

ENID
Oklahoma



Central Business District
Improvement Plan

15 August 1983

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15 August 1983

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INTRODUCTION

Purpose of the CBD Improvement Plan

This Plan for downtown Enid is directed at enhancing the image of the core area, an image which is important to local residents and visitors, because Downtown is the heart of the community. The Plan proposes improvements that will strengthen the marketability of Downtown as a retail and civic center, as well as a place of entertainment. Furthermore, the Plan rectifies specific problems that presently limit the Downtown in meeting new functional needs.

Scope of the Plan

The Plan focuses on physical improvements to the Streetscape. These include: concepts for sidewalk paving, street furniture, and landscaping in the "public sector" (within the public right-of-way). These improvements are to be coordinated with Design Guidelines for development in the private sector, which were prepared for Downtown Enid, Inc. as a separate document.

General Traffic Revisions

The Plan also proposes improvements to the automobile circulation system that will simplify traffic movement in the downtown area and make off-street parking more functional.

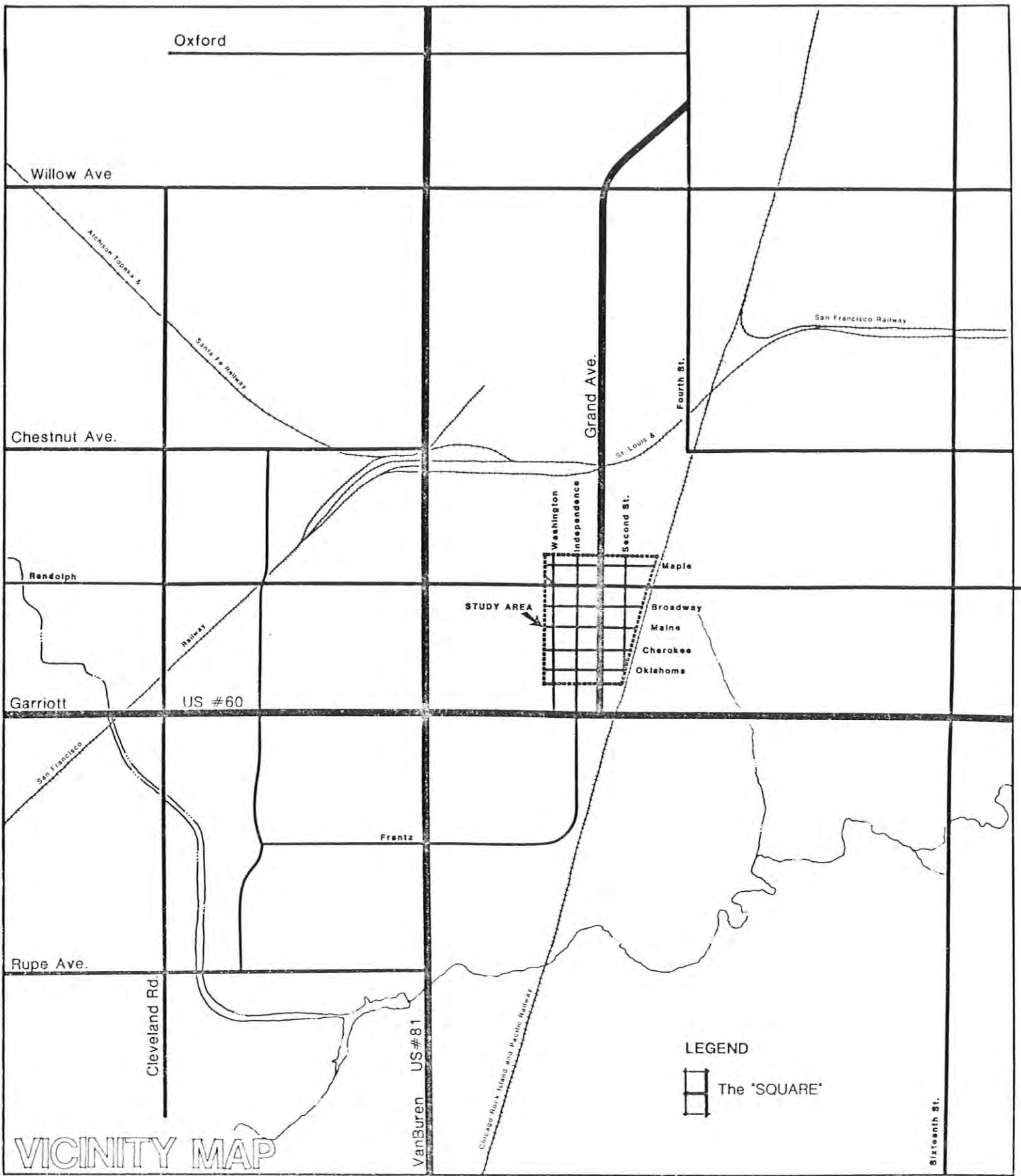
Strategies for improving pedestrian circulation downtown are also included. These focus on enhancing the sidewalks around the Square, thereby making them more attractive to pedestrians. Opportunities for developing plazas are also included.

Area Studied

More than twenty city blocks were examined as a means of developing an understanding of the spatial variety in the core area. This study area included blocks lying from Maple Street on the north to Oklahoma Street on the south, and from Washington Avenue on the west to the railroad on the east. (See Illustration), #1, "Vicinity Map").

Process for Developing the Plan

The CBD Plan represents a team effort that combines the work of the consultants, Downing/Leach and Associates, Downtown Enid, Inc., the Chamber of Commerce and other business and property owners as well as Staff and elected officials of the City of Enid. Basic goals and objectives for the Plan were defined in a series of public meetings. Specific implementation strategies were also reviewed in public presentations. Comments from these reviews have been incorporated in the Plan.



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CBD Plan ENID, OKLAHOMA



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The data base upon which decisions were made includes plans and studies generated earlier by the City and other consultants, as well as information produced as a part of this project.

How to Use the Plan

The CBD Plan provides basic direction for physical improvements to the Streetscape that may be made by the City and civic agencies involved in the enhancement in Downtown Enid. It is also for use by private individuals to make Streetscape improvements associated with their properties.

The CBD Plan also provides a rationale for special projects, such as the installation of a coordinated public information system. The Plan should be followed when making any design decisions that involve traffic management or sidewalk beautification.

EVALUATION OF EXISTING CONDITIONS

The existing conditions of the Downtown were studied to determine which areas require improvement. Following is a summary of that evaluation:

Surrounding Neighborhoods

The character of each block in the study area was classified with respect to visual and functional characteristics to help develop a rationale for an approach to streetscape design that is custom-tailored to the specific "personality" of each block. Generally speaking, the downtown is actually a collection of four distinct "neighborhoods." (See Illustration #2, "Surrounding Neighborhoods").

The first neighborhood is the concentration of buildings facing the Square. These constitute the Prime Office and Retail Neighborhood. In this area, lots are densely built, usually right up to the sidewalk. Store front displays at the street level are typical of buildings in this area.

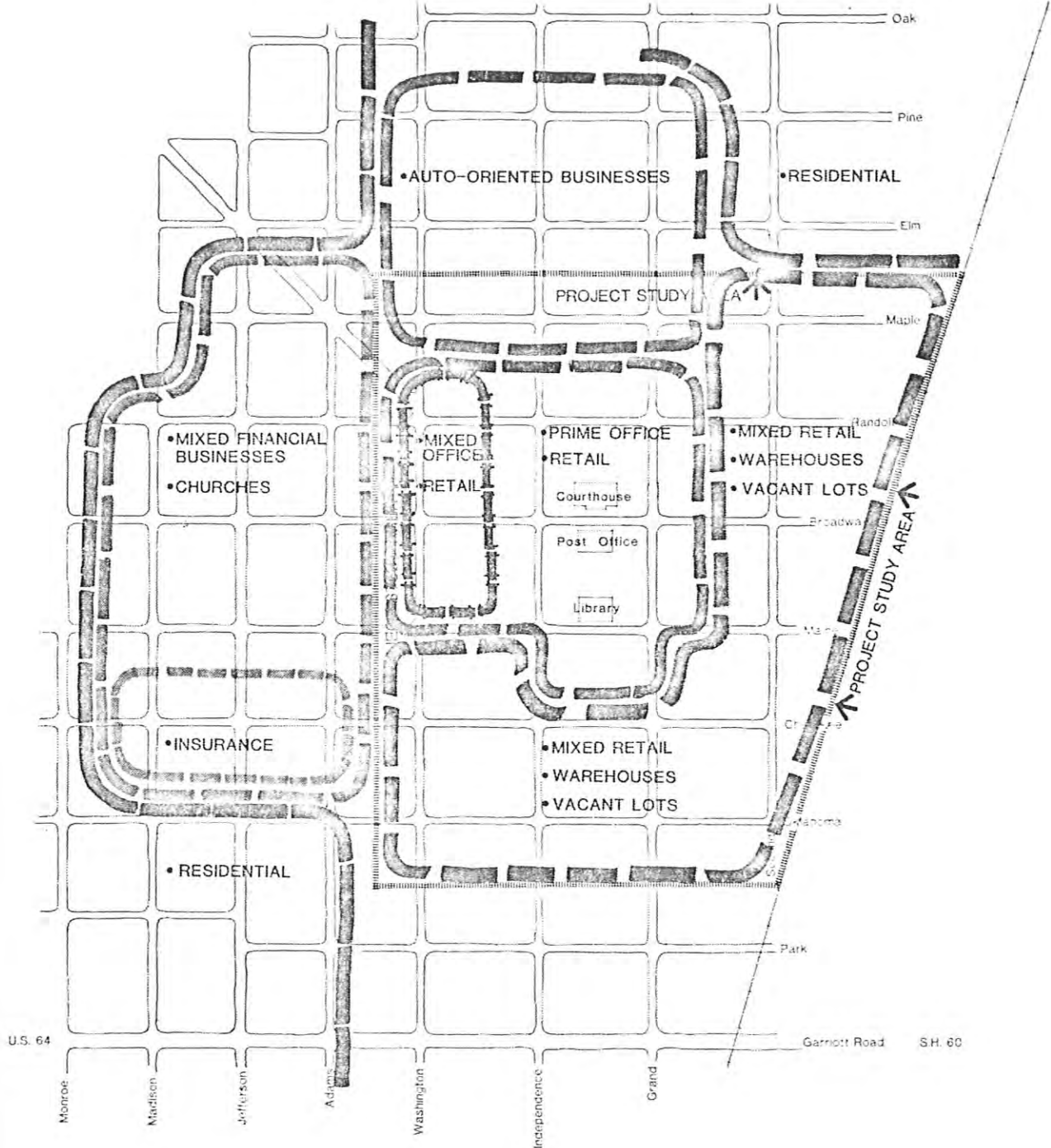
The second neighborhood lies to the south and east of the Prime Office and Retail core--this one is designated as the Mixed Retail and Warehouse Neighborhood. It is a transitional area, housing a combination of older warehouses, conventional downtown retail and a limited amount of auto-oriented buildings. Open lots are frequent.

The third neighborhood is designated Auto-oriented lying to the north of the Square--this area contains many gas stations, body shops, and other businesses that provide large parking and service lots for cars.

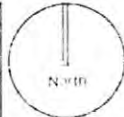
The fourth neighborhood lies to the west, and is designated Mixed Financial. This is a transitional neighborhood that has a concentration of banks--many with drive-up facilities. Several conventional commercial buildings are found as well, but not in continuous rows. Lots are developed with large percentages of open space. Finally, a special characteristic of this neighborhood is its concentration of churches which provide visual accent.

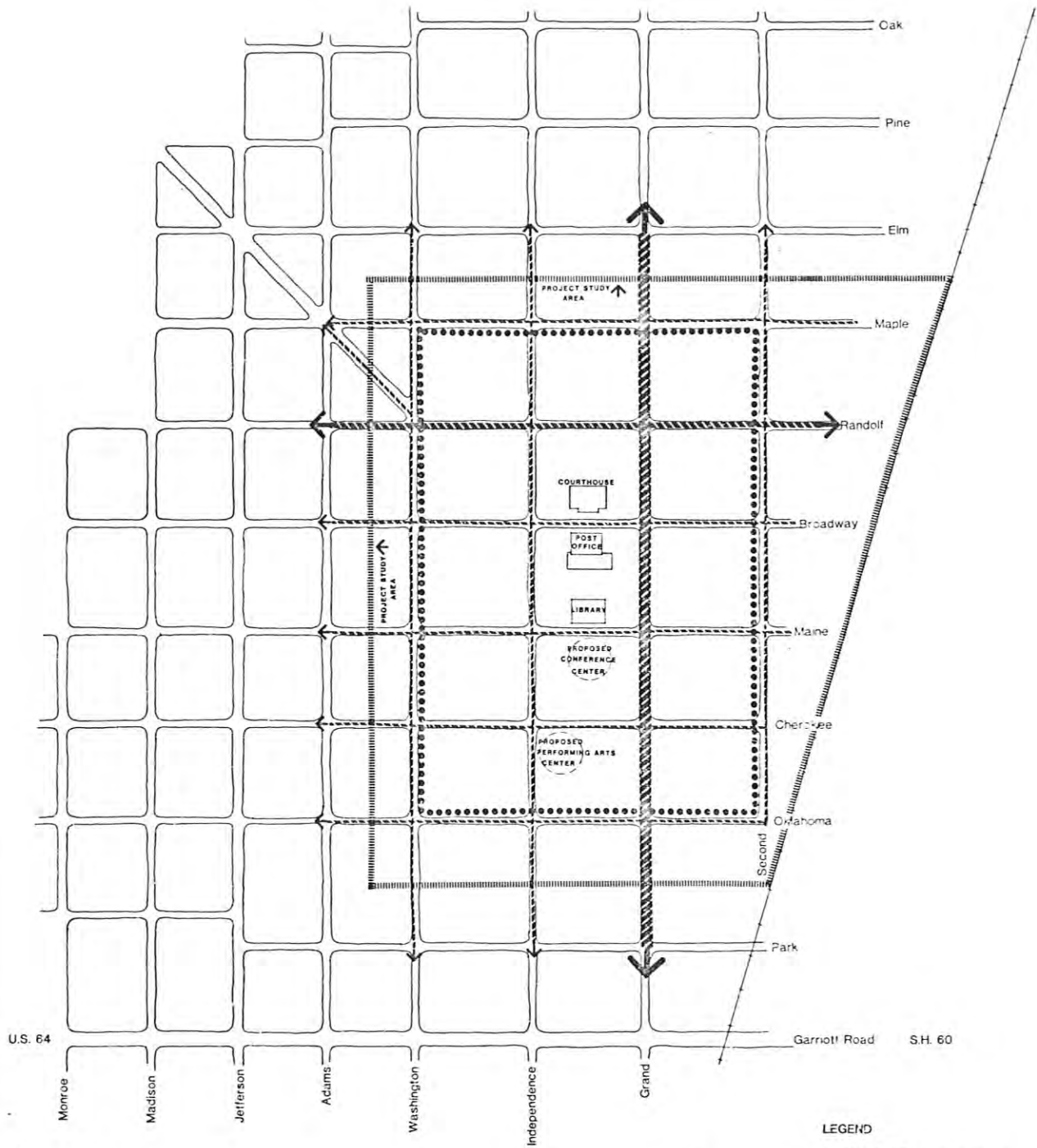
Automobile

Current and projected downtown traffic flow patterns indicate that the majority of local traffic approaches from the west and the north, while visitors approach from the south on Garricott Road. The City's adopted traffic plan recommends the upgrade of certain streets in order to accommodate increased traffic flow. Presently, Grand Avenue is the only principal arterial downtown--but the traffic plan calls for the upgrading of Randolph to principal arterial status as well, to improve traffic access from the west. (See Illustrations #3, "Present Street Classifications," and #4, "Recommended Alternative"). Portions of that plan are in the process of being implemented; however, a significant traffic problem occurs in the core of Downtown at each of the four corners of the Courthouse Square.



SURROUNDING NEIGHBORHOODS









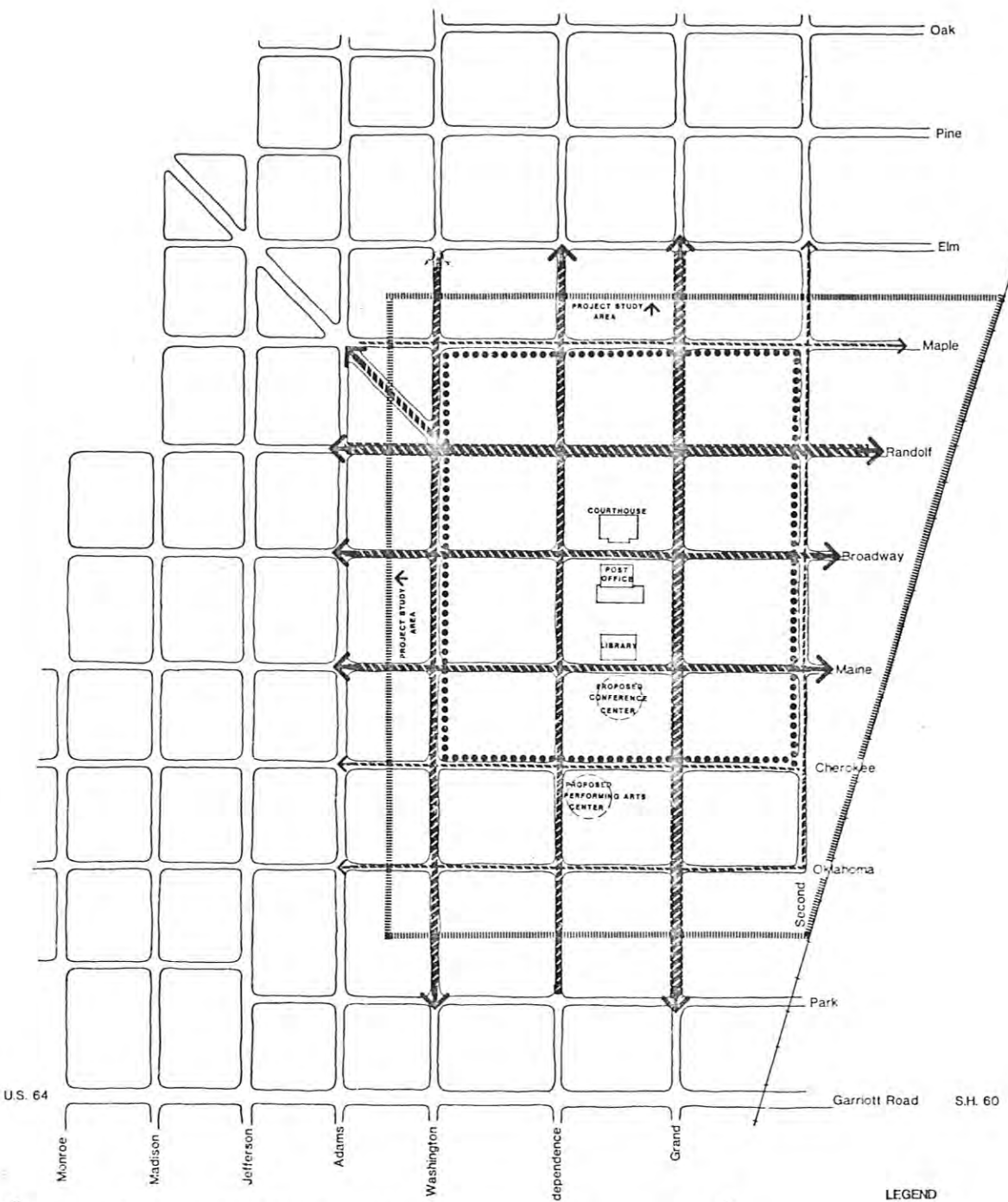
(Source: ENID METROPOLITAN AREA TRANSPORTATION STUDY)
June 1980

STREET CLASSIFICATIONS

PRESENT

LEGEND

-  Principal Arterial
-  Minor Arterial
-  Collector
-  Proposed "Parking Loop"



(Source: ENID METROPOLITAN AREA TRANSPORTATION STUDY)
 June 1980

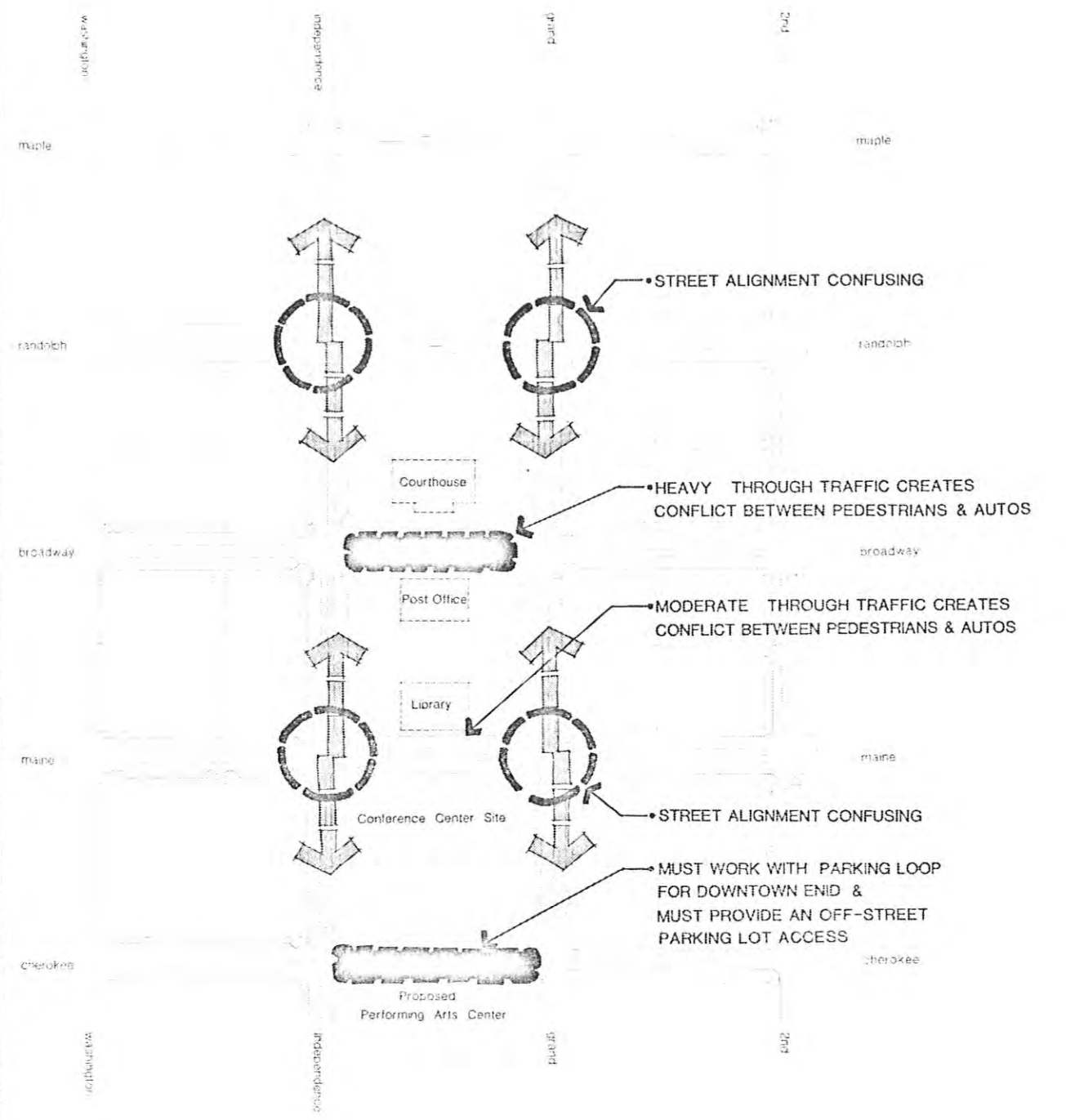
STREET CLASSIFICATIONS
**RECOMMENDED
 ALTERNATIVE**

"The Square" runs a two block length north-south and a one block width east-west; it is flanked by north-south streets that are wider than those in the balance of the downtown grid. Confusing lane shifts occur where these wider streets connect with narrower ones.

The jog in lanes at these intersections is hazardous to drivers because one encounters an on-coming car from the opposite direction. This condition must be corrected. (See Illustration #5, "Existing Intersection Conditions").

A second significant problem area is along Broadway between Independence and Grand where Post Office patrons seek curbside parking. This problem is compounded by turning movements that are allowed from all directions into this block. Demand is so high for these parking spaces that users will stand in traffic lanes northbound on Independence and eastbound on Broadway waiting for a parking space to become available. This significantly contributes to the congestion at this intersection. (See Illustration #6, "Traffic Issues" and photograph below).





TRAFFIC ISSUES

A third problem is that off-street parking lots are under utilized. Although many lots are privately owned and have some restrictions on their use, by in large, at any given time, there are off-street parking spaces available to the public. However, the location of these lots is not clearly visible and the parking regulations for these lots is not uniform and is often confusing. As a result, drivers concentrate on using curb-side parking.

