REPORT NO. UMTA-VA-06-0042-78-4

Restricted Zones (ARZ) Auto Rest
(MUVS) Multi-User Vehicle Systems (M
Background and Feasibility Background
Feasibility Assessment Feasibility Assessment
Plans For Five Cities Plans For Five Cities Plans F
—Memphis—Providence—Tucson—Boston—B
thodology Site Selection Methodology Site Selecti
d Zones (ARZ) Auto Restricted Zones (ARZ) Auto Rest
Vehicle Systems (MUVS) Multi-User Vehicle Systems (M
nd and Feasibility Background and Feasibility Background
ility Assessment Feasibility Assessment Feasibility Assessment
s For Five Cities Plans For Five Cities Plans For Five Cities Plans F
oston—Burlington—Memphis—Providence—Tucson—Boston—B
te Selection Methodology Site Selection Methodology Site Selecti
uto Restricted Zones [ARZ] Auto Restricted Zones (ARZ) Auto Rest
ulti-User Vehicle Systems [MUVS] Multi-User Vehicle Systems (M
ckground and Feasibility Background and Feasibility Backgrc
asibility Assessment Feasibility Assessment Feasibility Asse
ans For Five Cities Plans For Five Cities Plans For Five Cit
oston—Burlington—Memphis—Providence—Tucson
te Selection Methodology Site Selection Methodol
uto Restricted Zones (ARZ) Auto Restricted Zone
rvice and Methods Demonstration Program
ckground and Feasibility Background and F
asibility Assessment Feasibility Assessm
r Five Cities Plans For Five Citie
—Burlington—Memphis—Pr
ection Methodology Site S
stricted Zones (ARZ) A
ulti-User Vehicle Systems (
ckground and Feasibilit
asibility Assessment F

Final Report
December 1977

Volume IV.

U.S. DEPARTMENT OF TRANSPORTATION
Urban Mass Transportation Administration

NOTICE

This document is disseminated under the sponsorship of the Department of Transportation in the interest of information exchange. The United States Government assumes no liability for its contents or use thereof.

NOTICE

The United States Government does not endorse products or manufacturers. Trade or manufacturers' names appear herein solely because they are considered essential to the object of this report.

Dup-Kup

Technical Report Documentation Page

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
UMTA-VA-06-0042-78-4		

4. Title and Subtitle	5. Report Date
Auto Restricted Zones Demonstration Site Selection	December 1977
	6. Performing Organization Code
	8. Performing Organization Report No.
7. Author(s) William S. Herald	
9. Performing Organization Name and Address Alan M. Voorhees & Assoc., Inc. 7798 Old Springhouse Road McLean, Virginia 22101	10. Work Unit No. (TRAIS)
	11. Contract or Grant No. DOT-TSC-1057
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration Office of Transportation Management & Development Washington, D.C. 20590	13. Type of Report and Period Covered Final Report July 75 - December 77
	14. Sponsoring Agency Code

15. Supplementary Notes

16. Abstract

This report was produced as part of the Auto Restricted Zone/Multi-User Vehicle Systems Study of the Service and Methods Demonstration Program of the Urban Mass Transportation Administration.

This volume documents the process of contacting, evaluating, and selecting sites for ARZ demonstrations. Out of more than 75 applicants, five cities were selected for participation.

17. Key Words	18. Distribution Statement
Auto Restricted Zones, Site Selection, Demonstration Programs	Document is available to the U.S. public through the National Technical Information Service, Springfield, VA 22161

19. Security Classif. (of this report)	20. Security Classif. (of this page)	21. No. of Pages	22. Price
Unclassified	Unclassified		

Form DOT F 1700.7 (8-72) Reproduction of completed page authorized

AUTO RESTRICTED ZONE/ MULTI-USER VEHICLE SYSTEM STUDY

DOT-TSC-1057

FINAL REPORT

VOLUME IV
SITE SELECTION METHODOLOGY

Prepared for
U.S. DEPARTMENT OF TRANSPORTATION
URBAN MASS TRANSPORTATION ADMINISTRATION

By
ALAN M. VOORHEES & ASSOCIATES, INC.
Westgate Research Park
7798 Old Springhouse Road
McLean, Virginia 22101

In Association With
CAMBRIDGE SYSTEMATICS INC.
and
MOORE-HEDER ARCHITECTS

December 1977

This report is prepared as part of the Auto Restricted Zone/Multi-User Vehicle System Study for the Urban Mass Transportation Administration of the U.S. Department of Transportation.

The purpose of the study was to (1) investigate existing experience with auto restricted zones and multi-user vehicle systems, (2) evaluate their feasibility as concepts applicable to urban transportation systems, (3) identify and evaluate potential sites for suitable demonstrated projects, and (4) design demonstration and evaluation programs for selected sites.

This particular report documents methodology followed in the selection of demonstration sites in the course of the study. The complete listing of final report documents includes:

- Volume I — Auto Restricted Zones: Background and Feasibility
- Volume II — Multi-User Vehicle Systems: Feasibility Assessment
- Volume III — Auto Restricted Zones: Plans for Five Cities
- Volume IV — Demonstration Site Selection
- Boston Auto Restricted Zone: Technical Appendix
- Burlington Auto Restricted Zone: Technical Appendix
- Memphis Auto Restricted Zone: Technical Appendix
- Providence Auto Restricted Zone: Technical Appendix
- Tucson Auto Restricted Zone: Technical Appendix

Table of Contents

List of Figures

Chapter I
Introduction

CHAPTER I
INTRODUCTION

BACKGROUND

During the latter part of July 1975, the consultant team of Alan M. Voorhees and Associates, Inc. (prime contractor), Cambridge Systematics, Inc., and Moore-Heder initiated work on a study for the Transportation Systems Center and Urban Mass Transportation Administration of the U.S. Department of Transportation to evaluate the feasibility of Auto Restricted Zone and Multi-User Vehicle Systems (ARZ/MUVS) in the United States. The study includes the design of site specific programs to demonstrate these concepts in five selected cities.

The actual work program was structured into the series of seven major work elements identified below.

- Phase I
  - Review of Existing Experience
  - Investigation of Key Factors
  - Investigation of MUVS Vehicles
  - Feasibility Assessment
- Phase II
  - Selection of Demonstration Sites
- Phase III
  - Design of the Demonstration
  - Investigation of Potential Effects

The remainder of this report documents in summary form the methodology followed in the Phase II portion of the study—Selection of Demonstration Sites. Also included is a Summary Fact Sheet for a number of cities included in the evaluation process which serves as an indication of what is going on and an indication of the level of current thinking with regard to ARZ/MUVS concepts for a substantial sample of U.S. cities.

258-418 O - 78 - 2

SCOPE OF WORK

From the beginning of the Auto Restricted Zone/Multi User Vehicle Systems Study, the selection of appropriate sites for demonstrating these concepts was recognized as a crucial element of the project. The complexities of the subject of auto restruction alone can be transformed into major obstacles when supplemented by the difficulties of organizing Federal and local collaboration on a demonstration. The history of unsuccessful efforts to implement innovative solutions to urban problems is well known, and suggest that a carefully structured approach to site selection is necessary and appropriate to insure meaningful demonstration projects with a high potential for implementation. From the outset of the study, it was recognized that ARZ/MUVS concepts are not appropriate for all situations and the enticement of a Federally-funded demonstration program could spark an initial level of interest and commitment which was not indicative of actual prospects for implementation.

In full recognition of these points, the process of site selection began almost simultaneously with the commencement of the project. This meant that the initial stage of site selection, the formation of the "contact pool" of cities, was performed concurrently with the survey of existing experience, the analysis of key factors, and the feasibility of their implementation. Two problems associated with this simultaneous approach are apparent. The formation of the contact pool of cities before the results of the feasibility assessment and key factor analysis were fully known meant that a larger number of cities was contacted than necessary, and similarly, that a greater amount of information was requested from those cities than may have been necessary.

This "extra effort" approach, however, was more than justified by other considerations. The time requirements for the performance of the project mandated an early start on site selection. This early start and the volume of information requested permitted a cautious and thorough approach which should pay dividends in the demonstration design and implementation phases of the project. It was also intended to include all cities that expressed an interest and not to apply any initial exclusionary criteria which may have shortened the process in site selection.

The role of the consultant was to carry out the city contact procedures, review and evaluate the materials submitted, and make recommendations concerning selection of sites for ARZ/MUVS demonstration projects. The client then further reviewed the evaluation materials and made the final selections.

Figure 1 presents a flow chart illustrating the site selection process as it actually occurred. The process was structured as a two-tier system in which a large number of cities were contacted and evaluated as input to an initial screening process. This was followed by a more detailed evaluation process for a limited number of sites followed by a second-stage screening process and final site selection.

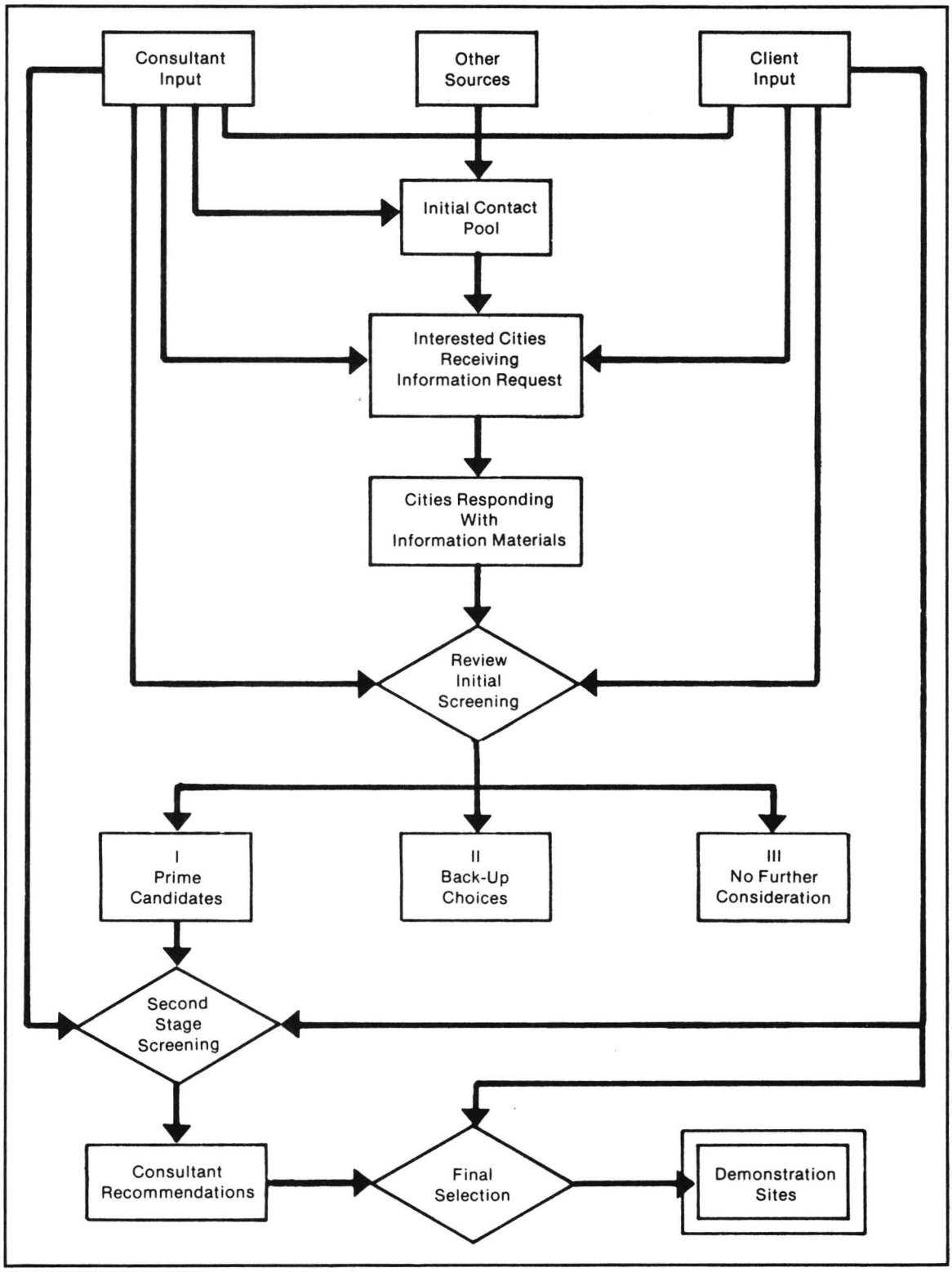


Figure 1
ARZ/MUVS Site Selection Process

Chapter II
Contact Procedures

CHAPTER II
CONTACT PROCEDURES

FORMATION OF CONTACT POOL

The first stage in the site selection process was the creation of a city "contact pool." Inputs to this list came from four basic sources. An early list of 45 cities was based on the knowledge and prior experience of the team of consultants. A second group of cities was suggested by the Transportation Systems Center, the Urban Mass Transportation Administration, and the Federal Highway Administration. The third source of city names for this initial pool was a list of cities operating under Transportation Control Plans supervised by the Environmental Protection Agency. The fourth group was composed of cities that made direct or indirect contact expressing interest in the project. An early decision was made to include in the inital contact and evaluation process any city which demonstrated an interest, and as a result, no exclusionary criteria were applied. A final total of 75 cities comprised the contact pool. All of these cities were subsequently contacted as potential sites for demonstrating auto restriction and multi-user vehicle systems programs.

CONTACT METHODOLOGY

A system of contacts by telephone and letter was devised to insure that an appropriate person in each city was aware of the project and, if an interest was indicated, that adequate opportunity was provided for each city to respond with the basic the basic information requested.

The process included an initial contact by telephone with the Planning Director or other appropriate individual in each city. The purpose of the project was described and an initial level of interest was determined. Of the 75 cities contacted by telephone, four cities indicated that they were not interested in further consideration within this project. The remaining cities were sent an initial letter which explained the project in greater detail, and requested the submission of certain

data and planning documents for evaluation. Perhaps because of the comprehensive nature of the information request, a number of cities were slow to respond. A series of follow-up telephone calls were made to answer any questions and to urge a quick reply. Several weeks later, a follow-up letter was sent to all the cities notifying them of a November 27th, 1975, deadline for the submission of materials for consideration in the initial site evaluation process. Discounting those cities which indicated no interest in the project in the initial telephone conversation, at least two contacts were made with each city, and the average number of contacts per city was between three and four.

Figure 2 identifies the elements of the contact procedures and illustrates the time frame during which they occurred. Appendix A includes a summary of the contact procedures for each city as well as the principal contact person. Also included is a sample of the initial contact letter which was sent to each city following the initial telephone contact.

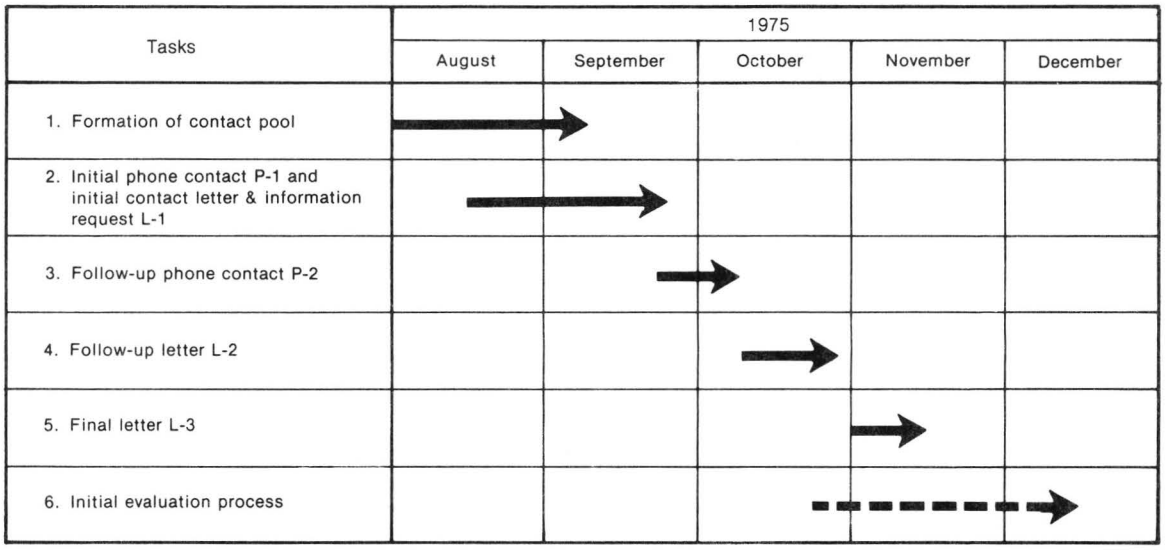


Figure 2
Contact Schedule

Cities included in the initial contact pool:

Allentown, PA
Anaheim, CA
Atlanta, GA
Baltimore, MD
Bellevue, WA
Berkeley, CA
Boston, MA
Buffalo, NY
Burlington, VT
Cambridge, MA
Camden, NJ
Charlotte, NC
Chicago, IL
Cincinnati, OH
Cleveland, OH
Dallas, TX
Danbury, CT
Denver, CO
Durham, NC
Evansville, IN
Fort Worth, TX
Fullerton, CA
Harrisburg, PA
Hartford, CT
Honolulu, HI
Houston, TX
Isla Vista, CA
Indianapolis, IN
Jackson, MS
Jacksonville, FL
Jamaica, NY
Kansas City, MO
Long Beach, CA
Los Angeles, CA
Louisville, KY
Lowell, MA
Madison, WI
Memphis, TN
Miami, FL
Minneapolis, MN
Mobile, AL
Newark, NJ
New Orleans, LA
Brooklyn, NY
Lower Manhattan, NY
Midtown Manhattan, NY
Oakland, CA
Philadelphia, PA
Phoenix, AZ
Pittsburgh, PA
Portland, OR
Providence, RI
Provo, UT
Raleigh, NC
Richmond, VA
Riverside, CA
Rochester, NY
St. Louis, MO
Sacramento, CA
Salt Lake, UT
San Antonio, TX
San Diego, CA
San Francisco, CA
Santa Barbara, CA
Savannah, GA
Seattle, WA
Spokane, WA
Springfield, MA
Syracuse, NY
Tallahassee, FL
Toledo, OH
Trenton, NJ
Tucson, AZ
Washington, D.C.
White Plains, NY

258-418 O - 78 - 3

Chapter III
Review and Evaluation

CHAPTER III
REVIEW AND EVALUATION

SELECTION CRITERIA

With the large number of cities contacted as potential demonstration sites, the formulation of a workable set of criteria for evaluating the information became an important issue. In view of the need to evaluate the different sizes and types of cities that responded and to adapt to the kinds of information submitted, which varied from city to city, the criteria were designed to be flexible. Thus, a set of flexible and adaptable site evaluation criteria were used instead of a set of rigid standards to review and evaluate information material furnished by interested cities.

In the review process for each city, the consulting team looked for indicators of past performance, present commitment, and future planning in the areas of institutional performance, transportation factors, and urban form and opportunities which would be supportive to ARZ/MUVS concepts.

Institutional performance was closely related to the question of whether the community had ever confronted the issues of auto restriction before. Did political and institutional indicators suggest that an ARZ might be successful? Similarly, what sort of a transportation problem did the city have and was there a clear commitment to emphasize transit? Indicators were also noted in the area of urban form and opportunities for pedestrianization. Was the proposed ARZ area dominated by a single activity or did it present possibilities for a functional and aesthetic pedestrian environment? Clearly, a situation in which new highway construction has been curtailed, public transit has been emphasized, and there is strong commitment to revitalization of the CBD, would be more conducive to successful ARZ/MUVS demonstration program than would a situation where current commitments were to more highways, better service to the automobile, expansion of regional centers, and minimal support to transit services. The review of materials submitted by each city was structured to address the six basic selection criteria identified below:

1. Identifiable and appropriate opportunities for an ARZ demonstration
2. Institutional predisposition to implementation
3. Intrinsic attractiveness of the area as a potential ARZ
4. Appropriateneess of local problems to ARZ solution
5. Availability of transit access
6. Availability of alternative routes

These criteria were used to develop summary evaluation sheets for each city as well as a numerical rating system, both of which were used as a guide in the final assessment of the potential of a site for an ARZ demonstration. Several other factors including the representativeness and transferability of the demonstration to other areas, geographic and other considerations were input to the evaluation process in a more subjective manner.

