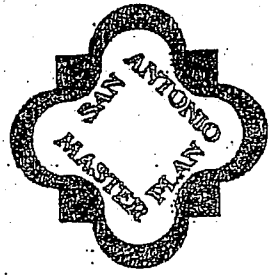


CITY OF  
SAN ANTONIO

MAJOR  
THOROUGHFARE  
PLAN



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MAJOR THOROUGHFARE PLAN

Adopted By:

San Antonio Planning Commission on July 12, 1978;  
Resolution No. 78-07-02

San Antonio City Council on September 21, 1978;  
Ordinance No. 49818

## MAJOR THOROUGHFARE PLAN

### Purpose and Scope

The purpose of the Major Thoroughfare Plan is to identify the location of major roadways that will be needed to accommodate through traffic to the Year 2000 and beyond. The primary intent of the Major Thoroughfare Plan is to: (1) support the Land Use Plan, (2) serve as a guide for determining right-of-way requirements, and (3) establish policies concerning the construction of major roadways in support of orderly urban development through the land subdivision process.

This plan replaces the Short Range Major Thoroughfare Plan adopted on October 31, 1974 (Ordinance No. 44526) and all amendments subsequent to that date. The Major Thoroughfare Plan consists of the narrative and the map illustrating the functional designation and alignment of each major thoroughfare. This plan is designed with the intent that the major thoroughfare system will ultimately be built and that the policies regarding the system will be implemented.

As stated in the main text of the Transportation Plan, the transportation system goal is "to provide a balanced, multi-modal transportation system which will: (1) equitably satisfy the mobility, accessibility, and circulation needs of the community; (2) effectively accommodate the movement of people, goods, and services at the optimum level of safety, economy, energy efficiency, and air quality; and (3) support and complement the orderly growth of the San Antonio Area." The Major Thoroughfare Plan addresses the supporting objectives of the goal by: (1) establishing guidelines for classifying and designating major thoroughfare routes and alignments, and (2) providing a set of standards and management policies for implementing the Major Thoroughfare Plan.

### Roadway System

The roadway system, which is the foundation for the entire transportation system, must be arranged to accommodate to the needs of the entire system. There are two primary purposes for roadways: (1) to provide vehicular access to abutting land, and (2) to allow for the through movement of vehicular traffic. Vehicular access to abutting land is provided by local streets, and through traffic is accommodated by the major thoroughfares. Local streets should not provide for through traffic, but thoroughfares must assume the dual purpose of providing for a limited amount of local access traffic in addition to providing for the movement of through traffic. Figure 1 illustrates the balance of local and through traffic on various types of roadways.