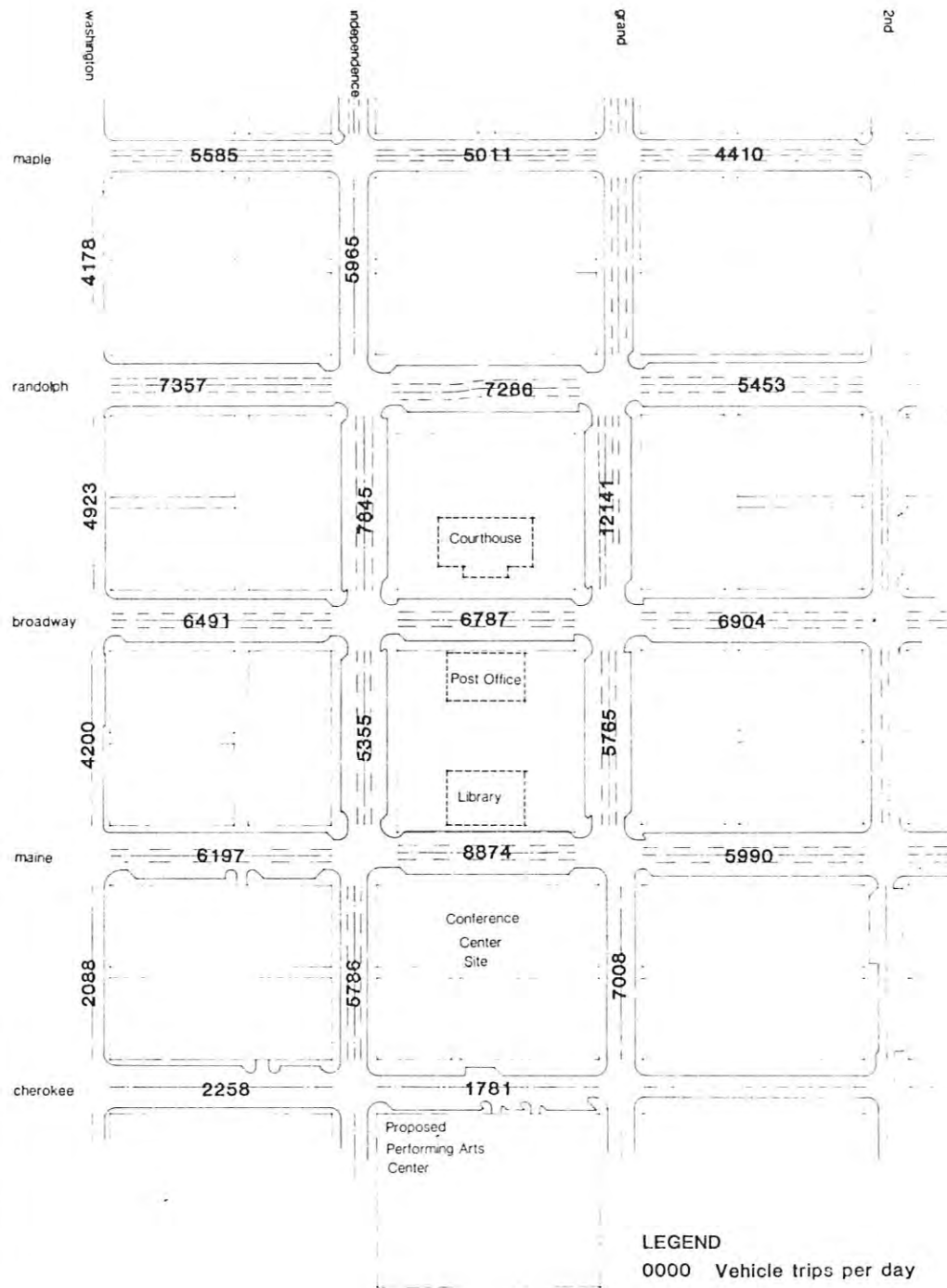
A special problem is a circling search pattern used by drivers to find curbside parking, especially spaces abutting the Square. Since this parking is the most highly visible in the Downtown, it receives the most attention and demand, although in many cases, off-street parking spaces or even curbside parking spaces on cross-streets are equally convenient to destination businesses. (See Illustrations #7, "Traffic Counts").

Pedestrian Circulation - Existing Conditions

Sidewalks

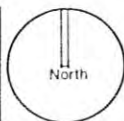
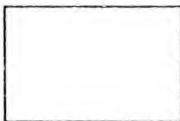
Sidewalks in the Downtown are uninviting for pedestrian use. Gray paving materials, concrete, asphalt, etc. are used throughout so that there is little distinction between auto traffic zones and pedestrian zones. Furthermore, many portions of the sidewalk are cracked or broken.





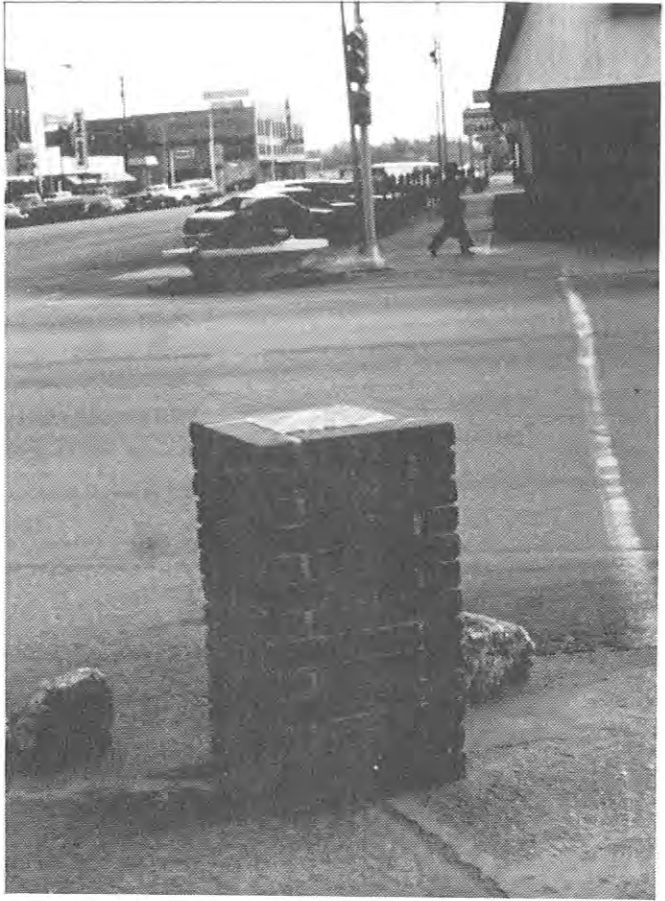
(Source: ENID METROPOLITAN AREA TRANSPORTATION STUDY)
June 1980

TRAFFIC COUNTS AROUND THE SQUARE



Crosswalks

Pedestrian crosswalks are defined solely by paint stripes and are not clearly visible. Swellings at major corners have been constructed to reduce crossing distances from curb to curb, however, they are not clearly defined and in many cases the edges and landscaped elements are damaged.



Rear Entranceways

Rear entrance ways to businesses are underdeveloped and present a weak image to patrons. As off-street parking lots become increasingly popular, these rear entranceways take on added significance since they are the most direct means of access from lots located in the rear. These parking lots themselves are not landscaped and the pedestrian's experience walking through them and along alleys is unpleasant. This contributes to the popular image that patrons will prefer to park in a shopping center parking lot rather than park downtown where they are not in a direct line of sight of their destination.

Pedestrian Generation

Pedestrian circulation patterns are influenced by the location of parking, major retail clusters, and office towers as well as civic buildings. These patterns were analyzed to provide a rationale for variations in the proposed streetscape design. (See Illustration #8, "Pedestrian Generations").

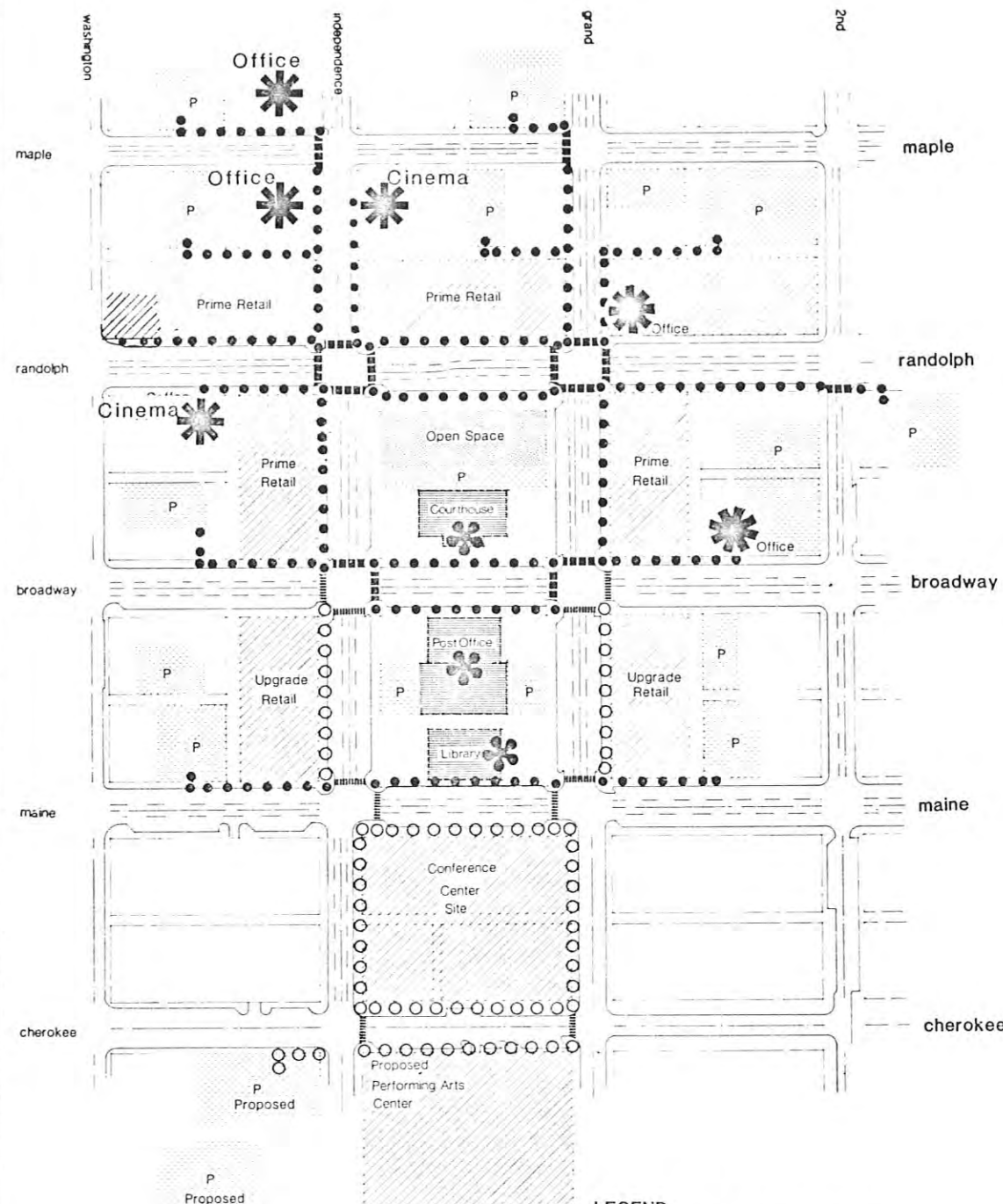
Generally speaking, the greatest activity is along the sidewalks on the outer edge of the Square--particularly the northernmost block. Activity then fans out on cross streets from this point.

Public Sign System

Presently, there is a disorganized collection of public signs that provide information about traffic control and movement, parking, and the location of special public features as well as businesses. In particular, traffic regulations are not presented in a uniform graphic system. That is to say, that varying typographics styles, sign panel colors and materials are used throughout the area. This discontinuity fragments the image of these signs, making it more difficult to separate important public information from the mass of private advertising that occurs. Directions to businesses are not clear. The location of major facilities, such as hospitals, banks, and office buildings is not readily apparent to newcomers.

A weakness in the public sign system is at the outer edges of Downtown, particularly along Garriott Road (U.S. #6) and Van Buren (U.S. #81) where the access to the heart of town is not immediately evident and first time users on both of these roads may bypass the Downtown.





PEDESTRIAN GENERATORS

- LEGEND**
- ● ● Existing Pedestrian Ways
 - ○ ○ Projected Pedestrian Ways
 - ▬▬▬ Existing Pedestrian Crossings
 - - - - - Projected Pedestrian Crossings
 - ▨ Commercial/Retail Space
 - ▩ Public Facilities
 - Open Space
 - Parking
 - ★ Focal Points

Street Furniture

An on-going concern for street amenities that encourage public use of the downtown is a noticeable asset for Enid. Many items of street furniture, including benches, waste receptacles and planters can be found, however, these elements are uncoordinated. A variety of styles and materials occurs throughout the area which are often inconsistent within a single block. Many items are not well located. Benches are often positioned in areas close to auto traffic without benefit of a landscaped screen. Others are positioned where intense summer sun or prolonged winter shade make them less useful on a year-round basis. In general, street furniture is not located to relate to major pedestrian generators or pedestrian traffic routes and environmental conditions, such as sun and shade patterns and prevalent wind conditions, have not been considered.

Finally, by in large, street furnishings are not maintained. This is particularly evident with the planters located at intersections. Brick retaining walls are broken and in need of repair, curbs are cracked, plant materials need replacement or pruning and other items, including benches, frequently are in need of paint. These conditions are indicative of the lack of a coordinated maintenance program in which responsibility is clearly assigned to the City or some other public group.





Swelling at Intersections

A dominant streetscape feature is the set of paved swellings at intersections. These are intended to more clearly define parking areas and to reduce the crossing distance for pedestrians at the intersections. By in large, these swellings are designed without a curb, which complicates drainage and reduces their potential benefit by making it difficult for the motorist to locate the limits of the curb. This design is particularly difficult to maintain and the lack of curb definition fails to protect pedestrians standing in the swellings.



Street Lights

Present street lights are equipped with mercury vapor bulbs that cast a blue light which causes a color shift to merchandise in display windows. These lights are designed for illumination of auto travel zones, and do not provide uniform, inviting lighting along the sidewalks. Light poles (standards) are tall so that a large portion of the street area can be illuminated by each fixture. This scale of light fixture is not in scale with pedestrians. Furthermore, there is no distinction between lighting at the middle of the block and at intersections. Light levels at the intersections normally should be higher where sharper visibility is required, whereas midblock lighting is less critical for auto traffic. Midblock lights should provide good illumination of store fronts and merchandise as well as the street. Street lights are not provided in many of the privately owned, off-street parking lots and illumination connecting these lots with the primary business streets is not well designed.

In general, public lighting is weak Downtown. It does not help to distinguish the Downtown from outlying areas, lacks a warm color that is conducive for merchandising, and lacks a scale that encourages pedestrian use. Lighting systems can be one of the strongest design tools for enhancing the image of the Downtown area, but the present light system falls short of this opportunity.



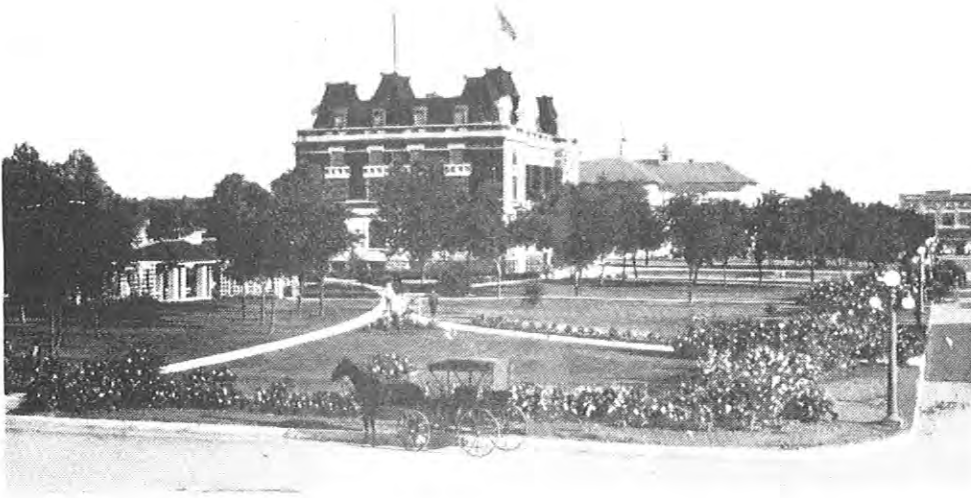
Plant Materials

Plant materials Downtown include street trees, shrubbery in planters, and groundcoverings. In general, the majority of the street trees are located on the inner circle of the Courthouse Square. Planters are distributed in selected blocks and ground coverings occur in landscaped islands that define curb-side parking areas. There is no consistency in the selection of plant materials from block to block and an inadequate number of evergreens are provided so that plant materials do not provide ample color in the winter time.

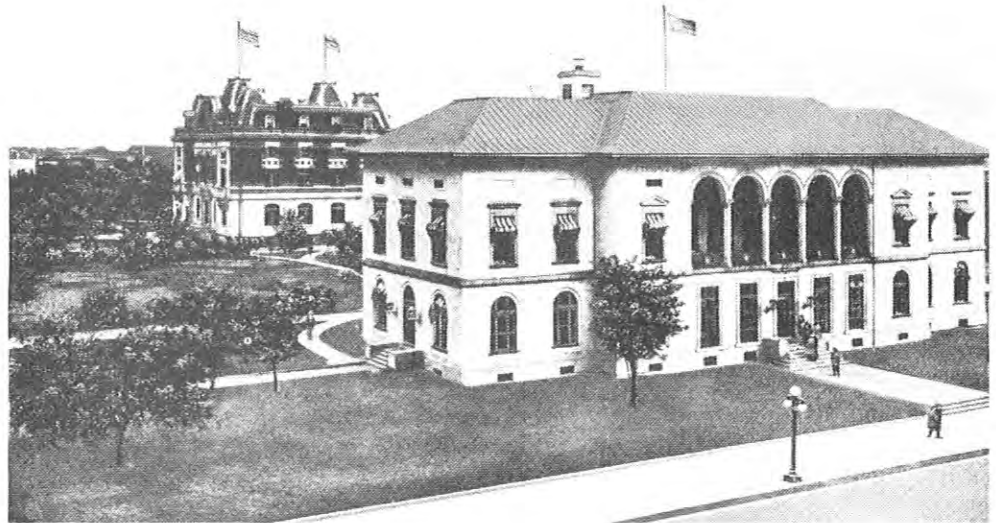


The image of the Square as a large public "green" is weak as well. An extensive portion of the Square has been eroded over time and has been converted to parking and service areas and there is no continuity in landscape materials between the northern and southern blocks of the Square. Historically, the image of the Square was very strong. In fact, it was the dominant image that gave identity to downtown Enid. (See historic photo of the Square).

Court House Square, Enid, Okla.



Federal Building and Court House, Enid, Okla.—3





THIS EARLY PHOTO, LOOKING NORTHWEST, SHOWS THE ORIGINAL TWO-BLOCK SQUARE INTACT WITH THE OLD COURTHOUSE IN THE CENTER.



THIS RECENT PHOTO, LOOKING SOUTHEAST, SHOWS THE REDUCED AMOUNT OF GREEN SPACE IN THE SQUARE.

Summary of Existing Conditions

In general, downtown Enid lacks a coordinated image. Street furnishings are not uniform and public signs are not present in a systematic format. The result is that downtown Enid does not "read" as a place in and of itself. Rather, it is interpreted as a disjointed collection of independent activities and interests. The promotional potential for the Downtown is underutilized as a result of this lack of clear design coordination. The present condition is not a well established format that can guide other improvements. The section that follows presents actions that will remedy these problems.

THE PROPOSED PLAN

General Concepts

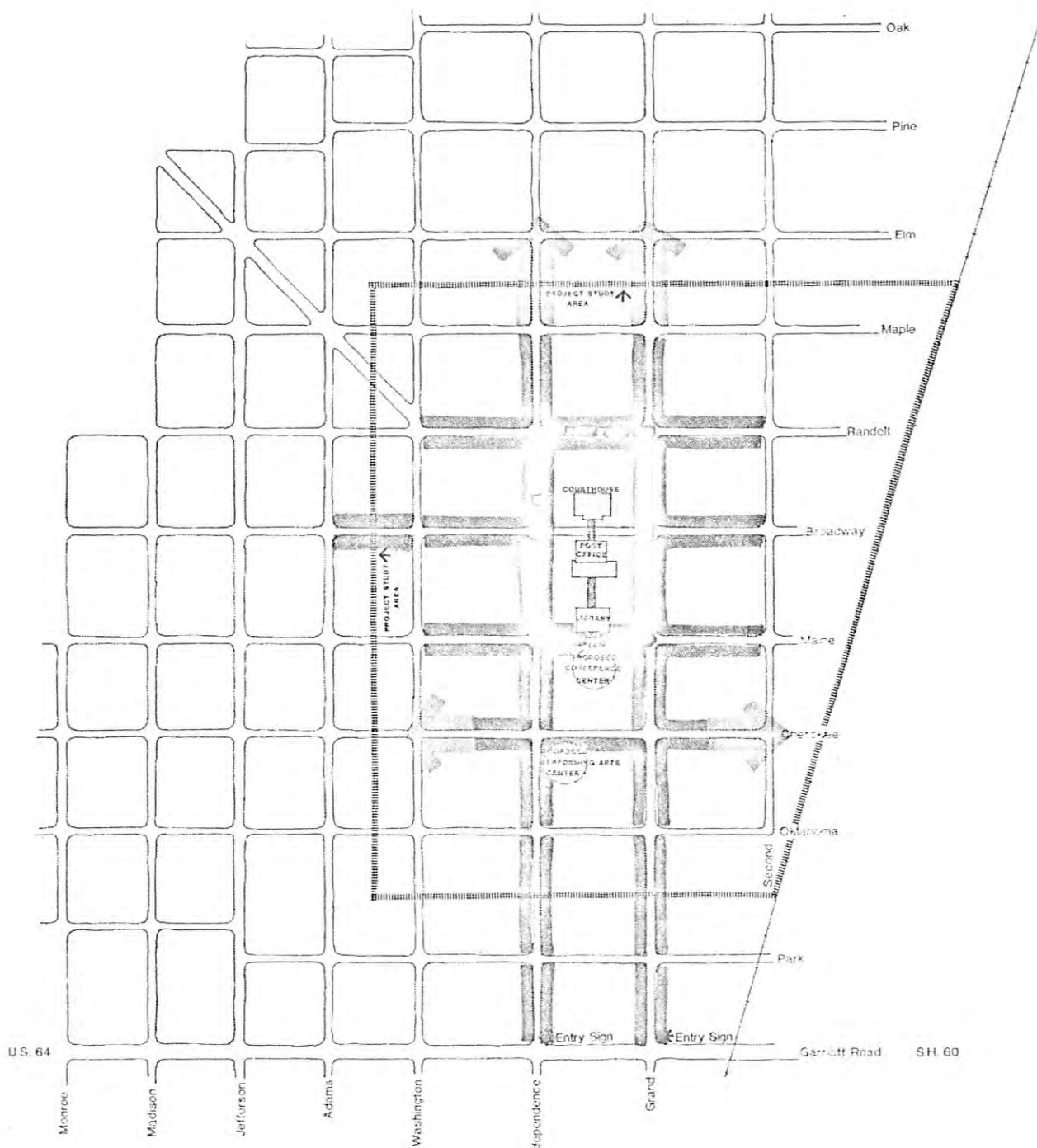
The design plan is based on these concepts:

1. Re-establish the image of "the Square" as the central focus of Downtown. The Square is the strongest potential visual asset of downtown Enid, and it is this characteristic that makes the town unique in the region. This image can be used effectively in marketing downtown Enid. (See Illustration #9, "Streetscape Strategy").
2. Identify corners of the Square as "gateways." The four corners of the Square are prominent because of the lane changes that occur there and because of the large amount of open space. These areas are to be developed with intensive landscaping that will help identify the entrance into the core of downtown. At the same time, pedestrian crossing nodes are to be installed at the corners to remedy the traffic lane change problem.
3. Develop a coordinated image for Downtown. The Plan proposes a system of uniform graphics be used on all public signs so that the system will be easily identifiable. Similarly, street furniture in the Downtown is to be standardized. That is to say, one bench design shall be used at all sidewalk and public parking areas. A uniform light standard shall be used and other elements of street furniture such as waste receptacles will also be standardized. These street furniture elements have been selected so that they form a coordinated clustering.




Standardization of these design elements will help develop a sense of continuity in an otherwise diverse streetscape. Buildings in the Downtown exhibit a wide range of materials and styles, and therefore, do not contribute to a strong visual identity. In such a context, coordinated street furnishings are extremely important.

4. Provide a framework for marketing promotion activities. Special open spaces are proposed that will encourage the use of the entire downtown as a facility for special events. Presently, the northern portion of the Courthouse Square is used from time to time for such events. A bandstand is proposed in this area to further enhance the use of this park. Historically, a bandstand was located there.

A major plaza is also proposed for the southern end of the Square, in conjunction with the new Conference Center. This plaza should serve as a place for performances and shows. Additional spaces occur in the new pedestrian crossing nodes. These specially paved areas are large enough to accommodate small events as the downtown begins to market itself more aggressively.



STREETSCAPE STRATEGY

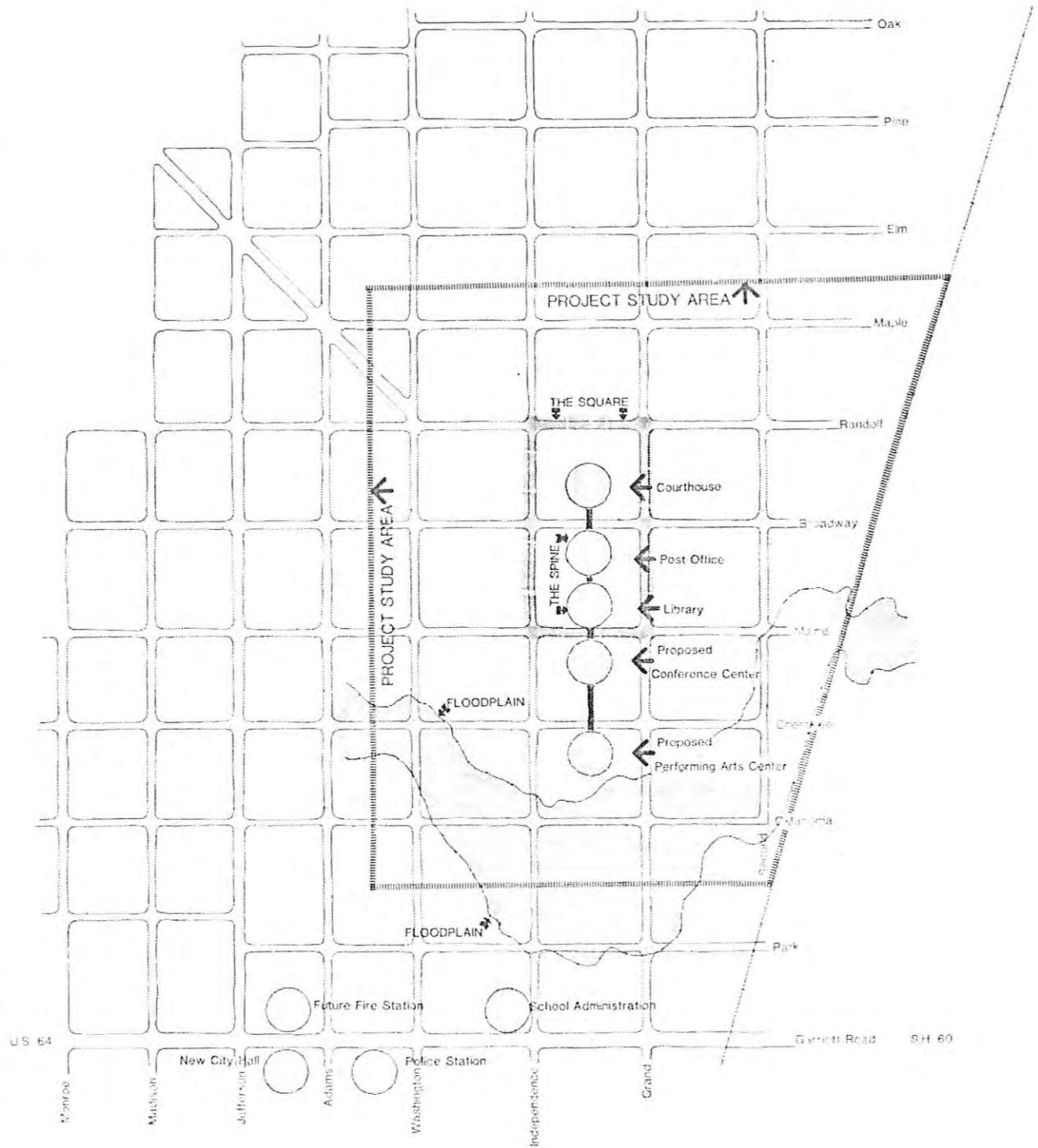
- Legend**
-  Streetscape Improvements
 -  Eventual Extension of Improvements
 -  The 'Square'

Scale: 1"=200'

The standardization of the streetscape foreground, that is to say the sidewalks and the street furnishings, will help create a unified image for Downtown that will also strengthen marketing capabilities and allow businesses to advertise as a unit and help to establish the sense that Downtown itself is a shopping center with its own unique identity.