INITIAL SCREENING

Of the 75 cities contacted relative to consideration as potential ARZ/MUVS demonstration sites, 45 cities responded in a positive manner with varying amounts of the information materials requested in the initial contact letter. Utilizing the site evaluation criteria noted previously, both the client and the consultants reviewed the materials submitted by each city to assess its potential for a successful demonstration. The review notes and assessments for each city were presented to the client in a separate report, "Review of Potential ARZ Demonstration Sites." A summary sheet for each of the cities reviewed is included in Appendix B, illustrating the location and nature of ARZ concepts for each site.

As a result of the initial evaluation process, the cities were classified into one of the following three groups:

- Group I — Cities with the highest potential for a successful demonstration, all of which were recommended for further consideration.
- Group II — Cities with an apparent high potential for a successful demonstration which were to serve as backup sites and possible supplemental sites to the previous group.
- Group III — Cities with limited potential for a successful demonstration which were not to receive further consideration as demonstration sites within the scope of the present study.

In all, a total of seven cities fell into Group I, twelve cities were placed in Group II, and the remainder of the sites comprised Group III. The placement of a particular city in a given group represented the composite assessment of a number of reviewers and reflected their interpretation of how well each situation fit the objectives of the demonstration program and was not solely based upon a judgment as to the intrinsic worthiness of the plans and proposals.

SECOND STAGE SCREENING

From the categorization described above and further in-house evaluation, the client designated a group of seven primary and three supplemental cities for further evaluation as potential demonstration sites.

The criteria employed in the second stage screening of the prime candidates were essentially the same as those used in the initial screening. The emphasis in the second stage was on further verification of facts and assessments made in stage one and on exploring each candidate city in greater detail. In order to accomplish these objectives, the consulting team made a series of two-day visits to each site. The purpose of each visit was to examine the proposed ARZ area in person and to meet with a representative cross section of local officials to determine the commitment of institutional and political support for an ARZ/MUVS demonstration. In each city, meetings were held with city planners, traffic engineers, mayors or managers, transit operators, chambers of commerce, and other officials and private agencies with downtown interests. Efforts were also made to determine if specific kinds of data necessary for the analysis of ARZ transportation impacts were available in usable form.

The notes and assessments from these on-site visits formed the basis for the second round of site screening. In a manner similar to procedures followed in the first screening, discussion and careful consideration of the opportunities for ARZ available in each city, a general consensus was reached on a set of cities to be recommended to the client for selection as demonstration sites.

FINAL SELECTION

As provided in the contractual arrangements for the Auto Restricted Zone/Multi-User Vehicle Systems Study, the clients, the Transportation Systems Center and the Urban Mass Transportation Administration, made the final selection of sites for demonstration projects. With the supervision and participation of the client, the consulting team completed a four-point process in site selection for ARZ demonstration projects:

1. City Contact — The consulting team contacted 75 cities disseminating information on the scope and objectives of the study and soliciting interest in the project.

2. Initial Screening — Packets of maps and information from 45 cities were carefully reviewed and evaluated for their potential as an ARZ demonstration site. Eight cities were selected as prime candidates for further consideration.

3. Second Stage Screening — On-site visits were made to each candidate city for personal inspection of the proposed ARZ area and meetings with local citizens and officials in order to verify and explore in greater detail the potential for a successful demonstration.

4. Recommendation — On the basis of the results of the two-stage screening process, the consulting team recommended a final set of cities for which successful ARZ demonstration projects could be developed.

Chapter IV
Conclusions

258-418 O - 78 - 4

CHAPTER IV
CONCLUSIONS

From a review of the current commitments and active planning policies for a large number of sites as well as the interest that was shown in being considered as a potential demonstration site, it was evident that widespread actions are developing with respect to restriction of traffic and its associated opportunities for improving transit services and the environmental quality in present urban centers.

Several cities have developed individual elements to such a degree that they form the framework of a comprehensive approach to the entire CBD. Other cities have instituted comprehensive programs that with time will restructure the transport balance within the city center. Clearly, a change in emphasis is occurring which is not localized in concept. The purpose of the present demonstration program is to build upon these characteristics and commitments and assist the selected cities in achieving a higher level of ARZ planning and development than what might otherwise be possible.

One of the side benefits which surfaced from the site review and evaluation process concerned benefits derived by the cities in the preparation of the requested materials. A number of cities indicated that it was enlightening to them, and new insights were gained by going through their past and present work programs, policies, and accomplishments, and pulling together a comprehensive picture of what the present state of ARZ planning is within their locality.

The efforts to identify a suitable demonstration site and program for MUVS were less satisfactory. The level of understanding as to how such a system could effectively be incorporated into the transport system on a demonstration basis was virtually non-existent. While some cities identified potential opportunities, conceptually they were generally more suited tor non-MUVS type applications. In reviewing the written materials submitted by the cities as well as pursuant on-site discussions with city people, no suitable site for demonstration of MUVS concepts surfaced.

Coupled with the questionable feasibility of MUVS as a general element of a transport system which surfaced in both the review of existing experience and the analytical analysis, further effort to identify a suitable situation for an MUVS demonstration was not warranted. Rather, a shift to a theoretical demonstration site and/or situation offers more promise if further evaluation of MUVS is judged to be worthwhile.

Appendix

APPENDIX A

CITY CONTACT DOCUMENTATION, INITIAL CONTACT LETTER, AND INFORMATION REQUEST

Following is a list of the 75 cities which were contacted during the initial phase of the site evaluation process for the ARZ/MUVS demonstration program. The contact elements shown are explained below:

P-1 — Initial telephone contact to explain project and establish interest (late August and early September)

L-1 — Initial explanatory letter with information request (September)

P-2 — Follow-up telephone contact to determine if letter was received and answer questions (early October)

L-2 — Follow-up letter reminding cities which indicated interest to complete submission by November 27 (first of November)

L-3 — Final call letter notifying all cities contact from whom conclusive responses had not been received of November 27 deadline (middle November)

The person indicated as the principal contact is generally the person who formally responded to the original contact letter and information request. In a limited number of cases, the initial telephone contact as well as the initial letter were originally directed to other persons.

ARZ/MUVS DEMONSTRATION PROGRAM
SITE EVALUATION CONTACTS

City	Contact Elements					Principal Contact Person
	P-1	P-2	L-1	L-2	L-3	
Allentown, PA	X	X	X		X	James Kelly
Anaheim, CA	X		X	X		Don McDaniel
Atlanta, GA	X	X	X		X	Collier Gladin
Baltimore, MD	X	X	X	X		Larry Reich
Bellevue, WA	X		X			James Smith
Berkeley, CA	X		X			Thomas Peak
Boston, MA	X	X	X	X		Emily Lloyd
Buffalo, NY	X	X	X	X		Dan Hoyt
Burlington, VT	X		X			Patrick Robins
Cambridge, MA	X	X	X	X		James Sullivan
Camden, NJ	X	X	X			William Hankowsky
Charlotte, NC	X					William McIntyre
Chicago, IL	X	X	X		X	Lewis Hill
Cincinnati, OH	X					Herbert Stevens
Cleveland, OH	X	X	X			L. K. Washburn
Dallas, TX	X	X	X		X	Mr. Schroeder
Danbury, CT	X		X			James Ross
Denver, CO	X	X	X	X		Doug Guedert
Durham, NC	X		X		X	Dexter Smith
Evansville, IN	X		X			Keith Lochmueller
Fort Worth, TX	X		X			George Human
Fullerton, CA	X		X		X	Paul Berlant
Harrisburg, PA	X	X	X		X	Wilmer Faust
Hartford, CT	X	X	X		X	Robert Looker
Honolulu, HI	X	X	X		X	Robert Way
Houston, TX	X	X	X		X	Barry Goodman

258-418 O - 78 - 5

Site Evaluation Contacts (continued)

City	Contact Elements P-1	P-2	L-1	L-2	L-3	Principal Contact Person
Isla Vista, CA	X		X			Carmen Lodise
Indianapolis, IN	X		X		X	Harold Egenes
Jackson, MS	X	X	X			Donald Irvin
Jacksonville, FL	X	X	X		X	Ward Koutnik
Jamaica, NY	X		X	X		Stanley Natkins
Kansas City, MD	X	X	X		X	Joseph Vitt
Long Beach, CA	X	X	X		X	Art Chapman
Los Angeles, CA	X	X	X			Calvin Hamilton
Louisville, KY	X	X	X		X	Richard Shogren
Lowell, MA	X	X	X			Robert Malavich
Madison, WI	X	X	X			Charles Dinauer
Memphis, TN	X	X	X	X		Robert Miller
Miami, FL	X	X	X			Richard Whipple
Minneapolis, MN	X	X	X		X	Max Goldberg
Mobile, AL	X		X		X	Marion Barnett
Newark, NJ	X	X	X		X	David Dermison
New Orleans, LA	X	X	X		X	Harold Katner
Brooklyn, NY	X	X	X			David Hersh
L. Manhattan, NY	X	X	X		X	John West
M. Manhattan, NY	X	X	X			Don Miles
Oakland, CA	X	X	X	X		Norman Lind
Philadelphia, PA	X	X	X	X		Ted Swenson
Phoenix, AZ	X	X	X			John Beatty
Pittsburgh, PA	X		X			Robert Paternaster
Portland, OR	X	X	X	X		Doug Wright
Providence, RI	X	X	X	X		Martha Bailey
Provo, UT	X	X	X			Jerry Howell

Site Evaluation Contacts (continued)

City	Contact Elements P-1	P-2	L-1	L-2	L-3	Principal Contact Person
Raleigh, NC	X	X	X			John Hilpert
Richmond, VA	X	X	X		X	Phil Purdy
Riverside, CA	X		X		X	Larry Paulson
Rochester, NY	X	X	X	X		Ann Taylor
St. Louis, MO	X	X	X	X		John Roach
Sacramento, CA	X					Joseph Avena
Salt Lake, UT	X	X	X		X	Vernon Jorgensen
San Antonio, TX	X					Cipriano Guerra
San Diego, CA	X	X	X		X	Larry Wright
San Francisco, CA	X	X	X		X	Alan Lubliner
Santa Barbara, CA	X		X		X	John Scott
Savannah, GA	X	X	X	X		Frank Wise
Seattle, WA	X		X			Antony Puma
Spokane, WA	X	X	X		X	E. T. Clegg
Springfield, MA	X	X	X		X	Steven Pitkin
Syracuse, NY	X		X		X	Robert Rohde
Tallahassee, FL	X	X	X	X		Diane Dunston
Toledo, OH	X	X	X	X		William Knight
Trenton, NJ	X	X	X		X	Richard Bailey
Tucson, AZ	X	X	X			Paul Zucker
Washington, D.C.	X	X	X	X		Doug Schneider
White Plains, NY	X	X	X		X	Robert Alpern

Auto Restricted Zone/
Multi User Vehicle Systems Study

- CONCEPT FEASIBILITY
- DEMONSTRATION DESIGN
- IMPLEMENTATION EFFECTS

SAMPLE

Mr. Robert Jones
Director of Planning
City Hall
City, State

Dear Mr. Jones:

With reference to our recent phone conversation, I am writing to you to request your assistance in a project we are currently conducting as a team of consultants to the Transportation Systems Center and the Urban Mass Transportation Administration of the U.S. Department of Transportation. The purpose of the study is to evaluate the feasibility of applying the concepts of Auto Restricted Zones and Multi User Vehicle Systems in selected U.S. cities.

Auto Restricted Zones (ARZ) are areas created in congested portions of cities wherein automobile traffic is prohibited or restricted. Such a zone may range in size from a few blocks along several adjacent streets to large portions of major activity centers. There are many forms of ARZ's which may be created through the imposition of a variety of techniques including transportation pricing, barriers to through traffic, traffic management controls, regulations of demand, or physical restriction.

A Multi User Vehicle System (MUVS) is characterized by a fleet of vehicles (variable size and type) which is made available to qualified subscribers with frequent turnover among users and self-drive operation. There are many potential vehicle types including grocery carts, bicycles, golf carts, electric cars, etc., and there are several different forms of multi-user vehicle systems, depending upon the number and location of access points and the types of trips permitted. There may be one or several well-defined terminals where users pick up and drop off vehicles, or vehicles may be picked up and left at curbside anywhere throughout the service area. Travel may be restricted to short trips within the service area or may include the service area to suburbs commute, line-haul feeder service, and other trip patterns.

A third area of investigation will consider the use of multi user vehicle systems in conjunction with auto restricted zones in order to maintain adequate service and access within an ARZ.

The present study will assess the general feasibility and applicability of the ARZ and MUVS concepts, evaluate and select potential demonstration sites, cooperate in the design of demonstration projects, and assess the potential impacts of implementing an appropriate form of ARZ or MUVS in a particular site.

a joint effort by:

Alan M. Voorhees & Associates, Inc.
Transportation & Urban Planning
Westgate Research Park
McLean, Virginia 22101

■

Cambridge Systematics, Inc.
Transportation Demand Analysis
238 Main Street
Cambridge, Mass. 02142

■

Moore-Héder
Architects & Community Planners
806 Massachusetts Ave.
Cambridge, Mass. 02139

This project forms a part of the UMTA Service and Methods Demonstration Program. The objectives of the proposed ARZ and MUVS demonstrations simply summarized are:

- To decrease vehicular traffic in the central city
- To decrease the land requirements for auto-oriented uses
- To create a more appealing environment for pedestrian and other activities
- To decrease vehicle exhaust pollution, vehicle noise pollution, energy consumption, and accidents

As part of the study process, the feasibility and application of alternative forms of auto restriction and multi user vehicle systems—pedestrianization, diversion of traffic, signal and lane controls, parking controls, and vehicle type, service area, fleet control—will be considered individually and in combination with each other. Once suitable sites have been selected, plans for demonstrating the form of ARZ/MUVS most appropriate for a selected site will be evolved in close cooperation with local agencies.

The objective of this current inquiry is twofold:

1. To establish an inventory of current thinking and projects planned at localities throughout the country which relate to auto restriction and multi user vehicle systems; and

2. To identify potential demonstration sites and work towards implementation of specific demonstration projects to which UMTA demonstration funds may later be directed.

This present inquiry is the first step in our process of information gathering from a "long list" of localities. Your response, as well as other lines of inquiry (literature, site visits, etc.), will be used to generate a "short list" of likely sites and later assist in the design of an actual demonstration project. Final decisions related to site selection will be made by our clients at the Transportation Systems Center and UMTA. This inquiry is <u>not</u> intended to suggest a <u>commitment</u> to further consideration of your locality for a demonstration site by either the consulting team or our clients. We would, however, like to be informed as to the degree of your interest, if any, in conducting a demonstration project, and we would appreciate your identifying the possible areas of consideration as well as the agencies and individuals we should most appropriately contact if it were decided to further pursue the discussion of possible demonstrations in your locality. It is understood that your cooperation in response to this request for information does not constitute a commitment of your city to participate in a demonstration.

The attached list requests informational materials that will be helpful to us in the current phase of work. The list consists of "indicators" of city structure, activity patterns, and planning processes and was assembled with consideration for the type of materials that are usually available from local planning agencies. We hope that these materials can be provided with a minimum of extra effort. We would like to encourage brief descriptions and simple graphic materials (such as working notes on a base map) that are as up-to-date as possible. While it is recognized that the amount of information requested is substantial, it will play a key role in our initial site evaluation and screening process and, therefore, is important. If you or your office are not the most appropriate respondents to some or all of the questions, it would be very much appreciated if you would transmit this request to those who may have the materials.

In order to maintain the project time line for site selection, we must complete this first phase inquiry as soon as possible. Therefore, any information and materials which you can provide at your earliest convenience will be appreciated. The requested materials should be forwarded to Moore-Heder, 806 Massachusetts Avenue, Cambridge, Massachusetts 02139. If some of the requested materials are not readily available, they can be forwarded at a later time.

We very much appreciate your time and cooperation in this matter and will keep you informed on the progress of this study.

Sincerely,

ARZ/MUVS INFORMATION AND MATERIALS REQUEST

1. Indicators of City Structure—please supply if available:

   - City-wide street map, indicating type of street network, block patterns, major roads, major natural features; please indicate on map and describe general areas where ARZ's or MUVS's may be suitable.
   - Mass transit system route map indicating modes of transport.
   - City-wide map indicating land use, density patterns, and functional areas.
   - City map indicating location and type of traffic control devices.
   - City street map indicating volume/capacity relationships on major routes.
   - Potential ARZ or MUVS area-base map (1" = 200', if possible) to indicate street sizes, typical block and building patterns, property configurations, land use, and density patterns.
   - Aerial photo of same area.
   - List of special environmental features that may affect ARZ or MUVS planning such as water bodies, parks, historic streets and buildings, special shopping, recreational and cultural areas, universities, etc.

2. Indicators of functional and activity patterns—please supply if available:

   - Map of average daily traffic in central area or other potential ARZ areas.
   - Present travel demand to central area or other potential ARZ areas by mode of travel.
   - Parking map—on-street, open lot, and garage—indicate proposed policy changes or major new developments, if any.
   - Samples of land values and space rents located on base map ($ per square foot; $ per square foot/year).
   - Description of daily and year-round climate cycle.
   - List of special activity patterns and land uses related to ARZ potential: i.e., active tourist business, resident population, special shopping patterns, regular working population, nighttime activities, special events and festivities, etc. Please locate these activities and describe with notes on base map.

- Location of auto intensive land uses indicating a high dependency on auto access (gas stations, car wash, etc.).

3. Local interest in and past history of planning oriented to auto restriction and pedestrianization. Please include a brief description here—if more detailed studies or reports already exist, we would appreciate your enclosing copies or reference to them.

Please describe briefly:

- Community and governmental attitudes toward restriction of auto traffic and pedestrianization with some examples.

- Projects already built (size, type, and degree of restriction, when it was implemented).

- Plans under active consideration (size, type, and degree of restriction, when it is proposed for implementation).

- Past planning projects not implemented (why?).

4. Indicators of local planning, decision-making, and implementation process. Please provide if available:

- Comprehensive plan and/or description of current planning process for overall transportation and environmental planning in your city.

- Description of decision-making structure of your local government related to transportation and environmental planning issues.

- Examples of recent history of planning and implementation of public environmental planning projects (chronology, key decisions, influential people, groups and agencies, results).

- Reference to major private development projects or proposals in the potential ARZ areas.

- Description of specific recent programs of community information and participation related to environmental planning and transportation issues (i.e., urban highways, street changes, major new development, etc.).

5. Other observations or materials which may serve as area indicators and provide insight relative to the appropriateness of a site within your urban area for demonstrating the ARZ or MUVS concepts.

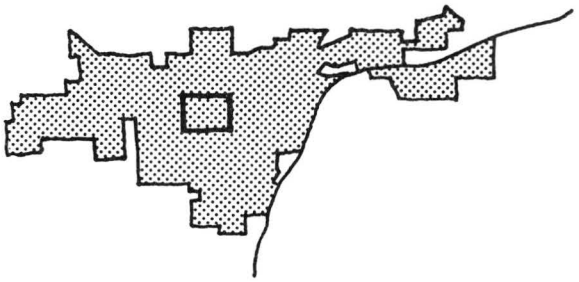
APPENDIX B
CITY SUMMARY FACT SHEETS

258-418 O - 78 - 6

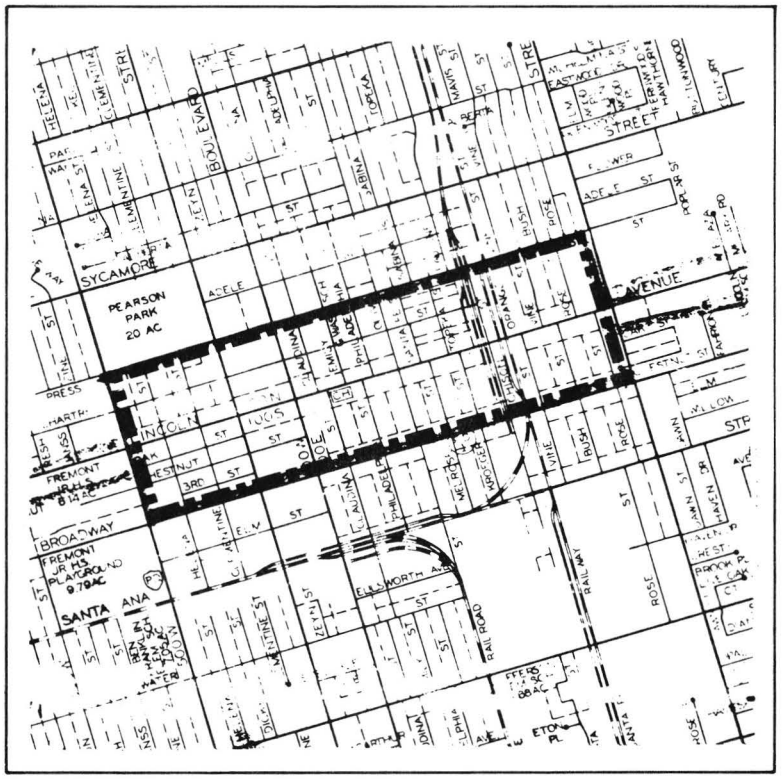
Anaheim, Cal.

