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A Central Banking Facility - Charlotte, North Carolina

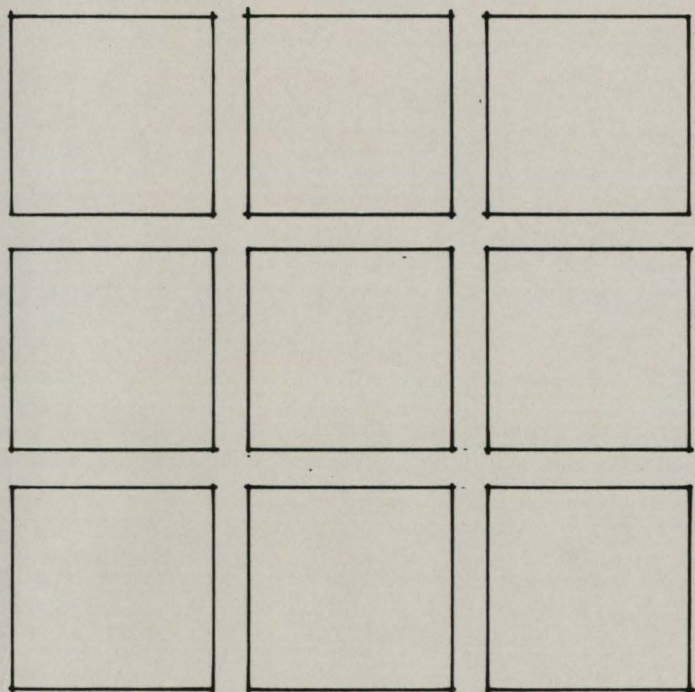
David LeRoy Dixon
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**A
CENTRAL
BANKING
FACILITY**

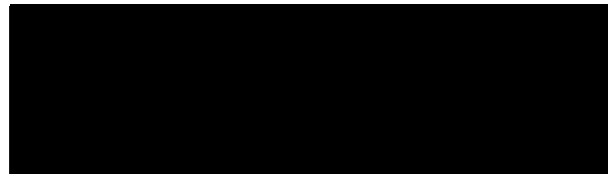
CHARLOTTE, N. C.

A CENTRAL BANKING FACILITY
CHARLOTTE, NORTH CAROLINA

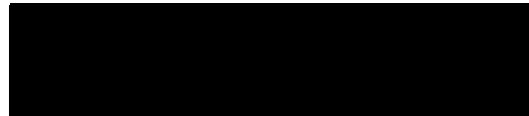
A terminal project presented to the Graduate School of
Clemson University in partial fulfillment of the requirements
for the professional degree

MASTER OF ARCHITECTURE

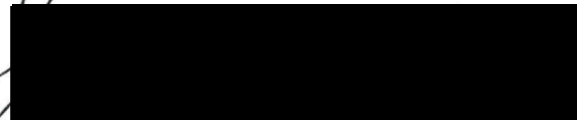
David LeRoy Dixon
Spring 1986



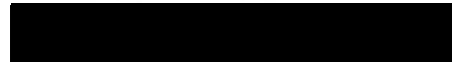
Committee Member



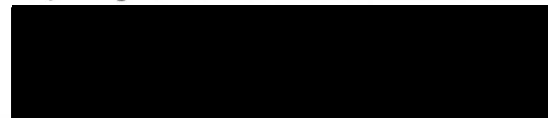
Committee Member



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Head, Dept. of Architectural Studies



Acting Dean, The College of Architecture

Dedicated to my parents, Myrna and Julian Dixon, for all the love, support, and guidance over the years.

I would like to thank the following people for all of the time and effort donated toward the fulfillment of this project:

Bonnie Bennett

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Also, special thanks to Mr. Sam Powell, Program Director, The Federal Reserve Bank of Charlotte, and Dr. Bruce Yandle, Professor of Economics, Clemson University, for their assistance and explanations.

TABLE OF CONTENTS

1	PROBLEM STATEMENT	1
2	BACKGROUND DATA	5
	Introduction	
	History of Banking	
	History of Banking in the United States	
3	CENTRAL BANKING	15
	Organization and Structure	
	Primary Functions	
	Secondary "Service" Functions	
4	THE BUILDING TYPE	26
	Introduction	
	Early Examples	
	American Examples	
5	CASE STUDIES	33
6	CHARLOTTE, N.C.	42
	Introduction	
	Origins and Growth	
	Physical Characteristics	
7	SETTING ANALYSIS	56
	Introduction	
	East Trade Street	
	The Government Center	
	Development Plans	
8	SITE ANALYSIS	63

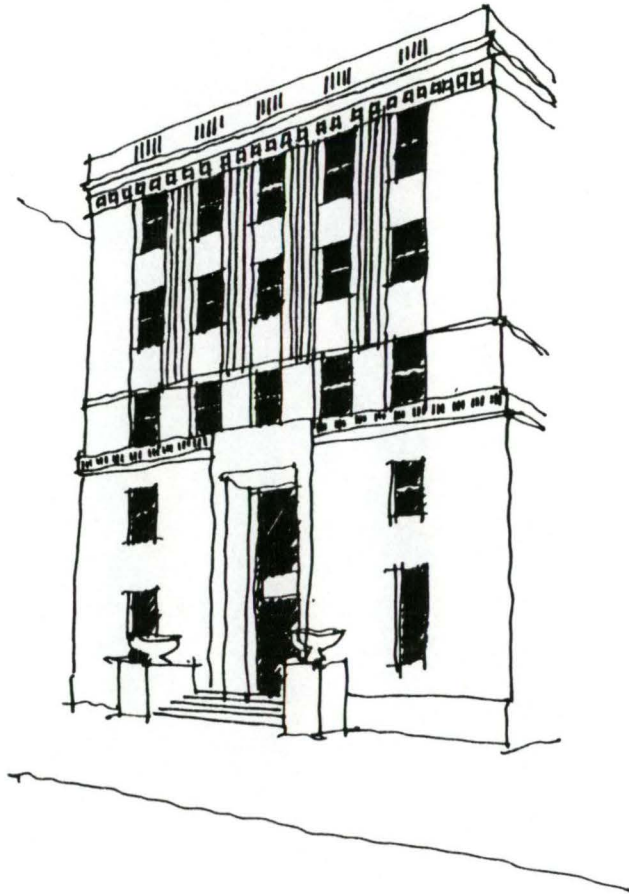
9	ACTIVITIES	67
	Introduction	
	Physical Operations	
	Administrative Operations	
	Support Operations	
10	BUILDING PROGRAM	75
11	DESIGN PROPOSAL	80
12	REFERENCES	97

PROBLEM STATEMENT

Charlotte, North Carolina is a young and progressive city recognized as the fastest growing city in the Mid-Atlantic states between Atlanta and the District of Columbia. Its central business district has historically served as the center of commerce and industry for the North and South Carolina region. From its beginnings, money and banking have played a major role in Charlotte's growth and development. Today, Charlotte stands as one of the nation's leading banking centers and the financial hub of the Southeast. Downtown Charlotte is the location for the corporate headquarters of several large commercial banks such as The North Carolina National Bank, First Union National Bank, First Citizens National Bank, and Wachovia National Bank.

Wherever large amounts of commercial banking activity occur, a central banking facility must always be nearby. Charlotte has been the home to a branch of the United States' central banking system since 1927. This facility performs several functions for its region. It maintains

required cash reserves of the commercial banks in its region, it provides coin and currency to commercial banks as needed, and it provides public services such as the sale of U.S. Treasury Bonds and government securities to commercial banks and the general public.



Existing Central Bank
Charlotte, N.C.

In 1942, this central bank moved into a new building on South Tryon Street in central Charlotte. During the years that followed, this facility was expanded three times and is incapable of further growth within the present building. The service region of Charlotte's central banking facility currently represents the fastest growth area in volume of cash and check operations in the entire United States. As a consequence, the facility is in need of another major expansion. Because it is not feasible to make further additions to the present structure, a new building to meet current and future central banking needs has been proposed.

The limestone and granite facade of the existing central bank presents a very solid, fortress-like appearance to the

public. While this expression of banking may have been appropriate at the time this building was constructed, the image of central banking has changed over the years. The bank now wishes to convey a welcoming, open character, and a new building will provide the opportunity to achieve this end.

The requirements of this building will be threefold. First, it must address the complex functional requirements of a central banking facility. Second, it must address the contemporary image of a central bank. Third it must respond appropriately to its context within the city of Charlotte. This terminal project will initially consist of developing pre-design criteria relating to the building type, its functional requirements, and its proposed site. This will be followed by a design solution which is responsive to these criteria.

B A C K G R O U N D D A T A

INTRODUCTION

The practice of banking has existed in some form in all civilizations. Throughout history, certain people have earned a living by meeting the need for storage of valuable items, by negotiating the transfer of money and valuables, and by providing loans to needy citizens or businesses. Thus, the three basic banking services of deposit, transfer, and provision of credit have always existed, yet the manner in which these services have been executed has changed during the course of history.

Today, banks of many types are in operation. Those which perform some, but not all of the three banking services are savings banks, trust companies, credit unions, investment banks, land banks, and mortgage companies.

The most widespread and commonly used are commercial banks. These form the foundation of the banking system in that they accept from the general public demand deposits in the form of checking accounts, and time deposits in the

form of savings accounts. The commercial bank in turn uses these deposits to earn money by investing in outside sources. In the process of doing this, the bank must maintain a specified portion of these deposits in the form of cash reserves.

Central Banks are the "banks behind the banks" which serve to maintain a soundly based commercial banking structure. The Bank of England and The Federal Reserve Bank of the United States are two examples of central banks. Central banks hold the majority of required cash reserves of commercial banks. They also provide a variety of monetary services such as the issuance of coin and currency, the collection and clearing of checks, and the provision of loans to commercial banks. Essentially, central banks function to regulate and insure proper growth of a country's economy. Therefore, there is always some affiliation between a central bank and the governmental body of the country in question.

HISTORY OF BANKING

Banking practice has been traced to the earliest civilizations. In ancient Babylonia, strongboxes were maintained for the protection of the general public's valuable goods. Many of the democratic city states of ancient Greece developed coin systems with differing values as a means of exchange. Certain citizens, known as money changers, knew the value of all coins and made it possible for people of different city states to exchange goods and services. Money changers also provided for the protection of citizen's coins, transferred money between accounts, and made loans to the public.

The ancient Romans adopted much of the Greek culture and commerce, and during their expansion, spread banking practices throughout all of Western Europe. Because their empire was so vast in size, the Romans saw the need to develop the first system of uniform banking laws and regulations.

After the fall of Rome in 476 AD and the ascendancy of Christianity, banking essentially disappeared because the Church considered the lending of money for interest to be usury. However, during the 13th century, the rapid growth of trade brought about a resurgence of banking practice. In the Italian cities of Genoa and Venice, money lenders conducted business in the street behind a bench, or "banca", which is the origin of the present day word bank. The growth in trade and commerce in the Mediterranean was centered around the rise to power of Italian banking families such as the Medici's of Florence. Banking became an essential part of the new society and banking families became major patrons of art, literature, and music.

By the 17th century, the centers of banking had shifted to the cities of Amsterdam and London. In London, goldsmiths served as bankers because of their ability to protect people's valuables in the vaults where they stored their precious metals. These goldsmiths issued receipts for the stored valuables. These receipts were much more

convenient than coins so people began using them as money for trade. This new medium was the first form of currency based on trust.

In 1694, with England and France on the verge of war, the concept of central banking was born. King Charles of England had defaulted on several loans which had been made to him by goldsmith bankers. With a need for immediate capital, the Bank of England was established to provide the British government with a large loan which never had to be repaid. In turn, the Bank of England, which was actually privately owned, was granted the right to issue its own currency, and provide banking services for the government as well as the leading trading companies of England. It combined all banking functions and because it was very closely associated with the government, it subsequently proved to be a very effective method of controlling the English economy.

HISTORY OF BANKING IN THE UNITED STATES

As was the case with England, major banking developments in the United States occurred when the threat of war created a severe need for capital. During the colonial times, goldsmiths and silversmiths stored money and valuables and provided the basic functions of banking.

In 1782, following the Revolutionary War, the Bank of North America in Philadelphia was established as the first American bank. A number of private banks opened thereafter in Boston and New York City. Because the transfer of funds between these banks proved difficult, a regulatory bank appeared necessary for efficient trading among the colonies. In 1791, the First Bank of the United States was established by the U.S. government. Because of its governmental support and the dominant role it began to play in the country's commerce, smaller private banks built up strong opposition to it, and the bank was dissolved after its twenty year charter expired.

LIBRARY

The war of 1812 created major growth in manufacturing and business. More banks opened and the influx of money into the economy caused prices to soar. Without any regulation to control this flow of money, the fear of financial failure by smaller banks and the lack of confidence in the value of currency provided the impetus for Congress to establish the Second Bank of the United States in 1816. It's fate was similar to its predecessor. After an initially strong start, it also developed strong opposition from the small privately owned banks and was also dissolved after its twenty year charter expired.

In the 1830's after the Second Bank of the United States had lost its power, a number of new banks, known as "wildcat banks," began to develop their own currency which was issued in unreasonably large amounts. They also issued loans based on very flimsy security. Because of this, monetary inflation accompanied by land speculation resulted. As prices climbed, people lost faith in the worth of these "wildcat currencies". Government agents in turn were forced to accept only gold and silver for public land

sales. Since many of these wildcat banks could not meet these demands, they were forced to close.

Following the outbreak of the Civil War, inflationary problems resulting from the currency overflow of the wildcat period accompanied by the need for reliable currency to finance wartime expenditures forced Congress into passing the National Bank Acts of 1864 which established a national currency backed by United States bonds. This provided the financial consistency and reliability needed during the war years.

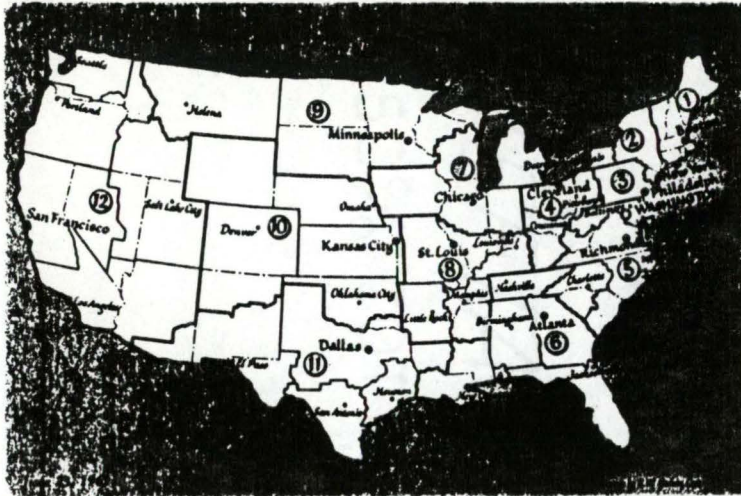
Following the National Banking Acts of 1864, banking in the United States was performed primarily by small commercial banks in small communities which maintained currency reserves with well established commercial banks in larger financial centers such as New York and Chicago. When the demand for credit became very intense, such as during the harvest season, the small local banks were often pressed for funds and they turned to the larger banks in the financial centers for help. In order to meet these

needs, the larger banks often had to call loans, sell securities, and stop issuing new loans for a period of time. As borrowing became difficult, interest rates would rise, security prices would fall, and national economic problems resulted.

These monetary upheavals eventually worsened to the point where Congress decided to appoint the National Monetary Commission to study alternative ways to perform banking functions. The conclusion of these studies indicated that most countries with smoothly operating monetary systems had a central bank which served to regulate money and credit. Therefore in 1913, Congress passed the Federal Reserve Act with the original intent of providing an elastic currency, improving the supervision of banking, counteracting inflationary and deflationary movements, and creating conditions favorable to high employment, stable values, growth of the country, and rising consumption of goods and services.

CENTRAL BANKING

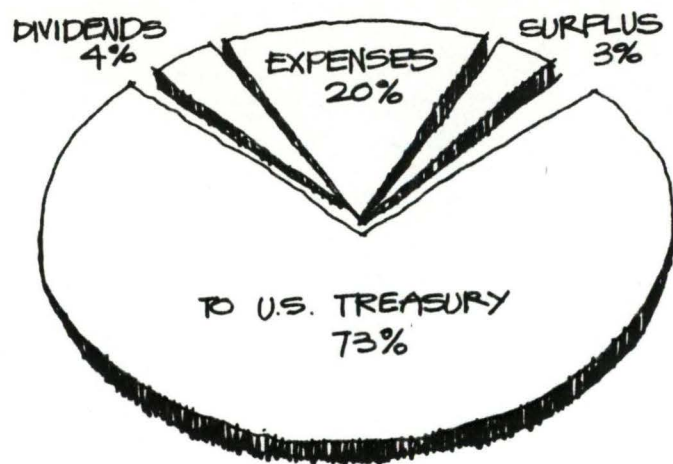
ORGANIZATION AND STRUCTURE



Federal Reserve Districts

In order to understand the role of central banking in an economy, it is necessary to understand how the Federal Reserve System functions in the United States Economy. The Federal Reserve Act of 1913 provided for the division of the country into twelve Federal Reserve Districts, each containing its own headquarters facility and one or more branches to serve the commercial banks within the district. These commercial banks are called the member banks of the Federal Reserve System.

By law, member banks are required to purchase a certain percentage of the Federal Reserve Bank's capital stock. Each Federal Reserve Bank functions as a private corporation; however they do not function to create a profit as do most private banks. Since Federal Reserve Banks are "quasi-federal" corporations established by the U.S. Government, they operate non-competitively for the regulatory functions they perform. Therefore, all income



Earnings Disposition

generated by a Federal Reserve Bank is used first to cover its operating expenses, and secondly to payout dividends to its member banks. All remaining profits are turned over to the United States Treasury Department.

By becoming a member bank of the Federal Reserve System, commercial banks are required to abide by certain rules and regulations. Maintaining a certain percentage of their deposits as legal reserves in the hands of a Federal Reserve Bank is the most important of these. Member banks are also granted privileges such as being able to borrow money from the Federal Reserve, and using the Federal Reserve's facilities for collecting and clearing checks, settling and adjusting balances, and transferring funds to other cities. Additionally, they share economic information which is gathered by Federal Reserve analysts, participate in the election of its district directors, and obtain dividends from the Federal Reserve's operations.

The Federal Reserve System is supervised in Washington, D.C by its seven member Board of Governors.

This board is appointed by the President of the United States and each member serves a fourteen year term. Each Federal Reserve district in turn has nine directors. Six of these are elected by member banks; three being commercial bankers within the district, while the other three are active participants in commerce and industry within the district. The remaining three directors are appointed by the Board of Governors.

PRIMARY FUNCTIONS

Money has three uses in an economy. First, it serves as a means of payment for goods and services, second as a standard of value, and third as a store of purchasing power. The ultimate test as to whether an economy is functioning properly rests in the ability of its currency to serve as this store of purchasing power or consistency over time.

In a properly functioning economy, manufacturers, farmers, and merchants must be able to borrow enough money at a reasonable cost to buy materials, pay employees, and cover expenses while making a profit. On the other hand, consumers must also be able to borrow money at reasonable repayment terms to buy goods and services for everyday life. In a dynamic and growing economy, the proper amount of credit and money in the economy is the amount that will help maintain high and steady levels of production, employment, income, and consumption.

When credit is scarce, hard to get, or costs too much, depression will occur because manufacturers and businesses may have to curtail operations and lay off workers. On the other hand, when credit is abundant, easy to obtain, and costs too little, inflation will occur because people will try to buy more goods than manufacturers can produce, and prices will rise to where the same amount of goods over time will cost more. Because neither of these situations are good for an economy, it is the primary role of a central bank to exercise its ability to regulate the flow of money and credit. This ability lies in the hands of the Board of Governors and the district directors.

Essentially, a central bank exercises this ability through the reserve requirement placed on its member banks. Customers make deposits to commercial member banks. The member banks are then required to deposit a certain percentage of each deposit with its central bank. This is based on the principal of having cash immediately available for withdrawal, but with the assumption that not all depositors will request withdrawal at any one time.

Commercial banks are then free to lend or invest the remainder of each deposit. Because the bank receives interest or return on this money, the process creates money and expands the economy. Put simply, member banks can invest their money in outside sources only in proportion to the amount of money in their reserve accounts with the central bank.