5. Provide improvements that can be maintained. Design details for construction of new sidewalks, curbs, and pedestrian crossing nodes take into consideration the need to minimize maintenance. Benches, waste receptacles and other elements of street furniture have been selected that are attractive yet can be maintained within a reasonable budget limit.
6. Strengthen the spine of public facilities in the Square. Presently, the County Courthouse, the U.S. Post Office, Federal Building, and the public Library align in a civic spine that runs down the center of the Square. Two blocks to the south, the Convention Hall also lies along this Spine. With the development of the a Conference Center on the block between Maine and Cherokee Streets, there now arises the opportunity to connect all of these civic functions as a "Spine." (See Illustration #10, "Context").

Details of each of these proposals are presented in the next section of this report. Note that in some of the design recommendations, specific dimensions are illustrated. All of these are conceptual at this stage, and are presented to demonstrate that in general the designs are feasible. Specific dimensions should be determined at the time construction drawings are produced.



CONTEXT



SPECIFIC PROPOSALS FOR THE ENID CENTRAL BUSINESS DISTRICT

Inner Edge of the Square

The sidewalks on the interior of the Square are used less intensively by pedestrians than those on the outer ring (where retail businesses are located). Therefore, designs for the interior sidewalks focus on providing landscape materials that will enhance the symbolic image of the Square as a green space. A dense ring of trees should be planted around the inside edge of the sidewalk. Low scale groundcover and shrubs should be planted at the base of these trees. (See Illustration #11, "Concept for the Square").

Outer Edge of the Square

On the outside edge of the sidewalk, a row of street lights and a strip of accent paving are to be installed. Within the interior of the two block square itself, new landscaped areas are to be created by reclaiming parking and service zones wherever feasible. (See Illustration #12, "Perimeter of Square").

Gateways

The four corners of the main square are to be developed as symbolic "Gateways" into the core of Downtown. The elements to be included are:

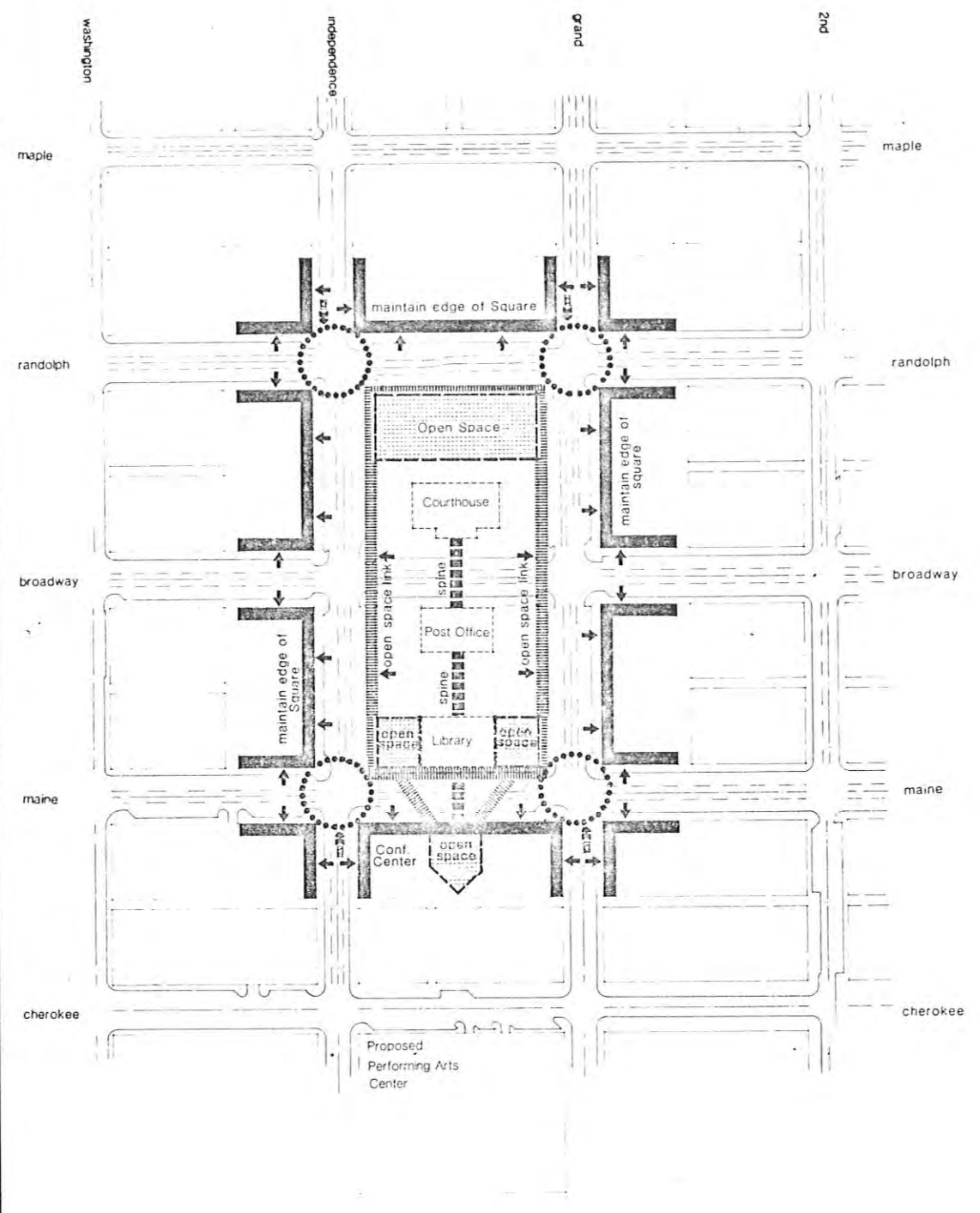
1. Expanded areas of pedestrian paving material
2. Downtown identity sign
3. An edge definition/restraint, such as bollards, at the curb radius
4. Flagpoles, to serve as elements visible from a distance
5. A special feature unique to each corner, such as a clock or kiosk

(See Illustrations #13, 14, 15 & 16).

Side Street Improvements

The sidewalk design for side streets combines a strip of accent paving with smaller street trees. The trees are to be more widely spaced than those on the inside of the Square to allow views to shop windows. Other furnishings to be included in the accent zone are street lights, waste receptacles and planters.

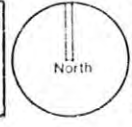
Along the side streets, there are occasions where private improvements encroach into the sidewalk. An example of this condition are the open stair wells that presently provide access to basement businesses. Other types of encroachments, such as outdoor dining areas, or landscaped buffers, may occur in the future. The depth that these encroachments project into the street must be limited to a dimension that will always maintain a minimum walking clearance of 8 feet. Typically, the maximum encroachment depth will be 4 feet on most side streets. See Illustration #17, "Typical Side Street Section"). Encroachments should not be allowed on sidewalks flanking the Square itself.

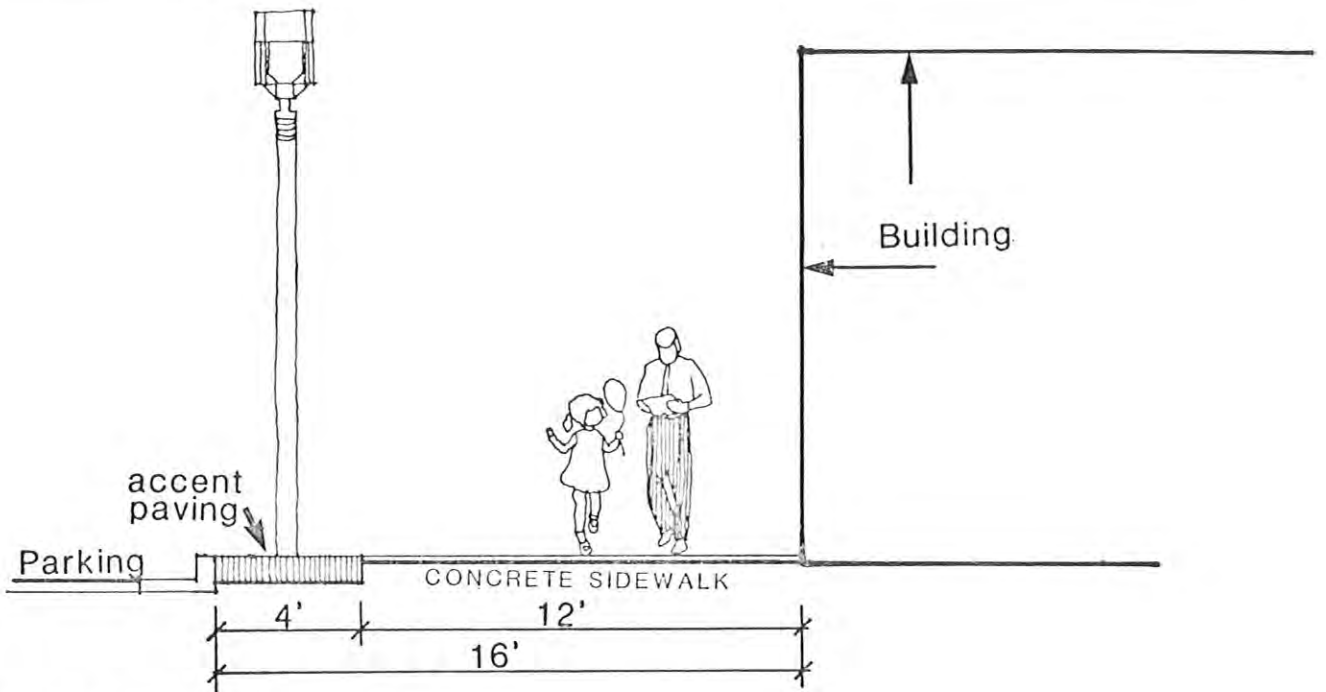


LEGEND:  Gateways

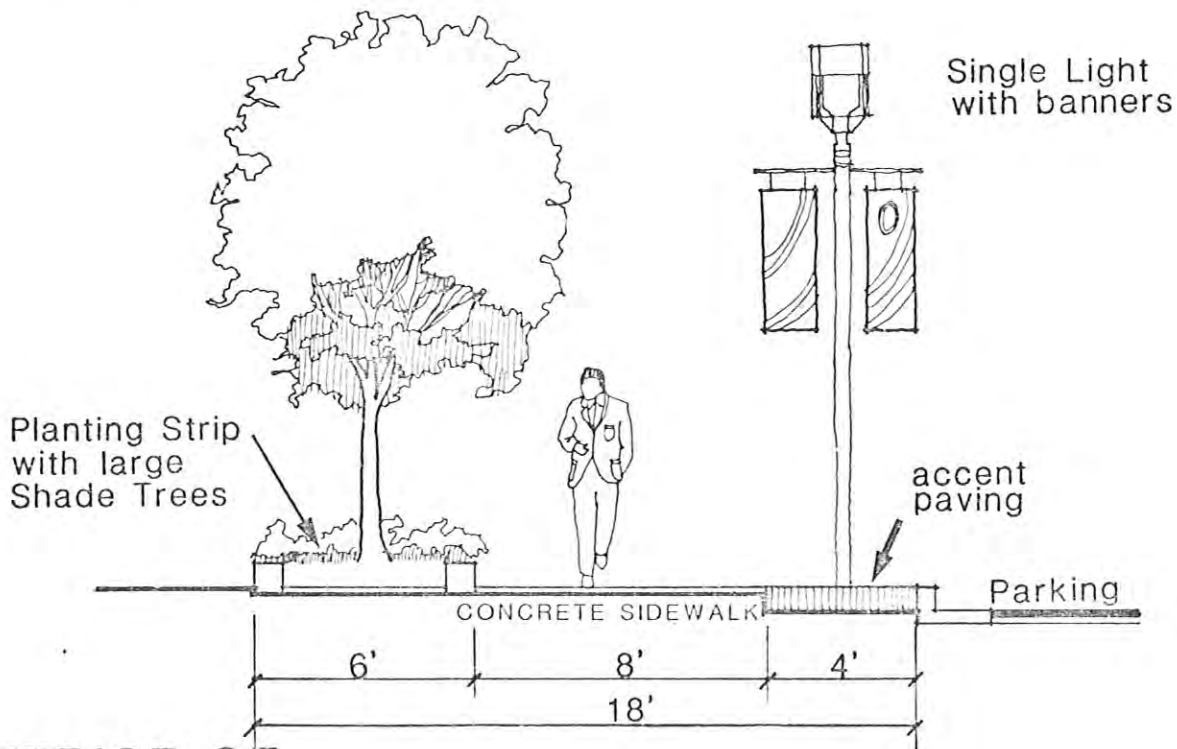
CONCEPT: Retain historical image of square while reinforcing 'spine' of Civic Center.

CONCEPT FOR THE SQUARE



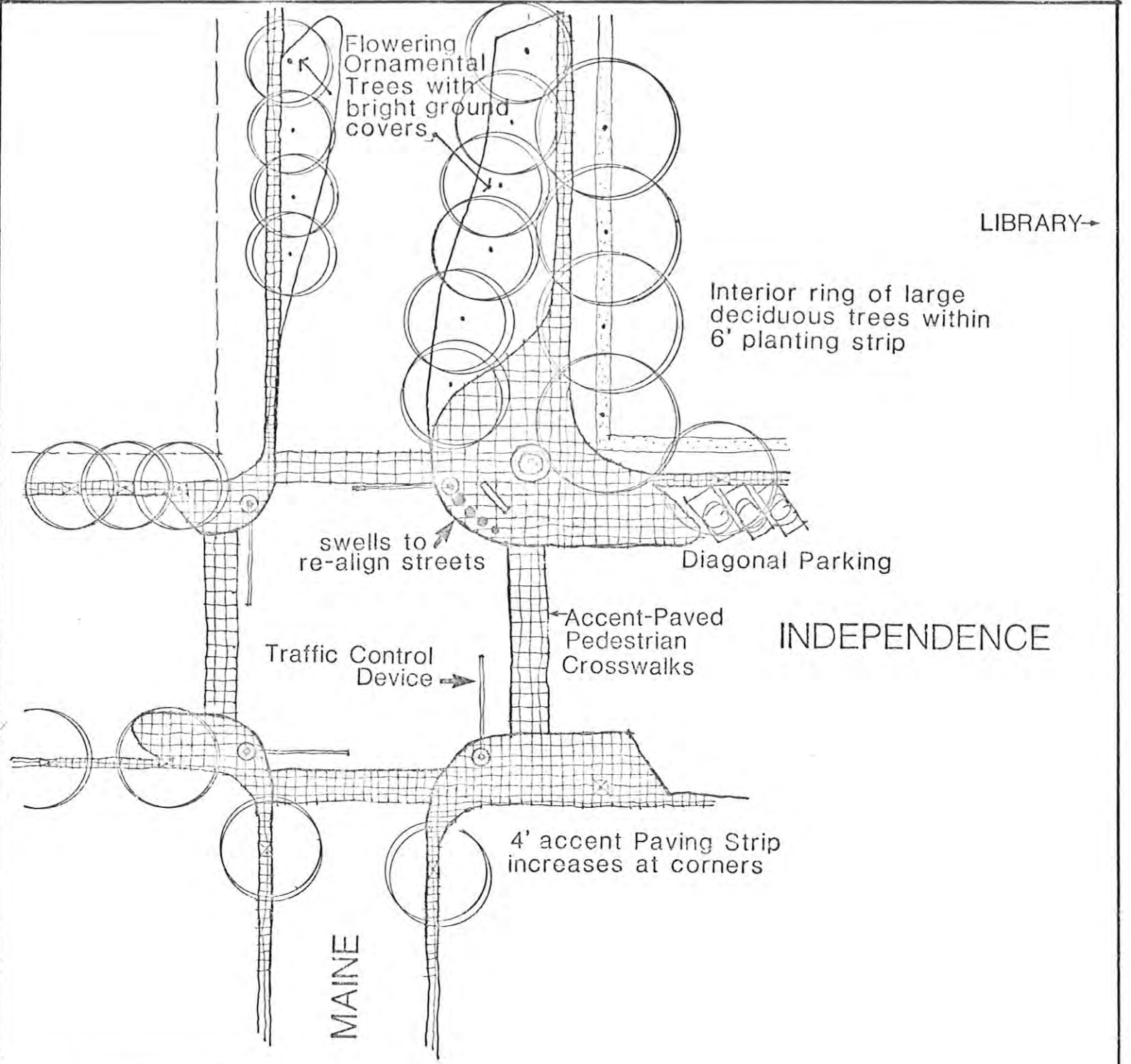


PERIMETER OF SQUARE

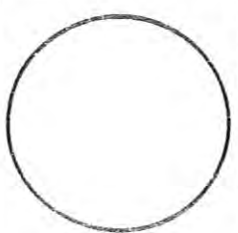


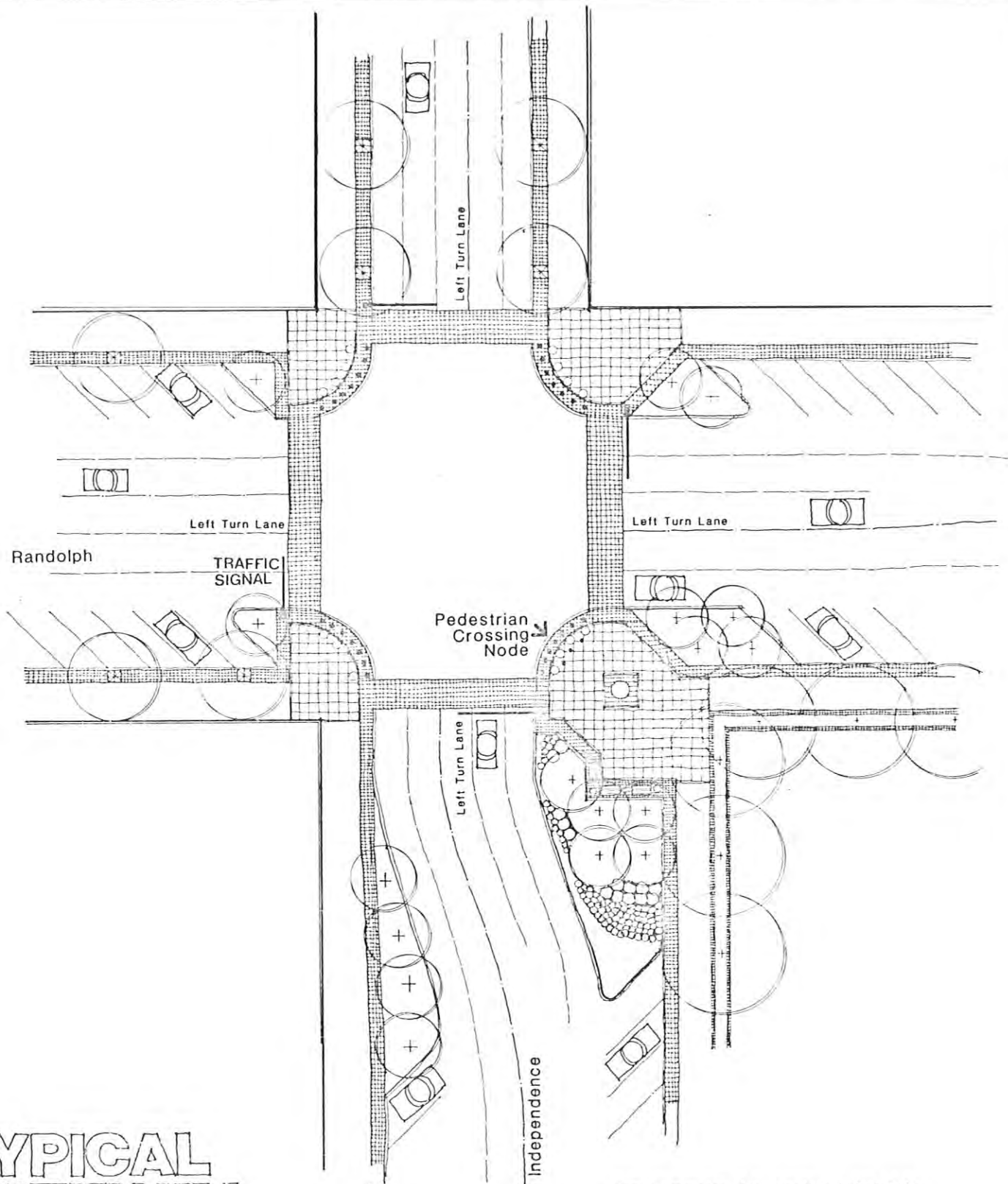
INTERIOR OF SQUARE

CBD Plan
ENID, OKLAHOMA



GATEWAY INTERSECTIONS

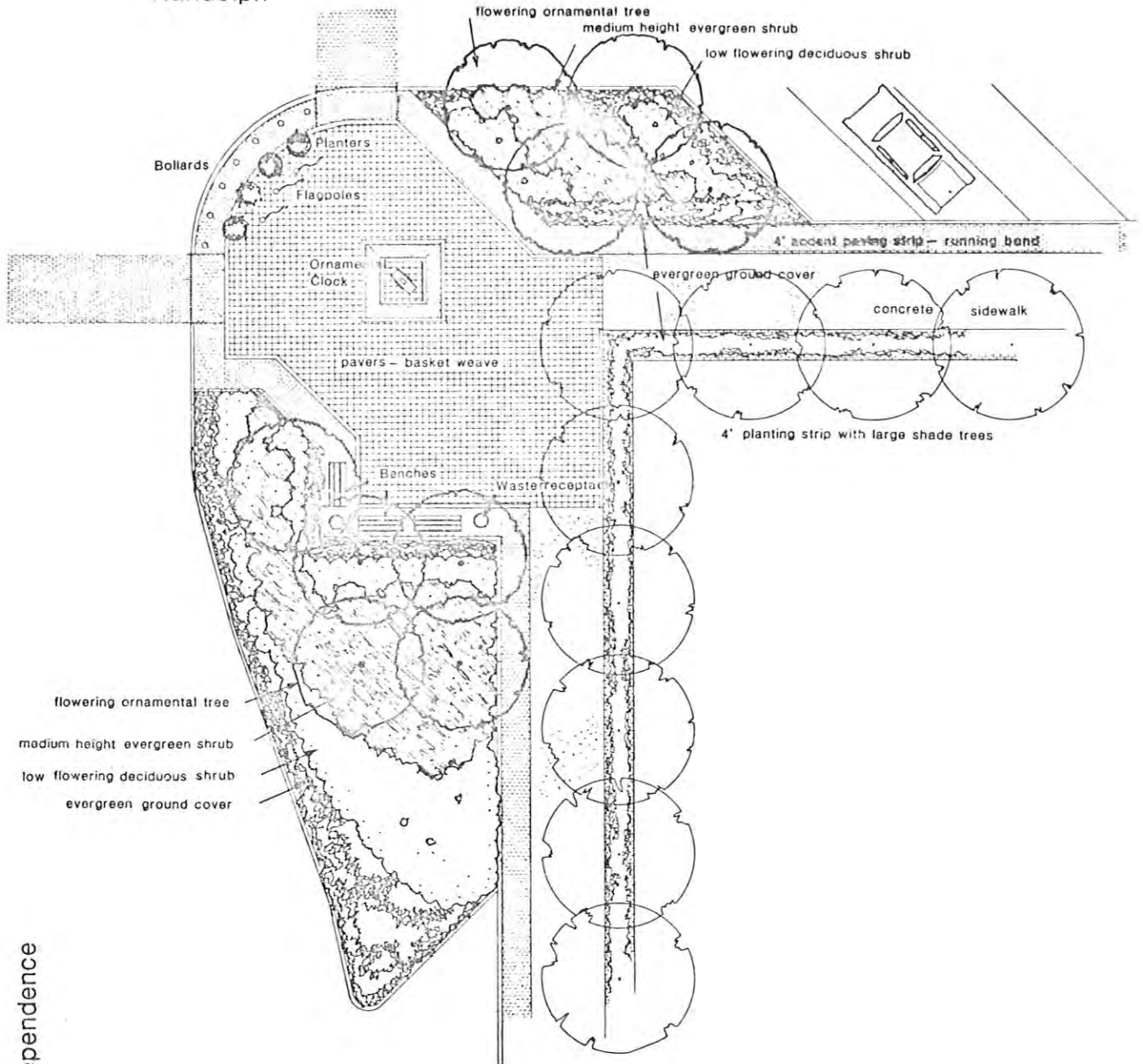




TYPICAL GATEWAY INTERSECTION

TO OCCUR AT FOUR POINTS:
 Randolph at Independence & Grand
 Maine at Independence & Grand

Randolph



Independence

PEDESTRIAN CROSSING NODE

15

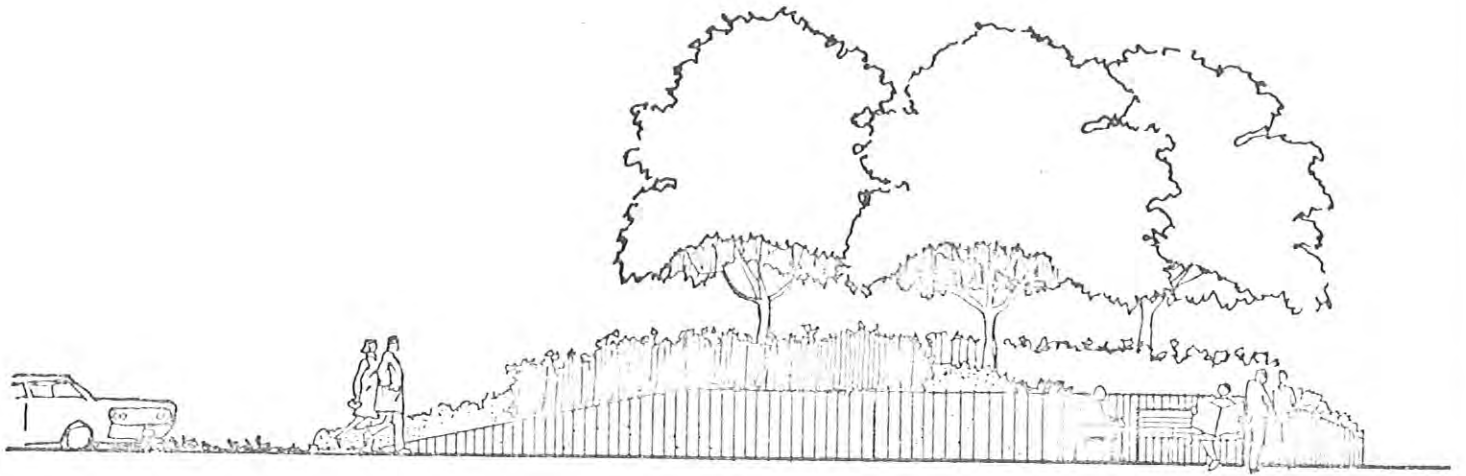
DATE: 10/15/10
 DRAWN BY: [unintelligible]
 CHECKED BY: [unintelligible]

SCALE: 1" = 10'-0"

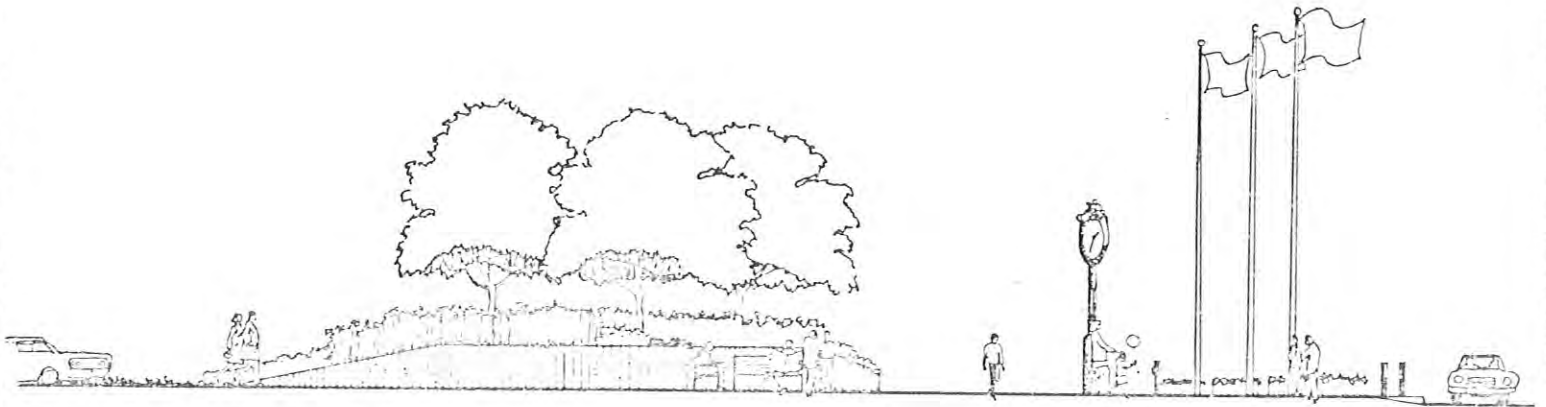
CBD Plan
 ENID, OKLAHOMA

North

downing-leach
 ARCHITECTS



PEDESTRIAN CROSSING NODE - Elevation



PEDESTRIAN CROSSING NODE - Elevation

CBD Plan
ENID, OKLAHOMA

Mid-Block Links to Parking

New pedestrianways are encouraged at the middle of blocks facing the Square, to link parking lots with businesses. These passages should contain the standard street furniture components.

