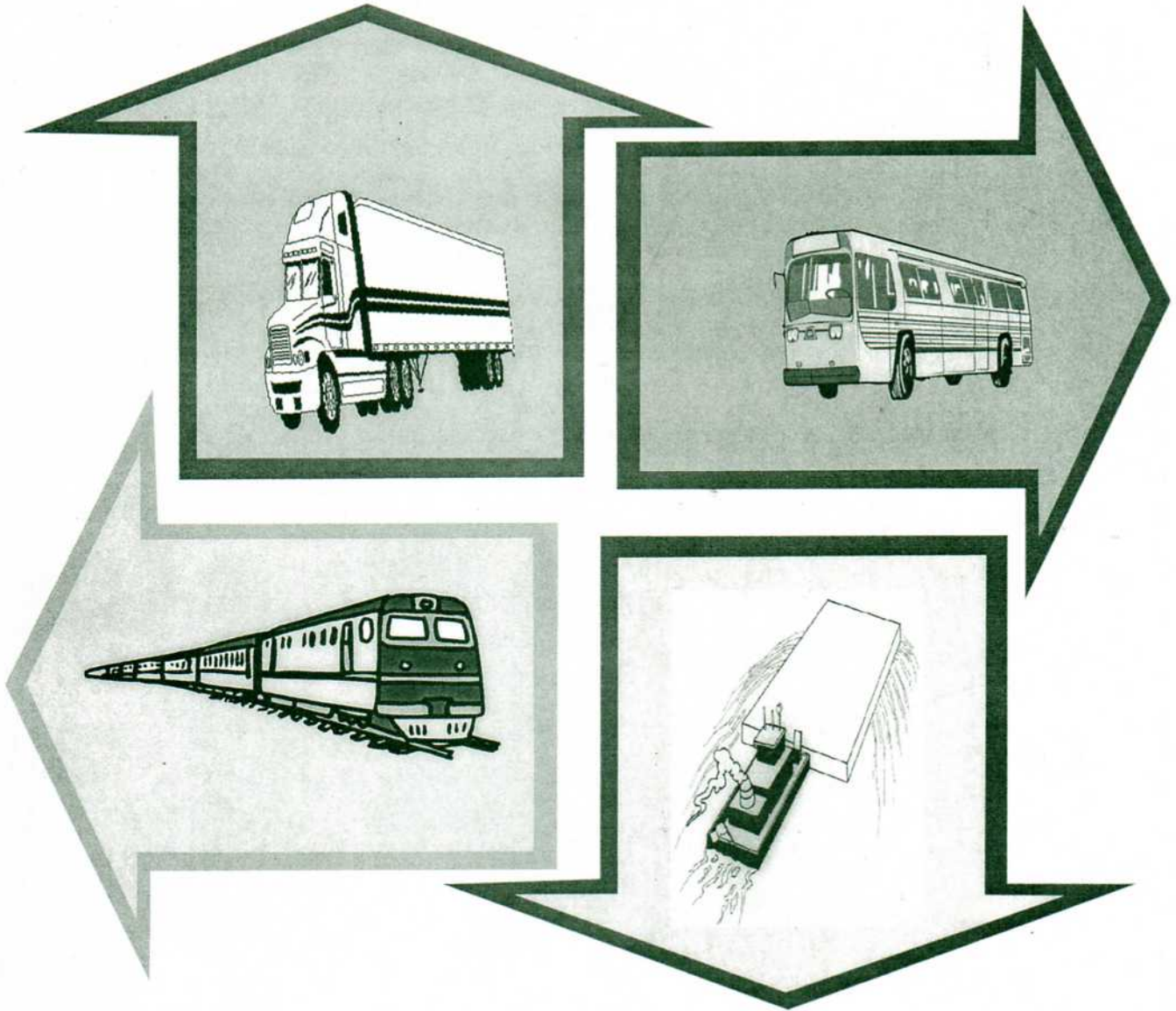


2030 TRANSPORTATION PLAN



Pine **B**luff **A**rea **T**ransportation **S**tudy

**PINE BLUFF AREA
TRANSPORTATION STUDY**

**YEAR 2030
TRANSPORTATION
PLAN**

**PREPARED BY:
SOUTHEAST ARKANSAS REGIONAL PLANNING
COMMISSION
P.O. BOX 8398
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AUGUST, 2005**

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**AN OVERVIEW
OF THE
TRANSPORTATION
PLANNING
PROCESS**

INTRODUCTION

The Pine Bluff Area Transportation Study Area (PBATS) Program was initiated in 1964 in accordance with the Federal Highway Act of 1962. The intent of the program was to provide a network of transportation facilities capable of providing safe, convenient, effective, and efficient movement of goods and persons throughout the urbanized portion of Jefferson County. The Federal-Aid Highway Act of 1962 stated:

"After July 1, 1965, the secretary shall not approve under Section 105 of this title any program for projects in any urban area of more than 50,000 population unless he finds that such projects are based on a continuing comprehensive transportation planning process carried on cooperatively by states and local communities in conformance with objectives stated in this section."

The original participants in the transportation planning process were the City of Pine Bluff, Jefferson County, Arkansas Highway and Transportation Department, and the Federal Highway Administration, and the original study culminated with the adoption of the recommended 1990 Transportation Plan in April 1969.

The Study Areas have been expanded since the original transportation plan was adopted to reflect the growth in the urbanized area. The City of White Hall became a member of the Study Area shortly after the plan was adopted in 1969. Other participants were included in the planning process in accordance with federal planning requirements. The new members were the Federal Transit Administration and Federal Aviation Administration. Between 1969 and 1995, the transportation plan was updated from time to time to reflect social, economic, and environmental changes affecting the study area.

In 1991, the President signed the Intermodal Surface Transportation Efficiency Act (ISTEA). This reauthorization act dramatically changed the transportation program from one that dealt primarily with roads to one that addresses a variety of transportation programs. ISTEA covered all forms of surface transportation and related interests: roads, bikeways, pedestrian movement, transit, rail, intermodal transportation and related issues, and pipeline transmission lines. In 1995, PBATS Policy Committee adopted the Year 2025 Transportation Plan which addresses the aforementioned items.

On June 9, 1998, the President signed the Transportation Equity Act for the 21st Century (TEA-21). The TEA builds on the initiative established by the Intermodal Surface Transportation Efficiency Act of 1991. This new act combined the continuation and improvement of current programs with new initiatives to improve safety of the transportation systems, protecting and enhancing communities and the natural environment as we provide transportation, and advancing America's economic growth and competitiveness domestically and internationally through efficient and flexible transportation.

FACTORS CONSIDERED IN THE PLANNING PROCESS

The Act requires that each urbanized area shall be required to develop a transportation plan and programs that, at a minimum, address the following seven factors:

1. Support economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency.
2. Increase the safety and security of transportation systems for motorized and non-motorized users.
3. Increase the accessibility and mobility options available to people and for freight.
4. Protect and enhance the environment, promote energy conservation, and improve the quality of life.
5. Enhance integration and connectivity of the transportation system across and between modes for people and freight.
6. Promote efficient system management and operation.
7. Emphasize the preservation of the existing transportation system.

LONG RANGE TRANSPORTATION PLAN

Since 1969, the Pine Bluff Area Transportation Study (PBATS) has conducted a continuing comprehensive, and cooperative (3-C) transportation planning process for the Pine Bluff-White Hall urban area. This fiscally constrained Long-Range Transportation Plan provides a picture of those transportation improvements that are planned to occur by the year 2030. This plan discusses the transportation planning process, and provides supporting data behind the plan's development.

PBATS has the responsibility to ensure that the 3-C transportation planning process is appropriately conducted and make decisions related to the planning and funding of transportation projects which are proposed to be constructed with federal, state and local funds. For a project to be eligible to receive federal transportation funds it must be included in the Financial Constrained Long-Range Transportation Improvement Program as identified in this Transportation Plan.

The purpose of the PBATS 2030 Long Range Transportation Plan is to identify and detail the multi-modal transportation improvements and programs to be carried out within the Transportation Study Area during the plan's timeframe and demonstrate the financial means by which these improvements and programs will be implemented. Prior to the plan's adoption and during its development, public open houses were held to obtain citizen opinion. The plan was then prepared by the staff with the assistance of the technical committee and was then adopted by the Policy Committee of PBATS.

This 2030 Plan addresses the transportation needs, balancing with environmental issues and quality of life issues in the study area. PBATS, in order to meet the needs of its citizens and in response to federal requirements, has compiled all of the elements that guide transportation planning in this area into a comprehensive long-range transportation plan.

GOALS AND POLICIES

The overall purpose of the transportation planning process is to develop a plan that can assist the units of government within the planning area in improving the quality of life for its citizens. The transportation plan provides a framework that the governmental units can use to improve public access to places of employment, shopping, education, recreation, social services, and other destinations throughout the study area. In the planning process it is also important to consider all aspects of the transportation system and all modes of travel. While the modes of transportation that service individual trips are certainly important and a major part of any transportation system, it is also important to consider the types of transportation that are used to deliver the goods and services required to support the quality of life we enjoy.

In developing any plan, the first step is to develop goals acceptable to the general public that lead to solving the problems perceived by the public. The seven overall goals that the transportation planning process has been designed to meet are as follows:

- To develop a balanced, integrated, physically safe, energy efficient, and environmentally safe overall transportation system that includes all modes of transportation used to serve the public needs, including roads, automobiles, public transit, truck movements, bicycles, pedestrian ways, waterways, railways, and pipelines.
- To develop a transportation system that contributes to the enhancement of desirable social, economic, and environmental qualities of the study area.
- To utilize the existing transportation facilities to the fullest extent possible to ensure that all opportunities to interconnect land uses and neighborhoods within the Study Area are available.
- To promote a balanced and sustained economic growth of the Study Area by implementing efficient transportations that allows for the movement of people and freight within and through the study area.
- To develop an intermodal transportation system that will provide equity, choice and opportunity for all citizens.
- Preserve the existing transportation system facilities and promote efficient system management and operations.
- Utilize available personnel and financial resources efficiently so as to meet the public and private sector needs.

STUDY ORGANIZATION

POLICY COMMITTEE

The Policy Committee has the general responsibility of directing and administering the preparation of the initial comprehensive study and for implementing the continuing planning process with assistance and advice from the Coordinating Committee and other technical subcommittees. The representatives for the state and federal governments also advise the Coordinating Committee on state and federal policies and regulations.

The Policy Committee's membership during 2005 is as follows:

<u>REPRESENTATIVES</u>	<u>NAME AND TITLE</u>
Jefferson County	Jack Jones, County Judge Mike Holcomb, Quorum Court Member
Pine Bluff	Carl Redus Jr., Mayor Bill Burnett, Alderman
White Hall	James Morgan, Mayor William May, Alderman
Southeast Arkansas Regional Planning Commission	Howard Parette (Chairman)
Arkansas Highway and Transportation Department	Alan Meandor, Chief, Planning Division James House, District Engineer
Arkansas River Regional Intermodal Authority	Bill Ferren, Chairman

Specifically, the Committee's responsibilities are:

1. Adopt a long-range transportation plan including priorities for improvement.
2. Maintain a work program for the continuing planning process.
3. Review estimated cost, work task, and funding as proposed.
4. Periodically review the cost of accomplishing the required work and recommend such changes as are necessary.
5. Review each major phase of the study and direct the technical and/or coordinating committees as necessary.
6. Implement its plans by taking steps to obtain official acceptance of its proposals by the units of government involved and by the people of the area.
7. Meet as necessary to review all material pertaining to changing transportation needs in the area and to revise the plan as needed.

8. Support and cooperate with other planning agencies in areas of mutual interest such as updating and implementing comprehensive plans, zoning, subdivision design and controls, official maps and capital improvements programs.
9. Exercise all other functions necessary to implement the continuing transportation planning process in accordance with the Safe Transportation Equity Act - LU.
10. Administer federal urban transportation planning funds.
11. Establish technical committees composed of committee members and other technical personnel involved in transportation within the study area.
12. Certifying the planning process is in compliance with the U. S. Department of Transportation's planning regulations.

COORDINATING/TECHNICAL COMMITTEE

The general responsibility of the Coordinating/Technical Committee and its subcommittees is to assist the Policy Committee in carrying out the planning program by reviewing and preparing reports and recommendations. Responsibilities of the various subcommittees involved in the overall comprehensive transportation planning process include the analysis of existing and future conditions relating to economic development, population, land use, transportation facilities, travel patterns, land use and development codes, and social, environmental and community value factors. The committee is also responsible for addressing the seven points required under TEA-21.

The Technical/Coordinating Committee's membership during 2005 is as follows:

<u>REPRESENTATIVES</u>	<u>NAME AND TITLE</u>
Jefferson County	D. L. Worthen, Superintendent, County Road Department
Pine Bluff	Jimmy O'Fallon, Manager, Street Department Larry Reynolds, Manger, Pine Bluff Transit
White Hall	James Morgan, Mayor Jeff Jones, Street Manager Jennie Elkins
Arkansas Highway & Transportation Department	Ernie Westfall, District Construction Engineer Julie Hart, Transportation Planner Danny Chidester, Transportation Planner
Southeast Arkansas Regional Planning Commission	Allan Skinner, Director Jerre George, Principle Planner
Pine Bluff Airport Commission	John Hale, Manager
Intermodal Representatives	Jim Crider, Executive Director, The Alliance

Federal Highway Administration	David Blakeney, Right-of-Way Officer
Office of Emergency Services	Wally Hunt, Director
Area Agency on the Aging	Dixie Clark, Director of Service Operations
Union Pacific Railroad	Charles Falkins

PUBLIC INVOLVEMENT

One of the essential elements in the transportation planning process is public involvement. In order to obtain public - i.e. citizens, other affected employee representatives, private providers of transportation, and other interested parties - input in planning and developing the Pine Bluff Urban Study Area Year 2030 Transportation Plan, the PBATS Policy Committee used the following public participation process:

ADOPTION OF THE YEAR 2030 TRANSPORTATION PLAN

Following is the process used to solicit public input in the development and adoption of the 2030 Transportation Plan:

- PBATS Staff held five open houses over a two week period at different locations. Prior to holding the open houses, four legal notices were published in the newspaper, and the open houses were advertised on the City of Pine Bluff and White Hall public T.V. stations. Also, over four hundred open house notices were sent to various public service agencies, civic groups, interest groups, governmental officials, and other individuals. Open houses were held in established land marks within a variety of neighborhoods and during time periods so as to accommodate persons who normally have to work between the hours of 8:00 AM and 5:00 PM. All the locations where the open houses took place met the ADA accessible regulations. The open houses held at the Merrill Center, 1100 South Ash, and at the Weed and Seed office, 2003 North University Drive, are in minority neighborhoods. The other open houses were held in the Jefferson County Court House, White Hall City Hall, and the Pine Bluff Convention Center in conjunction with the annual Business Expo. At the open houses, the public had an opportunity to review and make comments on the PBATS proposed 2030 Transportation Plan, Land Use Plan, Unified Work Program, and the Year 2030 Transportation Plan. In addition to the public being able to make their comments to the staff, written surveys were passed out to those people who stopped by in order to solicit citizen input for the planning process. Approximately 80 surveys were returned. The Technical Committee reviewed the public comments received from the open houses and surveys. Based on the comments from the open houses and the recommendations from the Technical Committee, the Policy Committee adopted the proposed Year 2030 Unconstrained Transportation Plan, the Long Range Transportation Improvement Program, and various other transportation plans. The Policy Committee then directed the staff to prepare a final draft of the Year 2030 Transportation Plan.
- After the staff prepared the final draft of the Year 2030 Transportation Plan in July of 2005, public notices were published in the newspaper. PBATS staff held three (3) open houses in August at three (3) different locations. Again the staff sent out over 400 notices to various organizations and individuals, notifying the public that the final draft of the 2030 Transportation Plan had been completed, and that copies of the plan had been made available for public review and comments for a fifteen (15) day period prior to submitting it to the Policy Committee for its approval of the Year 2030 Transportation Plan.