The central bank uses this reserve requirement to influence the total flow of money and credit in the economy in three ways.

- 1) Open Market Operations - The central bank functions to buy and sell securities in the open market. The Federal Open Market Committee of the Federal Reserve System places an order from a securities dealer and payment is made by a check on a Federal Reserve Bank. The securities dealer deposits this check in a member bank which places it in its reserve account with the Federal Reserve Bank. With the addition of this money to its reserve

account, a member bank can now lend out more money and thereby increase the flow of credit and money in the economy. If the central bank decides to sell securities, this reduces the reserve balances of member banks, and thereby reduces the flow of credit and money in the economy.

2) Discount Operations - The central bank provides loans to member banks at a low interest rate known as the discount rate. Member banks borrow this money in order to increase its reserve balance and increase outside investments. When the loan is repaid to the central bank, the member bank's reserve balance is reduced and investment slows.

3) Changing the Reserve Requirement - The central bank has the authority to change the percentage of member bank's total deposits to be held on reserve. If reserve percentages are increased, a member bank must sell some of its liquid assets on the market or borrow from another source to raise its reserve

balance. This in turn reduces the amount of money available for lending. If the percentage is lowered, the excess reserves available to the member banks enables them to increase their lending and investment level.

SECONDARY "SERVICE" FUNCTIONS

Aside from maintaining member banks' reserve accounts, a central bank utilizes several service functions to regulate the economy.

Distribution of Coin and Currency

Commercial banks' need for funds vary on a daily basis dependent upon the state of the overall or regional economy at the time. Central banks must respond to these demands immediately. The central bank acts as an agent to the Treasury Department by distributing money throughout the economy. This function requires a high quality accounting system and well managed distribution systems.

Check Services

A central bank provides check clearing services for all member banks in its region. This process involves receiving checks from many different sources, and sorting, organizing, and distributing these checks back to their

original source for verification. The central bank has high speed, automated processing equipment which performs these duties.

Fiscal Agency

A central bank carries the accounts of the Treasury Department and handles much of the work involved with the issuance and redemption of government obligations. When the government offers securities for sale, the central bank receives applications from the public, makes allotments, delivers securities, maintains treasury balances, and redeems securities when mature.

Banking Supervision

It is the responsibility of the central bank to keep member banks the economy strong. Member banks agree to abide by the rules and regulations established by the central bank when becoming a member. To insure compliance, the central bank requires that all member banks submit periodic condition statements for approval.

T H E B U I L D I N G T Y P E

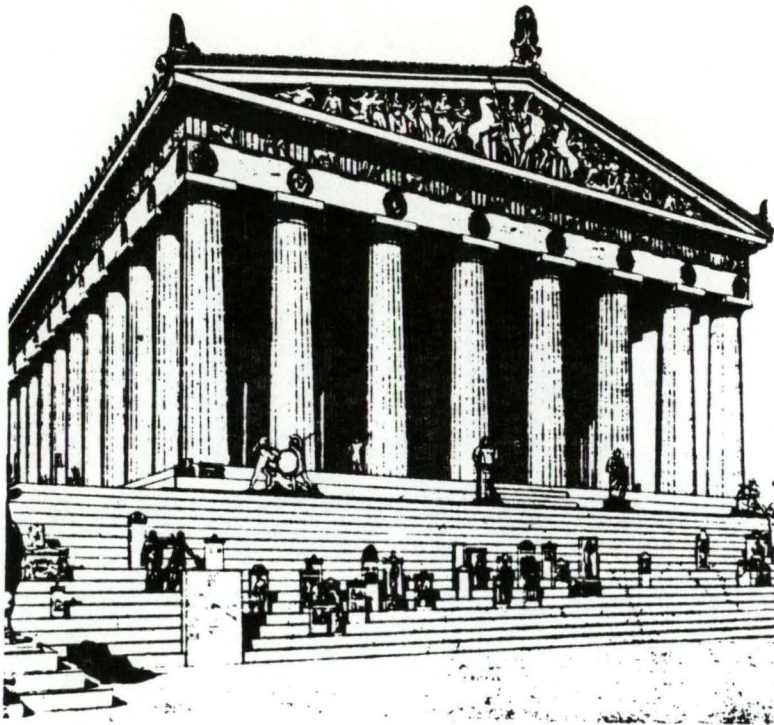
INTRODUCTION

"Banking is for most people the quintessential capitalist activity. Money is a scarce good, and if it is to be allocated rationally, there must be an institution that deals primarily with its uses." ¹

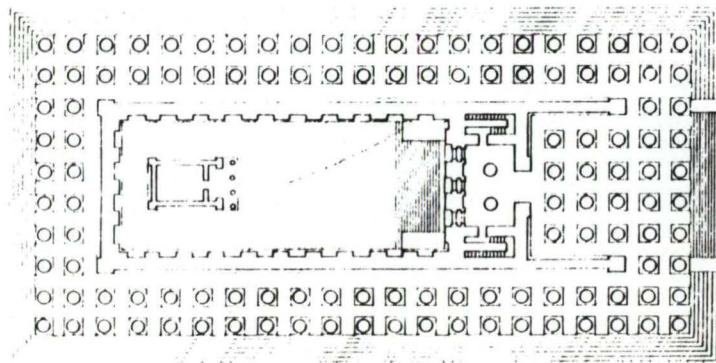
"Transactions between a bank and its customers are secret," yet "banking holds itself out as a public business, and in theory anybody who needs a loan can make contact with a banker who could give it to him." ² Because a bank must store and protect our society's most valued possessions and also welcome the public for business, bank architecture must convey two images to society.

Throughout history, bank architecture has blended these two conflicting images into many different forms. Economic and social conditions at the time of construction have dictated which of these images plays the dominant role in the overall architectural form of the building.

EARLY EXAMPLES

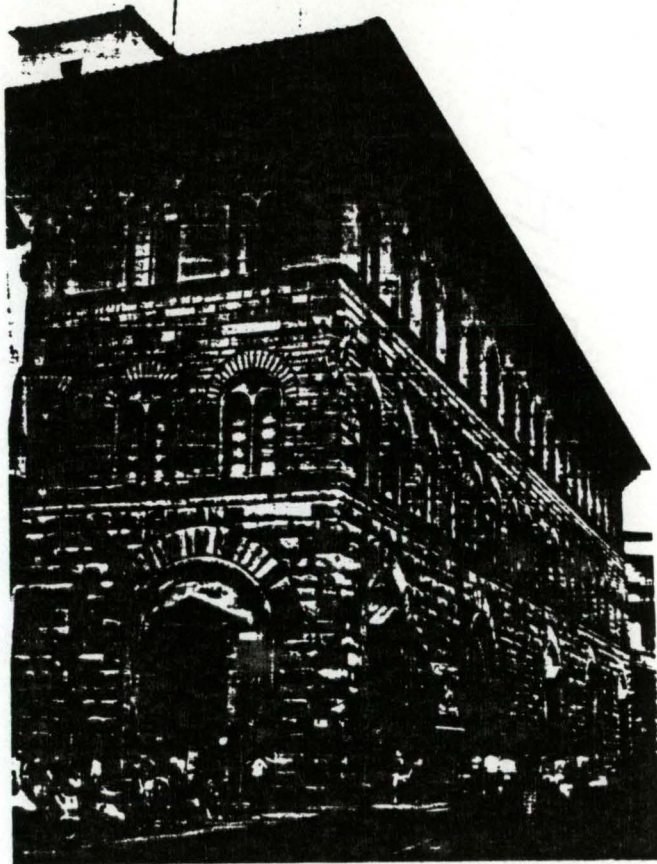


The earliest physical facility associated with the banking profession is the temple of ancient civilizations. The temple served as the central and most important building. Therefore, money and valuables were kept in a safekeeping vault located in the basement. Access to these vaults was near the altar and the priest served as the person in charge of transactions. Because of its association with sacred activity, rarely did anyone attempt to steal from the vaults.



The temple represents the purest and most meaningful form of architecture and is the root of the image of a bank. Elements such as a grand entry, a processional organization, and a large, dominant space for transactions can be seen in some form in most examples of bank buildings.

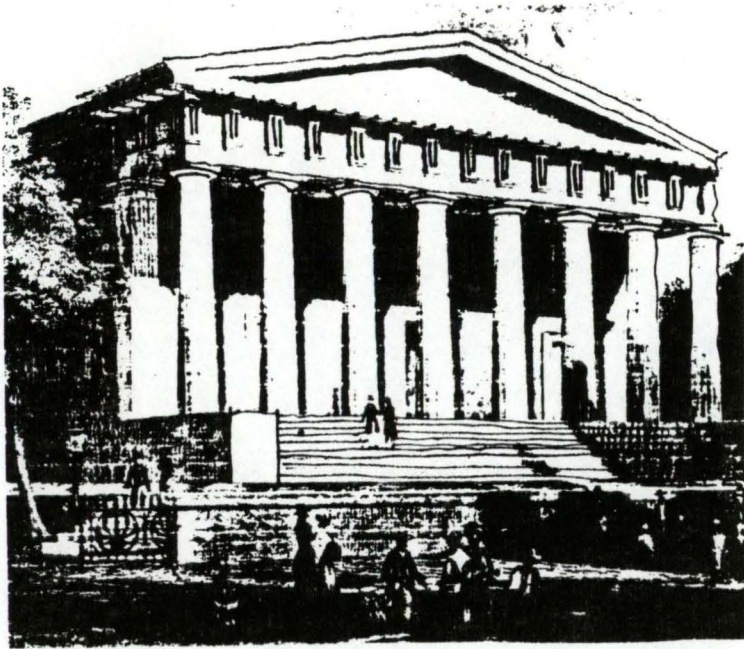
By exposing their operations to public view, the Italian street bankers of the late Medieval and early Renaissance



Pallazzo Medici Ricardo
Florence, Italy

established a sense of honesty and fairness with their customers. In contrast to this, the powerful banking families of the Renaissance built massive, heavily fortified urban palaces in which transactions with the public were performed at the street level. The rusticated stonework of the base, the small entrances, and the imposing presence of these buildings identified it as a fortress for the protection of money.

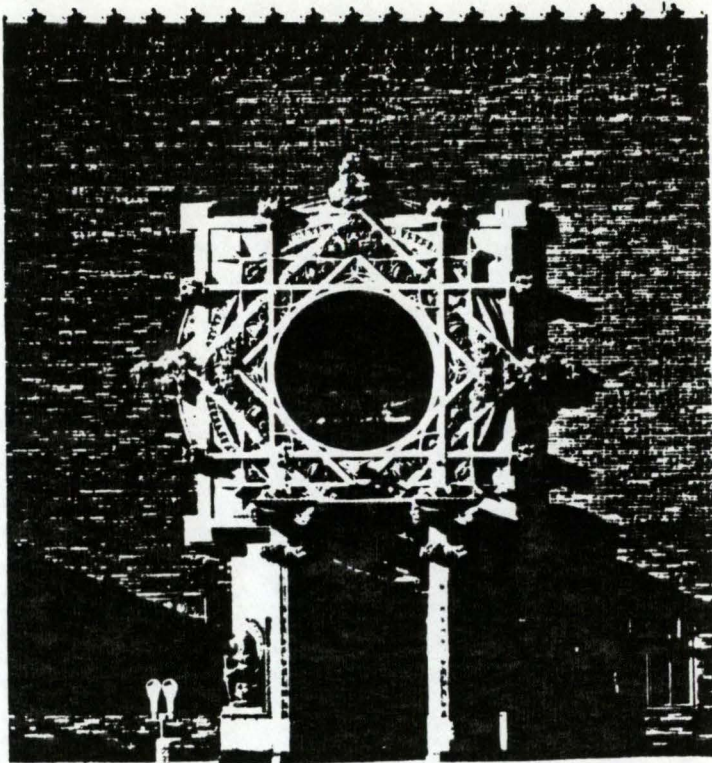
AMERICAN EXAMPLES



Second National Bank of the U.S.
Philadelphia, Pennsylvania

American banking developed directly from the image of the ancient temple. The founding fathers, in seeking to establish a style of architecture which would project an image of a young, powerful, democracy, chose Greek and Roman architecture as appropriate models for the conveyance of these ideals. This temple image was applied to most public and municipal buildings which were built during the early years of America's growth. The First and Second National Banks were direct interpretations of these Greek and Roman temples adopted to the organization of a bank. The Classical Revival style was repeated in the design of many thousands of small banks built in smaller communities around the country.

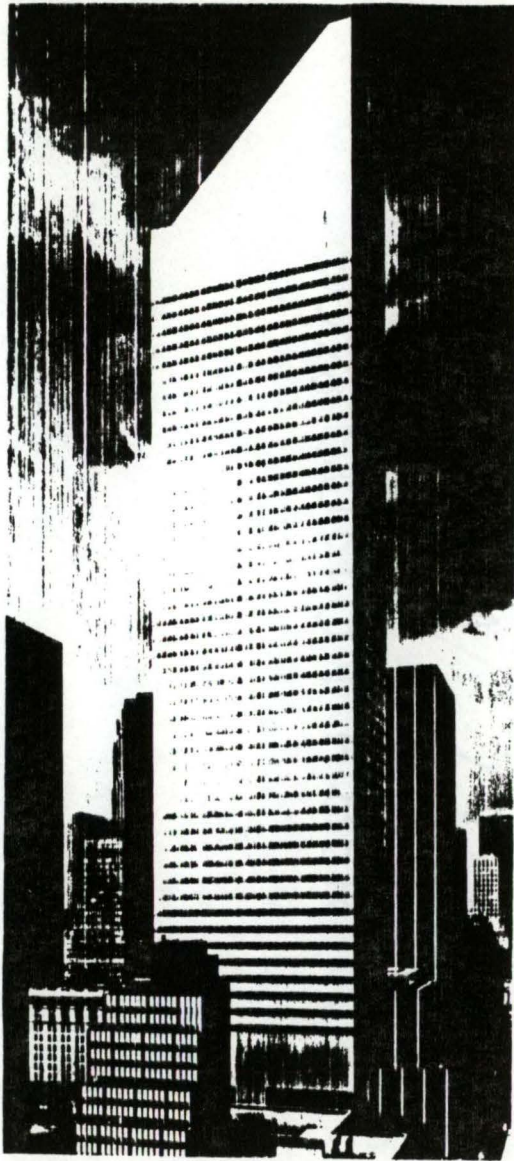
During the early part of the 20th century while the transition into the modern movement was occurring, Louis Sullivan, one of the leading architects of this movement, developed a unique approach to the design of banks. His



Poweshiek County National Bank
Louis Sullivan

small Midwestern banks greatly emphasized the role of the bank as a protective building, which he referred to as a "strongbox". He achieved this image by simple, strong forms set firmly on the ground plane and articulated with arched or regulated openings. The sequential organization of the building was highlighted by a restrictive, heavily ornamented entrance, a procession through a central space which terminated at the teller and vault areas.

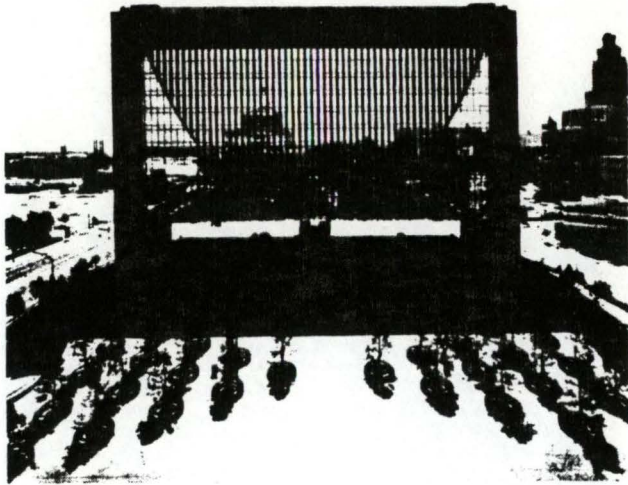
At the height of the modern movement, an image of banking developed which was drastically opposed to that of Sullivan's banks. The Manufacturers Hanover Trust Building, built in New York City in 1957, used a steel and glass vocabulary to achieve an image of trust and community involvement. All of the bank's operations, including vault spaces, are visible from the street. The bank used this approach to lure customers into the facility and convey an image of openness and honesty. Following this precedent, banks around the country sought this open, inviting image.



Today, the dominance of high rise office buildings in urban areas are evidence that height is the easiest way to project a corporate image. "As the traveler nears any American city, the first building he is likely to see is the headquarters of the local bank, partly because it's good publicity for a bank to be identified with a city's salient monument, and partly because the bank very likely is the largest of local enterprises." ³

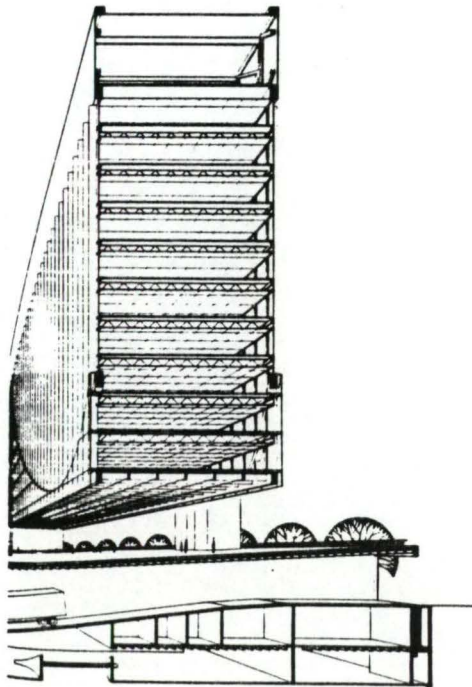
The Citicorp Center in New York City by Hugh Stubbins uses a sloping roof and pure, crisp form highlighted by highly reflective aluminum panels to stand out as a progressive and important business in the city. The Bank of America headquarters in San Francisco uses the traditional bay window to fenestrate its tall, massive stone form in order to identify with the vernacular of the city.