These passages may be created by demolishing buildings, or by retaining the buildings and carving arcades through them. The later is preferred, because the preserved facade will help to maintain the street edge of buildings. Developed as arcades, the pathways also may serve for retail display, office entries and outdoor dining. Such uses are encouraged, because they will generate additional activity and interest in these areas. (See Illustration #17, "Mid-block Links").

Traffic Patterns

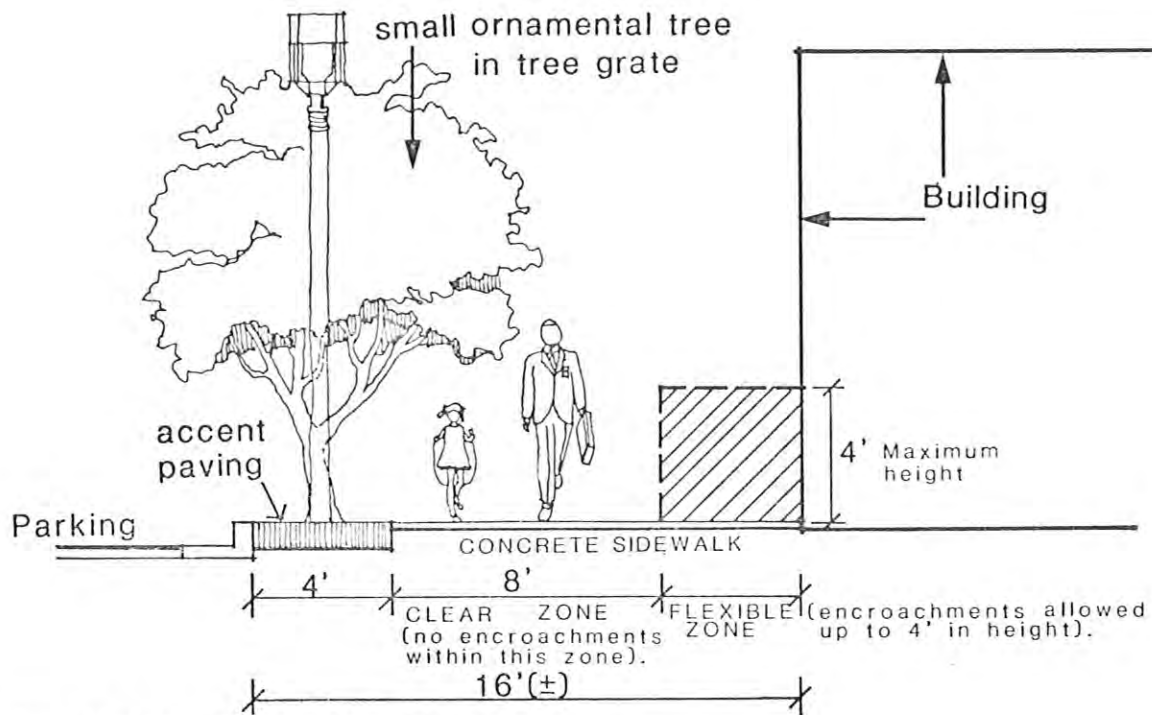
Left turn movements were analyzed at each intersection around the Square, and in many cases, new left turn lanes are proposed. This left turn analysis is based on data now available, which does not project the impact of the opening of the suburban shopping mall in 1964. Traffic volumes may drop at the time, but are expected to climb after a period of adjustment.

In general, Randolph and Maine Streets must be widened to accommodate the space for left turn lanes, and such is the recommended approach. Schematic lane designs for this condition are shown in Illustrations #18, "Randolph Street, Proposed Street Plan," and #19, "Maine Street, Proposed Street Plan."

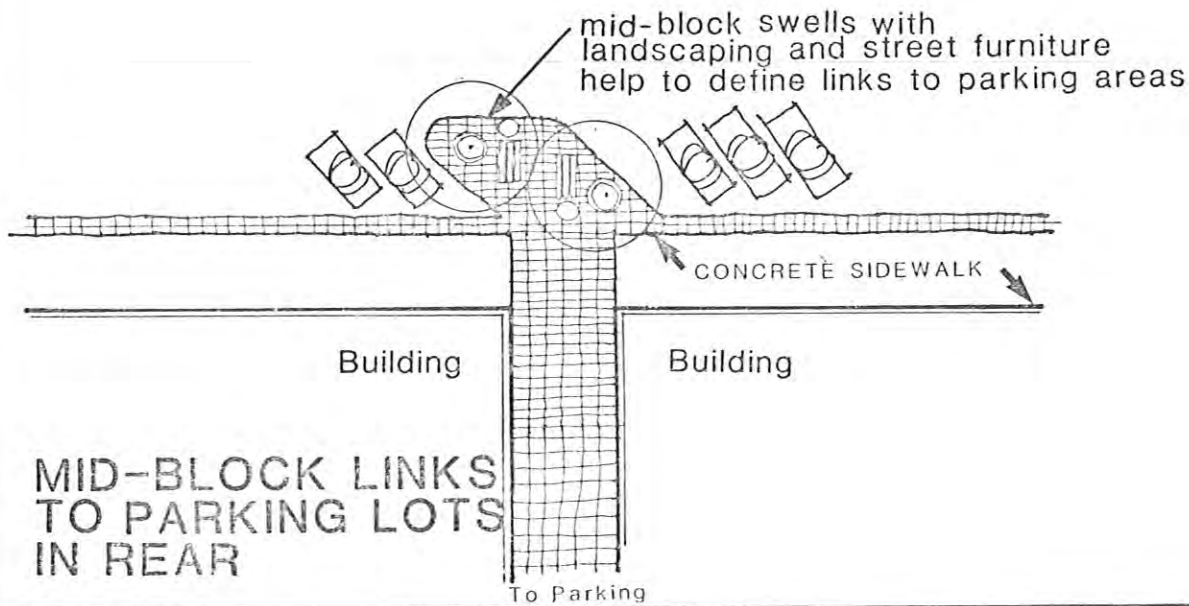
An alternative, economical approach would be to leave Street widths as they are. However, if this is done, left turn lanes cannot be provided. Illustrations #20 and #21 show this option. The absence of left turn lanes could be mitigated to some extent by providing delayed traffic signals and protected left turn arrows. Without more detailed traffic count information, however, this alternative is not recommended.

Some specific cases do exist where left-turn volumes are not expected to be great enough to merit the cost of street-widening solely for the purpose of creating a left turn lane. Examples of this condition are movements by southbound traffic on Independence at Randolph and on Grand at Randolph. Protected turns provided by left turn signals will be sufficient in these cases. (See Illustration #22). Illustration #23 summarizes the recommended left turn designs for downtown.

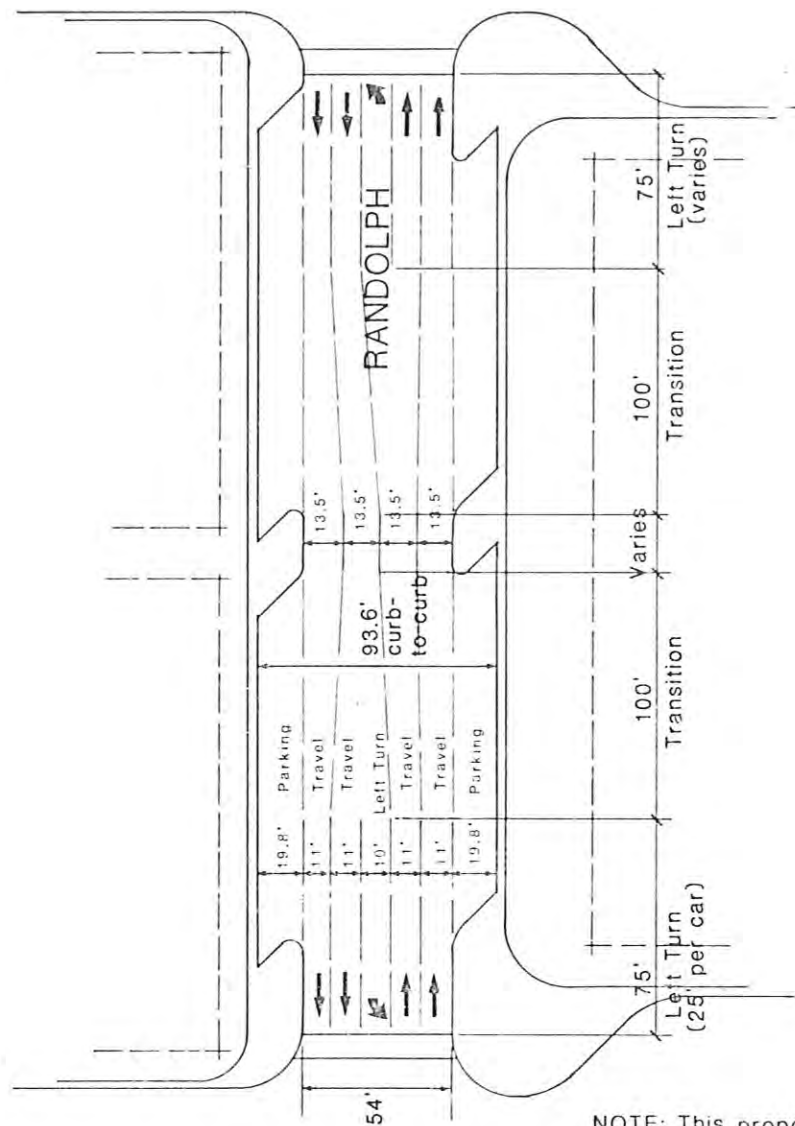
A separate modification is proposed for Broadway in front of the Post Office between Independence and Grand where traffic movement is to be limited to through traffic by eliminating turning movement activity into this block and out of it. (See Illustration #24). Essentially, only straight-through traffic will be allowed. This will serve to reduce the congestion that occurs at the intersections of Broadway with Grand and Independence, and at the same time, discourage parking search circling behavior. It is our recommendation to not widen Broadway in order to accommodate 11' or 12' travel lanes.



TYPICAL SIDESTREET SECTION



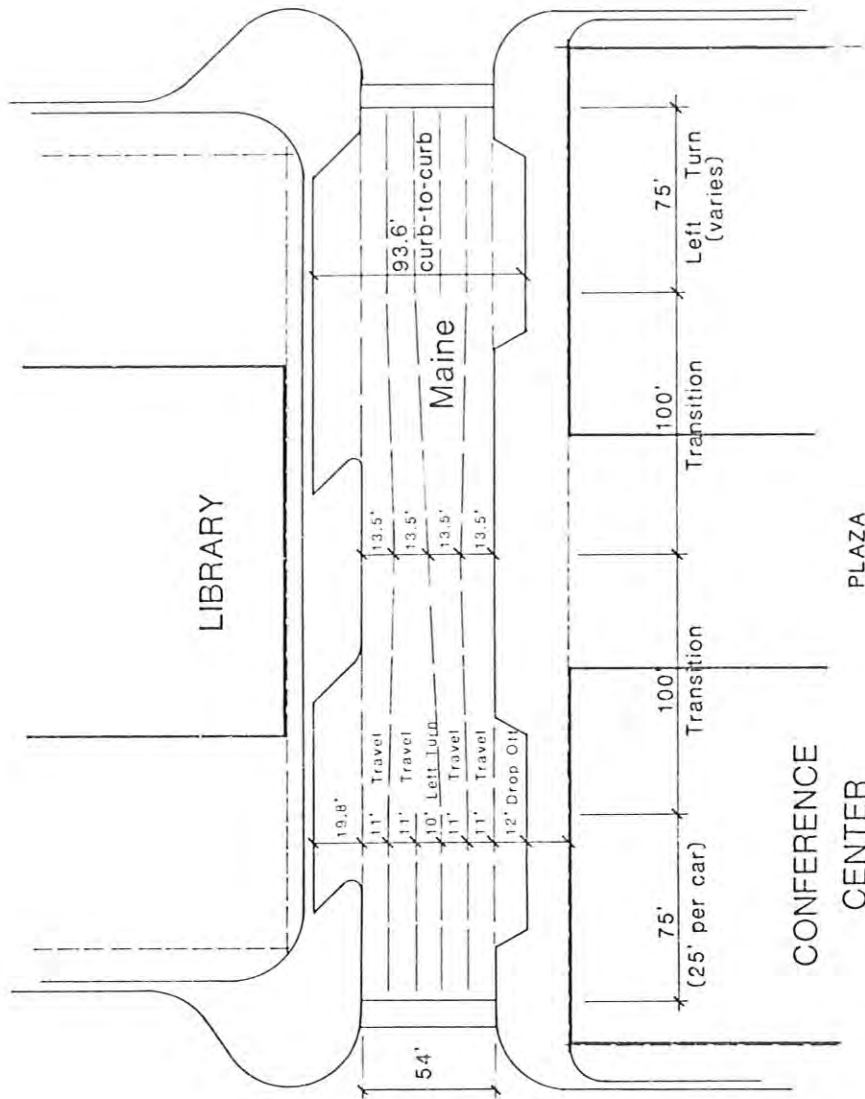
CBD Plan
ENID, OKLAHOMA



NOTE: This proposal assumes an increase in the curb-to-curb dimension.

RANDOLPH STREET
 Proposed Street Plan:
 Expanding existing curb-to-curb width

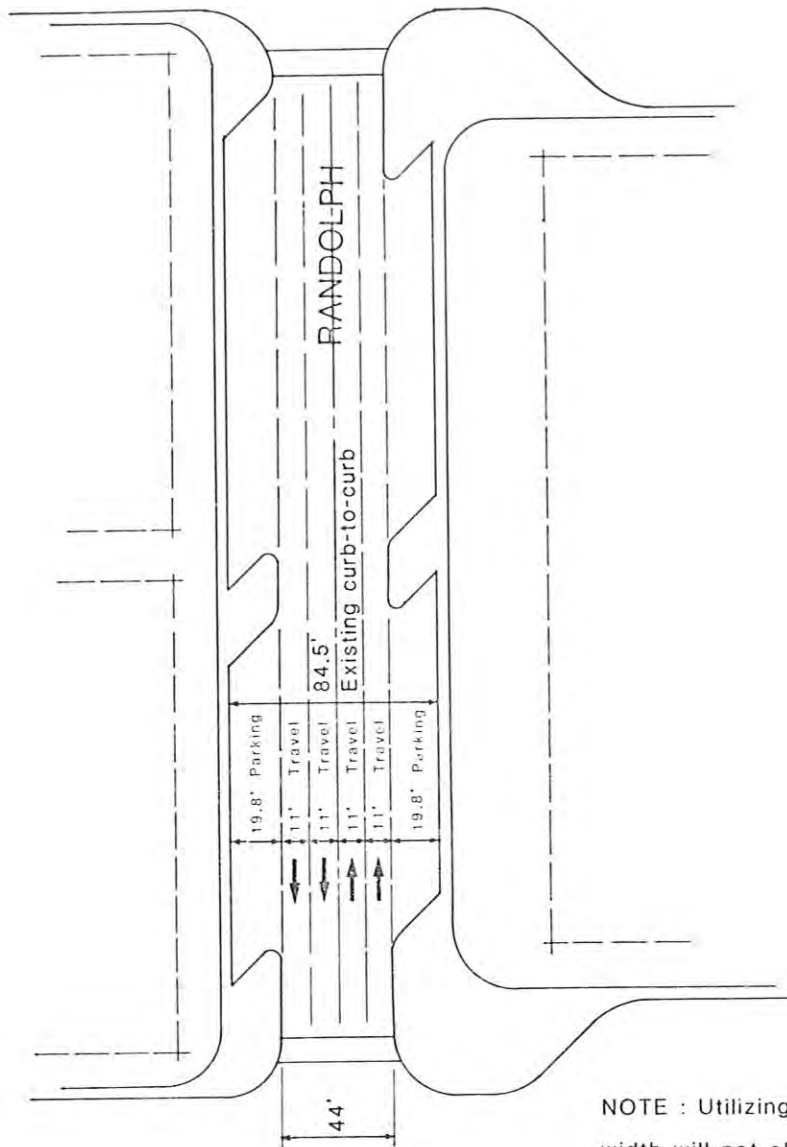
CBD Plan
 ENID, OKLAHOMA



NOTE: This proposal assumes an increase in the curb-to-curb width.

MAINE STREET
 Proposed Street Plan:
 Expanding existing curb-to-curb width

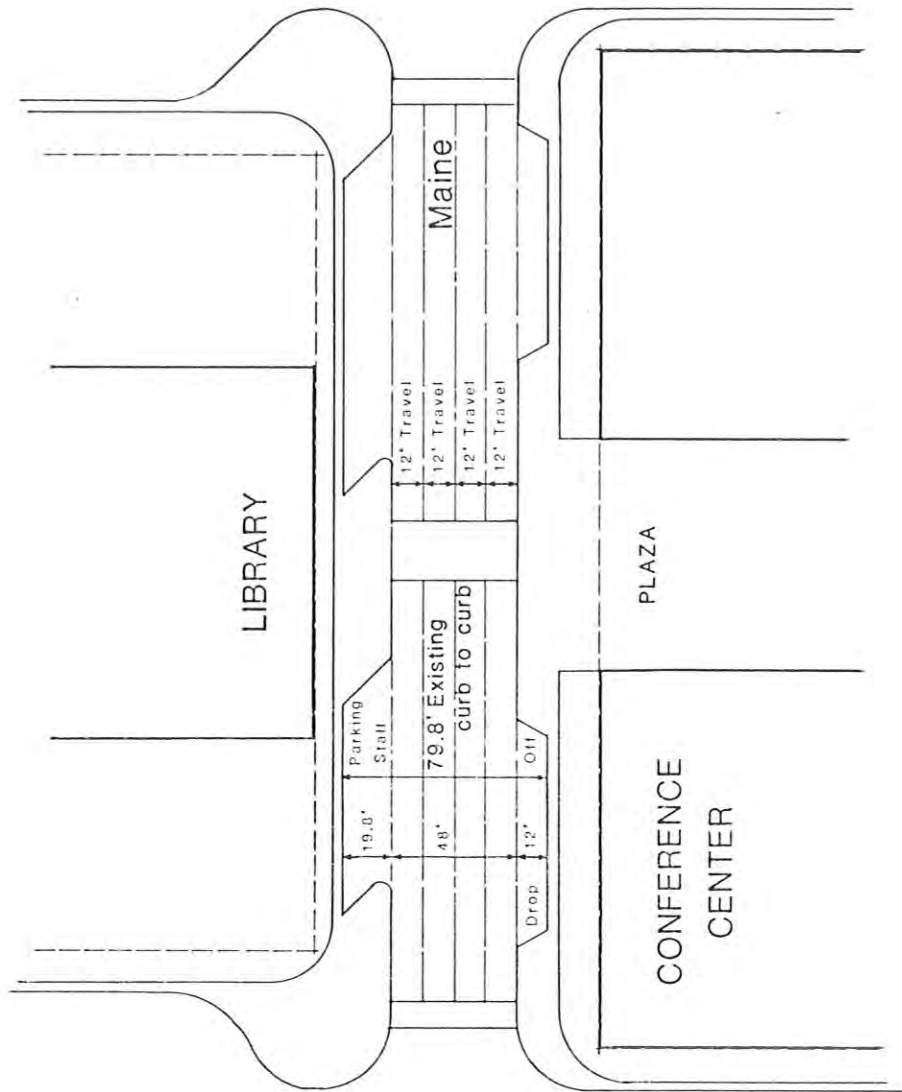
CBD Plan
 ENID, OKLAHOMA



NOTE : Utilizing the existing curb-to-curb width will not allow the provision of a left turn lane onto Grand or Independence from Randolph.

RANDOLPH STREET
 Alternative: Utilizing existing curb



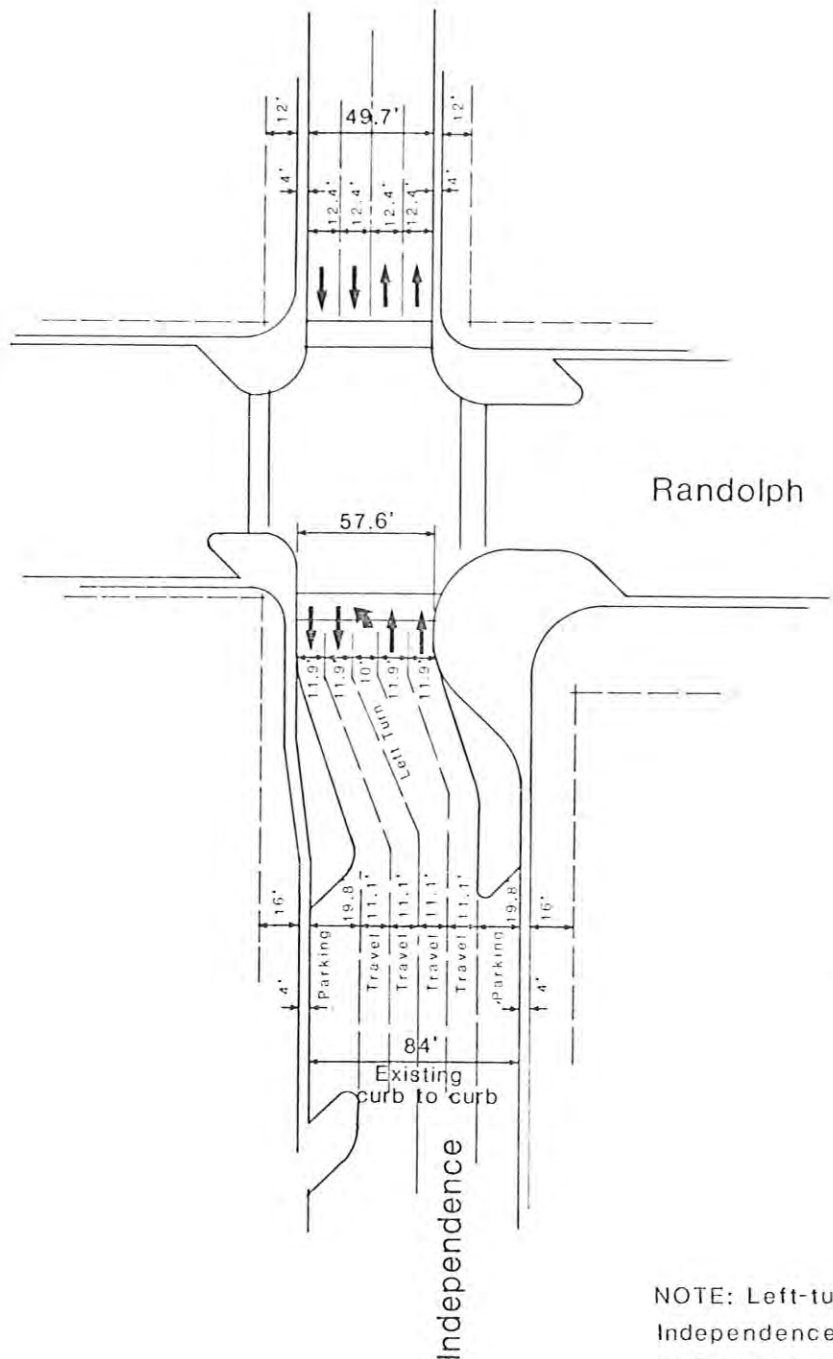


NOTE: Utilizing the existing curb-to-curb width will not allow the provision of a left turn lane onto Grand or Independence from Maine.

