qualities of the vitality of two healthy neighborhoods; The Beaches in Toronto, Canada, and the Ironbound in Newark, New Jersey. This research demonstrated that the model for neighborhood development was the main street, and this was then used to create a written description of the criteria for developing a vital community.

The second chapter of the thesis dealt with the analysis of the City of Newark and the area where the design was to be tested. It was determined that Springfield Avenue would provide the armature for the revitalization of an urban neighborhood, because of its former main street quality through the early part of this century. The West Side Park neighborhood was then identified as the site for the application of the design.

An intention towards the site was developed which included a conceptual idea, as well as proposals for land use and building typologies. The resulting codification of the proposed design then led to the re-evaluation of the original written criteria in order to reflect the empirical observations of the application process. The design demonstrated that goals of urbanity, control of the automobile, and increased density are achievable

through the tools of curb cuts, minimum and maximum building heights and densities, lot coverage, and setback requirements.

The ultimate goal of the research is to demonstrate a need to look at existing urban neighborhoods and re-evaluate their condition. Cities are wonderful resources to be used to create centers for commerce and social activities between people. The present policy of promoting single family detached housing in the suburbs, and in the city, is compromising the densities that are required to support business and amenities that were once associated with the city. Resources are being stretched and spread out over larger areas of land requiring more roads and highways to link them. People need to travel farther distances for work and to purchase necessities for daily activities, and more time is spent in the car as the primary mode of personal transportation. And as commutes get longer, the quality of life is compromised. Policy further serves to reward suburban living, with low gas prices for transportation and loans for single family detached home ownership, while dis-enfranchising those who remain in the cities. This is not sustainable, nor should it be desirable. It is hoped at the very least, that this paper will cause people to stop and think about the possibilities that are our cities.

APPENDIX A

IMAGES OF SPRINGFIELD AVENUE

Figure 106: Springfield Avenue in October 1998.

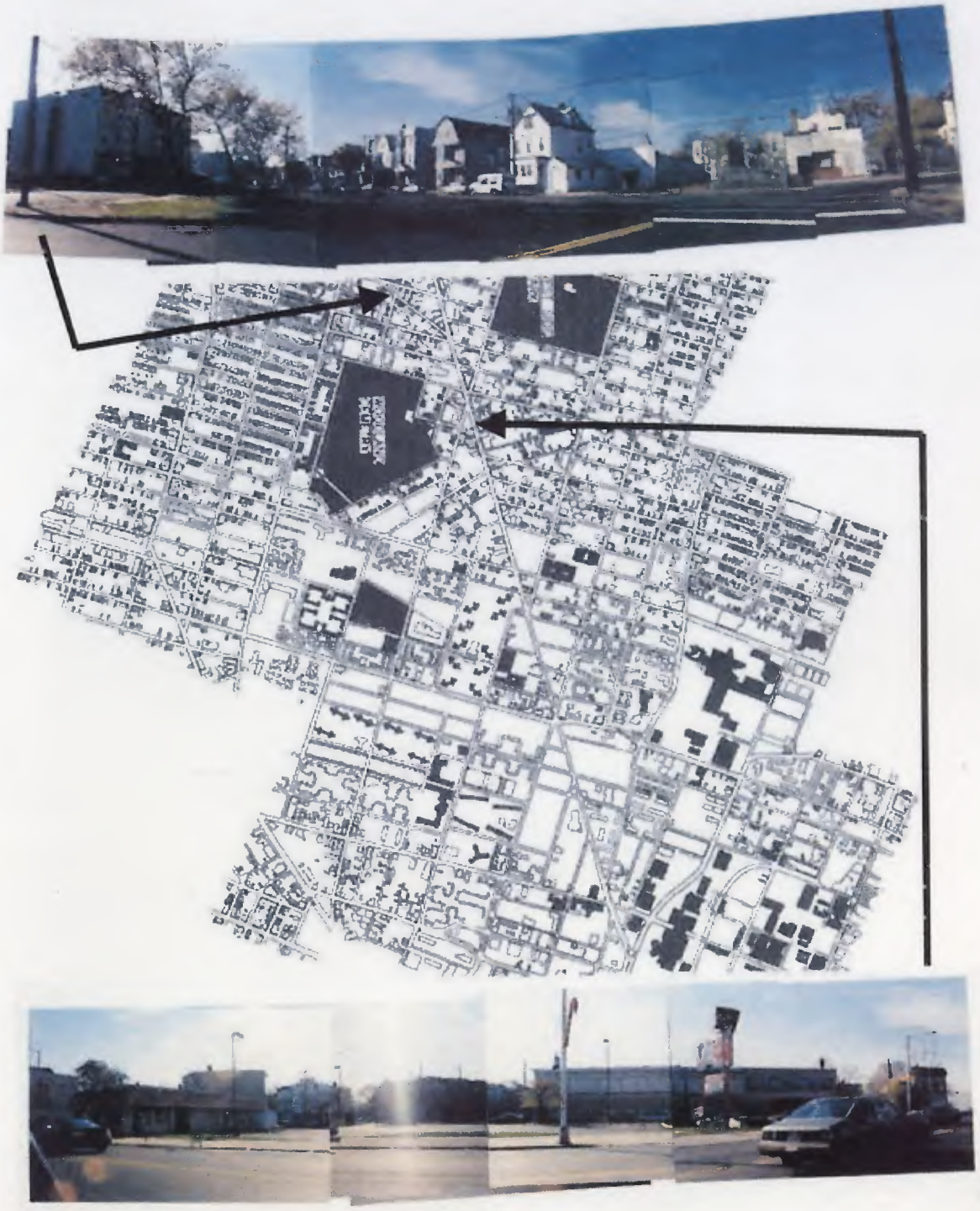


Figure 107: Springfield Avenue in October 1998.

Figure 108: Springfield Avenue in October 1998.

Figure 109: Springfield Avenue in October 1998.

Figure 110: Springfield Avenue in October 1998.

Figure 111: Springfield Avenue in October 1998.

Figure 112: Springfield Avenue in October 1998.