CASE STUDIES

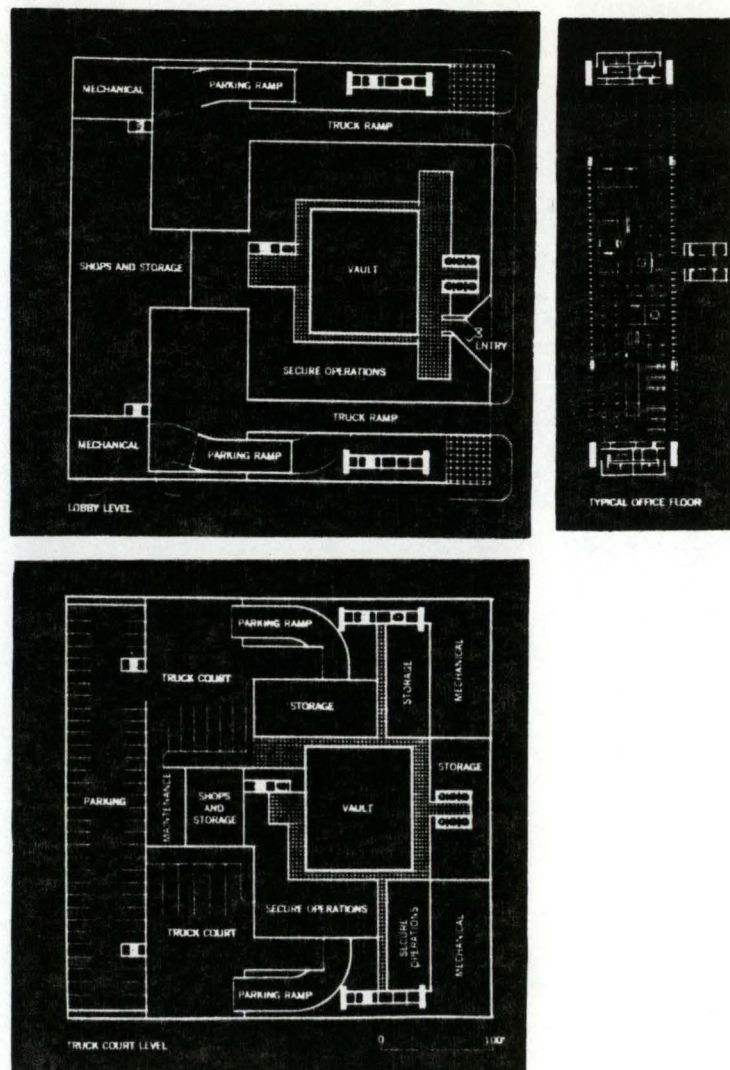


THE FEDERAL RESERVE BANK
MINNEAPOLIS, MINNESOTA, 1975
ERIC GUNNAR BIRKERTS

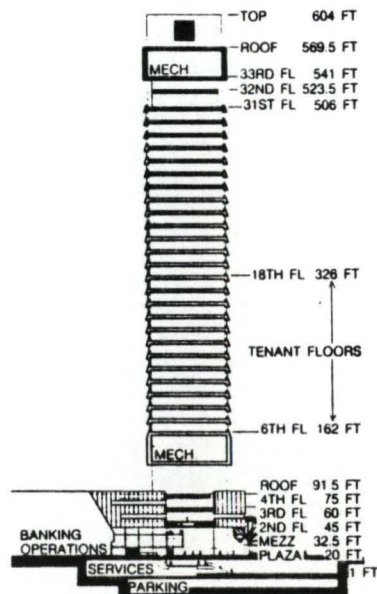
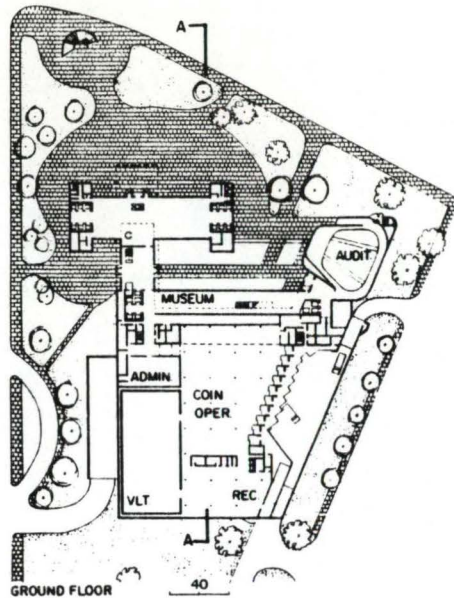
One of the most innovative structural designs of contemporary architecture, this building employed the concept of a suspension bridge to create a 330 foot freespan office tower whose structural supports would not interfere with the complex system of truck access and turnaround in the secure areas of the bank. The design located all secure operations underneath a gently sloping public plaza, and all public and administrative functions within the ten story office tower above.



Similar to the situation in Charlotte, the previous Federal Reserve Bank of Minneapolis "was built in the 1920's and was a windowless, forbidding structure." The design of the new structure attempted to serve the financial community by providing "openness and accessibility."⁴ The exterior was anchored on both ends by structural members and support functions housed in solid concrete forms, while



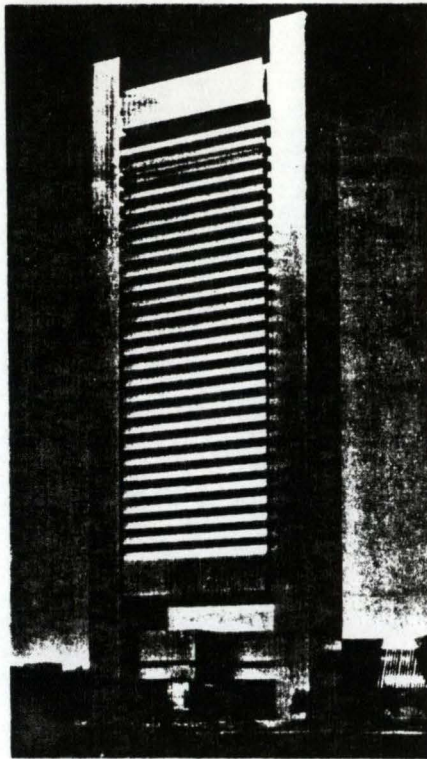
the long facades of the office tower were faced in two tones of glass which corresponded with the graceful swing of the parabolic arch of the suspension cables. These shapes and forms provided a powerful and positive image to the city of Minneapolis.



**THE FEDERAL RESERVE BANK
BOSTON, MASSACHUSETTS, 1976
HUGH STUBBINS AND ASSOCIATES**

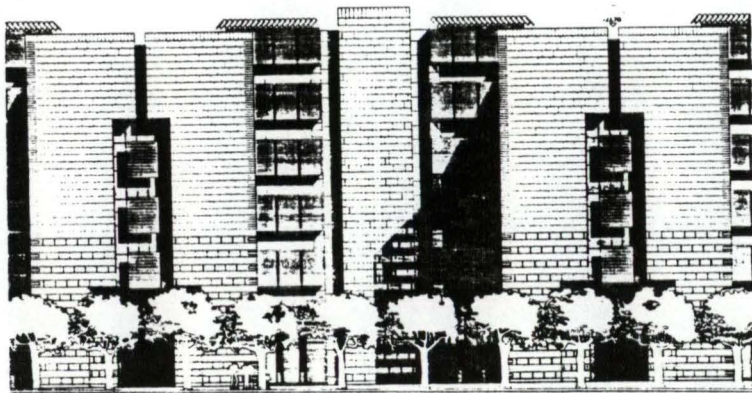
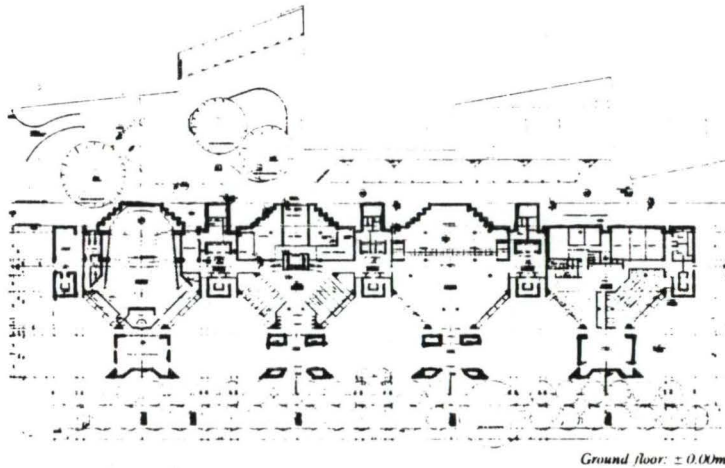
The program requirements for this bank called for large areas for money handling operations, accounting, and computers; vaults which were highly secure; and administrative offices which provided a quality working environment. Stubbins designed the building so that secure operations were housed below grade and in a low rise building which wrapped around a high rise office tower housing the the administrative offices. To account for future growth and expansion, leasable office space was included in the tower which the Federal Reserve would eventually grow into.

As seen in the Minneapolis Federal Reserve Bank, the architect supported the office tower with heavy trusses in order to prevent the structural grid from interfering with the access and turnaround spaces below.



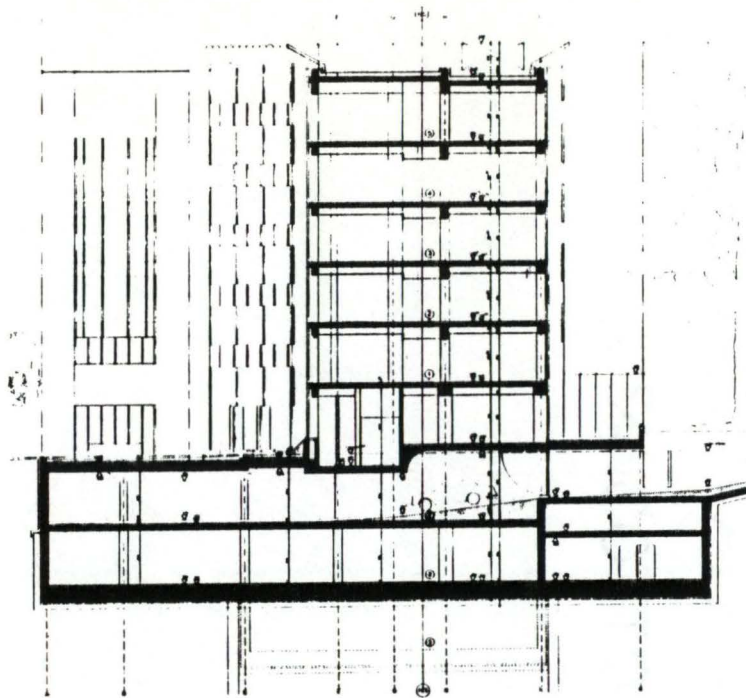
The exterior design featured light colored aluminum panels to reflect heat and attract the eye to the sculptural qualities of the fenestration patterns. "Stubbins sought to create a strong image for a building whose structure and organization would be easy to understand visually."⁵ The building appears urbane and welcoming at its base because of the location of human scaled functions (i.e. museum, reflection pools, public lobby) at the street level.

**BANCO DEL GOTTARDO
LUGANO, SWITZERLAND, 1982
MARIO BOTTA, ARCHITECT**

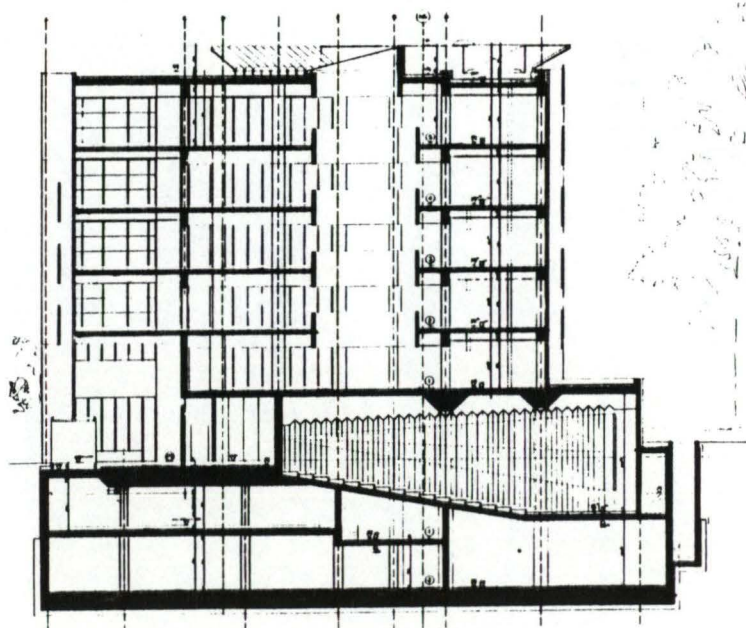


Mario Botta is the leading architect of the Ticino region of Switzerland whose work utilizes pure forms, heavy massing, and streamlined ornament. This recent bank is a sensitive response to a long, linear site. In an attempt to relate to adjacent scale and rhythm, the street facade is broken down into a series of four independent volumes. This alternation of large and small volumes "produces an aesthetically pleasing sequence along the street level¹⁶ where all public functions such as tellers, auditorium, and restaurant are located. The structure is reinforced concrete and facades are composed of alternating concrete block and granite patterns. Offices are located on the upper levels of the four volumes and the three floors below the street level consist of parking, technical equipment, and bank vaults.

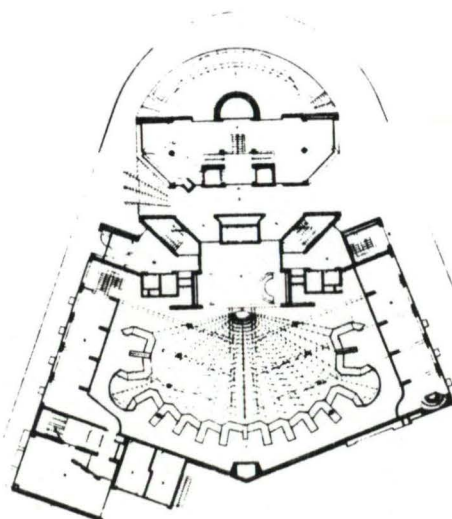
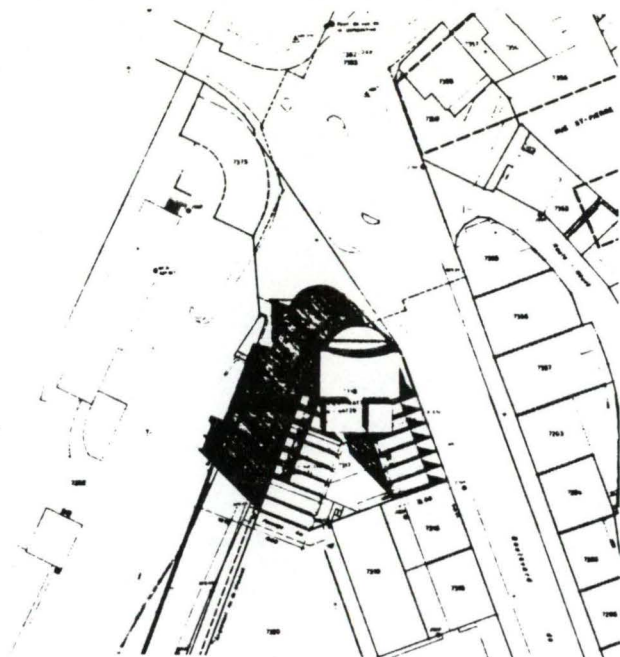
Botta has successfully achieved the union between a



protective image and an inviting image. His heavily massed entrance porticos are inviting from the street, and by pulling them away from the general massing of the building, their rhythm combined with the solid materials identify the function of the building in a pleasing manner.



**THE STATE BANK AT FRIBOURG
FRIBOURG, SWITZERLAND, 1977-82
MARIO BOTTA, ARCHITECT**

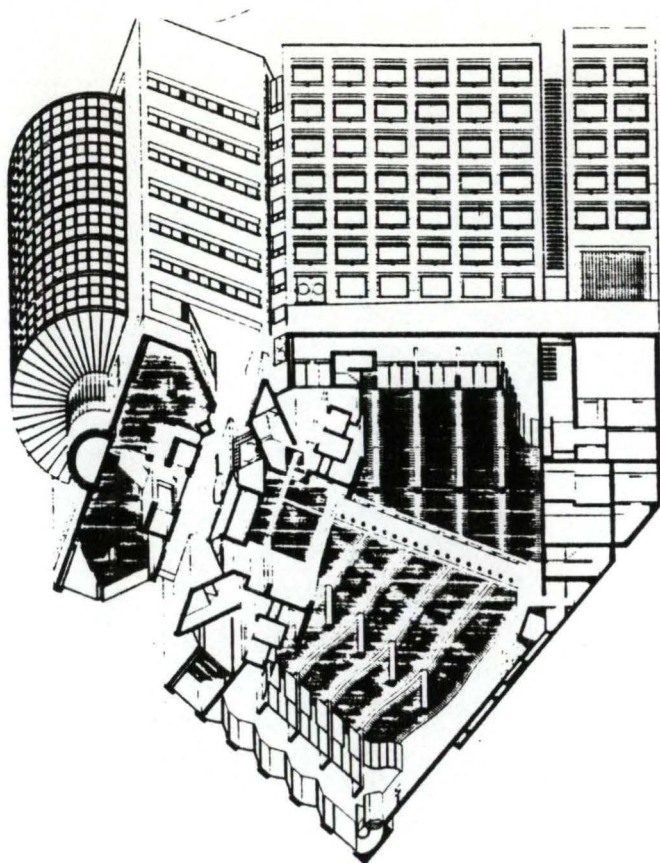


Ground floor

This bank is also a response to an oddly shaped site and existing rhythms and textures of the area. It responds to this site with a complex weave of forms which correspond with the program of the bank and the traditional image of bank architecture.

The site's triangular shape and location underlines the characteristics of the nearby urban spaces, therefore different solutions were posed for each one of the sides. The building has three distinct sections, two lateral wings which continue the preexisting street rhythms and a central volume that constitutes the link with the city square.

The exterior corresponds to this treatment. The buildings facing the street continue the theme of facade, while the block towards the square is an "isolated, monumental, single volume."⁷ Here Botta uses a semicircular glass form and juxtaposes it against a



rectangular form of heavy stone. This "distinct architectural and plastic organization sets it apart from the other two sections."⁸

The organization establishes public and private zones, within the overall form. A public cafe is located within the semicircular form and the large banking hall, located on axis with this form, fills the void created by the three elements of the composition. Offices are located on the upper floors of the building.

CHARLOTTE, N. C.

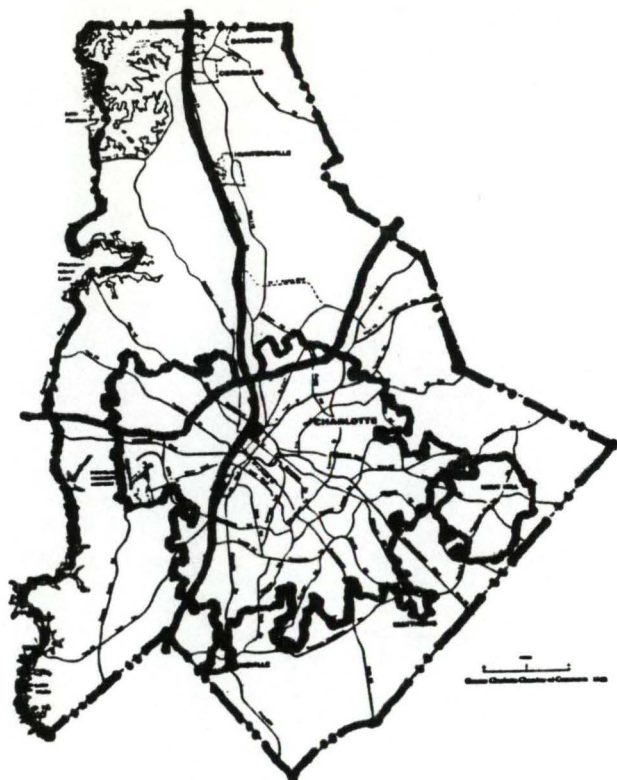
INTRODUCTION



Charlotte, North Carolina is the largest and fastest growing metropolitan area in the two Carolinas. Its historical role as the center of business and industry in the two state area continues today.

Charlotte is centrally located to the major metropolitan areas of the Southeast. It is 300 miles east of Atlanta, Georgia, 180 miles west of Raleigh, N.C., and 120 miles north of Columbia, S.C. Its location at the crossing of two major interstates, 1-77 and 1-85, connect Charlotte directly with these cities. Charlotte-Douglas International Airport serves as the home base for Piedmont Airlines and other airlines which connect Charlotte with the rest of the world.

Charlotte lies in the Piedmont region of North Carolina, approximately halfway between the majestic Blue Ridge Mountains and the major resort areas of the South Atlantic coast. The Piedmont region is characterized by scenic, rolling hills and a temperate year round climate. Although



Mecklenburg County

the city itself has no specific natural amenity, two nearby lakes, Lake Norman and Lake Wylie provide Charlotte with a strong recreational base. This, along with its centrality and climate, make the city an attractive home to business and industry.

Once primarily an industrial center which served the textile based economy of the North Carolina Piedmont, today Charlotte's prime business is banking. This is evidenced by the high concentration of large national banks in the central business district. The concentration of industrial and manufacturing interests in the region is complimented by good convention and hotel facilities located in the heart of the city's central area.

ORIGINS AND GROWTH

The first settlers to move into the area occupied by present day Charlotte migrated from Pennsylvania around 1750. In 1762, this community of settlers led by Thomas Polk, erected a small, rustic, courthouse at the crossing of two wilderness trails which are today's Trade and Tryon Streets. This courthouse became the focus of activity and growth in the area and in 1768, the city of Charlotte was incorporated and named the county seat of Mecklenburg County.

Charlotte remained a small trading community until gold was discovered in a nearby area in the 1820's. By 1835, Charlotte had become one of the largest gold mining regions in the entire country and a United States Mint facility was established in the city.

By the 1850's, the city of Charlotte was developing as a center of trade and commerce in the Southeast as well a focus of rail lines. However, the outset of the Civil War in

1865 severely slowed the city's development.

In the 1880's, with the development of the textile industry in the South, Charlotte again grew as an industrial center, and by the 1890's, it was well on its way to becoming a business center. In 1908, the construction of the Independence Building at the intersection of Trade and Tryon Streets marked the first skyscraper development in the state of North Carolina. Tryon Street soon developed as the commercial spine of the city, and Charlotte's downtown area began a growth pattern that was to last until the depression years of the 1930's.