MAINE STREET

Alternative: Utilizing existing curb

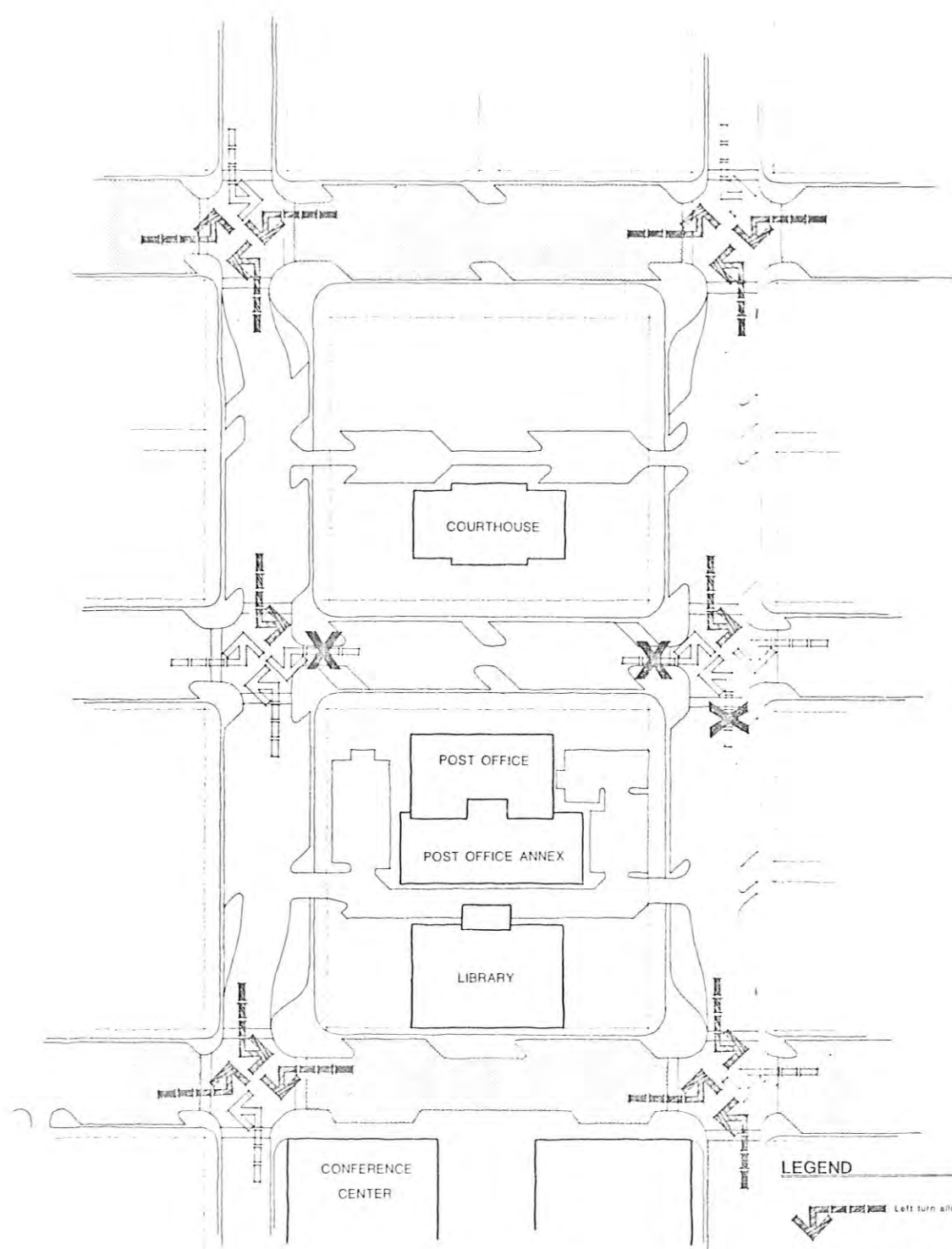




NOTE: Left-turn allowed from Independence east on Randolph with signal.





INDEPENDENCE AVENUE
 Proposed Street Plan:
 Utilizing existing curb

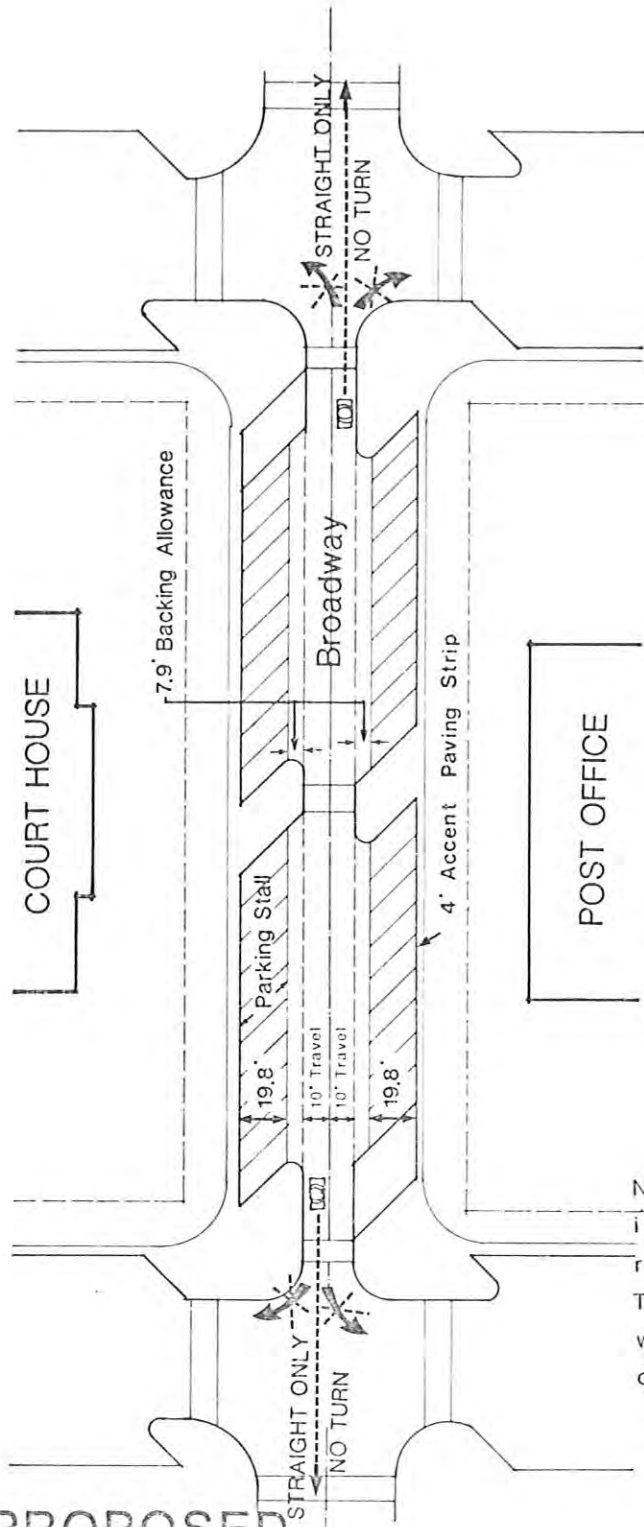




LEFT TURN ANALYSIS

LEGEND

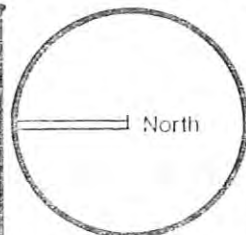
-  Left turn allowed within turning lane
-  Left turn allowed on signal
No turn lane provided
-  No left turn allowed
-  Increase street width



NOTE: This proposal allows improvements to occur without removing the existing curb. The 4' accent paving strip would occur just outside of the curb.

BROADWAY: PROPOSED
Between Grand and Independence

CBD Plan
ENID, OKLAHOMA



Parking Loop

A parking loop is proposed that will ring the core of Downtown. This loop will emphasize access to off-street parking. Essentially, a special sign system will be developed that clearly identifies the location of the parking lots and the restrictions on their use. "Interceptor signs" will be located at the outlying edges of this loop so that the approaching motorist will be alerted to the fact that they are entering a system that will lead them to convenient off-street parking. (See Illustration #25, "Concept for Parking Loop").

Public Sign System

This is one of the most important high-visibility components of the Plan, and it can be quickly implemented. Information should be organized in a hierarchy and presented to users of Downtown in a chronological sequence of need. That is to say, motorists should receive information in installments, beginning with the basic location of the Central Business District. (See Illustration #26, "Gateway Sign Locations." The next level of information would identify the existence of the Parking Loop. Lesser levels of information would include parking regulations identifying length of parking allowed in a designated space. Other signs to be included in this system would be those that identify the location of civic facilities, regulate traffic flow, locate pedestrian amenities, limit parking activity or provide general identity to the town.

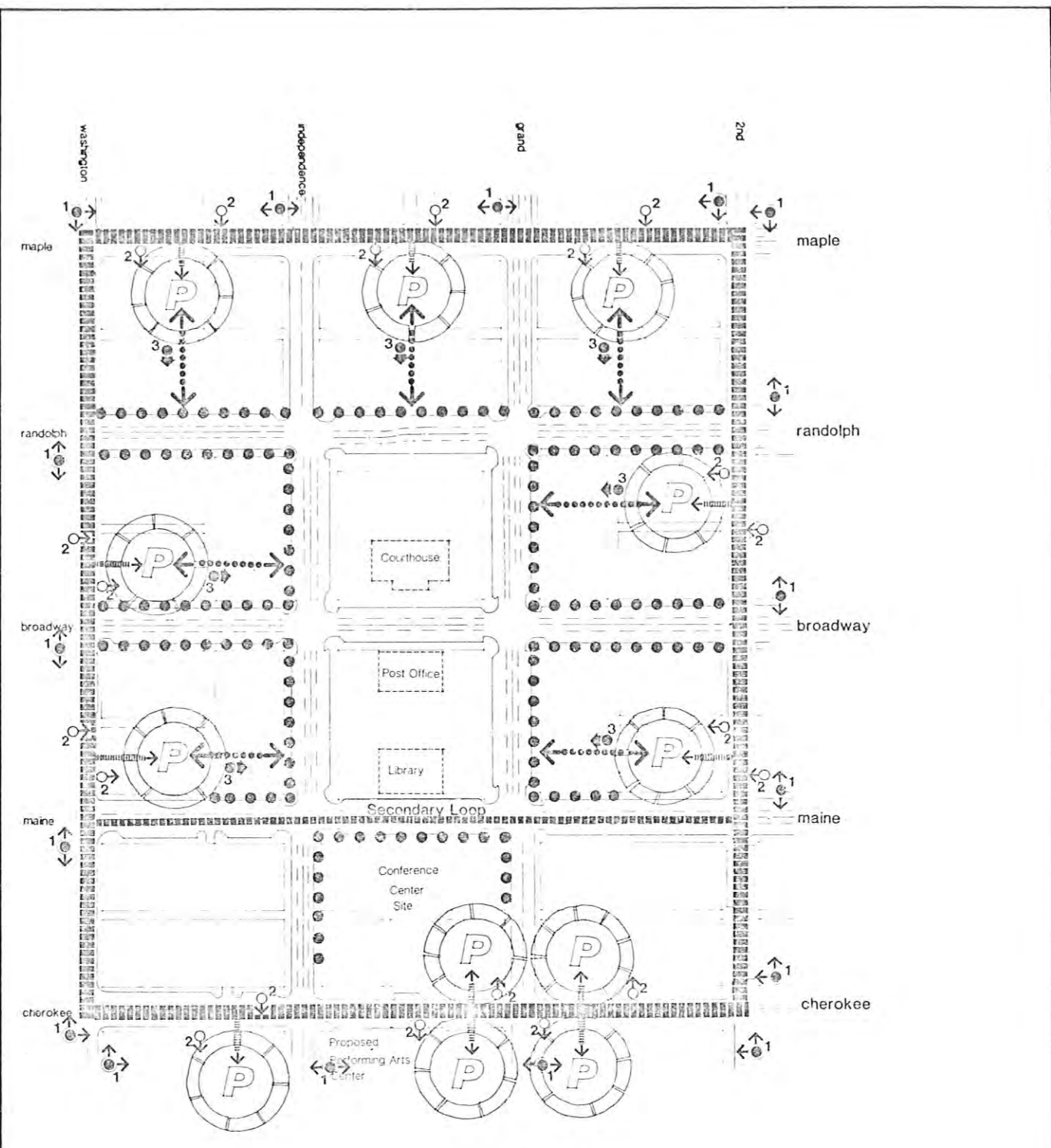
All of these signs should be coordinated graphically using standardized typeface, color schemes, sign materials, and mounting technique so that signs belonging to the system are easily recognizable. A logo representing the Central Business District (the Square) should be included on each of these signs. (See Illustrations #27, 28, and 29).

Street Lights

Street lights are to be installed with pole height and lighting designed of two types: The first type is designed to orient primarily to pedestrian users and will be low in scale and located midblock. The second type will be mounted higher and provide a higher light level. These will be mounted at intersections for traffic safety. The color of lights to be used shall be one of a metal halide type or similar source of illumination that provides a warm light suitable for merchandising display. The style to be selected for these lights shall be one that will be compatible with old buildings as well compatible with new buildings. (See Illustration #30, "Street Lights, and Appendix A).

Benches

The new bench proposed for Downtown was selected to be comfortable yet require low maintenance. The basic frame is tubular steel with a wood slat seat and back. The bench design is selected to blend with older and newer styles of buildings. This is particularly important because of the mix of styles that exist. Benches are to be located at areas of concentrated pedestrian



LEGEND

Signage for Exterior "Parking Loop"

- ← 1. "To Parking Loop"
- ← 2. "To Parking"
- ← 3. "To Square"

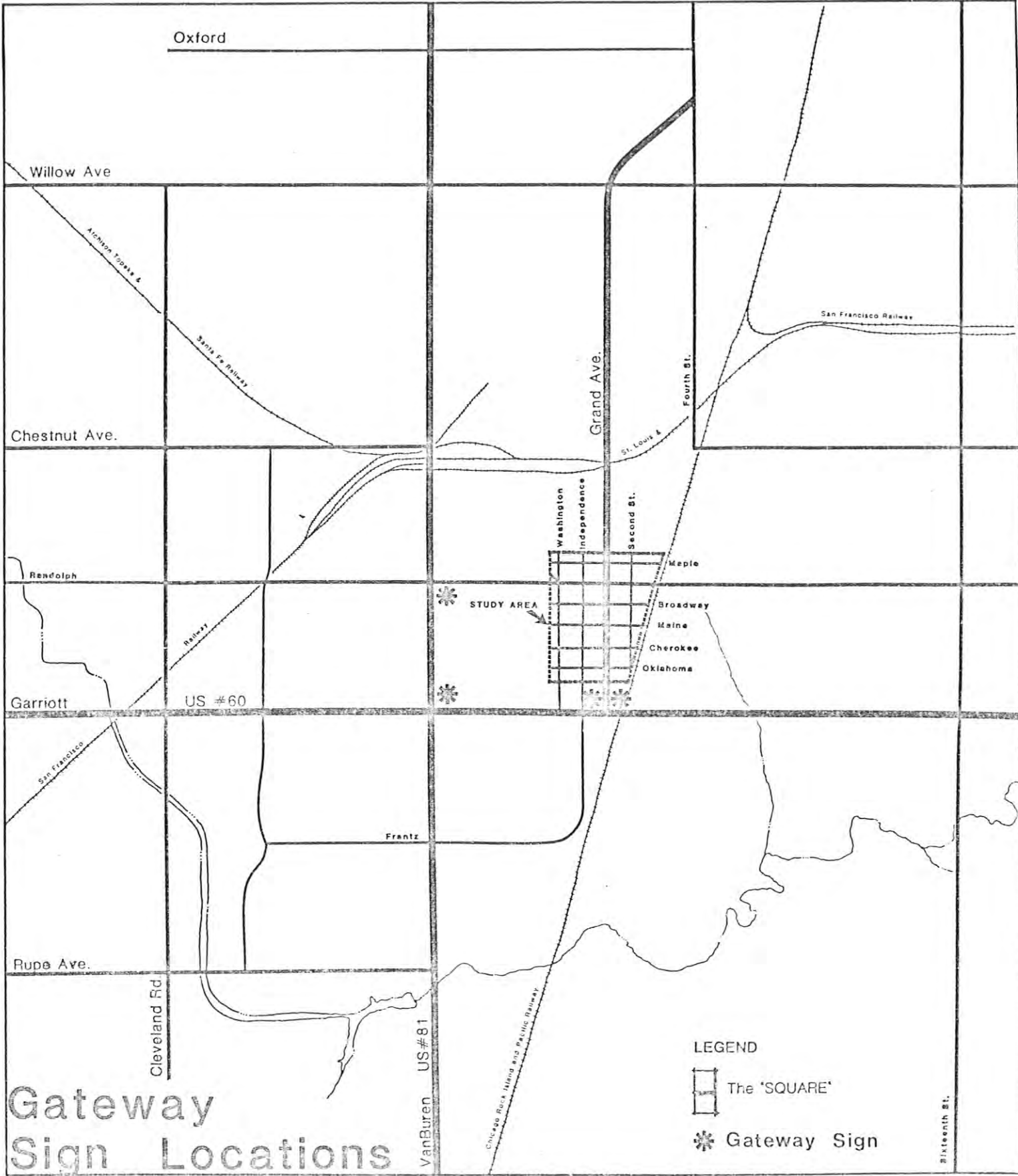
▬▬▬▬ Exterior "Parking Loop"

▬▬▬▬ Secondary Loop

●●●● Pedestrian Activity


Parking Lots


CONCEPT FOR PARKING LOOP



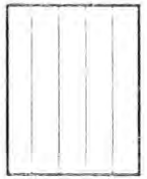
Gateway Sign Locations

LEGEND

 The 'SQUARE'

 Gateway Sign

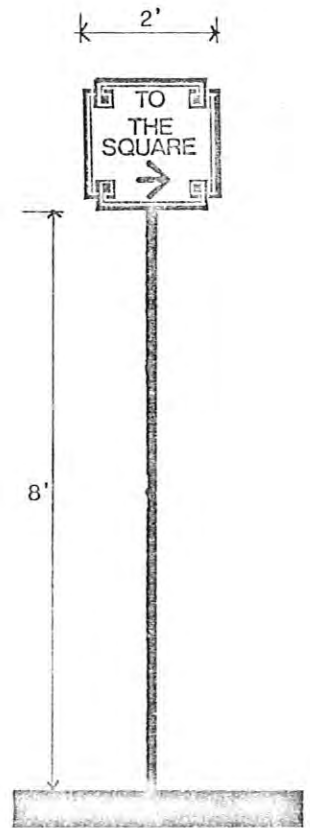
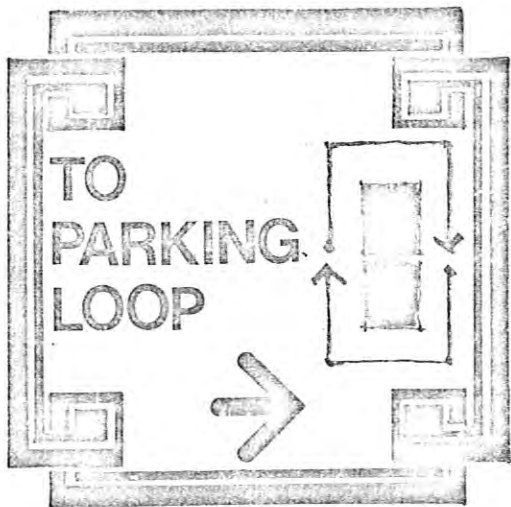
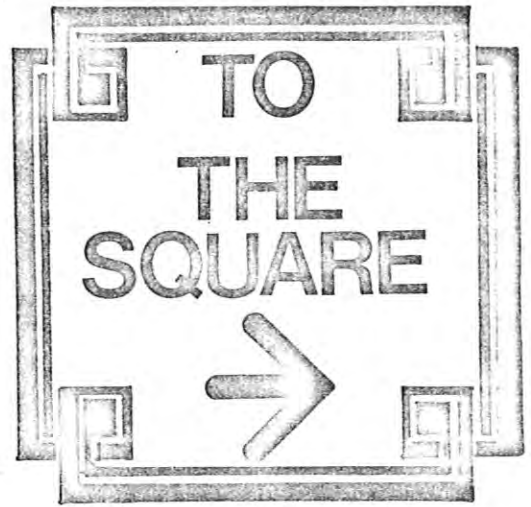
26



CBD Plan
ENID, OKLAHOMA



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CONSULTANTS



RECOMMENDED SIGN DESIGN

CBD Plan
ENID, OKLAHOMA





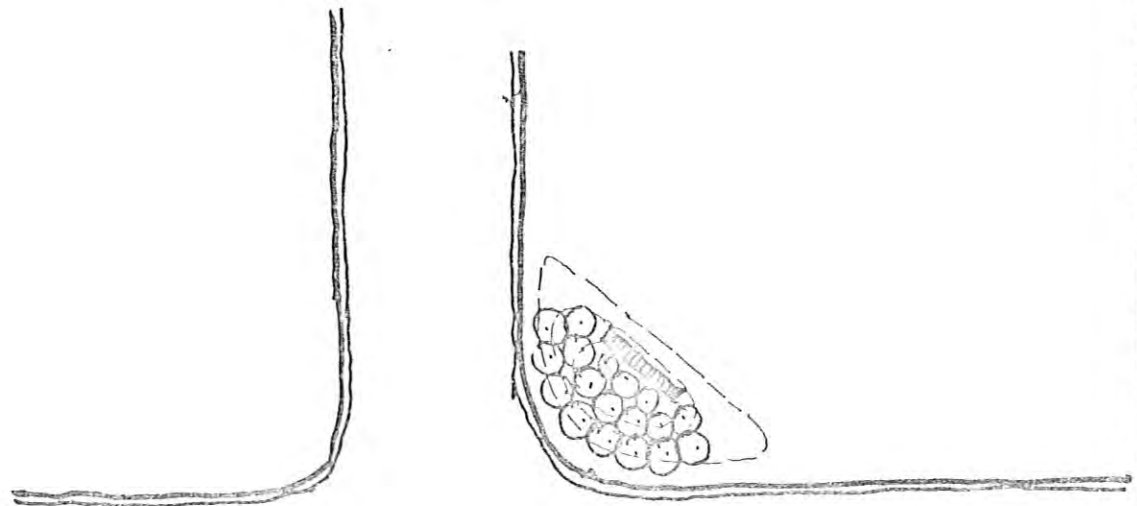
SIGNS(Cont.)

ENTRY SIGN AT GARRIOTT





Entry Sign Integrated into Bermed Earth Form



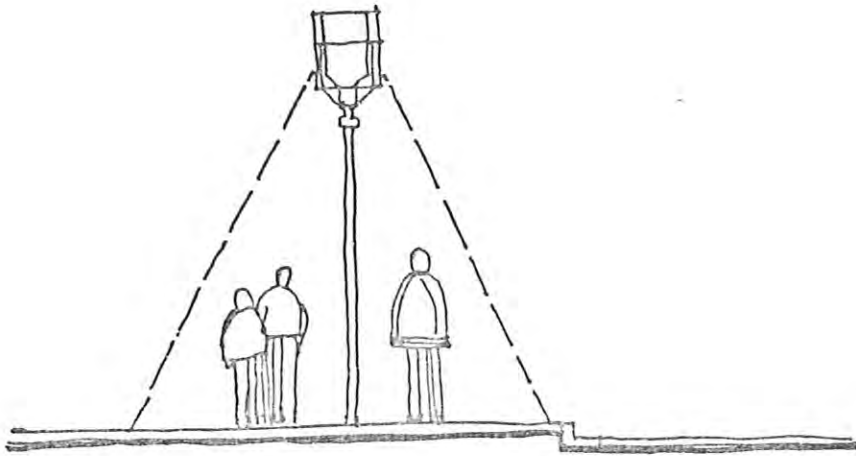
Plan

NOTE: Exact location of signs contingent on property owner permission. Position to be determined at time of construction drawing phase.

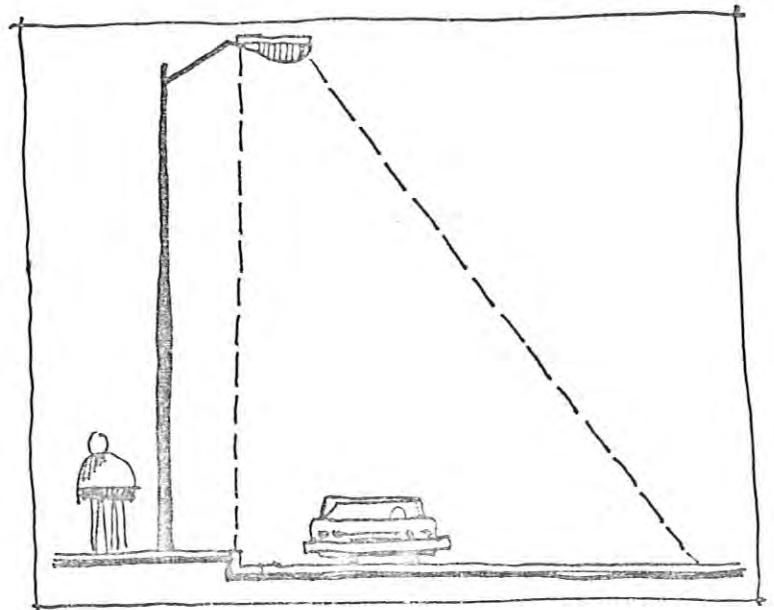
RECOMMENDED GATEWAY SIGNS

at Garriott Road and Independence and Grand
and Van Buren at Garriott and Randolph

CBD Plan
ENID, OKLAHOMA



USE LOW-SCALE LIGHTING IN MID-BLOCK TO ILLUMINATE THE SIDEWALK.



USE HIGH SCALE LIGHTING AT INTERSECTIONS TO ILLUMINATE THE STREET.

STREET LIGHTS



activities, such as at the pedestrian crossing nodes, and at entries to mid-block walkways to off-street parking lots. (See Appendix A).

Paving

An accent paving material is to be installed along the outside edge of designated sidewalks in the Downtown area. This should be a four foot wide strip of concrete modular pavers. This four foot strip will serve as the location for underground utility lines. The color shall be distinctly different from existing gray paving of the street to help separate the sidewalk from the street. (See Appendix A).

