REDEVELOPMENT OF SMALL CITY CENTRAL BUSINESS DISTRICTS: CASE STUDY IN TRENTON, MISSOURI

by

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CHAPTER I

INTRODUCTION

Redevelopment of central business districts has in recent times become a subject of great concern to many civic minded leaders and individuals. Upon investigation, one finds an ever increasing number of large metropolitan centers becoming involved to various degrees with central business district redevelopment projects and indications reveal that this concept is spreading to the more numerous smaller cities. Publicity given to the colossal core area problems which now perplex the larger centers has caused many residents of smaller cities to recognize the existence of similar problems in their own communities.

Although the size of communities vary, the basic functions which are performed within the limits of their central business districts are the same. The central business district is the heart of the city, the core of commercial and service activity, and the focal point for other service functions both professional and nonprofessional. Unfortunately, in most cases, the basic problems which exist in the metropolitan central business district are also found in the smaller cities. Scale of development is the basic difference between the two.

Further investigation reveals that residents of older small cities are perplexed when the question of redevelopment arises. Most cities with populations ranging from 5,000 to 15,000 do not have within their community professionals who

have backgrounds that would allow them to grasp the complexities of such a project. In many small cities where central business district redevelopment is a necessity, the situation presents grave implications; but what are the factors involved in the redevelopment of the small city central business district and how could a city with a population from 5,000 to 15,000 undertake such a project and yet retain its general character?

This thesis will be concerned with a determination of the various factors which are involved in small city central business district redevelopment: First, in terms of an analysis of existing central business district redevelopment plans and second, as the factors apply to the formulation of a conceptual plan for the small City of Trenton, Missouri.

Initially, the thesis will take form in the analysis of a number of existing central business district redevelopment plans. Next, the specific functions of the small city central business district will be determined. The third element of the thesis will include an investigation into the many factors which have affected the past development and are affecting the development trends of the small city central business district functions. The fourth element of the thesis will be concerned with the determination of procedure for and the formulation of a small city central business district redevelopment plan, i.e. Trenton, Missouri. Next, the methods for implementing the conceptual redevelopment plan will be determined and concluding the thesis will be a summary of findings and recommendations.

To facilitate the understanding of the various discussions within the text of the thesis, a number of terms must first be defined.

The central business district is usually thought of as the major business district of a city and is sometimes called the downtown area. City planners and other professionals have come to abbreviate the term central business district by employing the letters CBD or by using the words core area. As the term applies to the case study in the text, the CBD or core area generally refers to the area bounded by Thirteenth, Custer, Eighth, Monroe, Sixth, Jackson and Cedar Streets.

Land use is another term to be used often in this thesis and has reference to the purpose for which land or structures thereon is utilized, occupied, maintained or leased. There are many types of land use and throughout the discussions, the various types of land use will be defined as necessary.

One other term which also needs to be defined is average daily traffic. Average daily traffic may be defined as the total traffic volume during a stated period of time divided by the number of days in that period, usually a one year period.[1] Although this term is somewhat technical in nature, it has in recent years become recognized as exerting a profound influence upon the vitality of the central business district.

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[1]Stannard J. Baker and William R. Stebbins, Jr., Dictionary of Highway Traffic, p. 174.

CHAPTER II

PREVIOUS CENTRAL BUSINESS DISTRICT REDEVELOPMENT PROJECTS

To gain a more clear picture of the complexities which are involved in a comprehensive small city central business district redevelopment project, a number of existing plans will be analyzed. As revealed through investigation, some of the most notable of the existing small city CBD redevelopment plans were found for the core areas of Atchison, Kansas; Morristown, Tennessee; Springfield, Oregon; North Wilkesboro, North Carolina; and Rome, New York.

For each of the cities listed above, the impetus for and the objective of the individual CBD redevelopment plans will be ascertained. These two factors will present a cause and effect relationship which is of paramount importance in gaining a panoramic introduction as well as providing a comparative tool to be used in later discussions. Also, for each project the method or methods of implementation where available will be discussed.

Atchison, Kansas

Atchison, Kansas is a city located in Northeastern Kansas with a population of 13,000. In 1958 the central business district of Atchison was virtually wiped out by two disastrous floods, but the downtown area was in a sorry state even before the floods. Buildings were obsolete, parking space was inadequate, traffic movements were restricted, and the market area was shrinking because consumers had found other areas in which

to do their shopping.

After the floods, the citizenry of Atchison decided to rebuild the central business district. A plan for the core area as indicated in Fig. 1 was adopted and the project was started. As implemented, the project encompassed the following:

1. The acquisition and subsequent clearance of 91 parcels of land within the redevelopment area.

2. The rehabilitation of other buildings in the area to meet the code requirements of the city.

3. The resale of 48 of the cleared land parcels to private enterprise for redevelopment.

4. The development of fourty-three parcels for off-street parking. (This provided 1,000 off-street parking stalls immediately adjacent to the pedestrian mall. The lots have been permanently surfaced, landscaped, lighted, and marked).

5. The construction of a three block pedestrian mall with a free standing canopy extending the length of the mall on both sides and walkways from the mall to the new parking lots.

6. The construction of a seven foot diameter storm sewer system which diverts floodwaters around the business district.

7. The installation of a new centrally controlled traffic signal system.

8. The widening and paving of all alleys in the downtown area, the resurfacing of all downtown streets, the installation of permanent street markings, and the replacing of all sub-standard curbs and sidewalks.

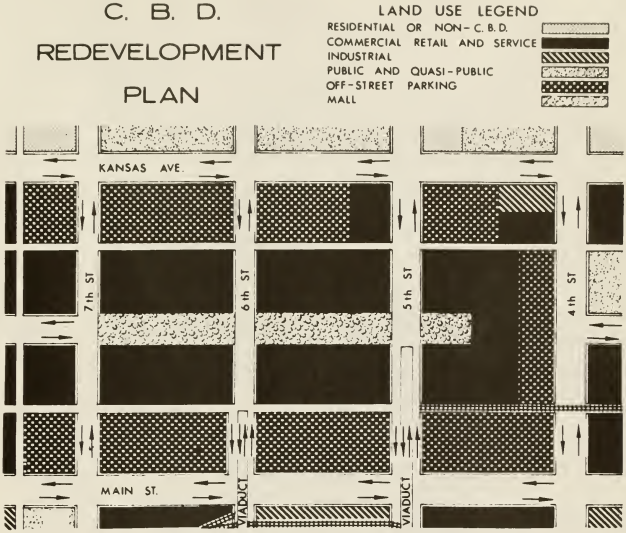

Fig. 1. CBD redevelopment plan for Atchison, Kansas.

Source: Atchison, Kansas City Planning Commission, Comprehensive Plan - City of Atchison, Kansas 1963. p. 74.

9. The landscaping of the entire mall area with trees, lawn areas, shrubbery, and flowers.

10. The construction of fountains and varicolored lights and the installation of playground equipment and park benches in each section of the mall area.[1]

The results of this program are profound. A delightful atmosphere has been created in the central business district by achieving both structural soundness and to some degree aesthetic unity; pedestrian and vehicular conflict points have been reduced to a minimum; traffic movement and off-street parking have been enhanced; businesses within the redevelopment area have reported an increase in retail sales ranging from 12-30 percent; and in 1965, after the mall had been in use for more than a year, retail sales were up an additional 7.5 percent.

It is of interest to note that the limits of prosperity resulting from this project are not limited to the core area. One indicator of this fact is the 1965 assessed valuation of $16,623,371, the highest valuation ever recorded for Atchison. "This record was achieved in spite of a drop in the actual assessment ratio in Atchison County, from 29 percent in 1962 to 26 percent in 1963. The assessed valuation for the project area is one-third higher today as compared to pre-mall days even though approximately one-fourth of the area is now used for public park-

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[1] Alan Thelen, "Responsible Leadership Earns City Miracle Title," Public Management, p. 216-223.

ing, floodways, and arcades which eliminated it from the taxrolls. The increase in assessed valuation, along with other increased revenues, has enabled the city to decrease its 1965 tax levy by $0.67."[2]

Realization of this project was accomplished through the work of many individuals and groups and with the professional and financial assistance of the Urban Renewal Administration. Although space does not allow a detailed listing or discussion of the many organizations and individuals which over a period of five years made this project a reality, it is of importance to assert that the rebirth of Atchison's central business district was accomplished through the labors of numerous organizations and individuals. However, to use this project as a comparative tool in later discussions, it is necessary to establish the project costs.

Federal grants to the Atchison urban renewal program have totaled nearly $2.4 million, with the local share of public costs amounting to $1.2 million. The mall itself cost $300,000, but these total public costs have resulted in the stimulation of an estimated private investment of $3.5 million.[3]

Springfield, Oregon

Springfield, Oregon a city with a population of approximately 13,500 is located in West Central Oregon. Like most older small

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[2]"Profile of a City--Atchison, Kansas," Urban Renewal Notes, p. 7-10.

[3]Ibid. p. 9.

city core areas, the central business district of Springfield had begun to show signs of deterioration. Characteristics of the situation included vehicular congestion, inadequate parking, pedestrian-vehicular conflicts, declining economic vitality and other general problems which are usually associated with outdated developments.

To combat these problems the city of Springfield took a somewhat unique approach. A shopping mall was proposed, but before the placement of permanent structures; the proposed mall concept would first be subjected to a test. The idea was that the initial project as indicated in Fig. 2 would be constructed and used for a period of time to prove that relative benefits could accrue if a similar but more permanent installation were built.

"Shoppers Paradise" was the name given to the test project in the advertising publicity. To execute the "Shoppers Paradise" a number of projects were initiated, the more basic of which are as follows:

1. Traffic was restricted from Main Street and rerouted on streets paralleling Main Street.

2. Streets running perpendicular to the mall were converted to parking lots.

3. Former parallel parking stalls were temporarily changed to diagonal stalls to consolidate space.

4. On the mall a shopping environment was created through the use of music, color, exhibits, landscaping, play areas for children, and benches for adults.

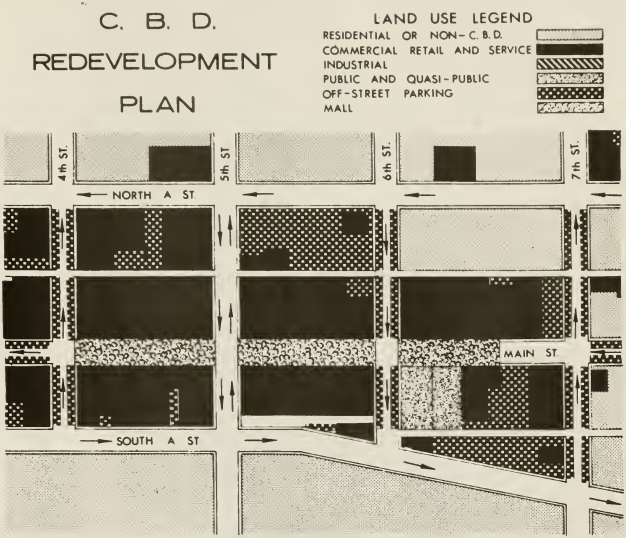

Fig. 2. CBD redevelopment plan for Springfield, Oregon.

Source: Johnston, Norman J. "An Experiment for Renewing a Central Business District," Journal of the American Institute of Planners, p. 13.

The results of the test were in profusion. Merchants on the mall unanimously prospered with a 14% increase in business. People on the mall were at leisure, social, gay, and keyed to shopping. Merchants remarked that the irritated customer seemed to have disappeared. And the highway department's traffic count indicated an average increase of 432 vehicles per day entering Springfield during the test period.

Planners of the project predicted that the necessary research and analysis for a permanent replanning of Springfield's downtown would involve approximately three or four years. However, the immediate effects of "Shoppers Paradise" have culminated in an application for a Federally approved urban renewal project.[4]

Morristown, Tennessee

Morristown, Tennessee is located in Northeastern Tennessee and has a population of approximately 21,000. In 1963 the citizens of Morristown like those of Atchison and Springfield began to realize that their CBD was in need of revitalization. Utility facilities were inadequate, streets were congested, parking space was limited, sidewalks were narrow and in need of repair, business was deteriorating, and the city was losing significant tax revenues in a costly-to-maintain area.

To alleviate this paradox the city entered into a Federal

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[4]Norman J. Johnston, "An Experiment for Renewing a Central Business District," Journal of the American Institute of Planners, p. 11-15.

assisted urban renewal project which presently includes a $3,034,950 plan to redevelop the central business district. This plan is indicated on Fig. 3 and included in the plan are improvements to the following:

1. Water and gas lines.
2. Sanitary and storm sewers.
3. Streets.
4. Off-street parking.
5. Sidewalks.
6. Electric lighting.
7. Traffic control devices.
8. Deteriorating structures.
9. Land for expansion of the CBD.

Some of the more specific details of this comprehensive project call for the construction of off-street parking for at least 1,000 cars, rehabilitation of many structures where in addition to the demolition and construction projects, some 94 merchants have agreed to remodel their stores at their own expense, and construction of an overhead canopy which is also to be used as a walkway to facilitate access to the second floor levels of the CBD structures on Main Street. It is of interest to note that a mall was not employed in this project, but the feasibility of a mall would appear somewhat questionable when one considers obvious limits imposed by the proximity and location of the railroad tracks as shown in Fig. 3.[5]

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[5]Morristown Housing Authority, Morristown Plans Renewal, p. 1-18.

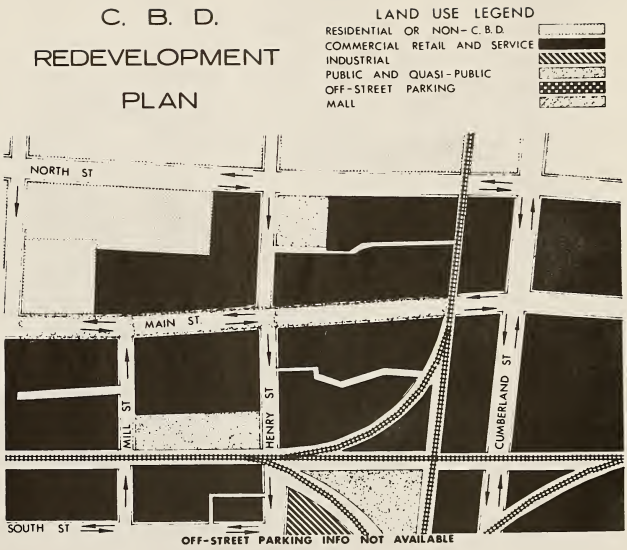

Fig. 3. CBD redevelopment plan for Morristown, Tennessee.

Source: Morristown Housing Authority, Morristown Plans Renewal, September, 1963.

Unfortunately, the Morristown project is only in the execution stage which makes the relative project benefits difficult to discern. However, it may be asserted that the final effect is anticipated to parallel the success experienced by Atchison and substantiated by the Springfield test. Furthermore, since the Morristown project was implemented, several out of town stores have expressed a desire to locate in the redeveloped area. Thus, it would appear that the anticipated revitalization will be realized.

Rome, New York and North Wilkesboro, North Carolina

Rome, New York, population approximately 50,000 and North Wilkesboro, North Carolina, population approximately 13,500 are two other small cities which in recent years have completed plans for the redevelopment of their central business districts. Basically these two cities were experiencing the same core area problems which confronted the aforementioned cities and they both developed similar plans to combat the problems. As indicated in Fig. 4 and Fig. 5, a type of mall was proposed for each of these two cities.

Figure 4 indicates the plan that was proposed in 1959 for the redevelopment of Rome, New York's central business district. This plan, like the previously indicated mall proposals, expedites a perimeter vehicular circulation, but also allows vehicles to circulate on and through the axis of the commercial core. Although the plan was developed in 1960, information reveals that only partial completion of the project has been realized to date.