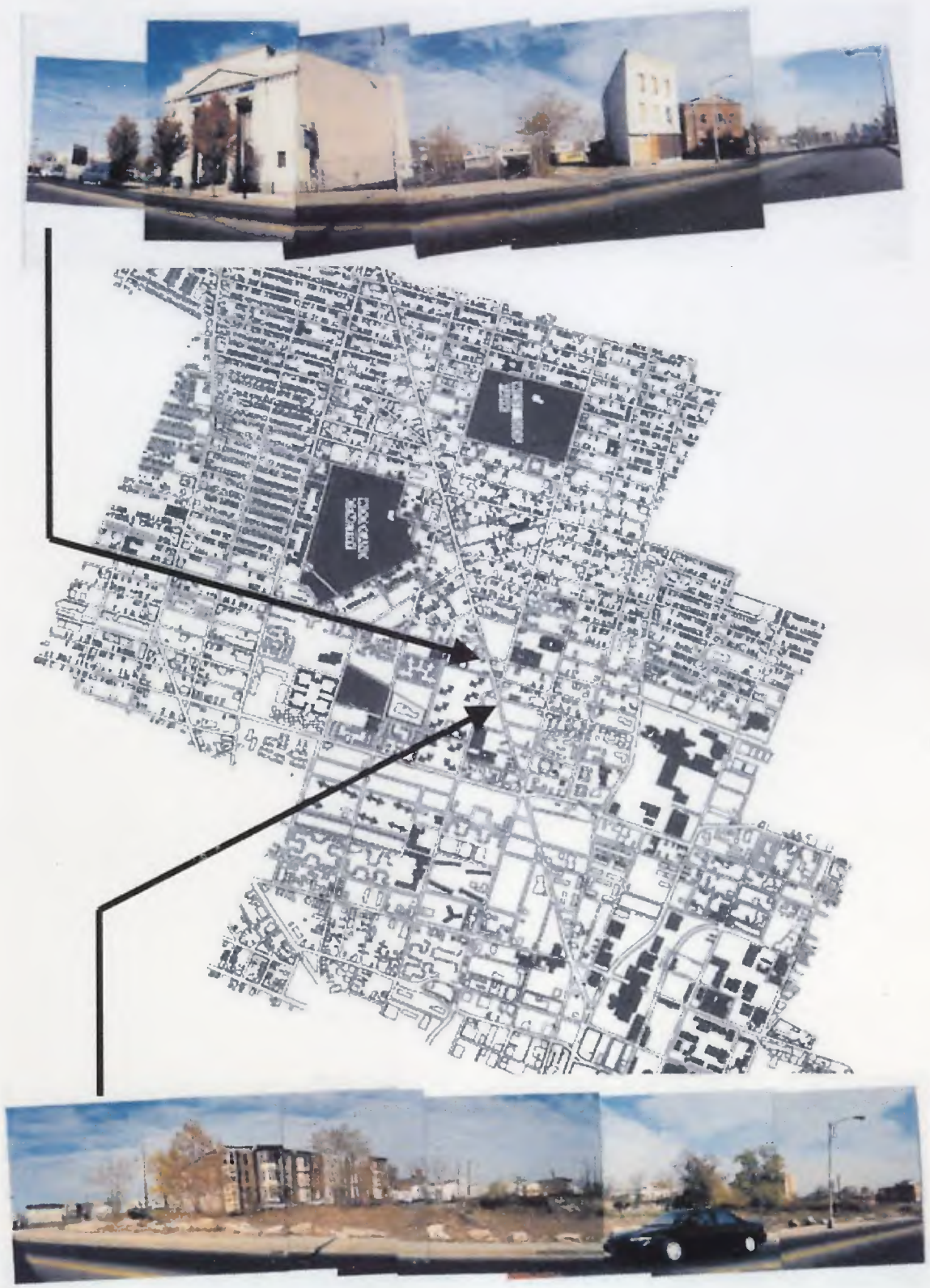


Figure 113: Springfield Avenue in October 1998.

APPENDIX B

PROPOSED DESIGN DRAWINGS

Figure 114: Proposed Design for the West Side Park Neighborhood.