Special Features

In addition to the standard components that will be installed throughout the Downtown area, a select group of special street furniture items is to be installed to provide variety and a unique identity to the different zones downtown. The existing monuments found on the four corners of the Square are to be retained but reworked into the new streetscape design.

Information posting kiosks are to be located at points of major pedestrian activity. A decorative clock is to be installed on the northwest corner of the Square, and finally, selection of a public sculpture is recommended to be installed on the Square and on the new plaza at the Conference Center. (See Illustration #31, "Conceptual Kiosk Design", and Appendix A: Street Furniture Selection").

Special Streetscape Areas

Certain blocks flanking the retail core have already established a design direction for sidewalks and open spaces. The warehouse row, now containing the Gaslight Theatre, is one example of an area developing its own design personality. These Special Streetscape Areas should be retained as accents to the core. Other new developments that occur away from the civic spine--such as a sports arena--offer opportunities for different streetscape design. These accents provide anchors to the perimeter of downtown, much as large department stores do in a shopping center. (See Illustration #32, "Special Streetscape Designations").

The Streetscape design and planting concept are summarized on the following pages. (See Illustration #33 and 34).

Private Sector Improvements Strategy

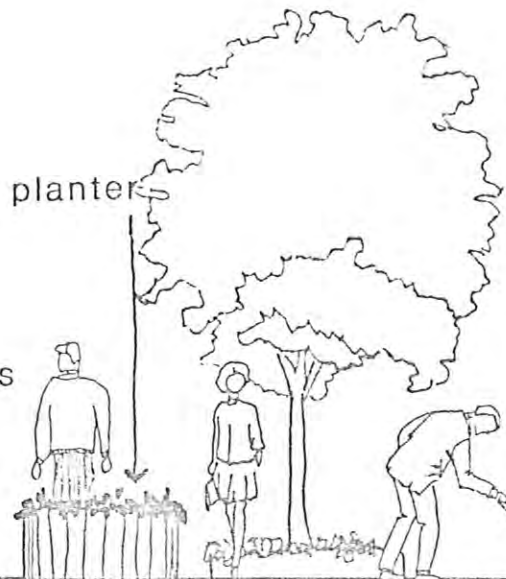
Although the CBD Plan encompasses many improvements in the public sector, more must be done to enhance business image and improve marketing. Following are recommended actions that fall outside the scope of this plan.

1. Encourage renovation and new buildings compatible with approved design guidelines. Downtown Enid, Inc. is sponsoring the development of Design Guidelines for Downtown and their continued use should be stressed. Incentives for using the Guidelines, such as reduced interest loans, should be considered. The general areas for which these guidelines occur are indicated on Illustration #35, "Private Sector Improvement Strategy").
2. Develop a new sign code that will encourage use of signs that are compatible with the Design Guidelines. Sign size, position, materials, and illumination methods should be addressed. Generally speaking, signs should be scaled down to relate to the slower moving traffic found in the core area.
3. Promote renovation and new development of housing downtown. Fringe areas of the core offer opportunities for medium-density housing that will support commercial and entertainment activity Downtown. With the improvement of the Downtown streetscape and development of more dining and service businesses, the residential fringes will become more appealing for redevelopment.
4. Promote preservation of historic resources Downtown. Although no strong concentration of historic buildings survive in the commercial area, there are individual buildings of landmark status. The City should promote private preservation activities by assisting in designating historic properties, and the methods for achieving special tax incentives. A landmark ordinance should be investigated.
5. Develop a coordinated Downtown Promotion Program. Downtown should be marketed as a unit, with special promotion activities that make use of the outdoor amenities that are available. The unified streetscape design will support this program.

Other Public Sector Actions

The streetscape design is the framework to which new development can attach so that each project contributes to Downtown as a whole. Following are additional public sector actions that will strengthen Downtown and reinforce the impact of the streetscape improvements.

1. Encourage housing development downtown. Existing zoning laws should be reviewed to confirm that they do not inhibit medium density residential development.
2. Develop a Sports Arena downtown. (See supplementary report).



kiosk with panels for:

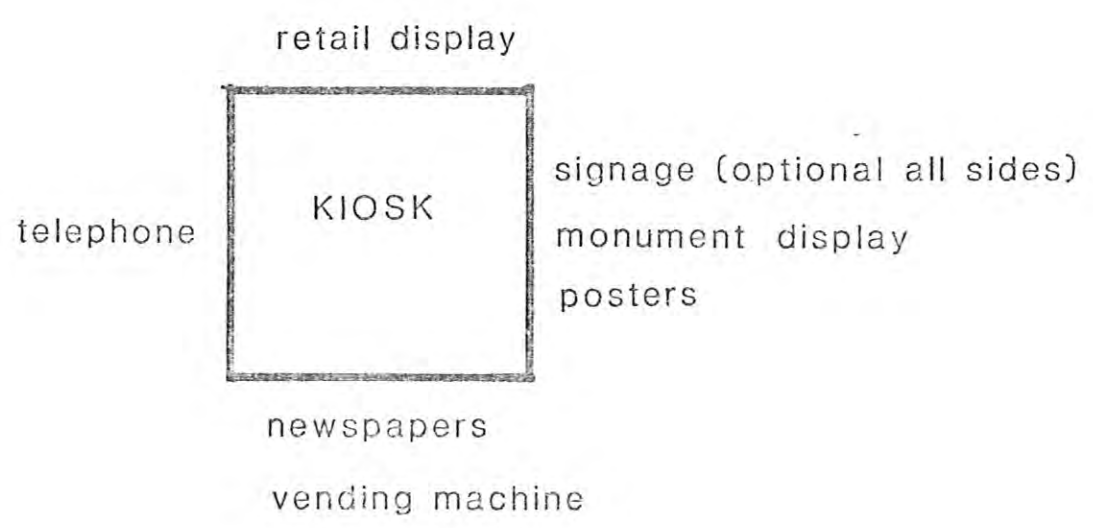
- signage
- telephone
- newspapers
- posters and notices
- monument display
- retail display
- vending machine



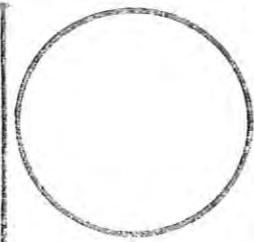
CONCEPTUAL

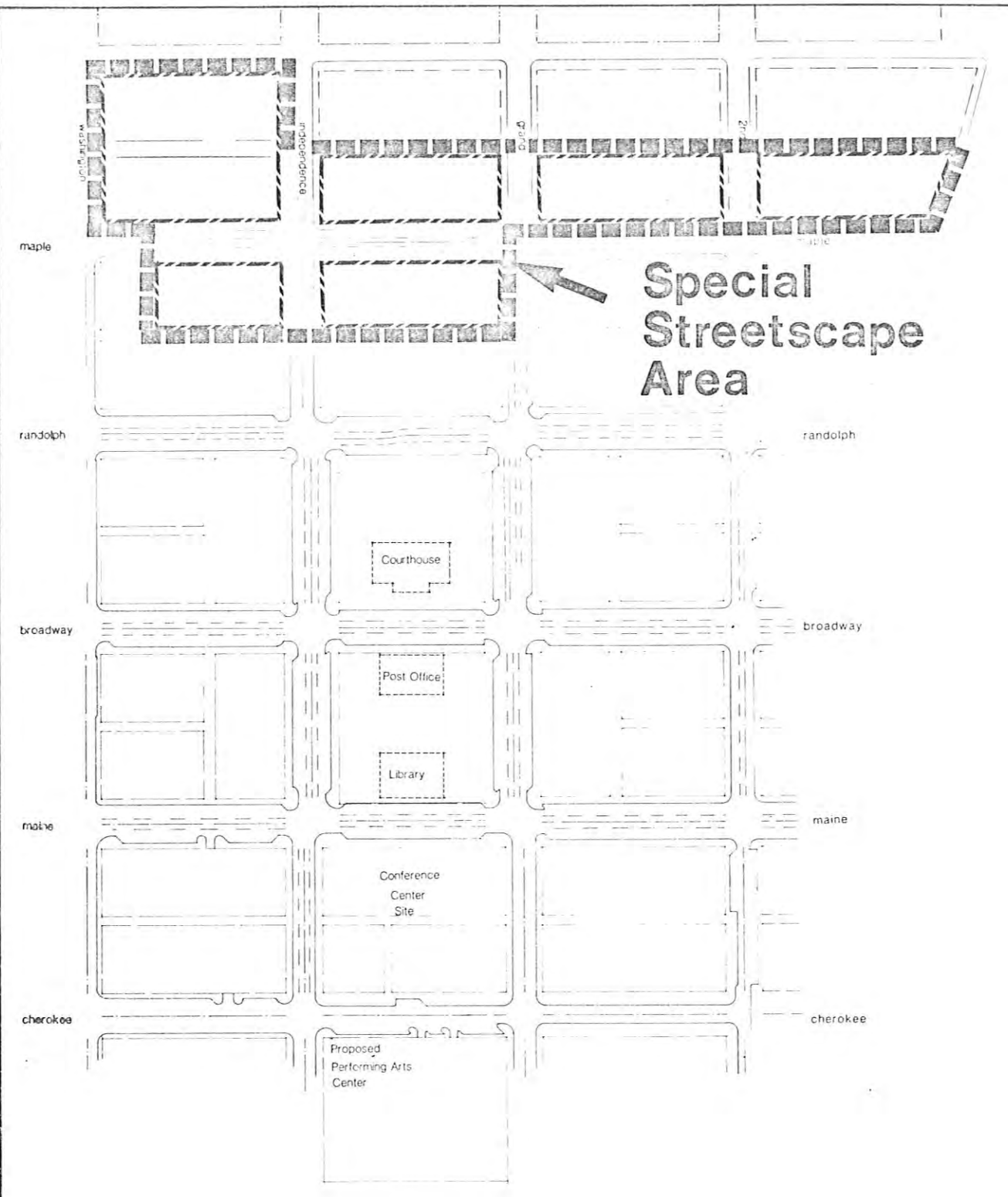
KIOSK

DESIGN



CBD Plan
ENID, OKLAHOMA





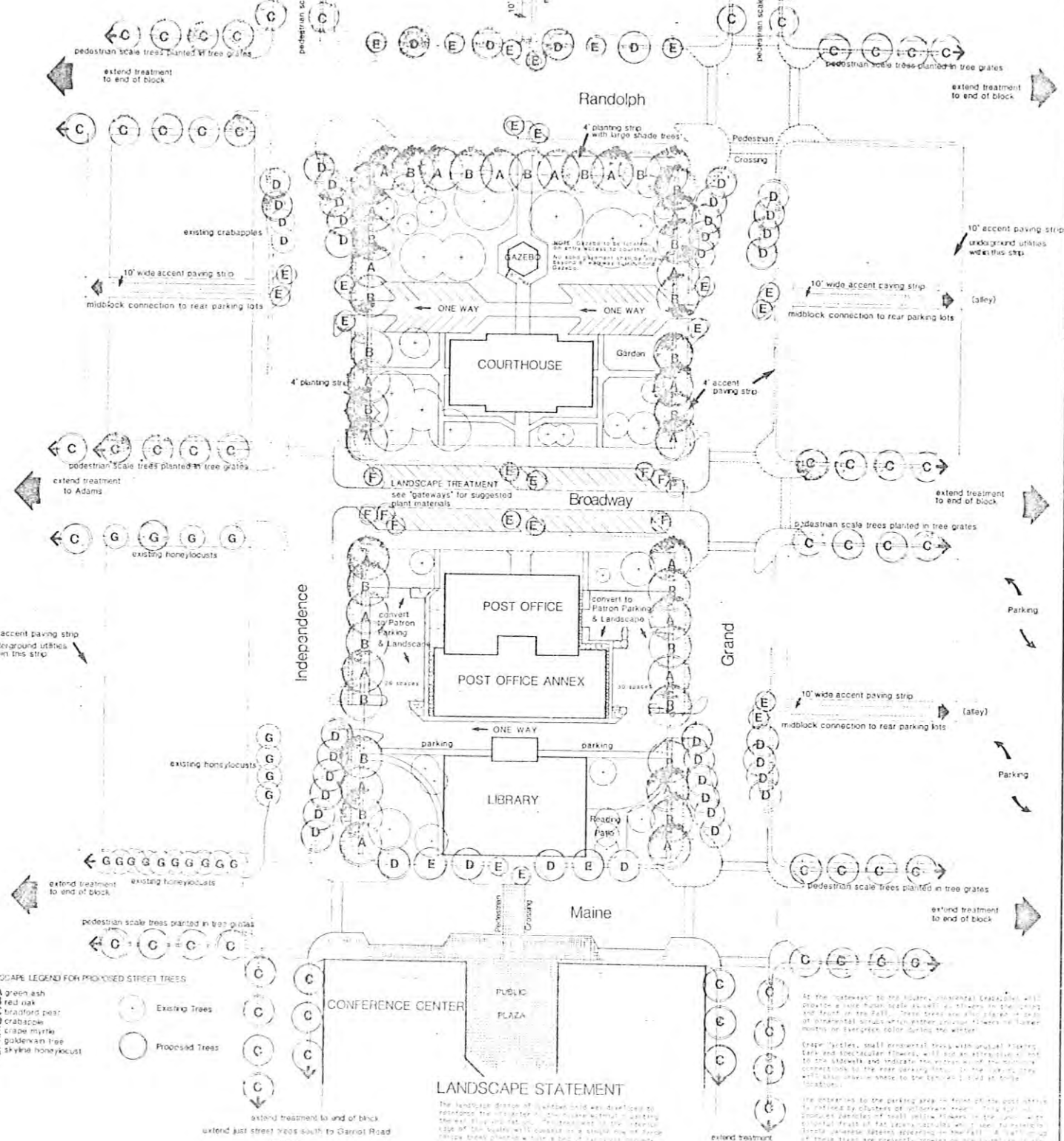
SPECIAL STREETScape DESIGNATIONS

LANDSCAPE TREATMENT OF ENTRANCE "GATEWAYS"
flowering ornamental trees in landscape bed

- suggested materials
- euonymus
- holly
- photinia
- mugho pine
- pyracantha
- heavenly bamboo

LANDSCAPE TREATMENT OF SQUARE INTERIOR
large canopy trees in landscape strip of overgreen groundcover

- suggested materials
- spreading junipers
- euonymus coccineus
- varice minor
- virginia creeper



CONCEPTUAL LANDSCAPE TREATMENT

LANDSCAPE STATEMENT

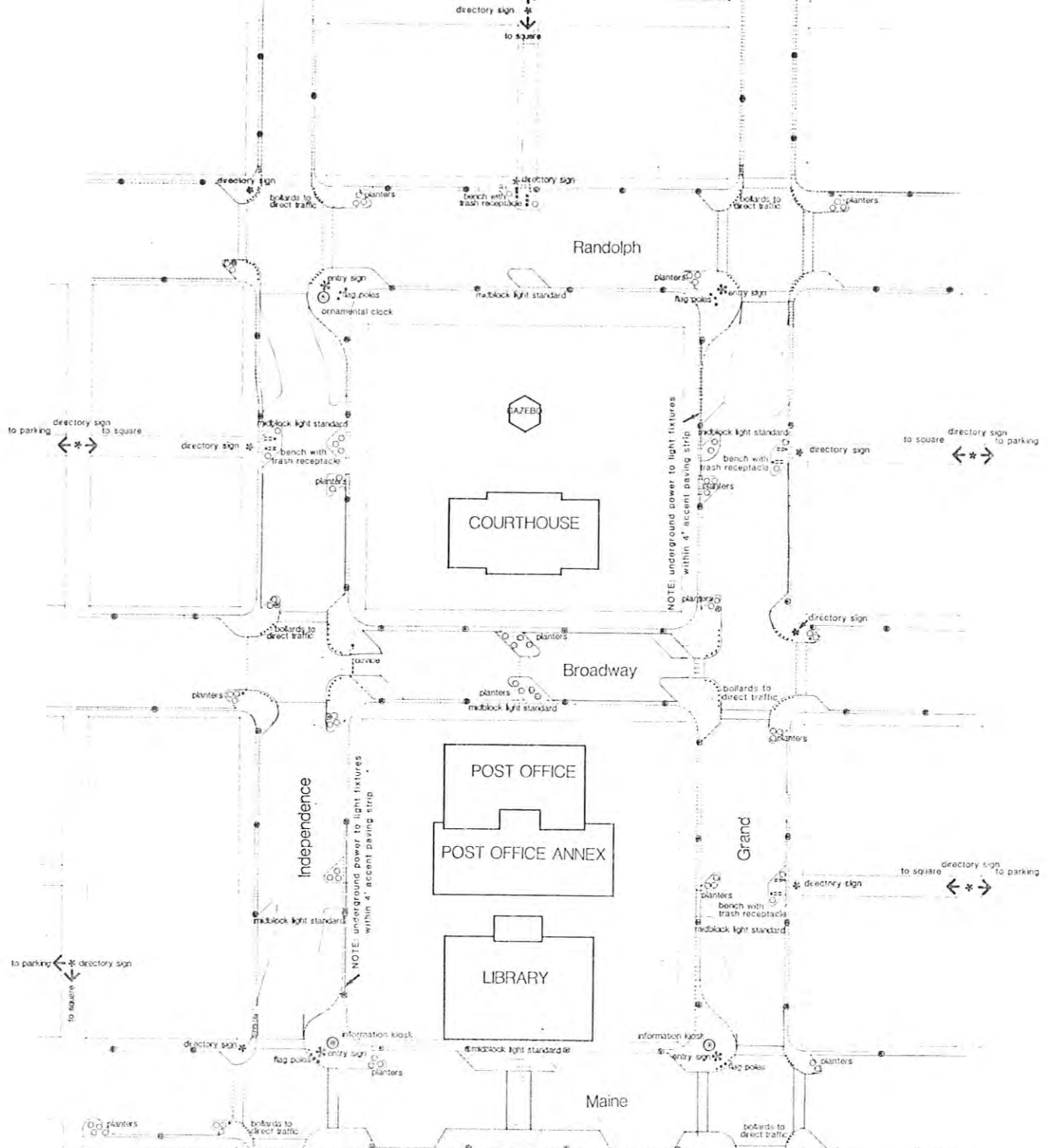
The landscape design of this block was developed to restore the character of the area within walking distance of the main street. The landscape design is a mix of traditional and modern styles. The design is a mix of traditional and modern styles. The design is a mix of traditional and modern styles.

At the "gateways" to the square, ornamental trees will provide a nice human scale as well as screens for the parking and front of the block. These trees are also placed in grid of ornamental blocks which either provide flowers in later months or evergreen color during the winter.

Crane "cicles" small ornamental trees with unusual flowering bark and spectacular flowers will add an extra touch of art to the streets and indicate the urban world of the building connects back to the rear parking lots. In the parking lots will also trees planted to the level of the building.

The ornamentals to the parking area in front of the good office is indicated by clusters of ornamental trees. The trees are placed in groups of clusters of trees in the parking lot. The trees are placed in groups of clusters of trees in the parking lot. The trees are placed in groups of clusters of trees in the parking lot.

The landscaping of the square will be planting with ornamental trees in the trees in tree grates. The trees are placed in groups of clusters of trees in the parking lot. The trees are placed in groups of clusters of trees in the parking lot. The trees are placed in groups of clusters of trees in the parking lot.



SIGNAGE

- Type of Sign**
- PARKING SIGNS FOR EXTERIOR LOOP**
 - to parking loop
 - to parking
 - to square
 - PARKING SIGNS FOR AROUND THE SQUARE**
 - restrictions
 - handicap space
 - reserved space
 - STREET NAMES**
 - VEHICULAR DIRECTION**
 - vehicles allowed
 - pedestrian crossing
 - one way/right turn
 - with/right turn only
 - ENTRY SIGNS**
 - DIRECTORY SIGNS**

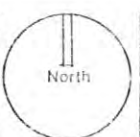
Location

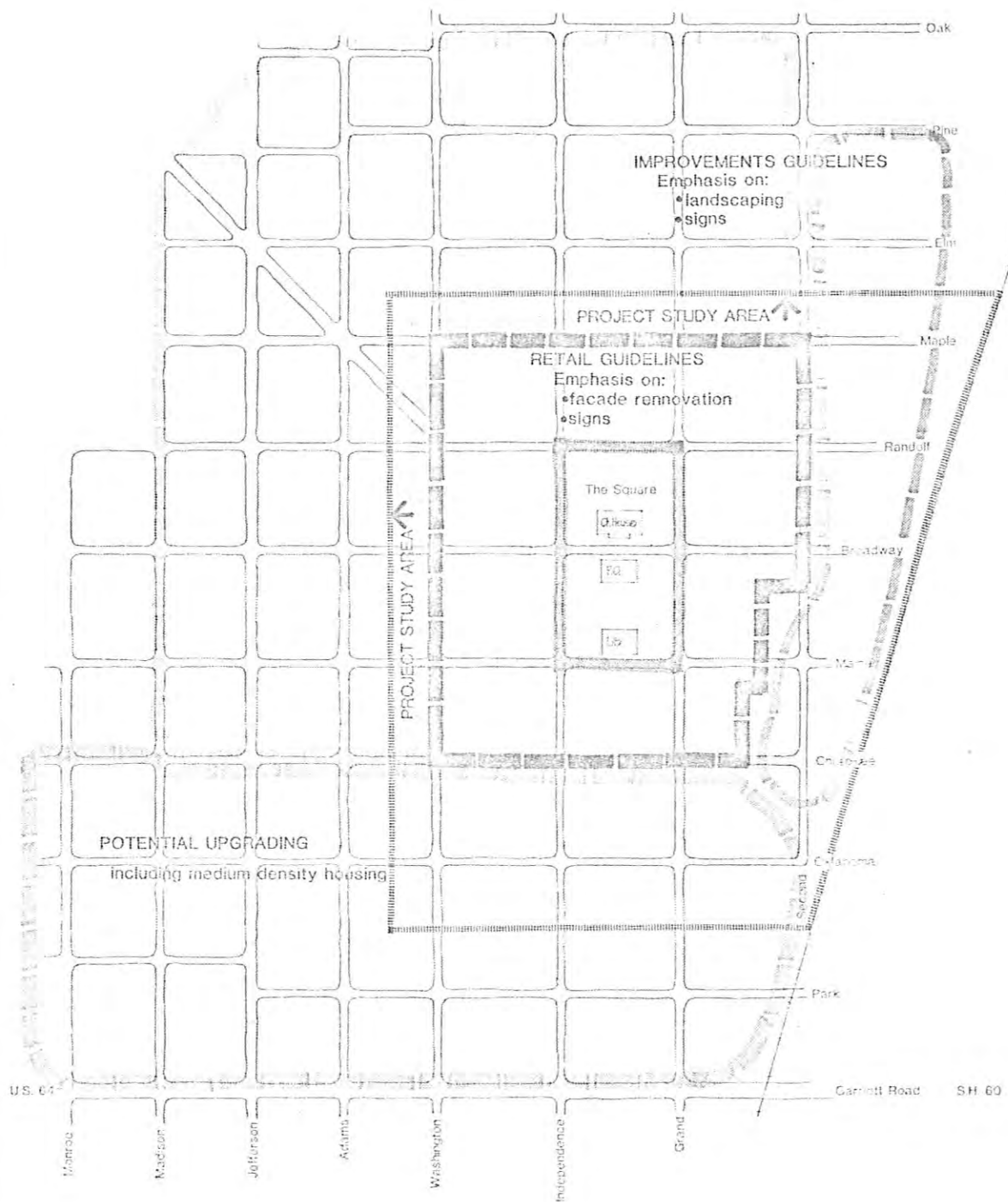
- see Traffic/Circulation Map
- on midblock light standards
- at intersections on traffic control devices
- at intersections on traffic control devices
- freestanding signs at major interst corners of the square
- freestanding signs at entrances to midblock connectors from the parking lots to the square

LEGEND

- Planters
- ⊙ Light Standard
- ☼ Bench with Trash Receptacle
- ⋯ Bollards
- ⊙ Information Kiosk / Ornamental Clock
- ⋯ Traffic Control Device
- ⋆ Flag Poles
- ⊙ Entry Sign
- ⋆ Directory Sign

**CONCEPTUAL
STREETSCAPE/SIGNAGE
TREATMENT**





PRIVATE SECTOR
IMPROVEMENTS STRATEGY



3. Renovate Convention Hall as a Performing Arts Center. (See supplementary report).
4. Encourage relocation of bulk mail handling. The City and DEI should continue to pursue this event, which would allow more appropriate use of the Square and provide additional off-street parking. (See Illustration #33).



5. Place all utilities underground. Undergrounding utilities should be included in long-range improvements.

Implementation

The implementation of the CBD Improvement Plan requires a cooperative effort of the City of Enid, Downtown Enid, Inc., and the Chamber of Commerce as well as individual businessmen and property owners. Construction of improvements will be phased to accommodate the availability of funding and to synchronize with the installation of other projects, such as the construction of the Conference Center and the development of additional off-street parking lots.

As a first step, the public information system and traffic loop should be installed. This will yield a high visibility for the project quickly.

Construction of sidewalk improvements should begin at the southern end of the Square to tie in with construction of the Conference Center. This area also will benefit the most from immediate introduction of plant materials. The realignment of the streets is configured such that it is possible to install one block without completing the next block.

All streetscape components should be installed at the same time. That is to say, a phased approach that installs only one "system," such as paving, is not appropriate. For example, the installation of sidewalks only, would complicate installation of street lights later, and in addition, the visual impact of the improvements would not be as strong as it should and therefore, the results would fall short of public expectations. It is vital that as a demonstration, the first phase include all elements of the plan.

Timing of construction must accommodate marketing needs of the Downtown That is to say, any major construction that would disrupt traffic must be timed so as not to conflict with major holiday shopping periods or special promotional events.