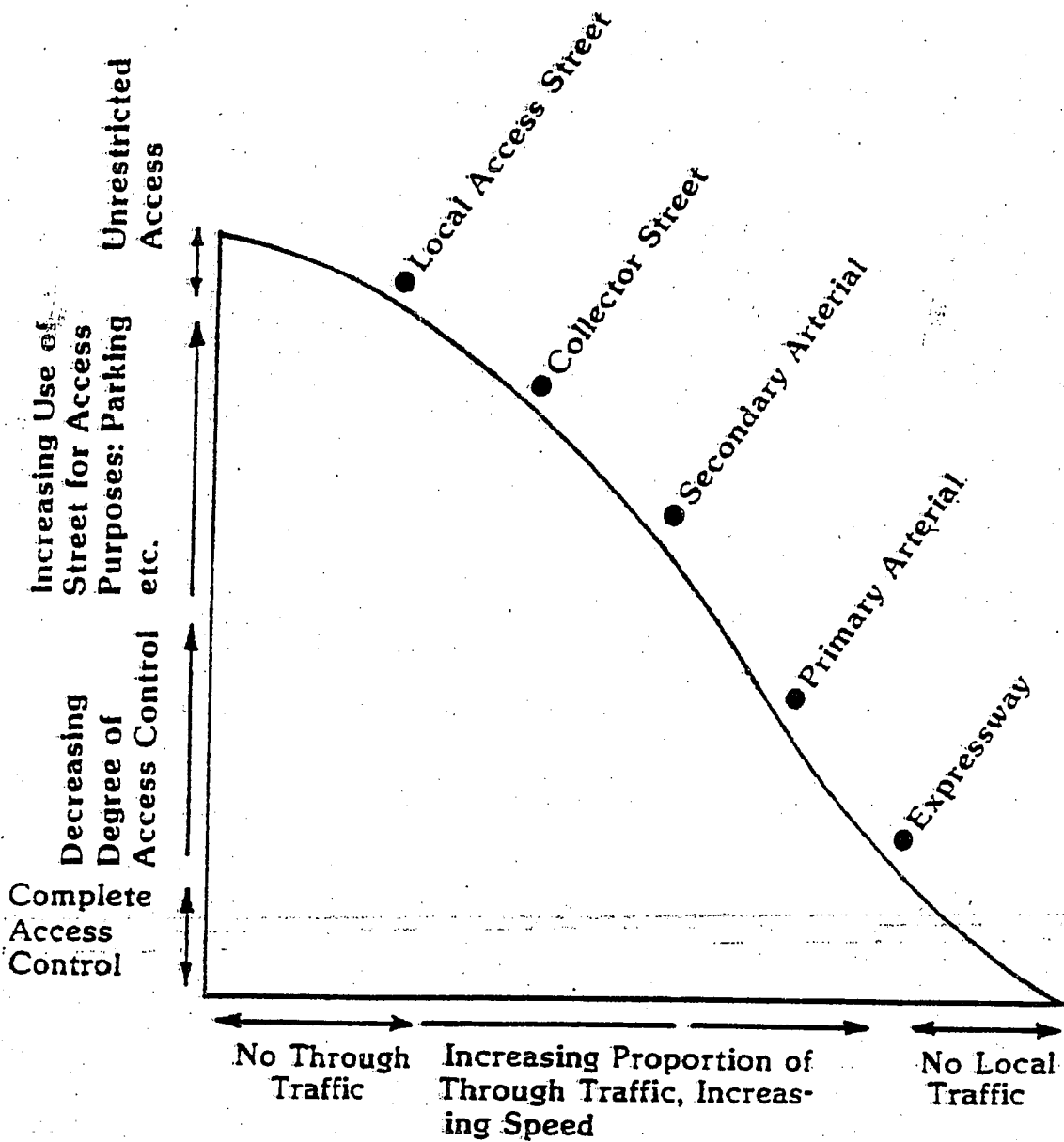


FIGURE 1

MOVEMENT/ACCESS FUNCTION OF ROADWAY TYPES

The roadway network for the San Antonio area is classified into the following functional categories: (1) expressway, (2) primary arterial, (3) secondary arterial, (4) collector street, and (5) local access street. Expressways, primary and secondary arterials comprise the major thoroughfare system. The minor or local street system is composed of collector and local access streets. The following definitions describe the roadways according to function:

Expressway - A limited access, normally grade-separated, thoroughfare designed for the movement of large volumes of vehicular traffic operating at high speeds for long distances, connecting principal or regional activity centers.

Primary Arterial - A major thoroughfare, with limited at-grade access, which expands and links to the expressway system and is designed primarily for the movement of through traffic between activity centers of medium intensity.

Secondary Arterial - A major thoroughfare, with limited at-grade access which supports the primary arterial system by providing essential system linkages to expressways, primary arterials, and activity centers of medium intensity.

Collector Street - A roadway designed to provide direct access to residential, commercial, industrial, and other activity areas with a primary function of collecting and distributing traffic between local access streets and the major thoroughfare system.

Local Access Street - A roadway (primarily a residential street) designed to provide direct access to individual homes, shops, abutting land, and similar minor traffic destinations, with no provision for through traffic.

The design standards for roadway construction are contained in the Subdivision Regulations. The general roadway standards are described in Table 1 of the Major Thoroughfare Plan. Unique situations may warrant alternate designs (such as the continuous left turn lane) in lieu of the standard design, but must be justified and approved by the Planning Commission prior to construction.

