

**A Mobility Information Management  
System (MIMS) for Rural  
Transportation  
MBTC 2020**

**Michael Anderson**

Reproduced from  
best available copy.



**PROTECTED UNDER INTERNATIONAL COPYRIGHT  
ALL RIGHTS RESERVED  
NATIONAL TECHNICAL INFORMATION SERVICE  
U.S. DEPARTMENT OF COMMERCE**

*The contents of this report reflect the views of the author, who is responsible for the facts and accuracy of the information presented herein. This document is disseminated under the sponsorship of the Department of Transportation, University Transportation Centers Program, in the interest of information exchange. The U.S. Government assumes no liability for the contents or use thereof.*

REPRODUCED BY: **NTIS**  
U.S. Department of Commerce  
National Technical Information Service  
Springfield, Virginia 22161



# REPORT DOCUMENTATION PAGE

Form Approved  
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave Blank)		2. REPORT DATE JULY 1, 2002	3. REPORT TYPE AND DATES COVERED Final. September 2000 – July 2002	
4. TITLE AND SUBTITLE A Mobility Information Management System (MIMS) for Rural Transportation			5. FUNDING NUMBERS	
6. AUTHOR(S) Dr. Michael D. Anderson				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Mack-Blackwell Transportation Center 4190 Bell Engineering Center University of Arkansas Fayetteville, AR 72701			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) US Department of Transportation Research and Special Programs Administration 400 7 <sup>th</sup> Street, S.W. Washington, DC 20590-0001			10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES  Supported by a grant from the U.S. Department of Transportation University Transportation Centers program				
12a. DISTRIBUTION/AVAILABILITY STATEMENT			12b. DISTRIBUTION CODE  N/A	
13. ABSTRACT (MAXIMUM 200 WORDS)  Rural Public Transit Operators are entering an era when they must become more than transit providers, they must become mobility managers. The heart of this effort would be an information system that contained the elements necessary to manage a trip regionwide using public and private transportation resources, a "Mobility Information Management System" (MIMS). This report presents a design for a rural, multi-country transportation mobility information management system. The system is designed to provide residents access to important trip information to assist them in making informed transportation choices. The final design of the system, which evolved after several attempts, will be demonstrated using a case study of a region in northwest Alabama, includes survey data collected from transportation providers; a database system to maintain, query, and update the information; and an Internet-based system for the public to learn what services are provided. The system, after inclusion of all transportation service data, provides a convenient mechanism to educate the public on transportation services and allows transportation service agencies to help passengers arrange needed transportation services.				
14. SUBJECT TERMS			15. NUMBER OF PAGES 45	
			16. PRICE CODE N/A	
17. SECURITY CLASSIFICATION OF REPORT none	18. SECURITY CLASSIFICATION OF THIS PAGE none...	19. SECURITY CLASSIFICATION OF ABSTRACT none	20. LIMITATION OF ABSTRACT N/A	



1. Report Number	2. Government Access No.	3. Recipient's Catalog No.	
4. Title and Subtitle A Mobility Information Management System (MIMS) for Rural Transportation		5. Report Date July 1, 2002	6. Performance Organization Code
7. Author(s) Dr. Michael D. Anderson		8. Performing Organization Report No.	
9. Performing Organization Name and Address  Mack-Blackwell Transportation Center 4190 Bell Engineering Center University of Arkansas Fayetteville, AR 72701		10. Work Unit No. (TRAIS)	11. Contract or Grant No.
12. Sponsoring Agency Name and Address US Department of Transportation Research and Special Programs Administration 400 7 <sup>th</sup> Street, S.W. Washington, DC 20590-0001		13. Type of Report and Period Covered Final. September 2000 – July 2002	
15. Supplementary Notes  Supported by a grant from the U.S. Department of Transportation University Transportation Centers program		14. Sponsoring Agency Code	
16. Abstract  Rural Public Transit Operators are entering an era when they must become more than transit providers, they must become mobility managers. The heart of this effort would be an information system that contained the elements necessary to manage a trip regionwide using public and private transportation resources, a "Mobility Information Management System" (MIMS). This report presents a design for a rural, multi-country transportation mobility information management system. The system is designed to provide residents access to important trip information to assist them in making informed transportation choices. The final design of the system, which evolved after several attempts, will be demonstrated using a case study of a region in northwest Alabama, includes survey data collected from transportation providers; a database system to maintain, query, and update the information; and an Internet-based system for the public to learn what services are provided. The system, after inclusion of all transportation service data, provides a convenient mechanism to educate the public on transportation services and allows transportation service agencies to help passengers arrange needed transportation services.			
17. Key Words Mobility Management, Public Transit		18. Distribution Statement  No restrictions. This document is available from the National Technical Information Service, Springfield, VA 22161	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 45	22. Price N/A



**A Mobility Information Management  
System (MIMS) for Rural Transportation  
MBTC 2020**

**Michael Anderson**

**The contents of this report reflect the views of the author, who is responsible for the facts and accuracy of the information presented herein. This document is disseminated under the sponsorship of the Department of Transportation, University Transportation Centers Program, in the interest of information exchange. The U.S. Government assumes no liability for the contents or use thereof.**





<b>REPORT DOCUMENTATION PAGE</b>			Form Approved OMB No. 0704-0188
Public reporting burden for this collection of information is estimated to average 1 hour per response, including			
1. AGENCY USE ONLY (Leave Blank)	2. REPORT DATE JULY 1, 2002	3. REPORT TYPE AND DATES COVERED Final. September 2000 – July 2002	
4. TITLE AND SUBTITLE A Mobility Information Management System (MIMS) for Rural Transportation			5. FUNDING NUMBERS
6. AUTHOR(S) Dr. Michael D. Anderson			8. PERFORMING ORGANIZATION REPORT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Mack-Blackwell Transportation Center 4190 Bell Engineering Center University of Arkansas Fayetteville, AR 72701			
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) US Department of Transportation Research and Special Programs Administration 400 7 <sup>th</sup> Street, S.W. Washington, DC 20590-0001			10.  <b>SPONSO RING/</b>
11. SUPPLEMENTARY NOTES  Supported by a grant from the U.S. Department of Transportation University Transportation Centers program			
12a. DISTRIBUTION/AVAILABILITY STATEMENT			12b. DISTRIBUTION CODE  N/A
13. ABSTRACT (MAXIMUM 200 WORDS)  <i>Rural Public Transit Operators are entering an era when they must become more than transit providers, they must become mobility managers. The heart of this effort would be an information system that contained the elements necessary to manage a trip regionwide using public and private transportation resources, a "Mobility Information Management System" (MIMS). This report presents a design for a rural, multi-country transportation mobility information management system. The system is designed to provide residents access to important trip information to assist them in making informed transportation choices. The final design of the system, which evolved after several attempts, will be demonstrated using a case study of a region in northwest Alabama, includes survey data collected from transportation providers; a database system to maintain, query, and update the information; and an Internet-based system for the public to learn what services are provided. The system, after inclusion of all transportation service data, provides a convenient mechanism to educate the public on transportation services and allows transportation service agencies to help passengers arrange needed transportation services.</i>			
14. SUBJECT TERMS			15. NUMBER OF PAGES 45
			16. PRICE CODE N/A
17. SECURITY  CLASSIFICATI	18. SECURITY  CLASSIFICATI	19. SECURITY CLASSIFICATION OF ABSTRACT none	20. LIMITATION OF ABSTRACT N/A



## Technical Report

1. Report Number	2. Government Access No.	3. Recipient's Catalog No.	
4. Title and Subtitle A Mobility Information Management System (MIMS) for Rural Transportation		5. Report Date July 1, 2002	
		6. Performance Organization Code	
7. Author(s) Dr. Michael D. Anderson		8. Performing Organization Report No.	
9. Performing Organization Name and Address  Mack-Blackwell Transportation Center 4190 Bell Engineering Center University of Arkansas Fayetteville, AR 72701		10. Work Unit No. (TRAIS)	
		11. Contract or Grant No.	
		13. Type of Report and Period Covered Final. September 2000 – July 2002	
12. Sponsoring Agency Name and Address US Department of Transportation Research and Special Programs Administration 400 7 <sup>th</sup> Street, S.W. Washington, DC 20590-0001		14. Sponsoring Agency Code	
15. Supplementary Notes  Supported by a grant from the U.S. Department of Transportation University Transportation Centers program			
16. Abstract  <i>Rural Public Transit Operators are entering an era when they must become more than transit providers, they must become mobility managers. The heart of this effort would be an information system that contained the elements necessary to manage a trip regionwide using public and private transportation resources, a "Mobility Information Management System" (MIMS). This report presents a design for a rural, multi-country transportation mobility information management system. The system is designed to provide residents access to important trip information to assist them in making informed transportation choices. The final design of the system, which evolved after several attempts, will be demonstrated using a case study of a region in northwest Alabama, includes survey data collected from transportation providers; a database system to maintain, query, and update the information; and an Internet-based system for the public to learn what services are provided. The system, after inclusion of all transportation service data, provides a convenient mechanism to educate the public on transportation services and allows transportation service agencies to help passengers arrange needed transportation services.</i>			
17. Key Words  Mobility Management, Public Transit		18. Distribution Statement  No restrictions. This document is available from the National Technical Information Service, Springfield, VA 22161	
19. Security Classif. (of this report) unclassified	20. Security Classif. (of this page) unclassified	21. No. of Pages 45	22. Price N/A