ANNUAL PLAN REVIEW

In each of the five years after the preparation of the 25-year transportation planning document, an annual open house meeting will be held for the purpose of soliciting public input concerning the planning process, the seven points PBATS is required to address in the process, and on the plan itself. The Technical Committee will address the public's input received from the open house and prepare a report to submit to the Policy Committee for its review and action.

1. A public notice will be published prior to the annual open house stating that the public has a fifteen (15) day time period from the date of the open house to submit their written comments concerning the plan and/or planning process to the Coordinating/Technical and Policy Committee. All comments shall be addressed to the Southeast Arkansas Regional Planning Commission (SARPC).
2. The staff will prepare a document of the comments it receives as a result of the open house meeting and submit it to the Technical Committee.
3. The staff will prepare a document addressing the Technical Committee's comments which will be submitted to the Policy Committee. The Policy Committee will review the report and take appropriate action as deemed necessary to carry on the continuing planning process.

TRANSPORTATION IMPROVEMENT PROGRAM AND UNIFIED WORK PROGRAM

1. PBATS will publish two legal notices to solicit citizen involvement in developing the TIP.

FIRST NOTICE

- The first public notice will be published in the local newspaper in April of the year in which the TIP is to be adopted. The notice will include:
 - A description of the TIP, brief statement of purpose of TIP, statement of eligible type of projects, and the jurisdictions proposing the project.
 - Notification that the public will be able to submit projects and/or comments in writing within a fifteen (15) day period that all responses shall be addressed to SARPC.

Projects and/or comments will be submitted to the Technical and Policy Committees for consideration in the process of developing the TIP.

SECOND NOTICE

- The public notice will be published prior to the adoption of the TIP and include a statement that the draft copy of the TIP has been prepared and is being considered for approval by the Technical and Policy Committees. The TIP is available for public review

and comments at the SARPC office, give a brief statement of purpose of the TIP, and list the jurisdictions involved.

- The public will be given a fifteen (15) day period to review and make comments to the Technical and Policy Committees. All comments shall be addressed to SARPC.

2. PBATS will publish a legal notice to solicit citizen involvement in developing the Unified Work Program prior to the adoption of the Unified Work Program. SARPC staff and AHTD will draft a proposed Unified Work Program for the upcoming fiscal year. This public notice is to solicit input concerning the draft Unified Work Program and will include the following information:

- A statement that the draft Unified Work Program has been prepared and is being considered for adoption by the Technical and Policy Committee and is available for review and comment at the SARPC office, will include a brief statement of the purpose of the Unified Work Program, and list the jurisdictions involved.
- The public will be given a fifteen (15) day period to review and make comments to the Technical and Policy Committee. All comments shall be addressed to SARPC.

INVENTORIES AND FORECASTS

In order to assess the adequacy of the Transportation Plan for the Year 2030, it is necessary to maintain land use data, socio-economic data, and transportation system characteristics on a current basis, review and forecast the collected data, and compare and evaluate the existing conditions in relation to the forecasts made in developing the recommended plan. These activities are necessary to determine if the assumptions made during the initial study and subsequent plan updates are holding constant.

Such elements as dwelling units, population, employment, vehicle registration, traffic volumes, accident data and social and environmental concerns are monitored and reviewed annually in order to ascertain trends in residential, commercial, and industrial land use development and its consequential effect on the existing and forecasted transportation systems. The elements contained in this section along with explanatory summaries of each element are as follows:

- Population: 1990 population, 2000 population, and 2015, 2020, and 2030 estimated population by census track located in the planning area.
- Employment: 1980 employment, 1990 employment, 2000 employment, and 2005 and 2030 estimated employment by census tracts.
- Vehicle Registration: 1984 - 2004
- Traffic Volumes: 1990, 1995, 2000 and 2004

POPULATION

The year 2030 population projections for Jefferson County were obtained by using the Arkansas Institute for Economic Advancement – University of Arkansas at Little Rock (UALR) Category A and B Population Projections for the years 2005 through 2030. It was determined to use the UALR projections after comparing these projections with the U.S. Census estimated population for Jefferson County. UALR projected population for Jefferson County appears to be higher than what the U.S. Census is estimating for Jefferson County in the short-time period. The population for Jefferson County in 2000 was 84,278. UALR category B projected population for 2010 is 87, 554,; in 2020 it is 90,780; and in 2030 it is 93,090. This is an increase of 6,502 in population over the 25 year period for Jefferson County.

To determine the portion of the county’s projected population that will reside in the PBATS Study Area, staff analyzed data obtained from the U.S. Census, PBATS Land Use Plan, and 9-1-1 addressing database. We also analyzed the migration patterns within the county. In 2000, 73,965 people lived within the PBATS Study Area which represents 87.7% of the total county’s population. Based on our analysis of the above mentioned criterion, we estimate that the year 2030 population of the PBATS Study Area will be 86,945, which represents 93.4 of the county’s estimated 2030 population.

Table 1 below shows the study area census population in the year 2000 and the future estimated population of the study area and county population. Table 2 shows the year 2000 population of the study area by census tracts. Map 1 Census Tracts is shown on page 21.

**TABLE 1
STUDY AREA POPULATION AS A PERCENTAGE OF TOTAL COUNTY
POPULATION**

Year	Study Area Population	County Population	Percentage of County
2000	73,965	84,278	87.7%
2010	78,488	87,554	89.6%
2020	83,064	89,375	91.5%
2030	86,945	93,090	93.4%

TABLE 2**Estimated Population of the Study Area by Census Tract and Block Group**

Census Tract	Block	2000 Census	Estimated 2010	Estimated 2020	Estimated 2030
2	1000	358	423	562	640
	2000	473	508	618	693
3.01	1000	942	1155	1595	2077
	2000	977	1075	1245	1373
	3000	1546	1724	2174	2655
3.02	1000	1717	2030	2116	2170
	2000	694	1262	1482	1614
	3000	964	1262	1482	1614
	4000	644	777	946	1125
	5000	1214	1295	1400	1496
3.03	1000	1036	1374	1679	1786
	2000	1241	1316	1356	1396
	3000	2150	2310	2365	2389
5.02	1000	1034	992	947	930
	2000	1257	1207	1197	1180
	3000	1739	1739	1729	1739
6	1000	409	140	71	67
	2000	221	211	190	190
	3000	57	37	17	10
9	1000	1194	1224	1235	1250
	2000	982	997	1007	1017
	3000	642	657	667	677
	4000	622	607	597	587
10	1000	654	594	554	529
	2000	652	594	554	529
	3000	673	648	628	622
	4000	412	332	287	262

**Estimated Population of the Study Area by Census Tract and Block Group
(continued)**

Census Tract	Block	2000 Census	Estimated 2010	Estimated 2020	Estimated 2030
12	1000	641	601	581	572
	2000	623	593	588	585
	3000	1091	1056	1046	1034
	4000	489	469	464	461
	5000	507	487	482	479
13	1000	464	674	614	299
	2000	560	480	450	438
	3000	743	678	653	641
	4000	1017	957	942	935
14.01	1000	1232	1237	1252	1267
	2000	705	700	685	670
14.02	1000	560	470	435	490
	2000	654	599	584	576
	3000	1314	1345	1365	1385
	4000	700	620	595	570
15.01	1000	1838	1872	1897	1937
	2000	1702	1737	1575	1787
	3000	548	628	648	674
15.02	1000	765	775	780	782
	2000	667	677	682	682
	3000	1088	1128	1148	1163
	4000	1147	1186	1206	1236
16	1000	1139	1169	1194	1205
	2000	1077	1102	1132	1134
	3000	1186	1206	1226	1228
	4000	1039	1064	1094	1105
17	1000	1097	1162	1172	1180
	2000	676	696	704	712
	3000	1106	1141	1147	1153
	4000	626	692	702	710
18	1000	1265	1332	1342	1352

**Estimated Population of the Study Area by Census Tract and Block Group
(continued)**

Census Tract	Block	2000 Census	Estimated 2010	Estimated 2020	Estimated 2030
18	2000	806	873	883	893
	3000	1284	1349	1353	1357
19.01	1000	586	608	628	636
	2000	1027	1192	1271	1302
19.03	1000	835	845	855	880
	2000	776	946	1026	1086
	3000	373	393	403	418
20	1000	910	1090	1406	1531
	2000	1588	1798	2008	2118
	3000	2223	2438	2368	2764
	4000	1065	1265	1415	1505
21.03	1000	1477	1677	2012	2436
	2000	1944	2244	2619	2802
	3000	2190	2290	2390	2490
24.01	1000	1426	1646	1796	1876
	2000	610	730	856	981
	3000	2091	2311	2611	2811
TOTAL		73,965	78,448	83,064	86,945

In summary, during the last twenty years, the north central area of the study area, which is located north of the Martha Mitchell Expressway, the central area adjacent to the central business district, and the west end area have experienced a decrease in population. This trend is expected to continue throughout the planning period. The south/western area located between State Highway 15 running west to the headwaters of Bayou Bartholomew, and the White Hall area are expected to continue to grow.

EMPLOYMENT

The economy of the study area is a key element in determining future growth and stability. As the economy changes, so does the population. Prior to World War II, the economy of the Pine Bluff area was that of a service center serving the agricultural needs of Southeast Arkansas and the rail needs of the Mid-South Delta area of the country. With the construction of the Pine Bluff Arsenal in the early 1940's, the economy of the Study Area started to change to reflect a more diversified economy. In the 1950's and 1960's, with the construction of the International Paper Plant and the opening of the Pine Bluff River Port, the study area economy became a diversified market and still provides agricultural goods and manufacturing on a world wide scale.

The following two tables show the past, present and projected category of workers in the Study Area and compares the study area categories to those of the state of Arkansas.

TABLE 3
Total County Non-Agriculture Employment by Employment Category

	1980		1990		2000		2010	2020	2030
Mining and Construction	1700	4.7%	1340	4.0%	960	2.7%	1140	1160	1180
Manufacturing	6070	16.9%	6290	18.9%	8450	23.4%	8550	8700	8950
Transportation, Communication and Utilities	3420	9.5%	2660	8.0%	1800	5.0%	1880	1930	2000
Trade	7520	20.9%	7470	22.4%	7240	19.9%	7940	8460	9060
Finance, Insurance, Real Estate, Banking	1960	5.4%	1500	4.5%	1220	3.3	1200	1200	1200
Services	7720	21.5%	6840	20.5%	8370	23.5%	9540	10890	11940
Government	7600	21.2%	7520	22.6%	8030	22.2%	8200	8300	8400
TOTAL	35,990		33,320		36,180		38,450	40,540	42,730

TABLE 4
Comparison of County and State of Arkansas
Percentage of Employment by 2000 Employment Category

Category	County	State	Difference
Mining and Construction	2.7%	5.0%	-2.3%
Manufacturing	23.4%	21.6%	+1.8%
Transportation, Communication and Utilities	5.0%	6.0%	-1.0%
Trade	19.9%	23.1%	-3.2%
Finance, Insurance, Real Estate, Banking	3.7%	4.0%	-0.3%
Services	23.1%	24.0%	-0.9%
Government	22.2%	16.3%	+5.9%

Employment in the services sector of the study area economy will grow at a faster rate than the other sectors; however, the rate of growth of the services category will be similar to that of the nation as a whole. The main segment of the economy that has provided economic stability for the study area over the years has been the manufacturing category. Over the next twenty-five years, it is anticipated that an additional 2,900 will be created in the manufacturing sector. Even with the fall in employment in the Mining and Construction, and Transportation, Communication and Utilities sectors, the Study Area will continue to be known as a “blue collar” employment center.

“Woods and Poole Economic Projections for Jefferson County” was used as the basis for preparing the employment projections for the Study Area. The Woods and Poole projections were evaluated along with the employment data and projections prepared by the Arkansas Employment Security Department, population projections prepared by UALR for Jefferson County, and the 2000 U.S. Census Transportation Planning Package (CTPP) employment data for the Study Area. Based on these evaluations, the total number of persons who will be working in the Study Area in the Year 2030 is projected to be 40,600. In determining the location of places of work by census tract, the 1980 and 2000 CTPP, existing and proposed land uses, the existing and proposed transportation network, and staff knowledge of the area was utilized. The following table shows present and projected employment for the Study Area by census tract and block group.