The roadway categories and types presented in Table 1 are arranged in hierarchical sequence in terms of function. Figure 2 is a conceptual layout of the roadway network and should generally function as follows:

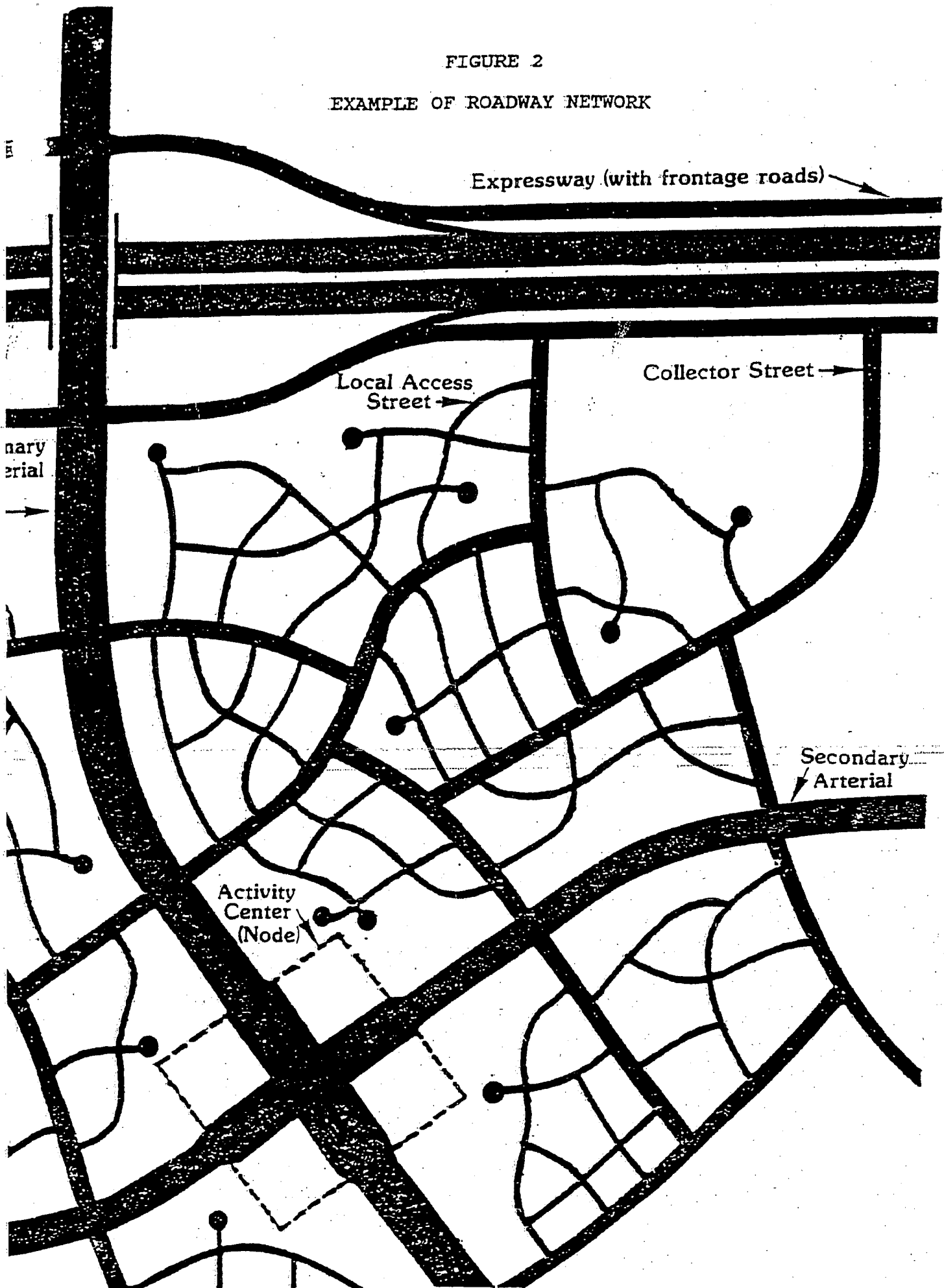
An expressway, being the highest order of roadway, should have continuously free-flowing traffic as entry and exit points are under controlled conditions. A primary arterial should normally have free-flowing traffic, interrupted occasionally at major intersections in order to space traffic at safe intervals. Traffic signals on primary arterials should be synchronized in a manner to enhance the free-flowing capabilities of these high volume arterials. A secondary arterial should generally have