## **Contents**

<b>Contents</b> .....	<b>2</b>
<b>Figures</b> .....	<b>3</b>
<b>Executive Summary</b> .....	<b>4</b>
<b>1.0 Introduction</b> .....	<b>5</b>
<b>2.0 Case Study Area</b> .....	<b>7</b>
<b>3.0 Design of the Mobility Information Management System</b> .....	<b>9</b>
<b>3.1 Step 1. Data Collection</b> .....	<b>9</b>
<b>3.2 Step 2. Version 1 of the MIMS System</b> .....	<b>12</b>
<b>3.3 Step 3. Version 2 of the MIMS System</b> .....	<b>14</b>
<b>3.4 Step 4. Version 3 of the MIMS System</b> .....	<b>20</b>
<b>4.0 Conclusions and Future Work</b> .....	<b>31</b>
<b>Acknowledgements</b> .....	<b>33</b>
<b>References</b> .....	<b>34</b>
<b>Appendix A Survey Sent to the transit Agencies</b> .....	<b>35</b>



## List of Figures

<b>Number</b>		<b>Page</b>
Figure 2-1	Location of the case study in northwest Alabama .....	8
Figure 3-1	Screen view of the MIMS Version 1 system .....	13
Figure 3-2	Transportation information for Russellville .....	14
Figure 3-3	Refined transportation information for Russellville .....	14
Figure 3-4	Screen view of the MIMS Version 2 system .....	16
Figure 3-5	Version 2 example search results .....	17
Figure 3-6	Screen view of the update options .....	18
Figure 3-7	Screen to make changes in service times .....	19
Figure 3-8	Screen to make changes in service area .....	20
Figure 3-9	Version 3 access screen .....	22
Figure 3-10	Results for Sheffield, AL .....	23
Figure 3-11	Detailed view of one home-to-work route in the system .....	24
Figure 3-12	Demand Response transportation services .....	25
Figure 3-13	Detailed information for a demand response route .....	26
Figure 3-14	User verification screen .....	27
Figure 3-15	Modification screen for Version 3 .....	28
Figure 3-16	Screen for entering data for a special needs route .....	29
Figure 3-17	Data entry screen for demand response .....	30

## **Executive Summary**

Rural Public Transit Operators are entering an era when they must become more than transit providers, they must become mobility managers. To accomplish this goal of becoming mobility managers, the providers must begin to understand not only their system, but also the interactions of all transportation providers in their region. The heart of this effort would be an information system that contained the elements necessary to manage a trip regionwide using public and private transportation resources, a "Mobility Information Management System" (MIMS). The focus of this report is to present a methodology, through a case study, for developing a MIMS within a regional area.

This report presents a design for a rural, multi-country transportation mobility information management system. The system is designed to provide residents access to important trip information to assist them in making informed transportation choices. The final design of the system, which evolved after several attempts, will be demonstrated using a case study of a region in northwest Alabama, includes survey data collected from transportation providers; a database system to maintain, query, and update the information; and an Internet-based system for the public to learn what services are provided. The system, after inclusion of all transportation service data, provides a convenient mechanism to educate the public on transportation services and allows transportation service agencies to help passengers arrange needed transportation services.



## **Section 1**

### **Introduction**

Rural Public Transit Operators are entering an era when they must become more than transit providers, they must become mobility managers. To accomplish this goal of becoming mobility managers, the providers must begin to understand not only their system, but also the interactions of all transportation providers in their region. The heart of this effort would be an information system that contained the elements necessary to manage a trip regionwide using public and private transportation resources, a "Mobility Information Management System" (MIMS). The focus of this report is to present a methodology, through a case study, for developing a MIMS within a regional area.

At its' simplest level, a Mobility Information Management System it is a printed compendium of all transportation providers regionwide providing accurate contact information. At its' grandest level it is both a web interactive and a dial-in interactive system that both professionals and the general public can access and utilize to chart a trip from A to B. This report will focus on the development of a methodology to compile all of this information so it may first be used and understood between rural public transit operators and their private sector counterparts; and then understood and utilized by the public. The case study project location is in northwest Alabama, known as the Shoals areas.

This report presents a description of the study area and a methodology and design for a rural transportation mobility information management system. The methodology and design consist of survey information received from the various transportation providers, both public and private; a database designed to maintain, query, and update the information built in Microsoft Access; and an Internet-based system for service providers and the public to learn about what services are offered and assist them in making informed transportation choices. The completion of the system provides a convenient mechanism to educate the public on transportation services and allows transportation service agencies to help passengers arrange needed transportation services.

## **Section 2**

### **Case Study Area**

The case study region presented in this report consists of five counties in northwest Alabama (shown in Figure 2-1). The urban center for the region is the combination of four communities, Florence, Muscle Shoals, Sheffield, and Tuscumbia, known collectively as the Shoals. The region is home to 230,230 people, with 15% of the population aged greater than 65 (1). The region has 27 individual agencies, public and private, responsible for coordinating and/or providing transportation services, as well as intercity bus service and a regional airport.

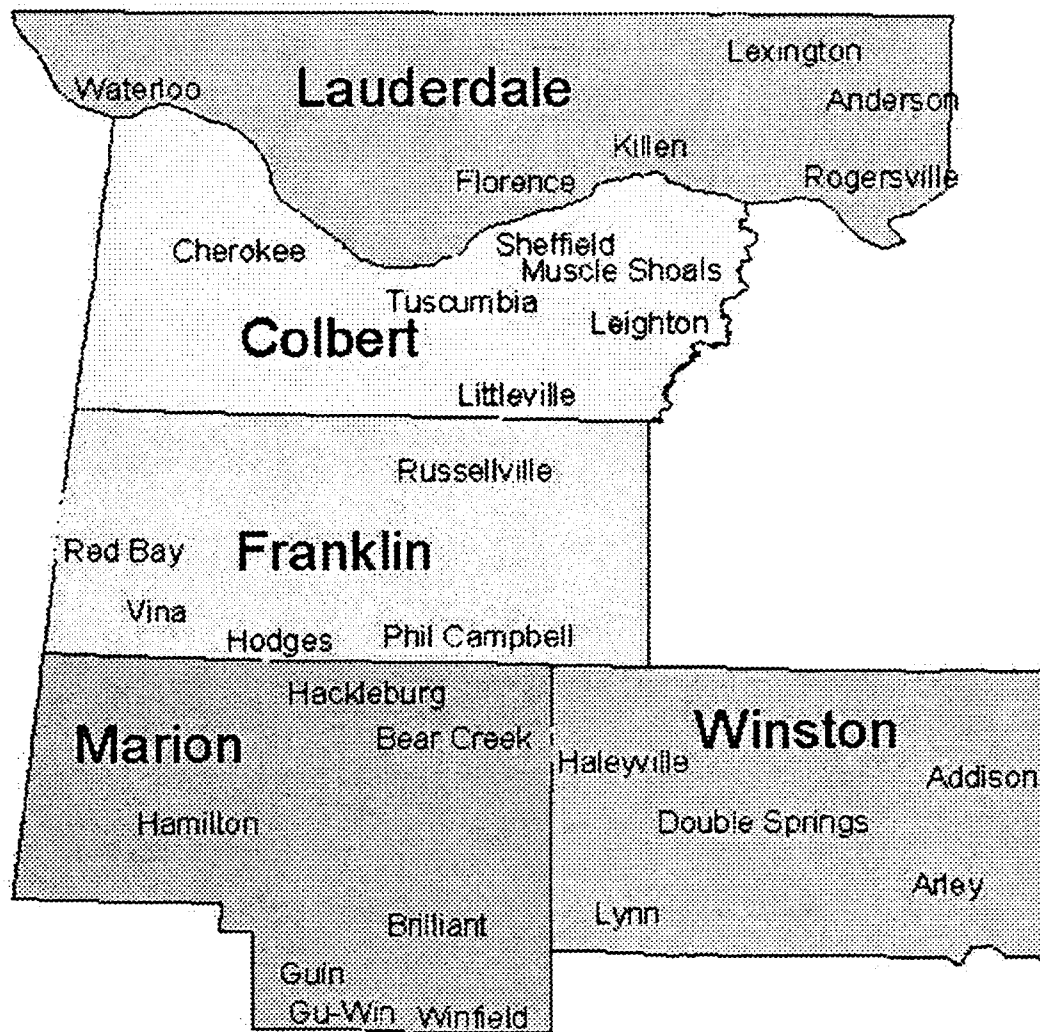


Figure 2-1. Location of the case study in northwest Alabama.

## **Section 3**

### **Design of the Mobility Information Management System**

The rural transportation mobility information management system (MIMS) designed for the northwest Alabama region was developed in four steps. The steps include information related to data collection, and three different versions of the internet-based MIMS system.

#### **3.1 Step 1. Data Collection**

The heart of any management system, transportation or otherwise, are data. Therefore, it is not surprising that the initial step to MIMS is to collect data related to transportation resources and operation. The data collection effort undertaken for the northwest Alabama region consisted of a written survey distributed to all 27 agencies identified by the regional council of local governments. The format and content of the mail survey was a result of a literature review of several previously used transit surveys and the USDOT's Travel Survey Manual (2,3,4,5). This section of the paper will present the types of questions and needs to be collected.

The data collection needs have been divided into eight distinct categories:

- Agency Information,
- Operating Schedules,
- Technology Level,

- Type of Service,
- Payment Types,
- Qualification Criteria,
- Service Area, and
- Fleet Capabilities/Demand.