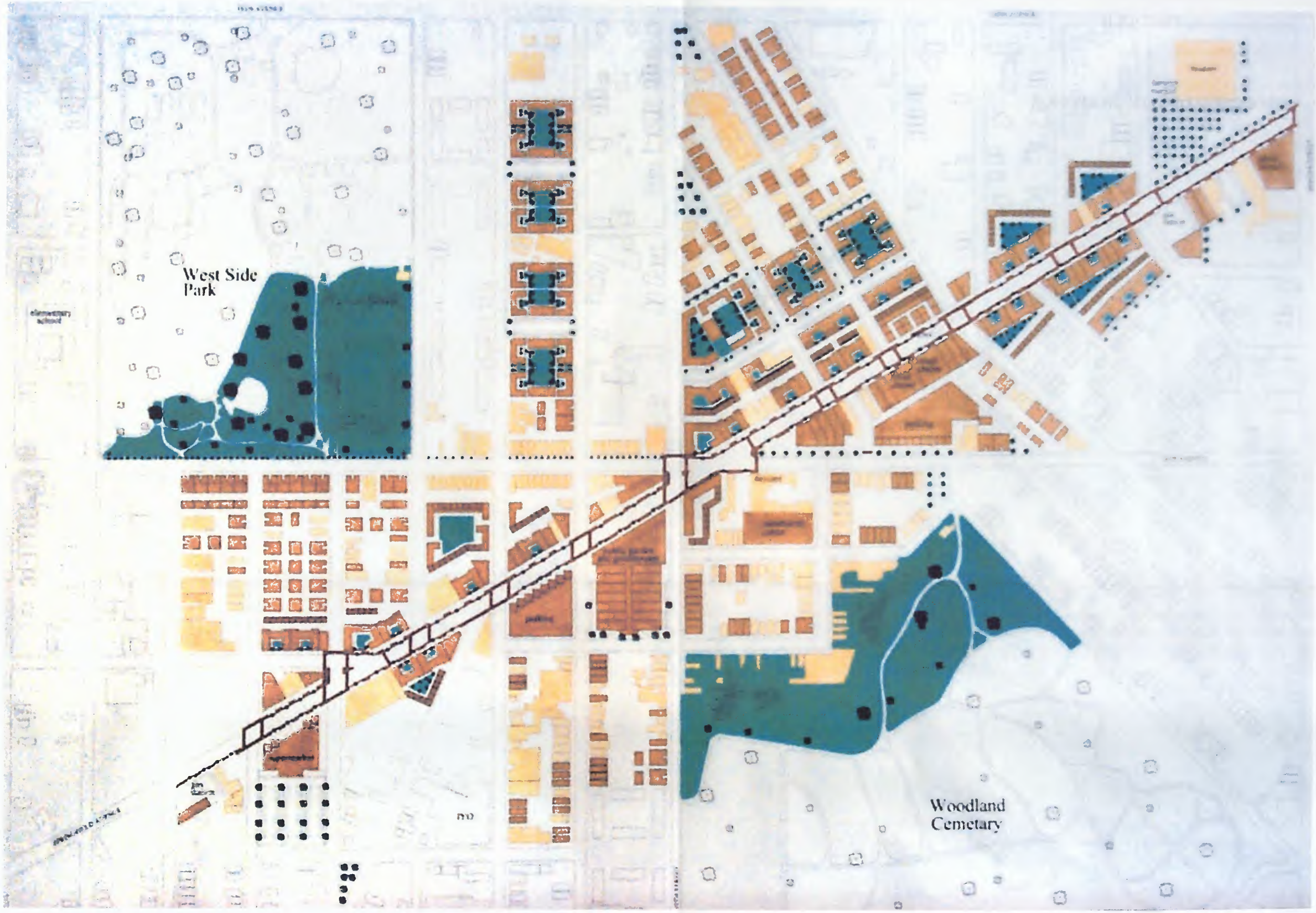
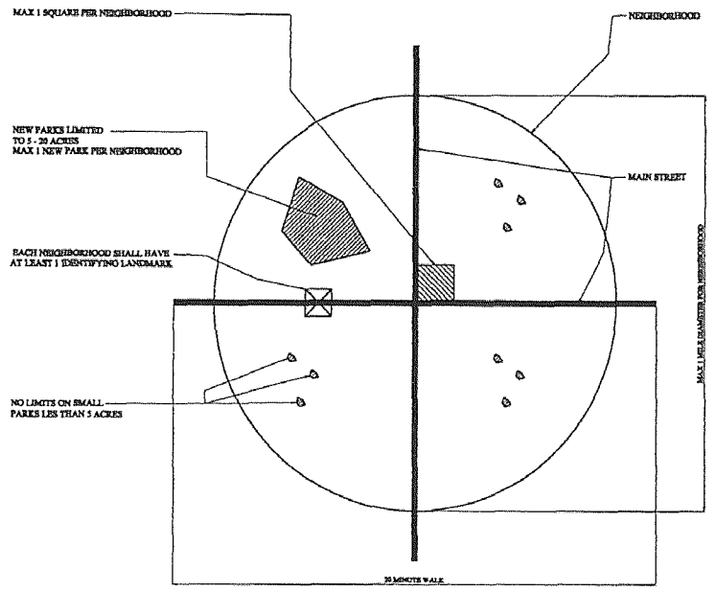
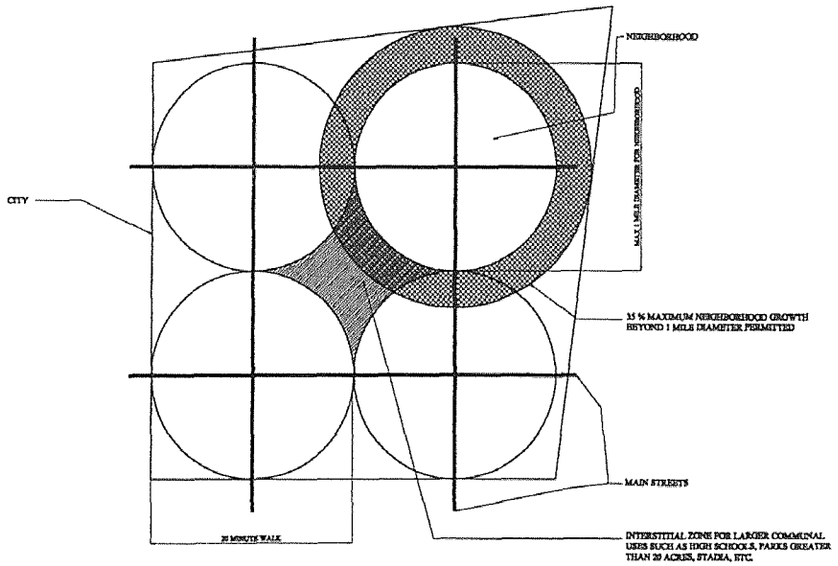


Figure 114: Proposed Design for the West Side Park Neighborhood.

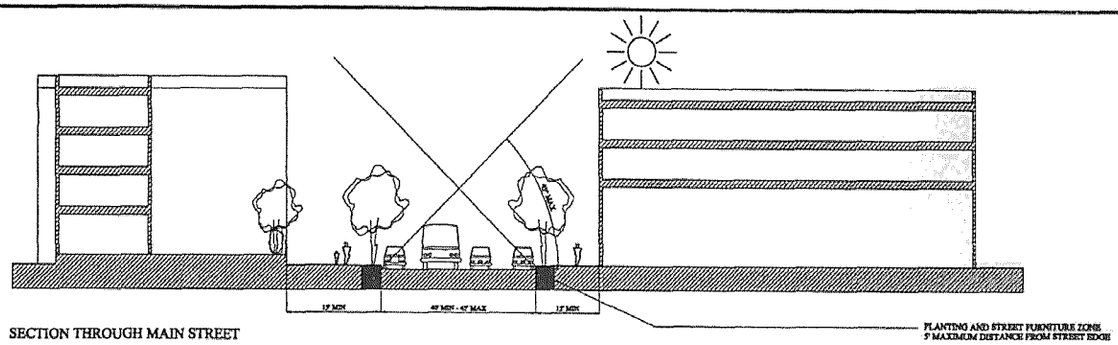
Vital Communities CRITERIA FOR URBAN NEIGHBORHOOD DEVELOPMENT : GENERAL CRITERIA