TABLE 1  
GENERAL ROADWAY STANDARDS

Classification	Type	Right-of-way	Right-of-way at Major Intersection	Roadway Width	Roadway Width at Major Intsec	Major Intsec. ROW Length	Description
Expressway	-	300+	N/A	Varies	N/A	N/A	Minimum: 4 lane divided, limited access roadway, 12 feet lane width.
Primary Arterial	A	110'	130'	86'	110'	600'	6 lane, divided roadway, 12 foot lane width with 14 foot median. Left and right turn lanes provided at node.
	B	60'-110'	130'	Varies	110'	600'	Desired: 3 traffic lanes for each direction, accomplished through a variety of design, management, and planning techniques. Node same as Type A.
Secondary Arterial	A	85'	106'	62'	86'	500'	4 lane divided roadway, 12 foot lane width with median. Left and right turn lanes provided at node.
	B	60'-86'	106'	44'	86'	500'	Minimum: 4 lane, undivided roadway, 11 foot lane width. Node same as Type A.
Collector Street	-	60'	60'	44'	N/A	N/A	4 lane, undivided roadway, 11 foot lane width.
Local Access Street	A	50'	N/A	30'	N/A	N/A	Residential Street
	B	60'	N/A	40'	N/A	N/A	Residential Street
	-	40'	N/A	30'	N/A	N/A	Nonresidential Marginal Access Street
	-	40'	N/A	26'	N/A	N/A	Residential Marginal Access Street
	-	22'	N/A	18'	N/A	N/A	Safety Lane (Private)

FIGURE 2

EXAMPLE OF ROADWAY NETWORK



free-flowing traffic characteristics similar to, but for shorter distances than, a primary arterial due to the existence of more frequent signalized intersections. A collector street provides the linkage between the major thoroughfare system and local access streets and should normally be signalized only at an intersection with an arterial or, in rare instances, at an intersection with another collector street. A local access street provides direct access to abutting properties and should link to a collector street with traffic yielding to collector street traffic.

### Major Thoroughfare System

As previously stated, the major thoroughfare system is composed of expressways, primary and secondary arterials. This system is supported by an extensive collector street system providing linkage with local access streets. The expressway network forms the basic foundation for the thoroughfare system with the primary arterial streets providing for high volume travel linkages between expressway corridors (Figure 3). Secondary arterial streets provide essential system linkages to expressways, primary arterials, and activity centers of medium intensity. They are generally spaced somewhat less than one mile apart in the developed areas within Loop 410 and begin a gradual spacing at greater distances as they approach the transition from urban to rural characteristics outside of Loop 410.