Population 167,000
SMSA Pop. 1,527,000
City Area 33.3 sq. mi.
Employment 70,000

Employment
Density 2,102/sq. mi.



1M



Downtown area proposed for consideration of ARZ and MUVS application.

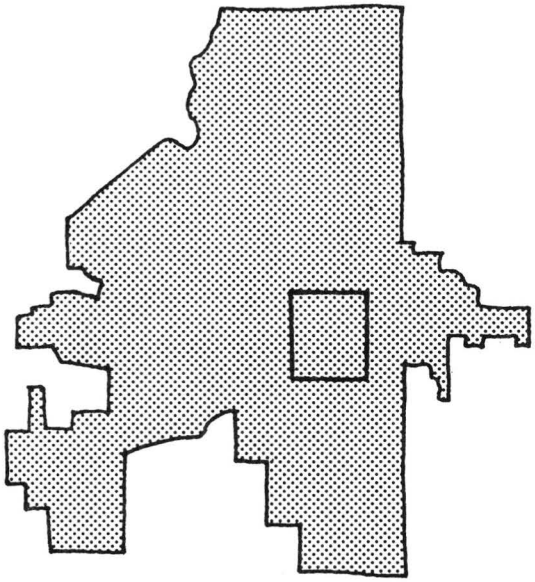
ARZ Proposal

No ARZ site or plan is proposed. The "Project Alpha" downtown renewal plan was submitted with the implication that ARZ/MUVS demonstration may occur there.

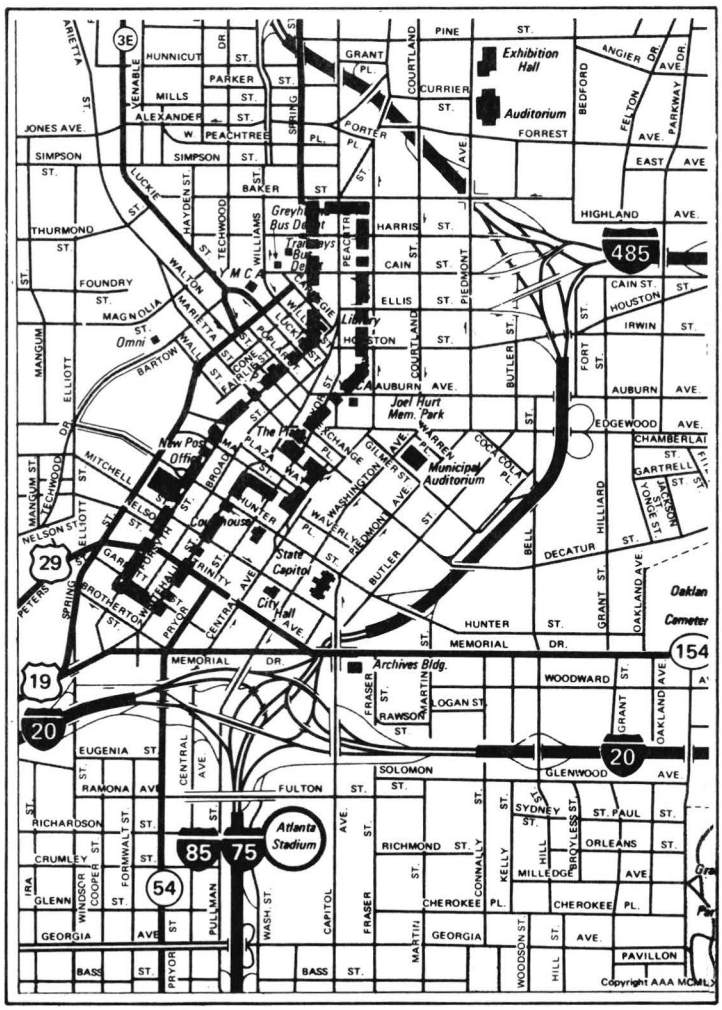
Atlanta, Ga.

Population 497,000
SMSA Pop. 1,684,000
City Area 131.5 sq. mi.
Employment 200,000

Employment
Density 1,521/sq. mi.



1M



Pedestrian malls proposed in conjunction with planned MARTA system.

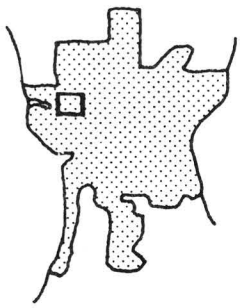
ARZ Proposal

A series of pedestrian malls are to be created over new underground MARTA transit line: approx. 2200 ft. on Peachtree Street, 3400 ft. on Broad Street, and 100 ft. on Alabama Street forming a connected network.

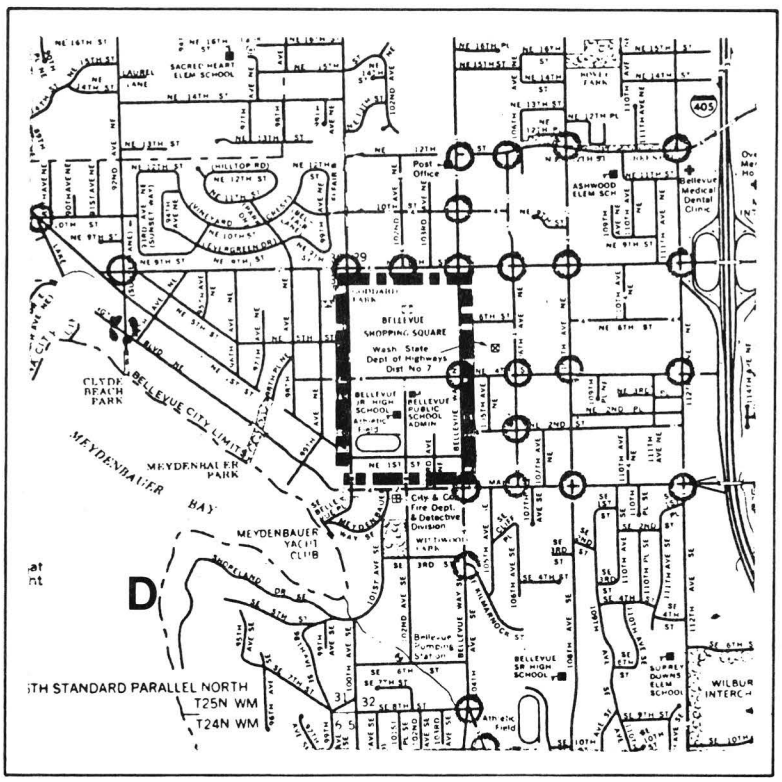
Bellevue, Wash.

Population 61,000
SMSA Pop. (Seattle) 1,400,000
City Area 23.6 sq. mi.
Employment 24,000

Employment
Density 1,017/sq. mi.



1M



Area proposed for pedestrianization and development of a transit mall.

ARZ Proposal

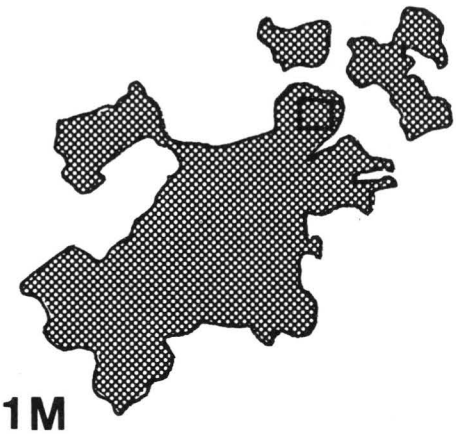
Approximately 1500 x 3000 ft. area in central commercial area containing:

- Existing shopping center
- High school and athletic fields
- Proposed new development, transit mall
- New garages at 100th Ave. and Interstate 405

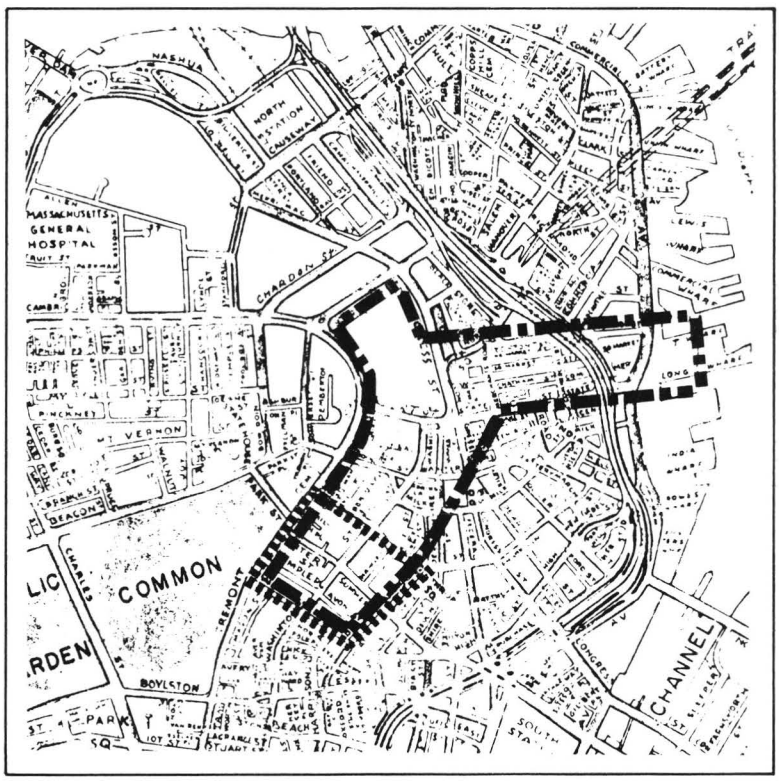
Boston, Mass.

Population 641,000
SMSA Pop. 2,899,000
City Area 46.0 sq. mi.
Employment 266,000

Employment
Density 5,783/sq. mi.



1M



▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ 8 block area in retail core specifically proposed for pedestrianization.

▬ ▪ ▬ ▪ ▬ ▪ Potential identified for extension of ARZ to Government Center and to the waterfront.

ARZ Proposal

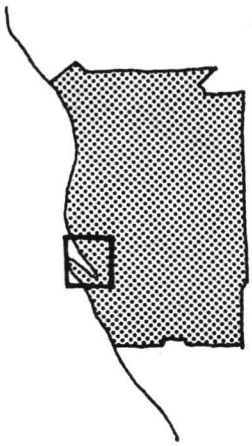
1. 8 blocks, approximately 1000 x 1000 ft. containing:
   - 100% retail corner (four major department stores)
   - Major section of Washington St. retail spine
   - Edge of Boston Common
   - Park Street, Washington St. subway stations (center of transit system)
   - Adjacent to major new Lafayette Place development site
   - Edge of financial district

2. The major part of the Downtown area could be considered for partial auto restriction (this is not specifically suggested but seems logical).

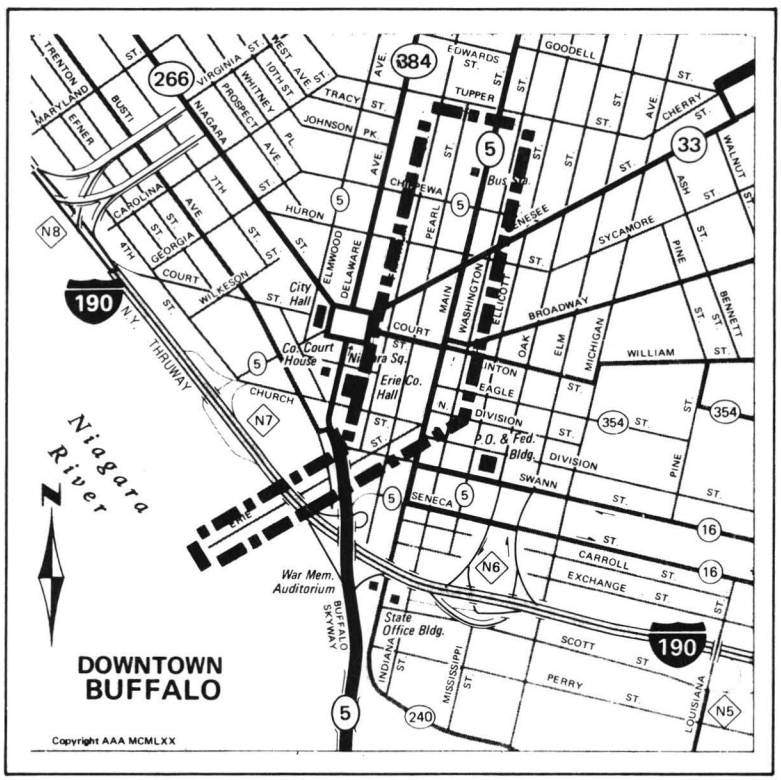
Buffalo, N.Y.

Population 463,000
SMSA Pop. 1,354,000
City Area 41.3 sq. mi.
Employment 172,000

Employment
Density 4,165 sq. mi.



1M



Downtown area proposed for a range of partial and full auto restriction.

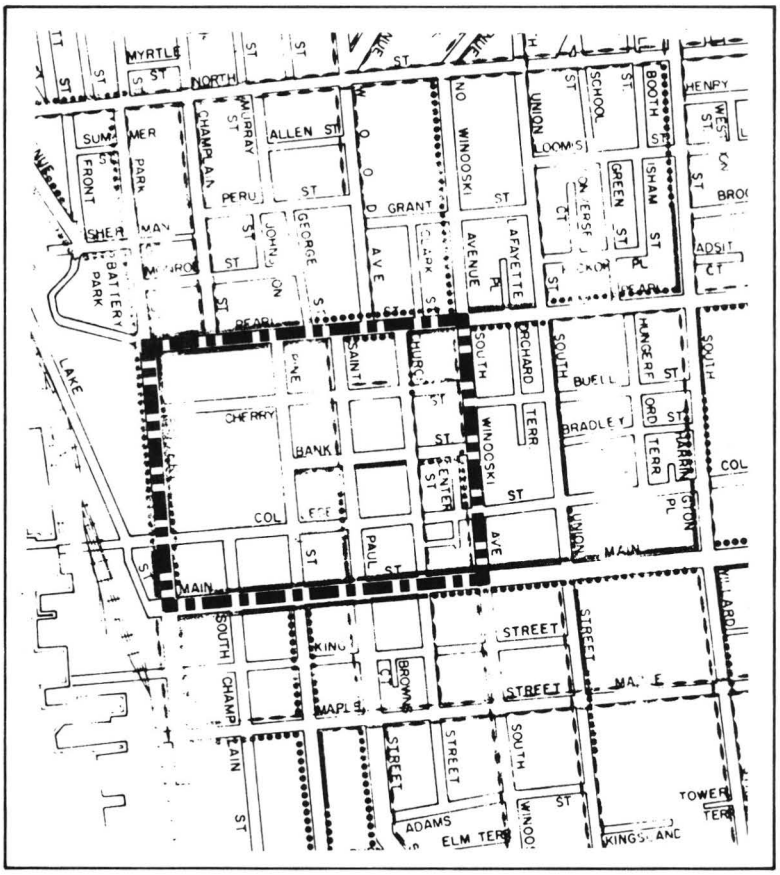
ARZ Proposal

In an approximately 2500 x 1000 ft. area of Downtown, proposal is to close Main Street to traffic, create a pedestrian mall, mostly covered, over new subway tunnel and stations running under street, and create pedestrian arcades and plazas on some of side streets.

Burlington, Vt.

Population 39,000
Retail Catchment Area 297,000

1M



ARZ area includes proposed Church Street Mall pedestrianway and partial auto restriction in Burlington Square redevelopment.

ARZ Proposal

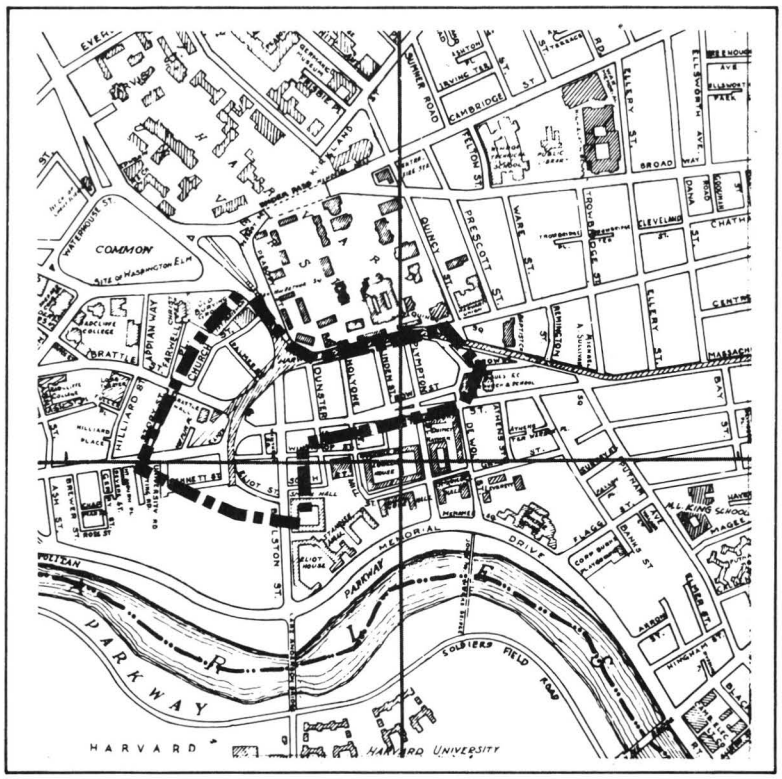
2000 ft. x 1600 ft. section of downtown including proposed 4 block Church Street Mall (main shopping street) and adjacent Urban Renewal Project (the latter under construction).

Cambridge, Mass.

Population 100,000
SMSA (Boston) 2,899,000
City Area 6.2 sq. mi.
Employment 47,000

Employment
Density 7,581/sq. mi.

1M



Area proposed for a range of pedestrian improvements, including full pedestrianization of Brattle Street.

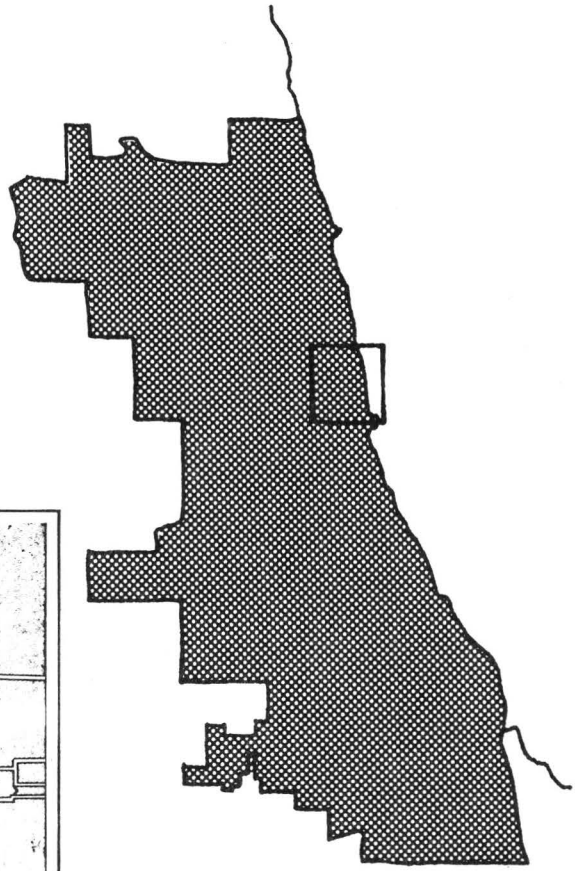
ARZ Proposal

Harvard Square area: pedestrianization of major shopping streets within an approximate 500 x 700 ft. area forming the commercial core of Harvard Square; coordination with adjacent auto restricted areas of the Harvard University campus and with auto restriction through parking control in the adjacent residential neighborhoods.