The first three categories relate to general agency information. The agency information data included name, address, and contact information. In general, these data are important for communications with agency personnel, but not vital for the MIMS system, with the exception of the contact information that will be the data provided to users who access the system to arrange transportation services. The data related to operating schedules queried the days of week services are provided, hours of service, and general holiday information. The third general agency information request related to the technology level of the agency, i.e., software programs, Internet access, agency WebPages, and e-mail capability. These questions were asked to determine acceptance of an Internet-based mobility system for disseminating information about transportation services.

The next three categories relate to the administration layout for the agencies. Type of service data related to whether the agency provided fixed-route service, demand-responsive service, and whether service was contracted through another agency. The questions related to payment types focused on whether cash or voucher payments were accepted for service and the rate for transportation service. The qualification criteria focused on specific eligibility requirements for service, such as youth, elderly or disabled, as well as capabilities for providing service to specific

individuals, the disabled for example through wheelchair lift vehicles or elderly through door-to-door service with driver assistance.

The final two questions, service area and fleet capabilities/demand, focused on the operation of the transportation service provider. The service area was determined through two methods. First, a listing of the five counties and several cities and towns within the five county region were provided with a check box on the survey for the agency to select communities where they provided service. Second, a map of the region was provided and the agencies were asked to highlight on the map all the areas they generally provide service. This data related to service area is vital for matching potential riders and transportation services. The fleet capabilities/demand questions assessed the agency's ability to transport individuals by querying the number of buses, how many were wheelchair lift accessible and the number of vehicles they think would allow them to meet their existing needs (if they are not being met).

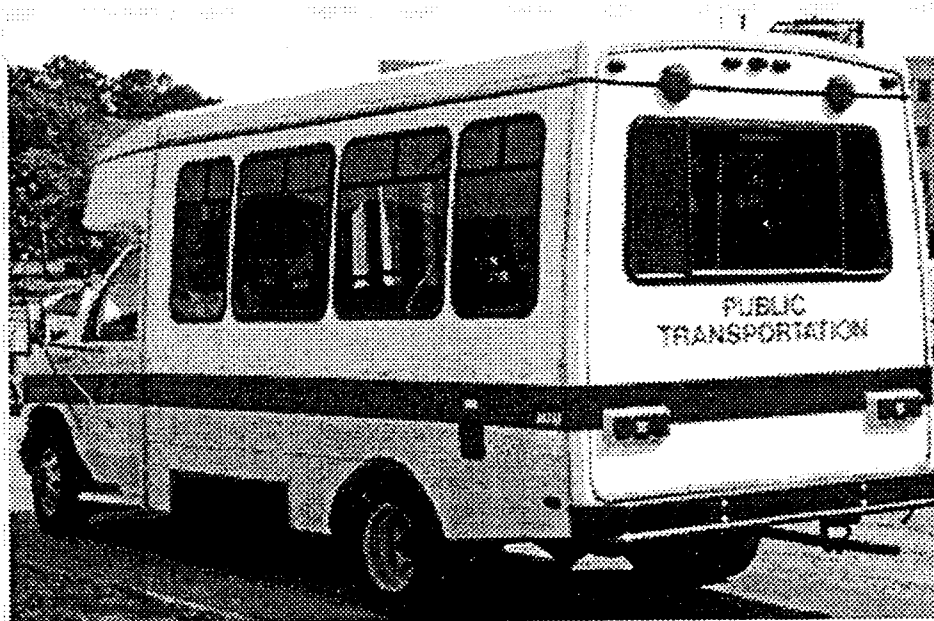
The format of the questionnaire sent to the agencies in the study area is contained in Appendix A. The data collection portion of the project was considered complete when agencies in the area were provided sufficient time to complete and return their surveys. Unfortunately, the survey response rate for the exercise was not as successful as possible as eight of the 27 surveys were completed and returned, and no surveys were returned from private companies. However, upon further interviews with the regions Section 5311 transportation provider, it was learned that many agencies that received survey forms had no transportation services of their own and coordinated transportation service through the regional agency.

### **3.2 Step 2. Version 1 of the MIMS System**

The second step in the development of the rural transportation mobility information management system was to develop a preliminary system that allowed for the input of the data collected from the provider survey and dissemination of the results. To address these issues, it was decided that popular database management software would be used. A decision was made to use Microsoft Access, as this was available to many agencies. The database system was designed to mimic the survey questions to allow ease of input for data entry and modifications of agency operations.

The dissemination of information from the Access Database was performed through the Internet. This method of dissemination was selected as it provided the best possible use of resources, allowed for graphic display, was updateable, and did not require publishing of documents that would quickly become outdated. To disseminate the transportation information, an internet page was developed that allowed the user to select the day of the week they desired transportation, any eligibility qualification that user would classify, and the town where the service was needed. An option was included that would allow any of these, but not all three, to be entered as no concern, which excluded the option from the search requirement. An example from the version 1 system is shown in Figure 3-1.





Select Your Query:

Day	Eligibility	City
No Concern	No Concern	No Concern
Monday	Elderly (60+) Non-disabled	Allsboro
Tuesday	Elderly Disabled	Cherokee
Wednesday	Non-elderly disabled	Barton
Thursday	Low Income	Red Rock Junction
Friday	Youth	Crooked Oak

Send your info here

Figure 3-1. Screen view of the MIMS Version 1 system.

The operation of the system simply required the user to input the necessary information in the page, and the results would be displayed on a following page. For example, a user selecting service in Russellville would be shown the following (see Figure 3-2):

City : Russellville

Organization	Phone	Contact Person
PILGRIM HOUSE, INC.	256-383-8866	JESSIE BAILEY
RUSSELLVILLE HOUSING AUTHORITY	256-332-1561	JOHN O' NEAL
YMCA OF THE SHOALS	256-766-4652	HAROLD W. COX
N.W. ALABAMA COUNCIL OF LOCAL GOVERNMENTS	256-314-0047	DORIS TIDWELL

Figure 3-2. Transportation information for Russellville.

If the user wished to refine the search, adding day and classification requirements, a subset of the total transportation available would be displayed. For example, if the user wished to search for transportation service on Friday that was tailored to low-income travelers in the Russellville area, the results were as follows (see Figure 3-3):

Day : Friday  
Eligibility : LowIncome  
City : Russellville

Organization	Phone	Contact Person
PILGRIM HOUSE, INC.	256-383-8866	JESSIE BAILEY

Figure 3-3. Refined transportation information for Russellville.

### 3.3 Step 3. Version 2 of the MIMS System

The third step in the development of the MIMS system was to improve the access methodology. With the transportation provider data previously collected, new options were examined to allow

more information to be disseminated through the Internet interface as well as an Internet based data entry and modification screens.

The modifications to the Internet interface allowed the user to make searches that are more advanced. The key improvements include the ability to access specific dates versus just days of the week using a calendar component incorporated into the database and the ability to select origin/destination cities versus just single city operation. However, it is important to note that the original functionality was not altered. The new access screen has radial button allowing the user to select whether the query of transportation services would use a day of the week or specific calendar date as well as if the query focused on only a single city or included a origin/destination pair of cities. For each possible combination selected from the radial buttons, the appropriate selection elements were active or disabled to reflect the user's intent. It is important to note that the specific date query was developed to show that service was not offered on holidays (this information was a specific question asked of the providers). Figure 3-4 shows the main query screen with specifications for a specific date of travel within a single city.

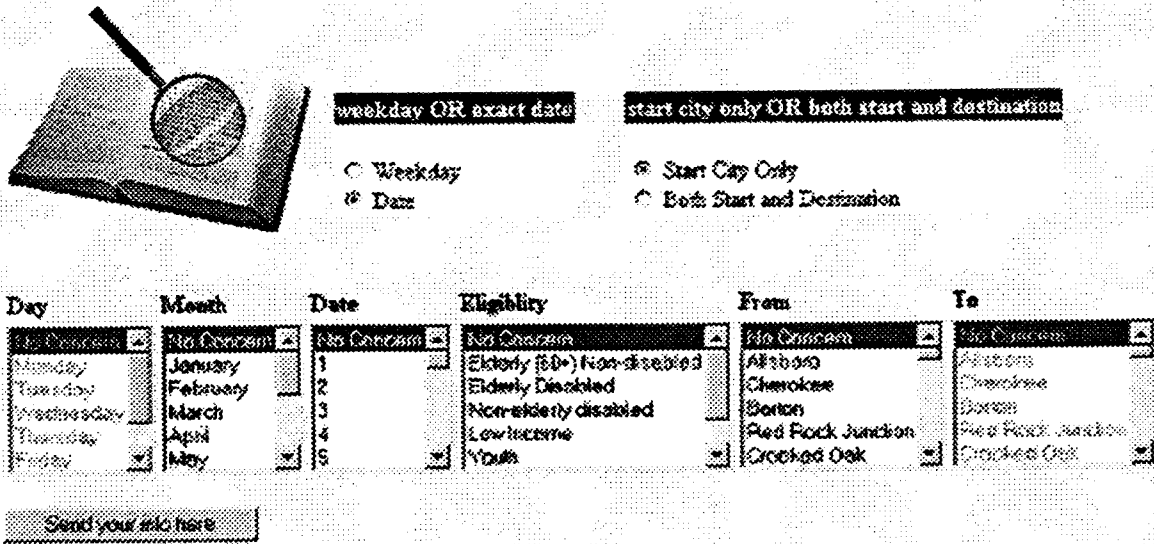
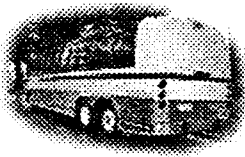


Figure 3-4. Screen view of the MIMS Version 2 system.