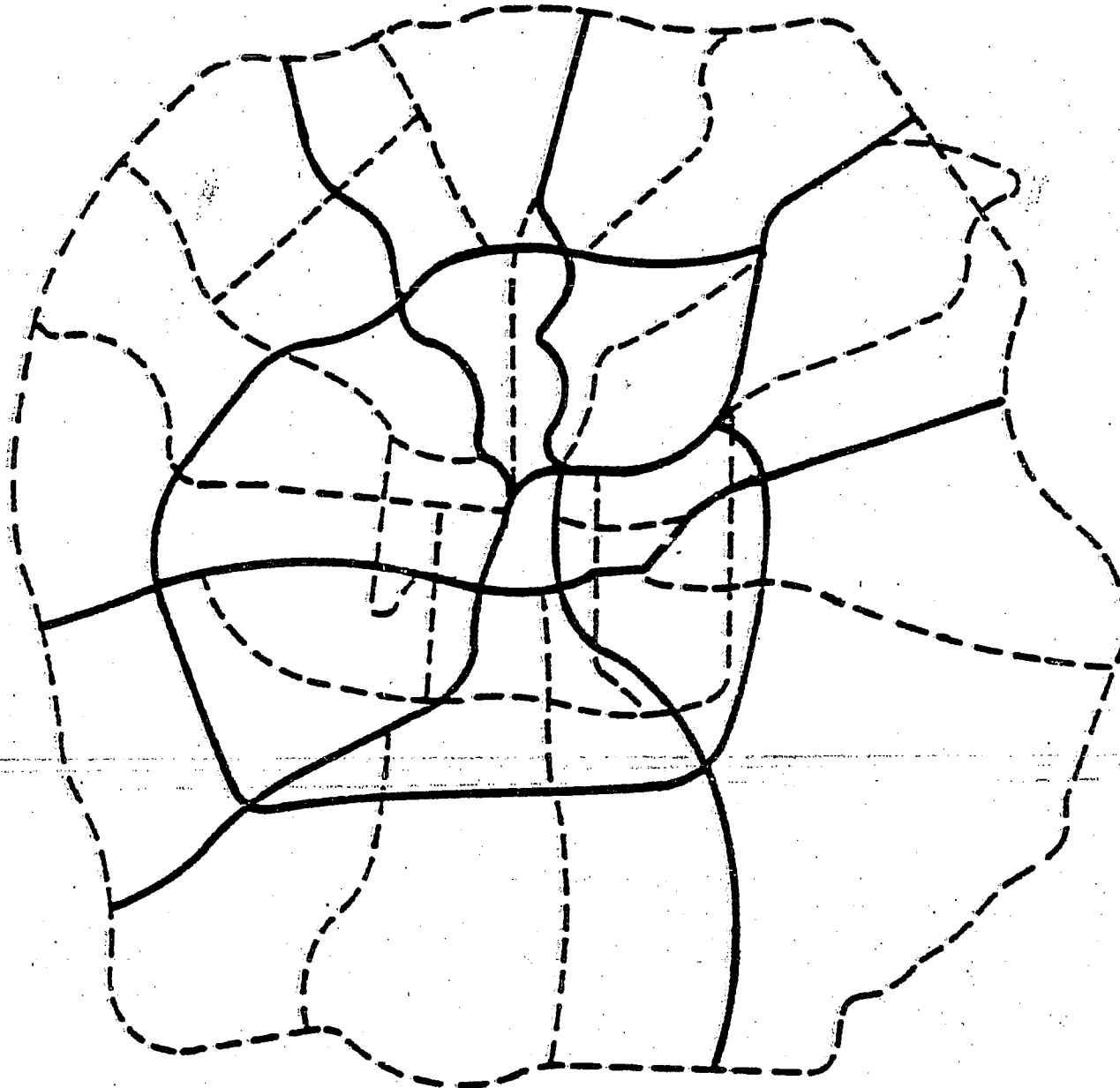
In determining the location and alignments of major thoroughfares, existing roadways are utilized to the extent possible with consideration given to topographical restraints, such as flood plains, lakes, retention dams, and other terrain irregularities. In cases where proposed arterials are located in flood plains, determination was made based upon the need for the roadway as a linkage to the system and the practicality of acquiring right-of-way for an alternate route versus the extent of bridge work required to improve and upgrade an existing road.

The expressways designated in the Major Thoroughfare Plan are, in most cases, freeways with totally controlled access by grade separation with ramps providing for entry to, and exit from, the main travel lanes. Interchanges are provided at intersections with primary and secondary arterials and, in rare cases, with major collector streets. Signalized intersections are permitted on those portions of expressways which are not controlled access freeways. Frontage roads, or service roads, are provided adjacent to most of the freeway sections of the expressway system. Frontage roads, according to the Highway Capacity Manual (Highway Research Board, Special Report 87, National Academy of Sciences - National Research Council, Washington, D.C., 1965), are "so designed to cross, enter, or leave such highway and which may furnish access to property that would otherwise be isolated as a result of the controlled access feature." In order to preserve and protect the interception, collection, and distribution function of the frontage road, direct access to such isolated properties should be limited.