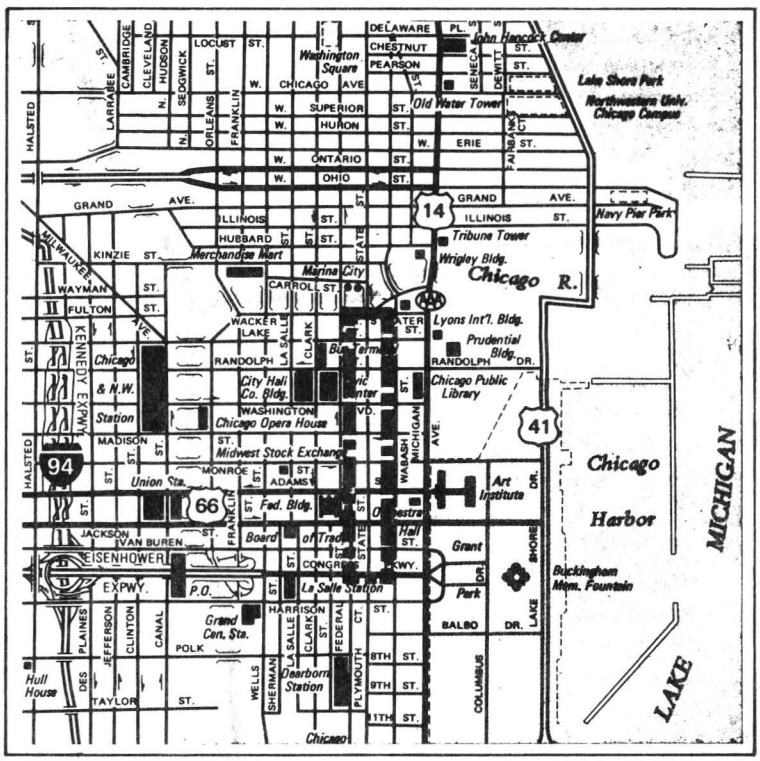
Chicago, Ill.

Population 3,367,000
SMSA Pop. 7,085,000
City Area 222.6 sq. mi.
Employment 1,388,000

Employment
Density 6,235/sq. mi.



1M



Proposed State St. Transit Mall.

ARZ Proposal

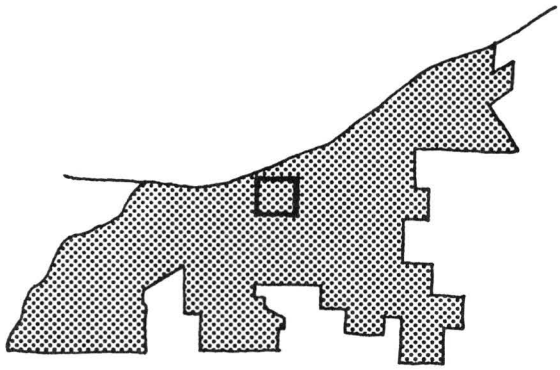
1. State Street Transit Mall — a 9 block, ¾ mile section of State Street in the CBD (Wacker Drive to Congree Parkway). Two exclusive bus lanes and widened sidewalks with landscaping and pedestrian facilities are proposed.

2. A general interest was expressed in attempting ARZ demonstrations in one of three or four possible residential areas. These were not identified.

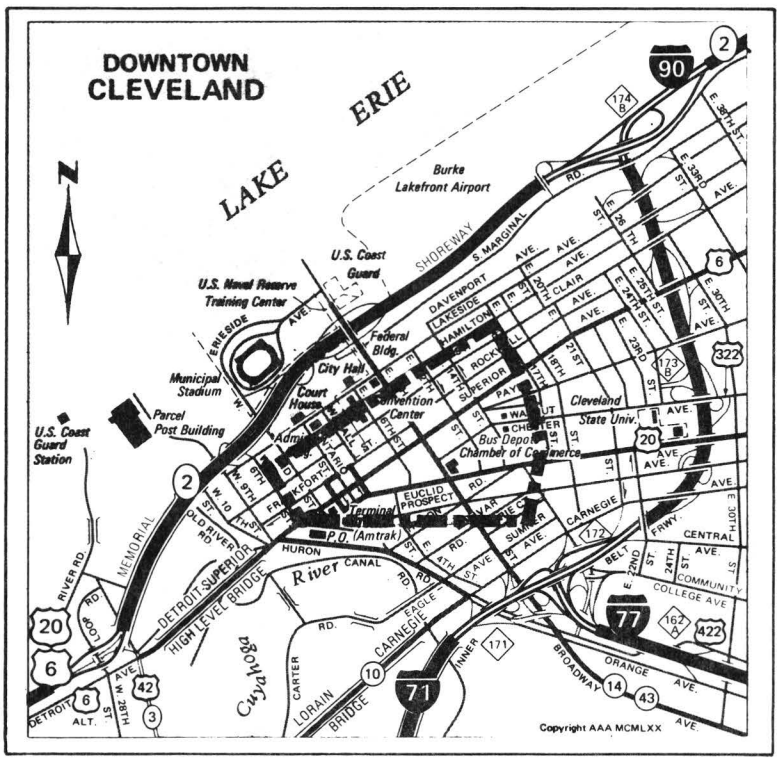
Cleveland, Ohio

Population 751,000
SMSA Pop. 2,046,000
City Area 75.0 sq. mi.
Employment 287,000

Employment
Density 3,827/sq. mi.



1M



Area proposed for partial and full traffic restrictions within an auto loop road.

ARZ Proposal

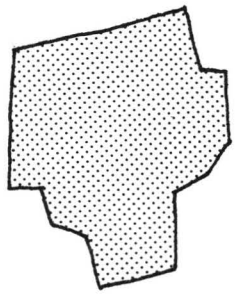
As recommended in "Concept for Cleveland":

- ARZ within approximate 1 mile x ½ mile proposed loop road (partial and full traffic restriction)
- Euclid Avenue (main shopping street) to become Transit Mall with three bus lanes, no private cars
- Public Square and Playhouse Square on either end of Mall to be made traffic-free in phases
- Other pedestrian streets to be created and sidewalks improved throughout the rest of the area inside loop road
- Tram line and downtown bus loop to be provided within ring road

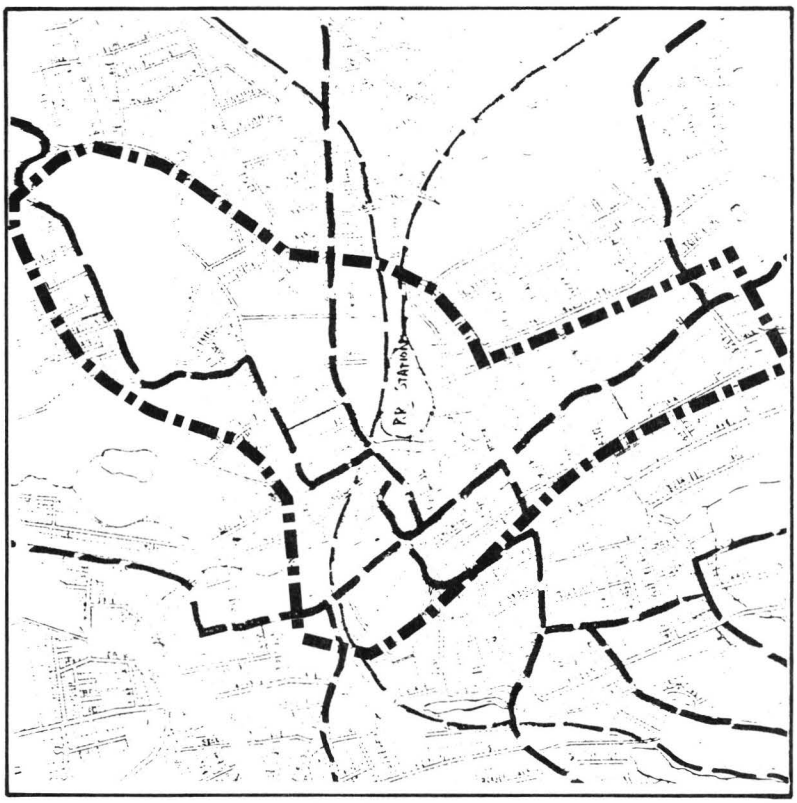
Danbury, Conn.

Population 51,000
SMSA Pop. 78,000
City Area 43.9 sq. mi.
Employment 21,000

Employment
Density 480/sq. mi.



1M



Area proposed for consideration of selective ARZ applications.

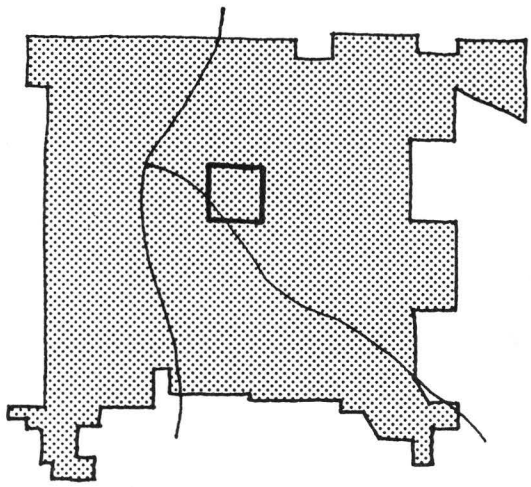
ARZ Proposal

One-half square mile area, including Danbury Hospital, Central Business District, Western Connecticutt State College, and a substantial medium-density residential population is indicated as having ARZ potential.

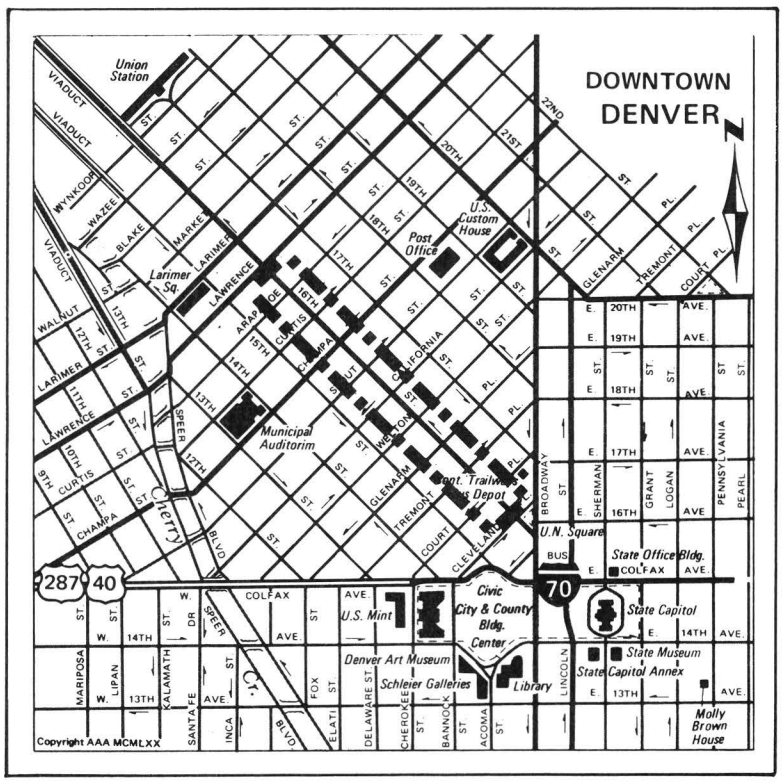
Denver, Colo.

Population 515,000
SMSA Pop. 1,309,000
City Area 95.2 sq. mi.
Employment 212,000

Employment
Density 2,227/sq. mi.



0 1M



Proposed 16th Street transit mall.

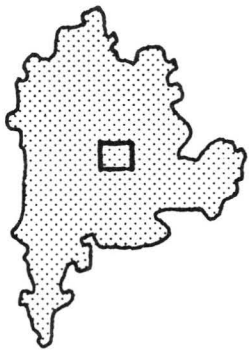
ARZ Proposal

16th Street Mall: single street, 10 blocks (primary retail), approximate 3500 ft. long. Transit bus use on mall, mixed traffic on all cross streets.

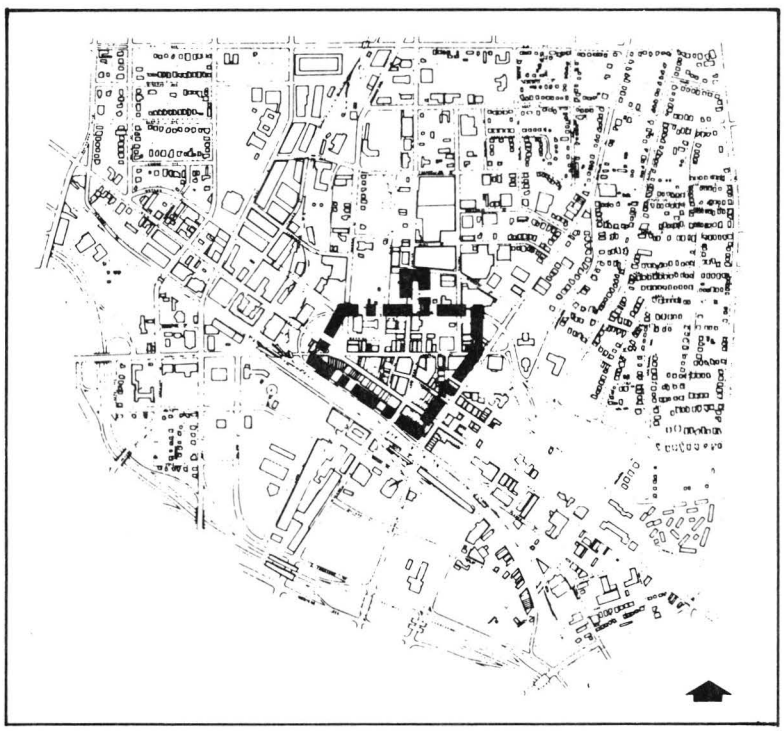
Durham, N.C.

Population 95,000
City Area 36.6 sq. mi.
Employment 39,000

Employment
Density 1,066/sq. mi.



1M



Area of pedestrian-ways within the downtown loop.

ARZ Proposal

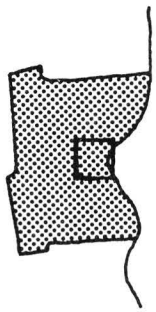
Entire CBD area within newly constructed loop road, approximate 1500 x 2500 ft. has been considered for a combination of partial and full pedestrianization. ARZ plan fully developed with loop road already in place.

Hartford, Conn.

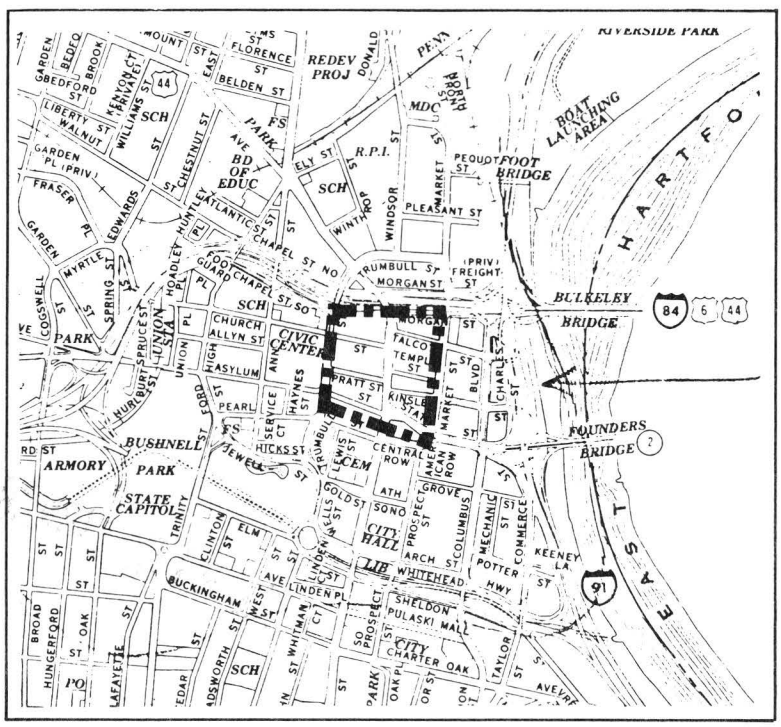
Hartford, Conn.

Population 158,000
SMSA Pop. 721,000
City Area 17.4 sq. mi.
Employment 68,000

Employment
Density 3,908/sq. mi.



1M



Potential pedestrian area in retail core.

ARZ Proposal

No clearly defined proposal was submitted.

1. All of downtown was identified as "very general location of Auto-Free Zone."

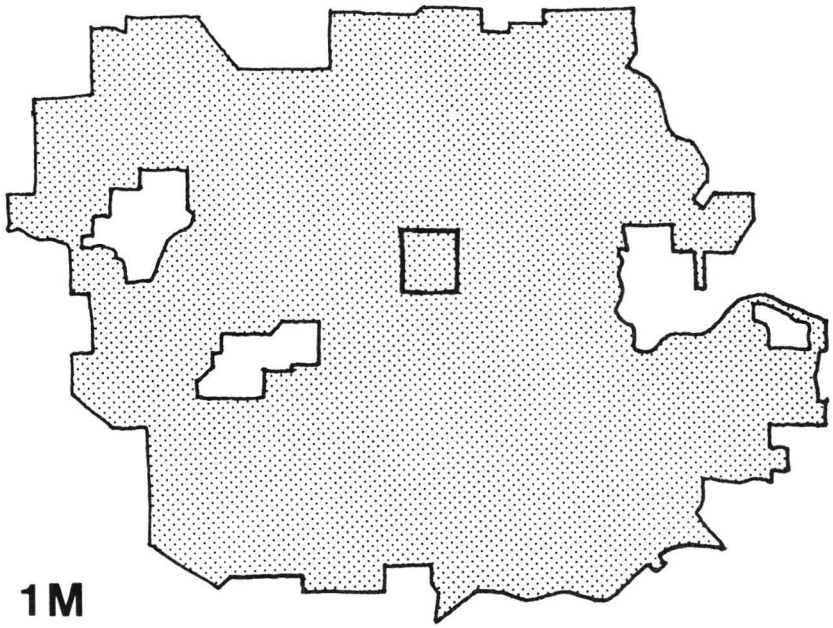
2. 1972 Development Plan indicates a series of "malls/semi-malls" adjacent to a 4000 ft. section of Main Street between City Hall and Church Street.

Houston, Texas

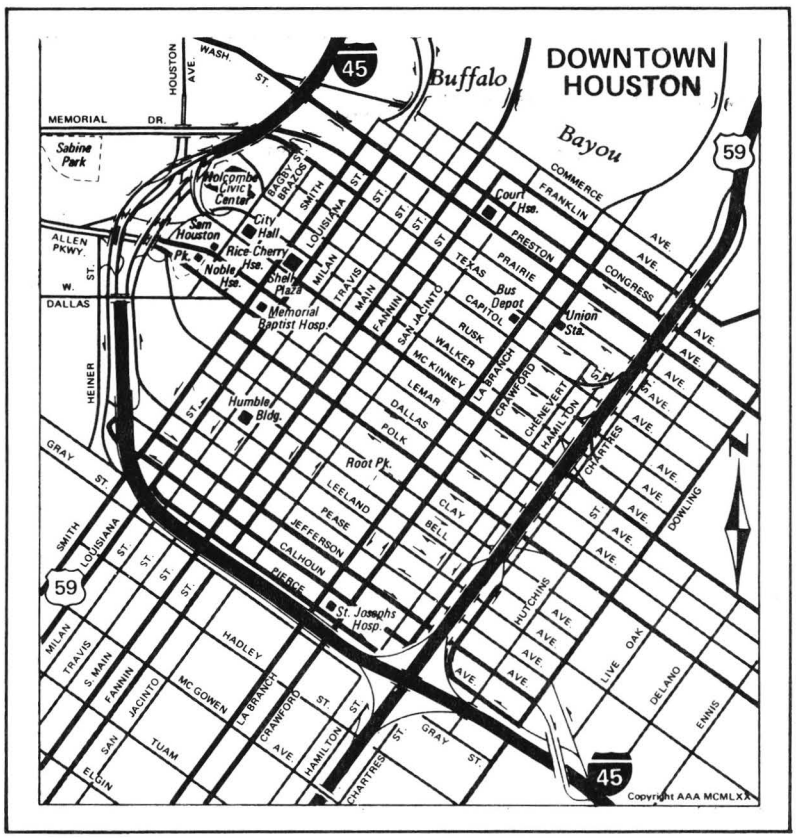
Houston, Texas

Population 1,232,000
SMSA Pop. 1,999,000
City Area 397.0 sq. mi. (U)
36.9 sq. mi. (R)
Employment 516,000

Employment
Density 1,189/sq. mi.