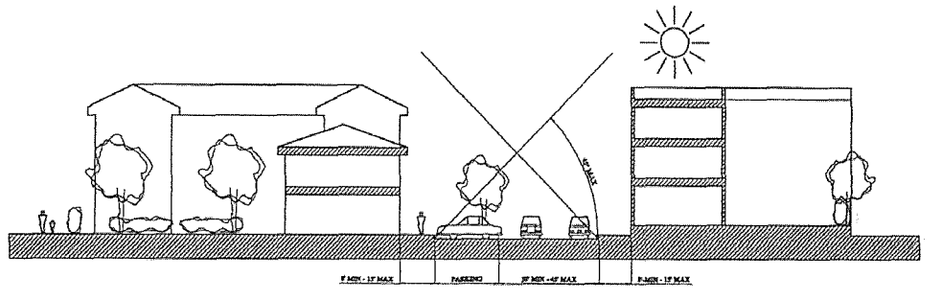
NEIGHBORHOOD DIAGRAM



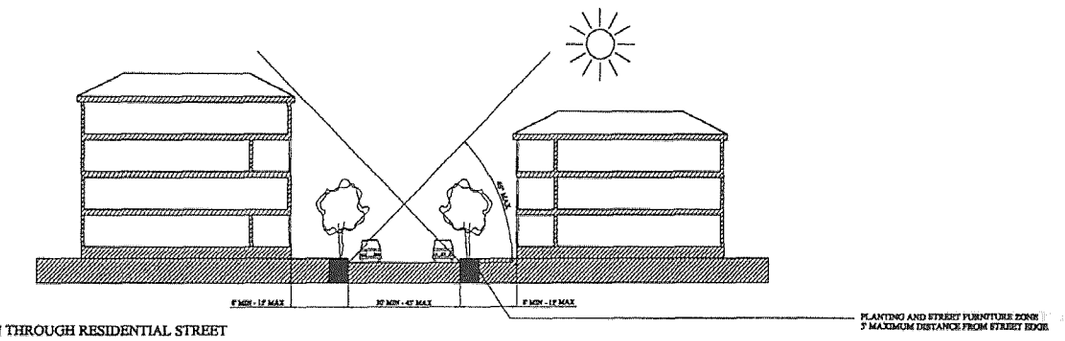
REGIONAL DIAGRAM



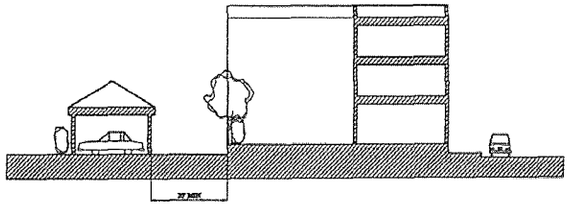
SECTION THROUGH MAIN STREET



SECTION THROUGH RESIDENTIAL STREET



SECTION THROUGH RESIDENTIAL STREET



SECTION THROUGH ALLEY

AN ALLEY IS A PRIVATE LANE USED FOR ACCESS TO REAR OF LOT PARKING.

MINIMUM ALLEY DIMENSION SHALL BE 20'

ANY BUILDINGS FRONTING ON AN ALLEY WHICH CAST SHADOWS ONTO ADJOINING PROPERTIES SHALL BE LIMITED TO A 45 ° SKYPLANE ANGLE FROM THE NEAREST PROPERTY LINE.

TRANSVERSE ALLEYS ARE ENCOURAGED BUT LONGITUDINAL ALLEYS ARE PERMITTED WHERE BLOCK WIDTH IS GREATER THAN 200'.

SECTIONAL RELATIONSHIP DIAGRAMS

Figure 115: General Design Criteria for Urban Neighborhood Development.