Following World War II, the popularity of suburban development adversely affected Charlotte's central area. As a result, the role of the downtown area as the center of activity in the region was somewhat lessened. However; by 1960, urban renewal efforts were underway, and developments such as the Government Center and the North Carolina National Bank set the pace for urban growth which is making Charlotte the attractive city center it is today.

PHYSICAL CHARACTERISTICS

Downtown Charlotte is neatly enclosed by the I-277 expressway loop which encircles the entire central area. Trade and Tryon streets, which quarter this central area, serve as the principal east/west and north/south axes respectively. A one way street system serves as an efficient means of moving high volumes of traffic within the downtown area. A well developed transit system transports people conveniently from suburban areas as well as within the downtown area.

Charlotte's current skyline, which features numerous tall buildings clustered along Tryon Street, presents a dynamic, urban image. However, deteriorating vacant areas which surround the core area are evidence of the very recent transition this area has made from being the center of a small city to that of a major metropolitan area.

Several differing building types contribute to Charlotte's unique character. The first of these is the traditional

urban fabric of small nineteenth century storefront buildings. Although a majority of these have been destroyed, many still exist in scattered locations, interestingly intermingled with more recent structures.

The second building type is the tower and plaza high rise developments of the past decade. Located predominantly in the downtown area, these buildings range in height from fifteen to fifty stories and commonly rise from large landscaped plazas. The third type is the low rise building assembled with others in a campus plan organization. Representative of this is the Government Center development in the southeast quadrant of the central area. This consists of several governmental office buildings interconnected by landscaped parks and plazas. landscaped parks and plazas.

Charlotte's downtown area is subdivided into the following areas each of which possess unique urban characteristics.

- 1) South Tryon Street where intensive growth of office

buildings is currently focused and where this pattern is expected to continue.

2) North Tryon Street which traditionally served as the retailing core, but recently has become the focus of cultural activity.

3) West Trade Street which is in decline, but holds potential for innovative adaptive reuse of its many older structures.

4) East Trade Street which consists of low intensity office and commercial buildings which are remnants of its traditional function as a secondary retail area.

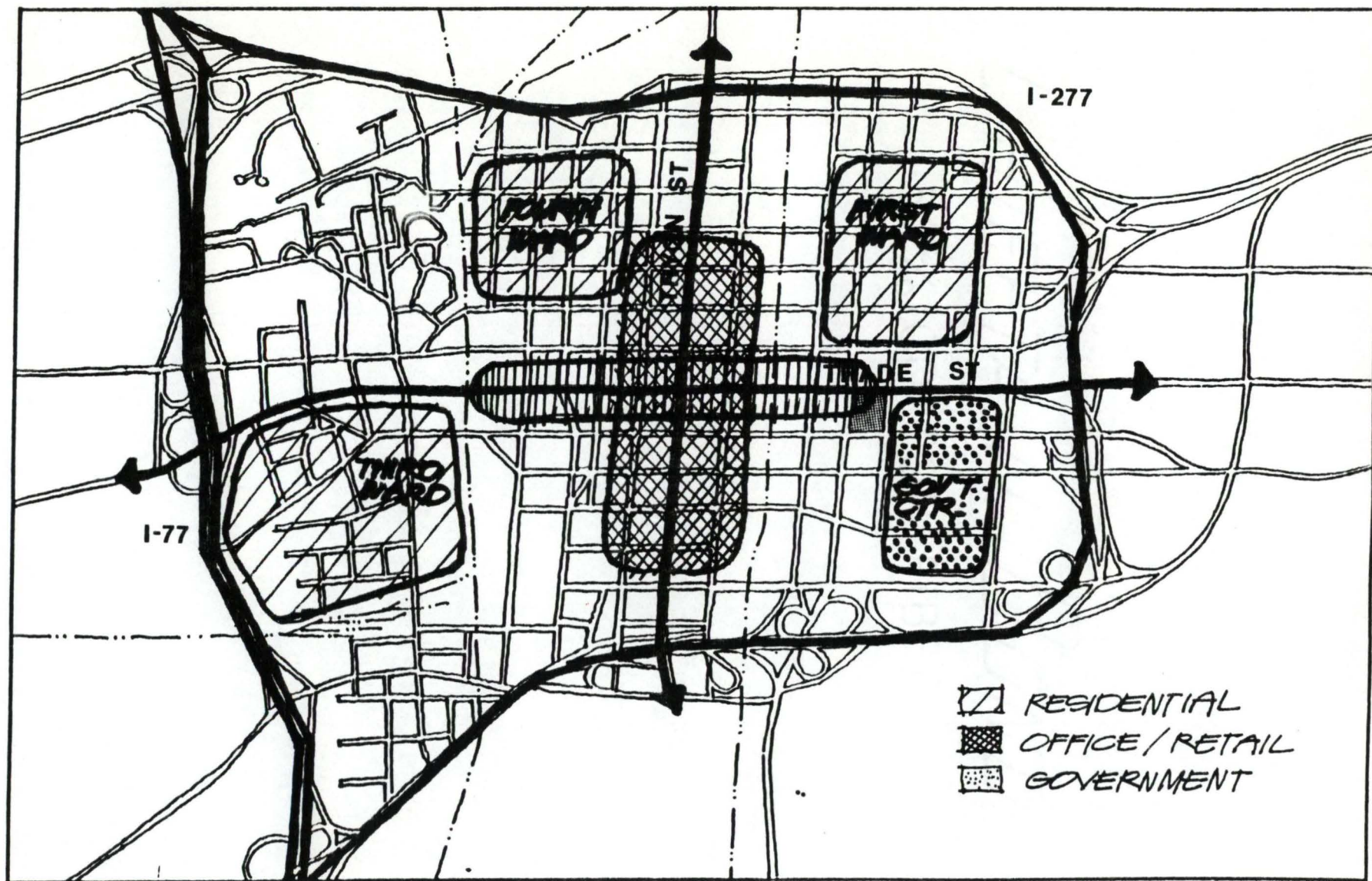
5) The Government Center which combines city/county government and court functions in an open plan focusing on Marshall Park.

6) The First Ward which consists almost entirely of Earle Village, a low scale, diffuse subsidized housing project.

7) The Fourth Ward, a major redevelopment success which

combines renovated Victorian homes with sensitively designed new housing blended by an attractive park system.

8) The Third Ward, currently consisting of vacant land and deteriorating buildings, which is being developed as a residential area, similar to the Fourth Ward. redevelopment of the 1970's



THE CENTRAL AREA

FUTURE TRENDS

By the year 2000, the population of Mecklenburg County is expected to grow from 400,000 to over 600,000 people. The focus of their activity will be the central business district of the city of Charlotte. Complimenting this growth statistic is the prediction that the new population will be younger and consist of smaller, multiple wage earning households. Employment in Charlotte's CBD is expected to double from over 50,000 jobs at present to 110,000 jobs in 2000. As a consequence, large amounts of office space will be needed in this central area.

Although retail activity in the downtown area suffered greatly during the suburban migration of the 1950's, it is slowly making a comeback, but often in different forms. The increasing presence of entertainment and cultural facilities combined with continuing development of central area housing are making significant contributions to the resurgence of central Charlotte.

The development of a comprehensive city plan for the year 2000 includes the following goals and objectives.

Land Use

- 1) Maintain Tryon Street as the high density growth corridor which focuses on the historical center of the city, the square.
- 2) Develop Trade Street as a secondary activity spine linking Third Ward and the Government Center to Tryon Street.
- 3) Concentrate government facilities in the government center and maintain it as a compact satellite to the CBD.
- 4) Maximize the development of residential areas in the central area to stimulate high levels of activity.

Transportation

1) Develop an overall transit system which effectively serves the suburban areas and encourages greater use of mass transportation into the central area.

2) Establish a street categorization as follows:

Major Arterials: The expressway loop with high volume traffic and easy accessibility

Minor Arterials: one way streets which extend from the expressway into the central area

Collector Streets: lower trafficked streets which provide connections within the one way street system

Transit Streets: concentrated areas of transit and pedestrian traffic with attractively landscaped trees and street furniture

3) Increase overall downtown parking inventory to be consistent with the present street capacity and maintain at that level.

Urban Design

- 1) Provide good pedestrian linkage between the employment, retail, and cultural core, and parking areas, residential centers, and the Government Center.
- 2) Develop a major urban plaza at the historic square to provide a sense of place for the city.
- 3) Develop comprehensive streetscape plans which coordinate planting and landscaping to interconnect urban open spaces.

SETTING ANALYSIS

INTRODUCTION

The proposed site of the new central banking facility is an entire city block located on East Trade Street five blocks from the historic square and immediately adjacent to the government center. Currently, the site serves as a surface parking lot for both the Tryon Street employment core and the government center complex. Development plans for the year 2000 include this site as a key development area of the East Trade Street Boulevard as well as serving to link the government center to the downtown area. The placement of the central banking facility on this site will play a major role in achieving the growth objectives of the city of Charlotte.

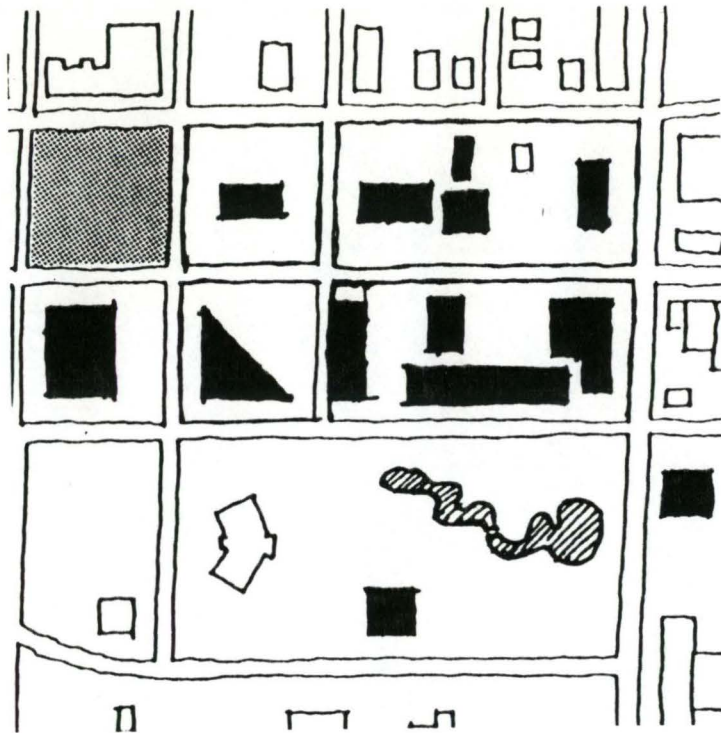
EAST TRADE STREET



Typical Trade Street facade

Being one of the two original wilderness trails which formed the heart of Charlotte, Trade Street has through the years maintained historical importance as the major east/west traffic route of downtown Charlotte. Although Tryon Street developed as the city's primary office, retail, and commercial area, Trade Street has served as an active secondary retail and "trading" avenue during Charlotte's development. East Trade Street is anchored by the square to the west and the government center to the east. Its architectural character once consisted of traditional Southern storefronts located side by side and fronting entire city blocks. Once extending outward from the square three or four blocks to the east and west, these buildings have now been largely removed and the remaining ones are vacant and in disrepair.

THE GOVERNMENT CENTER



- 1 Charlotte City Hall
- 2 Mecklenburg County Courthouses
- 3 Mecklenburg County Jail
- 4 Criminal Courts Addition
- 5 City-County Offices
- 6 Education Building

The Government Center is a concentration of city and county offices located in the area bounded by East Trade Street to the north, McDowell Street to the east, Second Street to the south, and Caldwell Street to the West. This complex began to take shape with the clearing of the Brooklynville Slum area during the urban renewal efforts of the 1960's. The government center was developed around two existing neoclassical structures located adjacent to one another on Trade Street: the Charlotte City Hall building and the Mecklenburg County Courthouse building.

The Government Center contains a new courthouse, an education center, a county jail, a law enforcement center and several supporting office buildings and accompanying parking facilities. Plans for the future include a City/County Office building and parking garage, currently under construction, and a new criminal courts addition to the courthouse.

DEVELOPMENT PLANS

The future plans of the city of Charlotte emphasize the linkage of the Government Center to the historical center of the city. This is to be achieved in part by the development of East Trade Street into a vibrant, pedestrian retail corridor. Following are some of the planning proposals being considered for Trade Street.

The Charlotte Convention Center located on East Trade Street is in need of new exhibit spaces. The city recommends that a transit center for rail and bus lines with connections to the airport be developed in conjunction with a convention center expansion on the site immediately behind the existing facility. Proposals would also call for hotel and office development in the area.

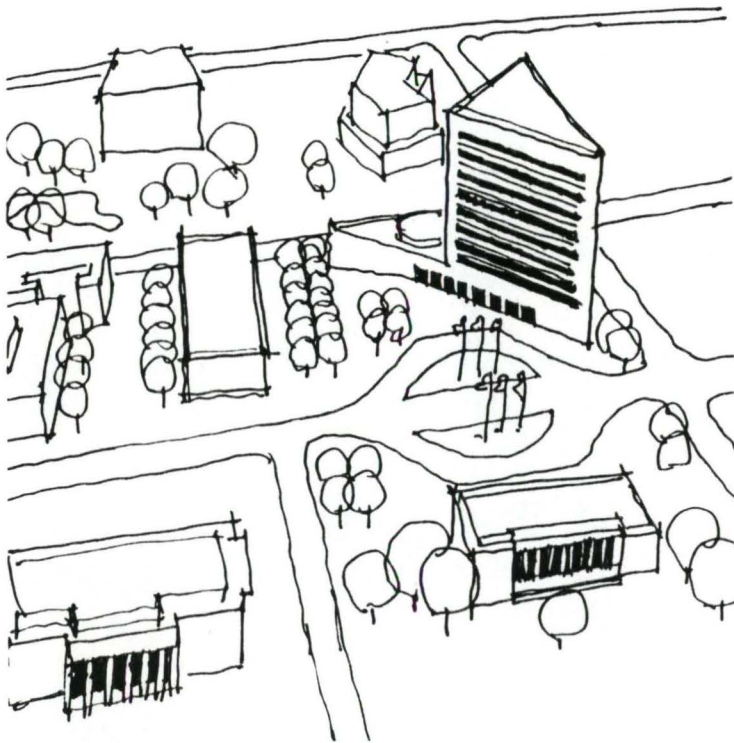
Infill commercial buildings are proposed for the vacant areas on East Trade Street along with rehabilitation of existing storefronts. A private mixed use development on the site between the convention center expansion and the

proposed central banking facility will complete the Trade Street corridor.

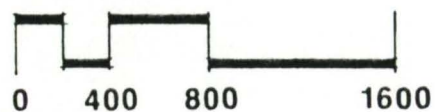
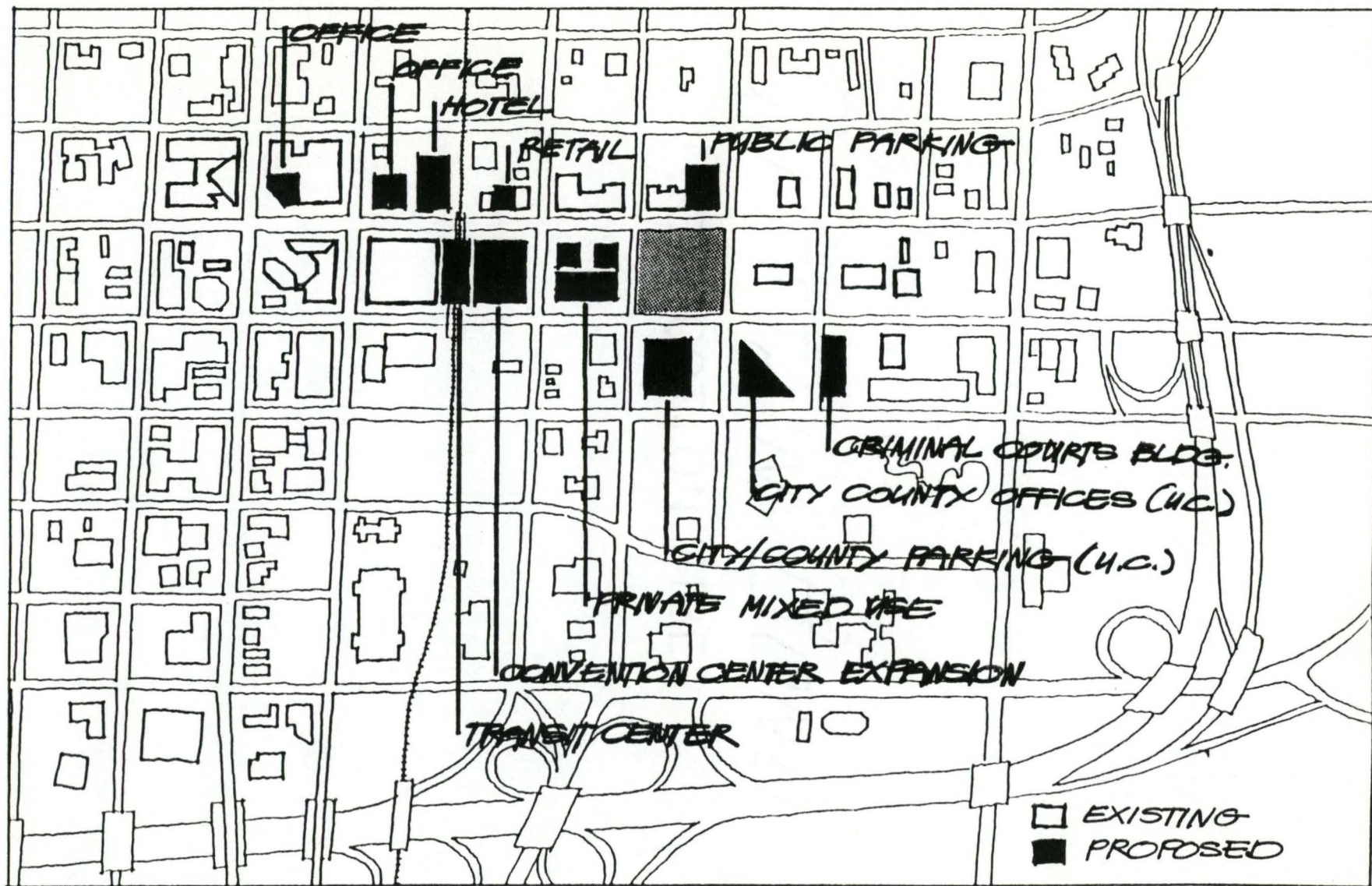
To encourage pedestrian use of this corridor, all new buildings on its southern side will have a minimum setback of fifty feet to permit the development of a linear park. This park will serve as the green link between the Government Center and the urban park at the historical square.

Marshall Park is a large, well landscaped park which has dissappointingly not achieved the level of activity that it was designed for. It is hoped that further development in the government center, combined with urban housing in the area will generate more activity in the future.

The new City/County office building along with the proposed criminal courts facility will be expected to give greater identity to the Government Center, and its large, street level plaza will serve as an activity center for the area.