1M



No Specific ARZ Proposed.

Combination tunnel, skywalk, and sidewalk system under study for CBD.

ARZ Proposal

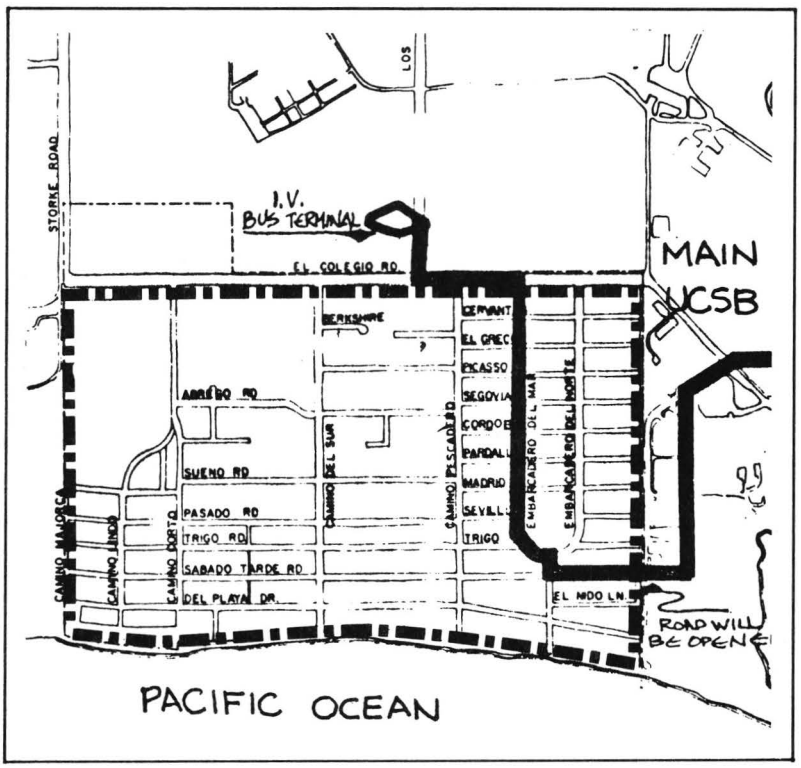
No specific proposal or study for ARZ-type plan was submitted. The CBD, Texas Medical Center, and Greenway Plaza/Galleria Commercial area are mentioned as potential areas.

Isla Vista, Cal.

Isla Vista, Cal.

Population 15,000
City Area .58 sq. mi.

1M



Auto restriction proposed for entire community.

ARZ Proposal

1. Safe Town Concept that proposes:

   a. Auto restriction in the whole community, approximate 4800 x 2800 ft. area.

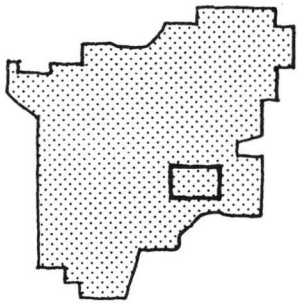
   b. Peripheral storage parking lots to be constructed for approximately 6,000 cars of residents and visitors on the northern edge of Isla Vista. Internal transportation to be shifted to a shuttle-tram system equipped with demand-response capacity.

Jackson, Miss.

Jackson, Miss.

Population 154,000
SMSA Pop. 259,000
City Area 50.2 sq. mi.
Employment 61,000

Employment
Density 1,215/sq. mi.



1M

Proposal to pedestrianize Capitol Street.

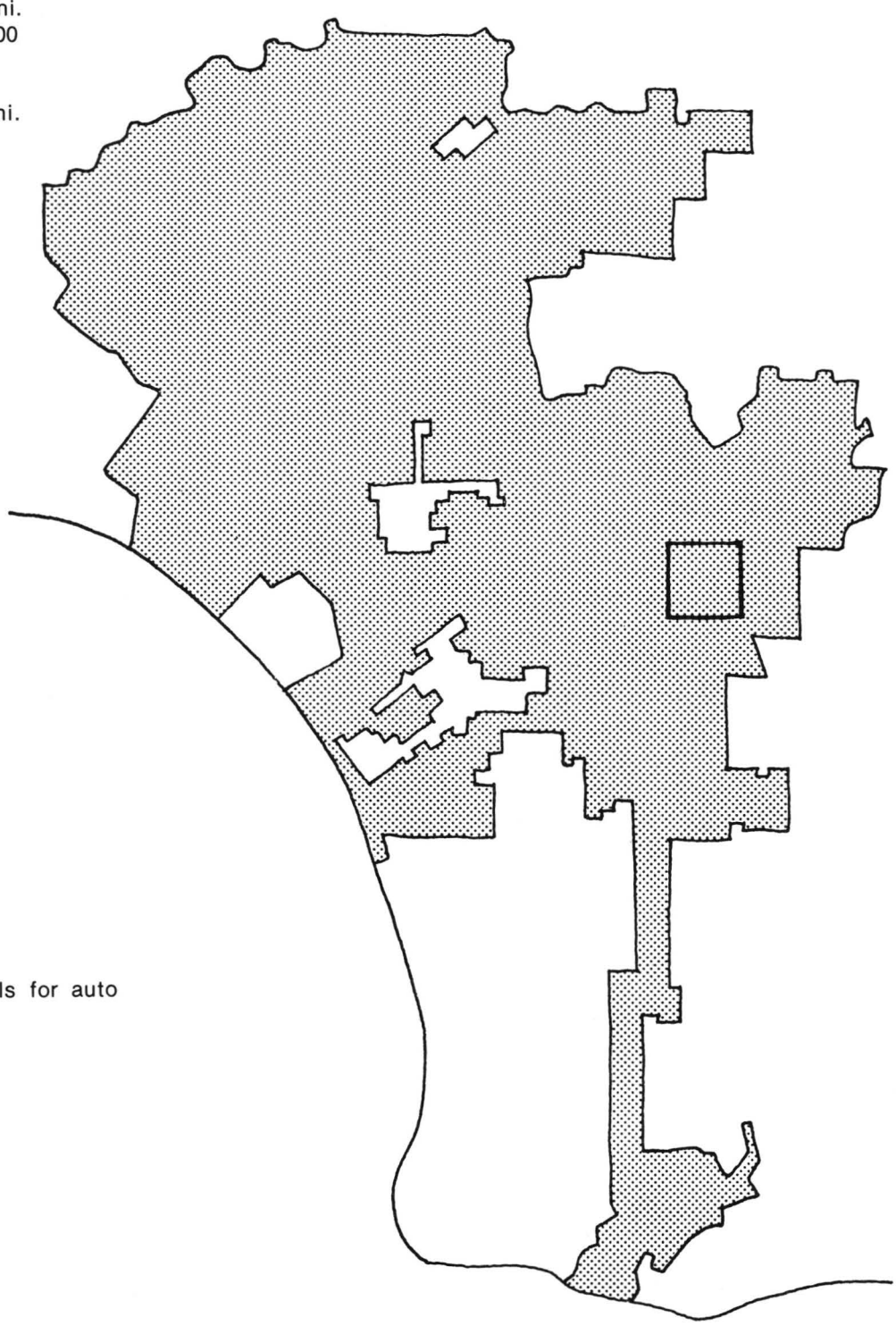
ARZ Proposal

Approximate 1000 ft. section of Capitol Street to be turned into mall with no vehicular traffic.

Los Angeles, Cal.

Population 2,816,000
SMSA Pop. 7,000,000
City Area 463.7 sq. mi.
Employment 1,150,000

Employment
Density 2,480/sq. mi.



No specific proposals for auto restriction.

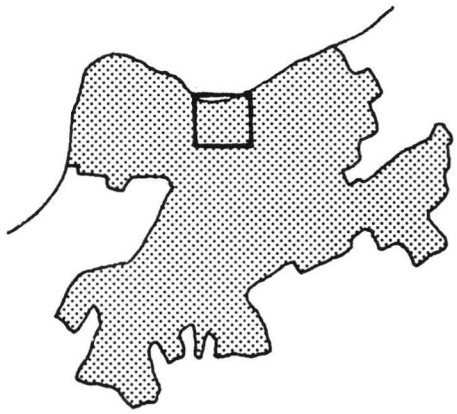
ARZ Proposal

None proposed.

Louisville, Ky.

Population 361,000
SMSA Pop. 888,000
City Area 60.0 sq. mi.
Employment 141,000

Employment
Density 2,350/sq. mi.



1M

Areas of existing and proposed center city pedestrianization and ARZ.

ARZ Proposal

1. 1700 ft. x 4000 ft. area of center city containing the already-implemented River City Mall and new developments on the waterfront — various full and partial ARZ measures.

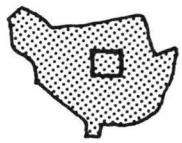
2. 1500 ft. x 1800 ft. Medical Center area.

3. 1800 ft. x 2500 ft. area of the University of Kentucky campus, approximately 1½ miles south of downtown.

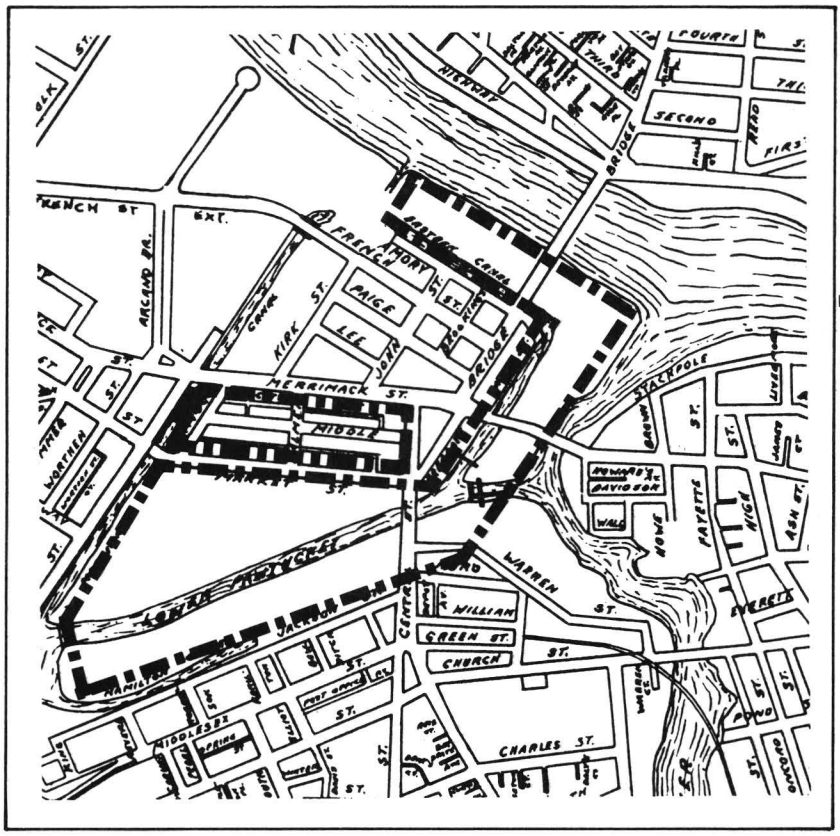
Lowell, Mass.

Population 94,000
SMSA Pop. 218,000
City Area 13.6 sq. mi.
Employment 39,000

Employment
Density 2,868/sq. mi.



1M



Area of proposed pedestrian mall at Middle Street with additional restrictions in city-wide historic development.

ARZ Proposal

1. Specific proposal: 1000 ft. section of Middle Street will be turned into pedestrian mall.

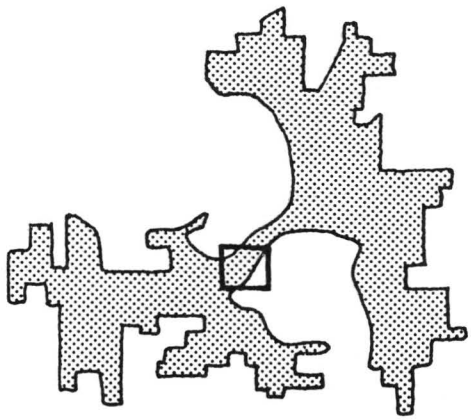
2. Auto restriction throughout center city area (approximate 1500 ft. x 1500 ft.) may be considered as part of a National Historic Park development (not specifically suggested by city).

3. Heritage State Park: proposing a city-wide network of barge-ways, boat-ways, bicycle routes, and foot paths focused on the canals.

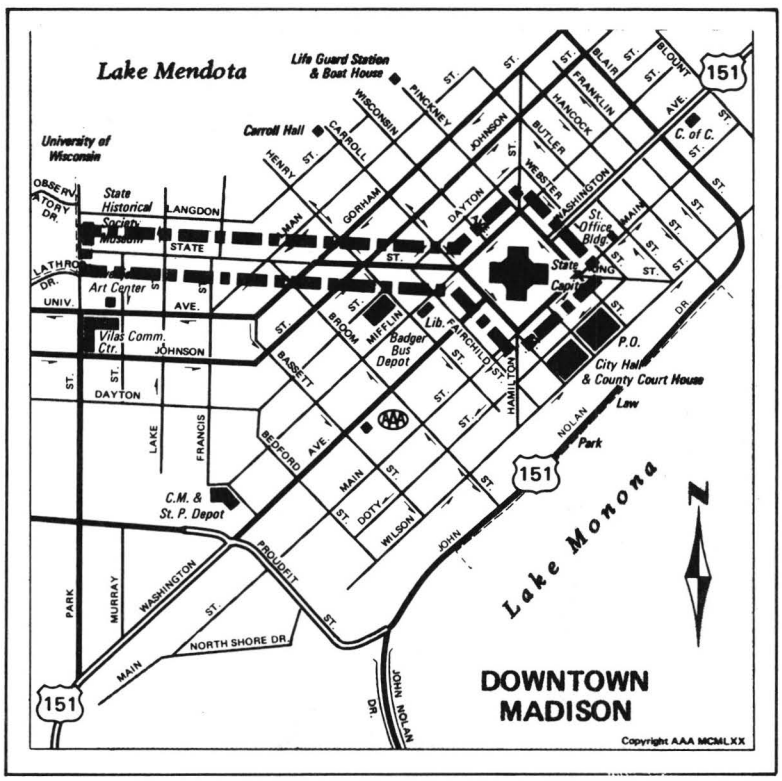
Madison, Wis.

Poulation 173,000
SMSA Pop. 300,000
City Area 48.5 sq. mi.
Employment 76,000

Employment
Density 1,567/sq. mi.



1M



Proposed State St. and Capitol Concourse transit and pedestrianway development. First stage currently being implemented.

ARZ Proposal

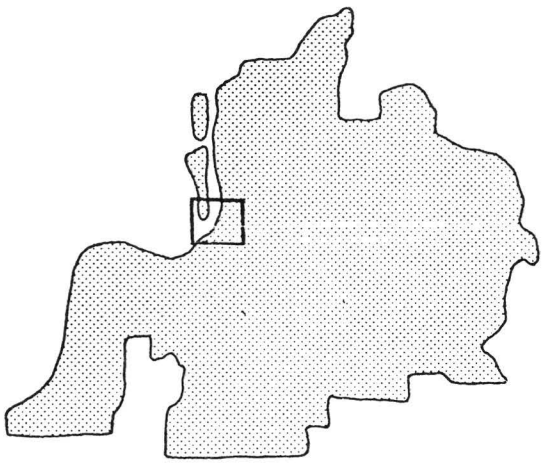
State Street and Capitol Concourse: 3200 ft. of State Street and 1500 x 1500 ft. area around State Capitol at eastern end of street, western end connecting to University of Wisconsin campus (essentially an ARZ). Major cross streets maintained for mixed traffic.

State Street and Capitol concourse to become bus transit and pedestrianways. First stage of transitway is in implementation with UMTA Section 3 funding.

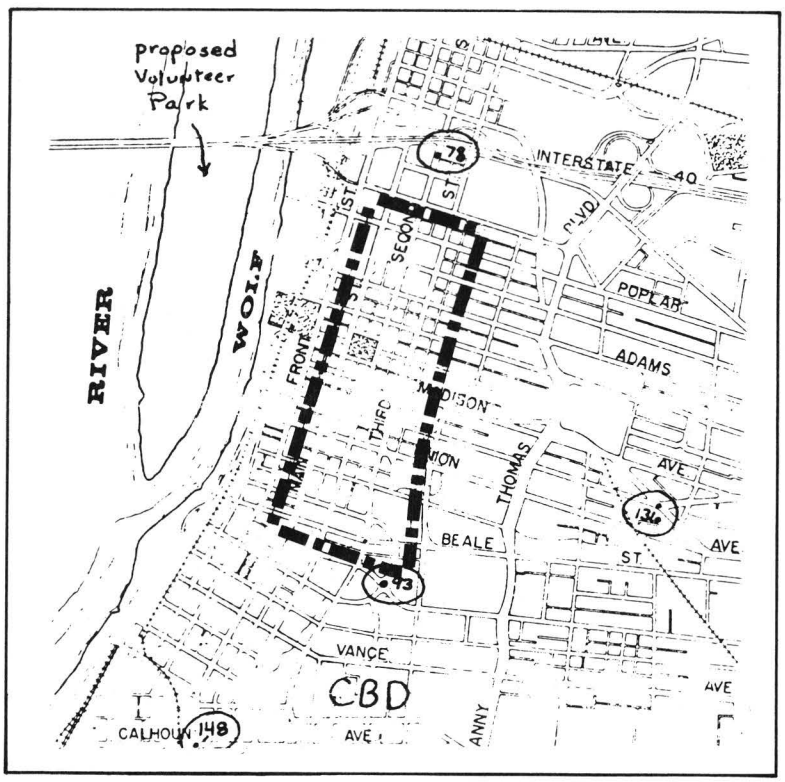
Memphis, Tenn.

Population 623,000
SMSA Pop. 834,000
City Area 177.5 urban
39.9 rural
Employment 238,000

Employment
Density 1,095/sq. mi.



1M



Area of downtown proposed for pedestrianization and pedestrian improvements in conjunction with Main St. Mall currently under construction.

ARZ Proposal

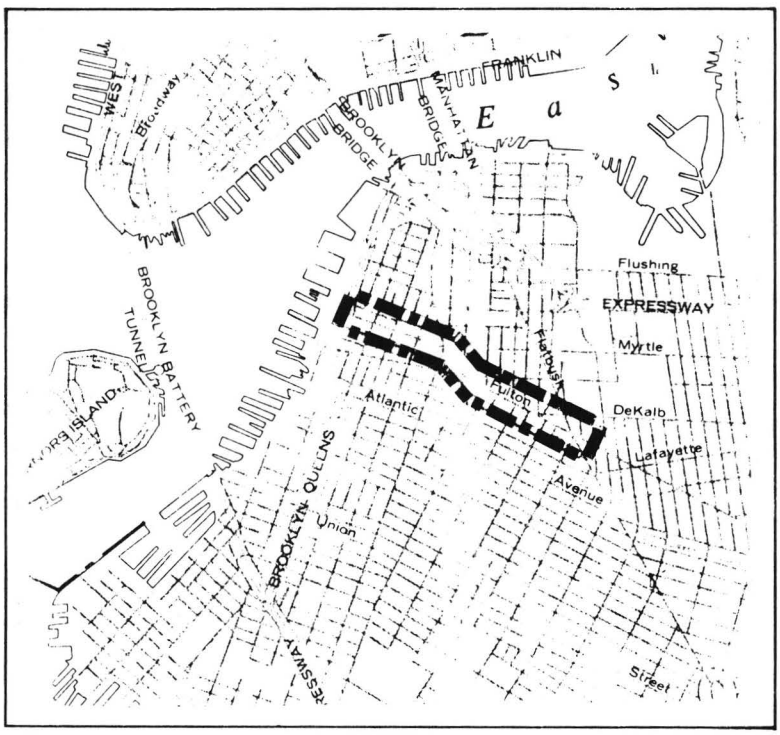
1. **Mid America Mall**: approximate 1 mile long pedestrian mall on Main Street is currently under construction ($6 million project); second phase planning for Beal Street and Washington Street Malls perpendicular to Main Street is almost complete, and it will amount to a 2 mile pedestrian street system. Opportunity is identified for further extending Auto Restriction and instituting an MUVS experiment.
2. Five additional sites have been identified as potential ARZ/MUVS locations:
   - Memphis Medical Center
   - Overton Park, recreational area of 300 acres
   - Overton Square, restaurant/entertainment/shopping
   - Memphis State University, 20,000 students
   - Shelby Park, 4500 acres former penal farm

N.Y.C. Brooklyn

NYC Population 7,895,000
SMSA Population 15,000,000
NYC Area 299.7 sq. mi.
NYC Employment 3,190,000

Employment
Density 10,644/sq. mi.