Again, entering the appropriate information into the system would provide the user with the desired transportation information from the system database. For example, travel entered for February 1, 2002 between Tuscumbia and Sheffield provides the following result (see Figure 3-5).



Start City : Tuscumbia  
Destination City : Sheffield

Organization	Name	Contact Person	Day	From	To
PILGRIM HOUSE, INC.	256-383-3266	JESSIE BAILEY	Friday	9:00:00 AM	11:00:00 PM
YMCA OF THE SHOALS	256-266-4652	HAROLD W. COX	Friday	7:00:00 PM	4:00:00 PM
N.W. ALABAMA COUNCIL OF LOCAL GOVERNMENTS	256-314-9047	DORIS TIDWELL	Friday	8:00:00 AM	7:30:00 PM

Figure 3-5. Version 2 example search results.

The other significant improvement to the system for Version 2 was the incorporation of the Internet based provider entry and update screens. As identified in Version 1, the information collected from the survey was stored in an Access database. However, as transportation provider information changes on a regular basis, having a single survey and using the information over an extended period would result in outdated information, similar to having a published route map.

The Internet based entry and update screens were designed with a password protection to ensure the changes were made by representatives from the transportation agency. Once logging into the update system, the user was able to change any information from the original survey, as shown in Figure 3-6 using the Franklin County Even Start password.

Welcome to the Update Page , FRANKLIN COUNTY EVEN START, Please select from following:

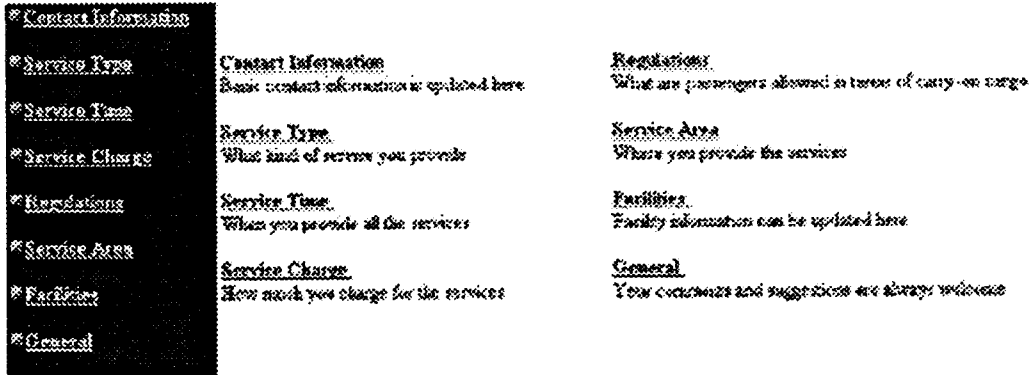


Figure 3-6. Screen view of the update options.

Once the user has entered the system, it is possible to enter changes in any of the possible options. For example, portions of the screens used to update the service times and service area are shown in Figures 3-7 and 3-8.

**Service Time**

1.) What are your hours of operation? (Check all that apply and give corresponding time interval.)

<input type="checkbox"/> Sunday		to	
<input checked="" type="checkbox"/> Monday	8:00 AM	to	5:00 PM
<input checked="" type="checkbox"/> Tuesday	8:00 AM	to	5:00 PM
<input checked="" type="checkbox"/> Wednesday	8:00 AM	to	5:00 PM
<input checked="" type="checkbox"/> Thursday	8:00 AM	to	5:00 PM
<input checked="" type="checkbox"/> Friday	8:00 AM	to	5:00 PM
<input checked="" type="checkbox"/> Saturday	8:00 AM	to	5:00 PM

2.) What days, other than those specified in question 1, are your offices closed throughout the year?

Date 1: MONDAY THROUGH FRIDAY

Date 2: \_\_\_\_\_

Date 3: \_\_\_\_\_

Date 4: \_\_\_\_\_

Date 5: \_\_\_\_\_

Date 6: \_\_\_\_\_

Date 7: \_\_\_\_\_

**Service Time**

**Figure 3-7. Screen to make changes in service times.**

1) The columns below contain counties and some of their respective cities. Please check all the cities that your agency provides service to.

Colbert	Franklin	Laurel	Marion	Winston
<input type="checkbox"/> Abbeville	<input type="checkbox"/> Santa Cruz	<input type="checkbox"/> Watauga	<input type="checkbox"/> Blount	<input type="checkbox"/> Forsyth
<input checked="" type="checkbox"/> Cherokee	<input type="checkbox"/> Clayton	<input type="checkbox"/> Wayne	<input type="checkbox"/> Burke	<input type="checkbox"/> Franklin
<input checked="" type="checkbox"/> Burke	<input type="checkbox"/> Wayne	<input type="checkbox"/> Oakland	<input type="checkbox"/> Wilkes	<input type="checkbox"/> Guilford
<input type="checkbox"/> Red Back Section	<input type="checkbox"/> Swain	<input type="checkbox"/> McDowell	<input type="checkbox"/> Swain	<input type="checkbox"/> DeKalb
<input type="checkbox"/> Crooked Oak	<input checked="" type="checkbox"/> Swain	<input type="checkbox"/> Central Heights	<input type="checkbox"/> Hoke	<input type="checkbox"/> Nassau
<input type="checkbox"/> Toccoa	<input type="checkbox"/> Edgecumbe	<input checked="" type="checkbox"/> Cherokee	<input type="checkbox"/> Yamacraw	<input type="checkbox"/> Logan
<input checked="" type="checkbox"/> Sheffield	<input type="checkbox"/> Red Bay	<input type="checkbox"/> Florence	<input type="checkbox"/> Oconee	<input type="checkbox"/> Graham
<input checked="" type="checkbox"/> Collier Heights	<input type="checkbox"/> Halltown	<input type="checkbox"/> East Florida	<input type="checkbox"/> Gwinnett	<input type="checkbox"/> Morehead
<input type="checkbox"/> Lenoir	<input type="checkbox"/> Vasa	<input type="checkbox"/> Gravelly	<input type="checkbox"/> Washburn	<input type="checkbox"/> DeKalb Springs
<input checked="" type="checkbox"/> North State	<input type="checkbox"/> Annapolis	<input type="checkbox"/> Eden	<input type="checkbox"/> Rock City	<input type="checkbox"/> Poplar Springs
<input checked="" type="checkbox"/> Spring Valley	<input type="checkbox"/> Liberty Hill	<input type="checkbox"/> Ocean Star	<input type="checkbox"/> Duluth	<input type="checkbox"/> Arley
<input checked="" type="checkbox"/> Hixson City	<input type="checkbox"/> Rockwood	<input type="checkbox"/> Lexington	<input checked="" type="checkbox"/> Redwood	<input type="checkbox"/> Hamilton
<input checked="" type="checkbox"/> Lightfoot	<input type="checkbox"/> Lewis	<input checked="" type="checkbox"/> Edge	<input type="checkbox"/> Bear Creek	<input type="checkbox"/> Addison
<input type="checkbox"/> McGehee	<input checked="" type="checkbox"/> Spruce Pine	<input type="checkbox"/> Anderson		<input type="checkbox"/> Hebron
	<input type="checkbox"/> Oak Grove	<input type="checkbox"/> Sugarville		
	<input type="checkbox"/> Pine Church			

2) Does your agency provide trips to special destinations such as hospitals, grocery stores, etc.? If yes, please list those locations below.

1. SHEPHERDSON SHEPHERD
2. SHOPRITE, JACKSON HWY SHEPHERD
3. SHOPMARKET, MUSCLE SHOALS
4. FOR STABLE'S OFFICE, FLORENCE AT REQUEST
- 5.
- 6.
- 7.
- 8.

Service Area

Figure 3-8. Screen to make changes in service area.

### 3.4 Step 4. Version 3 of the MIMS System

The final step in the process was to continue to modify the information contained in the database as well as the data entry screens and dissemination screens. When examining Version 2 of the system, it was determined that the information entered was correct, from a aggregate agency perspective. That is to say, the information was representative of the entire agency's operations. However, it was determined that the information did not accurately reflect the transportation services offered by the individual agencies. For example, in Version 2, the agencies entered information regarding the communities for which they offer service. Unfortunately, even though



an agency might offer service in two separate communities within the study area, this does not necessary mean that the agency is willing to offer service between the two communities. This scenario was not accommodated in Version 2 of the system. Therefore, it was necessary in Version 3 of the system, to focus information on specific routes offered, rather than the entire agency operator as a whole. The following information provides examples of the system developed.

The alterations to the MIMS system for Version 3 included the shift from agency queries to specific route queries. There were two access methods developed to handle this change in the system, a graphical methods in which the user selects the city of interest and a trip purpose menu in which the user selects the type of trip requested. The two access methods from the main screen are shown in Figure 3-9.