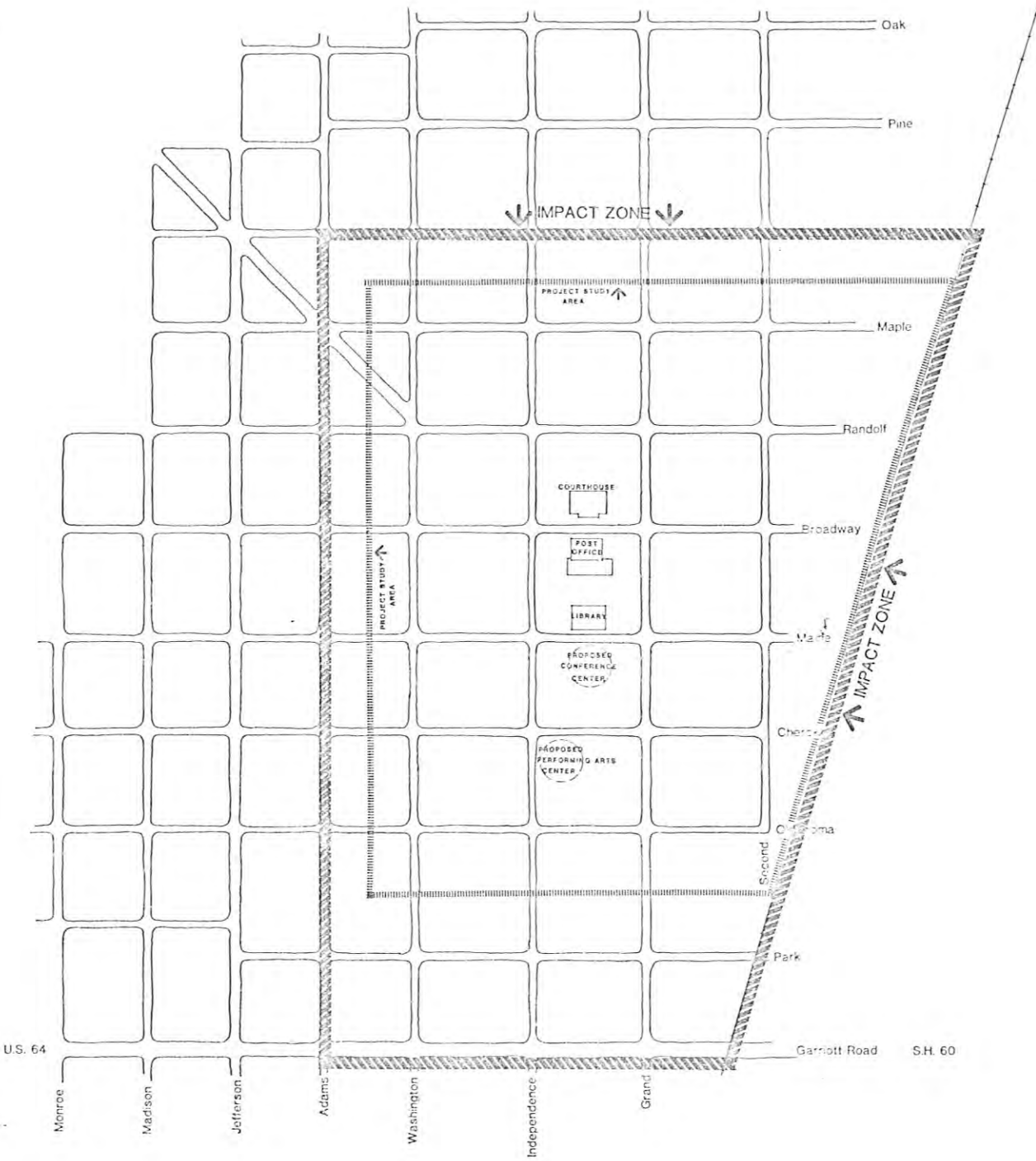
Alternative phasing of sidewalk construction

Although construction should begin at the south end of the Square, there are several options for how this first stage is defined. Illustration #36 shows four acceptable alternatives.

Financing

A special Assessment District is recommended to finance the construction of the CBD Improvements because this will provide adequate funding up-front to be able to proceed in an orderly manner with construction of major components. This is preferable to any "pay as you go" program that would only expend monies as they come on hand in increments. Assessments should be considered for all of downtown that benefits from the project. Illustration #37 delineates the approximate impact zone that would so benefit.

Through an Assessment District, funds may be issued that would bring in enough construction dollars to implement the Plan. The Assessment District should incorporate the core blocks around the Square, and in addition, should incorporate outlying blocks since businesses in these outlying areas will also benefit from improvements. A tiered approach to assessments should be used: a higher assessment rate is levied for businesses directly abutting the Square



DOWNTOWN "IMPACT ZONE"



and descending rates are applied as one moves away from the Square. (See Illustration #38, "Assessment District Diagram").

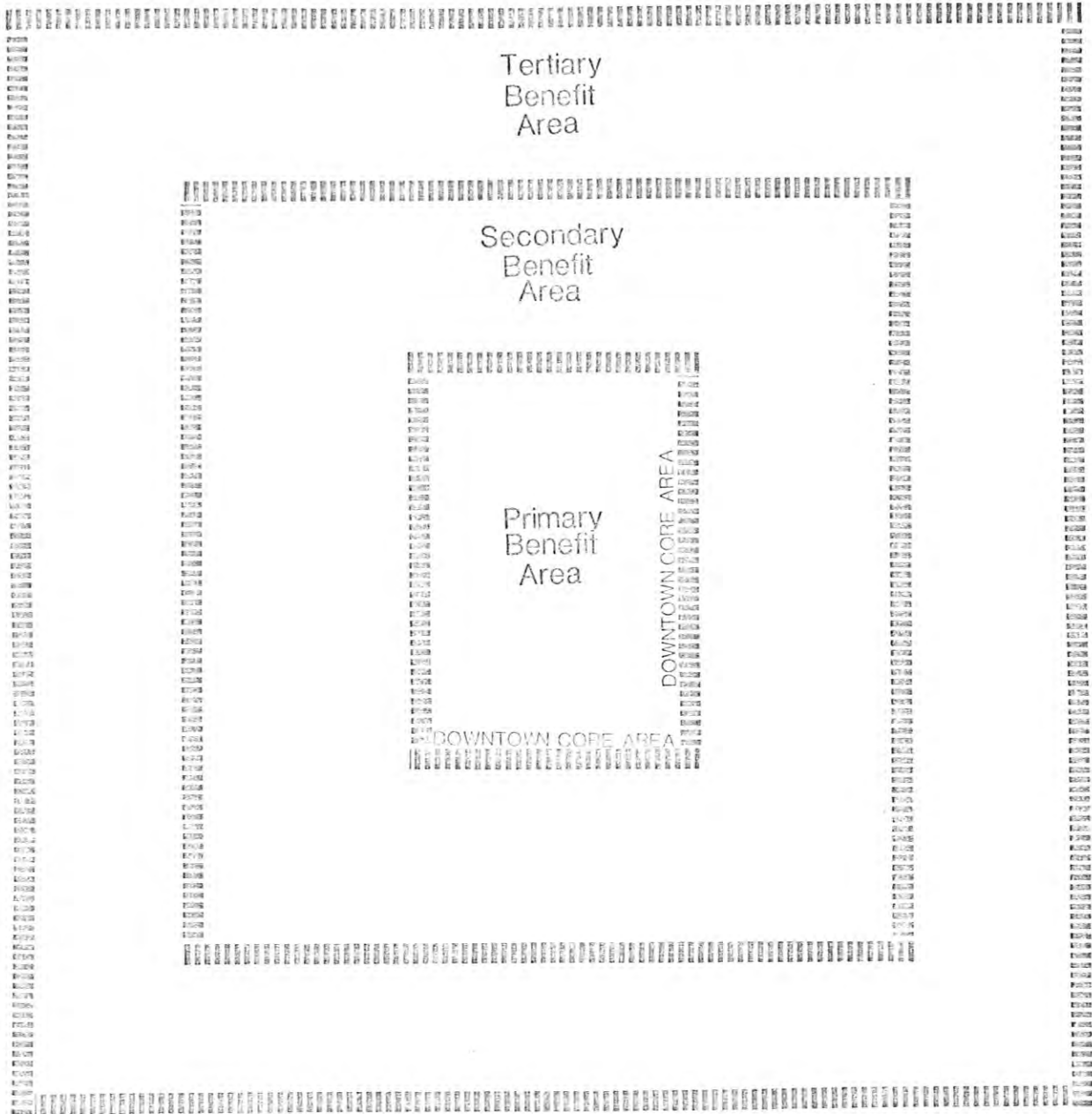
Next Steps

The timing of this project is critical. Streetscape improvements should be in the works when the new shopping mall opens. Therefore, the City should proceed immediately with the establishment of an Assessment District. In order to do that, Construction Documents must be prepared, and work should proceed on the production of these construction drawings in a timely manner.

City Council should adopt the CBD Plan as an official guiding document for Downtown Improvements. The CBD committee should be designated as the guiding body in administering construction phases of the project. Cooperative action between the City and the business community will be important in this phase.

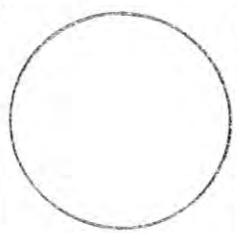
Conclusion

This Plan for improvement of the Central Business District establishes a unifying concept and provides a list of specific actions to be taken to achieve the goals of the project. It recommends design changes and identifies specific ordinance actions required to implement the improvements. Details of design, regulation and financing are not a part of this document, but must be developed in order to proceed, however, the general design constraints as presented in this Plan should be followed in all cases.



ASSESSMENT DISTRICT DIAGRAM

CBD Plan
ENID, OKLAHOMA



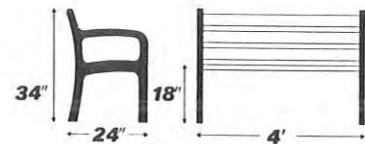
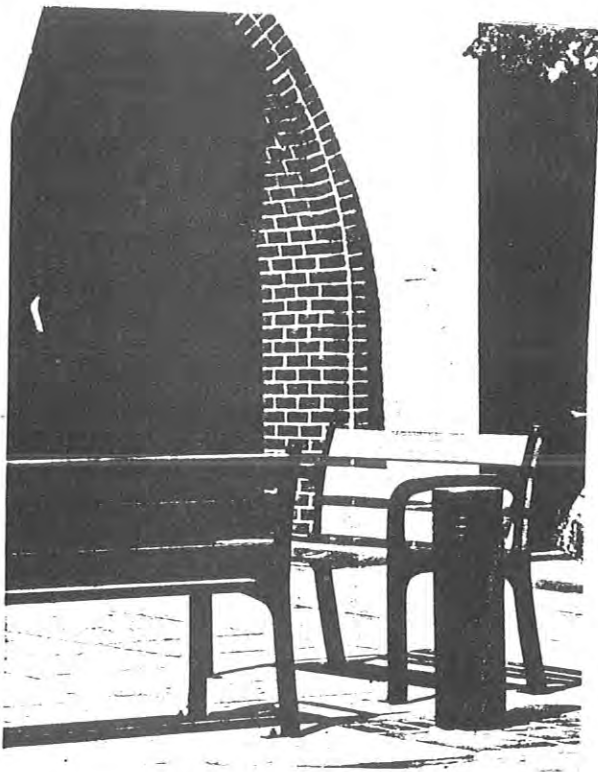
APPENDIX "A"



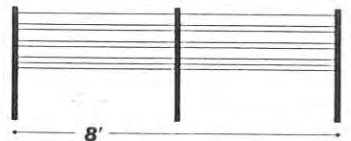
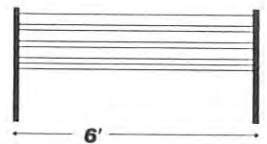
ENID STREET FURNITURE - PRODUCT INFORMATION

BENCH

- o Manufacturer: The Boston Design Corporation
- o Catalog Number: "A Bench" - 6' length
- o Size: 34" ht. x 6' length x 24" width
- o Material: Cast Iron with bethabara wood slats
- o Finish: Satin black paint over primer
- o Accessories/Options:
- o Construction/Installation: anchor in concrete foundation - bolts provided
- o Notes: Machich wood option for slats - not as durable as bethabara
- o Weight: 190 lbs.
- o Shipping Costs: Approx. \$30.00 per bench
- o Cost: \$403.00 per bench (bethabara)
\$365.00 per bench (machich)
10% discount: 20-49 benches
custom anchor bolts: \$30.00/set, \$20.00 subsequent sets



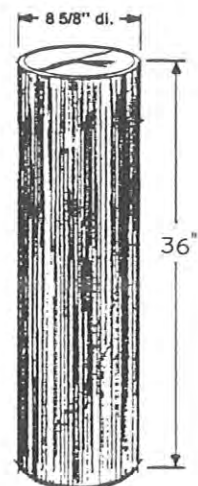
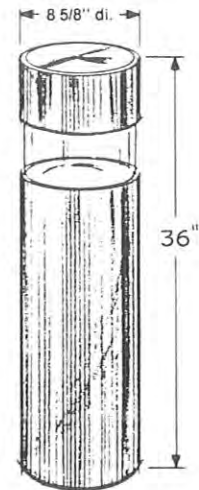
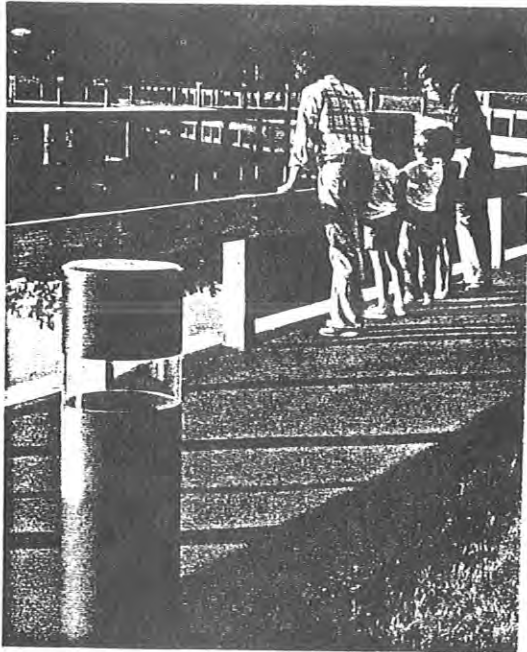
Optional anchoring system
1/4" x 1 1/4" galvanized flat bar anchor
tamperproof nut and bolt



ENID STREET FURNITURE - PRODUCT INFORMATION

BOLLARD

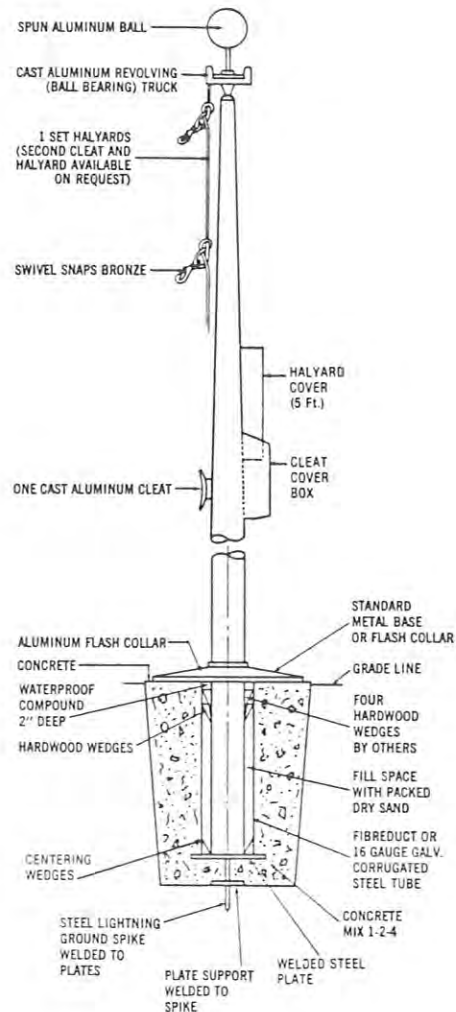
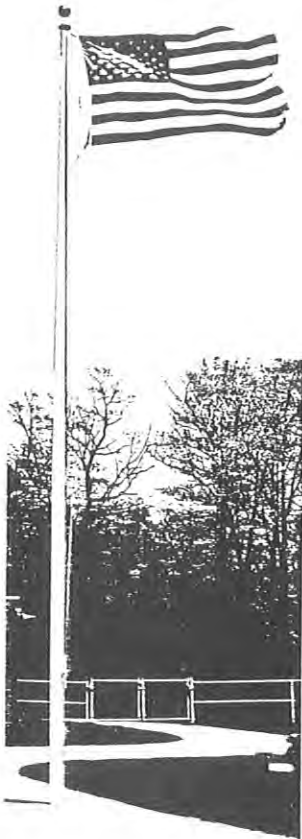
- o Manufacturer: Crouse - Hinds
- o Catalog Number: BDR-100-LHR/BDR 100-LHR modified unlighted
- o Size: 36" x 8-5/8" dia.
- o Material: Extruded aluminum
- o Finish: Black anodized
- o Accessories/Options:
- o Construction/Installation: Anchor bolts in concrete
- o Notes: 100 watt, high pressure sodium fixture
- o Shipping Costs:
- o Cost: Approx. \$1500.00 per set of 4/\$1100.00 per set of 4



ENID STREET FURNITURE - PRODUCT INFORMATION

FLAG POLE

- o Manufacturer: Eder Flagpole Co.
- o Catalog Number: EC35
- o Size: 35' tapered
- o Material: extruded aluminum
- o Finish: black anodized
- o Construction/Installation:
- o Notes:
- o Weight: 265 lbs.
- o Shipping Costs: Approx. \$125.00/pole
- o Cost: \$1104.00/pole

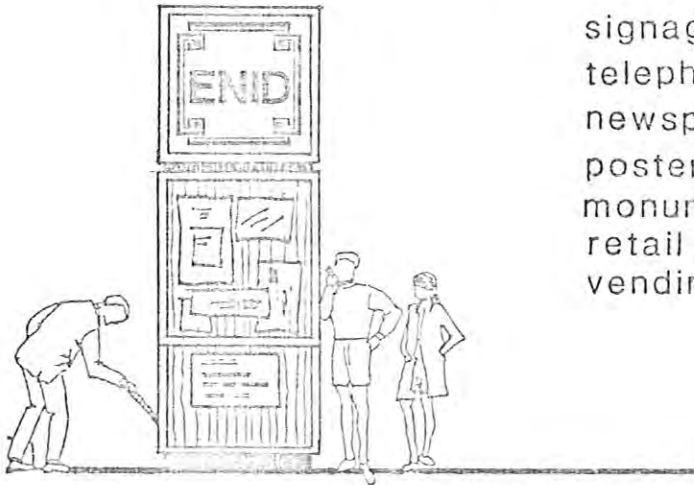


ENID STREET FURNITURE - PRODUCT INFORMATION

KIOSKS

- o Manufacturer: Custom Built
- o Catalog Number:
- o Size: Approx. 5' x 5'
- o Material: Wood
- o Finish:
- o Accessories/Options:
- o Construction/Installation:
- o Notes: See Conceptual Kiosk Design
- o Weight:
- o Shipping Costs
- o Cost:

kiosk with panels for:



signage
telephone
newspapers
posters and notices
monument display
retail display
vending machine

CONCEPTUAL

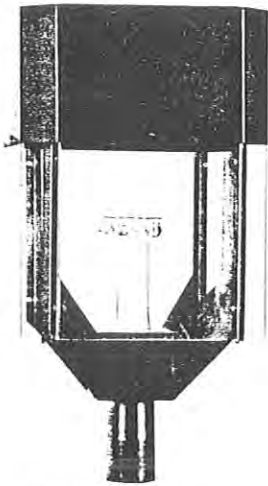
KIOSK

DESIGN

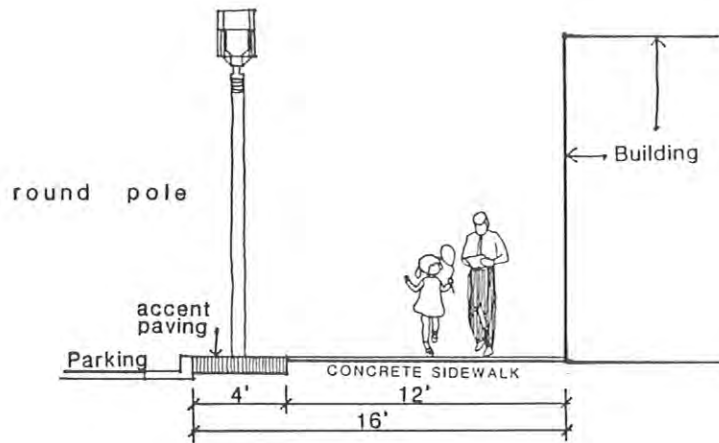
ENID STREET FURNITURE - PRODUCT INFORMATION

LIGHTING - Mid-block Fixture

- o Manufacturer: Welsbach Lighting, Inc.
- o Catalog Number: Facet 175W-mh
- o Size: 32-1/4" ht. x 17" wide
- o Material: Cast aluminum housing with clear polycarbonate lens
- o Finish: Black anodized
- o Accessories/Options: Metal halide illuminaire
- o Construction/Installation: Mounted on Mountain States Standards, Inc. Pole
- o Notes:
- o Weight:
- o Shipping Costs:
- o Cost:
- o Raceway:



Facet Light
Light source mounted in top of unit. Faceted prismatic lower reflector assembly, o.a.h. 32 1/4"; width 17"



ENID STREET FURNITURE - PRODUCT INFORMATION

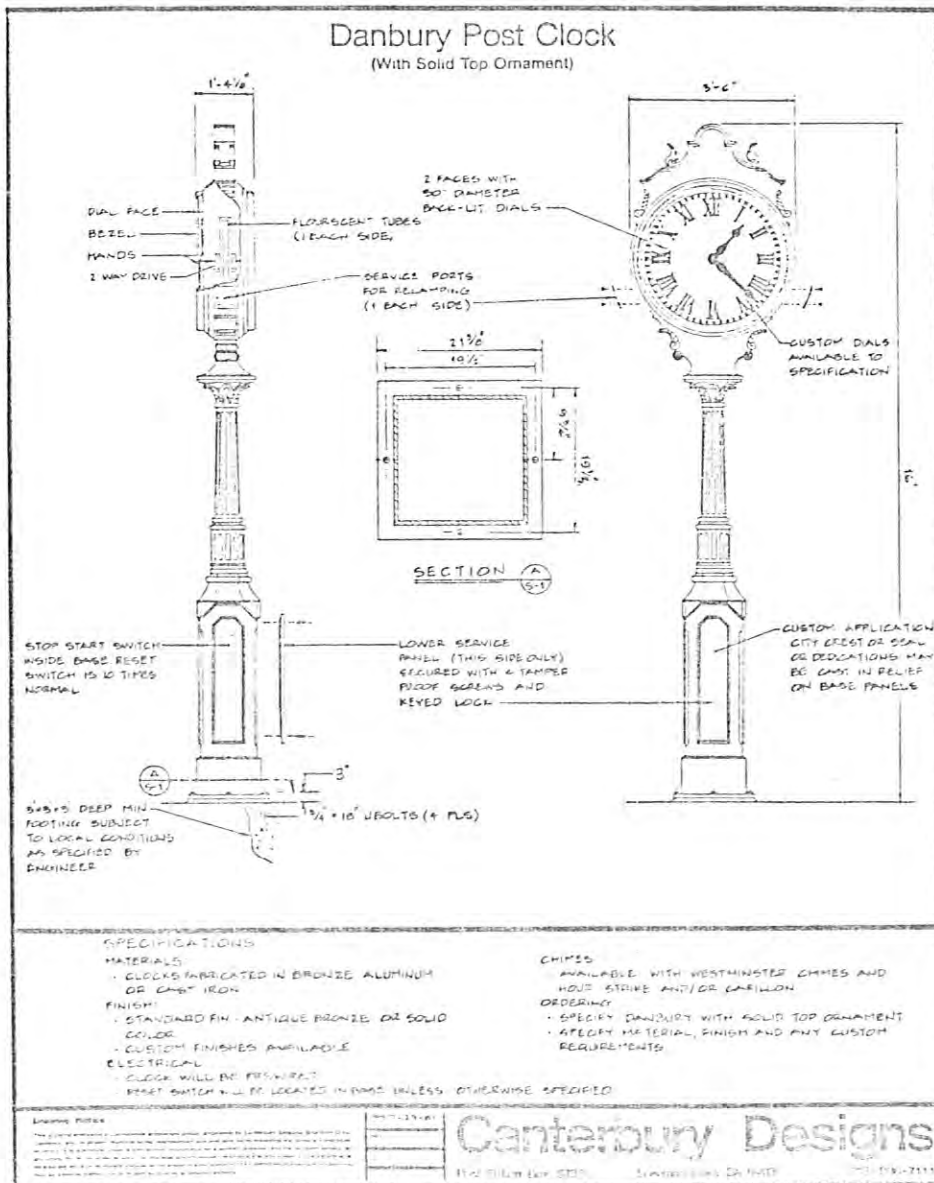
LIGHTING - Mid-block Pole

- o Manufacturer: Mountain States Standards, Inc.
- o Catalog Number: MS-A0412-MB
- o Size: 12' ht. x 4" dia.
- o Material: Steel tube - no taper
- o Finish: Matt black paint over primer
- o Accessories/Options: Welsbach double banner arms
- o Construction/Installation: anchor bolts in concrete
- o Notes: round pole
- o Weight:
- o Shipping Costs:
- o Cost: \$110.00/pole, FOB Berthoud, Colorado

ENID STREET FURNITURE - PRODUCT INFORMATION

ORNAMENTAL CLOCK

- o Manufacturer: Canterbury Designs, Inc.
- o Catalog Number: Danbury Post Clock with Solid Top Ornament
- o Size: 16' ht. x 3'-6" face width
- o Material: Cast Iron
- o Finish: Black semi-gloss paint
- o Accessories/Options: 36" dia. face, twin dial, Roman numerals
- o Construction/Installation: Anchor bolts in concrete
- o Notes:
- o Weight: 2000 lbs.
- o Shipping Costs:
- o Cost: \$14,900.00 FOB Los Angeles, California



ENID STREET FURNITURE - PRODUCT INFORMATION

PAVING MATERIAL

- o Manufacturer: Borgert Concrete Products, Inc.
- o Catalog Number: Holland block-red, light brown
- o Size: Approx. 8.3" x 4" x 2.3" thickness
- o Material: concrete
- o Finish:
- o Accessories/Options:
- o Construction/Installation: laid on sub-base of compacted sand or concrete
- o Notes: 8000 psi minimum rating
- o Weight:
- o Shipping Costs:
- o Cost: Approx. \$1500.00 per 1677 sq. ft. - FOB St. Joseph, Minnesota