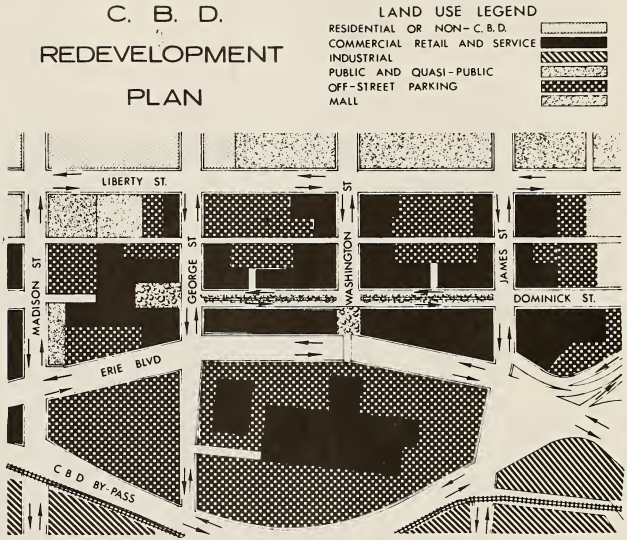

Fig. 4. CBD redevelopment plan for Rome, New York.

Source: Rome, New York City Planning Board, Central Business District Plan, Rome, New York, 1959.

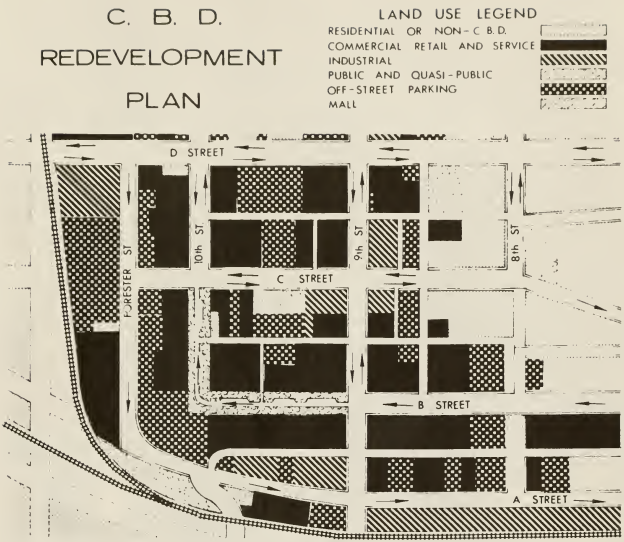

Fig. 5. CBD redevelopment plan for North Wilkesboro, North Carolina.

Source: North Wilkesboro, North Carolina Planning Board, Central Business District Revitalization Plan, 1965, Map 6.

Specific information as to the results of portions completed was not available, therefore a more detailed analysis was not possible.[6]

Figure 5 indicates the CBD redevelopment plan that was completed for North Wilkesboro, North Carolina in 1965.[7] This plan is the most recent proposal presented and because of this fact has not had time to have progressed into the implementation stage. The North Wilkesboro proposal presents a scheme which in many respects is comparable to the plan for Rome, New York, and is presented herein only for the purposes of comparison and to further establish the fact that small cities are becoming increasingly aware of the necessity for central business district redevelopment on a national scale.

To gain a panoramic perspective of the plans presented in this chapter, all of the plans are indicated at a reduced scale in Fig. 6. Concept similarities can be noted especially as they apply to the separation of vehicular and pedestrian movements. With the exception of Morristown, all of the designs attempt to establish a perimeter vehicular circulation pattern. And, although all of the proposals present schemes for a reduction in vehicular-pedestrian conflicts only two, Atchison and Springfield, reduce them to dramatic proportions.

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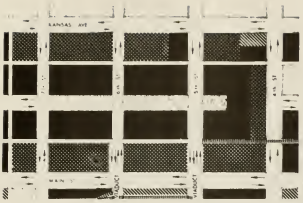
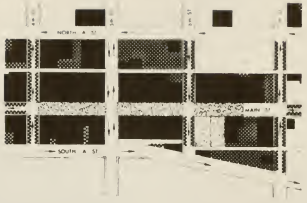
[6]Rome, New York City Planning Board, Central Business District Plan, Rome, New York, p. 36-53.

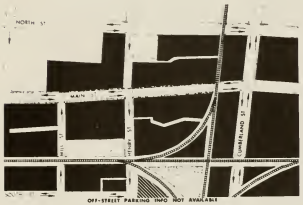
[7]North Wilkesboro, North Carolina Planning Board, Central Business District Revitalization Plan, p. 55-56.



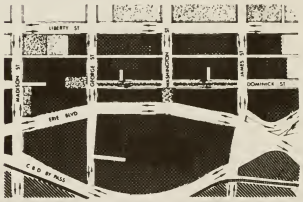
ATCHISON, KANSAS



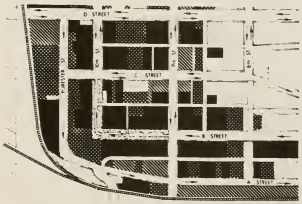
SPRINGFIELD, OREGON



MORRISTOWN, TENNESSEE



ROME, NEW YORK



NORTH WILKESBORO, N. C.

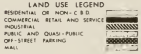


Fig. 6. CBD redevelopment plan examples.

The regularity of similarities in the designs of the various plans would appear to be more than a coincidence. Because the designs evolve to facilitate the CBD function, it would be a logical conclusion that similarities exist in the function of all small city central business districts. Since this thesis is concerned with the formulation of concepts and designs of the small city central business district, the next step in the text is the investigation to delimit the specific functions of the small city central business district.

CHAPTER III

FUNCTIONAL ANALYSIS OF THE SMALL CITY CENTRAL BUSINESS DISTRICT

As a means of delimiting the CBD and studying its internal characteristics, there exist four well recognized approaches, (1) retail sales attraction, (2) land values, (3) daytime population, and (4) functional classification.[1] Although none of the methods exist without limitations, the functional classification approach would appear most applicable to a study concerned with small city CBD redevelopment.

In the procedure for determining a conceptual design for the redevelopment of small city central business districts, the first thing that must be established is the function of that entity. It is apparent from the examples presented in Chapter II that the older small city central business district generally contains

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[1]Shirley F. Weiss, The Central Business District in Transition, p. 7.

a multiplicity of functions which are dynamic in nature. In this analysis, the functions will first be delineated in terms of activities. Next, these functional activities will be interpreted in terms of a proposed land use classification. The relationships between the various functions or land use classifications will then be established and concluding the analyses will be a discussion delimiting the factors which affect the various functions of the small city central business district.

CBD Functions

As pointed out in The Urban Pattern, prior to the great depression almost all central business districts serving a specific region functioned in that area as:

1. The center of commercial activity both retail and wholesale.

2. The center of business service and consumer service activities.

3. The region's cultural center.

4. The center of Federal, State, County and City governmental activities.

5. The center of rail and vehicular transportation activities and as the location of telephone, radio and other communication activities.

6. The center of manufacturing activities.[2]

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[2] Arthur B. Gallion and Simon Eisner, The Urban Pattern, p. 274.

Since the 1930's the larger metropolitan areas have experienced a decentralization of these functions, but this has not yet happened in the small city central business district. Basically, the function of the small city CBD is the same today as it was then. However, to more fully understand the reasons for the status quo of the small city central business district, it is necessary to more clearly delineate its functions.

As a center for commercial activity, the small city CBD furnishes to the retail and wholesale consumer a variety of goods. Department stores, general and variety stores, and speciality stores are usually associated with the retail function while the wholesale function is comprised of a number of establishments with or without stocks on the premises which function to administer the distribution of stocks to the many retail establishments throughout the regional area. The retail function most often forms the heart of the central business district in which the facilities are usually in close proximity to one another to realize the benefits of mutual support.[3] The wholesale function, on the other hand, is usually distributed around the perimeter of the retail function.

In the capacity as the center for the business and consumer service function, the small city central business district furnishes its regional area with a wide choice in both professional and nonprofessional categories. Lawyers, doctors, dentists, bankers, insurance agents, real estate brokers, automotive service

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[3]Laurance A. Alexander, Downtown Idea Exchange, p. 1-4.

personnel, and household goods repair personnel are the people who provide the services to be offered in this function of the CBD. This function, like the commercial wholesale function, is usually located adjacent to the commercial retail function.

As the regional cultural center, the small city CBD functions by providing educational institutions, public meeting places, libraries, and museums. Usually the function as a cultural center is somewhat decentralized in the small city and therefore, is many times overlooked.

The small city central business district functions as the center of Federal, State, County and City governmental activities in the respect that it is usually a County Seat city. The administrative offices of the expanding service activities of the Federal and State governments are usually found in the CBD as well as the offices of City Hall.

In its function as the center for transportation and communication activities, the small city central business district usually has within its boundaries a railroad station, a bus depot, a telephone exchange and a radio station. From the transportation facilities, goods and people are received and transported and from the communication facilities, people are entertained and informed of current events.

As the center of manufacturing activities, the small city CBD functions to provide a limited economic base for the community. Industry is not normally recognized as being compatible with other CBD uses, but many facilities of the light industrial type are still to be found in the perimeter areas of the small city

central business district.

Indeed the functional diversity of the small city central business district is extraordinary, but there are other functions which are found within the limits of the CBD which directly affect the operation of the aforementioned central place functions. One is the residential function and the other is the vehicular and pedestrian circulation function.

The residential function found in the small city central business district is usually recognized as aggregations of high density or apartment type residential structures. These facilities serve the purpose of providing residence to individuals or families who either by choice or economic circumstance wish to be located in proximity to the CBD. The residential function is not a necessary element in the CBD structure, but the function of circulation for both vehicles and pedestrians exists as a necessity for the successful operation of all of the other functions of the central business district.

The circulation function is composed of three basic subfunctions (1) thoroughfares, (2) vehicular parking lots, and (3) pedestrian walkways. These subfunctions facilitate both access to and access between the various functional areas within the CBD. Also, these functions serve as buffers between the other functions and in some cases as recreational open space.

Truly, for its size, between 50 and 100 acres, the small city central business district as applied to this thesis is a very dynamic entity. The concentration of activity is high and the scale of development is low. Coupled together these factors

form a combination which is believed by many to be the key element which has perpetuated the existance of the small city central business district.

One of the most important aspects of any downtown is its scale i.e. how big it is in relation to the people who shop there. If it is too big or too spread out, people cannot shop easily and stores will not support one another; a fact as evidenced by strip-developed streets. On strip streets, stores are all competitors. They are not mutually supportive.[4]

It is obvious that relationships have developed and do exist between the various functions in the CBD, but to more fully understand a discussion of these relationships the functions must be delineated in more common terms.

Land Use Classification

For planning purposes a land use classification system may be used to differentiate between various functions or functional areas. John Rannells in The Core of the City, A Pilot Study of Changing Land Uses in Central Business Districts proposed that the CBD functions could be classified into seven basic land use categories, as follows:

1. Residential.
2. Manufacturing.
3. Wholesale Trade.
4. Retail Trade.

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[4]Ibid. p. 3.

5. Business Service.

6. Personal Service.

7. Transportation, Communication and Other Public Utilities.[5]

It would appear that the Rannels Study was more concerned with the commercial core area of the central business district than the total CBD. In the study there is an apparent limit of insight in respect to both the governmental function and the multipurpose functions of the transportation element. However, in many respects this basic classification is applicable to its small city counterpart.

As applied to the small city central business district functions, this thesis proposes a similar land use classification with eight basic categories. These eight categories include:

1. Residential.

2. Retail Commercial.

3. Wholesale Commercial.

4. Business Service.

5. Personal Service.

6. Public and Quasi-Public.

7. Industrial.

8. Parking.

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[5]John Rannells, The Core of the City, A Pilot Study of Changing Land Uses in Central Business Districts. p. 21.

The correlation between these land use classifications and the small city central business district functions presented in this chapter are as follows.

The residential classification includes all of the land uses which function as the term implies. Single family as well as multifamily facilities are to be included in this classification.

The retail commercial land use category is employed to delineate the retail functions which are mutually supportive and form what is recognized as the core of the central business district. Department stores, general and variety stores, and specialty stores are included in this classification.

Included in the wholesale commercial classification are such land uses as those which are concerned with the wholesale sale of auto parts, food products, and dry goods.

The business service land use classification includes such uses as banks, insurance offices, and other uses as pointed out in the previous discussions of this function while the personal service classification includes land uses which function such as doctors and lawyers offices.

The public and quasi-public classification comprises the combined functions previously delimated as cultural, governmental, transportation and communication, and with the exception of parking, the circulation function. As in Rannells classification, the above mentioned category combines a number of functional land uses which have like characteristics with respect to space use. All of the specific uses as delineated in the discussion

of the above mentioned functions displayed like characteristics in the respect that the land uses included in each functional description served as points of public assembly. Therefore, the functional uses were combined into this single land use classification.

The classification of industrial includes all land uses which function in the general capacity to manufacture items for local, regional, or national distribution.

The parking classification is representative of the land use function as implied by its title. Although it is a public use facility or land use type, it comprises such significant portions of land and exerts such profound influences on the other land uses in the CBD as to necessitate its inclusion into an exclusive category.

Function Relationships

The functions of the small city central business district are numerous, but in recent years it has been recognized that there also exists a relationship between the various functions. The relative importance of understanding this relationship cannot be overlooked, but many redevelopment studies have done just that. Although all of the aforementioned functions and land uses are found in the central business district, numerous studies have differentiated between the land uses by classifying them either as CBD or non-CBD uses. In this system the retail commercial core and the immediate supporting functions are classified as CBD uses and all others as non-CBD. The limitations in

this thought are vested in the fact that many function relationships are neglected.

One of the most enlightening investigations into the functional relationships which exist between the various land uses in the CBD was that done by Edgar M. Horwood and Ronald R. Boyce in their Studies of the Central Business District and Urban Freeway Development.[6] In this study Horwood and Boyce related the various CBD functions in terms of land use intensity, horizontal development, goods circulation, and many other factors to establish a Core-Frame Concept for the spatial distribution of CBD land uses. As indicated in Fig. 7 the retail commercial land uses form the Core while the other functions relate by forming a perimeter Frame. The Core-Frame Concept differentiates between the functions and land uses, but does not separate them.

Tables 1 and 2 delineate the general properties of the CBD Core and the CBD Frame, and although the study was applied to metropolitan areas, visual inspection of the land use plans for the example studies presented in Chapter II indicates that the basic concept is applicable to the small city central business district. The only factor which has been neglected is the governmental function, but with its inclusion as a Frame use or functional cluster, the concept applicability would appear complete.

From the standpoint of following discussions relating to traffic and goods movements, central congestion, functional

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[6] Edgar M. Horwood and Ronald R. Boyce, Studies of the Central Business District and Urban Freeway Development, p. 9-26.

THE CBD CORE – FRAME CONCEPT

SCHEMATIC DIAGRAM WITH SELECTED FUNCTIONAL CENTERS AND PRINCIPAL GOODS FLOWS

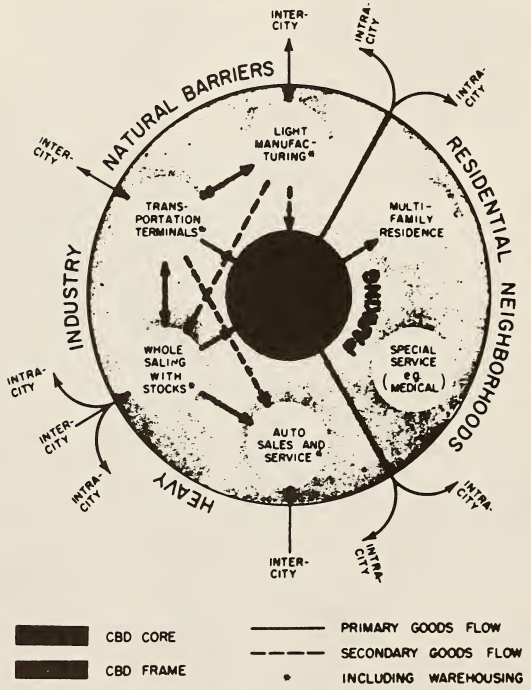

Fig. 7. CBD core - frame concept.

Source: Edgar M. Horwood and Ronald R. Boyce. Studies of the Central Business District and Urban Freeway Development. p. 21.