Vital Communities CRITERIA FOR URBAN NEIGHBORHOOD DEVELOPMENT : RESIDENTIAL AND COMMERCIAL

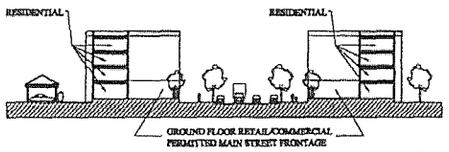
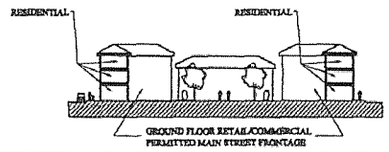
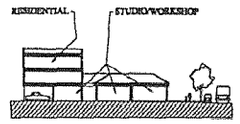
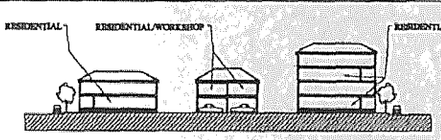
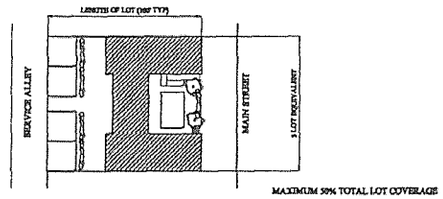
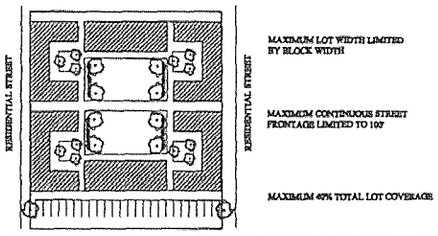
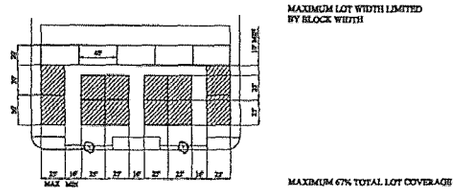
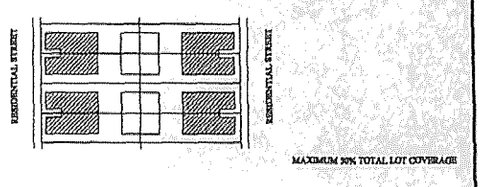
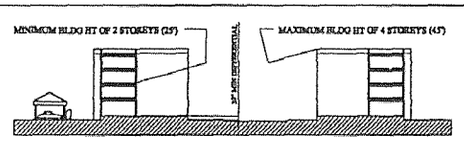
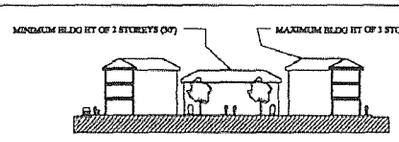
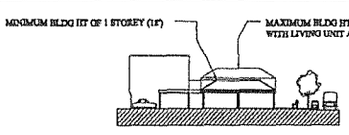
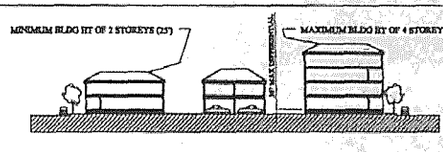
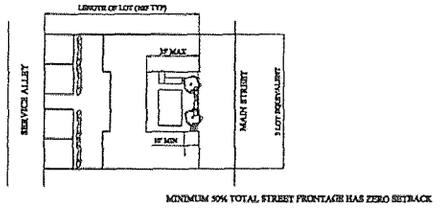
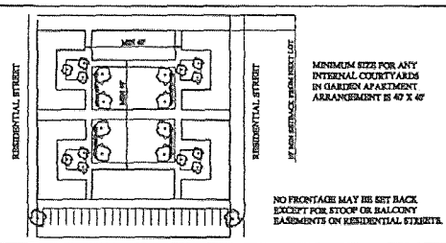
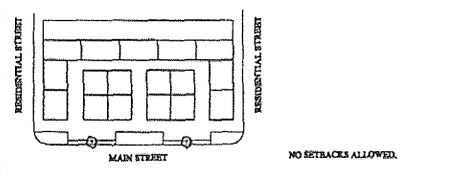
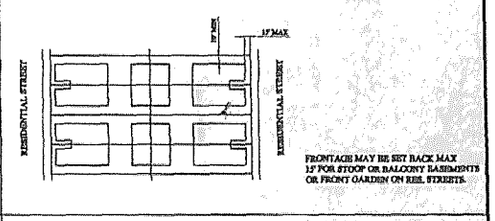
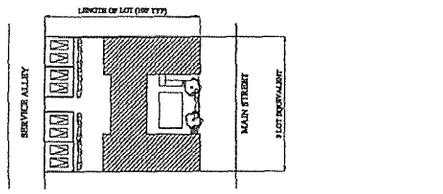
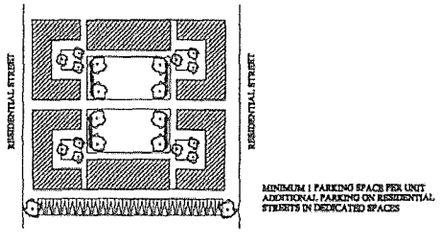
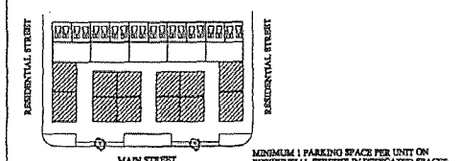
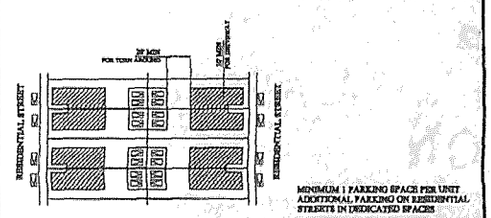
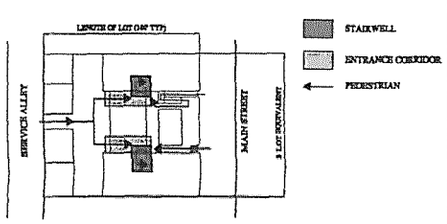
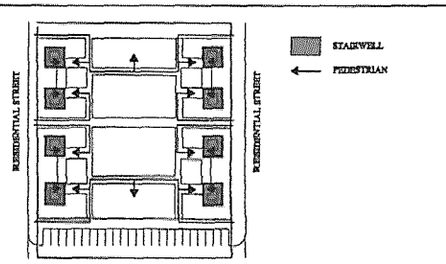
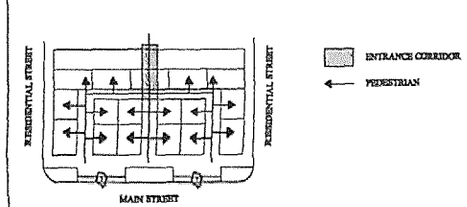
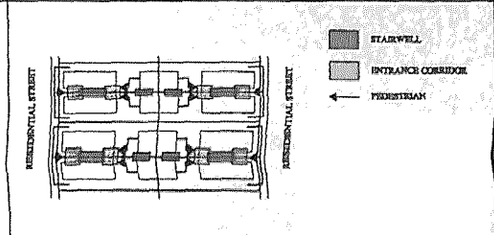
BUILDING TYPES	TYPE I PARTERRE APARTMENT MINIMUM DENSITY OF 24 UNITS/ACRE MAXIMUM DENSITY OF 36 UNITS/ACRE OWNERSHIP: CONDOMINIUM, COOPERATIVE OR RENTAL	TYPE II GARDEN APARTMENT MINIMUM DENSITY OF 24 UNITS/ACRE MAXIMUM DENSITY OF 32 UNITS/ACRE OWNERSHIP: CONDOMINIUM, COOPERATIVE OR RENTAL	TYPE III STUDIO/WORKSHOP MINIMUM DENSITY OF 20 UNITS/ACRE MAXIMUM DENSITY OF 36 UNITS/ACRE OWNERSHIP: RENTAL	TYPE IV SEMI-DETACHED HOUSE MINIMUM DENSITY OF 20 UNITS/ACRE MAXIMUM DENSITY OF 36 UNITS/ACRE OWNERSHIP: FEE SIMPLE OR RENTAL
BUILDING USE				
LOT COVERAGE				
BUILDING HEIGHT				
SETBACKS				
PARKING				
CIRCULATION				

Figure 116: Codification Diagram.