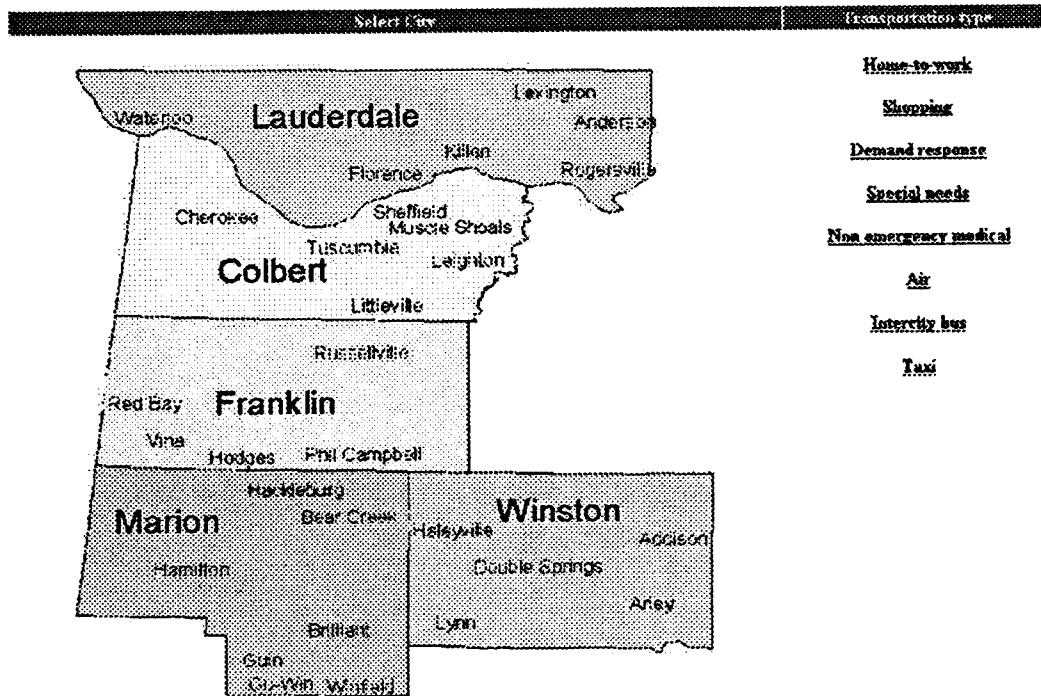


Figure 3-9. Version 3 access screen.

The first access method for the MIMS system is through a locality menu. For this menu, the user is presented with a selectable map of the region that the user can choose the city they currently reside. This selection will then provide all of the transportation service information available to the individual, segmented into the various types of transportation identified from the trip purpose menu. An example is shown in Figure 3-10 for Sheffield, AL.

# Welcome to Sheffield, Alabama

## Transportation type

### Home-to-work

There are no service providers For City and County Yet!

Click Here	ID Number	Service Provider Name	Phone Number
No Records	No Records	No Records	No Records

Here are the service providers in your county

Click Here	ID Number	Service Provider Name	Phone Number
SHOWRECORD	40	NACOLG	256-389-6510
SHOWRECORD	41	NACOLG	256-389-6510
SHOWRECORD	42	NACOLG	256-389-6510
SHOWRECORD	43	NACOLG	256-389-6510

### Shopping

Here are the service providers in both city and county

Click Here	ID Number	Service Provider Name	Phone Number
SHOWRECORD	17	NACOLG	256-389-6510
SHOWRECORD	16	NACOLG	256-389-6510

Figure 3-10. Results for Sheffield, AL.

From the information provided by the system, there are currently no home-to-work routes originating or terminating in Sheffield, AL. However, there are four home-to-work routes within the county operated by NACOLG (Northwest Alabama Council of Local Governments) the area's Section 5311 provider. For any of the routes available either in the city or county, there is a show record button available to obtain additional information. Figure 3-11 shows the details for one of the home-to-work routes.

Service Provider	Phone Number
NACOLG	256-389-0510

**PICK UP LOCATIONS, CITY, COUNTYS & TIMINGS**

LOCATIONS	KMART LOT
CITYS	MUSCLE SHOALS
COUNTYS	COLBERT
TIME	9:30 P.M.

**DROP OFF LOCATIONS, CITY, COUNTYS & TIMINGS**

LOCATIONS	DUNLOP
CITYS	HUNTSVILLE
COUNTYS	MADISON
TIME	10:45 P.M.

**WEEK DAYS**

SUNDAY	NO
MONDAY	YES
TUESDAY	YES
WEDNESDAY	YES
THURSDAY	YES
FRIDAY	YES
SATURDAY	NO

**Figure 3-11. Detailed view of one home-to-work route in the system.**

The second access method for the MIMS system is through what is referred to as a trip purpose menu. This menu itemizes the types of trips that an individual would be searching and provides a list of specific services available in the region. The types of trip purposes available to select from include:

- Home-to-Work Routes,
- Shopping Routes,
- Demand Response,

- Special Needs,
- Emergency Medical,
- Non-Emergency Medical,
- Intercity Bus,
- Regional Air, and
- Taxi.

Upon selection of any of these menu options, the system will advance the users to a screen showing a list of the available services for the specific type of transportation selected as well as contact information, costs, and providers. The results for Demand Response transportation are shown in Figure 3-12.

Service Provider	Vehicle Class	Service Code	Service Day	Service Day	Service Day	Service Day	Service Day	Service Day	Service Day	Service Day
01	01	01	01	01	01	01	01	01	01	01
02	02	02	02	02	02	02	02	02	02	02
03	03	03	03	03	03	03	03	03	03	03
04	04	04	04	04	04	04	04	04	04	04
05	05	05	05	05	05	05	05	05	05	05
06	06	06	06	06	06	06	06	06	06	06
07	07	07	07	07	07	07	07	07	07	07
08	08	08	08	08	08	08	08	08	08	08
09	09	09	09	09	09	09	09	09	09	09
10	10	10	10	10	10	10	10	10	10	10
11	11	11	11	11	11	11	11	11	11	11
12	12	12	12	12	12	12	12	12	12	12
13	13	13	13	13	13	13	13	13	13	13
14	14	14	14	14	14	14	14	14	14	14
15	15	15	15	15	15	15	15	15	15	15
16	16	16	16	16	16	16	16	16	16	16
17	17	17	17	17	17	17	17	17	17	17
18	18	18	18	18	18	18	18	18	18	18
19	19	19	19	19	19	19	19	19	19	19
20	20	20	20	20	20	20	20	20	20	20
21	21	21	21	21	21	21	21	21	21	21
22	22	22	22	22	22	22	22	22	22	22
23	23	23	23	23	23	23	23	23	23	23
24	24	24	24	24	24	24	24	24	24	24
25	25	25	25	25	25	25	25	25	25	25
26	26	26	26	26	26	26	26	26	26	26
27	27	27	27	27	27	27	27	27	27	27
28	28	28	28	28	28	28	28	28	28	28
29	29	29	29	29	29	29	29	29	29	29
30	30	30	30	30	30	30	30	30	30	30
31	31	31	31	31	31	31	31	31	31	31
32	32	32	32	32	32	32	32	32	32	32
33	33	33	33	33	33	33	33	33	33	33
34	34	34	34	34	34	34	34	34	34	34
35	35	35	35	35	35	35	35	35	35	35
36	36	36	36	36	36	36	36	36	36	36
37	37	37	37	37	37	37	37	37	37	37
38	38	38	38	38	38	38	38	38	38	38
39	39	39	39	39	39	39	39	39	39	39
40	40	40	40	40	40	40	40	40	40	40
41	41	41	41	41	41	41	41	41	41	41
42	42	42	42	42	42	42	42	42	42	42
43	43	43	43	43	43	43	43	43	43	43
44	44	44	44	44	44	44	44	44	44	44
45	45	45	45	45	45	45	45	45	45	45
46	46	46	46	46	46	46	46	46	46	46
47	47	47	47	47	47	47	47	47	47	47
48	48	48	48	48	48	48	48	48	48	48
49	49	49	49	49	49	49	49	49	49	49
50	50	50	50	50	50	50	50	50	50	50
51	51	51	51	51	51	51	51	51	51	51
52	52	52	52	52	52	52	52	52	52	52
53	53	53	53	53	53	53	53	53	53	53
54	54	54	54	54	54	54	54	54	54	54
55	55	55	55	55	55	55	55	55	55	55
56	56	56	56	56	56	56	56	56	56	56
57	57	57	57	57	57	57	57	57	57	57
58	58	58	58	58	58	58	58	58	58	58
59	59	59	59	59	59	59	59	59	59	59
60	60	60	60	60	60	60	60	60	60	60
61	61	61	61	61	61	61	61	61	61	61
62	62	62	62	62	62	62	62	62	62	62
63	63	63	63	63	63	63	63	63	63	63
64	64	64	64	64	64	64	64	64	64	64
65	65	65	65	65	65	65	65	65	65	65
66	66	66	66	66	66	66	66	66	66	66
67	67	67	67	67	67	67	67	67	67	67
68	68	68	68	68	68	68	68	68	68	68
69	69	69	69	69	69	69	69	69	69	69
70	70	70	70	70	70	70	70	70	70	70
71	71	71	71	71	71	71	71	71	71	71
72	72	72	72	72	72	72	72	72	72	72
73	73	73	73	73	73	73	73	73	73	73
74	74	74	74	74	74	74	74	74	74	74
75	75	75	75	75	75	75	75	75	75	75
76	76	76	76	76	76	76	76	76	76	76
77	77	77	77	77	77	77	77	77	77	77
78	78	78	78	78	78	78	78	78	78	78
79	79	79	79	79	79	79	79	79	79	79
80	80	80	80	80	80	80	80	80	80	80
81	81	81	81	81	81	81	81	81	81	81
82	82	82	82	82	82	82	82	82	82	82
83	83	83	83	83	83	83	83	83	83	83
84	84	84	84	84	84	84	84	84	84	84
85	85	85	85	85	85	85	85	85	85	85
86	86	86	86	86	86	86	86	86	86	86
87	87	87	87	87	87	87	87	87	87	87
88	88	88	88	88	88	88	88	88	88	88
89	89	89	89	89	89	89	89	89	89	89
90	90	90	90	90	90	90	90	90	90	90
91	91	91	91	91	91	91	91	91	91	91
92	92	92	92	92	92	92	92	92	92	92
93	93	93	93	93	93	93	93	93	93	93
94	94	94	94	94	94	94	94	94	94	94
95	95	95	95	95	95	95	95	95	95	95
96	96	96	96	96	96	96	96	96	96	96
97	97	97	97	97	97	97	97	97	97	97
98	98	98	98	98	98	98	98	98	98	98
99	99	99	99	99	99	99	99	99	99	99
00	00	00	00	00	00	00	00	00	00	00

Figure 3-12. Demand Response transportation services.