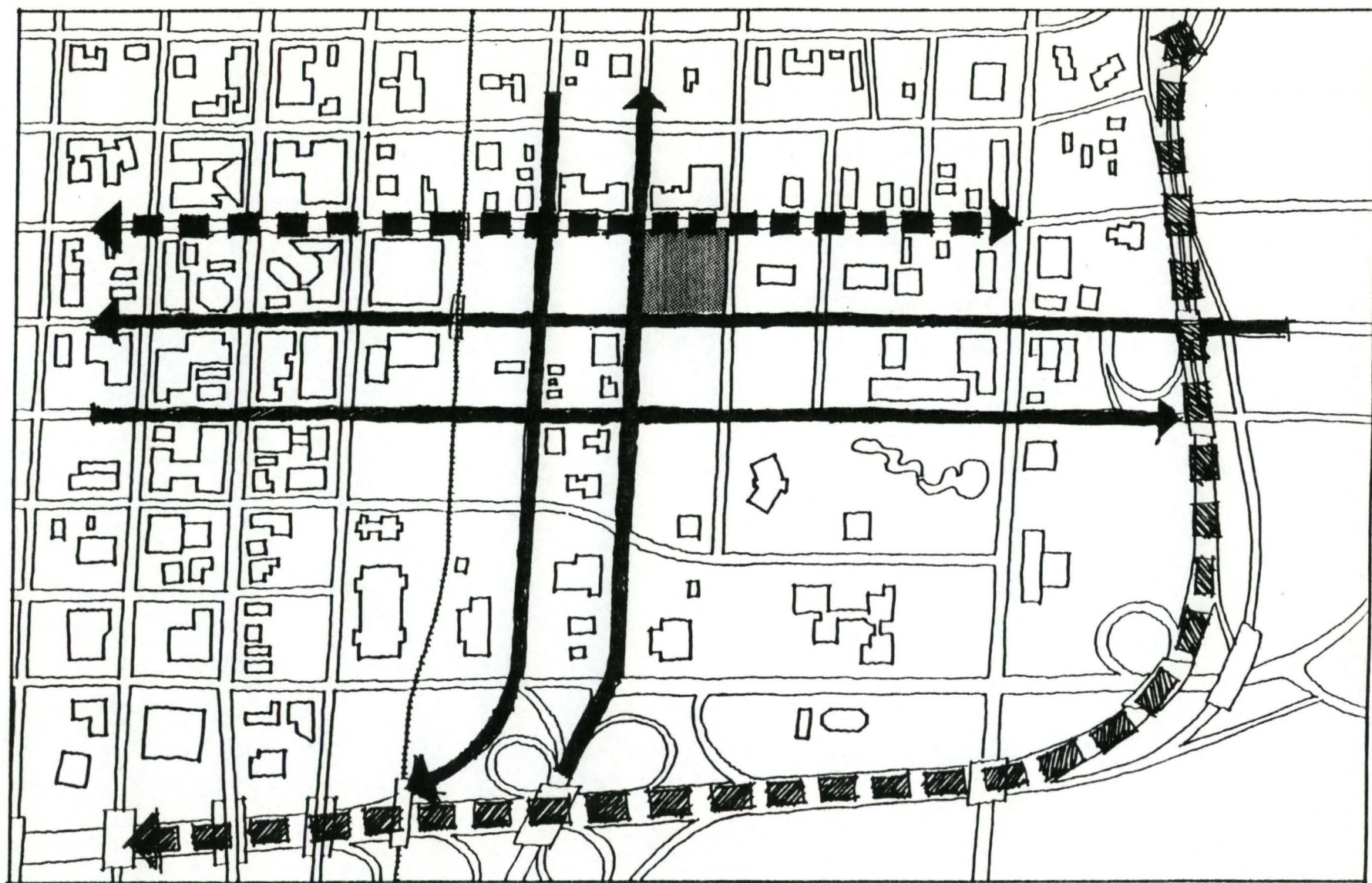


Government Center Plaza

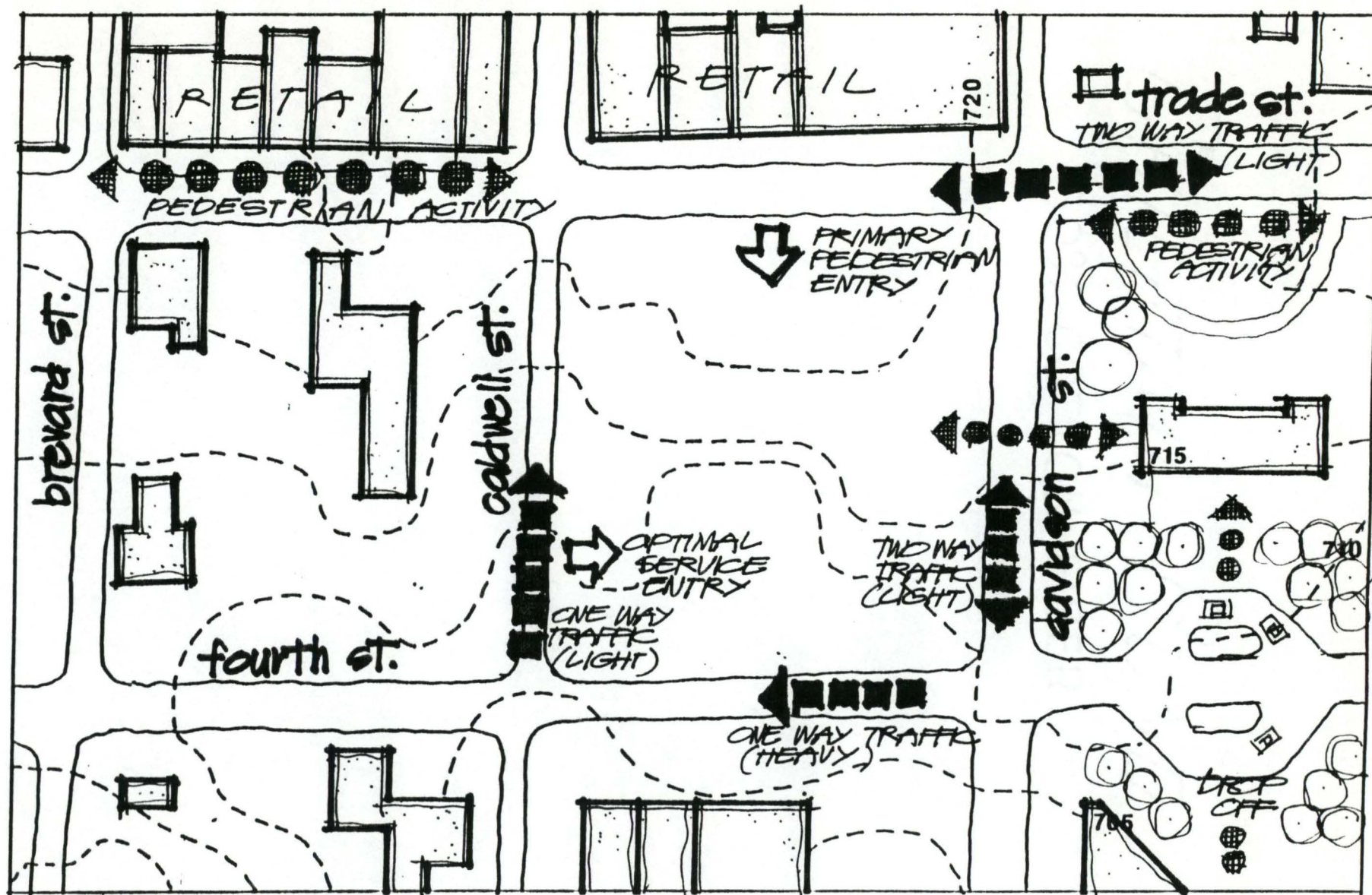


DEVELOPMENT PLANS

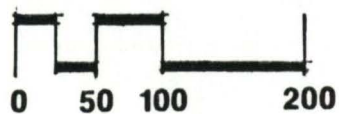
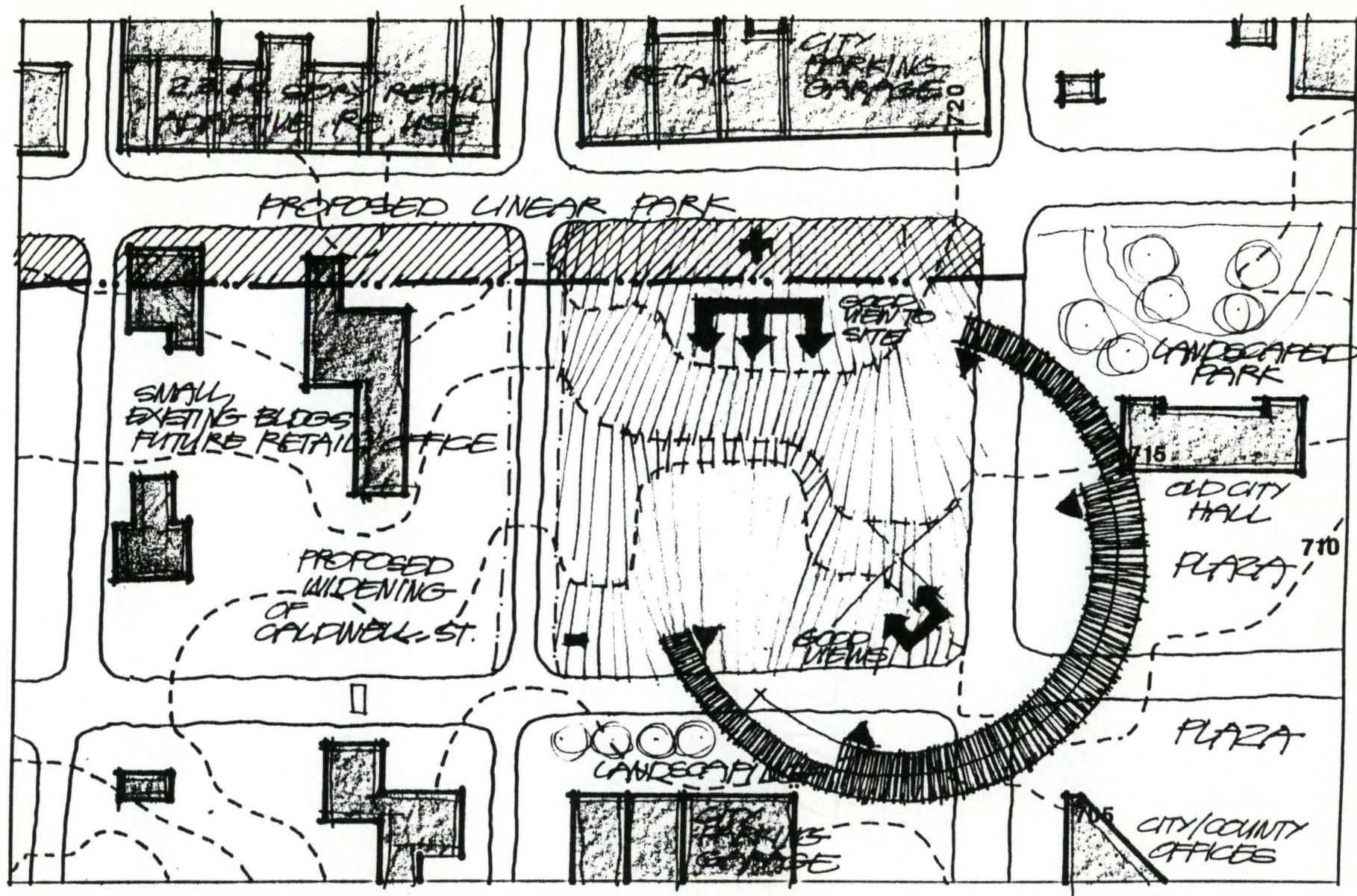
S I T E A N A L Y S I S



VEHICULAR ACCESS



MOVEMENT



ENVIRONMENTAL - VISUAL

A C T I V I T I E S

INTRODUCTION

Although a Central banking facility includes some of the architectural elements of traditional commercial banks such as a public lobby and a central banking hall, it is different in other ways. In dealing with the storage and transfer of large sums of coin and currency, a large number of personnel are employed to count, sort, and store money. As a central check clearinghouse for its region, a central bank receives checks from commercial banks, processes them with highly automated equipment, adjusts balances, and ships the checks back to the appropriate financial institutions. A central bank also facilitates the sale of U.S. Treasury Bills and other government securities in its region.

In general, the operations of a central bank can be classified into three operational categories: 1) physical operations which involve transfers of money, checks, and securities; 2) administrative operations which include

auditing and accounting as well as personnel matters; 3) support operations such as data services, building security, supplies, and maintenance.

PHYSICAL OPERATIONS

Cash Operations involve 25 percent of a central bank's operations. This involves receiving and shipping coin and currency in bulk to and from commercial banks. This department also verifies the fitness of currency, removes unfit coins and bills from circulation, and purchases and distributes new currency from the U.S. Treasury Department. Secure access for courier vehicles is of paramount importance.

Check Operations account for 50 percent of a central bank's operations. Because central banks are not the only institutions which provide "clearinghouse" services, substantial marketing efforts must be directed toward obtaining maximum use of the central bank's services. Checks are received by the central bank in bulk from financial institutions and then processed by machines. Check processing operations need to be consolidated and access to shipping and receiving is critical.

Fiscal Agency Operations involve a the handling of treasury coupons, treasury bills, bonds, notes, and new issues as well as providing storage facilities for securities form commercial banks. This area must be highly secure, but it must also relate to an area of public transaction adjacent to a public lobby.

ADMINISTRATIVE OPERATIONS

Public Service Operations handle all sales and marketing of check services, safekeeping, and direct cash receipt. This department deals with the education of the banking industry and the general public about the role of central banking. The department conducts tours, maintains public films and brochures about the central banking system, and sponsors in-house meetings and seminars. This department needs to be located near the lobby and should be easily accessible by the public.

Auditing Operations examine and update all commercial bank accounts that are the responsibility of the central bank and evaluate procedural efficiency and effectiveness. This department would consist primarily of flexible office space.

Accounting Operations are divided into three groups. One group regulates and analyzes member bank's reserve account balances. Another group conducts transfers of funds by wire and maintains balance sheets. A third group

monitors and reconciles accounts with other central banks throughout the country.

Personnel Operations include employee payroll, benefits, and compensation as well as employee hiring, skills testing, and training. Personnel operations also maintains the library, health services, and food services.

Budget and Control Operations establish budgets and maintain expense accounts for the central bank. The department should consist of flexible office space and location should be near the accounting and auditing offices.

SUPPORT OPERATIONS

General Services Operations manages supplies within the facility and are responsible for purchasing. This requires that it be in an area that is easily accessible by vendors. Maintenance of telephones, messenger service, mail, and general files are also the responsibility of the General Services Operations.

Data Services Operations provides 24 hour data entry service and is in charge of all computer programming. It requires interaction with all other banking operations and should be located adjacent to the main computer room.

Building and Equipment Operations includes housekeeping, building maintenance, and trash removal. All of these operations need access to service area.

Security Operations involves many security guards and 4 staff officers located in various locations throughout the different building operations. A pistol firing range and guard training rooms are required.

B U I L D I N G P R O G R A M

DEPARTMENTAL SPACE NEEDS

Cash Operations 47350

Administration	2800
Paying	3350
Receiving	4050
Coin	4050
Currency/Coupon Sorting	13700
Cash Accounting	1350
Cancellation	650
Destruction	650
Exchange Teller	350
Coin Vault	12000
Cash/Coupon Vault	4400

Check Operations 31650

Administration	1850
Processing Admin	1750
Processing Areas	16450
Quality Control	600
ACH	1150
Check Returns	2050
Government Checks	1050
Cash Letter Monitoring	100
Adjustments	5750

Fiscal Agency 7300

Administration	1550
Treasury Issue/Records	2750
Safekeeping Vault	3000

		77
Public Services		1300
Executive Offices		4300
Auditing Offices		1500
Accounting Offices		7850
Administration	1750	
Reserve Analysis	1050	
Communications	2050	
Reconcilement	2350	
General Ledger	650	
Personnel Operations		19450
Administration	5700	
Payroll/Benefits/Compensation	1250	
Employment/Training	1050	
Clinic	1500	
Library	1150	
Cafeteria/Kitchen	8800	
Budget and Control Offices		2750

General Services Operations	17350
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Administration	1200
Supplies	6600
Mail	800
Purchasing	700
Central Files	6600
Office Automation/W.P.	1450

Data Services Operations	10500
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Administration	1300
Computer Operations	6500
Data Preparation	1050
Programming Analysis	1650

Building and Equipment Operations	15850
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Administration	2800
Maintenance	9050
Housekeeping	4000

Security Operations	7650
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Administration	800
Training	2200
Staff	4650

Common Areas	9750
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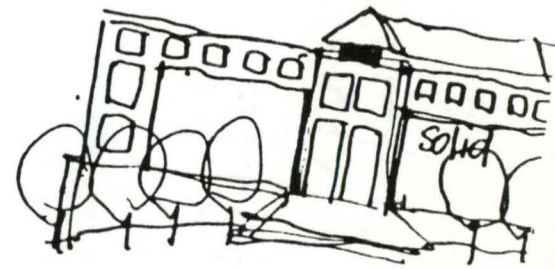
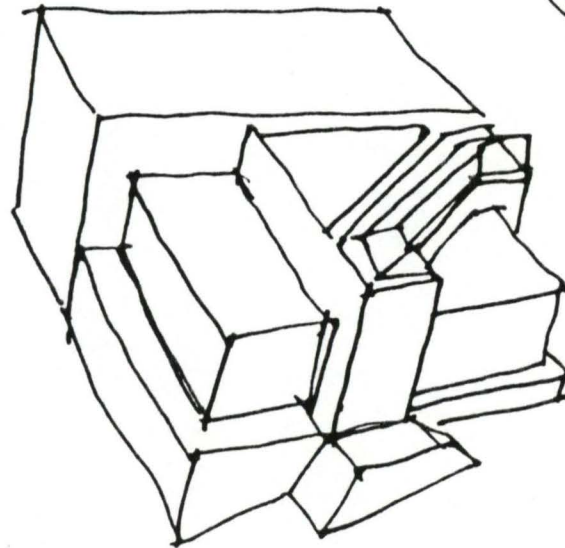
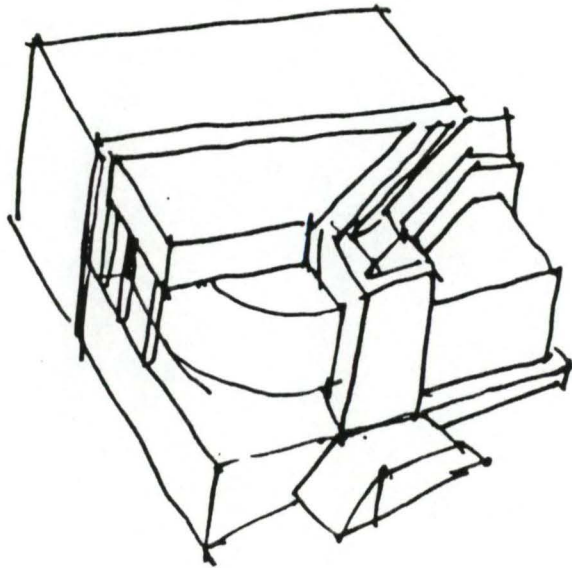
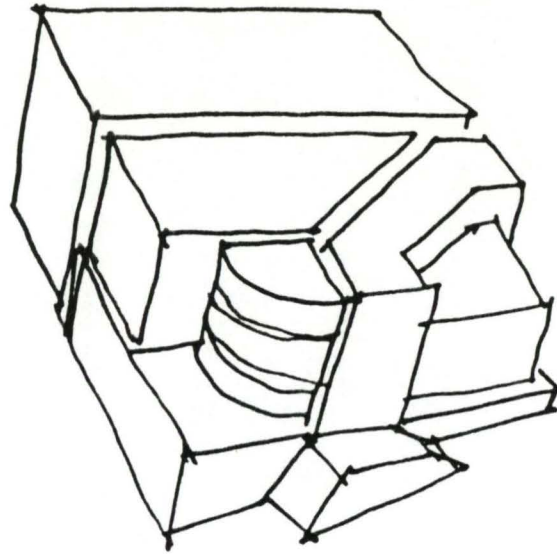
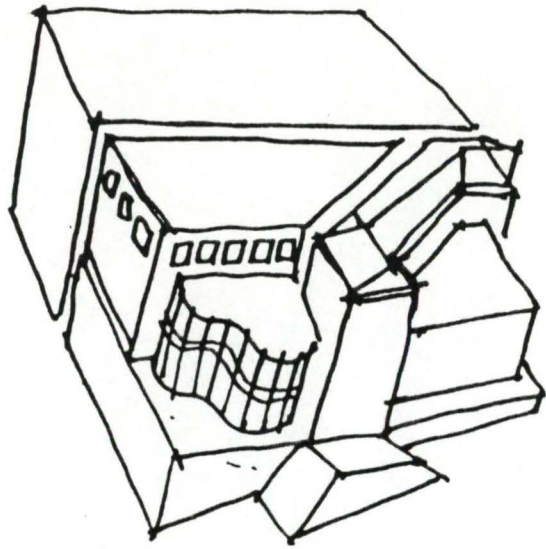
Auditorium / Seminar	3750
Conference	3000
Board Room	3000