TABLE 5**Estimated Employment of the Study Area by Census Tract and Block Group**

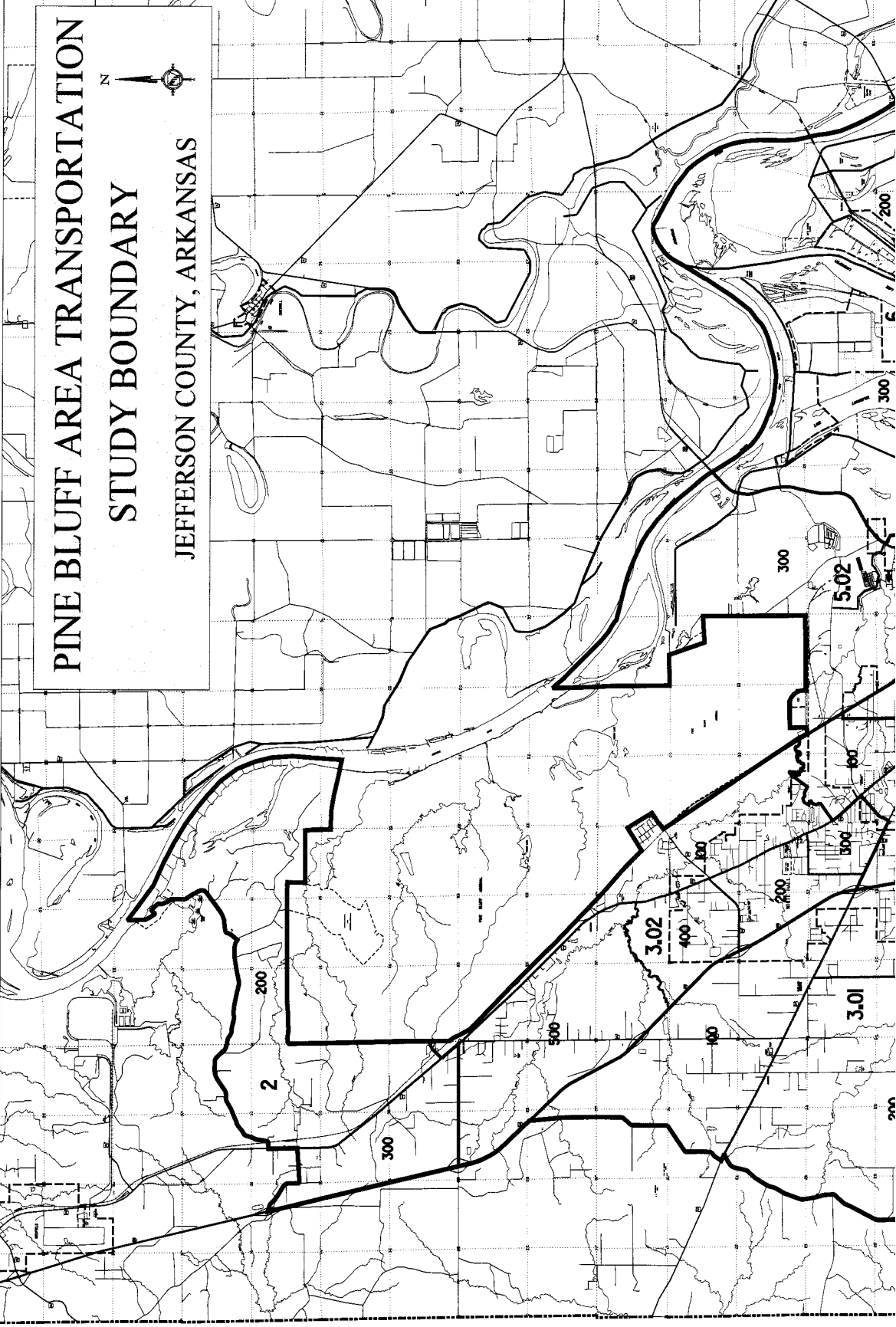
Census Tract	Block Group	Estimated 2005	Estimated 2030
2	1000	20	30
	2000	10	20
3.01	1000	90	200
	2000	40	160
	3000	80	100
3.02	1000	450	510
	2000	500	600
	3000	290	350
	4000	20	50
3.03	5000	30	60
	1000	1510	1600
	2000	210	220
	3000	640	910
	5.01	1000	350
6	2000	270	310
	3000	1790	2080
	1000	30	50
8	2000	2450	2950
	3000	50	60
	1400	1500	1500
9	1000	1750	1900
	2000	150	150
	3000	10	10
	4000	50	20
10	1000	430	470
	2000	720	720
	3000	400	400
	4000	3380	3600
12	1000	80	90
	2000	1290	1340
	3000	220	200
	4000	20	30
	5000	10	10
13	1000	600	650
	2000	720	760
	3000	70	70
	4000	130	150
14.01	1000	590	630
	2000	530	620
14.02	1000	150	180
	2000	100	100
	3000	210	240
	4000	30	30
	15.01	1000	300
	2000	360	400
	3000	100	130

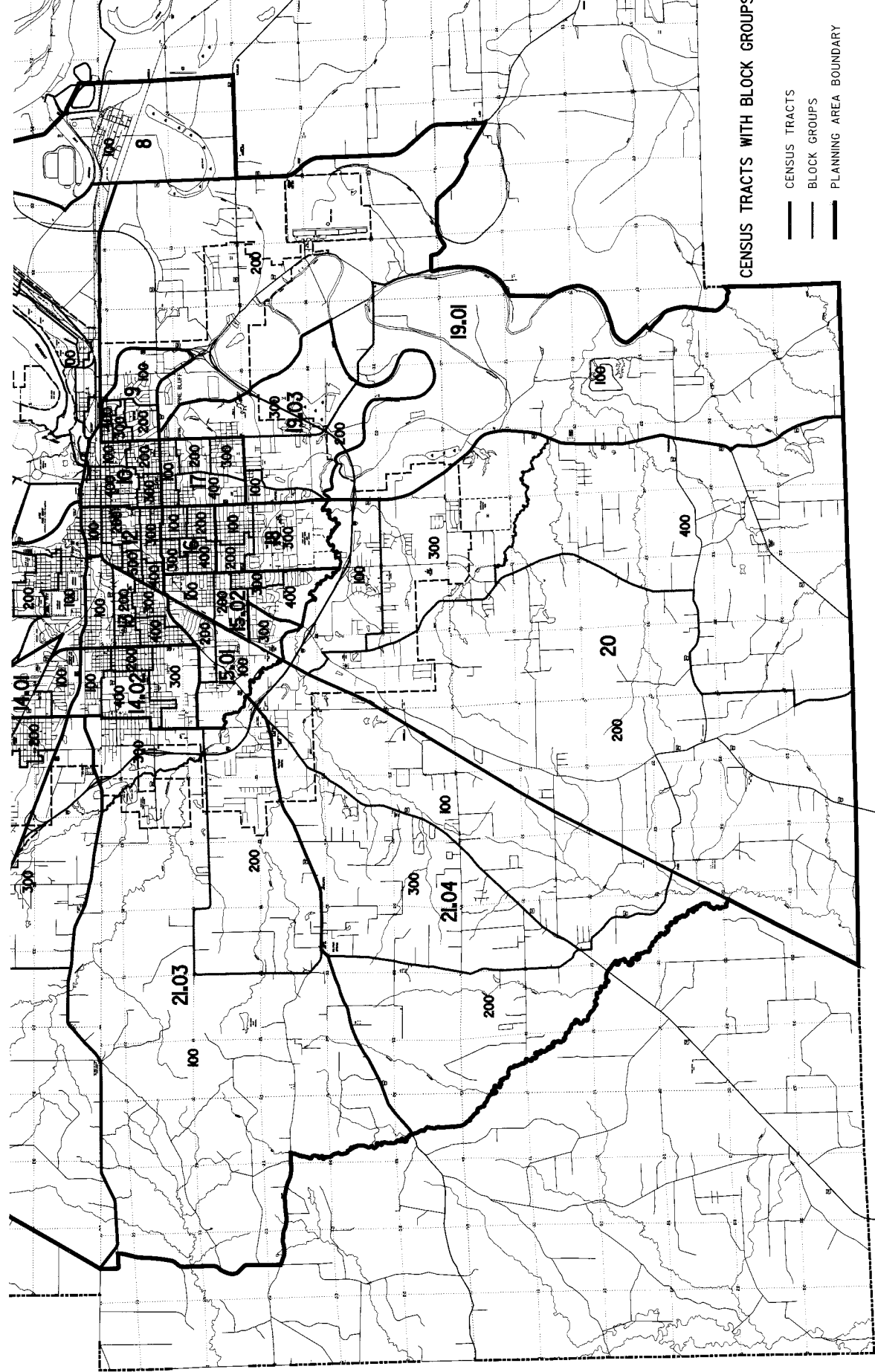
TABLE 5 (continued)**Estimated Employment of the Study Area by Census Tract and Block Group**

Census Tract	Block Group	Estimated 2005	Estimated 2030
15.02	1000	1150	1260
	2000	1230	1420
	3000	150	300
	4000	10	20
16	1000	110	110
	2000	80	60
	3000	100	100
	4000	850	860
18	1000	100	40
	2000	250	250
	3000	2600	3690
19.01	1000	510	860
	2000	1620	1850
19.03	1000	610	860
	2000	10	10
	3000	100	150
20	1000	10	350
	2000	30	110
	3000	10	150
	4000	10	
21.03	1000	830	960
	2000	260	330
	3000	220	270
21.04	1000	410	580
	2000	10	20
	3000	260	380
TOTAL		34,370	40,600

PINE BLUFF AREA TRANSPORTATION STUDY BOUNDARY

JEFFERSON COUNTY, ARKANSAS





CENSUS TRACTS WITH BLOCK GROUP

- CENSUS TRACTS
- BLOCK GROUPS
- - - PLANNING AREA BOUNDARY

VEHICLE REGISTRATION

In 1980, there were 58,811 vehicles registered in Jefferson County; in 2004, there were 54,480 vehicles registered. This represents only a 2.3% decrease over a twenty-four year period. Privately owned automobile and pickup trucks represent the majority of total vehicles registered. The number has decreased from 55,263 to 52,709 over the twenty-four year period. The number of registered motorcycles and trucks in the county has decreased from 3,170 to 1,843. It is estimated that over 90% of the vehicles registered belong to persons residing in the Study Area.

Table 6 below lists motor vehicle registration by classification for the years 1980, 1990, 2000, and 2004. The data for the table was obtained from the Arkansas Highway and Transportation Department.

**TABLE 6
MOTOR VEHICLE REGISTRATION**

YEAR	AUTOMOBILE	OTHER PASSENGER CARS	PICKUPS	OTHER TRUCKS	MOTORCYCLES	OTHER MOTOR VEHICLES	TOTAL MOTOR VEHICLES
1980	41,488	232	13,775	1,929	1,387	232	58,811
1990	36,068	841	14,200	1,852	421	204	53,604
2000	37,658	1,620	15,131	1,302	523	730	56,964
2004	38,222	1,772	14,487	1,319	823	828	57,480

Based on the historical data of Jefferson County vehicle registration and the projected population of the Study Area, it is estimated that the total vehicle registration in Jefferson County in the year 2030 will be 65,500 of which 60,700 will be located in the Study Area.

TRAFFIC VOLUMES

Traffic volumes and the rate at which they are changing are extremely important to transportation planning, design, operating, and implementation. The Arkansas Highway and Transportation Department currently conducts traffic counts for the Study Area annually after a long standing practice of conducting these counts every three years. The traffic counts determine the average daily traffic (ADT), which is the average total of daily volume during a year.

ADT volumes are used for determining functionally classified street systems, selecting routes for new facilities, determining the priority of street improvements, etc. Table 7 gives the location of each traffic count and shows the ADT for that site for the years 1990, 1995, 2000, and 2004. Traffic counts for 2005 will be available in mid 2006.

TABLE 7
TRAFFIC VOLUMES

LOCATION	2004	2000	1995	1990
2 nd Avenue: E. of RR Tracks	2,900	2,400	2,400	2,750
2 nd Avenue: E. of Walnut Street	1,400	1,800	2,500	2,420
2 nd Avenue: W. of Convention Center Drive	1,600	2,000	2,000	2,260
2 nd Avenue: W. of Louisiana	2,000	2,600	2,900	3,160
2 nd Avenue: W. of University	2,400	2,800	2,700	3,090
2 nd Avenue: W. of Walnut Street	2,300	1,800	1,900	2,250
6 th Avenue: At Overpass	8,700	9,800	5,800	N/A
6 th Avenue: E. of Franklin Street	1,100	1,500	1,200	1,190
8 th Avenue: E. of Beech Street	3,600	4,200	3,700	4,030
8 th Avenue: E. of Convention Center Drive	5,000	5,300	5,600	4,290
8 th Avenue: W. of Convention Center Drive	5,000	7,000	6,900	5,020
10 th Avenue: E. of RR Tracks	1,600	630	640	450
13 th Avenue: E. of Bayou Bartholomew	580	510	510	660
13 th Avenue: E. of Georgia Street	800	790	830	750
13 th Avenue: E. of Oakwood Road	2,800	2,500	1,800	1,690
13 th Avenue: E. of RR Tracks	8,600	8,100	8,200	8,170
13 th Avenue: W. of Gum Street	7,000	7,500	3,200	N/A
16 th Avenue: W. of Ash Street	7,200	6,900	N/A	7,450
16 th Avenue: W. of Olive Street	8,400	7,800	7,900	7,460
17 th Avenue: W. of Cedar Street	7,500	6,800	7,200	N/A
17 th Avenue: W. of Cypress	5,600	7,700	8,600	7,870
27 th Avenue: W. of Georgia Street	1,700	1,200	1,100	1,190
27 th Avenue: W. of Linden Street	6,800	6,600	8,400	7,540
27 th Avenue: W. of Main Street	1,200	1,100	900	840
28 th Avenue: E. of Georgia Street	840	790	740	770
28 th Avenue: E. of Indiana Street	1,100	730	570	590
28 th Avenue: E. of Poplar Street	6,000	7,800	7,800	8,830
28 th Avenue: W. of Ash Street	6,100	6,100	7,500	8,080
28 th Avenue: W. of Fir Street	19,100	21,000	21,730	N/A
28 th Avenue: W. of Overpass	17,700	20,000	26,000	23,070
31 st Avenue: W. of Locust Street	5,700	2,200	2,900	3,090
31 st Avenue: W. of Magnolia Street	5,000	4,400	6,000	4,970
34 th Avenue: E. of Juniper	1,800	1,700	2,200	2,830
34 th Avenue: W. of Locust Street	1,200	1,000	960	1,190
34 th Avenue: W. of RR Tracks	1,600	1,800	2,600	2,670
38 th Avenue: E. of Ohio Street	2,100	2,200	4,700	4,270
46 th Avenue: E. of Cherry Street	2,700	2,300	2,900	N/A
46 th Avenue: E. of Olive Street	400	340	610	720
46 th Avenue: W. of Hazel Street	160	260	370	420