0 1M



Proposed Fulton St. transit mall and pedestrianization of Montague Street.

ARZ Proposal

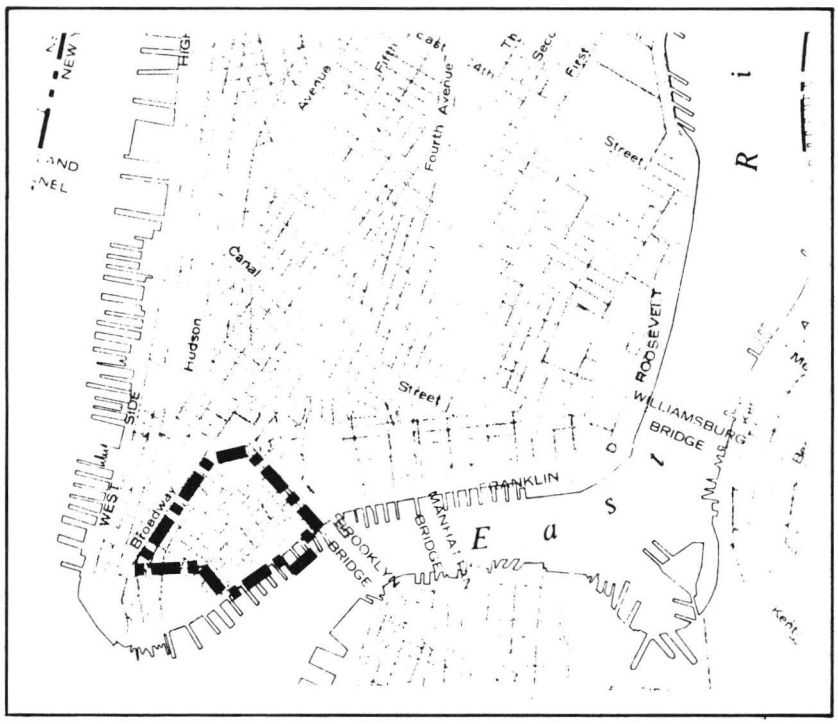
1. Fulton Street Transit Mall. 8 blocks, approximate ½ mile of main shopping street in downtown Brooklyn with improvements on side streets approximate 200 ft. on either side. Covered arcade structure with plexiglass roof is proposed. Five bus routes are proposed to run on transitway. Seven subway stations are located within a block of proposed ARZ.
2. Montague Street. Four blocks, approximate 2000 ft. of a specialty shopping street running from Borough Hall to the Brooklyn Heights Promenade on the East River: "major pedestrianization and possible lunchtime street closing." (No further information given on this proposal.)

N.Y.C. Lower Manhattan

NYC Population 7,895,000
SMSA Population 15,000,000
NYC Area 299.7 sq. mi.
NYC Employment 3,1900,000

Employment
Density 10,644/sq. mi.

1M



Proposal for full pedestrianization in South Street Seaport District and a range of partial and full auto restriction in the Exchange Square/Nassau Street area.

ARZ Proposal

Essentially all of Lower Manhattan (approximate 1 square mile) is already a de facto ARZ: only 4% of work trips are to the area by auto and taxi.

Specific proposals with ARZ emphasis:

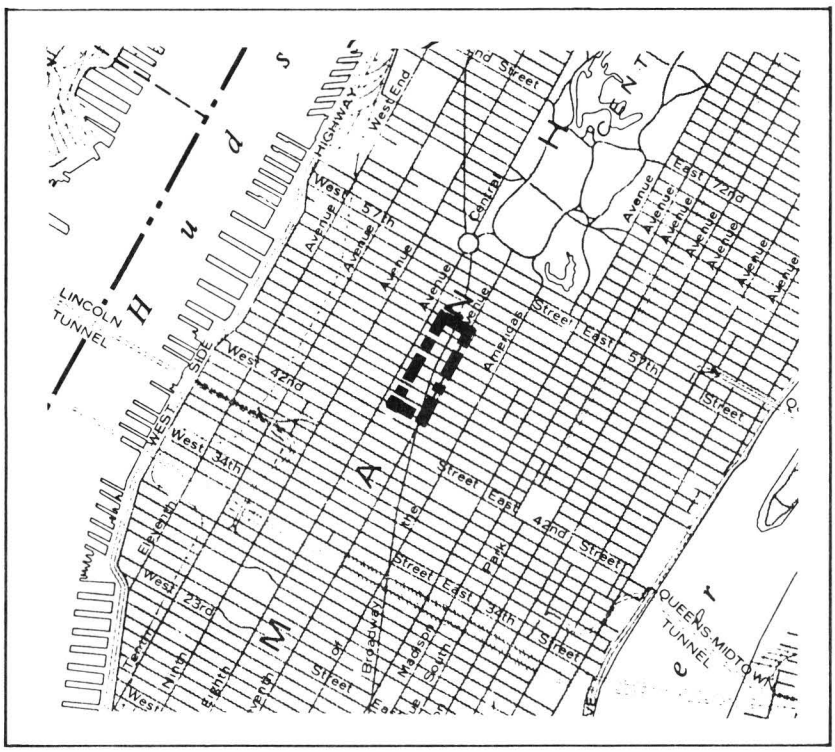
1. **South Street Seaport District.** 500 x 1200 ft., 8 block area containing historic seaport and commercial structures proposed for renewal containing major seaport museum, shops, entertainment facilities, and residential redevelopment: full pedestrianization.
2. **Exchange Square-Nassau Street Area.** Aprroximate 1100 x 2500 ft., 34 block area. Auto restriction proposed by full pedestrianization of a portion of Nassau Street, partial pedestrianization of Exchange Square and Legion Square, and a pedestrian connection to the waterfront through Wall Street Landing.

N.Y.C. Midtown Manhattan

NYC Population 7,895,000
SMSA Population 15,000,000
NYC Area 299.7 sq. mi.
NYC Employment 3,190,000

Employment
Density 10,644/sq. mi.

1M



Proposed Broadway Plaza and transitway.

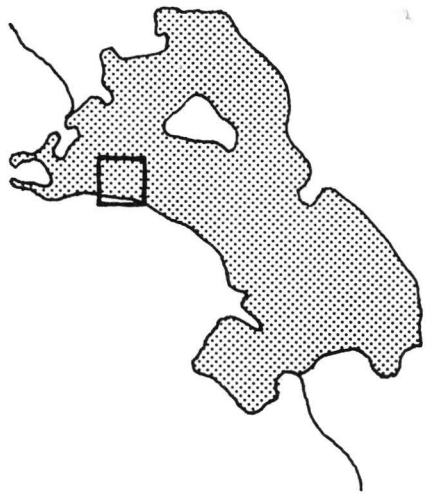
ARZ Proposal

Broadway Plaza Project: fully close and pedestrianize Broadway between 45th and 48th Streets, create buses-only transitway from 48th to 49th Streets, and progressively widen sidewalks and limit private auto use of transitway from 49th to 54th Streets.

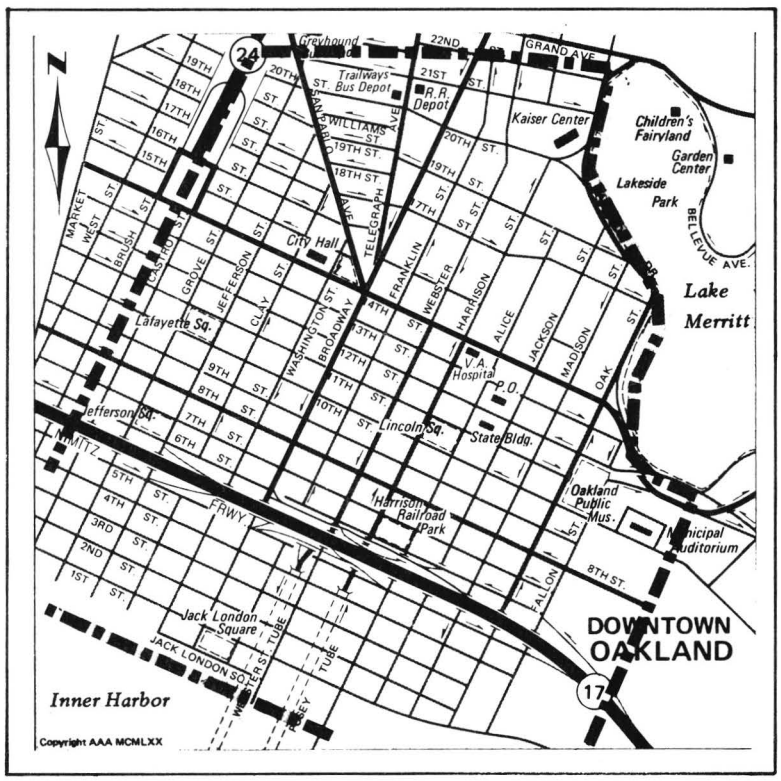
Oakland, Cal.

Population 362,000
SMSA Pop. 3,132,000 (S.F.)
City Area 53.4 sq. mi.
Employment 139,000

Employment
Density 2,603/sq. mi.



1 M



Area proposed for consideration of ARZ and MUVS application.

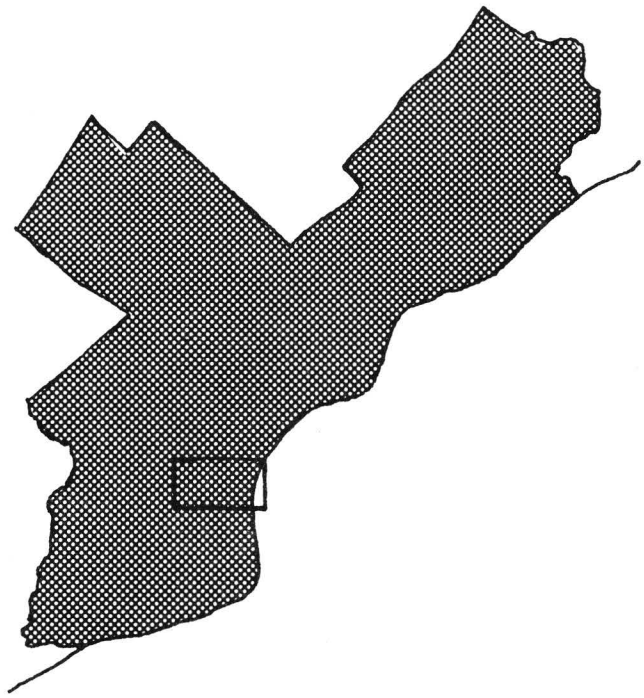
ARZ Proposal

None is clearly suggested. MUVS system is recommended for the core area, servicing facilities within an approximate 1 mile x ⅔ mile area as well as along the College Avenue corridor (about 2 miles), linking the University of California to California College of Arts and Crafts and a BART station. (Note: ½ of this corridor is in Berkeley.)

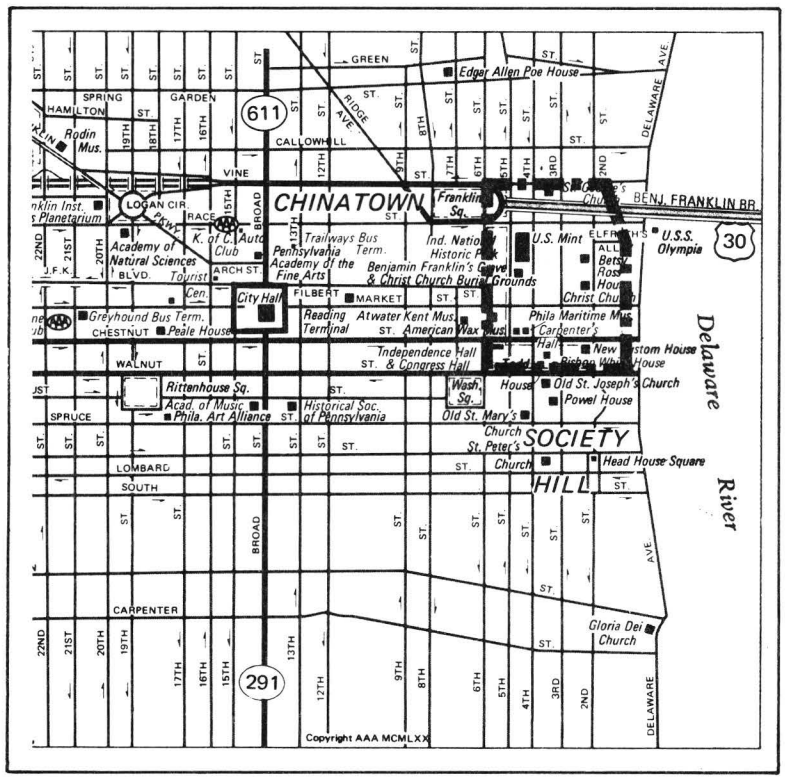
Philadelphia, Pa.

Population 1,949,000
SMSA Pop. 4,878,000
City Area 128.5 sq. mi.
Employment 764,000

Employment
Density 5,946/sq. mi.



1 M



Proposed ARZ in the Independence Mall and Old City Area.

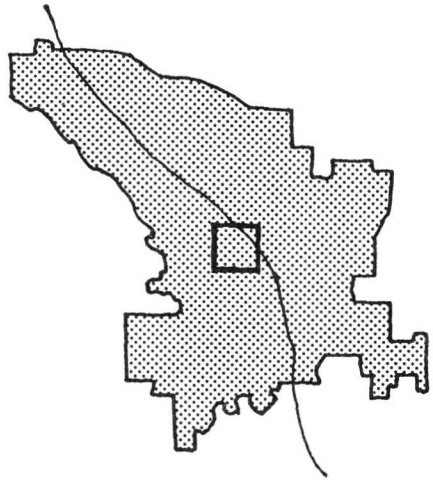
ARZ Proposal

Approximate 1500 ft. x 2500 ft. area east of center city, including Old City area; the extension of the Chestnut Street Transitway; and the historic area around Independence Hall, probably involving partial auto restriction.

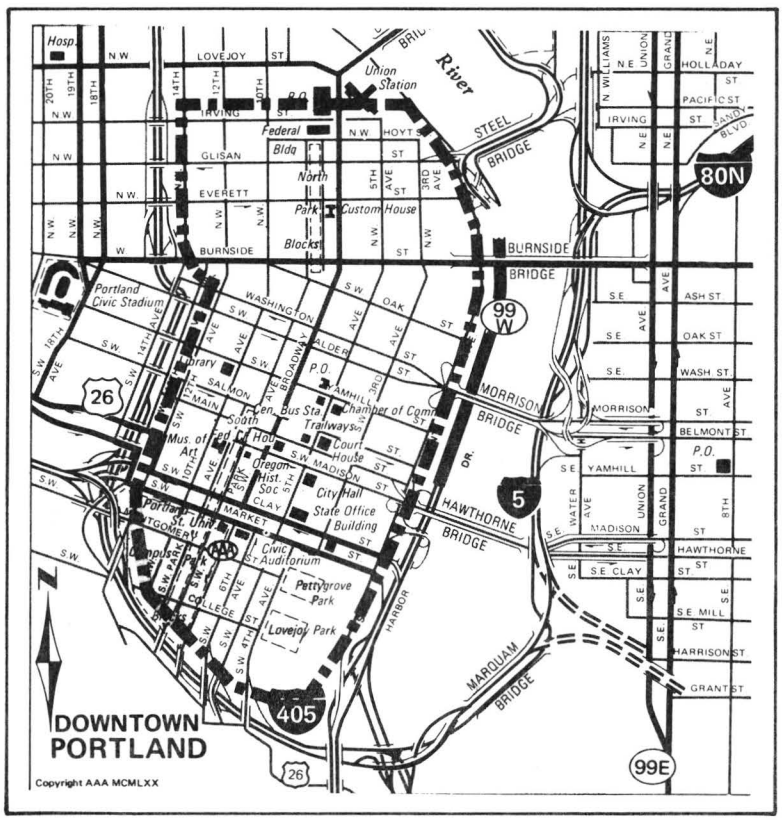
Portland, Ore.

Population 383,000
SMSA Pop. 1,036,00
City Area 89.1 sq. mi.
Employment 156,000

Employment
Density 1,751/sq. mi.



1M



Area of selective auto restriction includes entire CBD.

ARZ Proposal

1. Transit Malls on ½ mile-long section of 5th and 6th Avenues in downtown are currently under construction.

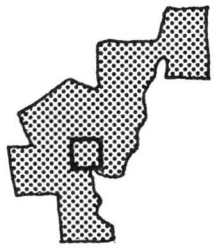
2. Overall CBD plan of street priority classification suggests that entire CBD, approximate ⅔ mile x 1¼ mile, could be considered for selective auto restraint measures.

3. Hollywood District commercial center, approximate 1500 ft. x 1500 ft., an older shopping center, is being considered as an ARZ in current study by the City.

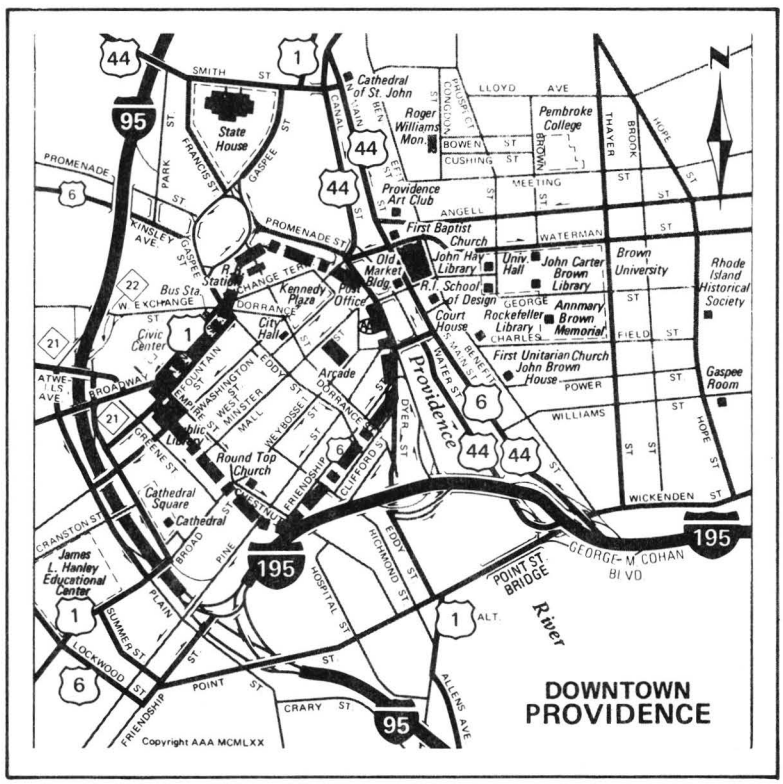
Providence, R.I.

Population 179,000
SMSA Pop. 906,000
City Area 18.1 sq. mi.
Employment 74,000

Employment
Density 4,088/sq. mi.



1M



Proposed auto restriction in entire downtown area.

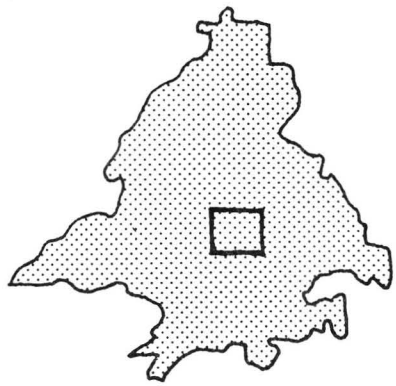
ARZ Proposal

Interface Providence proposes auto restriction in the entire downtown area, approximate 2000 ft. x 2500 ft., with options to include areas toward the State Capitol, making the ARZ even larger.