Table 1. General properties of the CBD core

Property	Definition	General Characteristics
Intensive land use	Area of most intensive land use and highest concentration of social and economic activities within metropolitan complex	Multistoried buildings Highest retail productivity per unit ground area Land use characterized by offices, retail sales, consumer services, hotels theaters, and banks
Extended vertical scale	Area of highest buildings within metropolitan complex	Easily distinguishable by aerial observation Elevator personnel linkages Grows vertically, rather than horizontally
Limited horizontal scale	Horizontal dimensions limited by walking distance scale	Greatest horizontal dimension rarely more than 1 mile Geared to walking scale
Limited horizontal change	Horizontal movement minor and not significantly affected by metropolitan population distribution	Very gradual horizontal change Zones of assimilation and discard limited to a few blocks over long periods of time
Concentrated daytime population	Area of greatest concentration of daytime population within metropolitan complex	Location of highest concentration of foot traffic Absence of permanent residential population
Focus of intracity mass transit	Single area of convergence of city mass transit system	Major mass transit interchange location for entire city
Center of specialized functions	Focus of headquarters offices for business, government, and industrial activities	Extensive use of office space for executive and policy making functions Center of specialized professional and business services

Table 1 (concl.)

Property	Definition	General Characteristics
Internally conditioned boundaries	Excluding natural barriers, CBD boundaries confined only by pedestrian scale of distance	Pedestrian and personnel linkages between establishments govern horizontal expansion Dependency on mass transit inhibits lateral expansion

Source: Edgar M. Horwood, and Ronald R. Boyce, Studies of the Central Business District and Urban Freeway Development, p. 16.

Table 2. General properties of the CBD frame.

Property	Definition	General Characteristics
Semi-intensive land use	Area of most intensive non-retail land use outside CBD core	Building height geared to walk-up scale Site only partially built on
Prominent functional subregions	Area of observable nodes of land utilization surrounding CBD core	Subfoci characterized mainly by wholesaling with stocks, warehousing, off-street parking, automobile sales and services, multifamily dwellings, intercity transportation terminals and facilities, light manufacturing, and some institutional uses
Extended horizontal scale	Horizontal scale geared to accommodation of motor vehicles and to handling of goods	Most establishments have off-street parking and docking facilities Movements between establishments vehicular
Unlinked functional subregions	Activity nodes essentially linked to areas outside CBD frame, except transportation terminals	Important establishments linkages to CBD core (e.g., intercity transportation terminals, warehousing) and to outlying urban regions (e.g., wholesale distribution to suburban shopping areas and to service industries)
Externally conditioned boundaries	Boundaries affected by natural barriers and presence of large homogeneous areas with distinguishable internal linkages (e.g., residential areas with schools, shopping, and community facilities)	Commercial uses generally limited to flat land Growth tends to extend into areas of dilapidated housing CBD frame uses fill in interstices of central focus of highway and rail transportation routes

Source: Edgar M. Horwood, and Ronald R. Boyce, Studies of the Central Business District and Urban Freeway Development, p. 20.

arrangements, business linkages, and space allocations Fig. 7 will be used as a primary reference.

Factors Affecting CBD Functions

The final item which must be established is the factors which affect the small city central business district functions. Basically all of the small city CBD functions are affected by (1) geographic, (2) social, (3) economic, (4) transportation mode, and (5) physical space influences.

Geography influences the central business district by determining the physical characteristics of its site and the physical characteristics of its hinterland. The extent to which a CBD may be developed is directly affected by the topographic character of the land. A rough terrain is much more costly and difficult to develop than is one which is flat. Other elements which are affected by geographic influences are the relative location of the CBD within the hinterland and the relative limits of the hinterland.

Some of the more important social factors which directly and indirectly affect the functions of the CBD are population size, age-sex composition, family size, occupation status, and education levels. For example, a central business district serving a region with a predominance of older people could expect the governmental functions to have an increasing importance i.e. as the administrative center for social security, medicare and other government oriented functions. Likewise a depressed area with low employment rates could also anticipate an increase in governmental activity.

And in both of these cases the retail function could be adversely affected by low volumes of consumer goods sales.

Economic influences such as the trade area characteristics, income levels, and competitive trade center locations affect the small city central business district functions in many respects. If the trade area is small, one might expect a small CBD, but if income levels are very high, the CBD might be of significant size. Competitive centers located in the basic trade area of a community also affect the CBD functions. If few exist, the commercial functions are more centrally located in the primary CBD and they are larger. But, if a number of competitive centers exist, the number of retail functions in the primary CBD will be less and there will be a more limited choice in goods.

Included in the trade area characteristics and its economic influences are the effects of the basic industries. The size, type, and stability of the trade area's economic base exerts a profound influence on the CBD functions. It has been asserted by many people that small cities can be made or destroyed by the location of industries and there is much truth in this statement. However, the flight of industry from the metropolitan areas would indicate that many small cities might be on the threshold of new prosperity if they have adequate facilities to offer these industries.

Transportation modes influence the central business district functions because various modes have differing space requirements. Direct affects of the various modes are reflected in the circulation function of the CBD and the parking space allocations.

It will be noted that the transportation systems in most small city central business districts were designed in the 1800's for a transportation mode oriented to horses, buggies, and pedestrians. But, since that time the automobile has evolved as the major transportation mode.

By evolving as the major mode of transportation, the automobile has created significant problems by congesting the narrow streets and restricting pedestrian movements. Both directly and indirectly this congestion and restriction affects the other functions by making access more difficult. Without access, the CBD functions become inoperable and in many small city core areas this has begun to happen.

The influence of physical space has already been discussed to some degree as it applies to the transportation elements, but the type, availability, quality, and spatial distribution of the various spaces within the central business district affect all functions. If the structural space is obsolete and the location is poor, then the function housed therein could expect to operate at a level below desirable limits. Operating as such, the function would be susceptible to competitive migrations which might eventually destroy it.

Also important to the functional operation of the CBD land uses is the quality of the space. Such elements as aesthetics and design unity affect all of the CBD functions. The existance or absence of a pleasing and aesthetic atmosphere within the core area can either facilitate or significantly reduce the marketability of both the products to be sold and the services to be

rendered. Unity of design is absent in most older small city central business districts because the numerous buildings which adorn the frontage of its many thoroughfares were constructed at different times and with different construction materials and techniques. As was indicated in the examples in Chapter II, most redevelopment plans contain comprehensive approaches to the problems of CBD beautification and aesthetics.

Obviously, the small city central business district has many functions even more numerous than presented and the same is true for the factors which affect these functions. Each of these elements is so complex as to necessitate an individual study to determine the specific implications, but the nature of this thesis dictates a limited amount of space in this respect. Therefore, only the major elements have been discussed.

CHAPTER IV

DEVELOPMENT ANALYSIS OF THE SMALL CITY CBD

In most small cities the past failure of the core area merchants and the local government to periodically inventory and adjust their CBD facility to changes in the trends which affect it is obvious. Many small cities are beginning to realize the ill effects which result when this attitude prevails, but there are still individuals who contend that a redevelopment of the central business district would be too expensive. However, it is the continued neglect which could eventually result in the greatest public cost.

In June, 1965 Architectural Forum reported what cities would have to replace, if they chose to neglect and eventually abandon, their central business districts. "They would have to replace a real estate investment of some $500 billion, which is roughly some $3,000 for every man, woman and child in the United States. On top of this, they would have to replace the public investment in utilities such as streets, water lines, sewer, gas, electric lines, rebuilding them in new areas. They would also have to find new sources for four-fifths of the nation's taxes, which are now collected from cities, and of which anywhere from 20 percent to 65 percent come in turn from the downtown areas of these cities. They would have to build anew the going institutions of the city: The institutions such as schools, hospitals, churches; the cultural resources involving such things as theaters and central libraries; the protective services such as police and fire departments."[1]

Although these statements represented a general application to all central business districts, it does emphasize the economies to be realized by retaining the CBD. In Chapter II the fact was established that following the completion of the Atchison CBD redevelopment project, the city tax levy was reduced by $0.67. This fact would indicate the validity of the statements made and further emphasizes the economic importance of the CBD.

It has been established that in most small cities the vitality of the central business district is on the decline and that

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[1]"How to Rebuild Cities," Architectural Forum, June, 1955, p. 123.

this decline has been caused by the failure to both recognize the trends in the factors affecting the CBD and to organize and develop solutions to combat the trends which have adverse effects. In Chapter III the basic factors which affect the CBD functions were determined and it is these factors which are of most concern.

Basically this chapter will be concerned with delineating the more specific influences in the factors which have affected the small city central business district and will affect it in the future. The analysis will first be outlined and discussed in terms of general applications and then an application of these factors will be made to the case study of Trenton, Missouri.

General Application

In Chapter III it was established that the major factors which affected the functions of the central business district were geographic, social, economic, transportation mode, and physical space. Since the central business district is a physical element employed to facilitate the CBD functions, then the specific factors which affect the functions must be analyzed to determine the adequacy of the existing and future modus operandi. The factors exert varying degrees of force upon the development of the CBD, but in the planning process for determining a proper CBD redevelopment plan; the analysis must be in much greater detail. Past and present influences must be established and future conditions must be projected.

In the process for determining the past and present influences, facts can be employed; but to accurately project future

conditions necessitates a more involved process. The city planner is not a messiah and being handicapped by this he must resort to other means, the more basic of which are trends. Trends have long been accepted in the business world for projecting future conditions and in relation to projecting future conditions in the CBD they are the best tool available. Trends in the various factors which influence the small city CBD must be established, but there are limitations in this methodology.

Most small cities do not have a diversity in their economic base and usually exist with an acute dependency upon the vitality of one or two basic industries. The loss of either industry could have grave influence on the economic condition of the region and likewise affect any trends which assumed their continued existance. Similarly, if the economic base were expanded by the arrival of new industries, a comparable affect could be anticipated. However, where small cities are concerned it is usual to assume the relative trend in the existing basic industry as the standard for determining future population growth.

The geographic influence should be analyzed from the standpoint of historical significance, hinterland and regional location, and in respect to specific site limitations and potentials. Two of the examples presented in Chapter II had distinct disadvantages because they were located in flood plains and another had a disadvantage because of its proximity to mountainous terrain. All are affected to some degree because of their geographic location to other trade centers and in a broad sense the geographic location affects all of the other factors. For the purposes of

this specific determination only the more basic have been presented, but the more comprehensive influences should be recognized.

In relation to the trends of the geographic influence, the most important is that of the regional location. The proximity to both larger and smaller competitive centers should be investigated and the influences determined.

The major factors of social influence are the population size, age-sex composition and occupation status. An analysis of these factors should establish the past and present conditions and the information tabulated so statistical trends can be established. These factors do determine to a great degree the relative size of the CBD facility and to a lesser degree the orientation of the various functions. To clarify, the size of the population directly affects the physical size of the central business district while the composition and occupation status of the population determines to some degree the types of services and retail sales that must be offered in the CBD. The trends in these factors will indicate what might be expected in the future and as applied to existing conditions, the present inadequacies can be determined.

The economic influence analysis should be oriented to an investigation of the volume of retail sales and service activities as applied to the market area potential. By analyzing these factors, the various space needs for these CBD functions can be established. Although this determination appears somewhat limited in scope, the basic volumes of these activities is the single most comprehensive economic factor. The sales volume information is

directly applicable in the determination of physical needs in the CBD redevelopment process. Other factors such as the economic base and income levels and their related trends are important but are usually reflected in the population analysis and projection.

The transportation mode influences should be analyzed in four basic categories: (1) passenger vehicles, (2) trucks, (3) pedestrians, and (4) transit.[2] In the past, the central business district was only a terminal point for people and goods, but today it also must function as a terminal for vast volumes of automobiles. In most small cities, the CBD has simply been unable to handle the mass movements and storage of automobiles.

The analysis of these factors should be correlated to the street system and its capacities as well as to the necessary storage spaces or parking lots. Accessibility and conflicts between the various modes must be established and the relative trends in relation to further volume increases must be determined.

The physical space analysis is the final and most comprehensive factor to be considered. In this process an inventory of the existing physical space must be achieved and this is where the functional classification of the CBD land use is employed. Each of the functional classifications of CBD land use must be analyzed in respect to their existing and future space requirements. The information obtained in the geographic, social, economic, and transportation analysis can then be directly applied

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[2]"Central Business District Goals," American Society of Planning Officials Planning Advisory Service, August, 1959. p. 12.

to the physical space analysis to determine both existing and future space requirements. And with these facts established, a redevelopment plan may then be conceived in relation to the considerations to be given to the spatial distribution of the functions and the aesthetics.

As was previously mentioned, it has been established that the development or redevelopment of a central business district is controlled and affected by five basic influences. An analysis of these influences is a necessity for arriving at a CBD redevelopment plan, but there are specific elements within each general influence category which are more important. These specific influences have been delineated in this chapter and exist as the basic analytical approach to be taken for any small city CBD redevelopment planning. The analysis may be outlined as follows:

1. Geographic analysis including investigations into regional location and site characteristics.

2. Social analysis with emphasis on the population size, composition and occupation factors.

3. Economic analysis including an investigation into the service activity business levels and the retail sales volumes.

4. Transportation analysis with particular attention to delineating the implications of all modes of travel including passenger vehicles, trucks, pedistrian, and transit.

5. Physical space analysis including a determination of the spatial distribution quantity and quality of the structures which house the various land uses.

Having established the approach, it will now be employed to determine its relative applicability to a case study.

Case Study: Trenton, Missouri

The City of Trenton, Missouri is located on the east bluff of the Grand River in the center of Grundy County. As indicated in Fig. 8, the city has a strategic location in relation to the major means of transportation: the Rock Island Railroad; the recently completed Trenton Municipal Airport; the Federal Highway U.S. 65; and the recently relocated Missouri Highway 6. In 1960 the city recorded a population of 6,282, but because of its favorable location and transportation facilities Trenton serves as the center of a much larger region and population.

Basically, the region which constitutes Trenton's trade area is indicated in Fig. 9 and can generally be delineated by the county line with moderate extensions beyond the east and west boundaries. This area contains a total population in excess of 12,000 persons, encompasses approximately 452 square miles, and includes a part or all of the following towns: Modena, Spickard, Tindall, Harris, Osgood, Humphreys, Galt, Dunlap, Laredo, Farmersville, Jamesport, Melbourne, and Gillman City.

The commercial center of this area is the central business district of Trenton which occupies approximately 50 acres bounded by Thirteenth, Haliburton, Monroe, Sixth, Jackson, and Cedar Streets as indicated in Fig. 10 and Fig. 11. This area is the focal point for both the city and its market area and contains the region's major retail, service and governmental facilities.

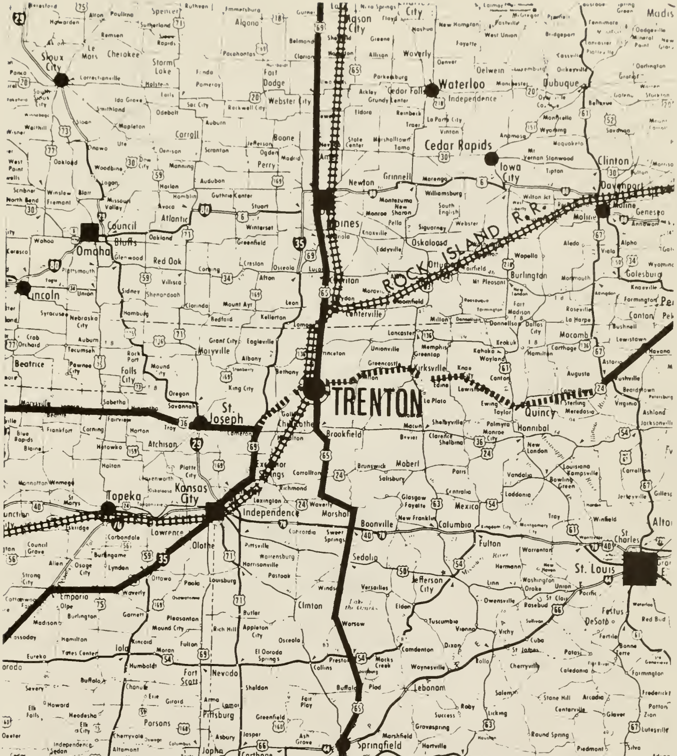

Fig. 8. Regional location of Trenton, Missouri.