**TABLE 7
TRAFFIC VOLUMES**

LOCATION	2004	2000	1995	1990
52 nd Avenue: W. of Ohio Street	980	700	1,700	1,530
Barraque Avenue: E. of Bay Street	500	610	650	830
Barraque Avenue: E. of Walnut Street	1,200	1,300	3,400	4,660
Barraque: E. of Bryant Street	2,100	2,000	2,300	1,850
Birch Street: S. of Fluker	7,000	NA	10,000	10,860
Bryant Street: S. of Hwy. 65B (Martha Mitchell)	2,500	2,500	3,800	3,400
Bryant Street: S. of Princeton Pike	2,300	2,300	4,300	3,720
Catalpa Street: N. of 12 th Avenue	1,000	1,100	960	820
Catalpa Street: S. of 8 th Avenue	630	780	720	690
Cherry Street: N. of 41 st Avenue	4,100	4,500	5,300	4,700
Cherry Street: S. of 15 th Avenue	8,000	8,000	8,300	9,940
Cherry Street: S. of 25 th Avenue	5,700	5,700	6,200	7,570
Cherry Street: S. of Hwy. 65B (Martha Mitchell)	3,700	4,100	5,200	5,820
Commerce Road: S. of Hwy. 65B (Martha Mitchell)	3,300	3,900	4,100	4,560
Convention Center Drive: S. of Hwy. 65B (Martha	3,900	4,500	4,400	3,690
Dollarway Road: N. of Phillips Street	10,100	10,000	13,000	10,990
Dollarway Road: N. of Vaughine Avenue	14,500	16,000	17,780	21,620
Dollarway Road: S. of Roberts Street	12,000	11,000	10,000	10,590
Dollarway Road: W. of Spears Street	13,800	15,000	18,000	17,430
Dollarway Road: W. of Tupelo Street	19,400	20,000	22,000	18,930
Faucett Road: W. of Camden Road	2,200	2,500	2,600	2,280
Grider Field-Ladd Road: E. of Deep Bayou	290	220	410	360
Grider Field-Ladd Road: S. of Hwy. 65 South	860	970	1,500	1,380
Harding: E. of Chestnut Street	16,000	15,000	19,510	19,300
Harding: S. of U. S. Hwy. 65 interchange	4,500	5,700	7,400	6,980
Harding: W. of Belmont Drive	15,400	15,000	17,000	16,270
Harding: W. of Commerce Road	11,700	11,000	12,000	11,730
Harding: W. of Georgia	15,200	14,000	17,550	15,990
Harding: W. of Nebraska Street	17,100	17,000	17,750	17,290
Harding: W. of Ohio Street	13,300	12,000	16,000	16,370
Harding: W. of Olive Street	7,500	7,800	7,900	7,460
Harding: W. of Wisconsin Street	17,000	17,400	16,340	17,810
Hazel Street: N. of 16 th Avenue	8,600	8,000	8,400	7,440
Hazel Street: N. of 22 nd Avenue	14,700	14,000	13,000	11,680
Hazel Street: N. of 46 th Avenue	14,000	13,000	6,800	6,110
Hazel Street: N. of Ridgeway Road	5,400	7,400	6,000	4,280
Hazel Street: S. of 46 th Avenue	11,000	9,600	6,700	5,730
Hoadley Road: E. of Camp Road	920	860	700	780
Howard Drive: S. of Miramar Drive	1,700	1,500	730	1,270
Hutchinson Street: N. of Holsey Avenue	5,000	5,600	5,900	4,450
Hutchinson Street: N. of Hwy. 65B (Martha Mitchell)	4,400	4,300	3,700	3,090
Hutchinson Street: N. of Industrial Drive South	2,800	3,200	3,500	2,760
Hutchinson Street: N. of Short 3rd Avenue	1,900	1,700	1,500	1,150
Hwy 256 (Hoadley Rd.): at Pine Bluff Arsenal Entrance	3,300	2,400	1,800	2,580

**TABLE 7
TRAFFIC VOLUMES**

LOCATION	2004	2000	1995	1990
Hwy 256 (Hoadley Rd.): W. of Hwy. 365 (Dollarway Rd.)	5,800	3,000	1,700	2,550
Hwy 79B (Blake Street): N. of 13 th Avenue	16,900	17,000	24,000	24,100
Hwy 79B (Blake Street): S. of 2 nd Avenue	18,500	19,000	23,170	24,380
Hwy. 104: N. of Besley Drive	2,200	2,000	1,500	1,460
Hwy. 104: N. of Sweeny Road	2,200	2,000	1,100	1,010
Hwy. 190 (5 th & 6 th Avenue): E. of Main Street	10,000	10,400	7,700	9,860
Hwy 190 (5 th & 6 th Avenue): W. of Ohio Street	5,900	6,400	6,900	7,310
Hwy. 190 (5 th & 6 th Avenue): E. of Mulberry	13,500	14,000	15,000	15,650
Hwy. 190 (5 th & 6 th Avenue): W. of Chestnut	7,900	9,300	11,000	12,590
Hwy. 190 (5 th and 6 th Avenue): W. of Beech	13,000	14,000	11,000	12,400
Hwy. 190 (6 th Avenue): E. of Blake Street	7,800	8,500	9,500	10,540
Hwy. 190 (S. Harding): S. of Pines Mall Drive	10,500	11,000	9,200	9,560
Hwy. 256 (Hoadley Road): E. of Michaelann Drive	3,800	4,700	2,700	3,290
Hwy. 270: E. of Mockingbird Lane	8,200	9,200	8,400	7,930
Hwy. 270: W. of Monk Road	7,100	7,800	7,200	5,840
Hwy. 365S (Sheridan Road): W. of Gandy Avenue	11,100	9,900	6,100	5,120
Hwy. 365S (Sheridan Rd.): W. of Hwy 365 (Dollarway	5,200	5,800	7,300	6,450
Hwy. 425: N. of East Pointer Road	17,000	19,000	5,000	4,200
Hwy. 425: N. of Grider Field-Ladd Road	4,900	5,100	5,000	4,200
Hwy. 54: E. of Middle Warren Road	600	680	890	720
Hwy. 54: E. of RR Tracks	300	340	410	350
Hwy. 63: N of Hwy. 54	10,000	6,800	5,800	4,320
Hwy. 65 South: E. of Green Meadows	16900	12,000	15,100	15,010
Hwy. 65 South: N. of Grider Field-Ladd Road	18,800	N/A	18,000	16,020
Hwy. 65B (Martha Mitchell): E. of Bryant Street	8,700	10,000	21,000	19,680
Hwy. 65B (Martha Mitchell): E. of Hutchinson Street	10,100	12,000	22,000	17,620
Hwy. 65B (Martha Mitchell): S. of Market Avenue	7,000	NA	10,000	10,860
Hwy. 65B (Martha Mitchell): W. of Cherry Street	12,500	16,000	22,780	21,340
Hwy. 65B (Martha Mitchell): W. of Commerce Road	8,600	12,000	16,000	13,780
Hwy. 65B (Martha Mitchell): W. of Convention Center	11,600	15,000	22,000	19,260
Hwy. 65B (Martha Mitchell): W. of Juniper Street	14,300	18,000	26,000	23,960
Hwy. 65B (Martha Mitchell): W. of Michigan Street	8,300	10,000	17,000	12,630
Hwy. 65B (Martha Mitchell): W. of Myrtle Street	15,900	18,000	25,000	23,850
Hwy. 65B (Martha Mitchell): W. of Pine Street	12,000	15,000	22,000	24,420
Hwy. 65B (Martha Mitchell): W. of Port Rd./West 2nd Ave.	7,600	12,000	17,000	18,630
Hwy. 65B (Martha Mitchell): W. of State Street	10,300	15,000	22,000	20,190
Hwy. 65B (Martha Mitchell): W. of Walnut Street	12,700	16,000	22,000	22,220
Hwy. 79: N. of Hidden Lake Drive	9,000	7,900	6,900	6,360
Hwy. 79: N. of Robinson	6,800	6,000	4,600	3,790
Hwy. 79B (Camden Road): N. of 28 th Avenue	10,700	13,000	12,770	14,120
Hwy. 79B (Camden Road): N. of Bayou Bartholomew	14,400	15,600	15,000	11,920
Hwy. 79B (Camden Road): N. of Faucett Street	11,500	11,000	15,000	15,040
Hwy. 79B: S. of the bridge	3,600	5,400	7,000	5,770
Hwy. 81: N. of Hwy. 65 South	3,100	2,000	4,500	5,250

TABLE 7
TRAFFIC VOLUMES

LOCATION	2004	2000	1995	1990
I-530 N. of Hwy. 79	25,200	22,000	NA	NA
I-530 N. of Princeton Pike	22,300	19,000	NA	NA
I-530 S. of Hwy. 270	31,900	25,000	20,000	16,560
I-530 S. of Princeton Pike	24,400	23,000	NA	NA
I-530 W. of Hazel Street	22,400	21,000	NA	NA
I-530 W. of Hwy. 63	25,100	25,000	NA	NA
I-530 W. of Hwy. 65	22,900	17,000	NA	NA
I-530 W. of Old Warren Road	27,900	23,000	NA	NA
I-530: N. of Hwy. 256 (West Holland Avenue)	21,400	20,000	16,000	12,790
I-530: N. of Hwy. 270	22,400	21,000	14,300	14,810
Jefferson Parkway: E. of Hutchinson Street	2,700	2,600	3,200	2,140
Jefferson Parkway: W. of Industrial Drive South	5,700	4,800	1,800	1,820
Main Street: N. of 37 th Avenue	2,800	2,300	2,100	2,370
Main Street: N. of Friendswood Drive	1,500	900	920	840
Main Street: N. of Martin Avenue	9,200	9,100	10,000	13,080
Main Street: S. of 27 th Avenue	2,700	2,700	3,600	3,430
Michigan Street: N. of Hwy. 65B (Martha Mitchell)	1,600	2,000	2,200	1,800
Middle Warren Road: S. of Old Warren Road	2,100	2,300	2,800	2,320
Miramar Drive: W. of the RR Tracks	6,200	5,500	5,800	5,810
Missouri Street: S. of 8 th Avenue	1,400	1,600	1,600	2,090
Oakwood Road: S. of 13th Avenue	3,100	2,300	3,400	3,720
Oakwood Road: S. of Bayou Bartholomew	2,300	1,800	2,520	2,260
Ohio Street: N. of 26 th Avenue	4,700	4,600	4,700	4,260
Ohio Street: N. of 7 th Avenue	3,900	5,000	5,700	6,540
Ohio Street: N. of Harding Avenue	5,800	8,300	7,700	8,960
Ohio Street: S. of 38 th Avenue	1,200	1,200	2,100	1,370
Old Warren Road: At Bayou Bartholomew	6,500	6,100	5,000	3,980
Olive Street: N. of 20 th Avenue	18,200	17,000	18,000	19,370
Olive Street: N. of 26 th Avenue	20,400	18,000	18,000	18,990
Olive Street: N. of 28 th Avenue	22,700	18,000	19,000	22,020
Olive Street: N. of 46th Avenue	13,300	8,800	8270	7,820
Olive Street: N. of Harding Avenue	7,700	7,400	7100	5,190
Olive Street: S. of 31 st Avenue	16,600	13,000	14,000	14,570
Olive Street: S. of Friendswood Drive	13,000	7,300	7,000	6,370
Olive Street: S. of Main Street	11,800	8,100	9,400	7,280
Port Road: E. of Michigan Street	4,200	4,900	4,000	2,390
Port Road: W. of RR Tracks	3,800	4,900	3,800	6,510
Princeton Pike: E. of Industrial School Drive	2,900	3,200	2,800	2,410
Pullen Avenue: E. of University	4,900	4,600	5,100	4,610
Pullen Avenue: W. of Catalpa Street	4,400	4,400	5,000	3,570
Pullen Avenue: W. of Oak Street	2,700	2,400	2,800	2,140
Reeker Avenue: W. of Spruce Street	860	950	1,100	1,160
Rhinehart Road: W. of RR Tracks	4,900	5,000	5,600	4,360
Ridgway Road: W. of Hazel Street	2,800	2,900	3,600	2,820

**TABLE 7
TRAFFIC VOLUMES**

LOCATION	2004	2000	1995	1990
Ridgway Road: W. of Olive Street	2,900	1,800	3,000	N/A
Robin Road: N. of Sheridan Road	3,700	3,000	2,300	1,890
Ryburn Road: S. of the RR Tracks	950	1,000	1,100	890
S. Hardin Road: N. of Kristi Drive	890	660	760	750
Shannon Road: W. of Oakwood Road	1,500	1,300	2,000	1,680
Sorrells Road: E. of the RR Tracks	1,300	1,100	1,100	760
Spruce Street: N. of Scull Avenue	3,300	2,200	2,400	2,430
Spruce Street: S. of Havis Avenue	3,000	1,800	2,100	2,350
Sulphur Springs Road: E. of Oakwood Road	10,000	9,700	6,800	9,650
Sulphur Springs Road: E. of Scenic Drive	6,900	6,600	6,000	5,620
Sulphur Springs Road: W. of Temple Road	4,800	4,600	4,300	4,030
University Avenue: N. of Hwy. 65B (Martha Mitchell)	13,800	11,000	12,770	14,830
University Avenue: S. of Hwy. 65B (Martha Mitchell)	12,200	13,000	14,000	12,370
University: N. of Fluker Avenue	12,900	14,000	14,000	14,340
University: N. of Oliver Drive	6,700	6,900	8,180	7,310
Walnut Street: S. of 3 rd Avenue	3,300	4,300	4,300	3,900
Walnut Street: S. of 5 th Avenue	4,600	4,000	5,100	N/A
Walnut Street: S. of 6 th Avenue	5,400	5,300	5,000	2,760
White Hall Road: N. of Robin Road	3,000	3,100	2,200	1,860
Wisconsin Street: N. of Westgate Lane	2,100	2,400	2,300	1900

**CURRENT
LAND USE
AND
NATURAL
RESOURCES**

LAND USE

Fundamental to a transportation plan is the development of a land use plan showing the general arrangement of residential, commercial, industrial, public and semi-public uses required to serve the anticipated future population. Quantitative analyses of the amount of land used for these various purposes are of some assistance in projecting the amount of developed land that will be required in the future. Knowing these land areas, it is possible to develop a plan, showing their optimum arrangement in relation to the core and the outlying areas.

The existing pattern of development within the Study Area must be taken into consideration. The future land use pattern will evolve gradually with improvements made to public facilities such as streets, water service and sewer lines. The land use plan should establish objectives which, if followed, will guide future development and create an efficient and attractive regional land use pattern.

In general, the urban pattern should not be broken by large tracts of vacant land. The development should be balanced around a common center, preferably the central business district, and transportation modes. This type of balanced pattern will provide a greater dispersion of traffic and enhance access to public services. The population need not be too dense; however, it should avoid being too scattered since an extremely low population density greatly increases the cost of public services and facilities per household.

Development within the non-urban portions of the Study Area should be encouraged in the form of clusters rather than in a strip manner along major transportation routes. This will facilitate the provision of utilities at a level and standard that is necessary to protect the public's general health and welfare. Density in the rural portions of the Study Area, however, should be kept as low as possible. The most productive farmland should be reserved for agricultural use and suitable open space and wildlife habitats should be preserved. Also wetlands, floodplain and environmentally sensitive areas need to be preserved.

Following are descriptions of the general types of land uses in the Study Area and a brief portrait of the prevailing development trends.

RESIDENTIAL NEIGHBORHOODS

In the core of the Study Area, residential developments are generally organized into neighborhood units. These neighborhood units normally are bounded by major streets and each neighborhood usually contains between 2,500 and 5,000 persons, centered upon an elementary school, commercial area or public facility. The residential neighborhoods normally are between one-half and one mile square in size. Neighborhood shopping facilities are provided along arterial streets and major intersections. Traffic circulation should be designed to go around and not through the neighborhoods. In order to accomplish this objective, residential streets should be narrow and discontinuous in order to discourage heavy or fast through traffic.

It should be emphasized, however, that it is not necessary for an entire neighborhood to be developed with single-family homes. Properly arranged combinations of single-family homes,

duplexes and multi-family dwellings may be placed in some neighborhoods, although careful attention should be given to the location of each of these uses. While satisfactory locations in outlying areas may be provided for duplexes and apartment buildings, particularly in areas adjacent to shopping centers or major centers of employment, most of the multi-family dwellings will continue to locate near the core of the Study Area. This has been a natural occurrence in the past as these areas are logical and convenient for such high-density uses.