Vital Communities CRITERIA FOR URBAN NEIGHBORHOOD DEVELOPMENT : RESIDENTIAL AND COMMERCIAL

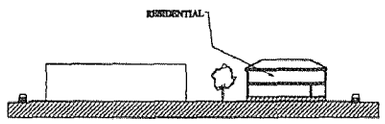
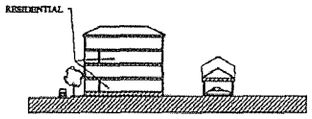
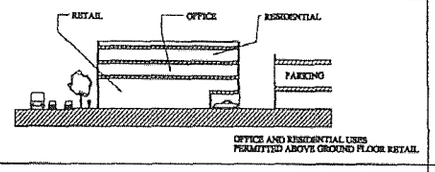
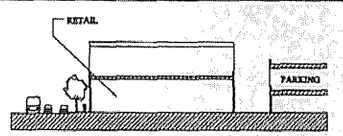
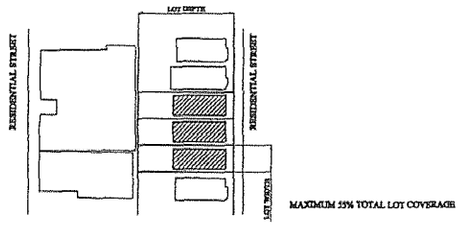
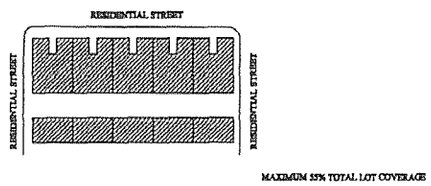
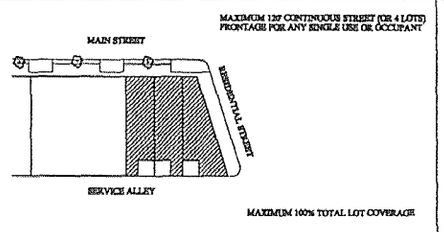
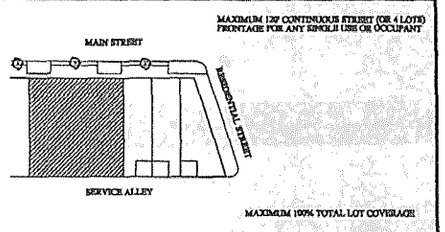
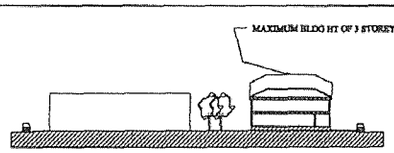
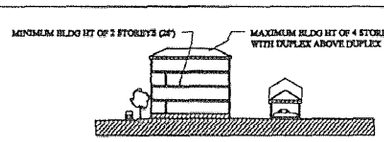
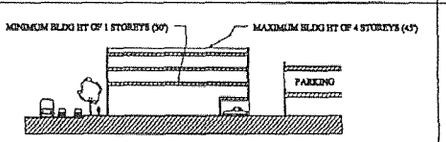
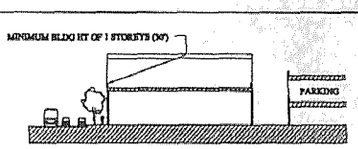
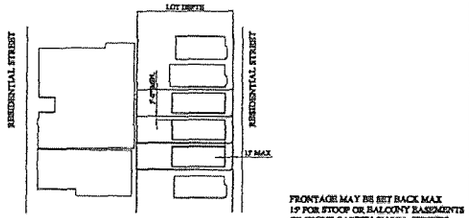
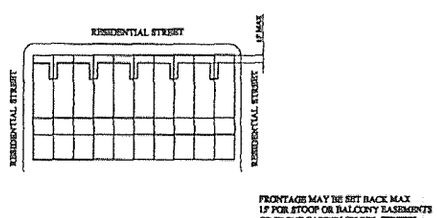
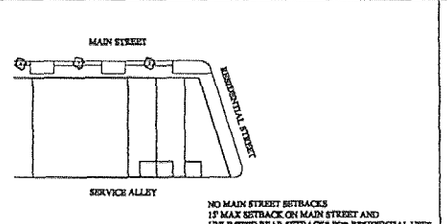
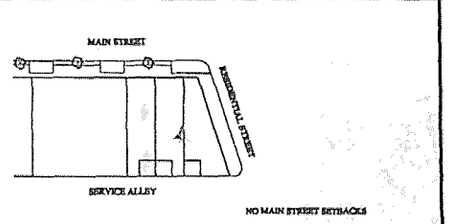