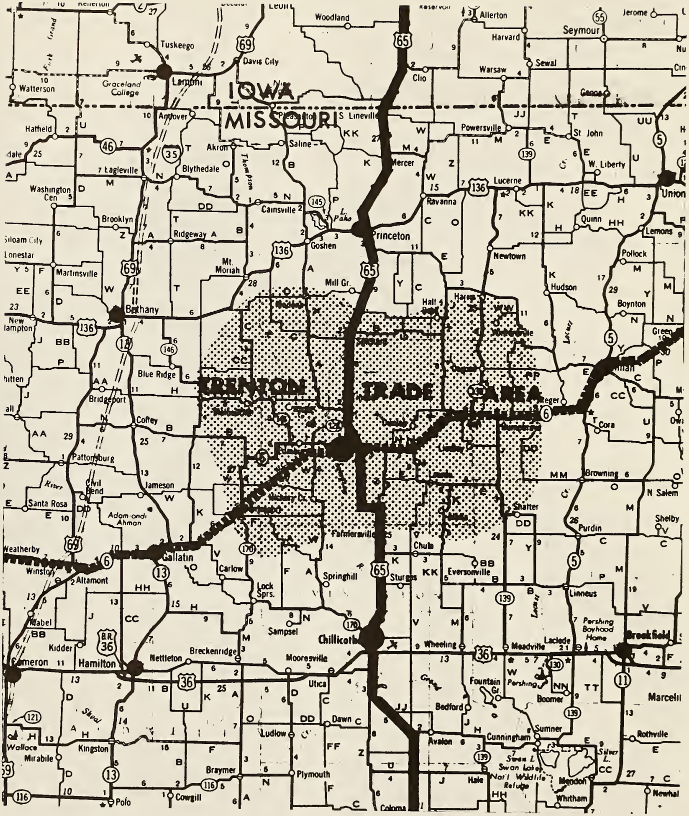

Fig. 9. Location of the Trenton Trade Area.

Source: Personal Interviews.

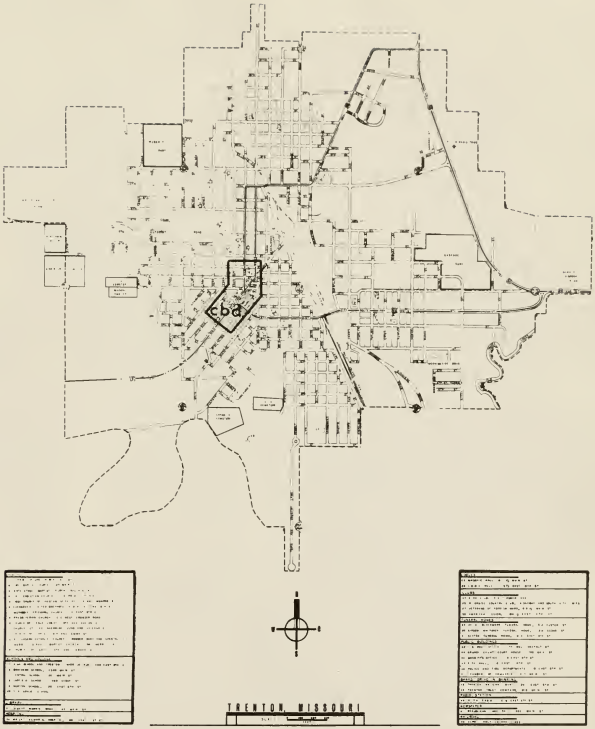

Fig. 10. Trenton, Missouri city limits and the location of its CBD.

Source: Trenton, Missouri Chamber of Commerce.

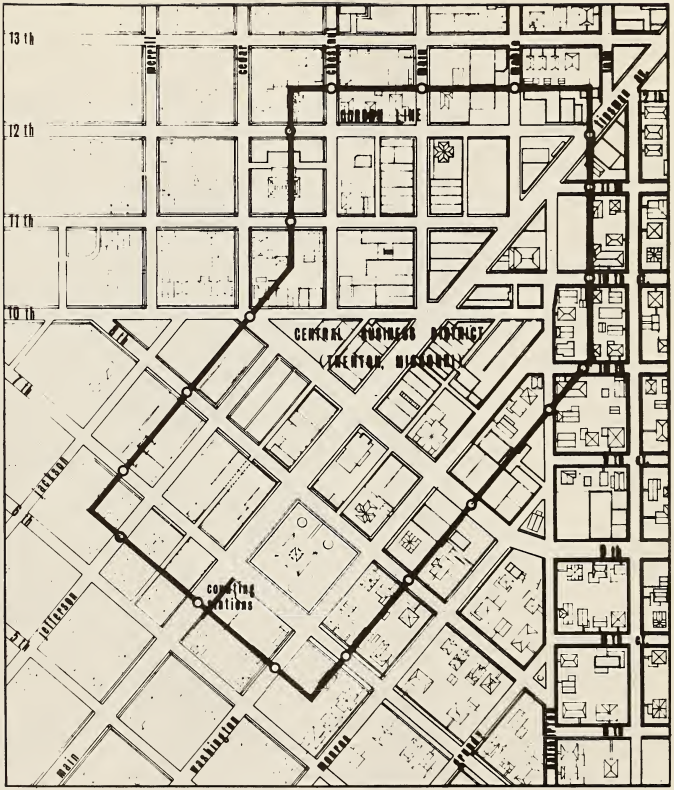

Fig. 11. General location of the Trenton, Missouri central business district by cordon line.

Source: By author.

Trenton is the county seat city of Grundy County and is in many respects a typical small city. Its central business district is also typical with the only exception being that it contains less structural obsolescence than is usual. However, most of the structures are old and inadequate. The land uses are mixed, sidewalks are narrow and often overcrowded, vehicular traffic is congested, and parking facilities are limited.

As a result of these conditions, the CBD of Trenton is in need of redevelopment and revitalization, but to do this the present inadequacies and specific needs must be determined. To determine these inadequacies and needs, the analytical process as previously presented will be used.

Geographic Analysis. To some degree the geographic analysis has already been discussed with Fig. 8 and Fig. 9 illustrating the general geographic location and trade area of Trenton. The topography of the trade area basically consists of an upland plain having an elevation varying from 800 to 1,000 feet above sea level which gently slopes to the south. The soil is moderately rich and supports a substantial agricultural industry. Various grades of coal are to be found in some areas, but since the railroad and other industries have converted to petroleum for power, extraction has ceased to be feasible.

The general topography of the central business district area is indicated on Fig. 12 and shows that Trenton's core area is basically located on a ridge line. The land gently slopes to the east, but to the west, grades up to 11 percent are to be experienced. Subsurface compositions contain certain amounts of

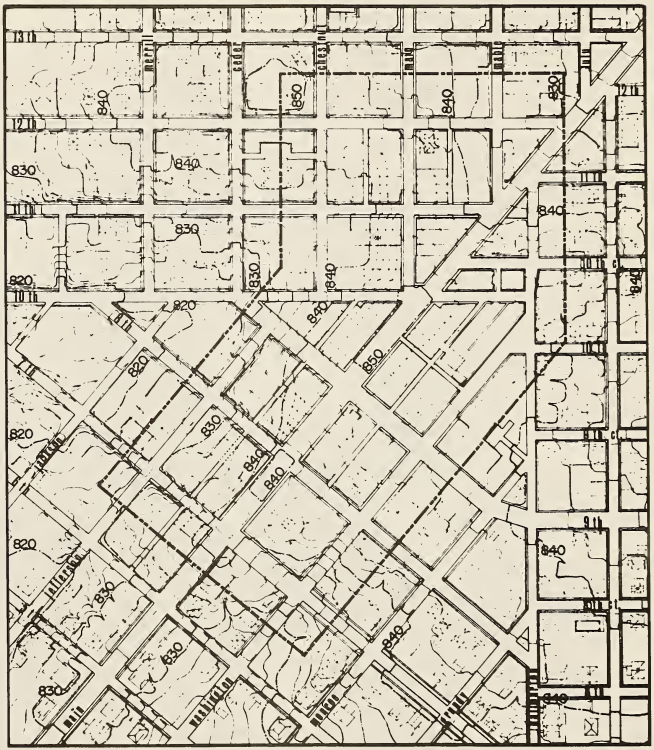

Fig. 12. Topography of the Trenton CBD area.

Source: National Geologic Survey and the Missouri State Highway Department.

limestone, but not to the degree of making moderate excavations and construction excessively costly. As the topography affects a redevelopment plan, it can generally be asserted that any comprehensive parking plan would be affected by topography. New building construction to the west of the core area axis would also be affected, but since residential growth has already reached the Grand River flood plain in this direction, further expansion of the CBD to the west would not appear likely. However, before physical growth can be discussed it is first necessary to analyze the other factors which affect the CBD.

The Social or Population Analysis. Figure 13 indicates the general population growth of Trenton as compared with the State of Missouri and the United States from the year 1870 to 1960. It will be noted that the City of Trenton experienced a disproportionate population growth between 1870 and 1920 which in many ways can be attributed to the railroad. During this period, Trenton functioned as the area's predominant transportation and trade center and it was also the location for the Rock Island Railroad's Missouri division shops and offices. Indeed, this was an era of prosperity for the city, but after 1920; the situation began to change.[3]

In the 1920's and 1930's the rural people of the county and of the agricultural area around Trenton began their exodus to the cities. Rail transportation began to falter under the competition

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[3]William R. Denslow, Centennial History of Grundy County, p. 147.

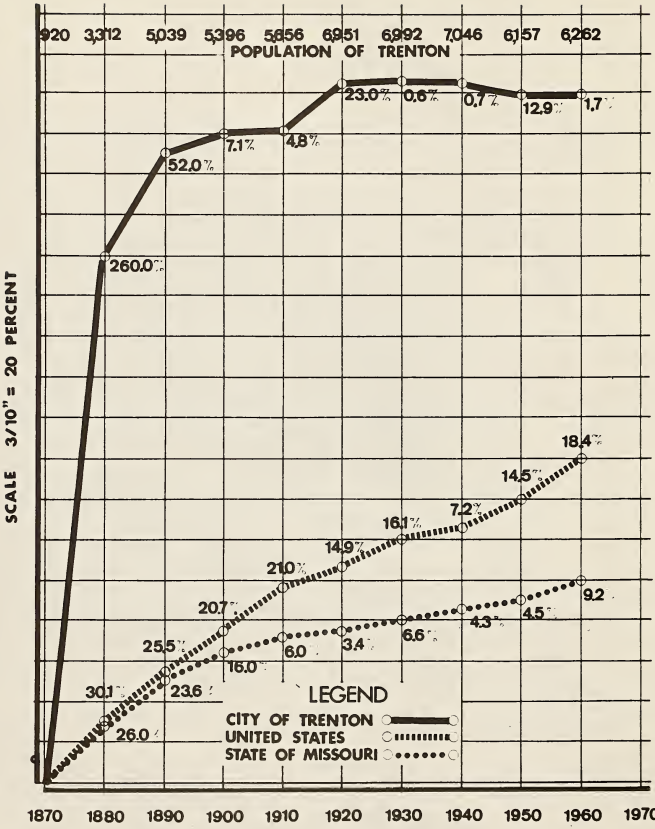


Fig. 13. Comparative Population Growth, City of Trenton, United States of America, and the State of Missouri

Source: 1880, 1900, 1920, 1940, 1950, and 1960 U.S. Bureau of the Census.

of the automobile and Trenton was caught in the middle. From 1920 to 1940 Grundy County experienced a net decrease in population of 1,838, but because of the inertia of the rail industry and the in migration of rural people, the City of Trenton was spared from population loss.

In the 1940's, the exodus from the rural areas continued at an accelerated rate and with the loss of the Rock Island railroad shops and division offices, both the city and the county experienced substantial decreases in population. As indicated in Table 3, during this period Trenton had a 12.9 percent population decrease and the county had a 18.5 percent decrease. The rural exodus continued into the 1950's, but with this exodus and moderate diversifications in industry, the City of Trenton was able to stabilize population losses.

Table 3. Comparative population increases in percents for Trenton and Grundy County 1930 - 1965

	City of Trenton		Grundy County	
Period	Population	Percent Change	Population	Percent Change
1930	6,992	----	16,135	----
1940	7,046	0.7	15,716	-2.6
1950	6,157	-12.9	13,220	-15.9
1960	6,262	1.7	12,220	-7.6
1965	7,500	19.5	12,040	6.7

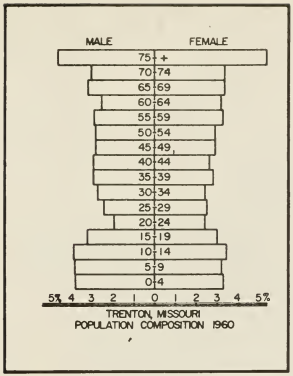
Source: 1930, 1940, 1950 and 1960 U.S. Bureau of the Census and The Trenton Chamber of Commerce

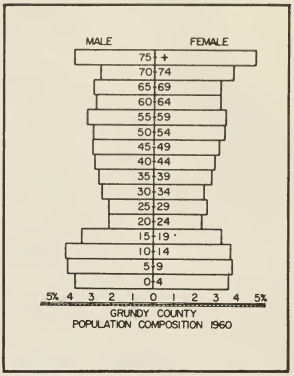
Then in the late 1950's and early 1960's, the people of Trenton embarked upon an industrial development campaign which has had significant results. Existing basic industries were expanded and a number of new industries were drawn to Trenton. As a result, in the last five years the city has experienced a 19.5 percent population growth, new construction is at an all-time peak, and reconstruction of many of the older public and private facilities are either being contemplated or are in construction phases.

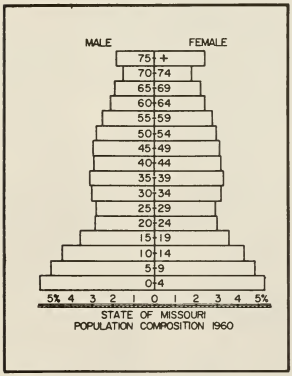
The composition of the population has also had important effects upon the growth of Trenton and its CBD trade area, but unfortunately the effect has been adverse and will continue to exist for many years. As indicated in Fig. 14, in 1960 the City of Trenton and Grundy County had disproportionate percentages of older persons in their populations and Fig. 15 indicates that between the years of 1950 and 1960 the circumstance had worsened.

The situation indicated by the facts presented in Fig. 15 is characteristic of areas which are deteriorating economically and was a statement of fact for the case study trade area in the 1950's. It was not until late in the decade that job opportunities in basic industries became of significant numbers to slow the migration of younger people from the area.

As evidenced by the population losses in the 20-30 age groups, younger persons were leaving the area during the 1950's, but at the same time large numbers of the retiring county farm population were migrating to the city. As illustrated in Table 3, the result was a loss in total county population of 1,000 while the City of Trenton experienced a small increase in population of 115.







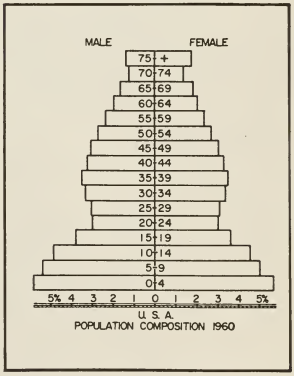
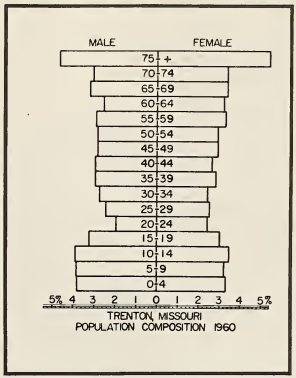
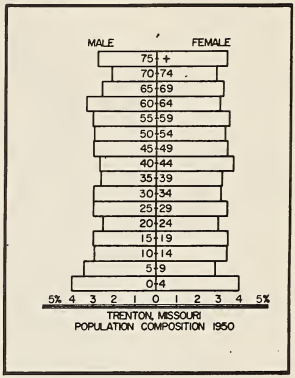
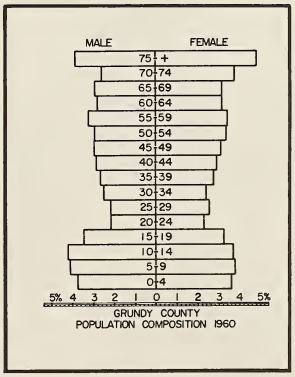


Fig. 14. 1960 population compositions by age and sex for the City of Trenton, Missouri, Grundy County, the State of Missouri, and the United States of America.

Source: 1960 U.S. Bureau of the Census.







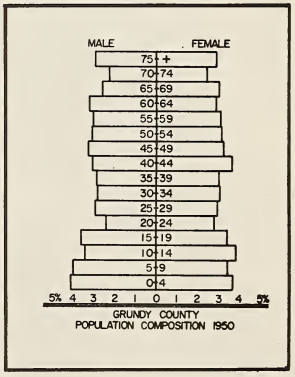


Fig. 15. 1960 and 1950 population compositions by age and sex for the City of Trenton, Missouri and Grundy County.