COMMERCIAL AREAS

There are four general types of commercial centers, the largest of which is the central business district. The Central Business District (CBD) has been the hub of financial, professional and governmental services of the Study Area. The CBD also should serve as the commercial center for those who work in the CBD and the persons who live in the surrounding neighborhoods. An objective of the land use plan should be to undertake measures necessary to encourage redevelopment of the present central business district and to make it a primary commercial center. It should however, regain its dominant business position through its competitive energy and not by arbitrary prevention of competing centers by zoning action.

The second type of commercial use is the regional commercial center. This type serves as a general retail and related services center of the PBATS Study Area. The general retail and service area includes those counties that are within the Pine Bluff market area. Such facilities preferably should be grouped in one location such as a major shopping center that provides ample parking and has excellent access to the major transportation facilities.

The third type of commercial use is the neighborhood commercial area. This type serves the immediate needs of residential areas. Such facilities preferably should be grouped together into smaller shopping centers providing ample parking areas and interfering as little as possible with adjacent residential uses.

The fourth type of commercial use is the general highway commercial area. This type contains travel-oriented establishments such as motels, filling stations, restaurants, and similar facilities, catering to both local and transient business.

Commercial uses should be concentrated at or near the intersections of major streets. These are logical locations for neighborhood shopping centers and certain other types of commercial facilities. Commercial uses should not be allowed to spread along major street frontages. Only a small part of this type of frontage can be utilized for commercial purposes because scattering commercial uses along major streets interferes with the traffic carrying capacity. By grouping business in logical centers, the convenience of access to multiple services enhances the attractiveness within the complexes. Customers can maximize their time and travel by utilizing multiple destinations located within a single complex, and while an isolated stand-alone business with a single draw of customers does not provide this convenience.

INDUSTRIAL AREAS

The location of transportation facilities such as the airport, railroads, river ways, and major highways will influence the locations of industrial developments. Modern industries need large areas for adequate off-street parking and for future expansion. Many industrial processes have been improved and emission of smoke, gas, dust and noise has been eliminated or greatly reduced, so that they are not as objectionable as they were some years ago. The land use plan should provide for industrial sites that are adequate in area and have convenient access and pleasant surroundings.

Industries can be placed in more outlying locations, with the advantage of reversing the traffic flow at peak hours. However, new industrial growth does not have to be relocated in the outlying districts, because as older industrial areas become vacant, they should be redeveloped.

PUBLIC AND SEMI-PUBLIC USES AND PARK AREAS

Scenic areas within the study area, and particularly substantial parts of the Arkansas River and Bayou Bartholomew, should be preserved and enhanced as part of the park system. Neighborhood parks should be developed in conjunction with elementary schools. Public and semi-public uses such as churches, institutions, clubs and golf courses provide the community with necessary open spaces. Where possible, green-belt trail areas need to be set aside that would bisect the residential, commercial and industrial areas.

CURRENT DEVELOPMENT TRENDS

In the past, urban development of the City of Pine Bluff has been relatively compact and quite similar to most urban centers in the mid-south region, originally expanding in a uniform concentric form around the central business district. The Arkansas River and its extensive floodplain in the eastern portion of the study area and the Bayou Bartholomew area were once barriers to unlimited growth in the north, south and east portions of the Study Area. Because of these barriers, the development of the study area is bound by the Arkansas River on the north, the floodplain on the east, Bayou Bartholomew on the south and Oakwood Road and Claud Road on the western boundary. However, completion of the Southern Bypass has improved access to all areas of the study area. This improved access will have a strong influence on the expansion of low density residential, commercial and industrial developments in the Study Area fringe.

Railroads bisect the central core of the Study Area. Most early industrial development occurred in close proximity to the railroads. However, with the advent of better roads and improvements made in the trucking industry, the trend has been towards disbursing industrial locations throughout the core area. The main industrial areas are located in the Pine Bluff Port area, the Jefferson Industrial Park, and along major arterial and collector roads within the core area.

HISTORICAL, CULTURAL, AND NATURAL RESOURCES

The surface and subsurface geologic resources play a subtle and indirect role in molding the characteristics of the Pine Bluff area. Except for a few sand and gravel operations, the geology of the area has contributed little to the direct economic base of the Study Area. Similarly, there is little in the way of distinctive geologic features and formations that are unique to the Study Area. However, structural geologic hazards in the area have played and will continue to play a role in the growth and development of the Pine Bluff Area Transportation Study Area.

The most critical relationship of geology to the study area is expressed topographic relief. Of key significance is the location of Pine Bluff essentially on the escarpment between the gently rolling coastal plain to the west, the flat alluvial plain to the east, and the dominance of riverside-sculptured features (see Map 3 for geographical divisions). This setting has provided Pine Bluff with a diversity of environmental resources, diversity in economic base, and diversity in its social characteristics. The setting has also been the key determinant in the pattern of growth and development of the Study Area and will continue to be so. The major contradictory topographic parts of the area have resulted in many of the current problems (drainage, flood control, and land use) which face the PBATS area.

Environmentally, the narrow, braided streams and the stands of mixed hardwoods and pines on the gently rolling uplands provide an array of habitats for species more commonly associated with the western portions of the State. To the east, the flat alluvial plain with its broad meandering rivers, numerous oxbow lakes and stands of bottom land hardwoods and semi-swamps provide habitat for lowland species characteristic of the Mississippi Delta system. In close association with the diversity of environs are a variety of recreational opportunities and opportunities for the scientific study of natural history within the Study Area.

Historically, the dominant elements in the settlement and development patterns of Jefferson County and the PBATS area have been location and physical attributes that provided a favorable setting for the development of a complex pre-European culture based on farming, hunting of animals, and gathering of edible plants. The same attributes that attracted the pre-European culture led to European settlement in the early 1800's. The rich alluvial plain gave the Study Area its first economic footing, that of agriculture (principally cotton). Around this base developed many of the early social characteristics of the area, which in large part, still remain today. With the development of the community, industries associated with timber, paper products, and other wood products also developed in response to the abundance of land to the west that could support stands of managed pine. This economically inclined the area toward split natural land resources, agricultural and forestry. In recent years, many areas once cleared for timber and for farming have been replanted with pine. This has added to the lumber reserves of the region.

Until World War II, the regional economy continued to be based almost exclusively on agriculture. With the war, the Pine Bluff Arsenal was located northwest of Pine Bluff, and an aviation training facility was established at Grider Field. Together, these facilities provided jobs for 3,500 to 3,700 local residents.

In the mid-1950's, the St. Louis-Southwestern Railroad built its gravity yards in Pine Bluff and transferred several employees from Tyler, Texas. Also during this period, a state-operated vocational-technical school and a regional hospital were built in the city to serve Jefferson County and adjacent counties.

In the 1960's, the Pine Bluff-Jefferson County Port Authority was created in anticipation of the Arkansas River becoming a major inland water transportation corridor into Oklahoma. With the McClellan-Kerr Arkansas River Navigation Project, which made the river navigable from Oklahoma to the Mississippi River, the Arkansas River became a major transportation corridor in the county and has attracted new industries to the Port of Pine Bluff and the Jefferson Industrial Park.

The physical development of the area has followed its topographic patterns. Much of the early development was located on the high grounds adjacent to the escarpment and in close proximity to both the alluvial plain and uplands. As the area developed, it spread both westward and eastward. In the latter direction, limitations to development were quickly encountered in the form of poor drainage and chronic flooding. The same limitations persist with the Study Area today.

Still, urban growth causes a demand to convert natural resources into urban land. This conversion process is necessary to maintain the viability and well-being of the community. However, despite the abundance of land and water resources within the Study Area, these other resources that affect the quality of our environment and identity of the area must be protected. There are a number of environmental, historic, cultural, and aesthetic resources within the Study Area that warrant restoration, preservation, and/or enhancement. During the development of the 2030 Transportation Plan, a review was conducted of all available documents dealing with environmental, historic, cultural, and aesthetically significant resources within the Study Area. These resources were identified, and the major environmentally significant resources of the Study Area are shown on Map 4. In addition, various transportation links were analyzed in terms of meeting the community's overall economic, social, and environmental needs, and due consideration was given to those identified needs in developing a transportation network that services the community while providing opportunities to ensure that the natural and other resources can be used and enjoyed by future generations.

**COMMUNITY
CONTROLS
AND
PRESERVATION
OF
RIGHT-OF-WAY**

It has long been a trend within the study area for most growth to occur south and southwest of the Pine Bluff city limits and all around White Hall except to its east (the Pine Bluff Arsenal boundary stops eastern growth in this area). The Year 2030 Transportation Plan was developed partly in relation to existing development and roads, existing travel patterns, and logical road extensions in conjunction with north-south and east-west movement as well as other master plans such as Pine Bluff's Master Sewer Plan. In addition, development is more apt to occur in these areas due to the absence of extensive flood-prone lands and because the soils of the area are more suitable for urban development. Other considerations included anticipated future commercial development near the Pines Mall, along U. S. Highway 63 south of I-530, U. S. Highway 270 west of I-530 and existing and anticipated future industrial development in the Port of Pine Bluff and Jefferson Industrial Park.

It is a city's right as well as its duty to guide growth and provide for orderly expansions by regulating where residential, commercial, and industrial growth shall occur and how residents and employees can travel from home to job to shopping to service centers. Cities of the first and second class in Arkansas are empowered by Act 186 of 1957, as amended, to establish a planning commission, prepare plans, adopt the prepared plans, and develop implementing regulations. In fact, each city that utilizes zoning and subdivision regulations must develop at a minimum a land use plan and a master street plan for the city and the extraterritorial jurisdiction that encompasses its planning area. These plans provide the basis of the zoning and subdivision regulations which are the tools a city uses to provide for orderly growth and to provide for access to and from the areas where people reside, work, shop, etc.

LAND USE PLAN

The proposed PBATS Land Use Plan Map for the Year 2030 Transportation Plan (See Map 5) was developed in accordance with the goals and objectives of the Cities of Pine Bluff and White Hall Land Use Plans, and Jefferson County Development Framework Land Use document. The three plans were adopted by the two cities and county a number of years ago, but they are still relevant plans. The reason being is that there has been little growth in the Pine Bluff-White Hall urban area. In general, what population growth has taken place is located in the White Hall area and in the fringe areas of the PBATS Study Area. In terms of land use changes either through land being developed or land use changes being changed from one use to another use, the changes have generally complied with the two Cities Land Use Plans. Since the PBATS Land Use Plan encompasses both the planning areas of the two Cities and the Cities Land Use Plans were adopted in the 1980's, the two Cities planning commissions have relied on the PBATS Land Use Plan when evaluating and making decisions on projects brought before the commissions.

There are four primary classifications of land use that are set forth in the Land Use Plan. Their purposes by type are:

1. Residential Land Uses: to provide for the distribution and density of residential uses based on the projected population; the optimum utilization of land based upon physical limitations (floodplains, water resources, soils, and slope, etc.); and the functional relationship of public utilities and facilities and the transportation system.

2. **Commercial Land Uses:** to provide sufficient commercial land located throughout the community to serve the proposed residential land uses and support the projected population, and to maintain the existing commercial areas. The location of such land uses should also have a functional relationship with the transportation system and be adequately accessed from the residential areas.
3. **Industrial Land Uses:** to provide sufficient industrial tracts within the community, to provide employment opportunities for the projected population, and to maintain the existing industrial areas. The location of such tracts should be in areas that have direct access to intermodal transportation systems and be accessible to the residential neighborhoods in the community. The industrial land uses should be environmentally compatible with the surrounding land uses.
4. **Open Space:** to preserve and acquire open space for a variety of purposes such as recreation, flood control and management, conservation of natural resources and wildlife habitat, preservation of historical, architectural and archeological sites, and protection of environmentally sensitive areas.

Following is a summary of the different kinds of land uses established for the Study Area.

RESIDENTIAL AREAS

The Land Use Plan shows two categories of residential use ranging from low and medium density single family dwellings to high intensity multi-family dwellings. The net density implied in each of these areas is as follows:

- Low to Medium Density: one to two dwelling units per acre;
- High Density: three or more dwelling units per acre.

Net density represents the number of dwelling units per net acre of land devoted to residential buildings and accessory uses on the same lot, excluding land for streets, public parking, playgrounds and non-residential uses.

The plan assumes that public water and sanitary sewer service would be provided to all but the low end of the density classification. Since there is no county zoning, it is anticipated that urban sprawl will continue outside the two cities.

The plan makes ample provision for the estimated future residential areas needed to serve the projected regional population of 86,945 persons. In other words, the residential areas shown on the land use plan will not be fully developed by the year 2030. The region will still be expanding and growth is expected to take place in the areas shown on the plan.

COMMERCIAL AREAS

The Pine Bluff Central Business District is no longer a dominant commercial center, but it still remains the center for financial institutions and governmental offices. Commercial activities have spread throughout the central core area in shopping centers and strip commercial development located along the main streets within the Study Area. The commercial land uses designated in the plan to meet the residential land use needs and those of the Pine Bluff marketing area have been located strategically throughout the community adjacent to major street intersections.

INDUSTRIAL AREAS

The location of transportation facilities will influence industrial locations in the future, although additional factors affecting new industrial sites have to be taken into consideration. These factors are the need for large areas to accommodate modern one-story operations and the fact that many industrial processes have been improved to substantially reduce, if not eliminate, the emission of smoke, gas, dust and other objectionable features usually associated with industry. Industrial firms seeking a new location are looking for suitable wide open spaces just as the residential and shopping center developer do. If industrial sites and buildings are well designed and landscaped they can blend in with surrounding commercial and residential land uses. Based on this premise, the land use plan provides for industrial sites which are more than adequate in area, have reasonably pleasant surroundings, and have good and convenient access.

PUBLIC AND SEMI-PUBLIC AREAS

Schools, churches, cemeteries, and public facilities comprise the major land uses in this category. Schools will be needed as new development takes place. Wherever possible, elementary school sites should be located close to the center of each neighborhood in connection with a neighborhood park.

OPEN SPACE AND ENVIRONMENTALLY SENSITIVE AREAS

These types of areas are important for a community and society as a whole. Open space refers to land which are used for parks and recreation. It also refers to land which is not desirable for urban development because of its topography such as land located in floodplain areas, areas with poor slope and soil conditions, or other assorted problems associated with development. Environmentally sensitive areas refer to those geographic areas that support unique wildlife and flora and fauna, areas with historical significance, and wetlands.

AGRICULTURAL LANDS

Agricultural lands refer to land which is used for primarily agricultural purposes and that should be used for said purpose.

Neither the local jurisdictions' nor the transportation land use plans will be in completely implemented by the year 2030 because the pattern that man establishes upon the landscape changes very slowly. But, if there is widespread understanding of the plan and the rationale

behind it, a considerable amount of progress can be made. The growth will occur slowly and will take place in the southern, southwestern, and northwestern portions of the study area. Urban development will likely fade into the countryside and continue to expand outward from the core area, even beyond the limits of the present Study Area. In this respect, the ultimate urban landscape is limited only by the practicality of extending services and the extent to which farmland and woodlands are allowed to be converted into urban uses.