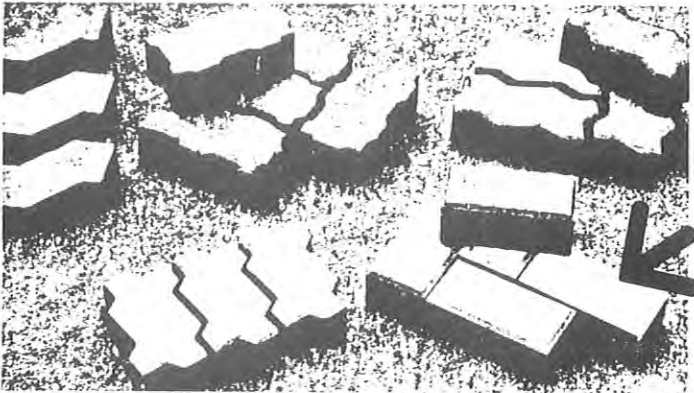
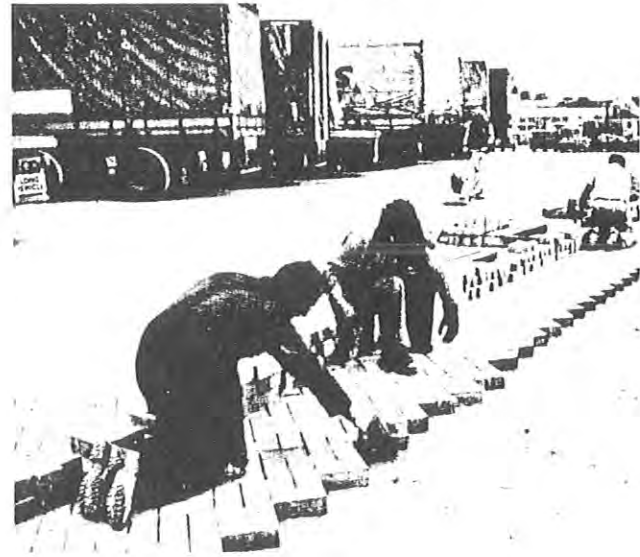
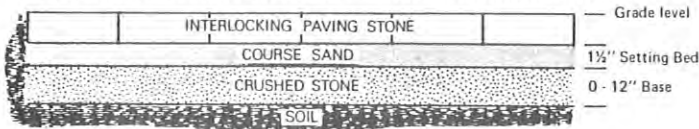


Fig. 3—RECTANGULAR SHAPED CONCRETE PAVING STONE LAID IN HERRINGBONE PATTERN



PAVEMENT DESIGN WITH SOLID INTERLOCKING CONCRETE PAVERS





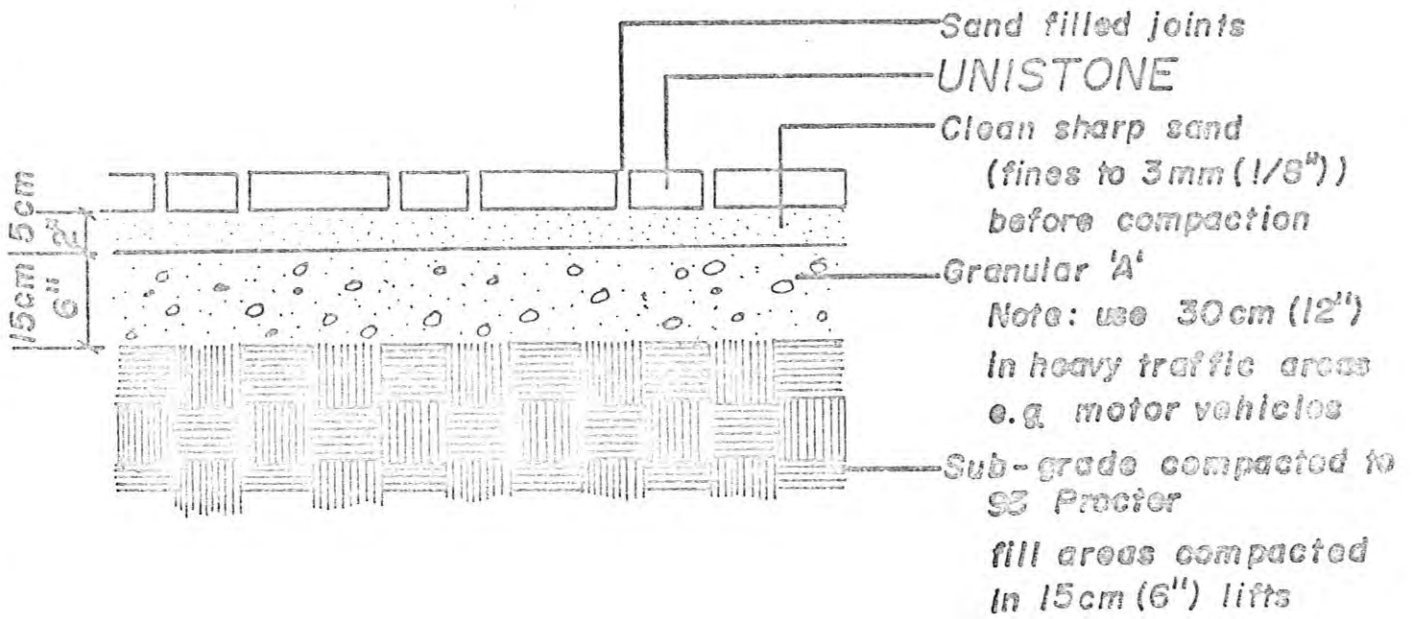
LPS PAVEMENT COMPANY

33W480 FABYAN PARKWAY, SUITE 101
WEST CHICAGO, ILLINOIS 60185
OFFICE: (312) 232-1770

INTERLOCKING PAVING STONES

General Discussion on Interlocking Paving Stones

1. Interlocking paving stones are manufactured to specific standards under exacting conditions with specially designed equipment in order to produce a uniform, quality product that can be installed in any applicable area requiring a paved surface.
2. Due to their inherent design capabilities, interlocking paving stones can be said to have the advantages of both flexible and rigid paving surfaces. Because of the interlocking shapes the stones are joined together in such a way that the paved surface cannot be broken, and due to the composite construction of the individual stones with the small joint spacings the capacity of the surface to carry loads is increased.
3. Further advantages resulting from controlled production are realized in the individual specifications of each stones.
 - 3.1 With a compression strength in excess of 8500 PSI the interlocking paving stone becomes the hardest production concrete product manufactured for general use and a great deal stronger than any conventional paving material.
 - 3.2 As a result of very high density the absorption level is always less than 5% making the stone impervious to freeze-thaw cycles.
4. Other than the purely technical advantages of interlocking paving stones as a result of the "concrete technology" built into each application as a paving surface. Some of the most obvious advantages of pavement done with interlocking paving stones are:
 - 4.1 Durability. Small, individual stones interlocked with one another are capable of withstanding tremendous point loads and surviving. Even sub-surface failures will not cause damage or reflection cracks in interlocking paving stones. The "cracks" are designed into the paving and are always where you want to have them! High density and low absorption in the material make the surface absolutely frost-proof and unaffected by road salts.



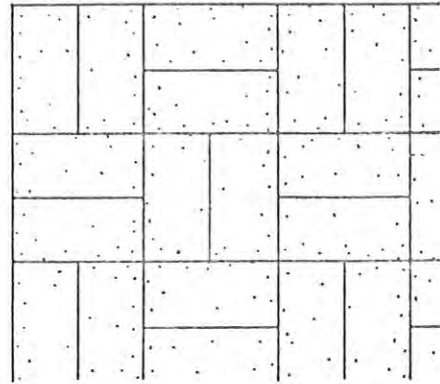
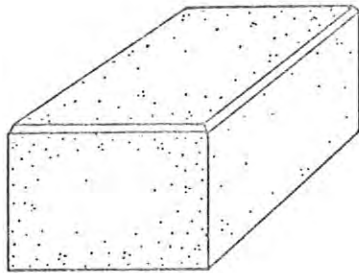
NORMAL BASE PREPARATION



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 33W490 FABYAN PARKWAY SUITE 101
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Scale: 1" = 1'-0"

HOLLAND



DIMENSIONS: 210mm x 105mm x 80mm
8.27" x 4.13" x 3.15"

WEIGHT / STONE: 9.75 lbs.

SQ. FT. / STONE: .23

STONES / SQ. FT.: 4.34

WEIGHT / SQ. FT.: 42.31 lbs.

STONES / LAYER: 44

SQ. FT. / LAYER: 10.12

WEIGHT / LAYER: 429 lbs.

OF LAYERS: 8

SQ. FT. / PALLET: 80.96

WEIGHT / PALLET: 3507 lbs.



LPS PAVEMENT COMPANY
23W480 FABYAN PARKWAY, SUITE 101
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- 4.2 Practicality and economy could be said to be the sum total of the use of interlocking paving stones. Because they are durable and flexible in the surface the long range economy is apparent in the low or even non-maintenance of such a surface. Paving installed over any utilities or services almost demands interlocking paving stones due to the inevitable need to get to the sub-surface to initiate repairs. An area removed to repair underground installations can be replaced with ease and without showing signs of ever being disturbed. There are no scars or patches in the paving and normally no need for replacement materials. The simple elimination of waste material is a big savings and can be easily related to long term costs. Temporary paving can be installed and later removed and reused in another area. A parking lot could be removed to put up a building and the same material used around the building for walks, parking areas and drives.
- 4.3 Ecological benefits are obvious in a product that can be reused with the creation of very little waste. Further, the inert properties of the material produces no pollutant run-off.
- 4.4 Aesthetics and flexibility of design are probably the first and most apparent advantages of interlocking paving stones. This is especially true when the stones are first introduced into the landscape and construction products market in a given area. The vast flexibility of design, patterns and colours available make it possible to have paved areas that are "interesting" and yet do not compete with the architectural beauty of the structures they compliment. Because the areas are free from the usual expansion and contraction cracks that normally result in monolithic surfaces the beauty is lasting. Contrasting colours can be used to eliminate painting and create a more natural look to lines delineating lanes or other marked areas. In fact, the limit and scope of design variation and aesthetic use of shape and colour is bound only by the imagination and ingenuity.
5. You may list as many applications as you may think possible for interlocking paving stones but you will probably never completely cover the subject. The following list is provided as a beginning for some areas particularly well suited for the application of paving stones:

Heavy duty areas
Bus stops

Industrial floors
Showroom Floors

Cross walks
Intersections
Sidewalks
Gas stations
Loading docks and ramps
Vehicle storage areas
Roadside turnouts and parks
Cycle paths
Service roads
Pool decks
Patios
Walkways
Driveways
Podium and parking decks

Shopping malls
Camping areas
Mobile home parks
Embankments
Traffic islands
Ditch and canal lining
Quaysides
Railroad crossings
Safety zones
Erosion control
Temporary paving
Maintenance areas
Farm equipment areas
Stables



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33W480 FABYAN PARKWAY, SUITE 101
WEST CHICAGO, ILLINOIS 60185
OFFICE: (312) 232-1770

SPECIFICATION

1. SCOPE: This specification covers production, properties and installation of high-strength interlocking paving stones. Product to be made exclusively on German, Multi-Layer Paving Machine Equipment. i.e. (Kanaur, Zenith)

2. BASIS OF PURCHASE:
 - 2.1 The purchaser shall specify the paving stones desired and indicate color.
 - 2.2 All stones are available in natural gray, dark brown, charcoal, buff, terra cotta red and ottawa creek. Special colors will be produced for minimum orders of 10,000 sq.ft.
 - 2.3 Variations in shading and intensity of color are incorporated to give pleasing natural look to finished paving.
 - 2.4 Stones are furnished in standard 6 cm thickness with 8 cm available in particular shapes.

3. MATERIALS:
 - 3.1 Interlocking paving stones are manufactured with Type I portland cement meeting ASTM C-150.
 - 3.2 Aggregates shall conform to ASTM C-33.
 - 3.3 Aggregates used for compacted base shall be graded crushed limestone, crushed stone, or crushed gravel free from deleterious substances as specified in Table I. This material shall be either No.57 or No.68 as shown in AASHTO M43-54 or very similar material; or 3/4" Top Size Crusher Run or very similar material.

3. MATERIALS: (cont.)

- 3.4 Leveling base material shall be concrete sand conforming to ASTM C-33 for fine aggregates or No.10 as shown in AASHTO M43-54 as specified in Table 11, or very similar material.

4. PHYSICAL REQUIREMENTS:

- 4.1 Interlocking pavings stones shall have a minimum compressive strength of 8,500 psi when shipped to installation site.
- 4.2 Interlocking paving stones shall have an absorption rate of less than 5%. Average to be in a range of 3.5 to 4.

5. PACKAGING:

- 5.1 Bundles of 6 cm or 8 cm stones weigh approximately 3,000#.

6. BASE:

- 6.1 Base requirement shall be determined by architect or designer taking into consideration soil and drainage conditions and anticipated traffic. Base requirements shall be between 4" and 15".
- 6.2 Installations in areas of heavy vehicular traffic shall be contained by suitable restraint.
- 6.3 Base materials shall be crushed stone. Top stone size to be 1" and range down to fines. Similar in size and range to road base mix. Base shall be compacted to 95% Proctor.

7. INSTALLATION:

- 7.1 The contractor must be licensed or approved by the manufacturer and have a minimum of 4 years experience in the installation of Interlocking Paving Stones.
- 7.2 Leveling bed shall be applied over compacted crushed base to a thickness of at least 1" and not to exceed 2" and screeded to desired elevation assuming that after stones are placed and vibrated, elevation will be 3/4" approximately lower than when originally layed.
- 7.3 Joints shall be filled during vibration, with masonry sand or equal.
- 7.4 Stones shall be vibrated into leveling bed with a roller vibrator capable of 3500 to 5000 lb. compaction force. This equipment should be similar to that manufactured by Revo or Numaco of Holland, their Model D3500 or plate type compactor - Koreing Model 2200.
- 7.5 Where necessary to cut stones, cutting shall be accomplished so as to leave a clean edge to the traffic surface. Stones may be cut with a paver splitter or masonry saw.

TABLE I

No. 57 Sieve Size

1½ in
 1 in
 ½ in
 No. 4
 No. 8

Mass Percent Passing

100
 95 - 100
 75 - 60
 0 - 10
 0 - 5

No. 68 Sieve Size

1 in
 ¾ in
 ⅜ in
 No. 4
 No. 8
 No. 16

Mass Percent Passing

100
 95 - 100
 30 - 65
 5 - 25
 0 - 10
 0 - 5

TABLE II

No. 10 Sieve Size

¾ in
 No. 4
 No. 100

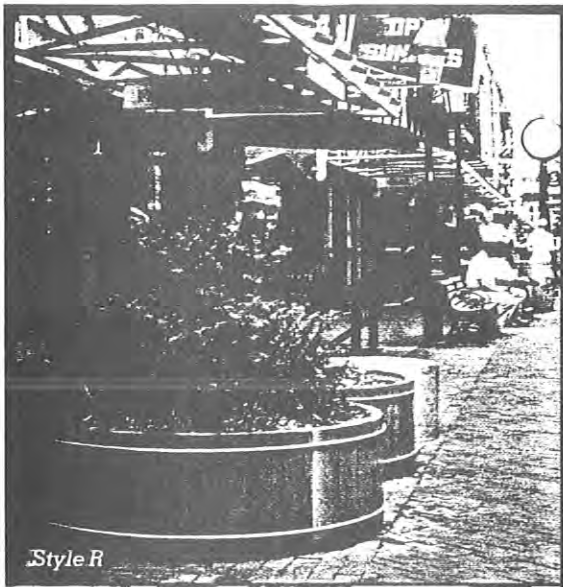
Mass Percent Passing

100
 85 - 100
 10 - 30

ENID STREET FURNITURE - PRODUCT INFORMATION

PLANTER

- o Manufacturer: SITECRAFT by Rosenwach, Inc.
- o Catalog Number: R36 x 18
- o Size: 36" wide x 18" ht.
- o Material: Redwood with galvanized steel hoops
- o Finish: 2 coats clear sealer/preservative
- o Accessories/Options:
- o Construction/Installation:
- o Notes:
- o Weight:
- o Shipping Costs:
- o Cost: \$275.00 per planter, FOB Long Island City, New York



planters

round

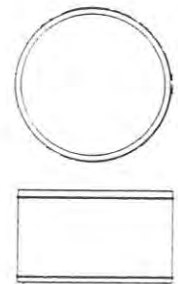
Specifications:

- Staves:**
All planter staves are nominal 2 inch thickness and tongued and grooved, beveled or square cut.
- Hoops:**
Galvanized steel with malleable iron lugs.
- Rods:**
Two internal galvanized steel rods each face with wood plugs.
- Bottoms & Ends:**
5/8 inch exterior grade redwood plywood with drain holes provided.
- Supports:**
Round and Half Round-Cedar, 1" reveal.
Square and Cylinder-Redwood, 1" reveal.
- Options:**
- Custom sizes.
 - Custom finishes.
 - PVC liners (for interior use).
 - Other woods.
 - Cap (Style S only).

Style R

Catalog Numbers
Outside Measurements
(Diameter x Height)

R18 x 18	R60 x 42	R96 x 18
R24 x 18	R72 x 18	R96 x 24
R24 x 24	R72 x 24	R96 x 30
R24 x 30	R72 x 30	R96 x 36
R24 x 36	R72 x 36	R96 x 42
R30 x 18	R72 x 42	
R30 x 24	R84 x 18	
R30 x 30	R84 x 24	
R30 x 36	R84 x 30	
R36 x 18	R84 x 36	
R36 x 24	R84 x 42	
R36 x 30		
R36 x 36		
R36 x 42		
R42 x 18		
R42 x 24		
R42 x 30		
R42 x 36		
R42 x 42		
R48 x 18		
R48 x 24		
R48 x 30		
R48 x 36		
R48 x 42		
R60 x 18		
R60 x 24		
R60 x 30		
R60 x 36		



STREET FURNITURE - PRODUCT INFORMATION

TRASH RECEPTACLES

- o Manufacturer: SITECRAFT by Rosenwach, Inc.
- o Catalog Number: T25 x 40
- o Size: 25" dia. x 40" ht.
- o Material: Redwood with galvanized steel hoops
- o Finish: 2 coats clear sealer/preservative
- o Accessories/Options: 2" deep removable aluminum ash tray top
- o Construction/Installation:
- o Notes:
- o Weight:
- o Shipping Costs:
- o Cost: \$530.00 each, FOB Long Island City, New York

receptacles

round trash

Specifications:

Staves:

Nominal 2 inch thickness. Tongued and grooved. Square or bevel cut.

Hoops:

Galvanized steel with malleable iron lugs.

Rods:

Two internal galvanized steel rods each face with wood plugs.

Liners:

Removable galvanized steel.

Options:

- Custom sizes.
- Custom finishes.
- Other woods.
- Optional tops.



CP-1



CP-2

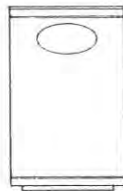


CP-3

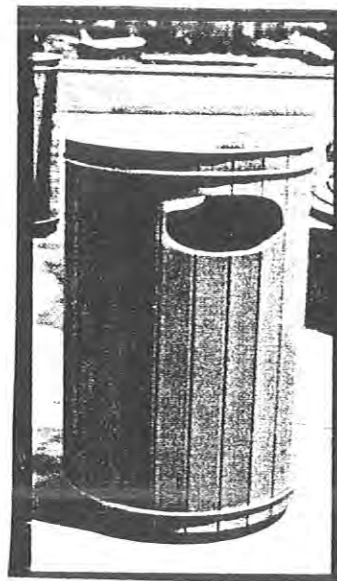
18 gauge steel. Baked coppertone enamel finish

Style T
(Side Opening/Ash Top)

2" deep removable aluminum ash tray.
2 side openings.



Catalog Numbers
Outside Measurements
(Diameter x Height)
T 25 x 40

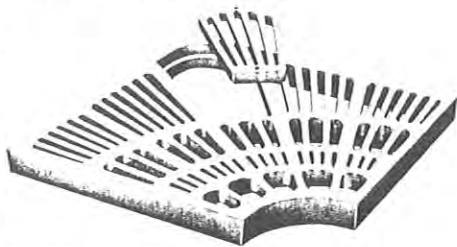


ENID STREET FURNITURE - PRODUCT INFORMATION

TREE GRATES

- o Manufacturer: Neenah Foundry Co.
- o Catalog Number: R-8610-90 degrees square
- o Size: 72" x 72"
- o Material: Cast Iron.
- o Finish: Gray
- o Accessories/Options: Sub-grade lighting panels
- o Construction/Installation: set into formed concrete lip
- o Notes:
- o Weight: 1564 lbs. per grate
- o Shipping Costs:
- o Cost: \$693.00 per grate, FOB Neenah, Wisconsin

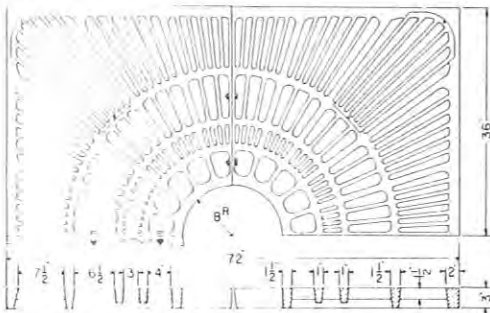
R-8610 90° SQUARE



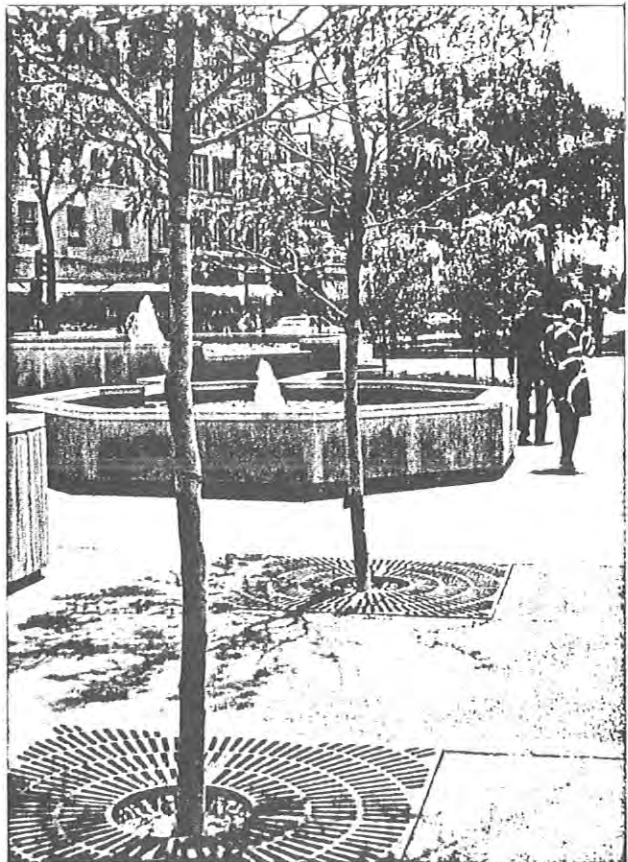
ILLUSTRATING QUARTER SEGMENT

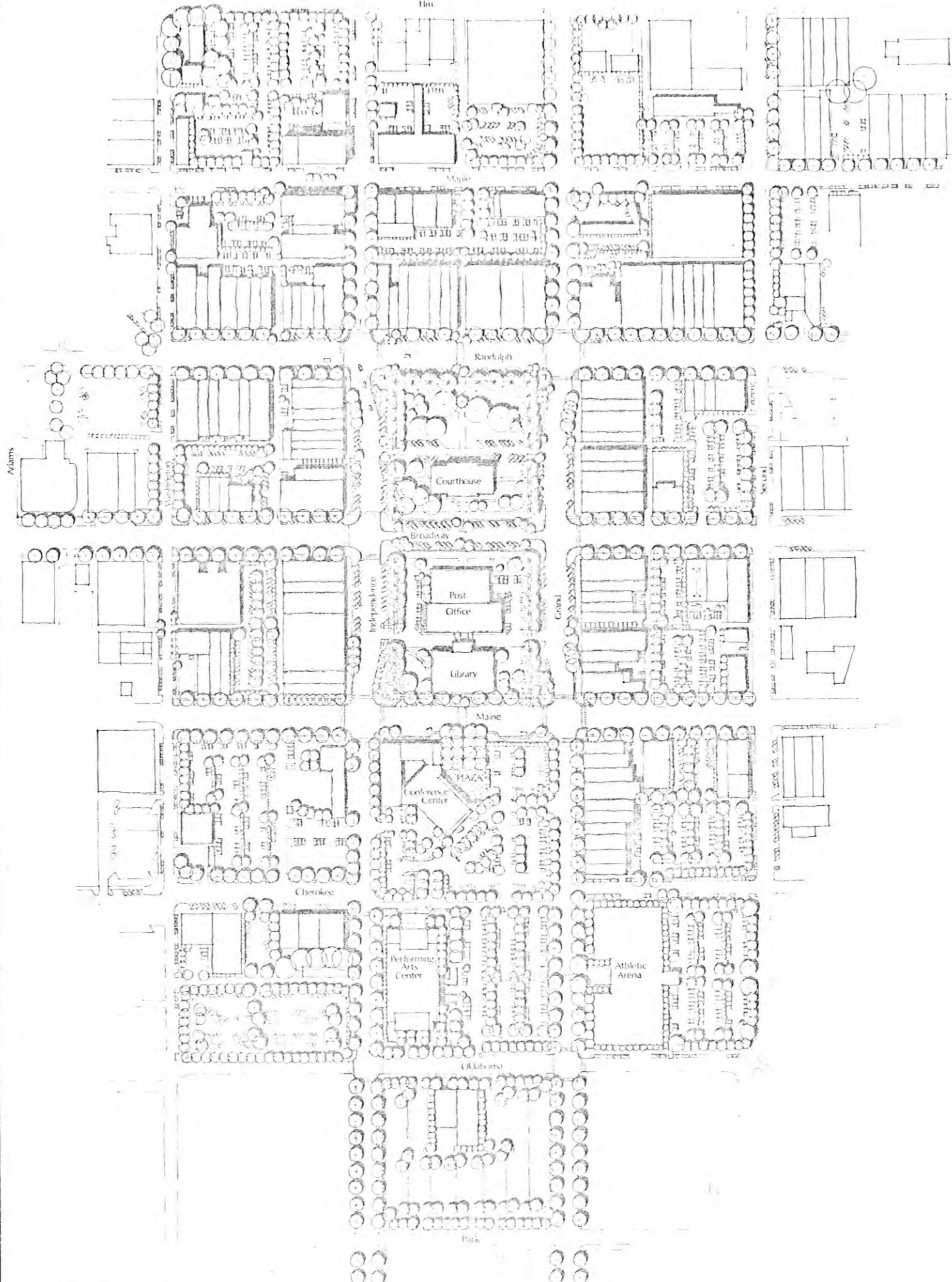
Heavy duty design requires four sections for completed unit. Support at section joints is required and is to be furnished by installer. Designed for use with sub-grade lighting. Light opening grates are bolted down to prevent unauthorized removal. Tree opening is expandable.

Weight per set - 1575 pounds.



HALF PLAN AND SECTION





ILLUSTRATIVE
PLAN

Common Street Trees
Scale to Center

Common Block Trees
Scale to Corner

NORTH

CBD Plan
FNID OKLAHOMA