Building Access	11600
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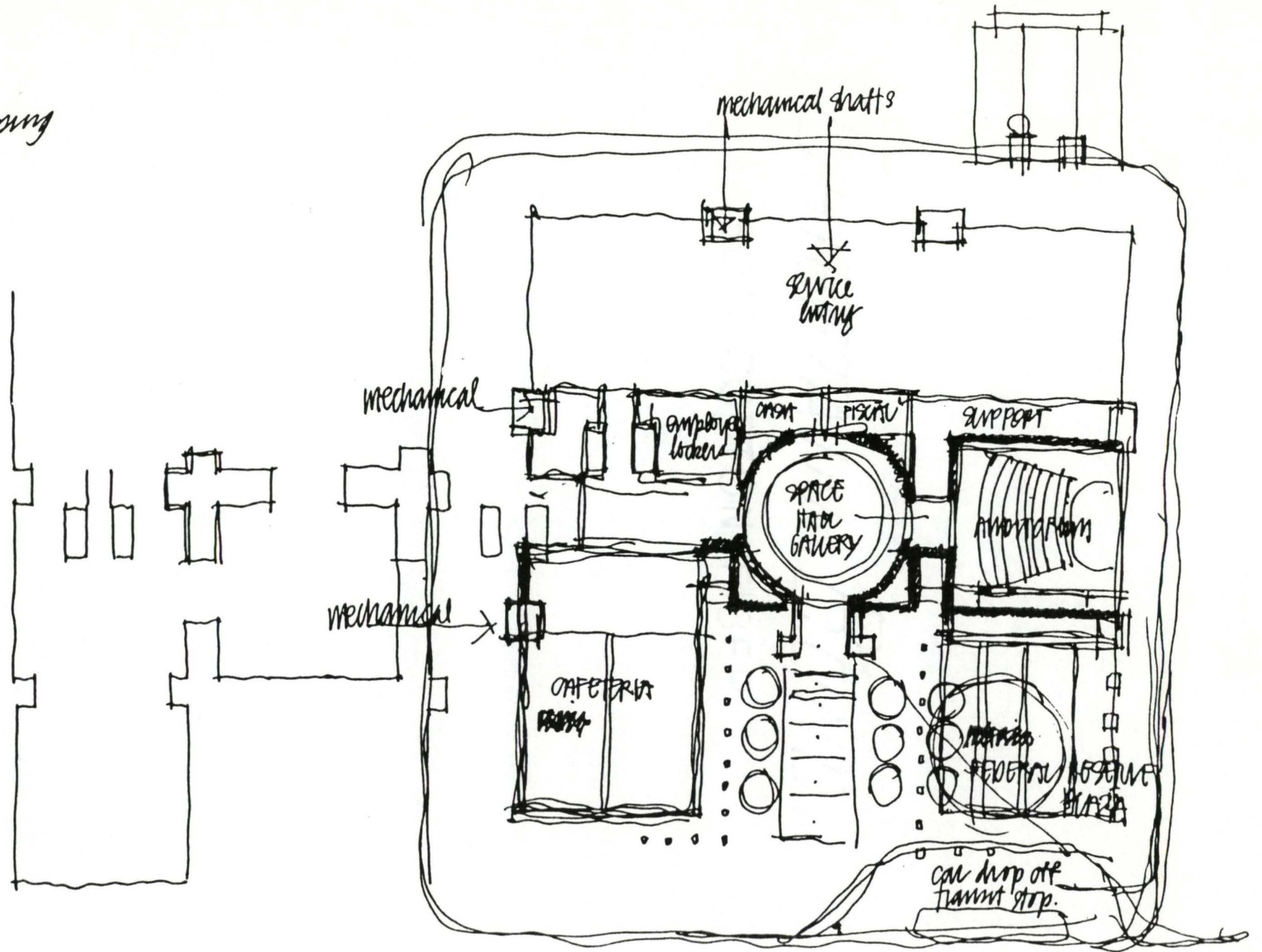
Check Loading Dock	600
Security Loading Dock	6850
General Delivery Dock	500
Public Lobby	3650

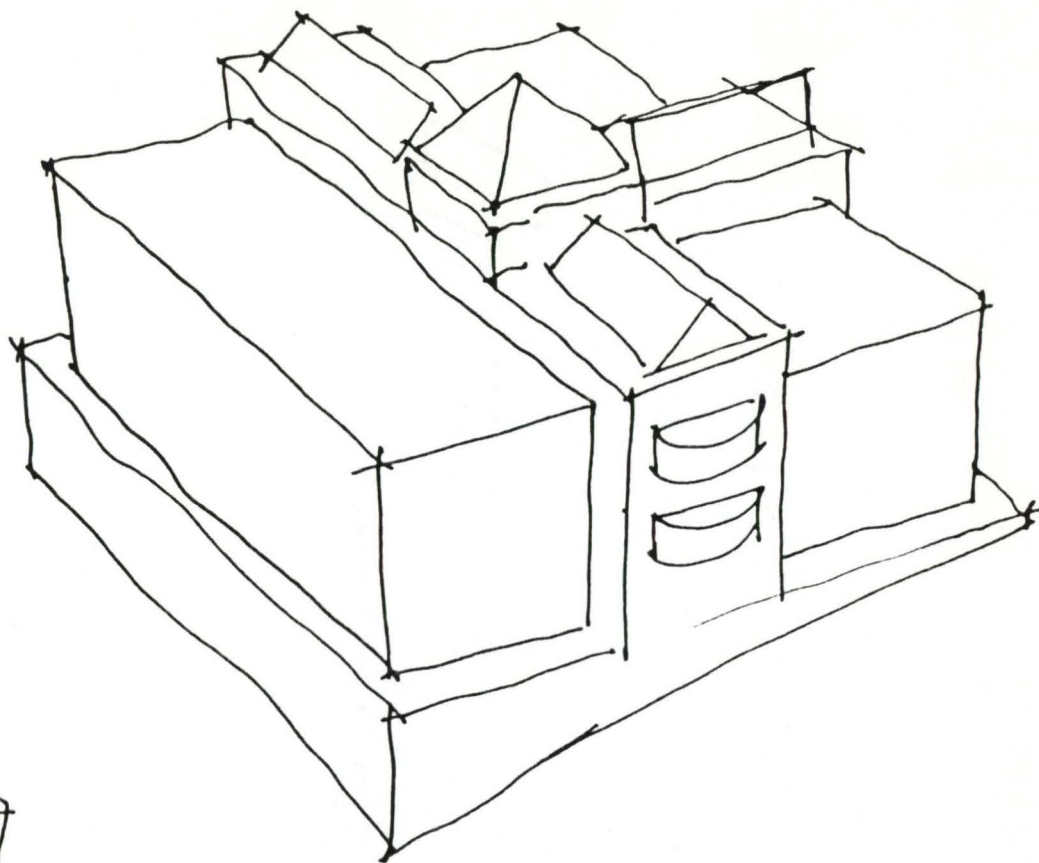
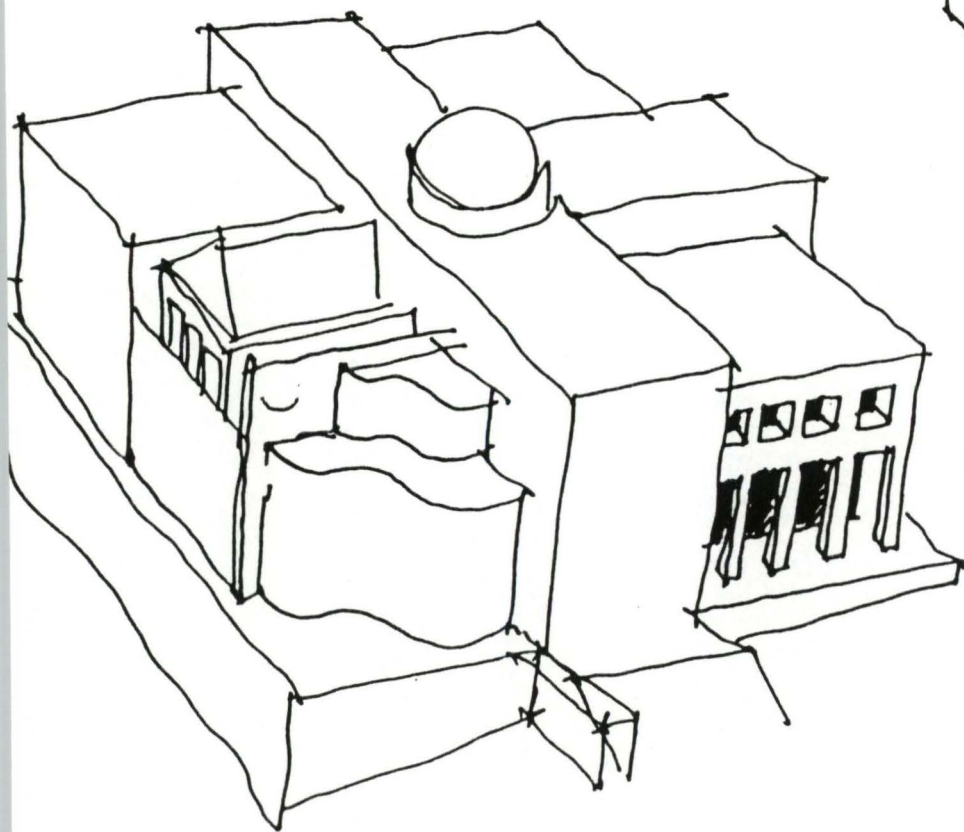
TOTAL BUILDING SF	196150
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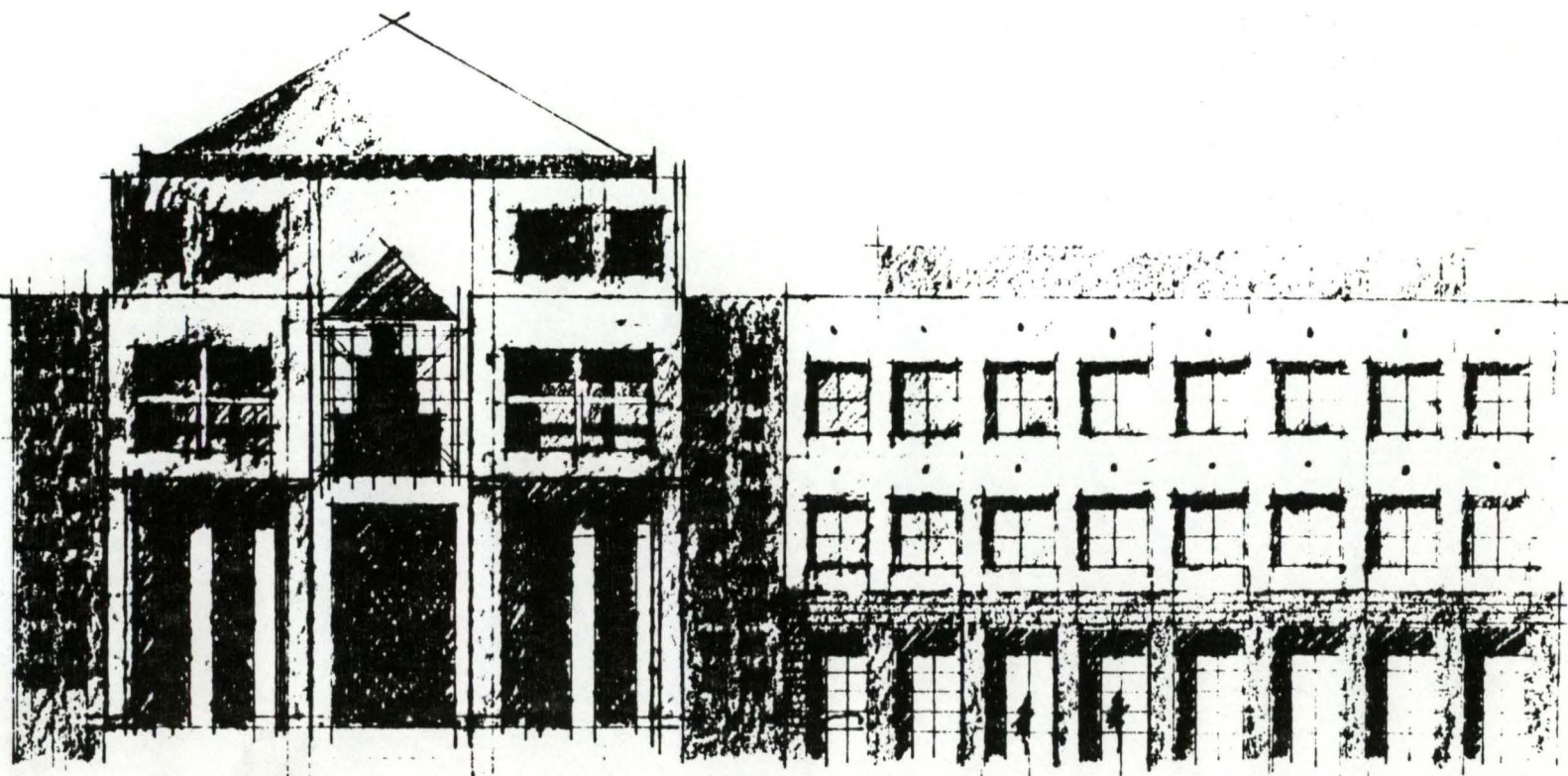
D E S I G N P R O P O S A L



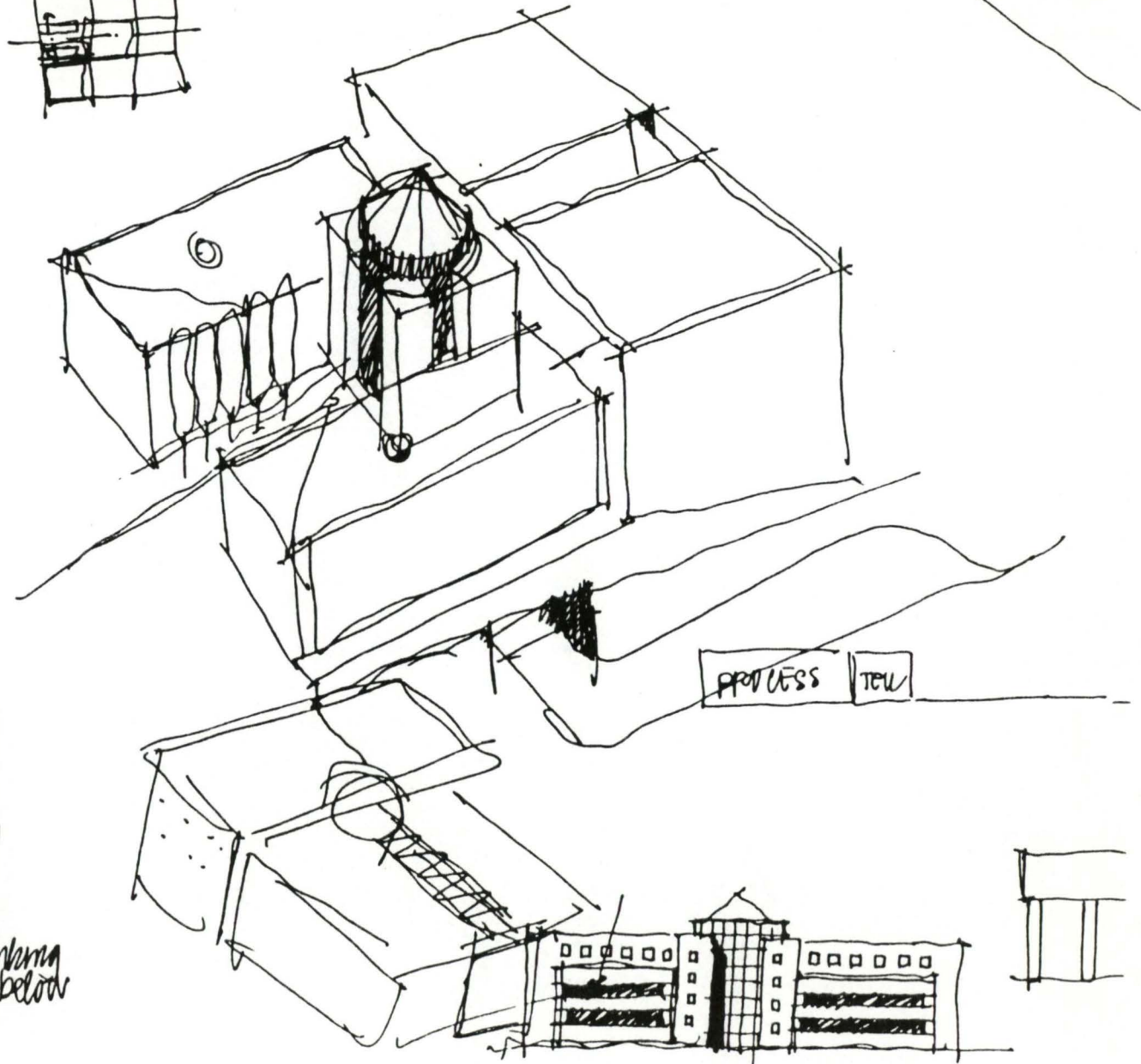
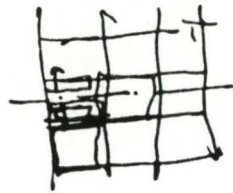
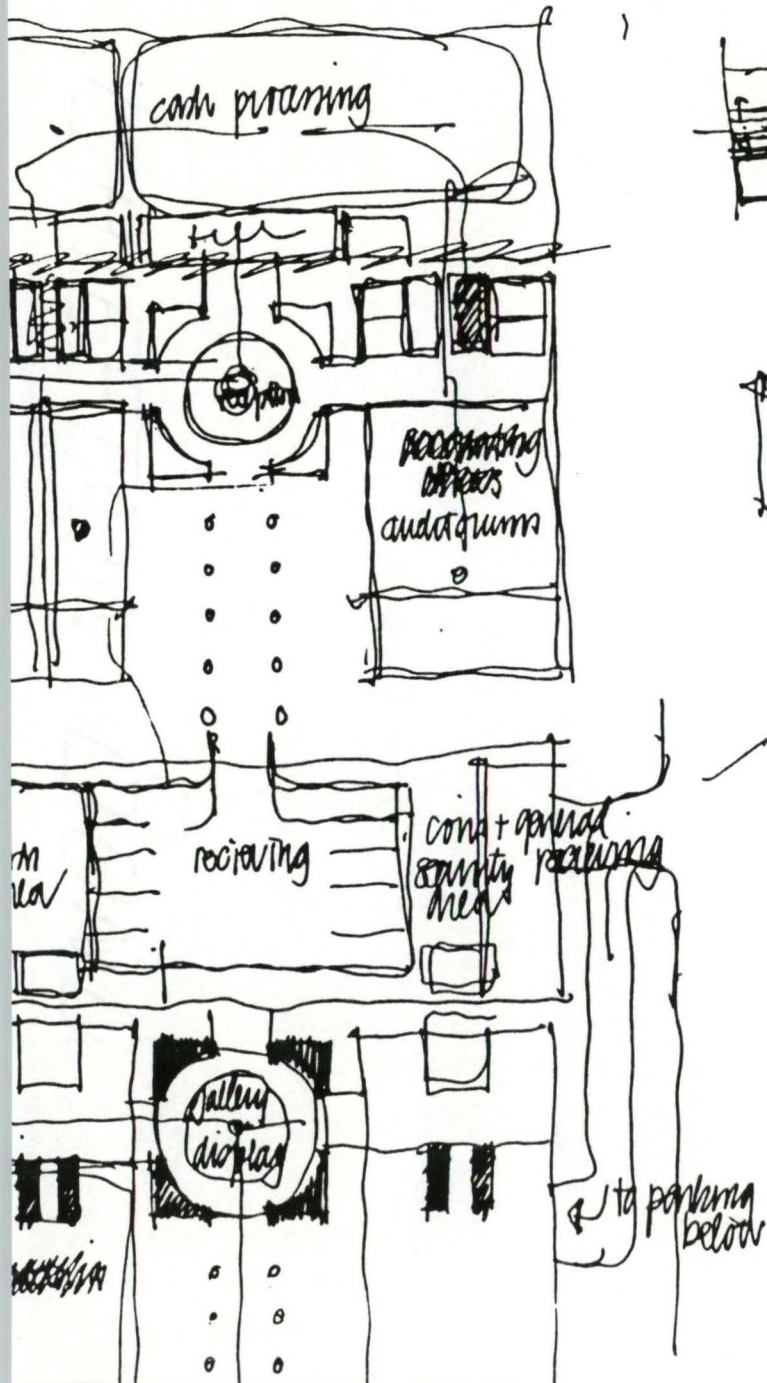
my drawing