Source: 1950 and 1960 U.S. Bureau of the Census.

Since 1960, facts would indicate that the rural trade area population composition has changed very little, but the age-sex composition of Trenton's population has changed significantly. Although time did not allow for detailed investigations into the specific 1965 conditions of the rural and city population compositions, it can be assumed that the 19.5 percent increase in the city population in the last five years has had beneficial effects. The increasing number of industrial and service job opportunities appears to be drawing an increasing number of younger persons into the city.

The trends would indicate that the City of Trenton, like many other small cities, is beginning to feel the effects of industrial decentralization. Facts would indicate that it will continue to grow, but for the purpose of central business district redevelopment planning, a more specific determination of population growth must be made. It is usual for planning purposes to project population growth in twenty year periods and this is what will be done for Trenton and its Market Area.

It can be estimated that approximately 13,500 persons will live in Trenton by 1985. However, this projection is based on certain assumptions and qualifications, the more important of which are as follows:

1. That industrial expansion and diversification as experienced in the City of Trenton in the last five years will continue at the same rate.

2. That rural migrations to the City of Trenton will continue at decreasing rates to the year 1980.

3. That physical renewal of Trenton's CBD and the city as a whole will be realized.

4. That no major national or local economic depressions will occur.

For the Trenton market area or trade area, a general decrease to a population of 5,000 can be projected for 1985. This projection, like the one for the city, has limitations based on the same assumptions and qualifications and in addition is affected by the additional assumptions as follows:

1. That rural farm population in the market area will continue to decrease until 1980 and then stabilize.

2. That general market area expansion will occur to the North, East, and Southwest of the existing market area.

3. That Trenton will continue to be the dominant center of expanding population in the general undeveloped market area.

Basically the population projection for the city assumes a constant increase of 1,500 persons in each five year period while the market area projection assumes a proportional decrease in population to the year 1980 with a relatively static condition prevailing to 1985. In the aggregate, as indicated in Table 4, it is estimated that approximately 18,500 persons will live in Trenton and its market area by 1985. This represents an increase of approximately 42 percent or 5,460 persons above the current population estimate of 13,040 persons.

Table 4. Population of the City of Trenton and its Market Area

1940 to 1965 and Projections to 1985

Year	Trenton		Market Area		Total	
	Population	Percent Change	Population	Percent Change	Population	Percent Change
1940	7,046	----	8,670	----	15,716	----
1950	6,157	-12.9	7,063	-18.5	13,220	-15.9
1960	6,262	1.7	5,958	-15.7	12,220	-7.6
1965	7,500	19.5	5,540	-7.0	13,040	6.7
1970	9,000	20.0	5,208	-6.0	14,208	18.0
1975	10,500	16.7	4,948	-5.0	15,408	8.5
1980	13,500	28.6	5,000	0.0	18,500	20.0

In relation to employment, the most recent data available indicate that in 1960 approximately 4,512 persons were employed in Grundy County. As illustrated in Table 5, this represents a decrease of 348 persons or 7.2 percent below the 4,860 reported in 1950. It can be seen that the market area was affected by the loss of 734 agricultural employees and that the City of Trenton received a similar experience in the loss of 75 railroad employees.[4] However, the city was able to absorb the loss in the increasing number of job opportunities in the manufacturing and retail trade categories.

[4]The Fantus Company, Trenton-Grundy County as a Location for Industry, p. 142.

Table 5. 1950 and 1960 Grundy County employment

Employment Category	1950	1960	Percent Change
Agriculture	1,950	1,216	-37.7
Transportation and communication	609	520	-18.9
Construction	239	236	- 1.3
Personal, business, professional and other services	726	752	3.6
Wholesale and retail trade	854	970	13.5
Public administration	125	158	26.4
Manufacturing	247	558	125.9
Other	110	102	- 7.3
Total employment	4,860	4,512	- 7.2

Source: Trenton-Grundy County as a Location for Industry, p. 141-142.

Agriculture continues to be the major industry of the market area, but the manufacturing of nondurable goods, food products, is becoming more important. While the market area is experiencing the loss of basic agricultural industry employment, the City of Trenton is expanding in manufacturing employment and is becoming more important as a regional and national industrial center. Furthermore, the trends indicated by this employment shift illustrate that the City of Trenton is becoming more important as the regional center for wholesale and retail trade, personal and business service, and governmental activities.

Economic Analysis of Retail Trade and Service Business. In the investigation of the economic factors of retail sales and service activities relating to Trenton and its CBD, reference will be made to the 1963 report, Trenton-Grundy County as a Location for Industry prepared by the Fantus Company of Chicago, Illinois. In this report, it was found that for the market area

retail sales were 115 percent of the population potential. This meant that retail sales were 15 percent above what might be expected on the basis of population alone.

For the various categories of retail sales, Table 6 illustrates the sales volumes as a percentage of what would be expected in relation to the population potential. For example, retail sales of construction and hardware materials were 124 percent greater than what would be expected on the basis of county population. Drugstore sales were 24 percent above what might be expected on the basis of population and automotive sales were 33 percent below what might be expected on the basis of population.[5]

Table 6. 1963 county retail sales by population potential

Retail sales category	Percent of sales relative to population potential
Construction and hardware material	124.0
Gasoline	90.0
Drug	24.0
General Merchandise	13.0
Home Furnishing	6.0
Food	-12.0
Eating and Drinking	-25.0
Apparel	-25.0
Automotive	-33.0

The report revealed that shoppers in Trenton were basically satisfied with the services and selection offered by local stores selling foodstuffs and hardware, and to a lesser extent, contented with the offerings of men's and women's clothing stores. However, dissatisfaction was expressed in terms of availability

[5]Ibid. p. 178-179.

in certain lines of apparel and in the offerings of the eating and drinking establishments.

As applied to the redevelopment of the CBD retail facilities, the report made a number of suggestions, the more important of which are as follows:

1. An addition of a large clothing speciality shop to be located in the CBD.

2. A comprehensive storefront modernization with an emphasis on unity in design, color and texture.

3. The expansion of vehicular parking facilities.

4. The continued display of foliage and flower trees in the CBD.

The existing floor area for retail sales in the CBD under normal conditions appears adequate, but in many stores a congested condition does exist on peak shopping days. Adequate space is essential if the full potential of the shopper is to be realized and, although not critical at the present time, additional floor space is needed. Assuming a constant per capita square foot projection, and based on future population estimates, it can be anticipated that the minimum area requirements by 1985 will be 42 percent greater than the existing demand.

In relation to the service activities in Trenton it was found that the income from this industry was 47.8 percent below what would be expected on the basis of population. The income from the various types of services in the market area expressed as a percent of what would be expected on the basis of population are listed below.

1. Automotive services: (automobile repair, auto services, garages, etc.) - equal to the income expected on the basis of population.

2. Personal Services: (beauty shops, barber shops, laundries, cleaning and dyeing, photographic studios, shoe repair shops, funeral services, garment repair, etc.) - 20.9 percent below the income expected on the basis of population.

3. Other selected services: (hotels, motels, tourist camps, business services, consumer credit, janitor services, appliance repairs, recreation and amusement services) - 67.2 percent below the income expected on the basis of population.[6]

In 1958 Trenton and Grundy County earned only $1,130,000 from these service industries while the national trends indicated that this income would be approximately $2,180,000. Assuming that services in the market area can be brought up to the national average, and based on the population projections; it could be estimated that service industry income may triple by the year 1985.

The facts presented would indicate that the future growth in the Trenton area would more than justify the investment in a CBD redevelopment project, and in light of the fact that other cities in less fortunate circumstances equitably redeveloped their central business districts; this assumption would appear even more justified. However, to accurately delineate the economic limits in which a redevelopment plan must operate, one must further analyze the existing and future retail and service

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[6] Ibid. p. 174-178

establishments in relation to their dollar incomes to determine the relative feasibility of the physical plant alterations. To this point, only general space needs have been discussed and although complexities precluded the investigations into this detailed economic study; it is necessary that it be recognized.

In the planning procedure for determining the economic ability to pay for the redevelopment of the central business district, the processes are basically the same as that which is employed in the feasibility study for shopping center developments. The process consists of four basic steps as follows:

1. Trade area or market area investigations into the population income levels, places of residence, work, and transportation routes, the trends in natural population increases and direction of its growth, the existing and potential location and volume of trade in competitive shopping establishments to establish the volume of trade which could be anticipated in the CBD.

2. The gross potential sales for the CBD is then derived from the estimated expenditures for various goods and services in the market area.

3. The sales volume per square foot of retail and service floor space must be established, then the net sales volume may be projected for the CBD in relation to the projected sales volumes in existing and potential competitive enterprises in the market area.

4. The physical space in the CBD that can be supported by the net sales from the market area may then be estimated from the

average annual sales per square foot of floor space in the existing retail and service facilities.[7]

To a limited degree, this procedure was followed, but the absence of an accurate floor area inventory precluded a more detailed analysis.

Transportation Analysis. Historically Trenton has been a transportation center for some time. From 1872 to 1937 it was the location of the Rock Island Railroad division offices and since 1937 it has existed as the section point for that facility. The region's major highways, Federal route U.S. 65 and Missouri highway 6, intersect and pass through Trenton and its central business district. Past development of the city has depended to a great degree upon these transportation limbs and in relation to the redevelopment of the CBD the effects are equally important.

As the intersection of the areas' major transportation routes, the area of highest concentration of daytime population and the most intensive land use, the central business district of Trenton is the location of the greatest traffic activity in the county.[8] In this situation the CBD functions as the hub of the regional transportation network including four basic modes: passenger vehicles, trucks, pedestrian, and transit (trains).

To investigate the passenger vehicle mode, one must first start with the system on which it operates i.e. the street system. The street system in the Trenton central business

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[7]Arthur B. Gallion and Simon Eisner, The Urban Pattern, p. 270-273.

[8]Trenton, Missouri, Traffic Survey 1955, p. 18.

district consists of three basic grid type street patterns, two oriented on a north-south east-west alignment which do not coincide and the other oriented on a northeast-southwest northwest-southeast alignment. Designed in the 1860's and 1870's, the system is characteristic of its horse and buggy vintage. Most of the pavement widths are 24 feet, but in some locations are as wide as 48 feet.

As applied to the existing function, the street system may be classified in three categories: major arterials, collectors, and local access.[9] As illustrated in Fig. 16, the existing system in Trenton's CBD consists of a combination of the three which employs a one-way street operation to facilitate movements in the central and north areas.

Figure 16 also illustrates the complexity and general limitations of the system. The pattern imposed by the irregularities in the grid design is evident. Through traffic movements in the area are restricted to Main Street in a north-south direction and to Ninth Street in an east-west direction. Coupled with the narrow streets, the irregular intersections which exist present driving hazards to the vehicle operators.

All of the streets in the core area are surfaced, but in the fringe areas Sixth, Fifth, Jackson, Jefferson, Washington and Monroe Streets are gravel surfaced. While most of the streets have curb and gutters, the aforementioned streets and Seventh

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[9]"Standards for Street Facilities and Services," Public Administration Service, p. 11.

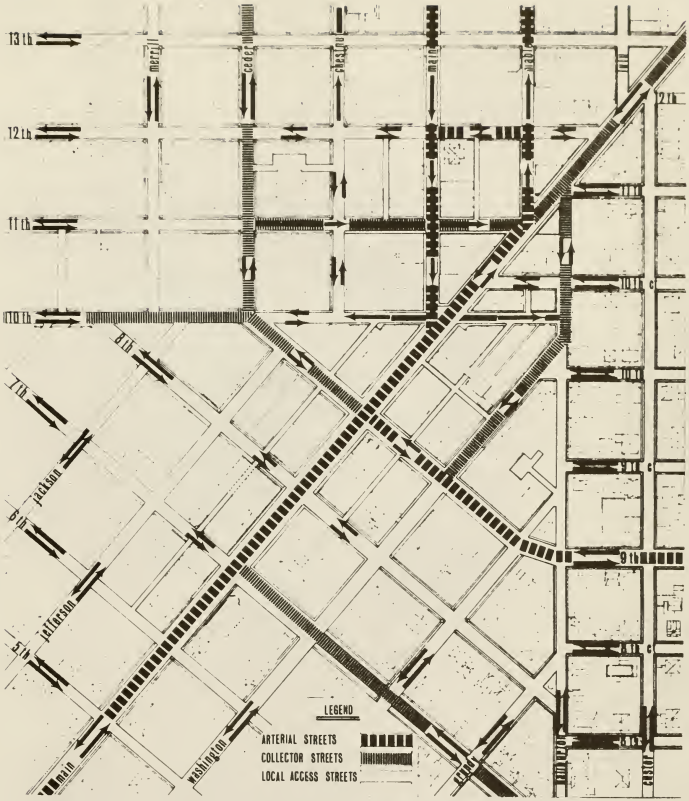

Fig. 16. Street classification system for the Trenton CBD.

Source: Standards for Street Facilities and Services, p. 11.

Street do not. Fortunately, drainage is not a problem in the CBD because of its general location on a ridge line.

Figures 17 and 18 reflect the volumes of vehicles and persons which enter and leave the Trenton CBD on an average day. A total volume of 5,058 vehicles passed the counting station on Ninth Street in the 12 hour period between 6:00 a.m. and 6:00 p.m. which represented the greatest volume for any one counting station. The second greatest vehicular volume was experienced on the one-way street system of North Main and Mable Streets which totaled 3,665. The third highest volume was counted on South Main Street and totaled 1,990 vehicles.

These three counts represent the volumes experienced on the arterial street system which is composed of the major Federal and State highway routes in the market area. South Main Street is the route for Missouri highway 6, the one-way street system of North Main and Mable Streets is the route for Federal highway U.S. 65 and Ninth Street is the combined route for both highways. Because of railroad bridge locations, it is of interest to note, that this basic system of CBD ingress and egress must be retained in the redevelopment plan.

In the existing thoroughfare system analysis, the following conditions were found to exist:

1. A complex system design precluding further modifications in general operation.

2. Narrow pavement widths being further restricted by curb parking.

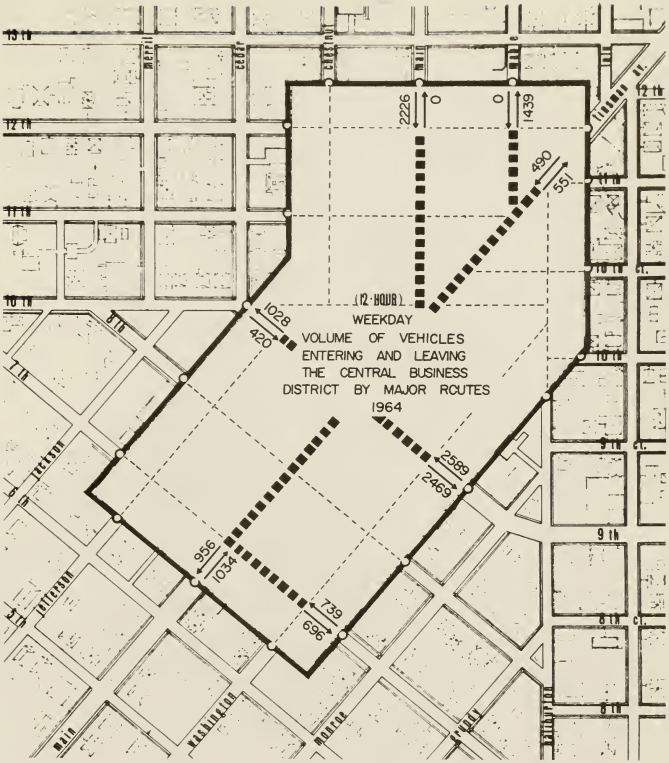

Fig. 17. Volume of vehicles entering and leaving the Trenton CBD by major routes, 1964.

Source: Traffic survey by author, June, 1964.