FIGURE 3

EXPRESSWAYS AND PRIMARY ARTERIALS



LEGEND

EXPRESSWAYS —————

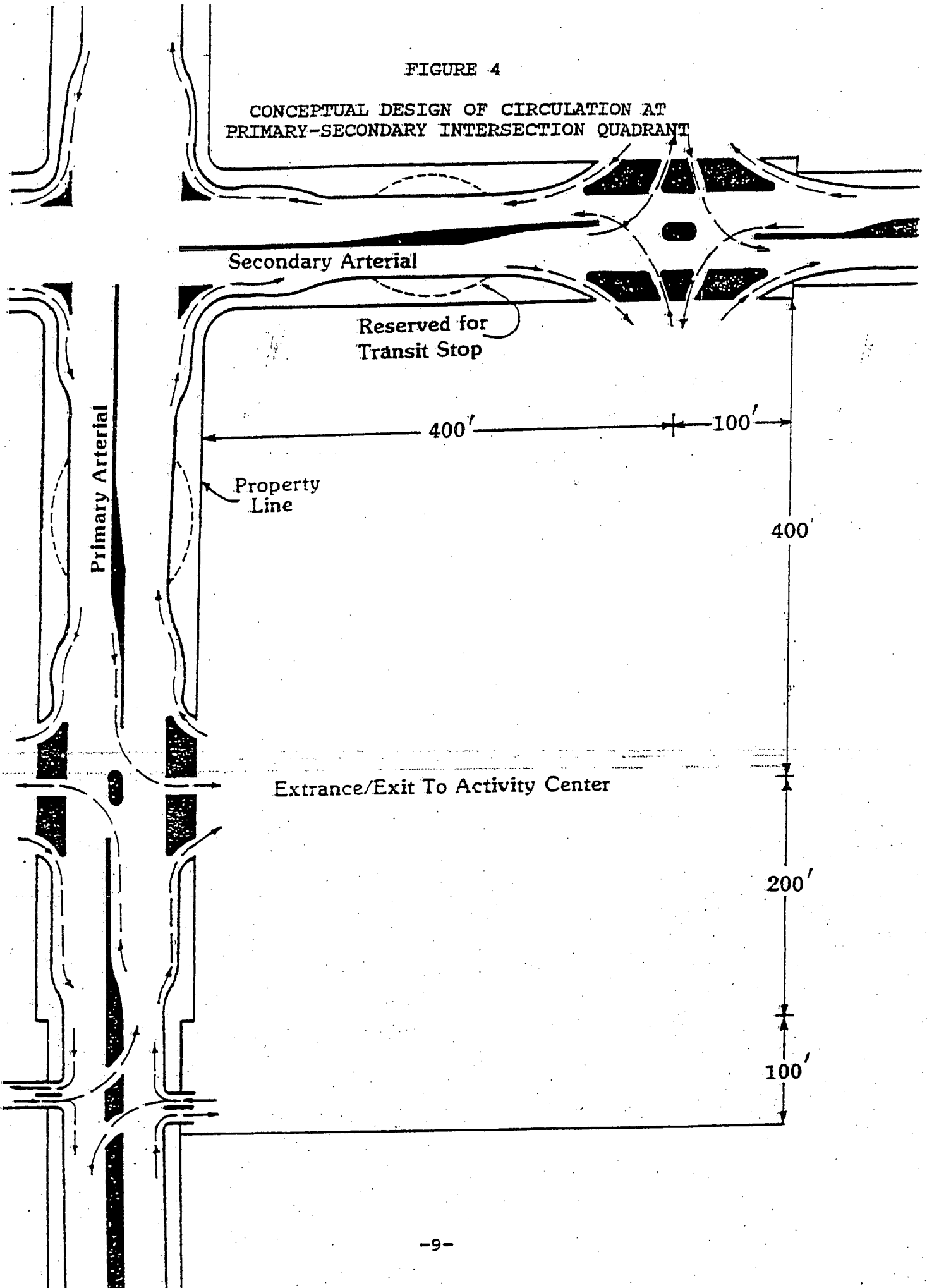
PRIMARY ARTERIALS - - - - -

Primary arterial streets serve the high travel demand in areas that are not within close proximity to expressways. Type "A" primary arterials, when built to ultimate design, are six lane roadways separated by a median for control of left turn movements. Protected left turn lanes are provided at all median openings, with right-turn lanes provided at those intersections with other arterials which serve activity centers of medium intensity (Figure 4). Direct access to property abutting type "A" primary arterials must be limited. Type "B" primary arterials serve those areas of the city where the acquisition of sufficient right-of-way to accommodate a type "A" primary arterial would dramatically disrupt or impose a negative impact on the neighborhoods adjacent to the route. The objective of a type "B" primary arterial is to provide three travel lanes for each direction to accommodate peak hour traffic. This can be accomplished through a variety of design, management, and planning techniques, including (but not limited to) one-way couplets of parallel streets, six lane undivided roads with less than standard size lanes, or five lane roads with reversible middle lane for peak hour traffic. Direct access to property abutting type "B" primary arterials must be limited. A minimum of 60 feet of right-of-way is required for type "B" primaries, although greater widths of up to 110 feet may be required on some segments of such primaries as determined by the proposed design of a particular segment. The design for each type "B" primary arterial must be in the best interest of the neighborhoods directly impacted by the roadway, based upon the public input and characteristics of the impacted area. The signalization and major intersection provisions for type "B" primaries shall be similar to the provisions for type "A". All approved designs for type "B" primary arterials will be contained in the Roadway System Development Program.

Secondary arterial streets are also classified into types "A" and "B". Type "A" secondary arterials, when built to ultimate design are four lane roadways separated by a median for control of left turn movements. Protected left-turn lanes are provided at all median openings, with right turn lanes provided at those intersections with other arterials which serve activity centers of medium intensity (Figure 4). Direct access to property abutting type "A" secondary arterials must be limited. Type "B" secondary arterials serve those areas of the city where, as in the case of type "B" primary arterials, the acquisition of sufficient right-of-way to accommodate a type "A" secondary arterial would dramatically disrupt or impose a negative impact on the neighborhoods adjacent to the route. Direct access to property abutting type "B" secondaries must be limited. A type "B" secondary arterial will normally be a four lane, undivided roadway with a minimum of 60 feet of right-of-way required. Greater right-of-way widths of up to 86 feet may be required on some segments of such secondaries based upon the impact of a particular segment. Unique situations in some areas of the city may result in an alternate design of a type "B" secondary arterial, such as one-way couplets. The signalization and major intersection