The proposed land use plan indicates the general arrangement of residential, commercial, industrial, public, semi-public, and recreational uses required to serve the Study Area's estimated 2030 population of 86,945 persons. In addition, the plan reflects open space areas needed to serve the immediate anticipated population growth, and also areas that, because of topographic conditions or other factors should never be allowed to develop intensively.

MASTER STREET PLANS

The purpose of a Master Street Plan is to provide for the orderly growth and development of a city through the safe and efficient movement of people and goods. Transportation planning renders adequate access to developing areas as well as providing needed transportation improvements to established areas. Good transportation planning that is based on a viable plan is essential to a city's growth. Through such planning, a city becomes able to take advantage of important features of the community by providing the access to these features.

A plan focuses attention on needs identified by existing conditions as well as on needs that are based upon future demands. In addition, a schedule of improvements can be established based on priorities and the capital improvements program. These priorities may change or new priorities may develop but through a continuing transportation planning process, they can be anticipated and absorbed into the Plan.

The City of Pine Bluff has adopted the PBATS 25-Year Plan as its Master Street and Land Use Plan. The City of White Hall has adopted its own Master Street and Land Use Plan. Both cities have adopted Subdivision and Zoning Regulations in order for the cities to experience orderly and planned growth. These City Master Street Plans include, at a minimum, all roads identified on the Year 2030 Plan. The roadways contained in these transportation plans are classified by the way the facility functions in terms of type of traffic carried. The State of Arkansas mandates that the system be classified into one of five classes. Following are descriptions of the classification of streets as shown on the street/transportation plans, a cross section diagram of each type, vehicle capacity, right-of-way required, pavement width, recommended vehicle speed, etc.

INTERSTATE FREEWAYS: High speed, high volume, multi-lane access-controlled facilities with no access to adjacent land uses, and grade separations at all cross streets. They provide basic interstate service linking major cities as recognized by the Federal Highway Administration.

OTHER FREEWAY AND EXPRESSWAYS: High speed, high volume, multi-lane facilities with a very high degree of access control providing traffic service to long distance traffic across the metropolitan area. Access is severely limited to public road intersections or preferably, grade separated interchanges.

PRINCIPAL ARTERIAL: Multi-lane, moderately high volume roads serving major centers of activity in the urban area and carrying a high proportion of total urban area travel. Trips are for long distances, and access may be controlled through limited curb cuts, medians, etc. to preserve travel mobility.

MINOR ARTERIAL: Multi-lane, moderately high volume roadways carrying traffic for shorter distances between higher class facilities. A lower

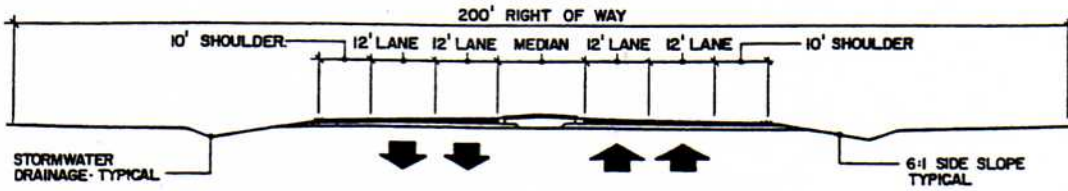
level of travel mobility is achieved through minimal control of access to abutting land uses.

COLLECTOR:

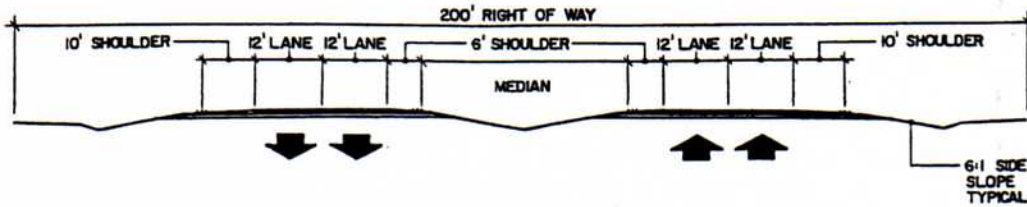
Typically low volume two-lane roads which provide access in and out of neighborhoods for short distances to the arterial system. In areas of unusually dense development they may be four-lane.

The following cross-sections were developed for each functional class to ensure the orderly growth of the area-wide street network so that it may function properly as envisioned in the 2030 Transportation Plan. Right-of-way and lane widths vary in order to provide sufficient traffic service and safety given the desired travel speeds for each functional class. Minimum cross-sections are ideals for roadways in new locations or widening of existing roadways in areas with development that does not significantly encroach on the recommended right-of-way. In heavily developed areas, reduction of right-of-way and roadway width may be approved on a case by case basis to avoid incurring prohibitive costs and/or undesirable negative impacts.

EXPRESSWAY



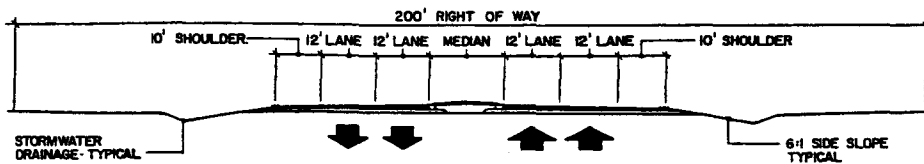
TYPICAL SECTION OF A RAISED MEDIAN EXPRESSWAY
NOT TO SCALE



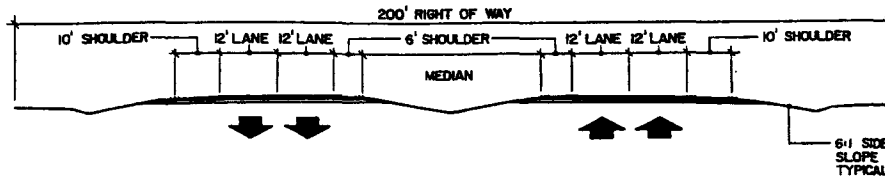
TYPICAL SECTION OF A DEPRESSED MEDIAN EXPRESSWAY
NOT TO SCALE

- Capacity - 38,000 vpd
- Service Volume - 28,300 vpd
- Speed - 45-55 mph.
- Traffic Lanes - Four 12 foot lanes; where at-grade intersections occur on expressways, right and left turn lanes should be provided.
- Parking Lanes - None; emergency parking permitted on shoulders.
- Shoulders - 10 foot outside and six foot inside shoulders.
- Side Slopes - Slopes should not exceed a minimum ratio of 6:1 to a distance of 30 feet from the edge of traffic lanes.
- Paved Width - 98 feet depressed; 84 feet raised; width includes median.
- Right-of-Way - 200 feet; on federally funded and State projects, R/W requirement will normally be 300 feet, with more-at interchanges.
- Sidewalks - None.
- Median - 24 feet minimum desirable; median is measured between edges of opposing traffic lanes; when Federal funding is involved, the depressed median shown as 18 feet should be 48 feet; this provides a 60 foot median: 48 feet plus two 6-foot shoulders; when raised median is used, a New Jersey barrier wall is normally used for safety.
- Frontage Roads - Should not be permitted except where existing development needs frontage roads to maintain access. Freeway exit ramps will not intersect frontage roads unless the frontage is one-way in the same direction.

FREEWAY



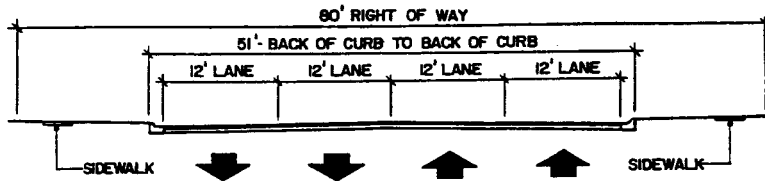
TYPICAL SECTION OF A RAISED MEDIAN EXPRESSWAY
NOT TO SCALE



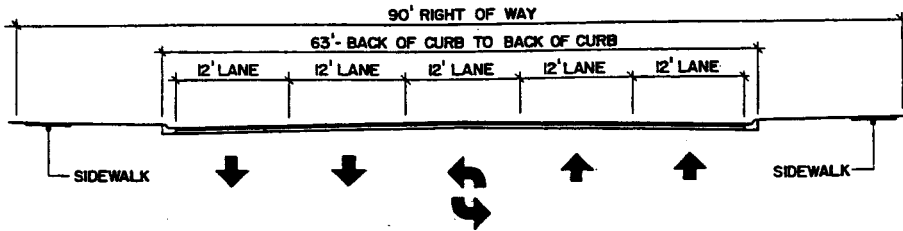
TYPICAL SECTION OF A DEPRESSED MEDIAN EXPRESSWAY
NOT TO SCALE

- Capacity - 71,700 vpd
- Service Volume - 44,800 vpd
- Speed - 65-70 mph.
- Traffic Lanes - Four 12 foot lanes; where at-grade intersections occur on expressways, right and left turn lanes should be provided.
- Parking Lanes - None; emergency parking permitted on shoulders.
- Shoulders - 10 foot outside and six foot inside shoulders.
- Side Slopes - Slopes should not exceed a minimum ratio of 6:1 to a distance of 30 feet from the edge of traffic lanes.
- Paved Width - 98 feet depressed; 84 feet raised; width includes median.
- Right-of-Way - 200 feet; on federally funded and State projects, R/W requirement will normally be 300 feet, with more-at interchanges.
- Sidewalks - None.
- Median - 24 feet minimum desirable; median is measured between edges of opposing traffic lanes; when Federal funding is involved, the depressed median shown as 18 feet should be 48 feet; this provides a 60 foot median: 48 feet plus two 6-foot shoulders; when raised median is used, a New Jersey barrier wall is normally used for safety.
- Frontage Roads - Should not be permitted except where existing development needs frontage roads to maintain access. Freeway exit ramps will not intersect frontage roads unless the frontage is one-way in the same direction.

PRINCIPLE ARTERIAL



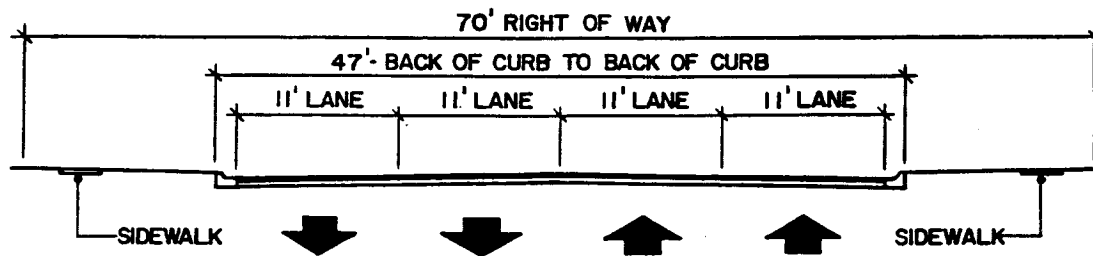
MINIMUM
NOT TO SCALE



DESIRABLE
NOT TO SCALE

- Capacity - 22,800 vpd; 27,600 vpd with left turn lane.
- Service Volume - 17,000 vpd; 20,600 vpd with left turn lane.
- Speed - 40-45 mph.
- Traffic Lanes - Four 12 foot travel lanes; 12 foot left turn bay at intersections where necessary, and a continuous turn lane where there are high volumes of mid-block turns.
- Parking Lanes - None.
- Paved Width - 51 feet minimum from back of curb to 63 feet with a continuous turn lane.
- Right-of-Way - 80 feet minimum; 90 feet for intersection widening and where possible for five lane sections.
- Sidewalks - Two sidewalks designed in accordance with AHTD Sidewalk Policy.

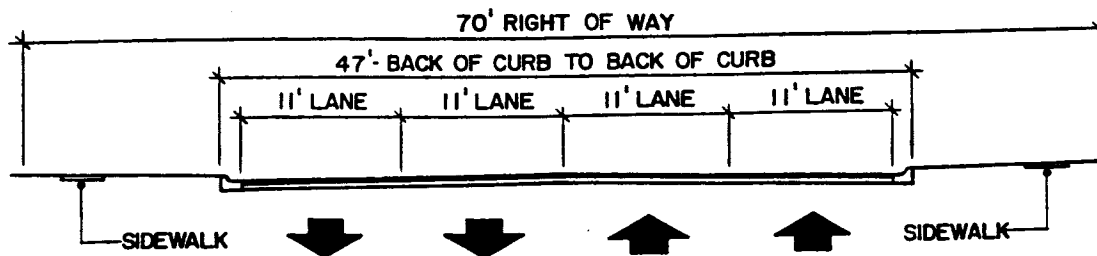
MINOR ARTERIAL



- Capacity - 16,300 vpd; 19,800 vpd with left turn lane.
- Service Volume - 12,200 vpd; 14,800 vpd with left turn lane.
- Speed - 35-40 mph.
- Traffic Lanes - Four 11 foot travel lanes; 11 foot left turn lane may be necessary at intersections and in areas with high volumes of mid-block turns.
- Parking lanes - None.
- Paved Width - 47 feet; 56 feet with turn lane.
- Right-of-Way - 70 feet minimum; 80 feet for intersection widening and where possible for five lane sections.
- Sidewalks - Two sidewalks designed in accordance with AHTD Sidewalk Policy.

COLLECTOR

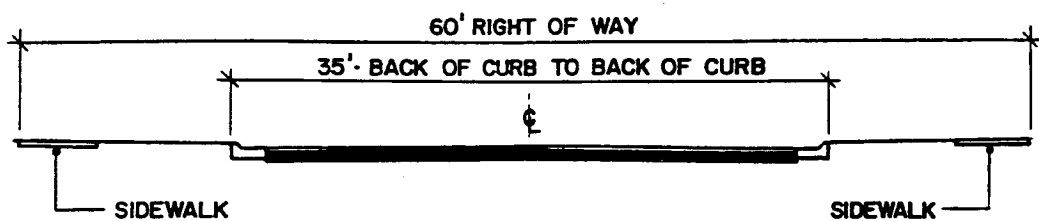
HIGH DENSITY: For use over short distances in commercial, industrial, apartment, and other high density areas



Capacity	-	12,200 vpd; 14,800 vpd with left turn lane.
Service Volume	-	10,700 vpd; 12,900 vpd with left turn lane.
Speed	-	25-35 mph.
Traffic Lanes	-	Four 11 foot travel lanes; 11 foot left turn lane may be necessary at intersections and in areas with high volumes of mid-block turns.
Parking lanes	-	None.
Paved Width	-	47 feet.
Right-of-Way	-	70 feet minimum; 80 feet for intersection widening
Sidewalks	-	Two 4 foot minimum sidewalks; 8 foot clearance from traffic lanes where possible; consideration should be given to widening in vicinity of schools or where high pedestrian traffic occurs.

COLLECTOR

LOW DENSITY: For use primarily in residential and other low density area.