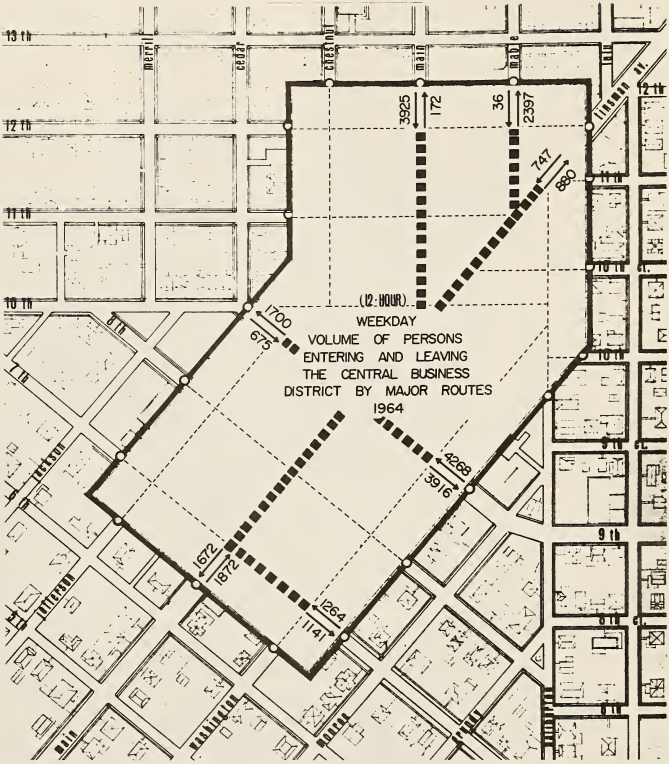

Fig. 18. Volume of persons entering and leaving the Trenton CBD by major routes, 1964.

Source: Traffic survey by author, June, 1964.

3. The Ninth and Main Street signalized intersection operating at capacity with average daily traffic and exceeding capacity on peak days to the point where vehicles are stacked for three block distances to the North.

4. Conflicts between vehicles and pedestrians in the three blocks of Main Street between Ninth and Twelfth Street.

5. Excessively steep grades West of Main Street on Seventh, Eighth, Ninth, Tenth and Eleventh Streets.

6. Sight distance restrictions at almost all intersections and an especially hazardous intersection at Haliburton and Ninth Street.

7. Inadequate space for right turn movements for trucks at the intersections of Eighth, Ninth, Tenth, and Eleventh Streets with Main Street.

8. Narrow alleys which must be used to deliver supplies to the various retail facilities fronting Main Street.

Considering the relative growth of Trenton in the past few years, immediate action is necessary to handle the vehicular traffic in the CBD. Removal of the curb parking spaces from the thoroughfares would help traffic movement in some areas, but because of the limited number of off-street parking spaces, this proposal is not immediately feasible. Furthermore, since the capacity of a thoroughfare is governed by the capacity of its intersections, and since parking has already been removed for some distance in all directions from the major intersections,

the proposal to remove additional curb parking would not significantly increase the traffic movement on the major streets.[10]

Parking in the central business district is another problem which bears investigation. On peak shopping days streets are congested on both curbs by parked vehicles for three block distances from the intersection of Main and Tenth Streets. Although a detailed study of parking was not possible, it is estimated, using aerial photographs, that approximately 650 vehicles are curb parked and 250 vehicles are parked in off-street lots during these periods. This represents a total of 900 parking spaces, the majority of which are located on the street system.

The need for additional off-street parking facilities is apparent, and based upon the population projection, by 1985 approximately 400 additional spaces will be needed. Under the existing conditions this parking would have to be on the streets extending into the residential areas around the CBD, but unfortunately studies show that shoppers are reluctant to walk the distances imposed by this situation.[11] Therefore, unless convenient parking is provided, the Trenton central business district can anticipate an increasing loss in the sales potential from the market area.

The general implications of the truck traffic can be evidenced in many locations by broken curbs, crushed pedestrian canopies, and dismembered traffic control devices. Although truck volumes

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[10] "A Policy on Arterial Highways in Urban Areas," p. 215.

[11] Richard L. Nelson, The Selection of Retail Locations, p. 261.

are not excessively heavy in the CBD, serious restrictions do exist because of the street facilities which they must use. It is imperative that a more optimum truck routing system be devised and that truck access to the various service entrances of the commercial facilities be improved.

Pedestrian traffic also has limitations in the Trenton CBD. Investigations reveal that at numerous locations the flow of pedestrian traffic is restricted or interrupted by: (1) narrow sidewalks, (2) dead spots where a shopper loses interest in going further, (3) cross traffic, either vehicular or pedestrian or both, (4) driveways and other physical breaks in the sidewalk, and (5) businesses which generate traffic in the form of trucks, public vehicles, private automobiles or pedestrians who are not shoppers.

Since interruptions in the pedestrian traffic flow are not good for adjacent businesses, they should be eliminated. Given this improvement, shoppers in the central business district can center their attention on shopping. To eliminate the shoppers concern for physical safety, most CBD redevelopment plans have provisions for separating vehicular and pedestrian traffic.

The shoppers' mall, where vehicles are completely restricted from the major shopping and pedestrian area, is one solution which has been proposed and in other proposals only service vehicles and parking are allowed in the pedestrian areas. Curb screening, employing trees and shrubbery, is another method used to separate pedestrians and vehicles, but where this proposal is employed, the view to shopping facilities across the street is also diminished.

The shoppers' mall presents a lasting solution to the problem and has been proven effective in regional shopping center designs while the other two exist as either temporary or partial solutions to the problem.

Facts would indicate that the pedestrian traffic flow in the Trenton CBD is, like in most central business districts, in a deplorable condition and has many conflicts with the vehicular traffic. To realize the full shopper potential, the situation must be improved. Irrespective of the type of solution, any improvement would be better than none, but it should be of a more permanent nature if the greatest benefit is to be realized.

In the analysis of the transit transportation facilities, it is found that with the exception of railroad transportation, transit traffic in the Trenton CBD is of little consequence. Unlike most small cities with rail facilities, Trenton has its rail facilities located on the distant fringe of its central business district. Upon visual inspection one would find little relationship between the rail facilities and the CBD; however, in relation to the vehicular routings in the central business district, the railroad facility exerts a significant influence.

Almost all of the traffic which comes into the Trenton CBD from the North, East, and South must cross over the railroad tracks on the Ninth Street or Seventeenth Street bridges. As indicated by the traffic volume counts, Ninth Street and the one-way streets of North Main and Noble are the major routes used by over half of the total number of persons coming into Trenton's central business district. As can be seen these routings are

controlled by the relative location of the railroad bridges. In the future and as applied to a CBD redevelopment plan, these bridge locations will continue to exert a profound influence on the major vehicular routings.

Physical Space Analysis. The city of Trenton, Missouri, like most other cities, has grown largely as a result of industrial activities that required a concentration of population and an increase in diversity and intensity of land use. As explained in Chapter III, the central business district has evolved as the center of this activity and diversity. As a result, in the Trenton CBD eight basic land use types are found to exist: (1) residential, (2) retail commercial, (3) wholesale commercial, (4) business service, (5) personal service, (6) public and quasi-public, (7) industrial, and (8) parking.

Figure 19 indicates the eight various land uses and their locations in the Trenton CBD, but for the purposes of delineating between governmental and other public uses, schools and churches were indicated separately. Retail commercial facilities were found in a basic concentration on Main Street extending from Ninth Street to Twelfth Street and the other uses were found in various concentrations around the retail core. It is of interest to note that the basic pattern which is formed is very similar to that which was delineated by Horwood and Boyce in their study.

The present land use pattern for the central business district of Trenton, as outlined in Fig. 19, is summarized in Table 7 and indicates that the basic core area includes a total

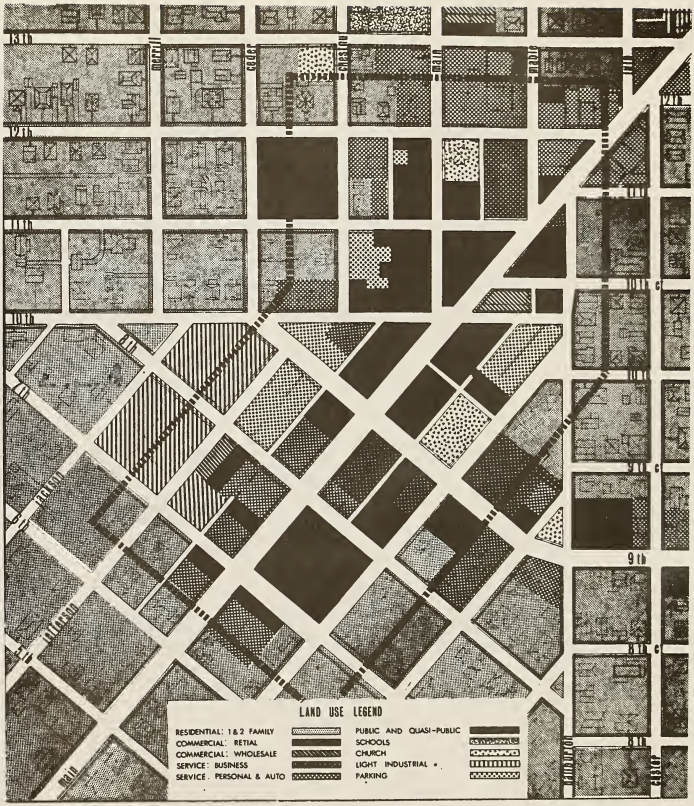

Fig. 19. Land Use Plan for the Trenton, Missouri central Business District - 1965.

Source: Survey by author.

of approximately 23 acres. By way of analysis, it was determined that streets and alleys comprise the single largest land use category and accounts for almost one half of the total surface area in the central business district.

Table 7. Estimated land use distribution for the Trenton, Missouri CBD, 1965

Land Use	Acres	Percent
Residential	3.0	12.8
Commercial: retail	3.0	12.9
Commercial: wholesale	0.2	0.9
Service: business	1.1	4.9
Service: personal and auto	2.3	10.1
Public and Quasi-Public	2.2	9.8
Industrial	0.4	1.9
Parking	1.0	4.3
Streets and Alleys	9.7	42.2
Total	22.9	100.0

Source: Survey by author, 1965.

Residential uses occupy approximately 12.8 percent of the land area in the Trenton CBD. Single family residences comprise the majority of the dwellings with a few in the multifamily category. In the future, some consideration should be given to the allocations for further construction of multifamily dwellings for retired persons in proximity to the CBD. However, these residential units and the other residential neighborhoods around the CBD should be separated from the commercial uses.

As previously stated, the commercial retail uses are primarily concentrated in the three block area on Main Street between Ninth Street and Twelfth Street. Approximately 35 establishments are located in this area which comprise 12.9

percent of the total usable land area in the CBD. These facilities do exist and should continue to exist in mutually supportive roles, but there are forces which are threatening to destroy this relationship and with it the whole economic fiber of the central business district.

Although trade center competition is diminishing in the smaller towns in the market area, the advantages gained by Trenton's CBD are more than offset by the competitive retail establishments (shopping centers and districts) which are being created, and even encouraged, within the city itself. If measures are not taken quickly, the central business district of Trenton will soon be the victim of numerous commercial interceptors located along the routes leading into the CBD. The potential shopper income will be reduced to smaller proportions, CBD physical plant improvement will become less feasible, and the city will be faced with additional problems.

As indicated in Fig. 20, the city has strip-zoned East Ninth Street for its entire length.[12] Since the majority of shoppers which frequent the CBD must use this facility, it is only logical that given the advantages which the CBD lacks, such as convenient parking, a retail facility located on this thoroughfare should be able to intercept the majority of shoppers before they get to their CBD destination. Unfortunately this is the situation, but to more fully understand the implications of this strip-zone, the ultimate condition, nationally recognized as

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[12]Trenton, Missouri Zoning Ordinance 1961, p. 16-23.

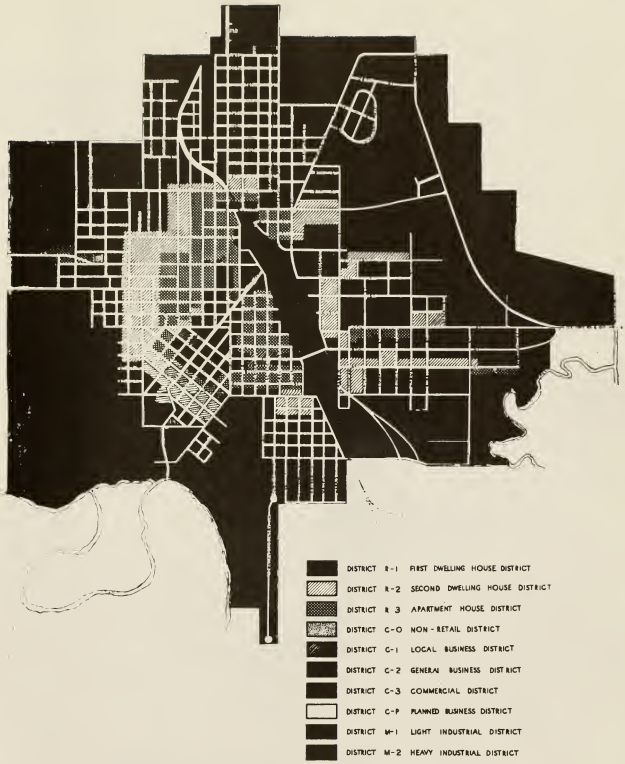

Fig. 20. Zoning ordinance map for Trenton, Missouri.

Source: Trenton, Missouri Zoning Ordinance, 1961, Map 1.

being characteristic of the strip commercial zone, must be considered.[13]

As the strip-zone develops with retail competitors, the CBD will economically deteriorate. As traffic volumes and vehicular turning movements into the strip retail stores increases, accidents will also increase and eventually public monies will have to be spent to upgrade the thoroughfare to accomodate the traffic movements which have been generated. As the strip-zone becomes saturated with commercial development, (usually about 35 percent of the total frontage length) the lots which remain in residential and other uses will deteriorate in value as will the various buildings in the CBD which have been forced into vacancy. Shoppers will be annoyed, because to shop for a number of items, they will be forced to get into and out of their automobiles and park them at a number of places to fulfill their shopping needs.

In light of the investment which the central business district represents and the alternatives presented, it is obvious that the retail facilities should continue to be concentrated in the CBD. Furthermore, where possible, immediate action should be taken to prevent further competitive migrations.

The commercial wholesale uses form no discernable pattern in the CBD and in most cases exist in conjunction with retailing facilities. As delineated in the analysis, this use occupied approximately one percent of the total land area. However,

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[13] Factors Favoring Grouped Concentration Over Strip or Scattered Commercial Uses, p. 8.

as the market area expands, in the future an increasing amount of space will be needed for the wholesale use.

Business service uses occupy approximately 4.9 percent of the CBD land area and is composed primarily of financial institutions and lumber yards. They form no pattern, but the majority of these uses are located in the Southeast quadrant of the CBD in close proximity to both the retail core and the county courthouse. This is an obvious relationship and should be recognized in any future plans.

The personal and automotive service facilities are found in all quadrants of the CBD indicating a general dispersion in the periphery. In total, these uses occupy approximately 10.0 percent of the land area as outlined in Fig. 19. In the future some personal services should continue to be located in the CBD and expansion areas should be allocated, but for automotive service other than service stations, space demands make a CBD location questionable. Consideration might be given to a commercial service strip on East Ninth Street for automotive oriented facilities, but the proper implementation of this action would necessitate a reevaluation of the existing city zoning ordinance.

Public and quasi-public uses occupy 9.8 percent of the surface area of the CBD and includes such facilities as the city hall, the county courthouse, the United States Post Office, the Methodist Church, the First Baptist Church and the Trenton Elks Club. Although functionally related, the county and city government facilities are physically seperated and are found in a

number of scattered locations. It would be advantageous in any redevelopment plan to concentrate these facilities to form a type of civic center.

By concentrating the various government activities, time which is presently being spent traveling between the existing facilities could be reduced, public record storage could be centralized, office spaces could be improved, central parking would become more feasible, and a more efficient method of operation could be established. Persons who avail themselves to governmental services would not have to travel to numerous locations and with the proper emphasis on design the city could realize a most aesthetic addition to the cityscape.

In relation to the public uses adjacent to the CBD as outlined, recent developments in the local school system have presented a situation which could have significant effects on the CBD. The school site which is located on the block North of Thirteenth Street between Main and Chestnut Streets has recently been determined as the future site of the Trenton Junior College. This development, coupled with the fact that the regional library is also located in this block, presents a possibility for developing the area into a cultural center. If properly treated, a cultural center in this location could help pull shoppers to the North end of the CBD and serve as an added attraction for nighttime activities.