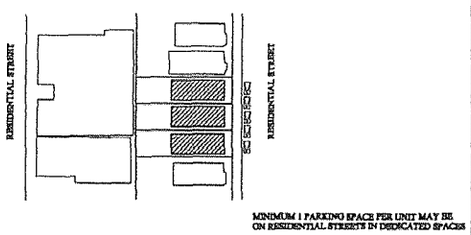
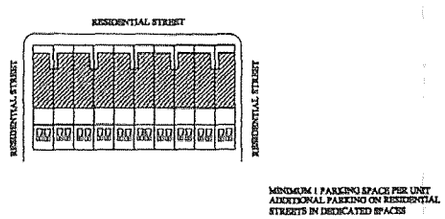
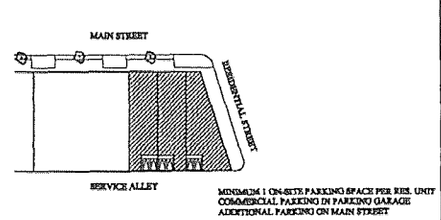
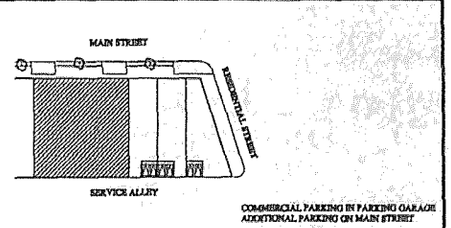
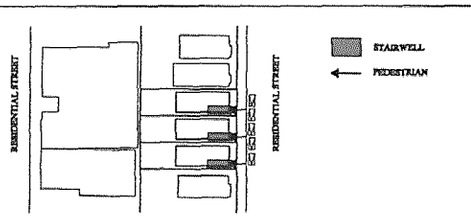
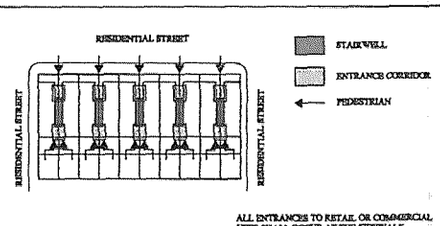
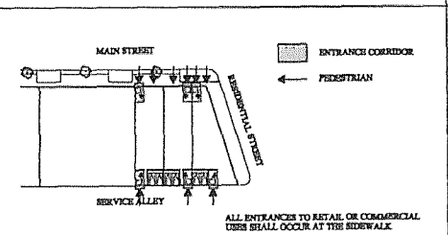
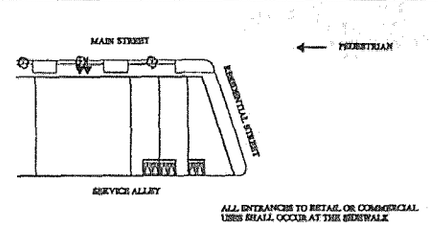
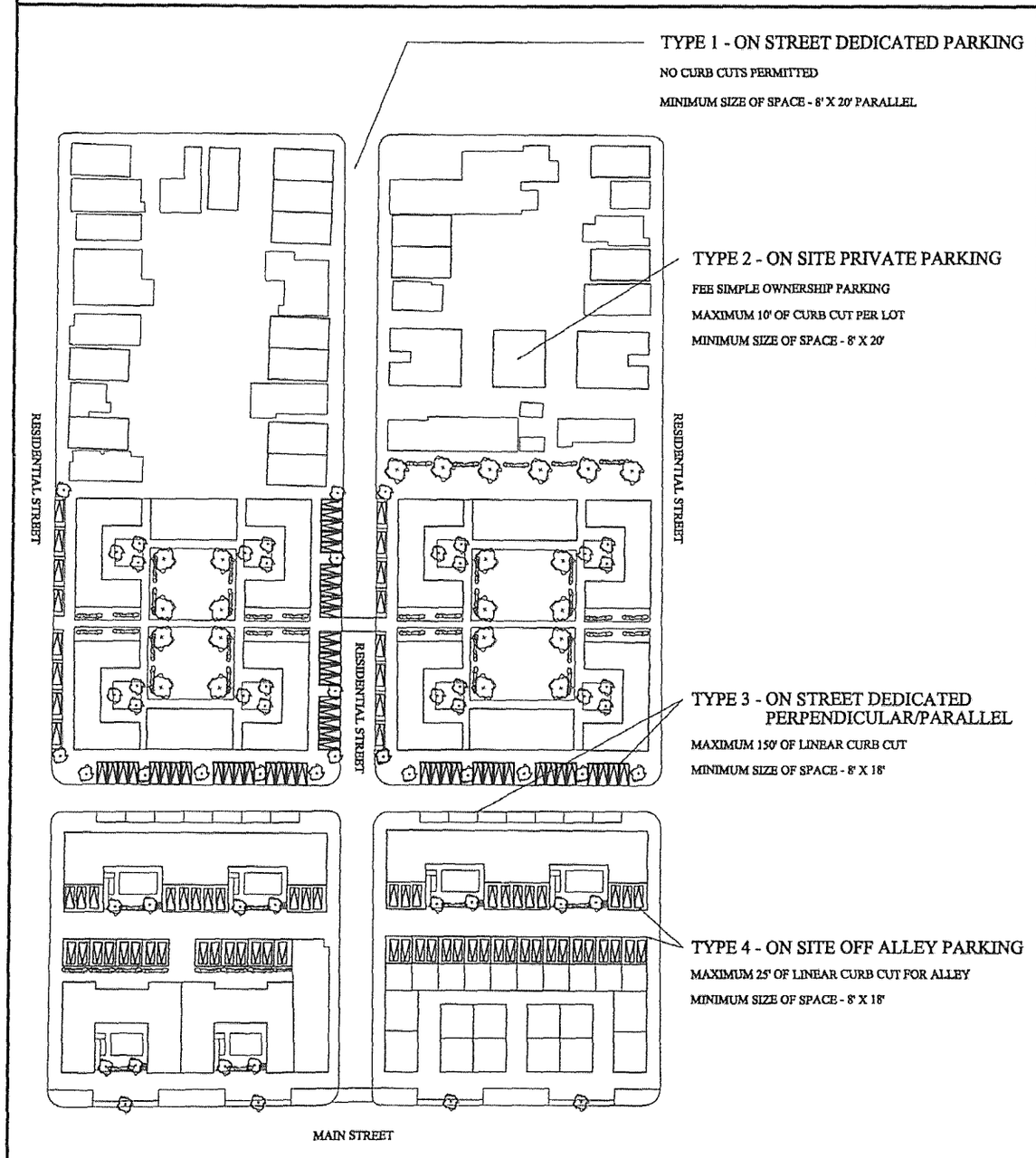
BUILDING TYPES	TYPE V DETACHED HOUSE MINIMUM DENSITY OF 14 UNITS/ACRE MAXIMUM DENSITY OF 36 UNITS/ACRE OWNERSHIP: FEE SIMPLE OR RENTAL	TYPE VI ROWHOUSE MINIMUM DENSITY OF 16 UNITS/ACRE MAXIMUM DENSITY OF 36 UNITS/ACRE OWNERSHIP: FEE SIMPLE OR RENTAL	TYPE VII STOREFRONT OFFICE/APARTMENT	TYPE VIII LARGE COMMERCIAL
BUILDING USE				
LOT COVERAGE				
BUILDING HEIGHT				
SETBACKS				
PARKING				
CIRCULATION				