From the entire list of demand response route options, the user can then select the ID number for the appropriate route to view a more detailed listing (the ID number is located at the beginning of the line). Figure 3-13 shows a demand response route with enhanced detail.

Service Provider	Plans Number
HACCLG	255-389-0510

PICK UP LOCATIONS, CITY, COUNTYS & TIME

LOCATIONS	HAMILTON			
CITYS	HAMILTON	WINFIELD	BRILLIANT	GUIN
COUNTYS	MARION	MARION	MARION	MARION
TIME				8:00 A.M. START TIME

DROP OFF LOCATIONS, CITY, COUNTYS & TIME

LOCATIONS	HAMILTON	WINFIELD	BRILLIANT	GUIN
CITYS	HAMILTON	WINFIELD	BRILLIANT	GUIN
COUNTYS	MARION	MARION	MARION	MARION
TIME				4:00 P.M. END TIME

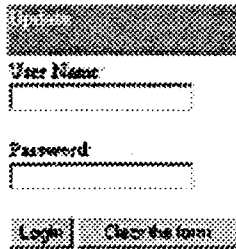
WEEK DAYS

SUNDAY	NO
MONDAY	NO
TUESDAY	NO
WEDNESDAY	YES
THURSDAY	NO
FRIDAY	NO
SATURDAY	NO

Figure 3-13. Detailed information for a demand response route.

Version 3 the MIMS system has been developed with on-line data entry and modification screens for transportation agencies to access similar to version 2. However, as with the dissemination of information, the information is intended to be input using a route specific methodology, i.e. each route should be input separately, not one entry for the entire agency. The version 3 system has been developed with controlled access for data entry to ensure the only people entering data into the system are registered users (see Figure 3-14).

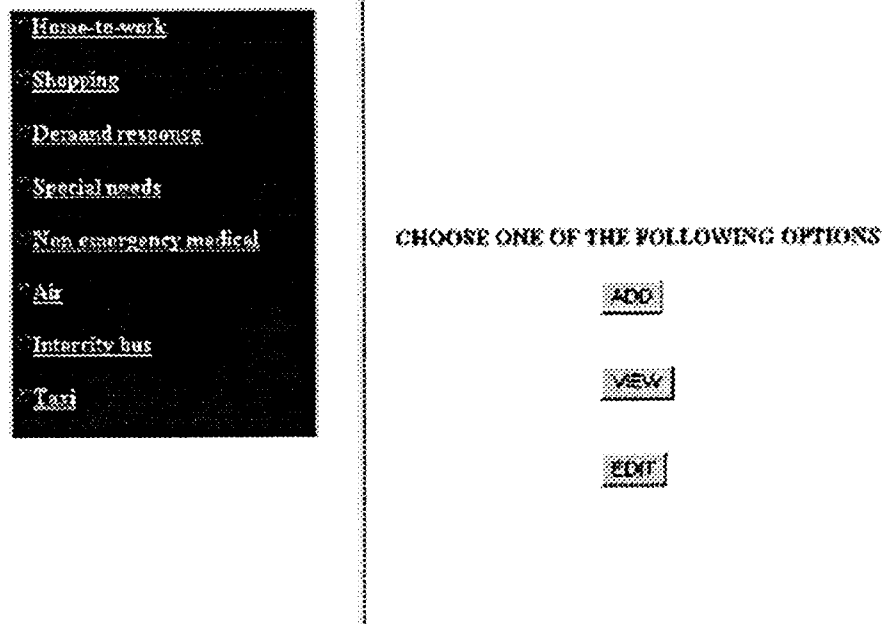
**Welcome to  
Mobility Information Management System Data Entry Screen**



The screenshot shows a window with a shaded title bar. Below the title bar, there are two text input fields. The first is labeled 'User Name' and the second is labeled 'Password'. At the bottom of the window, there are two buttons: 'Login' and 'Clear the form'.

**Figure 3-14. User verification screen.**

Once the user has been verified, they will be directed to a screen where the different types of transportation service that can be modified area displayed. After the user selects the type of service they are interested in changing, another screen will appear prompting the user to decide what changes are necessary, add a route, modify a route, or view and existing route (see Figure 3-15).



**Figure 3-15. Modification screen for Version 3.**

Once the user selects the option of interest, the screen will display either an existing route to be modified, a blank data entry screen, or a screen prompting the user to select the route to view. The entry and modification screens are all designed to match the view screens in the system, with some having blank entry locations for the user to type the information into the system and others having check boxes to identify the appropriate information. Example screens for entering data for a special needs route and a demand response route are shown in Figures 3-16 and 3-17.



Welcome to the Special Needs Update Page! To return to the main update menu, press back.

**Special Needs**

Service Provider

Contact

Description of Service

**Pick Up Location**

- Landerdale
- Anderson
- Florence
- Rilea
- Lexington
- Rogersville
- Watsoo

- Cobert
- Cherokee
- Lighthouse
- Lenoirville
- Marsh's Shoals
- Sheffield
- Tusculum

- Franklin
- Hodges
- Phil Campbell
- East Bay
- Russellville
- Vaux

- Marion
- Bear Creek
- Bristol
- Oan
- Oasmin
- Shackelberg
- Hamblin
- Wadfield

- Watson
- Adkins
- Asby
- Double Springs
- Halesville
- Lynn

**Drop Off Location**

- Landerdale
- Anderson
- Florence
- Rilea
- Lexington
- Rogersville
- Watsoo

- Cobert
- Cherokee
- Lighthouse
- Lenoirville
- Marsh's Shoals
- Sheffield
- Tusculum

- Franklin
- Hodges
- Phil Campbell
- East Bay
- Russellville
- Vaux

- Marion
- Bear Creek
- Bristol
- Oan
- Oasmin
- Shackelberg
- Hamblin
- Wadfield

- Watson
- Adkins
- Asby
- Double Springs
- Halesville
- Lynn

Figure 3-16. Screen for entering data for a special needs route.

Welcome to the Demand Response Update Page! To return to the main update menu, press back.

**Demand Response**

Service Provider   
Contact

**Pick Up Location**

Pick Up Location1	<input type="text"/>	Pick-up City Location1	<input type="text"/>	Pick-up County Location1	<input type="text"/>
Pick-up Location2	<input type="text"/>	Pick-up City Location2	<input type="text"/>	Pick-up County Location2	<input type="text"/>
Pick-up Location3	<input type="text"/>	Pick-up City Location3	<input type="text"/>	Pick-up County Location3	<input type="text"/>
Pick-up Location4	<input type="text"/>	Pick-up City Location4	<input type="text"/>	Pick-up County Location4	<input type="text"/>
Pick-up Location5	<input type="text"/>	Pick-up City Location5	<input type="text"/>	Pick-up County Location5	<input type="text"/>

**Drop Off Location**

Drop Off Location1	<input type="text"/>	Drop-off City Location1	<input type="text"/>	Drop-off County Location1	<input type="text"/>
Drop Off Location2	<input type="text"/>	Drop-off City Location2	<input type="text"/>	Drop-off County Location2	<input type="text"/>
Drop Off Location3	<input type="text"/>	Drop-off City Location3	<input type="text"/>	Drop-off County Location3	<input type="text"/>
Drop Off Location4	<input type="text"/>	Drop-off City Location4	<input type="text"/>	Drop-off County Location4	<input type="text"/>
Drop Off Location5	<input type="text"/>	Drop-off City Location5	<input type="text"/>	Drop-off County Location5	<input type="text"/>

**Timings**

<input type="checkbox"/> Sunday	
Sunday Pick-up Time	<input type="text"/>
Sunday Drop-off Time	<input type="text"/>
<input type="checkbox"/> Monday	
Monday Pick-up Time	<input type="text"/>
Monday Drop-off Time	<input type="text"/>
<input type="checkbox"/> Tuesday	
Tuesday Pick-up Time	<input type="text"/>
Tuesday Drop-off Time	<input type="text"/>
<input type="checkbox"/> Wednesday	
Wednesday Pick-up Time	<input type="text"/>
Wednesday Drop-off Time	<input type="text"/>
<input type="checkbox"/> Thursday	
Thursday Pick-up Time	<input type="text"/>
Thursday Drop-off Time	<input type="text"/>
<input type="checkbox"/> Friday	
Friday Pick-up Time	<input type="text"/>
Friday Drop-off Time	<input type="text"/>
<input type="checkbox"/> Saturday	
Saturday Pick-up Time	<input type="text"/>
Saturday Drop-off Time	<input type="text"/>

Figure 3-17. Data entry screen for demand response.