Capacity	-	12 foot approach:	6,200 vpd; 8,800 vpd with left turn lane.
		11 foot approach:	5,900 vpd; 8,500 with left turn lane.
Service Volume	-	12 foot approach:	4,700 vpd; 6,900 vpd with left turn lane.
		11 foot approach:	4,000 vpd; 5,800 with left turn lane.
Speed	-	25-30 mph.	
Traffic Lanes	-	Two 11 foot travel lanes; 10 foot left turn lane at intersections where necessary	
Parking lanes	-	10 foot lane provided but not necessarily defined; none when turn lane is provided.	
Paved Width	-	35 feet.	
Right-of-Way	-	60 feet.	
Sidewalks	-	Two 4 foot minimum sidewalks; 8 foot clearance from traffic lanes where possible; consideration should be given to widening in vicinity of schools or where high pedestrian traffic occurs. Sidewalks will be constructed in accordance to ADA design standards.	

SUBDIVISION REGULATIONS

Subdivision regulations for the Cities of Pine Bluff and White Hall ensure proper development within the cities and their areas of extraterritorial jurisdiction while protecting the developer, homeowner, and the cities from improper infrastructure construction and uncontrolled growth. Through these regulations, proposed facilities shown on the cities' master street plans and on the portion of the Year 2030 Transportation Plan contained in the cities' planning area can be required to be constructed according to proper standards and specifications. Conformity to these standards, and the provisions for the dedication of rights-of-way, enable the cities to control their growth and development while assisting in the implementation of the Master Street/Transportation Plans.

ZONING REGULATIONS

The most direct way of influencing the development of a community is through the application of a zoning code. Both Pine Bluff and White Hall have adopted and administer zoning regulations. Zoning classifications regulate the type and intensity of development, thereby regulating the activity a development will generate and protecting the existing and proposed transportation facilities from ineffectiveness and overcrowding. Zoning also regulates structure setbacks from a proposed street right-of-way and existing transportation facilities and their eventual improvements. Therefore, adherence to setback requirements assists in the preservation of rights-of-way for future facilities that are contained in a master street plan.

**PINE BLUFF AREA
TRANSPORTATION
STUDY
YEAR 2030
TRANSPORTATION
PLAN**

THE UNCONSTRAINED PLAN

The Year 2030 Unconstrained Transportation Plan is the optimum plan that would serve the Study Area transportation needs through the year 2030 and beyond. The Unconstrained Plan is integrated with the land use plan to ensure that when development does occur in any location within the Study Area, that the land use areas will have appropriate transportation linkages. By considering the relationship between the types and intensity of the land uses and the generation of traffic movements between them, the Transportation Plan, in conjunction with the land use plan, will shape the pattern of urban development, improve the livability of the region, and allow for the complete use of transportation facilities.

The Year 2030 Unconstrained Transportation Plan has not changed dramatically from the first Pine Bluff Area Transportation Plan adopted in 1969 for the year 1990 and its revisions. The 1990 plan was based on travel needs of the 1990 population and employment as projected using figures from 1940 through the mid-1960's. During that period, the Pine Bluff area population tripled. Since 1970, the Pine Bluff area has experienced an out-migration of population. Within the Study Area itself, there has been a shift in population from the core of the city to the fringe areas. The Study Area has been expanded outward from the original study area to reflect this movement by the population. Generally, the arterial streets within the Unconstrained Plan have been spaced at approximately one-mile intervals within the Study Area. Collector streets have been located as nearly as possible to the mid-point between the arterials using existing streets where possible to provide for connections between the local street system and the arterial street pattern.

As stated in the previous section, facilities on the 25-Year Transportation Plan has been adopted by the City of Pine Bluff as its official Master Street and Land Use Plan, and are also contained in the Master Street Plan for the jurisdictional area of the City of White Hall located within the Study Area. City Master Street Plans are recognized under Act 186 of 1957, as amended, of the Arkansas State Statutes and are the instruments used by the cities to preserve future rights-of-way for the major street system. The State Statute states that Master Street Plans shall include the general location of streets and highways to be reserved for future public acquisitions and that they may provide for the removal, relocation, widening, narrowing, vacation, abandonment, change of use, or extension of any public way. The Cities of Pine Bluff and White Hall, through their subdivision regulations adopted under this state statute, require persons subdividing their property to make the appropriate road dedications and improvements as shown on their master street plan. Cross-sections for arterial and collector streets for both cities are the same as those identified in the previous section of this plan.

THE YEAR 2030 CONSTRAINED TRANSPORTATION PLAN AND CAPITAL IMPROVEMENT PROGRAM

OVERVIEW

In order to have a viable plan that can be used by the public and private sectors as a development guide, an implementation plan that shows which transportation projects will be implemented during a specific time frame must be prepared. The basic elements in preparing and adopting the implementation, or constrained, plan are: (1) determining what transportation links on the Year 2030 Unconstrained Transportation Plan need to be implemented based on expected travel needs and (2) the availability of financial resources to implement the projects.

Through the planning process, the PBATS Policy Committee adopted both the Unconstrained and Constrained Transportation Plans. The Constrained Plan, shown on Map 7, represents the transportation projects the local jurisdictions and the State plan to implement during the next twenty-five years. The plan was developed through public input and technical considerations and is also based on the following concepts:

- Traffic Service - What is the perceived level of transportation movement within the Study Area?
- Community Value - What role does transportation play not only in meeting the community travel needs but also in meeting social, environmental, historical, and economic requirements?
- Networking Continuity - To what degree does the transportation system allow for continuous traffic movements throughout the study area?
- Functional Classification of Roadways - Does the proposed transportation system maintain the proper spacing, and will the streets function as previously described?
- Use of Existing Facilities - Does the proposed plan maximize the existing transportation system?
- Growth Potential - Is the proposed plan compatible with the transportation needs of future development?
- Implementation - Are the selected projects necessary to ensure that the community remains a strong and vital place where residents can prosper?

The Capital Improvements Program on pages 63 through 65 lists which projects will be implemented during a certain time period, the estimated cost of each project in 2005, what jurisdiction is responsible for implementing each project, and a brief project description.

A long-range financial plan is necessary to determine what amount of capital is available to implement transportation improvement projects in the Year 2030 PBTS Constrained Transportation Plan. The Arkansas Highway and Transportation Department furnished PBATS with the estimated amount of federal and state funds that would be available to implement surface transportation projects in the Study Area over the next twenty-five years. In order to determine what amount of funds will be available for implementing transportation projects at the local level in future years, an evaluation of past local transportation revenue and expenditures was necessary.

The evaluation of local revenues consisted of reviewing the amounts of revenue and expenditures for each local jurisdiction from 2000 through 2004. Revenues consisted of property tax collected for road funds, Highway Turnback Gasoline Tax funds, funds transferred from the general fund to the Street and Road funds, other funds, and Pine Bluff Community Development Block Grant (CDBG) funds. Based on the evaluation of local jurisdiction transportation revenues and expenditures, it appears that local jurisdictions have, over the preceding fifteen year period, been able to allocate approximately five percent (5%) of their revenue for the implementation of major maintenance projects and construction of new transportation facilities.

Each jurisdiction is responsible for implementing and matching programs within their applicable areas, therefore revenues that can be spent on transportation projects have been broken down by jurisdiction. Table 8 “Projected Dedicated Revenue and Other Sources” is presented on the next three pages as Table 8a – Pine Bluff, Table 8b – Jefferson County and Table 8c – White Hall. These tables show the projected dedicated revenue and other revenue for the years 2000 through 2004 and reflect that annual average rate of increase in turnback taxes, millage and other revenues collected. From 2000 through 2004, the revenues from the above three revenue sources varied for each local government. Since the revenue sources varied from year to year in terms of either increasing or decreasing from year to year, a base dollar amount was established for each of the revenue source categories for each local government. A review was then conducted of the amount of revenue collected in the last 15 years by each local government. The category titled Other Revenue in the table below represents funds that have been transferred from the local government general funds to the cities and county funds. Also included in this category are a variety of funds such as interest income, funds from the sale of used equipment, Community Block Grant funds, and so on. In order to establish a dollar amount for the Other Revenue for the base year 2005, the average yearly amount of funds spent over the last 15-year period was used. Based on the review of the long term growth rate for each revenue source for each of the local governments, the following growth rates were used for each government.

**TABLE 8
PROJECTED DEDICATED REVENUE AND OTHER SOURCES**

Local Government	Millage Tax	State turnback tax	Other revenue
Jefferson County	2.0%	1.5%	1.5%
Pine Bluff	2.0%	1.5%	1.8%
White Hall	2.5%	1.5%	1.5%

TABLE 8a
PINE BLUFF
PROJECTED DEDICATED REVENUE AND OTHER SOURCES

YEAR	MILLAGE	HIGHWAY TURNBACK	OTHER	TOTAL FUNDING	AVAILABLE(5%) FOR CAPITAL EXPENDITURES
2005	519,422	2,663,770	179,625	3,362,817	168,141
2006	529,810	2,703,726	182,858	3,416,394	170,820
2007	540,406	2,744,283	186,150	3,470,839	173,542
2008	551,215	2,785,447	189,500	3,526,162	176,308
2009	562,224	2,827,228	192,911	3,582,363	179,118
2010	573,484	2,869,637	196,384	3,639,505	181,975
2011	584,953	2,912,681	199,919	3,697,553	184,878
2012	596,652	2,956,372	203,517	3,756,541	187,827
2013	608,586	3,000,717	207,181	3,816,484	190,824
2014	620,758	3,045,728	210,910	3,877,396	193,869
2015	633,173	3,091,414	214,706	3,939,293	196,964
2016	645,837	3,137,785	218,571	4,002,193	200,110
2017	658,753	3,184,851	222,505	4,066,109	203,305
2018	671,928	3,232,625	226,510	4,131,063	206,552
2019	685,367	3,281,114	230,588	4,197,069	209,853
2020	699,074	3,330,331	234,738	4,264,143	213,207
2021	713,056	3,380,286	238,964	4,332,306	216,615
2022	727,317	3,430,990	243,265	4,401,572	220,079
2023	741,863	3,482,455	247,644	4,471,962	223,598
2024	756,701	3,534,692	252,101	4,543,494	227,175
2025	771,835	3,587,712	256,639	4,616,186	230,809
2026	787,271	3,641,528	261,259	4,690,058	233,503
2027	803,017	3,696,151	265,961	4,765,129	238,256
2028	819,077	3,751,593	270,748	4,841,418	242,071
2029	835,459	3,807,867	275,622	4,918,948	245,947
2030	852,168	3,864,985	280,583	4,997,736	249,887

TABLE 8b
JEFFERSON COUNTY
PROJECTED DEDICATED REVENUE AND OTHER SOURCES

YEAR	MILLAGE	HIGHWAY TURNBACK	OTHER	TOTAL FUNDING	AVAILABLE (5%) FOR CAPITAL EXPENDITURES
2005	1,179,825	1,709,892	110,000	2,999,717	149,986
2006	1,203,422	1,735,430	111,650	3,050,502	152,525
2007	1,227,490	1,761,461	113,325	3,102,276	155,114
2008	1,252,040	1,787,883	115,025	3,154,948	157,747
2009	1,277,081	1,814,702	116,750	3,208,533	160,427
2010	1,302,622	1,841,922	118,501	3,236,045	163,152
2011	1,328,675	1,869,551	120,279	3,318,505	169,925
2012	1,355,248	1,897,594	122,089	3,374,931	168,747
2013	1,382,353	1,926,058	123,914	3,432,325	171,616
2014	1,410,000	1,954,949	130,062	3,495,058	174,753
2015	1,438,200	1,984,273	132,062	3,554,535	177,727
2016	1,466,964	2,014,037	134,042	3,615,043	180,752
2017	1,496,303	2,044,247	136,053	3,676,603	183,830
2018	1,526,229	2,074,912	138,094	3,739,235	186,962
2019	1,556,754	2,106,035	140,165	3,802,954	190,148
2020	1,587,889	2,137,626	142,268	3,867,783	193,489
2021	1,619,647	2,169,690	144,402	3,933,739	196,687
2022	1,652,040	2,202,235	146,568	4,000,843	200,042
2023	1,685,080	2,235,269	148,766	4,069,115	203,456
2024	1,718,782	2,268,797	150,998	4,138,577	206,929
2025	1,753,158	2,302,830	153,263	4,209,251	210,463
2026	1,788,221	2,337,372	155,562	4,281,155	214,058
2027	1,823,985	2,372,433	157,895	4,354,313	217,716
2028	1,860,465	2,408,019	160,264	4,428,748	221,437
2029	1,879,674	2,444,140	162,668	4,504,482	225,224
2030	1,935,628	2,480,802	165,108	4,581,538	229,077

**TABLE 8c
WHITE HALL
PROJECTED DEDICATED REVENUE AND OTHER SOURCES**

YEAR	MILLAGE	HIGHWAY TURNBACK	OTHER	TOTAL FUNDING	AVAILABLE (5%) FOR CAPITAL EXPENDITURES
2005	55,309	231,425	5,408	292,142	14,607
2006	56,581	234,896	5,489	296,966	14,848
2007	57,882	238,420	5,571	301,873	15,094
2008	59,214	241,996	5,655	306,865	15,343
2009	60,576	245,626	5,740	311,942	15,597
2010	61,969	249,310	5,826	317,105	15,855
2011	63,394	253,050	5,913	322,357	16,118
2012	64,852	256,846	6,002	327,700	16,385
2013	66,344	260,698	6,092	333,134	16,657
2014	67,870	264,609	6,183	338,662	16,933
2015	69,431	268,578	6,276	344,285	17,214
2016	71,027	272,607	6,370	350,004	17,500
2017	72,661	276,696	6,466	355,823	17,791
2018	74,332	280,846	6,563	361,741	18,087
2019	76,042	285,059	6,661	367,762	18,388
2020	77,791	289,335	6,761	373,887	19,019
2021	79,580	293,675	6,862	380,387	19,019
2022	81,410	298,080	6,965	386,485	19,324
2023	83,283	302,551	7,070	392,904	19,645
2024	85,198	307,089	7,176	399,463	19,973
2025	87,158	311,696	7,284	406,138	20,307
2026	89,162	316,371	7,393	412,926	20,646
2027	91,213	321,117	7,504	419,834	20,992
2028	93,311	325,934	7,616	426,861	21,343
2029	95,457	330,823	7,731	434,011	21,700
2030	97,653	335,785	7,847	441,285	22,064

The evaluation of local revenues also included an analysis of the cost of each transportation improvement project implemented by the local jurisdiction in order to ascertain what amount of local revenue can reasonably be set aside for transportation projects. The majority of revenues for disbursements in the road and street funds for the local jurisdictions are used for routine maintenance, purchases of capital equipment, and to match federal aid road projects. Due to the taxation constraints placed on local jurisdictions, it is difficult to find available financial resources for implementation of local transportation improvement projects. This is not to say that local jurisdictions have not implemented or are not in the process of implementing local transportation improvement projects. Some of the projects the City of Pine Bluff has implemented in the last fifteen years are:

1. Harding Avenue - preparation of construction plans and purchase of ROW
2. Elimination of West 2nd Avenue jog
3. Connection of Pullen and Second Avenue
4. Installation of Mall lights
5. Reconstruction of 13th Avenue
6. Reconstruction of Orlando (Wal-Mart Site)
7. Improvements to Olive and Harding Intersection
8. Construction of Convention Center Drive
9. Widening of Hutchinson Street
10. Construction of Jefferson Parkway
11. Reconstruction of Spruce Street
12. Reconstruction of Reeker Street
13. Constructing Oakwood Bridge
14. Spruce Street
15. Indiana Street

Jefferson County has also been involved in implementing transportation improvement projects within the Study Area. Four of the projects are:

1. Reconstruction of Island Harbor Marina Road
2. Reconstruction of the roads in Island Harbor Estates neighborhood
3. Reconstruction of a portion of Jefferson Parkway
4. Construction of various bridges throughout the County
5. Reconstruction of Sorrells Road

Although the City of White Hall has not implemented any transportation improvement projects within the last fifteen years, the City has made an extraordinary effort in improving its overall maintenance program.