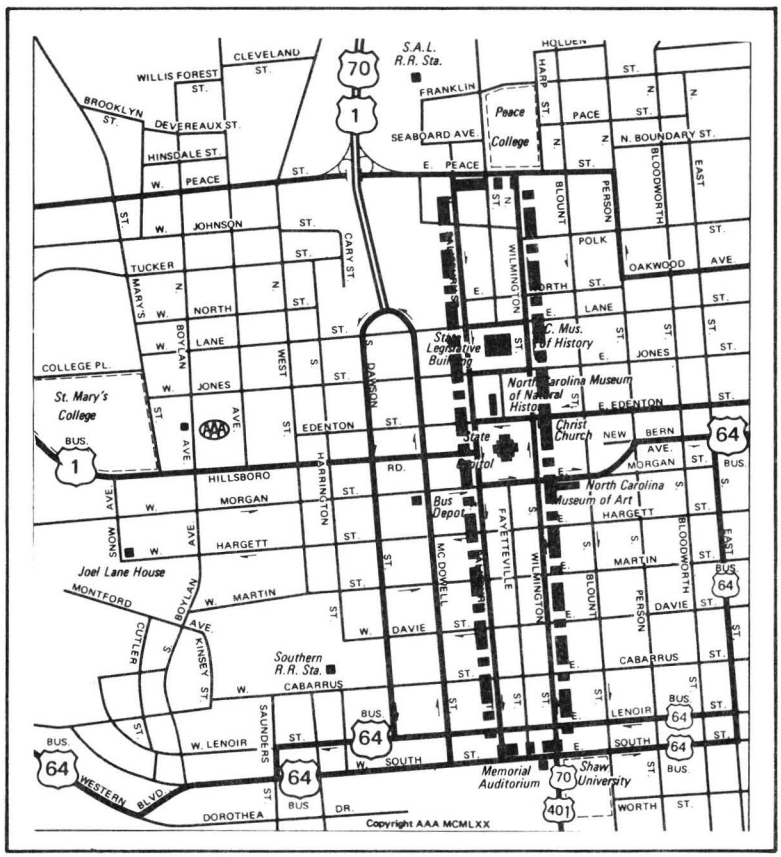
Raleigh, N.C.

Population 122,000
SMSA Pop. 439,000
City Area 44.9 sq. mi.
Employment 51,000

Employment
Density 1,136/sq. mi.



1M



Area currently under study for pedestrian improvements. Selective street closing is being implemented.

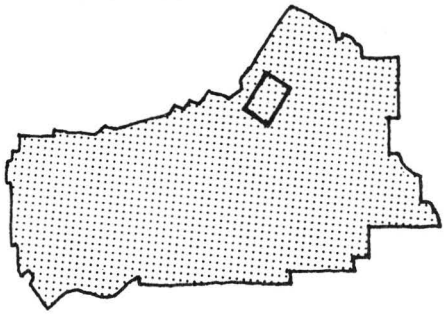
ARZ Proposal

1 mile x 600 ft. section of downtown and State Capitol area is proposed as "Primary Study Area" for current consultant studies related to ARZ. The closing of several streets in this area is currently being implemented.

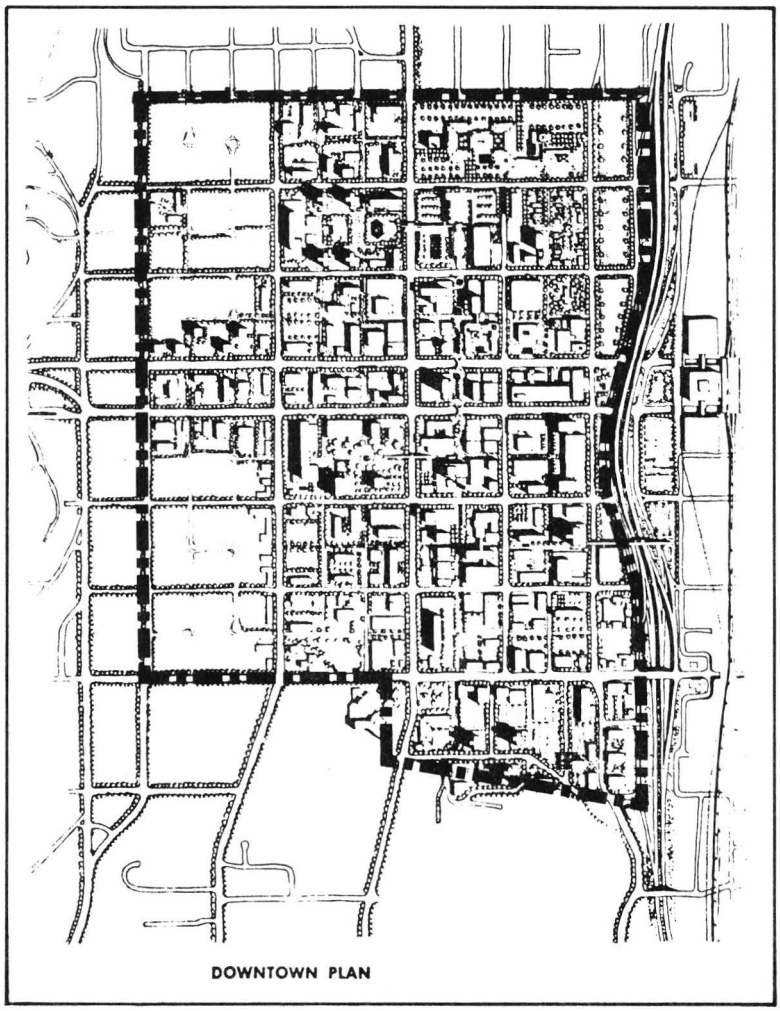
Riverside, Cal.

Population 140,000
SMSA Pop. 1,179,000
City Area 71.5 sq. mi.
Employment 52,000

Employment
Density 727/sq. mi.



1M



Potential ARZ in the downtown area — Proposal for full or partial auto restriction on alternate streets.

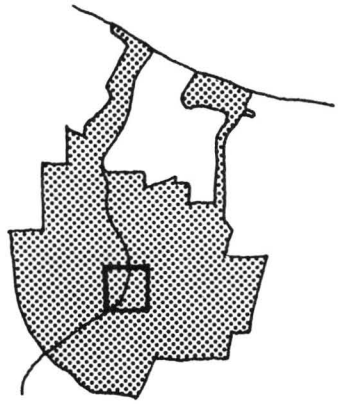
ARZ Proposal

The submission suggests elimination of redundant streets as traffic carriers and the creation of pedestrian, bicycle, and local-access-only streets throughout the approximately one square mile downtown area. This program would affect roughly every other street in the grid in both directions.

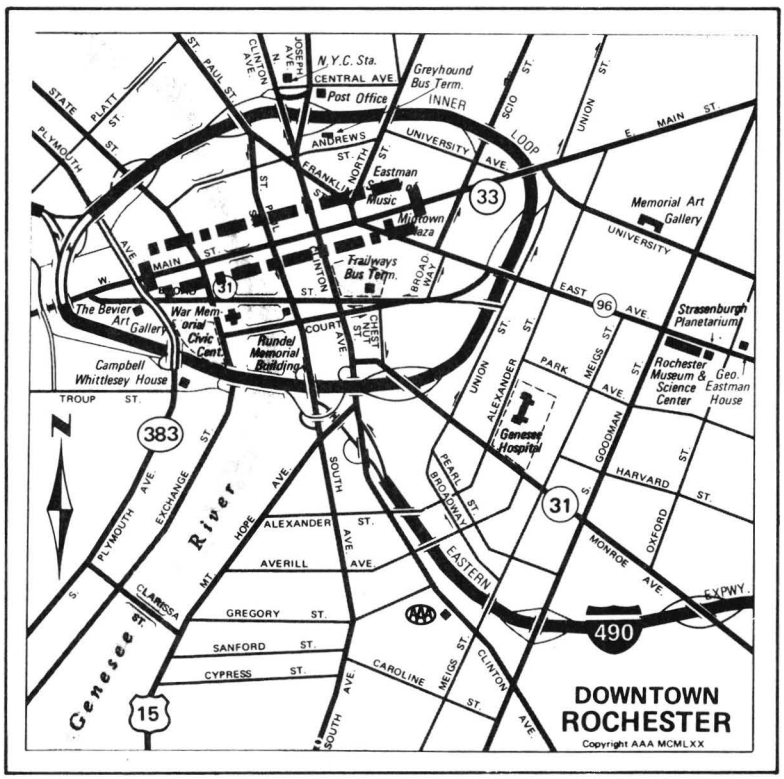
Rochester, N.Y.

Population 296,000
SMSA Pop. 969,000
City Area 36.7 sq. mi.
Employment 121,000

Employment
Density 3,297/sq. mi.



1M



▬ ▪ ▬ ▪ ▬ Potential for full pedestrianization or development of transit mall along Main Street.

ARZ Proposal

1. Four general areas are identified as possible ARZ or MUVS sites:
   1.) Downtown CBD
   2.) Brockport State School (university)
   3.) New Town of Riverton
   4.) New Town of Ganada

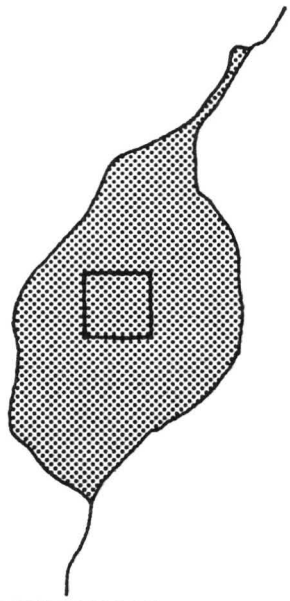
2. "The entire CBD could be considered an ARZ or MUVS area." Cover letter from Ann Taylor, November 5, 1975.

3. More realistically, a section of Main Street on either side of the river and areas on both sides of the street could make a 3000 ft. x 6-8000 ft. transitway or pedestrian area with some possible perpendicular extensions.

St. Louis, Mo.

Population 622,000
SMSA Pop. 2,400,000
City Area 61.2 sq. mi.
Employment 231,000

Employment
Density 3,775/sq. mi.



1M

Euclid Avenue ARZ proposal and Grand Avenue MUVS interest.

ARZ Proposal

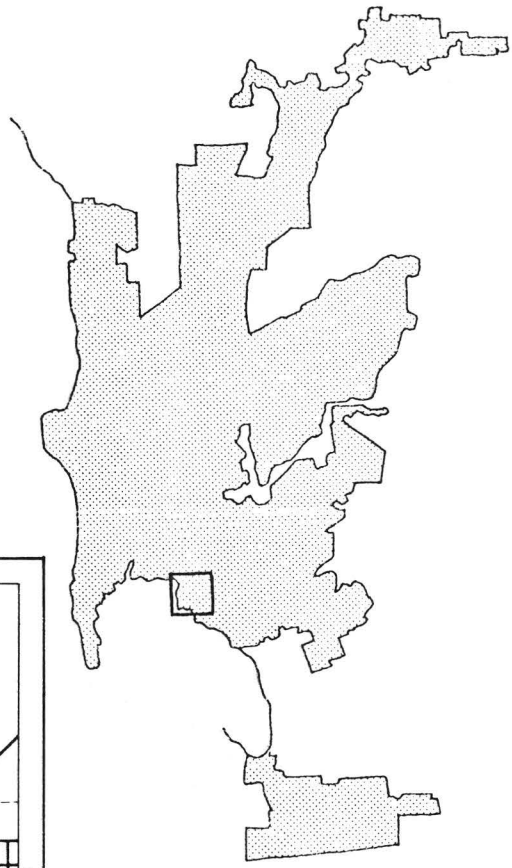
Euclid Avenue Corridor in West End area — approximate 1½ miles of main shopping street with small shops, apartments, hospital-medical complex (Washington University). Minibus service is proposed for Euclid Avenue.

Grand Avenue Corridor — 2½ mile street proposed for MUVS.

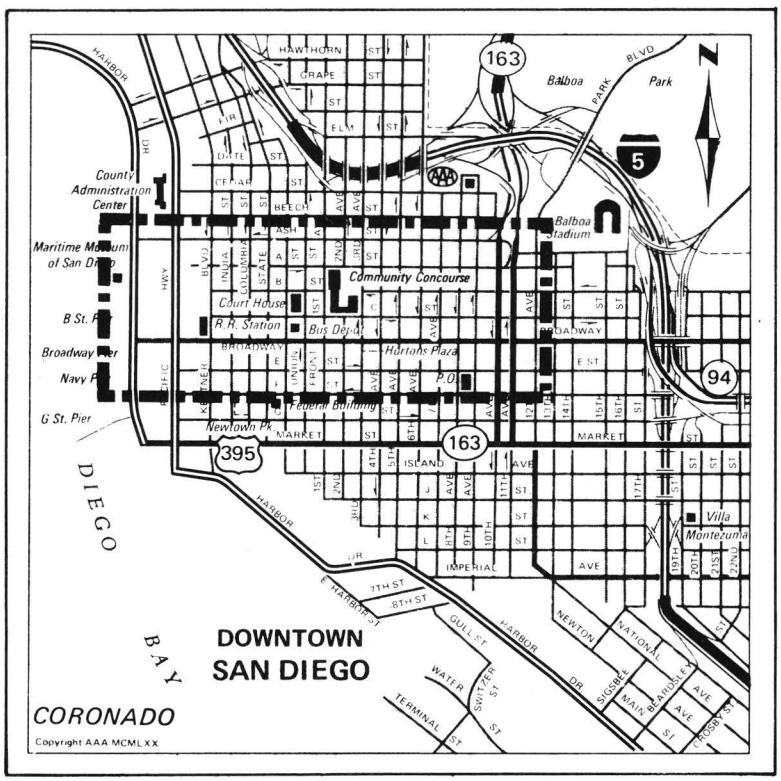
San Diego, Cal.

Population 697,000
SMSA Pop. 1,443,000
City Area 212.8 sq. mi. (Urban)
104.1 sq. mi. (Rural)
Employment 228,000

Employment
Density 719/sq. mi.



1M



General area for a system of pedestrianways in CBD, linking Horton Plaza, parks and Waterfront Promenade.

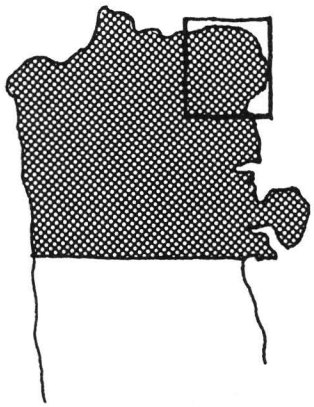
ARZ Proposal

No specific ARZ is suggested; several proposed transit nodes at activity centers may be incorporated in a system of auto restriction and transit preference (Horton Plaza, "Gaslamp", Waterfront Promenade, Santa Fe Station).

San Francisco, Cal.

Population 716,000
SMSA Pop. 3,132,000
City Area 45.4 sq. mi.
Employment 318,00

Employment
Density 7,004/sq. mi.



1M

Fisherman's Wharf area of proposed auto restriction with pedestrian and transit improvements.

ARZ Proposal

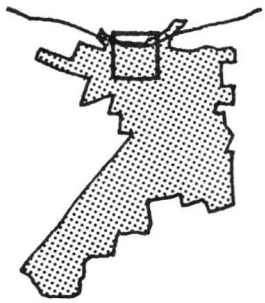
1. Fisherman's Wharf — auto restriction and transit and pedestrian emphasis within an approximate 2500 ft. x 700 ft. waterfront commercial/entertainment/tourist area.

2. Additional possibilities mentioned: CBD core and Golden Gate Park.

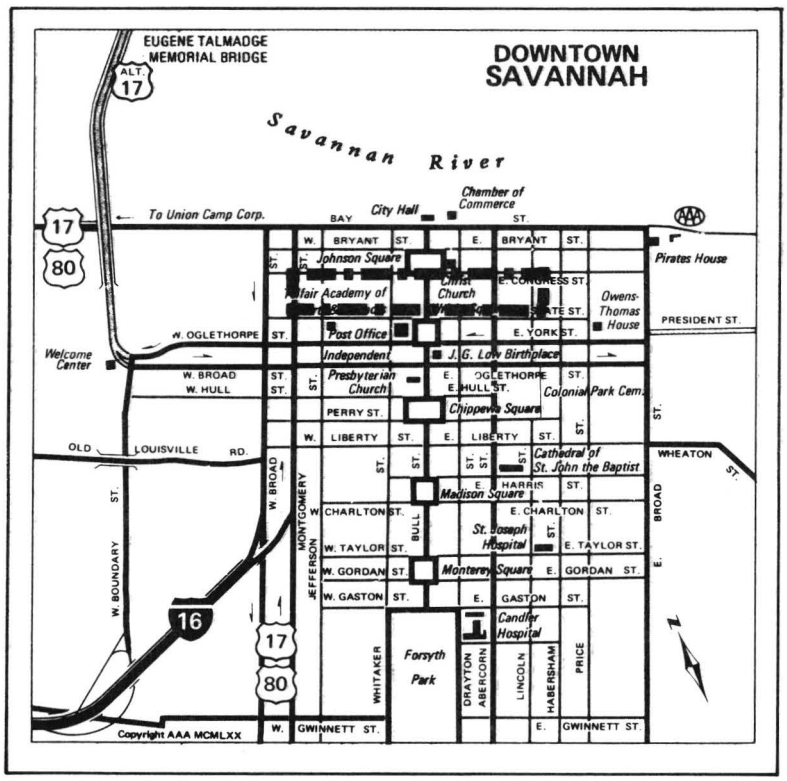
Savannah, Ga.

Population 118,000
SMSA Pop. 203,000
City Area 26.8 sq. mi.
Employment 41,000

Employment
Density 1,530/sq. mi.



1 M



▬ ▪ ▬ ▪ ▬ ▪ Partial pedestrianization of Broughton Street between Lincoln and Montgomery.

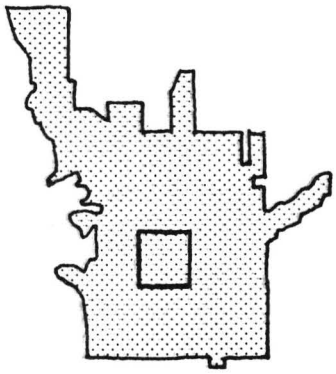
ARZ Proposal

No clearly defined proposal was submitted. The sidewalk widening and street improvement plan for Broughton Street is too limited to be considered an ARZ. There may be other ARZ opportunities in the historic downtown area but they are not identified.

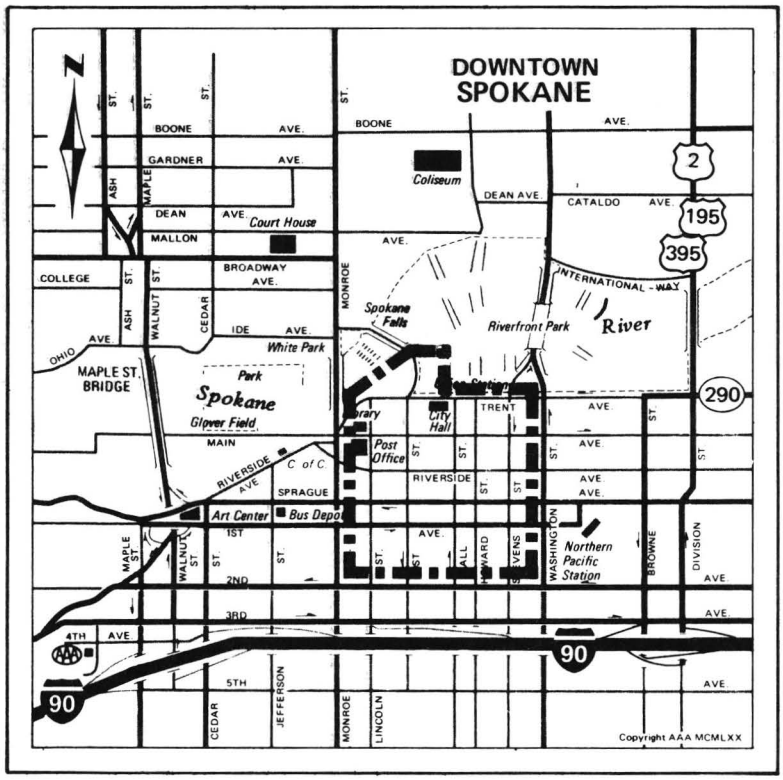
Spokane, Wash.

Population 171,000
SMSA Pop. 302,000
City Area 50.8 sq. mi.
Employment 61,000

Employment
Density 1,201/sq. mi.