Figure 117: Codification Diagram.

Vital Communities CRITERIA FOR URBAN NEIGHBORHOOD DEVELOPMENT : PARKING ALTERNATIVES



TYPE 1 - ON STREET DEDICATED PARKING
NO CURB CUTS PERMITTED
MINIMUM SIZE OF SPACE - 8' X 20' PARALLEL

TYPE 2 - ON SITE PRIVATE PARKING
FEE SIMPLE OWNERSHIP PARKING
MAXIMUM 10' OF CURB CUT PER LOT
MINIMUM SIZE OF SPACE - 8' X 20'

TYPE 3 - ON STREET DEDICATED PERPENDICULAR/PARALLEL
MAXIMUM 150' OF LINEAR CURB CUT
MINIMUM SIZE OF SPACE - 8' X 18'

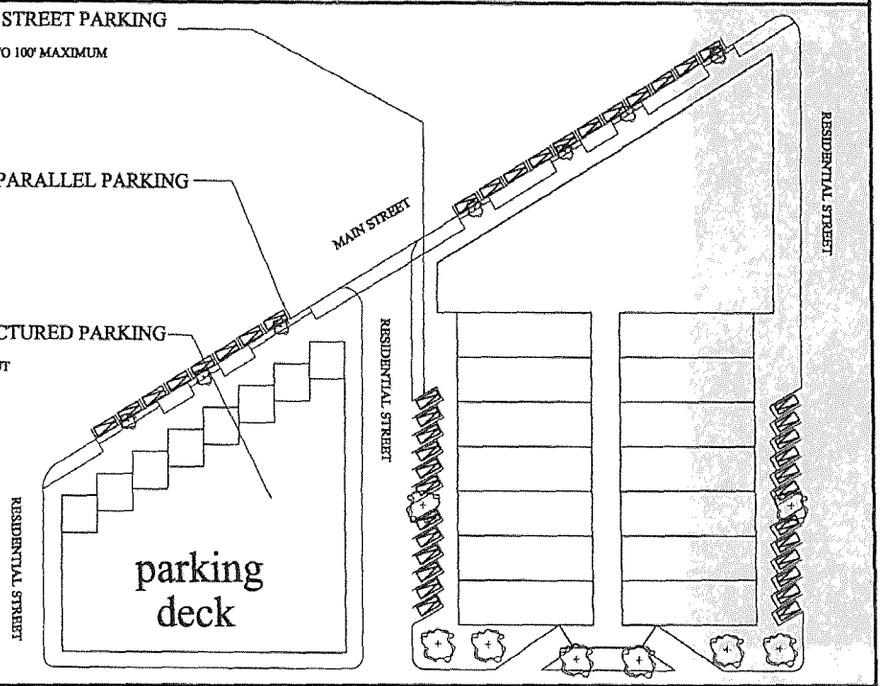
TYPE 4 - ON SITE OFF ALLEY PARKING
MAXIMUM 25' OF LINEAR CURB CUT FOR ALLEY
MINIMUM SIZE OF SPACE - 8' X 18'

GENERAL NOTES
ON STREET PARKING - MAXIMUM 150' OF LINEAR CURB CUT
ON SITE PARKING VIA DRIVEWAY OR ALLEY - CURB CUTS LIMITED TO MAXIMUM OF 25'

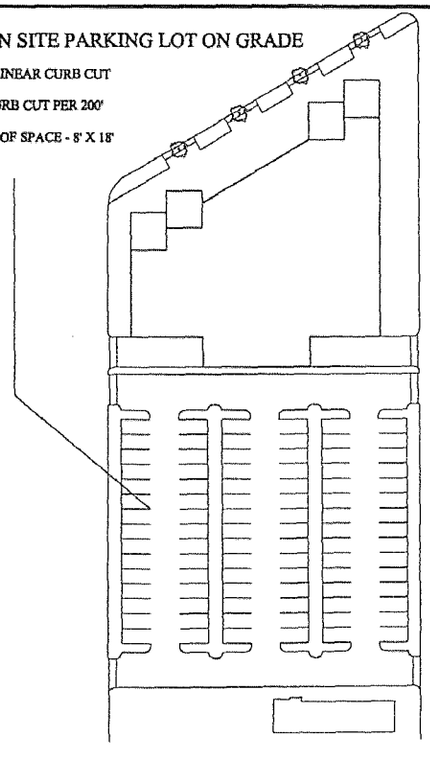
TYPE 7 - DIAGONAL ON STREET PARKING
CONTINUOUS CURB CUT LIMITED TO 100' MAXIMUM
MINIMUM ANGLE OF 30°
MINIMUM SIZE OF SPACE - 8' X 18'

TYPE 6 - MAIN STREET PARALLEL PARKING
NO CURB CUT PERMITTED
MINIMUM SIZE OF SPACE - 8' X 18'

TYPE 5 - ON SITE STRUCTURED PARKING
MAXIMUM OF 40' LINEAR CURB CUT
MINIMUM SIZE OF SPACE - 8' X 18'



TYPE 8 - ON SITE PARKING LOT ON GRADE
MAXIMUM 25' LINEAR CURB CUT
MAXIMUM 1 CURB CUT PER 200'
MINIMUM SIZE OF SPACE - 8' X 18'



TYPE 9 - PAY PARKING LOT ON GRADE
MAXIMUM 25' LINEAR CURB CUT
MINIMUM SIZE OF SPACE - 8' X 18'

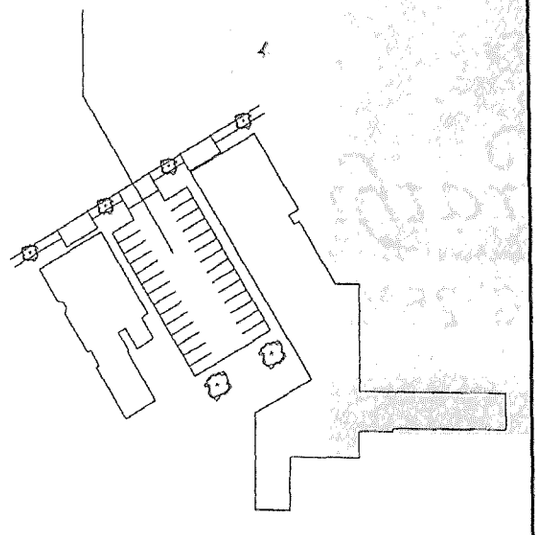


Figure 118: Parking Alternatives Diagram.

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