Industrial land uses occupy approximately 1.9 percent of the land surface in the CBD and are mostly of the light industrial type. It is usual and most often desirable for industry to

locate in areas other than the CBD, but no apparent adverse affects are found in relation to the existing situation in the Trenton CBD. As indicated in the zoning ordinance, it would, however, be most desirable to locate future industrial developments in other more suitable areas.

The area used for off-street parking occupies approximately 4.3 percent of the CBD surface area, and as it exists this area falls far short of the total space required. In planning for redevelopment, substantial increase in the area devoted to off-street parking uses will have to be made. Additional off-street parking on the periphery of the retail core is an obvious necessity as is the need for restricting curb side parking and establishing off-street parking standards for new developments.

As in most central business districts, the street system in Trenton comprises the largest single land use area to be found in the CBD. Streets and alleys occupy approximately 42.4 percent of the total land area. In most areas the blocks are approximately 200 feet square which is quite small in comparison to current design standards. The result is a high proportion of street area imposing severe limitation on the area of land usable for development. In relation to development, consideration should be given to providing a more usable street area with provisions to carry vehicular traffic around the CBD rather than through it.

In relation to the structural condition of the physical space in the CBD, no detailed analysis was possible, but in general most of the structures are sound. Bearing wall construction is most prevalent and because the structures are placed on

high ground, little deterioration has taken place. The majority of buildings are two-story structures with the land use of the second floors largely devoted to mixed residential-commercial storage uses. A number of the second floors are vacant and in recent years the trends would indicate that the potential of this space is being neglected. Construction in the last ten years has been primarily confined to remodeling street level commercial space and store fronts.

As applied to future prospects and a redevelopment plan, consideration should be given to the utilization of the second floor building space. Remodeling of the majority of ground level spaces and the creation of pedestrian traffic areas should be considered. Furthermore, protection from the elements should be provided for the pedestrians and shoppers.

Natural beauty in the form of water, grass and trees should be introduced into the retail core area to provide the shoppers and workers with a visual break in the harsh agglomeration of concrete, masonery and asphalt. In this regard, the aesthetic considerations should be of primary concern in creating an atmosphere for shopping. Aesthetic unity of the various structures in the core area could be achieved in one of two ways, either by use of a uniform store front design or by the use of a uniform pedestrian canopy design. To be successful, either solution would have to be applied throughout the area and as an optimum proposal some consideration should be given to the use of both techniques.

Indeed, the needs in the Trenton, Missouri central business district are many and the facts would indicate that substantial

physical alterations are warranted. The analysis of the five basic facts which were delineated as having the greatest influence on the CBD have indicated the problems which exist and reflected the primary needs in relation to redevelopment planning. Having established these needs, the next logical step is the formulation of a conceptual redevelopment plan.

CHAPTER V

THE SMALL CITY CBD REDEVELOPMENT PLAN

It can be accurately stated that there is no standard redevelopment plan which can be applied to all small city central business districts. The specific redevelopment plan for any small city CBD will be dependent upon the conditions found to exist in the analysis of the various factors which specifically affect its function. In most cities, the problems are too numerous to be solved on an individual basis. Therefore, it is necessary to first analyze the various problems and summarize them into a more limited number of basic redevelopment goals.

The particular value of delimiting problems in the form of basic redevelopment goals for the central business district is well explained by Arnett W. Leslie in Goals for Central Minneapolis--its Function and Design:

1. Goals give direction to those responsible for planning public facilities, enabling them to prepare plans in closer accord with community desires.

2. They help to avoid confusion of basic issues with secondary questions or details and thus help achieve clearer and more pointed discussion of each.

3. They can create a common ground of agreement which is so necessary when many individuals and groups are actually involved in preparing and achieving plans.

4. They can prepare the way for achievement by warding off unwarranted criticism when the time comes to put a plan into effect.[1]

Because of the complexities of the redevelopment problem, the overall design must be conceived in relation to the more comprehensive goals, but in relation to the more specific design details, reference must be made to the specific needs. In many areas of the CBD intuitive design must be used with the final result dependent to a great extent on the character and abilities of the planners, architects and engineers. In this chapter, the basic goals which have been determined as the primary considerations in most small city CBD redevelopment plans will be discussed as a general application. Then, the basic goals will be established for the case study in the Trenton, Missouri CBD and a conceptual redevelopment plan for the central business district will be proposed based upon the established goals.

General Application

In most small cities where studies have been undertaken,

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[1]Goals for Central Minneapolis--Its Function and Design, p. 2.

the central business district redevelopment plans can be interpreted in terms of six basic goals. Based upon similar conditions which were found in most of these older small city central business districts the basic desired goals of their redevelopment plans may be summarized as follows:

1. To facilitate access to the CBD from the market area and the outlying fringe areas of the city.

2. To provide adequate parking space in all areas of the CBD with special emphasis on off-street parking adjacent to the retail core area.

3. To relieve traffic congestion and minimize hazards to pedestrians and shoppers inside the CBD.

4. To eliminate nonshopping land use within the core area by concentrating the retail facilities.

5. To replace ugliness with beauty through co-operative action on the redesign of signs and facades and by providing for open space in the CBD.

6. To protect adjacent neighborhoods by setting the CBD apart from the residential areas.

In addition to these six basic goals, there are usually one or two other goals which have specific application to local situations. As was evidenced in the examples presented in Chapter II, most often the other goals are applied to the creation of a civic-cultural center or to the solution of local flooding problems.

One of the interesting facts about older shopping districts is that frequently their basic design is not very different from that of the most modern shopping centers. The shopping district

in most small cities is frequently oriented around the intersection of two major streets or sometimes three major streets where a diagonal is involved. Looked at from the air, the physical arrangement is not very different from a mall type of center, but of course, with traffic running through the mall. The redevelopment plan must take advantage of this basic design value and, through it, rejuvenate the district.

The principles to be followed in the redevelopment plan are very nearly like those used by architects in designing new centers. Traffic destined for the center must find access and circulation easy. Through traffic should be eliminated or routed so that it will not mix with terminal traffic. Parking must not only be made adequate, but should also be close to the biggest trade generators. Spaces for ingress and egress must be provided and the circulation of the cars made easy. Pedestrianways should be ample and pleasant, with people protected from the weather as much as is feasible. Impulse shopping will be almost in direct proportion to the lineer footage of store fronts that people can be led to pass. The district and the stores should be attractive, pleasant, and comfortable.[2]

The applicability of these principles is apparent in most redevelopment plans and as indicated by the development analysis in Chapter IV, these principles will be further utilized as applied to the case study.

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[2]Richard L. Nelson, The Selection of Retail Locations, p. 297-298

Case Study: Trenton, Missouri

In the development analysis many specific needs were found to exist in the Trenton CBD, but in delimiting them in terms of more generalized goals the problems are basically the same as for other small city central business districts. As applied to the Trenton, Missouri central business district redevelopment needs, the basic goals could be summarized as follows:

1. To facilitate access to the CBD from the market area and other areas within the city and to control expansion of competitive centers along these routes where possible.

2. To relieve traffic congestion and minimize hazards to pedestrians in the general CBD area with special emphasis to this problem in the retail area on Main Street between Ninth Street and Twelfth Street.

3. To provide convenient and adequate parking and service facilities in all areas of the CBD and especially in the areas adjacent to the retail core area.

4. To reduce industrial, residential, and mixed residential-commercial uses in the general limits of the central business district.

5. To concentrate the retail shopping activities and uses within the existing retail core area.

6. To create an aesthetic and natural shopping atmosphere in the retail core area by providing pedestrian open spaces and a unified physical rehabilitation program for the various shops and store fronts.

7. To concentrate the local governmental activities of the county and city into a unified civic center complex.

8. To protect adjacent residential neighborhoods by separating the CBD activities with adequate thoroughfares and parking facilities.

As they exist, these goals serve as a guide for growth and redevelopment, but to interpret them in terms of a conceptual plan is quite another matter. Physical solutions to accomodate these goals are as numerous as there are professionals with the ability to conceive such a plan. However, there are basic solutions that have been proven successful which, no doubt, would have direct effects on any conceptual design.

The perimeter plan concept is the most common basic design solution for CBD rehabilitation which has been proven effective. As pointed out by the Urban Land Institute, this basic concept requires a seven step program which can be applied in almost any order:

1. Rerouting all through traffic in an unrestricted pattern on a perimeter roadway or roadways around the commercial core.

2. Clearing out nonretail buildings inside the perimeter roadway (and accessible from it) and creating parking facilities on the cleared land behind the stores fronting on the major street or streets.

3. Limiting traffic on the main frontage streets by either:

   a. Encouraging only local traffic on a voluntary basis (the through traffic would take the perimeter roadway as the faster route); or

b. Restricting the main frontage streets to local traffic by requiring all traffic to turn after a one-block run; or

c. Limiting traffic on the frontage streets to mass-transit vehicles only; or

d. Restricting all vehicular traffic from the use of the major frontage street.

4. Widening the sidewalk and eliminating the parking lane on the frontage streets and providing parking in the rear of the stores.

5. Beautifying the rear of the stores and creating some entranceways from the rear parking lots directly into the stores.

6. Transforming intersecting older streets and alleys into lighted arcades leading from the parking lots into the frontage streets (now becoming plazas with widened sidewalks).

7. Building a cantilevered canopy along the old parking lane to provide an all-weather walk, and leaving an open space several feet wide between the long canopied area and the buildings and store fronts so that each merchant's sign can come into view as one walks under the canopy.[3]

The application of this basic concept is almost universal and can be seen as it applys to the CBD redevelopment plans for the cities of Atchison, Kansas; Springfield, Oregon; Rome, New York; and North Wilkesboro, North Carolina as presented in Chapter II. By applying the concept to the Trenton central business district, one could propose the conceptual design as illustrated in Fig. 21.

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[3]Urban Land Institute, Conservation and Rehabilitation of Major Shopping Districts, p. 1-14.

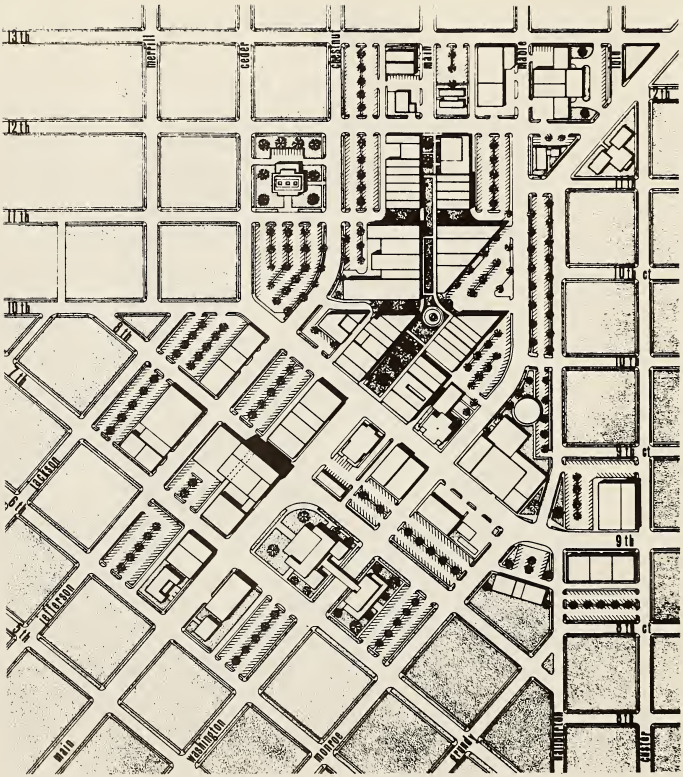


Fig. 21. Conceptual Design for the CBD redevelopment plan of Trenton, Missouri.

Source: By author.

In the redevelopment plan concept indicated in Fig. 21, it is assumed that the major routes into the Trenton CBD from the market area and outlying city districts will continue to exist in their present locations. To facilitate traffic movement, the curb parking along these routes will be completely eliminated and the parking spaces for the fronting service uses will be furnished in off-street locations to the rear of these facilities. A perimeter thoroughfare system is proposed around the retail core area extending from Ninth Street to Twelfth Street and aligned in such a manner as to facilitate future linear expansion of the retail area to the North and Southwest.

In relation to general traffic movement and the reduction of congestion the plan proposes that:

1. Vehicular traffic be eliminated from Main Street in the retail shopping district.

2. Traffic volumes previously concentrated at the single intersection of Ninth and Main Streets be distributed over the three intersections of Jefferson and Ninth Streets, Main and Ninth Streets, and Washington and Ninth Streets.

3. With the exception of Chestnut, Main, and Mable Streets North of Twelfth Street, all thoroughfares in the plan be two-way operations.

4. Where possible, curb cuts, allowing ingress and egress movements into parking lots from major thoroughfares, be spaced at least 100 feet apart.

5. Through truck traffic eastbound on Missouri highway 6 be routed from Main Street to Eighth Street, thence to Monroe

Street and back on Ninth Street.

To provide adequate parking adjacent to the retail core area, the nonretail shopping uses within the area contained by the perimeter thoroughfares have been eliminated. In addition, multiuse parking facilities in the general area are proposed to be shared by the retail area and other facilities in the existing residential areas South of the Post Office and South of the proposed junior college site.

Land uses within the central business district are proposed to be distributed as follows:

1. Residential, restricted or buffered by parking lots from the perimeter thoroughfare frontage and totally restricted from the general area delimited by the perimeter thoroughfare.

2. Retail Commercial, concentrated in the Main Street area between Ninth Street and Twelfth Street.

3. Wholesale Commercial, located in the general fringe area depending upon the nature of the products.

4. Business Service, concentrated in the area immediately to the South and Southwest of the retail core area on Main and Ninth Streets.

5. Personal and Automotive Service, located in the general fringe areas and where logical extensions can be made to the existing districts along Main, Mable and Ninth Streets.

6. Public and Quasi-Public, city and county governmental uses to be concentrated in the general area bounded by Seventh, Main, Eighth, and Monroe Streets, educational and cultural uses to be concentrated in the area bounded by Chestnut, Fourteenth,

Main, and Thirteenth Streets, and the other uses in this category to remain as located.

7. Industrial, restricted to those uses and locations which now exist.

8. Parking, located in the areas as previously delineated and as shown in Fig. 21 and in areas where necessary extensions are required.

As can be seen, the proposed land use plan accomodates the general needs as outlined in the development analysis. In most use categories, the distribution is obvious as is the flexibility for future expansion. But, where retail facilities are concerned, the space needs into the foreseeable future would appear limited in relation to the horizontal space allocated for this use.

It is a fact that future expansion needs of the retail uses cannot be accomodated at the ground floor level in the proposed plan and they were not meant to be. In this conceptual design, it is proposed that future expansion of the retail facilities be accomodated by the utilization of the second floor levels which are presently being used for other purposes. By expanding vertically, both land use intensity and shopper convenience can be increased. Redevelopment can be more concentrated and the horizontal confinement may further reduce the problems of vehicular and pedestrian conflicts.

To facilitate the use of the second level space the canopy, which would be necessary in almost any plan, is proposed to serve the multiuse of canopy and second level pedestrian walkway.

This canopy concept has particular advantages inasmuch as it provides:

1. Shelter from the weather at the ground level for shoppers and other pedestrians.

2. A new structure of uniform design which accents the architectural unity of the retail core area.

3. An immediate exit from the second floor levels in case of fire or other catastrophes.

4. A ready-made scaffold from which to work on the rehabilitation and maintenance of the superstructures of the buildings which it fronts.

5. Access to all second floor space making this space more usable for professional offices and other uses until such time as retail expansion necessitates the space.

6. Space within its structure for power lines, telephone conduit and street lighting, thereby eliminating visible overhead wires, cables, and utility poles.

7. A vantage point from which to view the heart of the city and a feature which no other city in the region has to offer.

With the additions of the canopy, uniform store front design, flower trees and rock gardens, the retail core area as indicated in Plate I could be transformed into the spacious and attractive Shopping Mall as illustrated on Plate II. However, as presented, Plate II exists only as a preliminary concept. In the final concept it is further proposed that reflecting pools and at least one large fountain also be incorporated into the mall design.