FIGURE 4

CONCEPTUAL DESIGN OF CIRCULATION AT  
PRIMARY-SECONDARY INTERSECTION QUADRANT



provisions for type "B" secondary arterials shall be similar to the provisions for type "A".

The Central Business District (CBD) and adjacent areas contain many characteristics which may result in some exceptions to the standards and policies provided for the major thoroughfare system. The designation of arterials in the CBD represent primary and secondary circulation routes which form the basic foundation for the CBD circulation system. Standards and policies concerning primary and secondary circulation routes within the CBD and immediately adjacent areas will be determined in the CBD Circulation plan.

#### Major Thoroughfare System Policies

- OBJECTIVE #1:** To insure that major thoroughfares conform to optimum design, engineering, and construction standards in order to permit the free flow of high volume traffic.
- Policy #1.01:** Space major intersections approximately 1400 to 1800 feet apart on primary arterials and 1200 to 1600 feet apart on secondary arterials.
- Policy #1.02:** Provide a protected left turn at all median openings on arterials.
- Policy #1.03:** Provide left and right turn lanes and transit bays and shelters at points where two arterials intersect. (This requirement is intended to encourage the concentration of medium intensity development at such intersections, thus reducing the probability of strip development.)
- Policy #1.04:** Limit left turn movements on arterials between signalized intersections by: (1) restricting left turns on undivided portions of the street; (2) spacing median openings on divided portions at a distance of no less than 500 feet and requiring controlled traffic movement at such openings; (3) limiting the construction of continuous left turn lanes as medians on arterials to those areas where intensive strip-commercial or industrial development has already taken place.
- Policy #1.05:** Eliminate safety hazards and interruptions to the flow of traffic at points where railroads and arterials intersect by: (1) providing grade separations where warranted; (2) providing gates, proper signalization and adequate warning signals at reasonable distance from at-grade crossings where grade separation is not warranted.
- Policy #1.06:** Eliminate low water crossings on arterials by: (1) requiring adequate drainage and bridges as a part

of new construction; (2) reconstructing sections of existing arterials that are in floodprone areas.

Policy #1.07: Provide adequate drainage, sidewalks, and wheelchair ramps along arterials and bicycle pathways where required by the Bicycle Plan.