## **Section 4**

### **Conclusions and Future Work**

The rural transportation mobility information management system (MIMS) developed for the northwest Alabama region of Colbert, Franklin, Lauderdale, Marion, and Winston counties provides a unique method to maintain and access transportation data. The system has been designed to be easily understood by both the transportation agencies that need to maintain the data and the general user that desires information on transportation related services offered in the region. The completion of the system provides a convenient mechanism to educate the public on transportation services and allows transportation service agencies to help passengers arrange needed transportation services.

The design of the system presented in this paper is by no means the end of the MIMS system. Several avenues of follow-on work are required to claim a major success in the improvement of mobility in rural America. First, the system needs to be fully deployed and evaluated to determine the number of users who visit the Internet site, either through their own computer or a public computer, as one possibly available at local library. This measure will educate us on the willingness of individuals to access the transportation information available to them. More importantly, however, will be the evaluation of the impact on ridership that deployment of a MIMS system has on region. Questions such as:

- Has there been an increase in ridership?

- Are more people contacting and arranging transportation services?
- Are selected services being accessed more frequently than others?

still need to be answered.

Another issue to examine is access to the system for individuals without Internet availability.

One possible solution being considered and requiring future study is the use of a regional hotline for transportation services where an individual, with access to the MIMS system, would field calls and assist travelers in arranging transportation services. Another possible idea regarding dissemination of information worth consideration is through contracts with local public access television stations that would broadcast transportation service information after collected.

The final issue for future work presented is level at which the system operates optimally. The current design focuses on a five county area; however, there is no magic to say this is the best method to present the system. Should the system be implemented on a statewide basis versus a regional basis is a question that needs to be addressed.

Overall, the Mobility Information Management System is attempting to assist rural transit providers become mobility managers and provide a mechanism for individual travelers to obtain access to a wealth of information related to transportation services and providers.

## **Acknowledgements**

The author would like to thank the Mack-Blackwell Transportation Center and the Multimodal Bureau of the Alabama Department of Transportation for funding this research. The author would also like to thank all members of the transportation agencies who assisted on this project by supplying the data necessary to construct the system. In addition, special thanks goes out to the student workers who participated on this project.

## References

1. [www.census.gov](http://www.census.gov) accessed July 30, 2001.
2. Tooley, M., Gattis, J., Watts, A., “The Northwest Arkansas Transit Assessment Study.”  
MBTC Document 1103. March 2000.
3. Travel Survey Manual, Cambridge Systematics, Inc., U.S. Department of Transportation,  
Federal Highway Administration, Federal Transit Administration, Office of the Secretary,  
U.S. Environmental Protection Agency. June 1996.
4. Transit Agency Survey Form, “Montana Rural Passenger Needs Study”  
<http://www.lscs.com/projects/MDT/techmemo2/AppA.PDF>
5. Transit Agency Survey Form, “Colorado Statewide 2000 Transit Survey Update”  
<http://www.lscs.com/projects/CDOT-TNBS/infosurvey.htm>

## **Appendix A**

### **Survey Sent to the Transit Agencies**

This survey will aid the University of Alabama in Huntsville in the development of a mobility information management system in your area and is sponsored by the Mack-Blackwell Rural Transportation Center and the Alabama Department of Transportation.

The information gathered in this survey will be organized and made available to the public in order to make them more aware of the transportation options available to them in an effort to increase overall efficiency and public support for the public transportation systems in their area. This survey is the preliminary step in developing a type of pre-trip information service allowing customers up-to-date information on route schedules and general information about the individual agencies that will hopefully be adopted statewide. The end result would be a system linking all public transit agencies statewide allowing users to plan a trip to anywhere in the state.

All questions in this survey are optional. The intent of this survey is to gather information on the available resources of the public transportation system, not to compare your agency with others in the state. If there are any questions that you feel may compromise the integrity of your agency feel free to leave them blank.

If you come to a question marked with a (\*), please refer to the discussion for these questions at the end of the survey. It covers some of the questions that may have unfamiliar terminology

and/or cause confusion. If you are still having trouble please call or email Dr. Michael Anderson.

Office: (256) 824-5028; Email: [mikea@cee.uah.edu](mailto:mikea@cee.uah.edu).



**Organization:** \_\_\_\_\_

**Address:** \_\_\_\_\_

\_\_\_\_\_

**Phone:** \_\_\_\_\_

**Fax:** \_\_\_\_\_

**Contact Person:** \_\_\_\_\_

**Title/Dept.:** \_\_\_\_\_

**E-Mail Address:** \_\_\_\_\_

**1. IS YOUR AGENCY:**

- Public
- Private non-profit
- Private for-profit
- Other \_\_\_\_\_

**2. WHAT TYPE OF SERVICE DOES YOUR AGENCY PROVIDE?**

- Fixed Route (FR)
- Demand Response (DR)
- Both FR and DR
- Route Deviation
- Other \_\_\_\_\_

**3. DOES YOUR AGENCY PROVIDE CONTRACT SERVICE?**

- Yes      If Yes,       FR  DR  Both
- No

**4. WHO IS ELIGIBLE FOR TRANSPORTATION SERVICES WITH YOUR AGENCY AND WHAT PERCENTAGE (APPROX.) OF YOUR TOTAL PASSENGERS DOES THIS GROUP REPRESENT? (CHECK ALL THAT APPLY)**

<u>Group</u>	<u>Percentage</u>
<input type="checkbox"/> Elderly (60+) Non-disabled	_____
<input type="checkbox"/> Elderly Disabled	_____
<input type="checkbox"/> Non-elderly disabled (mental/physical)	_____
<input type="checkbox"/> Low income	_____
<input type="checkbox"/> Youth	_____
<input type="checkbox"/> General Public	_____
<input type="checkbox"/> Other _____	

**5. DOES YOUR AGENCY SPECIALIZE IN PROVIDING TRANSIT SERVICES TO ANY PARTICULAR GROUP MENTIONED IN QUESTION 4?**

- No       Yes-Check all that apply below.

- Elderly (60+) Non-disabled
- Elderly Disabled
- Non-elderly disabled (mental/physical)
- Low income
- Youth
- General Public
- Other \_\_\_\_\_

**6. IF YOUR AGENCY PROVIDES HANDICAPPED SERVICES, HOW MANY OF YOUR VEHICLES ARE LIFT EQUIPPED?**

\_\_\_\_\_

a.) Do your drivers assist passengers to and from the bus if needed?  
 Yes                       No

**7. WHAT ARE YOUR HOURS OF OPERATION? (CHECK ALL THAT APPLY AND GIVE CORRESPONDING TIME INTERVAL.)**

Example:     Monday                      8:00 AM to 5:00 PM

Sunday    \_\_\_\_\_ to \_\_\_\_\_

Monday    \_\_\_\_\_ to \_\_\_\_\_

Tuesday     \_\_\_\_\_ to \_\_\_\_\_

Wednesday                                        \_\_\_\_\_ to \_\_\_\_\_

Thursday    \_\_\_\_\_ to \_\_\_\_\_

Friday    \_\_\_\_\_ to \_\_\_\_\_

Saturday    \_\_\_\_\_ to \_\_\_\_\_

**8. WHAT DAYS, OTHER THAN THOSE SPECIFIED IN QUESTION 5, ARE YOUR OFFICES CLOSED THROUGHOUT THE YEAR?\***

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**9. HOW ARE YOUR PASSENGERS CHARGED FOR TRANSPORTATION AND HOW MUCH?\***

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**10. IF PAYMENT IS ACCEPTED ON BEHALF OF A CLIENT FROM ANY FEDERAL, STATE, OR OTHER TYPES OF PROGRAMS, WHAT ARE THE CRITERIA THE CLIENT MUST MEET IN ORDER TO RECEIVE THIS AID?**

---



---



---

**11. WHAT ARE PASSENGERS ALLOWED IN TERMS OF CARRY ON CARGO?**

---



---



---

**12. WHICH OF THE FIVE COUNTIES/RURAL AREAS BELOW DOES YOUR AGENCY PROVIDE SERVICE TO ENTIRELY?\* (CHECK ALL THAT APPLY)**

- Colbert
- Franklin
- Lauderdale
- Marion
- Winston

**13. ANSWER PART A.) AND/OR B.) BELOW.\* (ANSWERING BOTH WILL ENABLE US TO BETTER DEFINE YOUR SERVICE AREA. IF YOU HAVE EXISTING ROUTE SCHEDULES AND/OR MAPS, A COPY OF THESE ITEMS CAN MAILED IN REPLACE OF THIS QUESTION.)**

**a) The columns below contain counties and their respective cities. Please check all the cities that your agency provides service to.\***