general public - reception ~~and~~ receive
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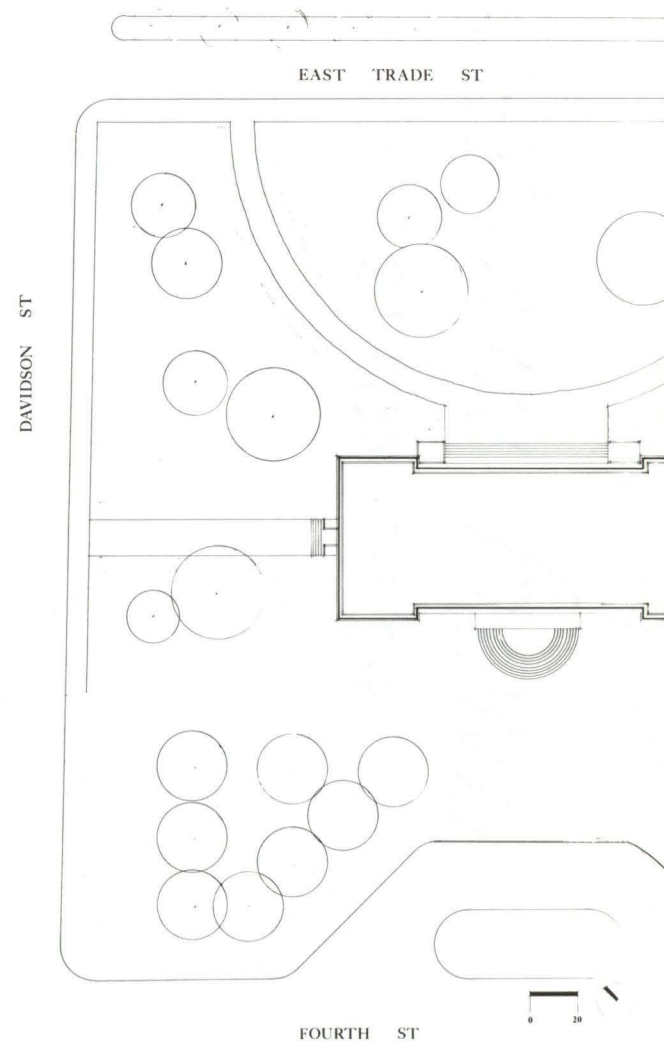
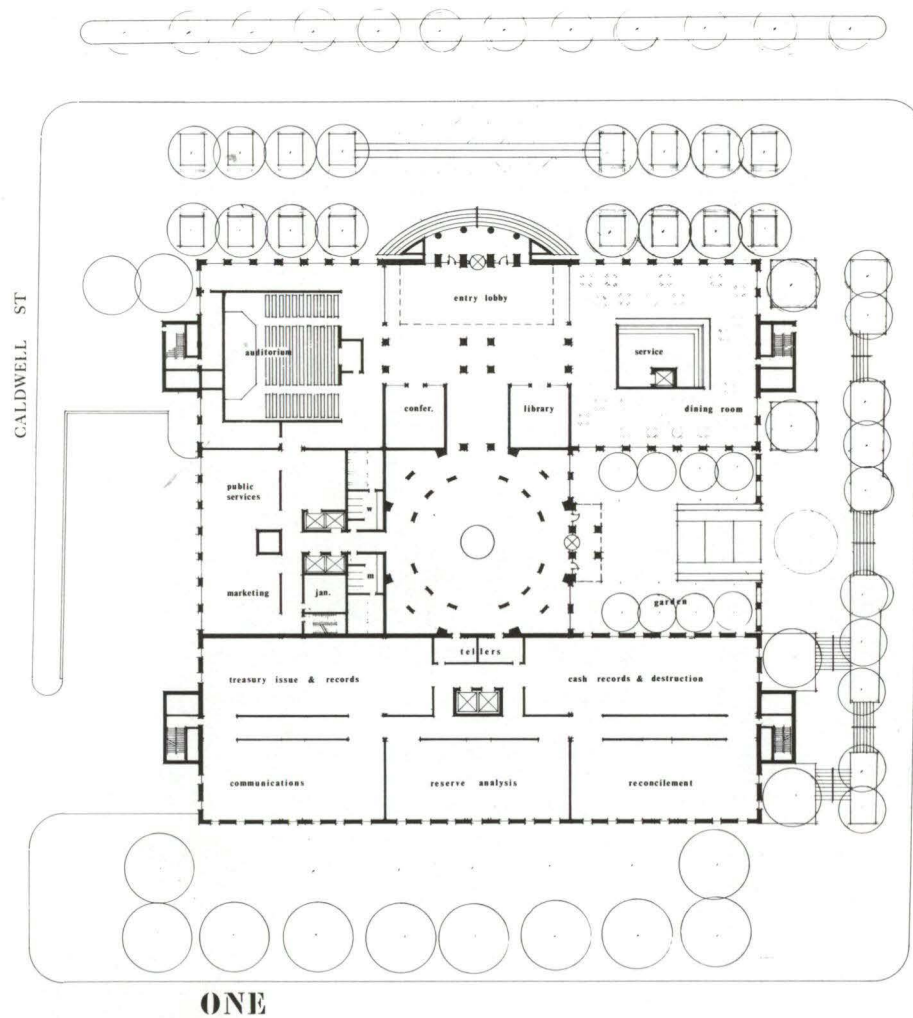


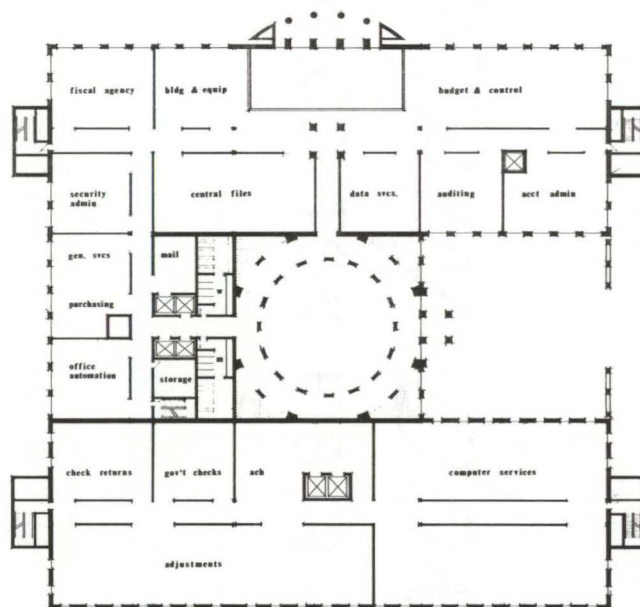
A CENTRAL BANKING FACILITY
CHARLOTTE, NORTH CAROLINA

17 APRIL, 1986

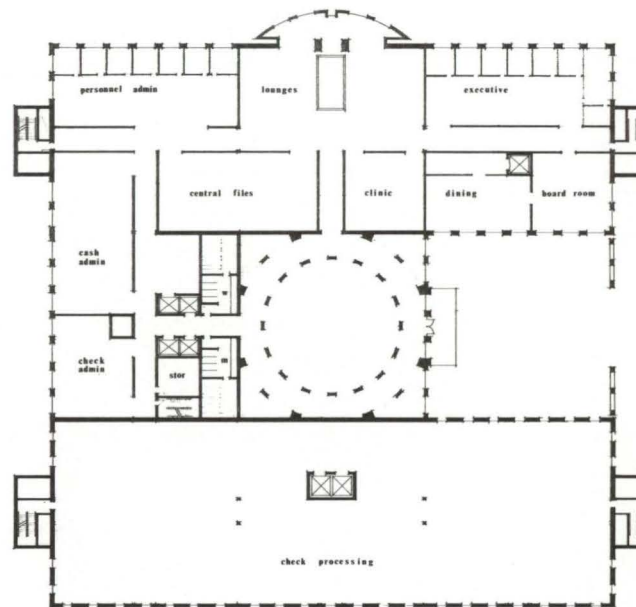
DAVID L. DIXON





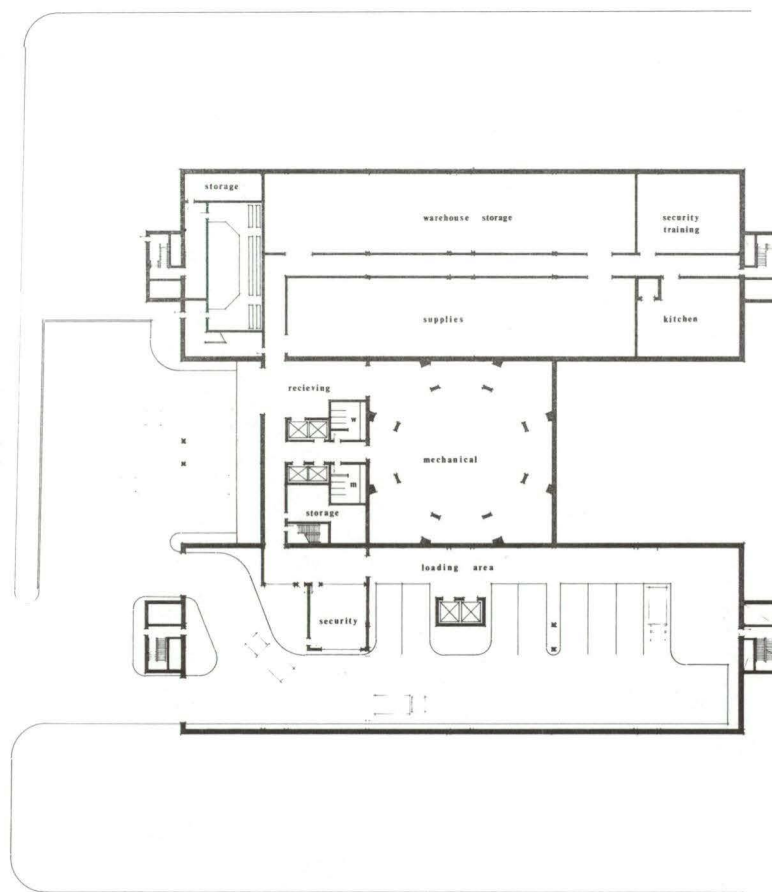


TWO

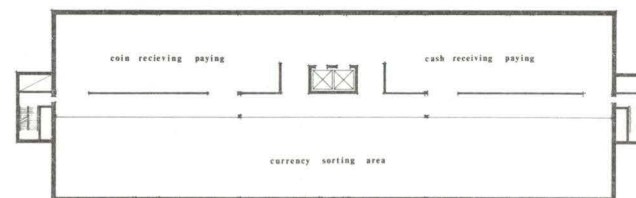


THREE

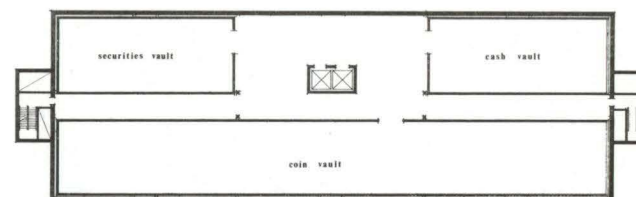




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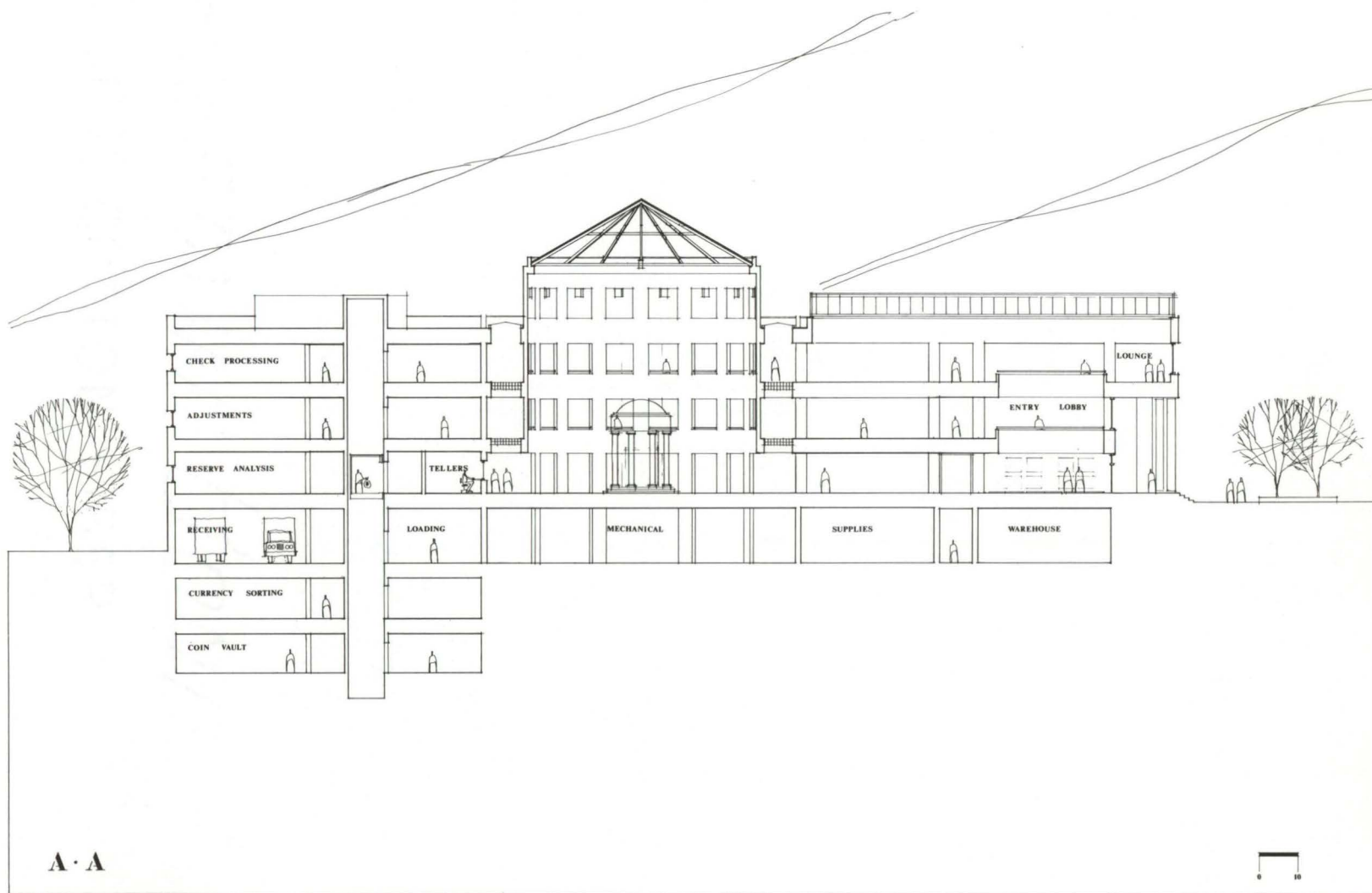


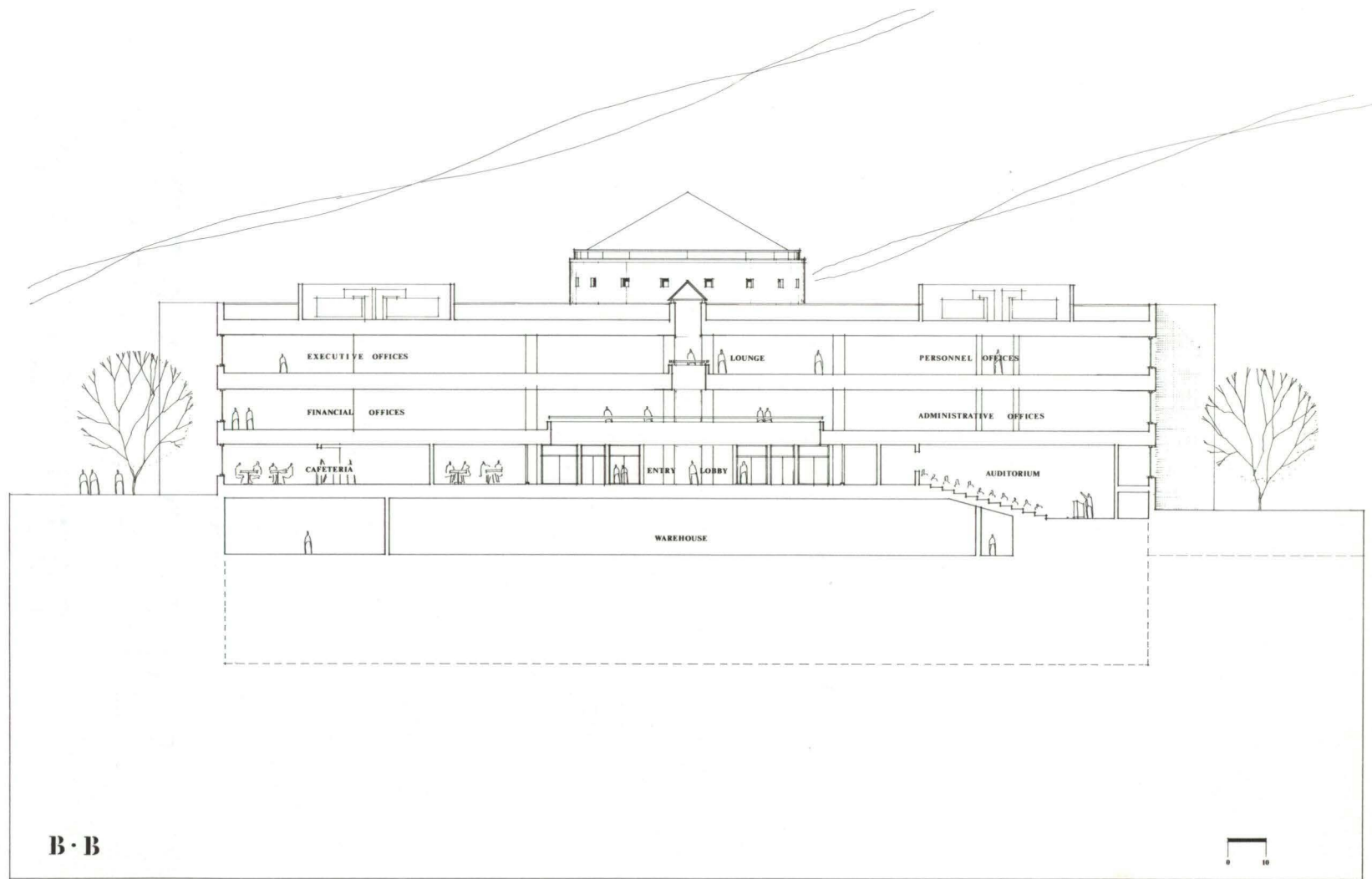
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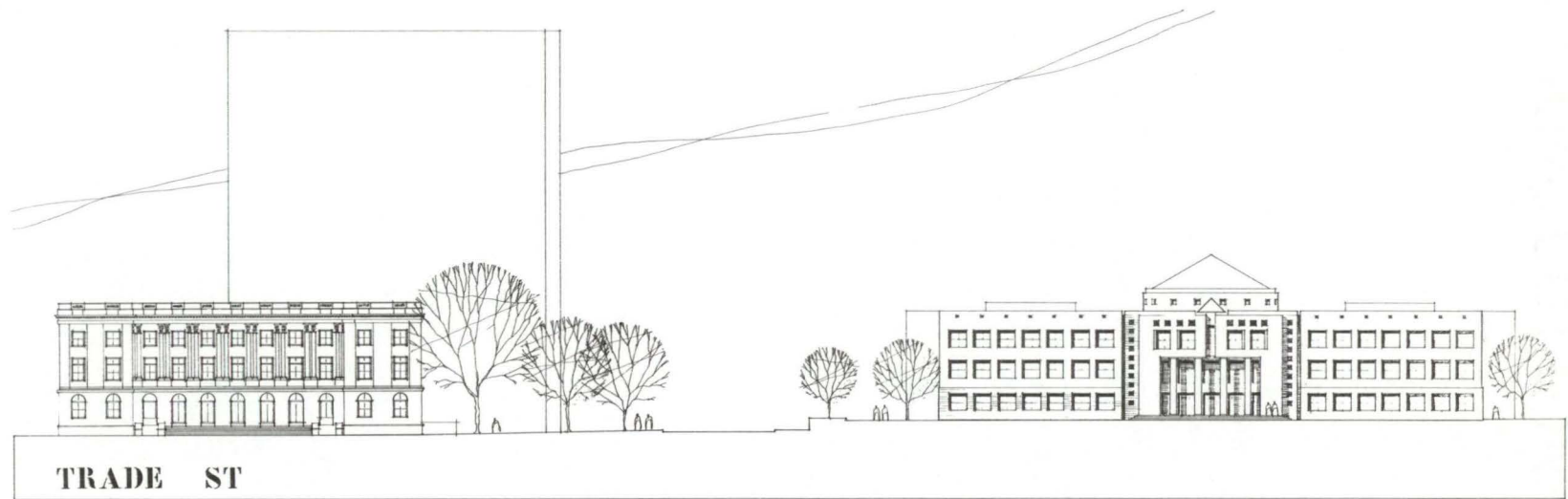