EXPLANATION OF PLATE I

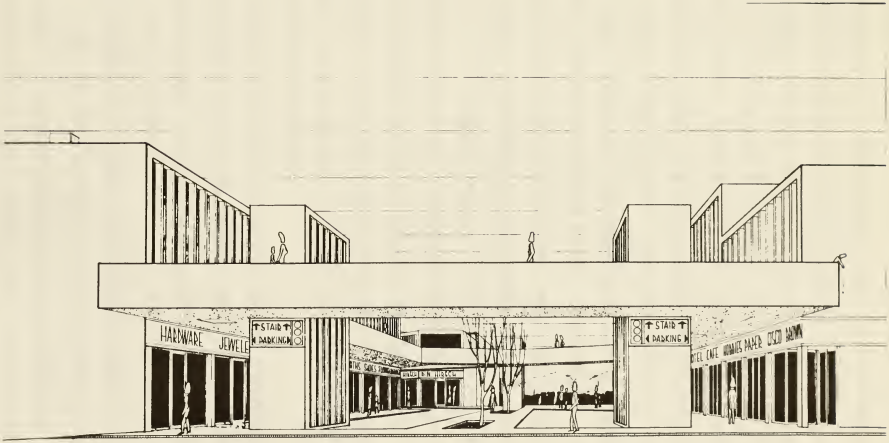
Existing South entrance to the retail core area of the Trenton, Missouri central business district as viewed South of the Ninth Street intersection on Main Street.

PLATE I

EXPLANATION OF PLATE II

Conceptual design illustrating the redeveloped South entrance and shoppers mall of the Trenton, Missouri central business district.

PLATE II



Because vehicles are to be restricted from using Main Street, it is proposed that the alleys to the rear of the shops fronting Main Street be upgraded and improved so that they may serve as service roads and fire lanes. Since vehicular traffic is also restricted from the cross streets, it is further proposed that mountable curbs be provided at the points of closure so that fire trucks and other emergency vehicles could enter the mall area in case of catastrophes. And, since most of the rear facades of the retail shops will be exposed to the off-street parking lots, it is further proposed that it be desirable for most stores to upgrade the appearance of their rear entrances.

The final highlight in the conceptual design is the provision for a civic center complex and location for the various governmental activities. Although it would be advantageous from an operations point of view to combine all of these uses into one structure, the usable land area is not adequate. Therefore, the two governmental uses are proposed to be located on separate land parcels.

As conceived in the plan, the county government uses and the civic center are to be located in a multiuse facility on the parcel of land presently occupied by the county courthouse and the city government uses are to be located on the parcel of land bounded by Seventh, Washington, Eighth, and Monroe Streets. The two facilities are to be joined by an elevated walkway with the parking spaces to be provided on the city building site and in multiuse parking lots in the areas surrounding the complex.

By necessity, the conceptual design is generalized, but it does exist as a physical interpretation of the redevelopment goals. If it were employed as the guide for redevelopment and realized through the implementation of many projects, in the future the case study central business district of Trenton, Missouri could evolve to appear as illustrated on Plates III, IV, V, and VI in Appendix.

CHAPTER VI

IMPLEMENTING THE SMALL CITY CBD REDEVELOPMENT PLAN

The most widely accepted and most successful method for implementing CBD redevelopment plans is by the application of Urban Renewal Administration assistance programs. Under the auspices of these programs and other federal aid programs, all of the example CBD redevelopment plans presented in Chapter II are being implemented and the same can be said of most similar CBD projects across the nation. Indeed, the plight of the nation's cities has been recognized by the Federal Government and, although not centered on the CBD, redevelopment programs for this district are included in the comprehensive aspects which the various federal programs encompass.

It can be accurately stated that the central business district problem is only one of the many to be found in both the metropolitan area and the small city. Planning for the redevelopment of the central business district by itself is, at best, fragmented planning and could be the reason for the failure of almost any plan. As was indicated in the development

analysis, there is a direct relationship between the CBD and the various other districts of the city. The plan of one will affect the plan of the other and if recognition of this situation is not realized at an early stage, mistakes will be unavoidable.

In light of the facts presented, it is understandable that where federal monies are to be employed it is a mandatory requirement that the comprehensive aspects be determined before the CBD renewal can be contemplated. If the case study city of Trenton, Missouri were, in fact, to embark upon a program for CBD redevelopment through the channels of federal aid programs and Urban Renewal assistance, when it is finished the city would have much more than a revitalized CBD. However, to more fully understand the implications, it is necessary to understand the general concepts and operations of the federal assistance programs.

Federal programs of assistance to housing and community development are designed to aid communities and to stimulate local action to assure to every family the opportunity to secure a decent home in a suitable living environment and to foster economic and cultural growth.

These federal assistance programs can accomplish their purpose only when they are based on a community's own plan of action through which both private and public local resources are used to eliminate and prevent slums and blight and to foster local development.[1]

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[1]Housing and Home Finance Agency, The Workable Program for Community Improvement Fact Sheet, p. 1.

Such a plan of action is called a "Workable Program for Community Improvement" or "Workable Program." The Workable Program is basically an official plan of action and represents a city's statement of where it stands today and what it will strive to do in the future. The Program is a blueprint for action without which no community can achieve the objectives of co-ordinated growth and proper living conditions for all its citizens.

The Workable Program consists of seven basic elements which represent nothing more than the tested and accepted tools which are used in sound municipal management practices. The Program's basic goal is the establishment of co-ordinated and proper community growth through the formulation, implementation and continued use of these seven elements which are as follows:

1. Codes and Ordinances--establishing adequate standards of health and safety under which dwellings may be lawfully constructed and occupied.

2. Comprehensive Community Plan--providing a sound framework for improvement, renewal, and blight prevention; for sound community development in the future.

3. Neighborhood Analyses--developing a community-wide picture of blight--where it is, how intense it is, and what needs to be done about it.

4. Administrative Organization--establishing clear-cut authority and responsibility to co-ordinate the overall Program; and the capacity to put it to work in the community through effective administration of codes, planning measures and other activities.

5. Financing--providing funds for staff and technical assistance needed, for public improvements and renewal activities essential to the program.

6. Housing for Displaced Families--determining community-wide the relocation needs of families to be displaced; developing housing resources to meet these needs and providing relocation service to displaced families.

7. Citizen Participation--assuring that the community as a whole, representative organizations and neighborhood groups are informed and have full opportunity to take part in developing and carrying out the program.[2]

Through the implementation of a Workable Program, a community can realize the benefits of a comprehensive development plan and as an integral part of item two, the Comprehensive Community Plan, a plan for central business district redevelopment, can be achieved. Furthermore, by developing and implementing an effective Program the community will be able to:

1. Eliminate slums and blighted areas, thus wiping out the inordinate cost of municipal services to such areas.

2. Provide better housing and a better living environment for all citizens including low-income families, the young people and the elderly.

3. Avoid costly mistakes in future urban development.

4. Increase the effectiveness of its resources for improvement and renewal through co-ordination.

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[2]Housing and Home Finance Agency, Program for Community Improvement, p. 4.

5. Protect and enhance its tax base.

6. Attract industrial and commercial development that can raise local living standards.

7. Stretch the local renewal dollar through public works planning.

8. Schedule activities causing family displacement with those designed to provide relocation housing.

9. Encourage private initiative in renewal.

10. Build community understanding of what can be achieved, gain citizen support and action.

11. Shape growth and development along sound planning principles.

12. Supplement local resources as necessary with Federal aids.[3]

In relation to supplementing local resources with federal aids, the Workable Program carries with it no direct financial aid. However, it is a prerequisite for the following federal aids to communities:

1. Urban Renewal Administration loans and grants for clearing, redeveloping and rehabilitating slums and blighted areas.

2. Section 220 Federal Housing Administration mortgage insurance for housing construction or improvement in urban renewal project areas.

3. Section 221 (d) (3) FHA mortgage insurance to provide

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[3]Ibid.

rental housing for families of low and moderate income and those displaced by governmental action.

4. Public Housing Administration loans and grants to provide housing for families unable to afford standard housing in the private market.[4]

As indicated, there exist many programs, and organizations in this method of plan implementation, but they are necessary if the proper professional, financial, and legal aids are to be obtained. The approach that a city must take is to first organize and then with the aid of professionals, embark upon a comprehensive program for community-wide planning and rehabilitation through the guidelines of a Program for Community Improvement.

As outlined, the process does show where the planning for CBD redevelopment fits into the program and how the financial assistance through the Urban Renewal Administration is related to the procedure. Of course, the program is much more complex than as outlined, but the listing of specific details of the process is not possible in this thesis. If anything, the process has been over-simplified and before a city embarks upon the process, they should be fully aware of its comprehensive and complex intricacies.

No simple plan exists for the solution of a problem which has had decades to develop. Much time, money, and continued community support will be necessary to realize the goal.

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[4] Housing and Home Finance Agency, The Workable Program for Community Improvement Fact Sheet, p. 1.

If these barriers are crossed, the central business district can ultimately be redeveloped with a minimum of local financing and in the process the community will have gained the guidelines for a co-ordinated and continuing program for economic and social growth.

CHAPTER VII

SUMMARY AND CONCLUSION

The approach to small city central business district redevelopment can neither be piecemeal nor haphazard. The approach must be comprehensive and the various elements interrelated. Because of its function, the CBD has interrelationships within its boundaries and is also related to both the city and the region in which it is contained.

As it functions, most small city central business districts exist as a regional center for:

1. Commercial Activity.
2. Service Activity.
3. Cultural Activity.
4. Governmental Activity.
5. Transportation and Communication Activities.
6. Manufacturing Activity.

The basic functional areas or land uses which are found in the small city CBD directly reflect its function inasmuch as the various land use categories which are found in this area can be

functionally classified in eight basic categories as follows:

1. Residential.
2. Retail Commercial.
3. Wholesale Commercial.
4. Business Service.
5. Personal Service.
6. Public and Quasi-Public.
7. Industrial.
8. Parking.

A functional relationship does exist between these various land use categories and can be directly correlated to the pattern by which the land uses are spatially distributed. Despite the lack of formal planning, the land use pattern that has evolved in most small city central business districts is essentially functional and is most often characterized by the existance of a hard core, mutually supportive concentration of retail commercial area forming in the center of the CBD with the other categories of use distributed in a circumferential pattern around the retail core.

By delineating the functions, land use, and spatial distribution of the land use, it was revealed that the basic structure or functions of the CBD were affected by the geographic, social, economic, and transportation mode influences of the region and by the physical space influences of its particular site.

With this fact established and with the aid of a case study example, the development analysis for a CBD redevelopment plan was examined and the future needs determined by investigating

the various factors which affect its function. As delineated, this process consisted of investigations relating to:

1. Geographic Analysis.
2. Social Analysis.
3. Economic Analysis.
4. Transportation Analysis.
5. Physical Space Analysis.

As a result of these analyses, the more specific needs of the existing and future central business district were determined, but existed as a most comprehensive list. To facilitate both a simple definition of major objectives and a conceptual design plan, it was then proposed that the needs be delineated in the form of more general goals.

The implementation of these goals and the conceptual redevelopment plan was discussed and as indicated, the technique whereby Federal Programs for Assistance are available was found the most common, efficient, and equitable. Although quite complex, this technique provides the smaller community with the additional professional, financial, and legal assistance which is needed to achieve the redevelopment goals.

Conclusion

There is little question that central business district redevelopment is needed in most small cities. The objective of this thesis was to investigate this process in an attempt to more clearly delineate the factors involved. Indeed, the factors were many, but the basic process is not so complex.

As outlined in the discussions, the process for the realization of CBD redevelopment in the small city consists of seven basic steps: (1) organizing for the project, (2) establishing functions of the CBD, (3) determining the factors which influence the functions of the CBD, (4) analyzing these influencing factors in terms of existing and future needs which they impose upon the CBD, (5) interpreting the CBD needs through the media of generalized goals, (6) delineating the goals through a conceptual CBD design plan, related to the comprehensive city plan, and (7) by implementing the goals and conceptual design plan through the most expedient program suitable to local needs.

By employing the outlined procedure, a small city could achieve the redevelopment of its central business district and by referring to the discussions presented herein; one could gain insight into the factors involved in the various procedures. Although limited by the comprehensive nature of the problem, this has been the goal of this thesis.

ACKNOWLEDGEMENTS

Assistance toward the completion of this thesis has been given by many persons and organizations. Unfortunately, the list is too comprehensive to allow individual recognition, therefore it must suffice that they be recognized collectively. However, it is necessary that recognition be given to the family of the author whose sacrifices, encouragement, and understanding made the completion of this endeavor possible.

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APPENDIX

EXPLANATION OF PLATE III

Photographic illustration of scale model displaying the conceptual central business district redevelopment design for Trenton, Missouri as viewed from the Southeast.

PLATE III

EXPLANATION OF PLATE IV

Photographic illustration of scale model displaying the conceptual central business district redevelopment design for Trenton, Missouri as viewed from the North.

PLATE IV

EXPLANATION OF PLATE V

Photographic illustration of scale model displaying the conceptual central business district redevelopment design for Trenton, Missouri as viewed from the East.

PLATE V

EXPLANATION OF PLATE VI

Photographic illustration of scale model displaying the conceptual central business district redevelopment design for Trenton, Missouri as viewed from the Southwest.

PLATE VI

REDEVELOPMENT OF SMALL CITY CENTRAL BUSINESS DISTRICTS: CASE STUDY IN TRENTON, MISSOURI

by

HAROLD DUANE BOCK

B. A., Kansas State University, 1963

AN ABSTRACT OF A MASTER'S THESIS

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MASTER OF REGIONAL PLANNING

College of Architecture and Design

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Manhattan, Kansas

1966

Redevelopment of Small City Central Business Districts:
Case Study in Trenton, Missouri

The purpose of this thesis is the determination of the various factors which are involved in small city central business district redevelopment: First, in terms of an analysis of existing central business district redevelopment plans and second, as the factors apply to the formulation of a conceptual plan for the small city of Trenton, Missouri.

The basic procedure consisted of analyzing existing plans and other literature to determine the affecting factors and then employing a case study analysis of these factors as they applied to the specific central business district of Trenton, Missouri.

In an analysis of various redevelopment plans, similarities are found to exist in relation to the basic problems and the objective goals and results because of the functional similarities of central business districts. As they function, most small city central business districts exist as a regional center for the following activities: (1) commercial, (2) service, (3) cultural, (4) governmental, (5) transportation and communication, and (6) manufacturing.

The small city central business district functions can be physically delimited by an analysis of the land use within these districts. Concentrations of land uses which function in a similar manner can be observed in most small city central business districts and can be functionally classified into eight basic categories: (1) residential, (2) retail commercial, (3) wholesale commercial, (4) business service, (5) personal service,

(6) public and quasi-public, (7) industrial, and (8) parking.

Although formal planning has been absent, the pattern or spatial distribution of most of these land use concentrations is basically functional. In most small city central business districts, the pattern is characterized by a central concentration of mutually supportive retail commercial uses with the other land use districts being distributed in various quadrants in a circumferential frame around the retail core. However, the specific distribution and the characteristics of the functions, as applied to individual cities, is affected by a number of basic influences.

The basic structure and functions of small city central business districts are affected by the geographic, social, economic, and transportation mode influences of the region and by the physical space influences of its particular site. As delineated, these influences represent the factors which must be analyzed to determine the present and future needs of a central business district.

The basic procedure for determining present and future needs of a central business district must include investigations relating to the analysis of: (1) geographic, (2) social, (3) economic, (4) transportation, and (5) physical space conditions as applied to the specific city. This procedure was applied to the case study in Trenton, Missouri and the more basic conditions and needs were determined for its central business district.

Through the analysis of these factors, a comprehensive inventory of conditions and needs can be established which may

ultimately be interpreted in terms of more generalized objectives or goals. The goals may then be interpreted through a conceptual design and the project can then move into the implementation stage.

The most equitable and commonly used method of implementing small city central business district redevelopment plans is by the use of Federal aid programs. Through these programs the small community can acquire the additional professional, financial, and legal assistance which is needed to achieve the redevelopment goals.

The limited number of completed small city central business district redevelopment projects would indicate that further study in this area of planning is necessary. Indeed, small city central business district redevelopment is a complex problem and even though plans have been developed, failures in implementation predominate. It is a comprehensive problem which necessitates a comprehensive approach and, as presented, only the more basic implications have been delineated.