Colbert	Franklin	Lauderdale	Marion	Winston
<input type="checkbox"/> Allsboro	<input type="checkbox"/> Saints Crossroads	<input type="checkbox"/> Waterloo	<input type="checkbox"/> Shottsville	<input type="checkbox"/> Haleyville
<input type="checkbox"/> Cherokee	<input type="checkbox"/> Tharptown	<input type="checkbox"/> Wright	<input type="checkbox"/> Bexar	<input type="checkbox"/> Forkville
<input type="checkbox"/> Barton	<input type="checkbox"/> Waco	<input type="checkbox"/> Oakland	<input type="checkbox"/> Weston	<input type="checkbox"/> Ashridge
<input type="checkbox"/> Red Rock Junction	<input type="checkbox"/> Newburg	<input type="checkbox"/> Rhodesville	<input type="checkbox"/> Hamilton	<input type="checkbox"/> Delmar
<input type="checkbox"/> Crooked Oak	<input type="checkbox"/> Russellville	<input type="checkbox"/> Central Heights	<input type="checkbox"/> Hackleburg	<input type="checkbox"/> Natural Bridge
<input type="checkbox"/> Tusculmbia	<input type="checkbox"/> Belgreen	<input type="checkbox"/> Cloverdale	<input type="checkbox"/> Twin	<input type="checkbox"/> Lynn
<input type="checkbox"/> Sheffield	<input type="checkbox"/> Red Bay	<input type="checkbox"/> Florence	<input type="checkbox"/> Guin	<input type="checkbox"/> Grayson
<input type="checkbox"/> Colbert Heights	<input type="checkbox"/> Halltown	<input type="checkbox"/> St. Florian	<input type="checkbox"/> Gu-Win	<input type="checkbox"/> Moreland
<input type="checkbox"/> Littleville	<input type="checkbox"/> Vina	<input type="checkbox"/> Greenhill	<input type="checkbox"/> Winfield	<input type="checkbox"/> Double Springs
<input type="checkbox"/> Muscle Shoals	<input type="checkbox"/> Atwood	<input type="checkbox"/> Killen	<input type="checkbox"/> Rock City	<input type="checkbox"/> Poplar Springs
<input type="checkbox"/> Spring Valley	<input type="checkbox"/> Liberty Hill	<input type="checkbox"/> Center Star	<input type="checkbox"/> Pulltight	<input type="checkbox"/> Arley
<input type="checkbox"/> Nitrate City	<input type="checkbox"/> Rockwood	<input type="checkbox"/> Lexington	<input type="checkbox"/> Brilliant	<input type="checkbox"/> Houston
<input type="checkbox"/> Leighton	<input type="checkbox"/> Isbell	<input type="checkbox"/> Elgin	<input type="checkbox"/> Bear Creek	<input type="checkbox"/> Addison
<input type="checkbox"/> Margerum	<input type="checkbox"/> Spruce Pine	<input type="checkbox"/> Anderson		<input type="checkbox"/> Helicon
<input type="checkbox"/>	<input type="checkbox"/> Oak Grove	<input type="checkbox"/> Rogersville		
<input type="checkbox"/>	<input type="checkbox"/> Phil Cambell			
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				

b) Using the map below and a highlighter, draw a rectangle around the entire area your agency is willing and has the resources to provide service to, or highlight the roadways included in your routes.\*



14. DOES YOUR AGENCY PROVIDE TRIPS TO SPECIAL DESTINATIONS SUCH AS HOSPITALS, GROCERY STORES, ETC.? IF YES, PLEASE LIST THOSE LOCATIONS BELOW.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

15. DO YOU HAVE ACCESS TO THE INTERNET/E-MAIL AND IF SO MAY WE CONTACT YOU THROUGH IT?

Yes                       No  
 Yes                       No

16. ARE YOUR FACILITIES OR VEHICLES EQUIPPED WITH ANY TYPE OF ADVANCED TRAVELER INFORMATION SYSTEMS (ATS)? IF YES PLEASE EXPLAIN.

Yes                       No

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

17. HOW MANY VEHICLES ARE IN YOUR FLEET?

\_\_\_\_\_

18. WHAT TYPES OF VEHICLES IS YOUR FLEET COMPOSED OF?

**Vehicle Type**

<input type="checkbox"/> Standard Van	_____
<input type="checkbox"/> Modified Van	_____
<input type="checkbox"/> Car	_____
<input type="checkbox"/> Truck	_____
<input type="checkbox"/> Limo	
<input type="checkbox"/> Bus	

**# in Fleet**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Capacity**

\_\_\_\_\_  
\_\_\_\_\_

19. HOW MANY VEHICLES DO YOU HAVE IN SERVICE ON AN AVERAGE DAY?

\_\_\_\_\_

20. WHAT ARE YOUR PEAK PERIOD HOURS?\*

Example:  Monday                      From 8:00 AM to 5:00 PM

Sunday                                      From \_\_\_\_\_ to \_\_\_\_\_

Monday                                        From \_\_\_\_\_ to \_\_\_\_\_

Tuesday                                      From \_\_\_\_\_ to \_\_\_\_\_

Wednesday                                 From \_\_\_\_\_ to \_\_\_\_\_

Thursday                                     From \_\_\_\_\_ to \_\_\_\_\_

Friday                                         From \_\_\_\_\_ to \_\_\_\_\_

Saturday                                    From \_\_\_\_\_ to \_\_\_\_\_

21. HOW MANY VEHICLES DO YOU HAVE IN SERVICE FOR PEAK PERIODS?

\_\_\_\_\_

22. HOW MANY PEOPLE, ON AVERAGE, DO YOU TRANSPORT ON A DAILY BASIS?  
(ESTIMATE)

\_\_\_\_\_

23. HOW MANY EMPLOYEES DO YOU HAVE?

\_\_\_\_\_

24. HOW MANY DRIVERS DO YOU EMPLOY?

\_\_\_\_\_

25. ARE YOUR DRIVERS REQUIRED TO BE CDL CERTIFIED?

Yes                                       No

26. IS THERE ANY OTHER ABILITIES/TRAINING THAT YOUR EMPLOYEES POSSESS  
THAT YOU FEEL MIGHT BE OF INTEREST TO YOUR CUSTOMERS?

\_\_\_\_\_  
\_\_\_\_\_

27. WHAT ARE THE NEEDS OF YOUR AGENCY IN TERMS OF SHORT-TERM PROJECTS?\*

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

28. WHAT ARE THE NEEDS OF YOUR AGENCY IN TERMS OF LONG-TERM PROJECTS?\*

---

---

---

---

**29. PLEASE INCLUDE ANY SUGGESTIONS THAT YOU FEEL WOULD IMPROVE THIS SURVEY BELOW.**

---

---

---

---

---

**8. WHAT DAYS, OTHER THAN THOSE SPECIFIED IN QUESTION 5, ARE YOUR OFFICES CLOSED THROUGHOUT THE YEAR?**

**Discussion:** The question is concerned with holidays or other annual off-days that your agency observes.

**9. HOW ARE YOUR PASSENGERS CHARGED FOR TRANSPORTATION AND HOW MUCH?**

**Discussion:** Are your passengers charged per ride, per mile, per month, per year, etc? If certain groups of passengers receive aid from some type of program and are charged a lower rate, include the program name and cost to the passenger.

**12. WHICH OF THE FIVE COUNTIES/RURAL AREAS BELOW DOES YOUR AGENCY PROVIDE SERVICE TO ENTIRELY? (CHECK ALL THAT APPLY)**

**Discussion:** This question is asking for those counties that your agency serves completely, meaning that you provide service to any location in that county. If you don't serve any county completely, leave this question blank and continue to question 13.).

**13. ANSWER PART A.) AND/OR B.) BELOW. (ANSWERING BOTH WILL ENABLE US TO BETTER DEFINE YOUR SERVICE AREA. IF YOU HAVE EXISTING ROUTE SCHEDULES AND/OR MAPS, A COPY OF THESE ITEMS CAN MAILED IN REPLACE OF THIS QUESTION.)**

**Discussion:** These questions are very important in determining your service area. As stated, if you have existing route schedules and/or maps, a copy of these items can mailed in replace of this question, but if there are areas that you currently don't serve but are willing and have the resources to serve, please complete them anyway.

**a.) The columns below contain counties and their respective cities. Please check all the cities that your agency provides service to.**

**Discussion:** First of all, if you checked any counties in question 12.), there is no need to check any of the corresponding cities for those counties in this question. Only check the cities that you do, or are willing and have the resources to, provide service to in the remaining counties. If you did not check any counties in question 12.), check all the cities in each county that you do, or are willing and have the resources, to provide service to.

**b.) Using the map below and a highlighter, draw a rectangle around the entire area your agency is willing and has the resources to provide service to, or highlight the roadways included in your routes.**



**Discussion:** If you checked any counties in question 12.), there is no need to draw a rectangle around any areas in those counties. Only draw a rectangle around those areas that you do, or are willing and have the resources to, provide service to in the remaining counties. If you did not check any counties in question 12.), draw a rectangle around those areas that you do, or are willing and have the resources to, provide service to in each county. If you operate a fixed-route service, highlight the roadways that make up your route.

**20. WHAT ARE YOUR PEAK PERIOD HOURS?**

**Discussion:** During each day of the week, estimate the time interval when your agency transports the most passengers.

**28. WHAT ARE THE NEEDS OF YOUR AGENCY IN TERMS OF SHORT-TERM PROJECTS?**

**Discussion:** Please discuss any additions such as vehicles, equipment, or facilities and/or changes in procedures that you would like to see take place within the next five years within your agency or the statewide system as whole.

**29. WHAT ARE THE NEEDS OF YOUR AGENCY IN TERMS OF LONG-TERM PROJECTS?**

**Discussion:** Please discuss any additions such as vehicles, equipment, or facilities and/or changes in procedures that you would like to see take place within the next fifteen to twenty years within your agency or the statewide system as whole.