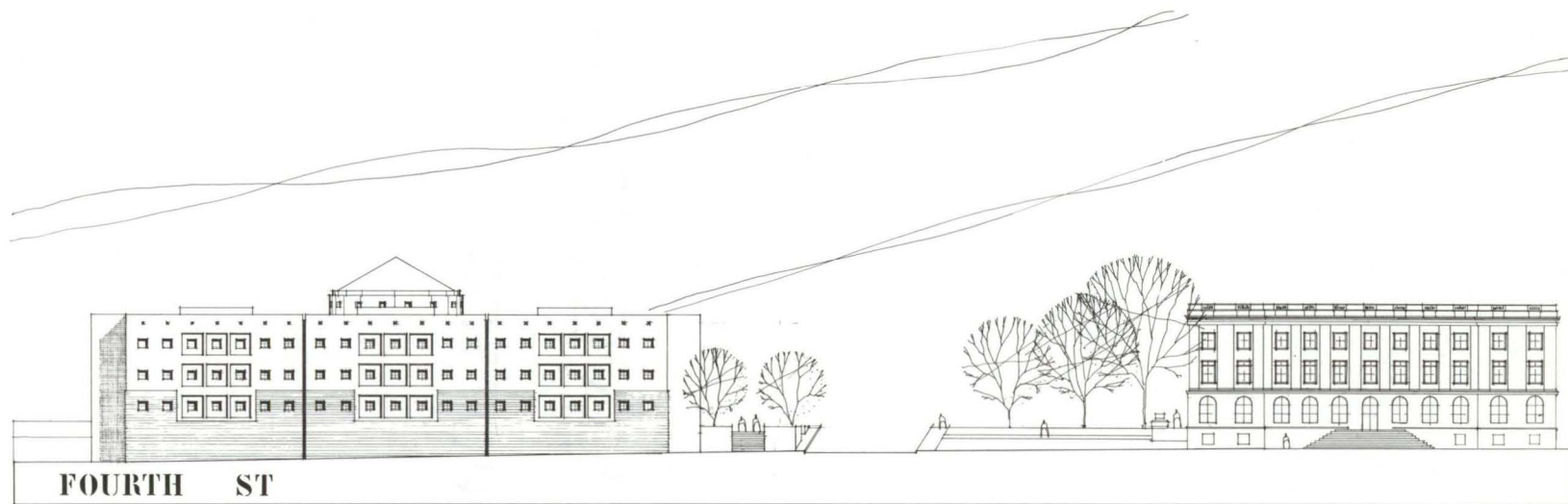
B 3



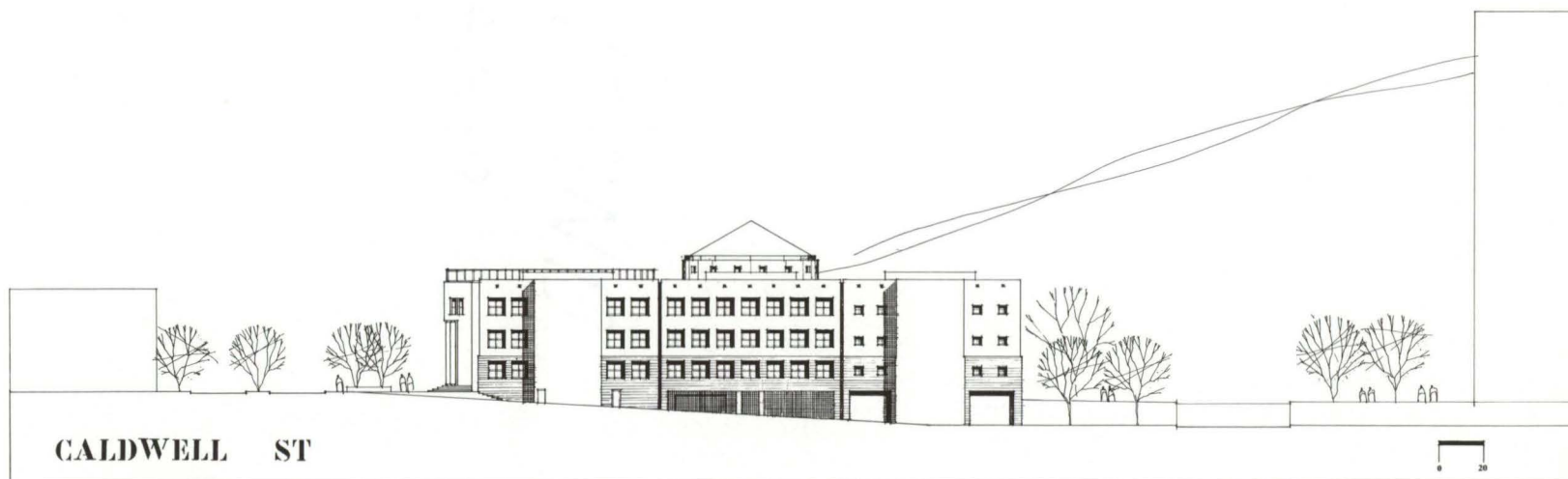






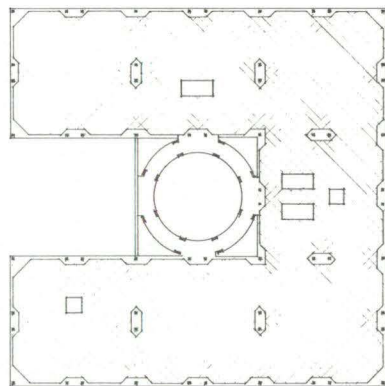


FOURTH ST

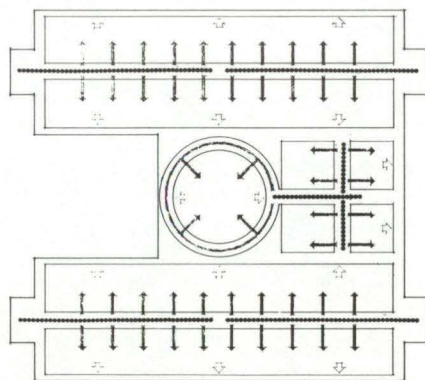


CALDWELL ST

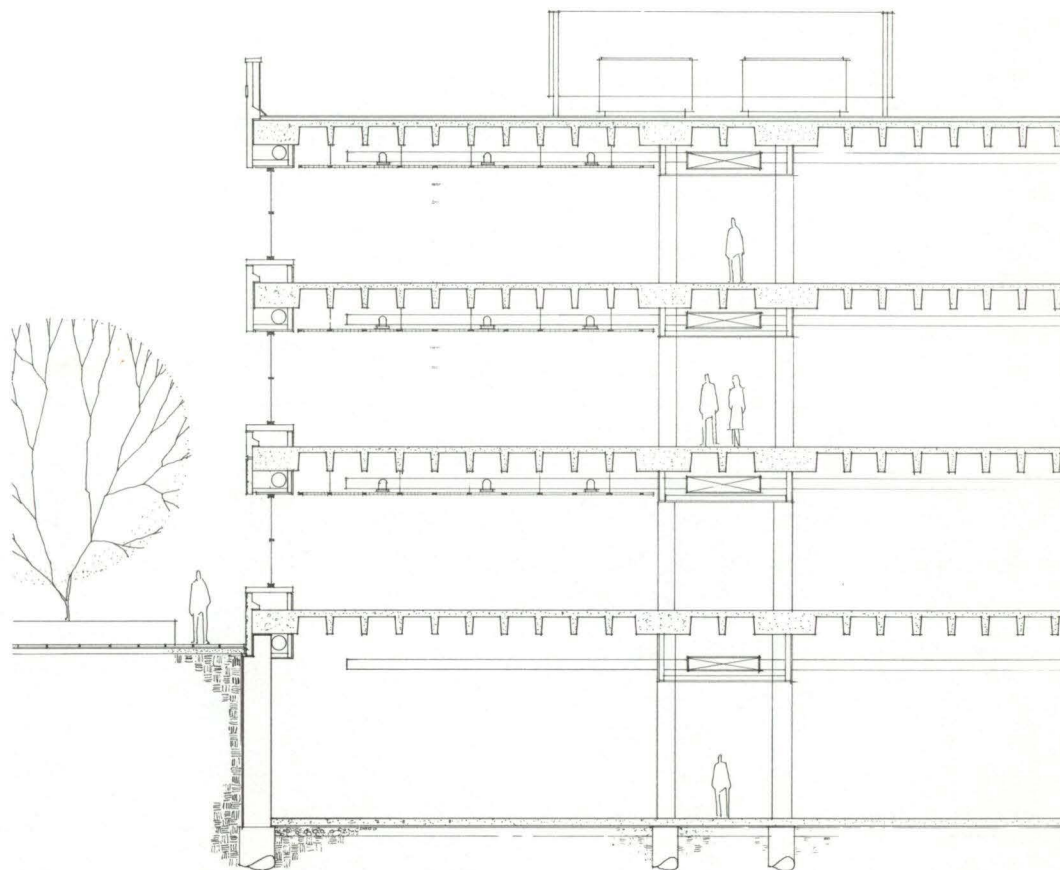




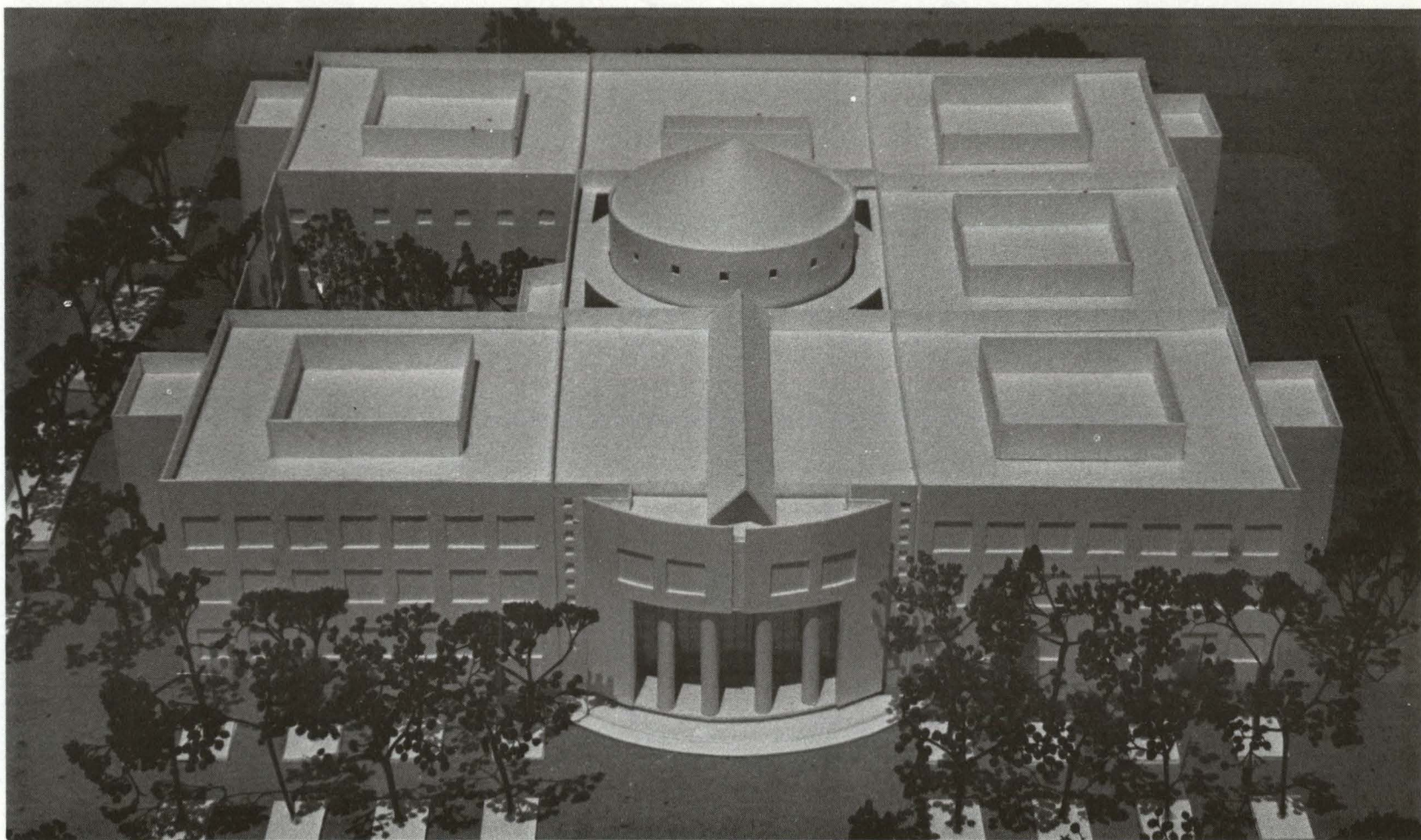
STRUCTURAL

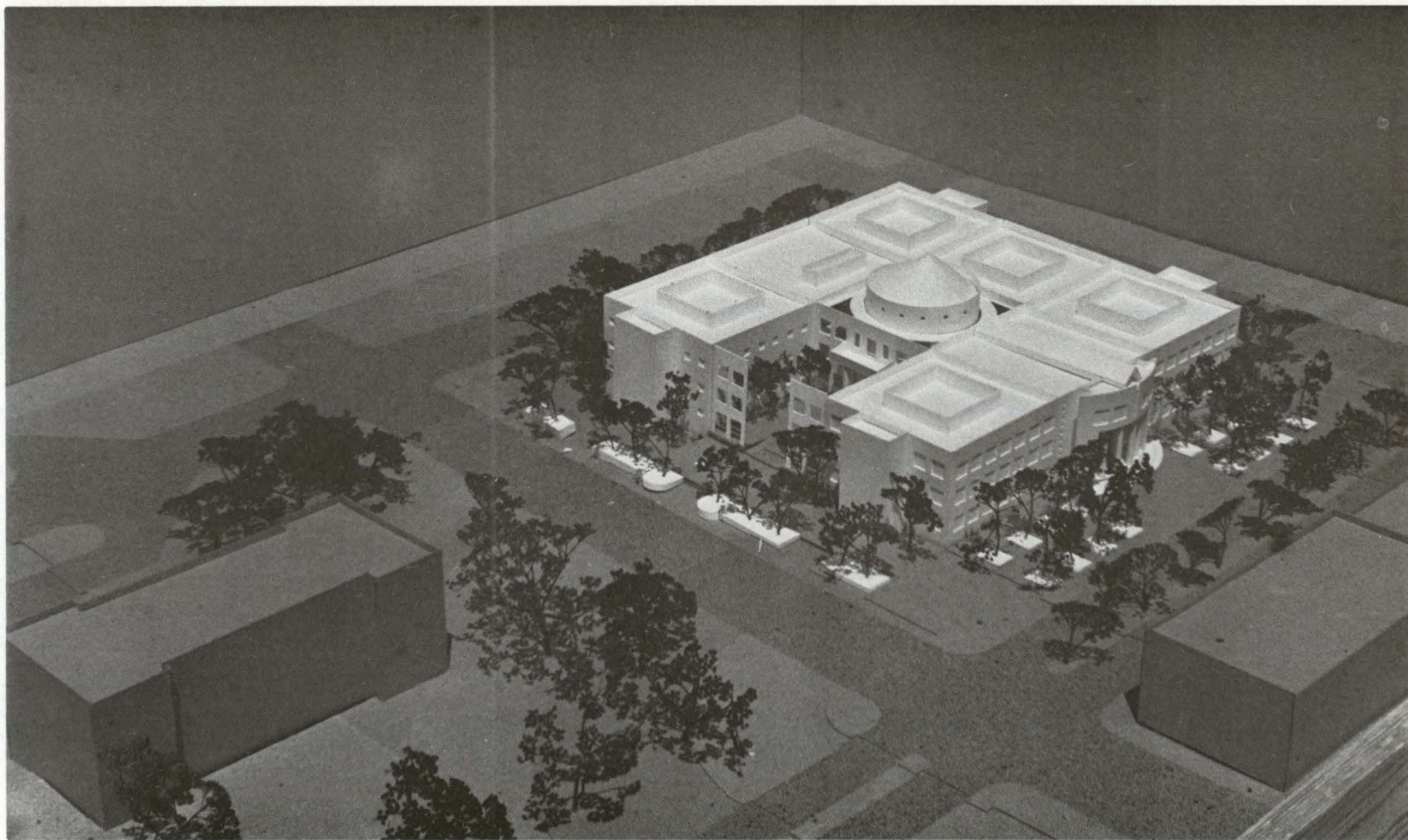


MECHANICAL



TYPICAL SECTION





REFERENCES

ENDNOTES

- 1 Martin Mayer, The Bankers, p. 6.
- 2 Ibid.
- 3 Ibid.
- 4 Architectural Record, "The Federal Reserve Bank of Minneapolis," p. 103.
- 5 Mildred Schmertz, "Designing Everything Down to the Last Detail," p. 108.
- 6 Mirko Zardini, The Architecture of Mario Botta, p. 216.
- 7 Zardini, p.98
- 8 Ibid.

BIBLIOGRAPHY

BOOKS

- 1) The Board of Governors of the Federal Reserve System. The Federal Reserve System: Purposes and Functions. Washington, D.C., 1969.
- 2) Craig, Lois A. The Federal Presence: Architecture, Politics, and Symbolism in the U.S. Government Buildings. Cambridge, Mass., The MIT Press, 1978.
- 3) DeChiari, Joseph and John Callendar. Time Saver Standards for Building Types. Second Edition, New York: McGraw Hill, 1980.
- 4) Hunt, William Dudley, Jr. The Encyclopedia of American Architecture. New York: McGraw Hill, 1980.
- 5) Mayer, Martin. The Bankers, New York: Waybright and Talley, 1974.
- 6) Romine, Dannye. Mecklenburg, A Bicentennial History. Charlotte: Independence Associates, 1975.
- 7) RTKL Associates. Charlotte: Central Area Plan. 1980.
- 8) Simmons, William T. and L. Brooks Lindsay. Charlotte and Mecklenburg County: A Pictorial History. Norfolk: Downing Company Publishers, 1977.
- 9) Whiffen, Marcus. American Architecture Since 1780: A Guide to the Styles. Cambridge, Mass.: The MIT Press, 1978.

- 10) Zardini, Mirko, The Architecture of Mario Botta, New York, Rizolli International Publications, Inc., 1985.

JOURNALS

- 1) Schmertz, Mildred F. "Designing Everything Down to the Last Detail." Architectural Record, Sept. 1978, 109-117.
- 2) "Allen, Gerald. "The Federal Reserve Bank of Minneapolis." Architectural Record, November 1973 (154), p. 108.
- 3) "Federal Reserve in Suspense." Architectural Forum, January/ February 1969 (130), p. 100-104.

ENCYCLOPEDIAS

- 1) Academic American Encyclopedia. Volume 3 (1984). p 68-9.
- 2) Colliers Encyclopedia. Volume 3 (1984). p 559-80.
- 3) The World Book Encyclopedia. Volume 2 (1977). p 60-68.

PERSONAL INTERVIEWS

- 1) Powell, Sam. Program Director, The Federal Reserve Bank of Charlotte.
- 2) Yandle, Bruce. Professor of Economics, Clemson University.