1M



ARZ is suggested within the core area of downtown.

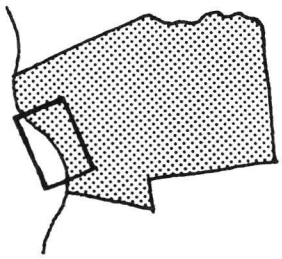
ARZ Proposal

No specific planning for ARZ-type action has occurred but central core area is suggested as a potential site for ARZ (approximate 2000 ft. x 2000 ft.)

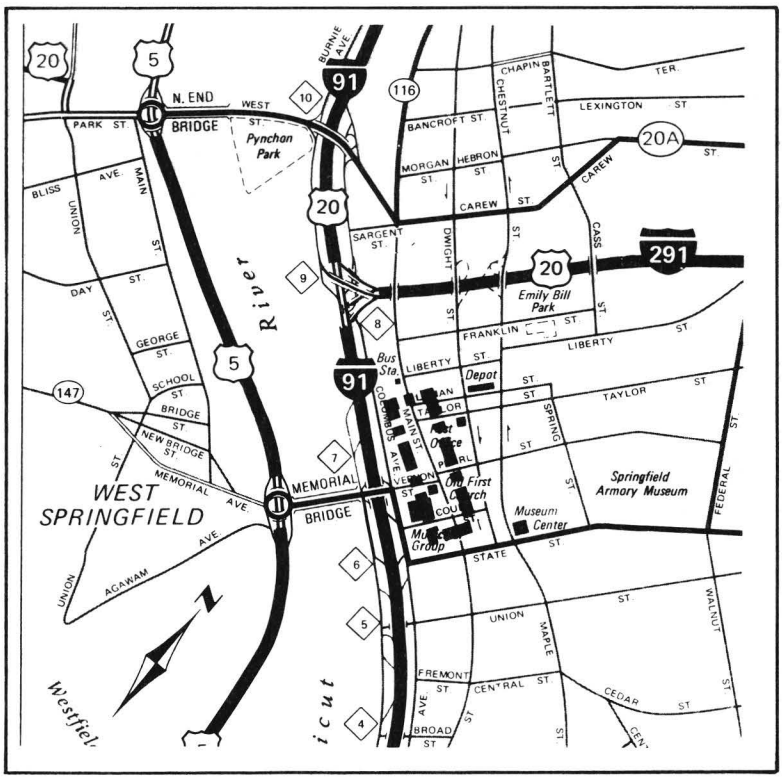
Springfield, Mass.

Population 164,000
SMSA Pop. 583,000
City Area 31.7 sq. mi.
Employment 64,000

Employment
Density 2,019/sq. mi.



1M



Potential ARZ along Main Street.

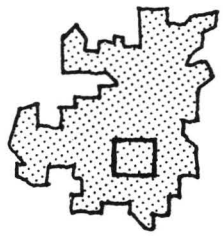
ARZ Proposal

ARZ potential suggested in CBD but no specific site is identified. An approximate 3500 ft. section of Main Street forms the retail-office spine of downtown and a one or two block area on either side of it may be a logical site for an ARZ demonstration.

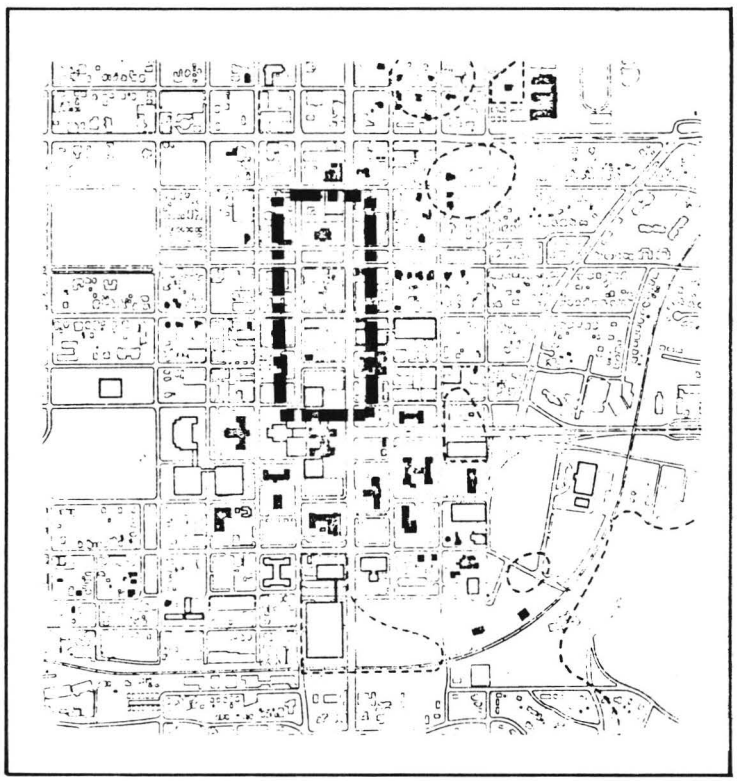
Tallahassee, Fla.

Population 72,000
City Area 26.1 sq. mi.
Employment 30,000

Employment
Density 1,149/sq. mi.



1M



Area proposed for selective street closing and pedestrian improvements.

ARZ Proposal

1. **Adams Street Mall.** The closing of one block of this street has been committed and two additional blocks planned resulting in an approximate 1200 ft.-long pedestrian area.

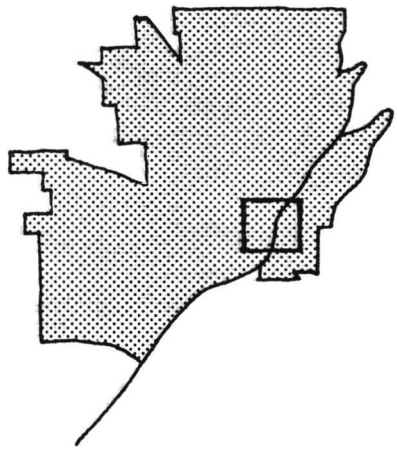
2. Pedestrian improvements on **Monroe Street and the side streets** connecting it to Adams are also proposed and could result in an approximate 1200 x 600 ft ARZ.

3. **The entire are of the downtown and Capitol Center** are identified as "potential ARZ or MUVS areas".

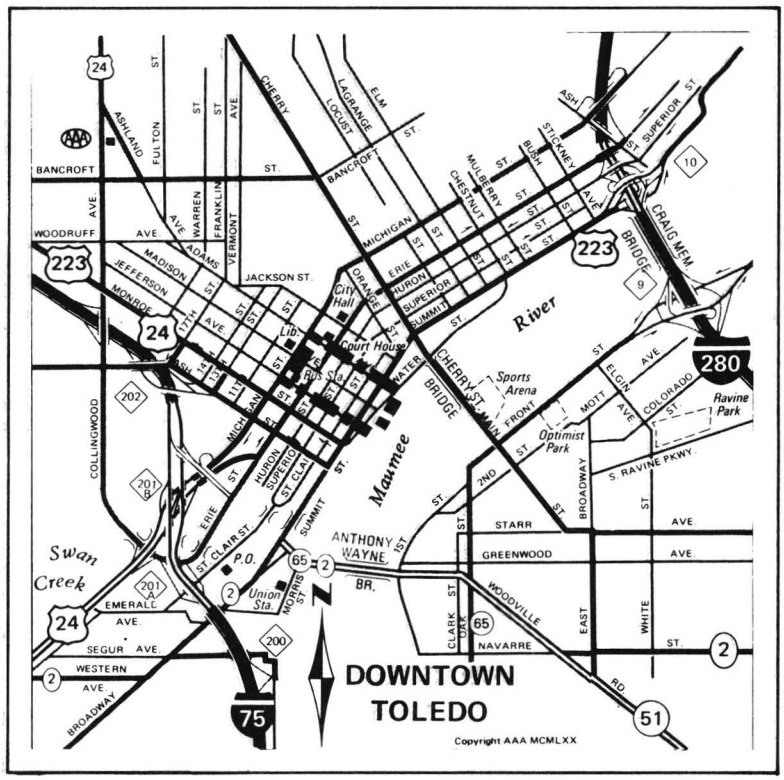
Toledo, Ohio

Population 384,000
SMSA Pop. 781,000
City Area 81.2 sq. mi.
Employment 151,000

Employment
Density 1,860/sq. mi.



1M



Area currently under consideration for pedestrianization and pedestrian improvements.

ARZ Proposal

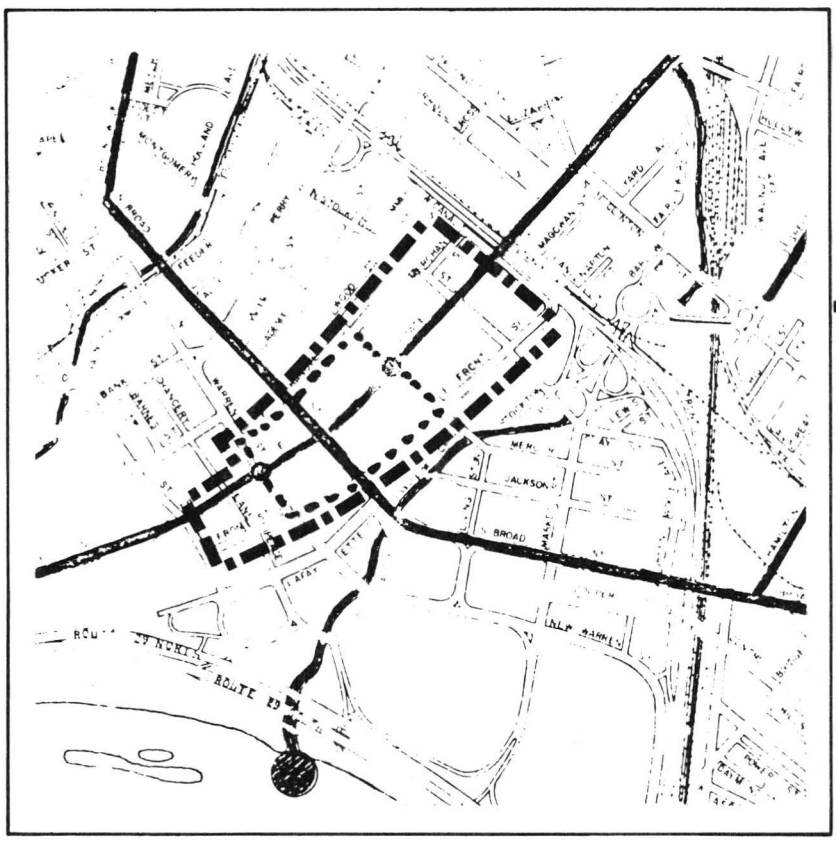
No specific proposals are suggested, but an approximate 1500 x 1000 ft. area connecting the CBD to the riverfront (about ten blocks) seems to be under consideration.

Trenton, N.J.

Population 105,000
SMSA Pop. 315,000
City Area 7.5 sq. mi.
Employment 41,000

Employment
Density 5,467/sq. mi.

1 M



Proposal to implement second phase of Tremont Commons pedestrian area.

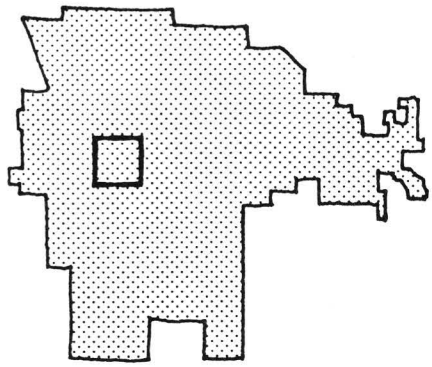
ARZ Proposal

Implementing the Phase II of original Tremont Commons proposal, extending ARZ to an approximate 2000 ft. x 600 ft. segment of downtown.

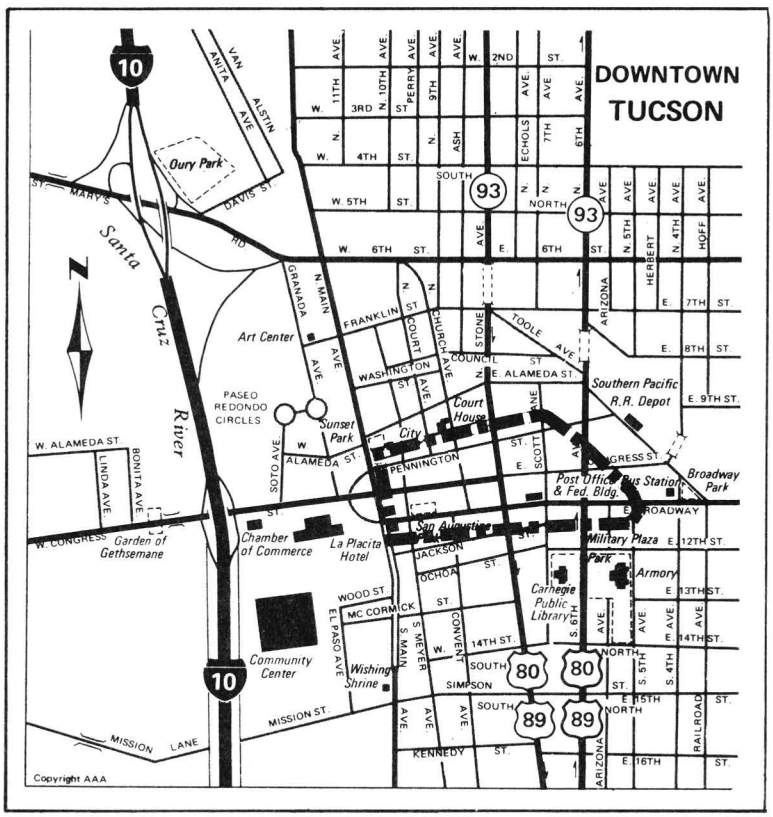
Tucson, Ariz.

Population 263,000
SMSA Pop. 387,000
City Area 80.0 sq. mi.
Employment 90,000

Employment
Density 1125/sq. mi.



1M



Area under study for selective pedestrianization and development of transitways.

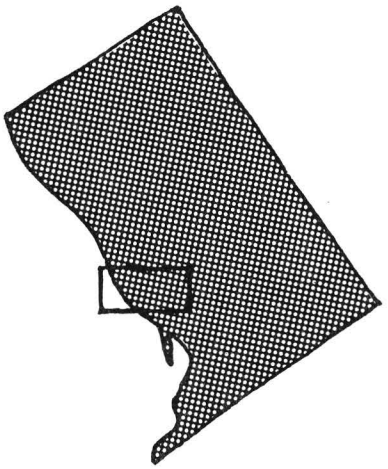
ARZ Proposal

An approximate 3000 ft. x 1000 ft. section of the downtown is being studied for auto restriction and transitways. Congress Street running through this area may be proposed as a tram/pedestrianway, Pennington Street may be a bus/transitway.

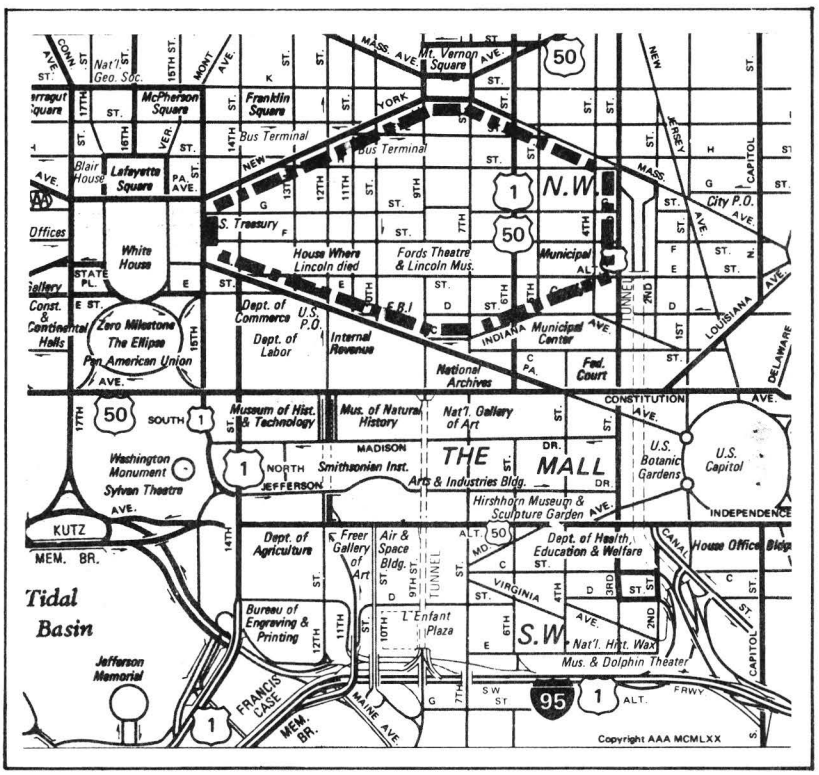
Washington, D.C.

Population 757,000
SMSA Pop. 2,999,000
City Area 61.4 sq. mi.
Employment 334,000

Employment
Density 5,440/sq. mi.



1M



Area of **Streets for People** Program of pedestrian improvements and street closings.

ARZ Proposal

1. **Streets for People** program is a series of street closing and pedestrian improvement proposals for an approximate 5000 ft. x 1500 ft. area of downtown: F and G Streets between 3rd and 15th, N.W.

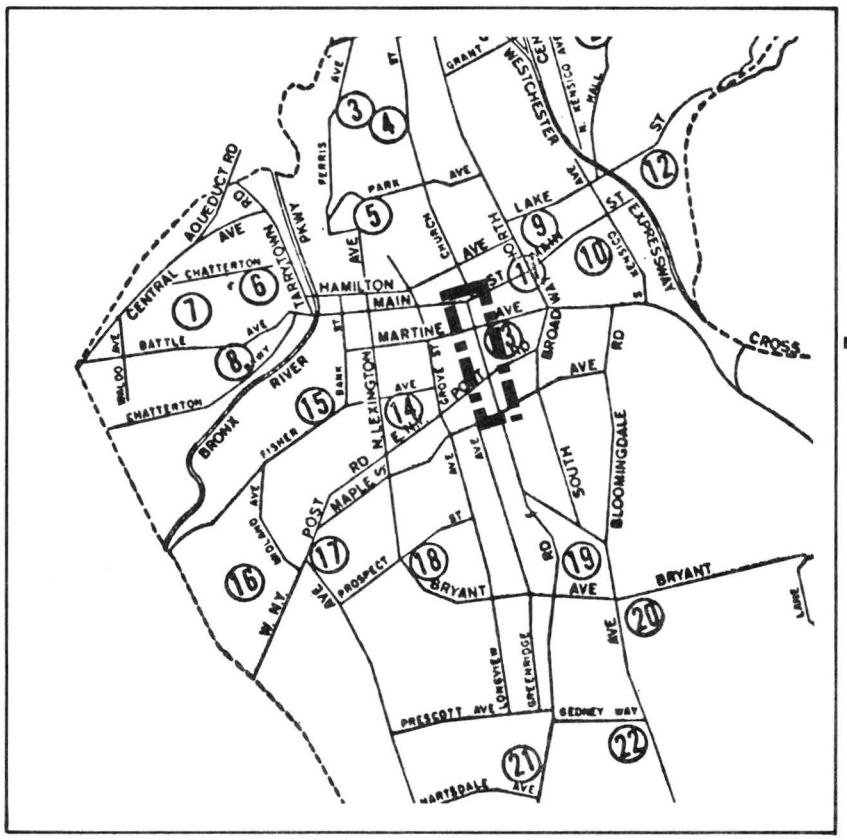
2. **K Street** from Washington Circle to Mt. Vernon Square (about 1¼ miles) is being considered for redesign for transit preference and pedestrian improvements by the D.C. Department of Transportation.

White Plains, N.Y.

Population 50,000
City Area 9.7 sq. mi.
Employment 23,000

Employment
Design 2,371/sq. mi.

1 M



▬ ▪ ▬ ▪ ▬ Pedestrian mall on Lower Mamaroneck Avenue suggested.

ARZ Proposal

Proposal is not clearly defined but Lower Mamaroneck Avenue within the central area is mentioned; this is likely to include a 2000 ft. section at the end of this street within the Fare-Free bus loop. Area includes retail, government, and private offices.

U. S. GOVERNMENT PRINTING OFFICE : 1978 O - 258-418