Policy #1.08: Require that lots developed for low density residential use which abut a major thoroughfare be designed in such a manner that they do not front the thoroughfare. Access to such lots will be provided only from a local street which, in turn, will have access to a collector street. Plats will be annotated to indicate that vehicular access to such lots from the thoroughfare will not be permitted. If conditions exist which make this design infeasible, the construction of a marginal access street upon which the lots would front may be permitted.

Policy #1.09: Permit development for medium and high intensity uses (residential, commercial, or industrial) on land abutting a major thoroughfare if it conforms to specific standards designed to limit access to the thoroughfare. These standards will establish a minimum frontage for lots on which development is planned and a minimum distance between driveways opening into the thoroughfare. Exceptions to the minimum frontage requirement will be made only if access is limited through the use of driveways that serve two or more lots or if a marginal access street is provided. In all cases, permitted curb cuts will be indicated on the plat of the development and the plat will be annotated to indicate that vehicular access is permitted only at the curb cuts so indicated.

Policy #1.10: Reduce access points along arterial streets in developed areas by: (1) closing (where this is practical) access to arterials from local streets; (2) eliminating excessive numbers of existing curb cuts and/or reducing the width of curb cuts that do not conform to current standards at the time that major improvements to the arterial are undertaken; (3) insuring that current standards are met as a condition for permitting redevelopment or new construction.

OBJECTIVE #2: To insure that right-of-way required for the construction and/or expansion of major thoroughfares is acquired and that the construction is financed in an equitable and effective way.

Policy #2.01: Owners of land which abuts an existing or planned major thoroughfare who wish to develop or redevelop such land will, as a condition for plat approval,

be required to dedicate to the City for use as right-of-way an amount of land to be specified by the Subdivision Regulations as necessary to expand an existing thoroughfare or to construct a new one in conformity with the standards established elsewhere in this plan (page 4).

Policy #2.02: In those instances where a decision is made to expand an existing thoroughfare or to construct a new one and the required right-of-way has not been acquired by dedication, the City will acquire such right-of-way as may be required in the same manner in which it acquires privately owned land for other public purposes.

Policy #2.03: In preparing the Major Thoroughfare Development Program, the requirement for which is established elsewhere in this Plan, potential sources of funding (Federal, State, County and City) will be examined for applicability to, and probable availability for, the financing of programmed improvements. Since applicability and probable availability will vary, a separate analysis of each thoroughfare programmed for improvement will be undertaken.

Policy #2.04: Concurrently, with the preparation of the initial Major Thoroughfare Development Program, an analysis will be made to determine the degree of participation to be required in the construction of new or improved thoroughfares by development or redevelopment which abuts such thoroughfares or which is provided access to such thoroughfares by minor streets. (This participation is over and above the requirement established in Policy #2.01, above.) The analysis will be guided by the principle that any contribution required in-kind or in cash, must relate directly to the impact of a particular development or redevelopment on a particular thoroughfare. Standards will be established for use in arriving at a just and equitable determination of: (1) the relationship of development or redevelopment to the thoroughfare in terms of distance, accessibility and activity; (2) the amount of "off-site" dedication required and/or the degree of participation by the developer in actual construction; (3) the amount of cash payment required in lieu of dedication or the participation in actual construction. Also, procedures will be established to implement this policy, including ways to maintain strict accountability of any funds which may be generated. Upon approval by the Planning Commission of the standards and procedures referred to above, they will be incorporated into the Subdivision Regulations in the prescribed manner.

## Building the Major Thoroughfare System

The Roadway System Development Program, which will serve as a guide for developing the roadway system, will include the Major Thoroughfare Development Program as a major component. The Major Thoroughfare Development Program will identify and describe each major thoroughfare in regard to: (1) existing classification, function, facility, right-of-way, and conditions; (2) proposed classification, function, ultimate facility, and right-of-way requirements; (3) Treatment Area as described in the Master Plan; (4) staged construction from existing to ultimate facility, and (5) estimated costs and possible resources (such as Federal Aid Urban System funds) for facility improvement and construction. As part of the Roadway System Development Program, the Major Thoroughfare Development Program will be maintained through the continuing planning process.