The Arkansas Highway and Transportation Department has estimated the amount of federal funds that may be utilized in the Urban Area over the next twenty-five years based on data from the TEA-21 Transportation Act. Table 7 shows the estimated amount of funds available by transportation program.

TABLE 9

**ESTIMATED FEDERAL FUNDING ALLOCATIONS/PROPOSED TOTAL COST
FOR THE PROJECTS BY TIME PERIOD**

FUNDING PROGRAMS	YEARS 2005-2010		YEARS 2011-2020		YEARS 2021-2030	
	AMOUNT ALLOCATED	TOTAL COST OF PROJECT	AMOUNT ALLOCATED	TOTAL COST OF PROJECT	AMOUNT ALLOCATED	TOTAL COST OF PROJECT
STP-Small Urban	\$1,595,000	-0-	\$3,710,000	\$3,576,000	\$3,710,000	\$5,000,000
NHS Funds	\$7,545,000	\$4,000,000	\$15,090,000	\$18,000,000	\$15,090,000	N/A
Bridge Funds	\$3,230,000	\$376,000	\$6,460,000	\$240,000	\$6,460,000	-0-
Enhancement Funds	\$995,000	\$600,000	\$1,990,000	\$1,800,000	\$1,990,000	\$1,800,000
Trail Funds	\$200,000	\$200,000	\$600,000	\$600,000	\$600,000	\$600,000
STP-Small Signals	\$200,000	\$200,000	\$400,000	\$400,000	\$400,000	\$400,000
STP-State	-	\$3,640,000	-	\$12,704,000	-	-0-
Special Projects I-69*	\$30,625,000	\$30,625,000	N/A	N/A	-	\$65,120,000
Interstate Maintenance	\$900,000	\$900,000	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000
State Maintenance	\$5,689,000	\$5,689,000	\$11,360,000	\$11,360,000	\$11,360,000	\$11,360,000
Federal Transit	\$2,890,000	\$866,400	\$5,996,000	\$2,857,600	\$6,050,000	\$3,305,600
State Aid	\$300,000	\$1,680,000	\$1,500,000	\$1,440,000	\$1,500,000	\$1,008,000
Total Funding	\$54,169,000	\$45,176,000	\$48,506,000	\$54,377,600	\$48,560,000	\$59,993,600

*Special Funds

LONG RANGE TRANSPORTATION IMPROVEMENT PROGRAM

2005 – 2010 CAPITAL IMPROVEMENTS PROGRAM

DESCRIPTION	TYPE OF PROJECT	LENGTH (Miles)	FEDERAL AMOUNT	STATE/LOCAL AMOUNT	SOURCE	GOVERNMENTAL UNIT	COMMENT
Hazel Street between 42 nd Ave. and I-530	Minor widening & re-striping to a 3-lanes	0.8		575,000	STP-Local	Pine Bluff	This street is one of the major access streets to the central city. The widening of the road and installing proper drainage structures will improve the safety aspect to motorists.
11 th Ave. between Florida Str. and Pennsylvania Str.	Bridge replacement	-	168,000	42,000	BR	Pine Bluff	Replace deficient bridge
Nevins Road	Bridge replacement	-	208,000	52,000	BR	Pine Bluff	Replace deficient bridge
Harding Ave. between Main Str. And Ohio Street	Widen to 5-lanes	0.4	2,948,000	737,000	STP-Local	Pine Bluff	Elimination of bottleneck which connects two four lane roads.
Jefferson Parkway / McFadden Road between Hutchinson Street and U.S. 79B	Reconstruction and jog elimination	3.0	1,680,000	420,000	State Aid-Local	Jefferson	This facility will improve east-west traffic flow in the northern part of urban area and provide better access to the industrial park.
Various signal projects	Signalizing intersections on a as need bases	-	200,000	50,000	STP-State	State, and or local governments	Install traffic signals at various intersections on an as need bases.
Enhancement projects	Variety of projects	-	600,000	150,000	H	Local governments	Various types of projects located in the Study Area.
Trail projects	Trails	-	200,000	50,000	T	Local governments	Various types of trails located in the Study Area.
U.S. 79B between Martha Mitchell Expressway to Oliver Drive	Widen	1.5	4,000,000	1,000,000	State NHS	AHTD	Major rehabilitation
S.H. 365 Spur between Jefferson Parkway and Claude Road	Widen	1.3	3,040,000	760,000	State NHS	AHTD	This project will reduce congestion
S.H. 54 between U.S. 79 and City Limits	Widen	1.2	-	3,500,000	State	AHTD	This project will reduce congestion
TOTAL ALL PROJECTS			13,044,000	6,599,000			

2011 – 2020 CAPITAL IMPROVEMENTS PROGRAM

DESCRIPTION	TYPE OF PROJECT	LENGTH (Miles)	FEDERAL AMOUNT	STATE/LOCAL AMOUNT	SOURCE	GOVERNMENTAL UNIT	COMMENT
Hazel Street between 28 th Ave. and 31 st Ave.	Widen to 5 lanes	.25	880,000	220,000	STP-local	Pine Bluff	This project will eliminate a traffic bottle-neck by providing for better north-south traffic movement.
Hazel Street between 17 th Ave. and 28 th Ave.	Widen to 5 lanes	.8	3,640,000	660,000	STP-Local	Pine Bluff	This project will eliminate a traffic bottle-neck by providing for a better North south traffic movement.
Hazel Street between 31 st Ave. and 46 th Ave.	Widen to 4 lanes	1.0	3,440,000	86,000	STP-Local	Pine Bluff	This project will reduce traffic congestion on Hazel Street.
Robin Road / White Hall Road between S.H. 365 and S.H. 365 Spur	Widen to 3-Lanes	1.4	1,560,000	390,000	STP-Local	White Hall	This facility will improve the north-south and east-west traffic movement in the core area of White Hall.
Claude Road between U.S. 270 and the City Limits	Widen to 3 lanes	.6	696,000	176,000	STP-Local	White Hall	This project will reduce traffic congestion.
Harbor Oaks Drive (Regional Park)	Bridge Replacement (Black Dog Slough)	-	160,000	40,000	BR	Pine Bluff	Replace deficient bridge.
Harbor Oaks Drive (Regional Park)	Bridge Replacement (Lake Pine Bluff Drain)	-	80,000	20,000	BR	Pine Bluff	Replace deficient bridge
U.S. 79 from Oakridge Drive to County line	Widen to 5 lanes	11.26	18,000,000	4,500,000	NHS	AHTD	This project will reduce congestion
Off ramps for I-530	Widen off ramp	Various locations	1,200,000	300,000	Interstate Maint.	AHTD	Reduce congestion
U.S. Hwy. 270 from Claude Road to Study Area boundary	Widen to 5 lanes	4.3	8,000,000	2,000,000	NHS	AHTD	This project will reduce congestion
S.H. 190 from U.S. 79 west to I-530	Widen	2.1	5,880,000	5,880,000	State	AHTD	This project will improve access to western portion of Pine Bluff
Claude Road between the City limits and Princeton Pike	Widen to 3 lanes	1.5	1,440,000	360,000	State Aid-Local	Jefferson County	This projection in conjunction with the other Claude Road project will reduce traffic conjunction.
Various signal projects	Install traffic signal at various intersections on an as needed basis.	-	400,000	100,000	STP-State	Local Governments	Install traffic signals at various intersections on an as need bases.
Enhancement projects	Variety of projects	-	1,800,000	450,000	E	Local Governments	Various types of projects located in then the Study Area
Trail projects	Trails	-	600,000	150,000	T	Local Governments	Various type of trails located in the Study Area
TOTAL ALL PROJECTS			47,776,000	12,332,000			

2021 – 2030 CAPITAL IMPROVEMENTS PROGRAM

DESCRIPTION	TYPE OF PROJECT	LENGTH (Miles)	FEDERAL AMOUNT	STATE/LOCAL AMOUNT	SOURCE	GOVERNMENTAL UNIT	COMMENT
Bryant Str. between Dollarway Rd. and Martha Mitchell Exp.	Widen to 3-lanes. Curb and gutter	.8	1,792,000	448,000	STP-Local	Pine Bluff	This project will reduce traffic congestions.
Hutchinson Str. Between Dollarway Rd. And Martha Mitchell Exp.	Widen to 4-lanes. Curb and gutter	.7	2,064,000	516,000	STP-Local	Pine Bluff	This project will reduce traffic congestion and provide better access to Jefferson Park Industrial Park.
Hazel Str. between 6 th Ave. and 13 th Ave.	New construction 4-lanes.	.6	2,440,000	610,000	CBDG	Pine Bluff	This project, with will connect Hazel Str. With U.S. 79B, and once completed, it will provide for north-south travel through the entire planning area.
Hazel Str. Between I-530 and 73 rd Ave.	Widen to 3-lanes	1.1	1,056,000	264,000	STP-Local	Pine Bluff	This project will improve access in the grow area taking place in the south central area of the study area.
Hazel Street between 46 th Ave. and I-530	Widen to 4 lanes	6	2,080,000	520,000	STP-Local	Pine Bluff	This project will reduce traffic congestion on Hazel Street.
West Holland between S.H. 365 and S.H. 256	Widen to 4 lanes	.6	1,600,000	400,000	STP-Local	White Hall	This facility is the shortest route between I-530 and S.H 365 and is heavily used.
Caney Road between S.H. 256 and S.H. 365 Spur	New Construction	2.0	4,035,000	1,140,000	STP-Local	White Hall	This facility will be act as frontage road for I-530
Griderfield-Ladd Rd. from airport entrance to Gibb Anderson Rd.	reconstruction	1.8	1,008,000	252,000	State-Aid Local	Jefferson County	This facility provides access to I-69 Connector.
Various signal projects	Signalizing intersections on a as needed bases	-	400,000	100,000	STP-State	Local Governments	Install signals at Various intersections on an as needed bases.
Enhancement projects	Various projects	-	1,800,000	1,800,000	H	Local Governments	Various type of projects located in the Study Area
Trails	Various projects	-	600,000	150,000	T	Local Governments	Various type of projects located in the Study Area
I-69 Connector from I-530 to County Line also includes S.H. 54 Extension between U.S. 63 & I-69	New Construction 4 lanes	7.5	65,120,000*	16,280,000*	Interstate funds	AHTD	Provides direct access to I-69 Connector
TOTAL ALL PROJECTS			83,995,000	22,480,000			

* This is the estimated cost of the project. Funds have not been allocated. Special funds will be requested. Previously, special funding has been received at 100% Federal funds. State matching funds may not be required.

**ADDITIONAL
TRANSPORTATION
PLANNING
ELEMENTS**

TRANSIT SERVICE

Transit service plays an important role in providing a means of travel for those who have no other means and those who use transit as an alternative mode of transportation. The City of Pine Bluff has a rich history of transit service which began in the 1880's. In 1974, the city purchased a privately owned bus company, and since that time, has operated the bus service as a city department. In 2004, approximately 58,869 transit trips were taken.

Pine Bluff Transit (PBT) operates four fixed routes, and the peak hour bus fleet is four. The operating schedule is from 6:00 a.m. to 6:30 p.m. Monday through Friday. PBT also operates a para-transit system for those persons with disabilities. The service area for both types of services covers 80% of the City of Pine Bluff land area. The only area not within the service area is the Watson Chapel area. According to the Pine Bluff Transit Development Plan, transit service will be extended to this area in the later years of the twenty five year planning period.

A number of transit plans have been prepared and are being implemented. The following is a list of those plans and a brief description of each.

1. *Transit Operations and Facilities Analysis*. This document contains recommended changes to be made to the transit routes, bus operators training program, and maintenance and safety training program.
2. *Transit Development Plan (TDP)*. This plan indicates future expansion of services offered by PBT within a 20 year time period.
3. *PBT - Americans with Disabilities Plan*. This document indicates the implementation steps PBT will take in providing transit services to those persons with disabilities.
4. *Rural Transit Plan*. This document indicates the method of creating a rural transit service that would provide transit to White Hall, the fringe areas of the PBATS study areas, and Jefferson County.
5. *Pine Bluff Area Coordination Study*. This plan sets forth methods and alternatives in coordinating transit service within the PBATS study area. The transit services considered for coordination purposes are those offered by PBT and the various social service agencies that provide transportation services to their clients.

The following are the goals for transit services within the PBATS study area. These goals were obtained from the planning documents that have previously been adopted by PBATS and the Southeast Arkansas Regional Planning Commission.

- GOAL 1. The transit system should seek to establish and maintain a level of service that meets all the expressed public transportation needs of all citizens to the extent that it is feasible. These expressed needs include persons who have no other means of transportation, minorities, and persons with disabilities as well as the general public. These needs also include service to all major commercial and employment centers.

- GOAL 2. The transit system should seek to establish and maintain a quality of service that makes using public transportation an attractive alternative to the private automobile. Determinants of service quality include system reliability, access to the system, trip duration, user costs, comfort, safety, and information availability.
- GOAL 3. The transit operation and its service should be managed in such a manner that benefits from public and private funding is maximized by offering a variety of transit services. For example, PBT will encourage businesses to purchase transit passes for their employees.
- GOAL 4. The process of transit planning should be adequately maintained. Transit planning should be an integral part of the developmental process of the public transportation system. It should be well integrated with the transportation planning process including the TIP process. Objectives relating to the planning process should address issues such as surveillance, problem identification, programming of service and management improvements, development of new types of services to meet specific needs, and the establishment of an effective citizen participation process in transit planning.
- GOAL 5. To strive for a balanced transportation system which protects, enhances and accomplishes the environmental objectives.
- GOAL 6. To coordinate public transit service with those social service agencies and other entities that provide transit services. Coordination of transit services should be implemented where it maximizes the utilization of transit services and at the same time reduces the cost of providing the services.
- GOAL 7. Alternative methods of providing transit services shall be considered at all stages of the planning and implementation processes for fixed route bus service.

The Transit Development Plan Update for Pine Bluff Transit included recommendations addressing three issues: expansion of existing fixed routes, coordination of services, and alternative transit services. The following is a brief description of each of these issues:

- *Fixed Route Service.* The plan calls for a partial realignment and expansion of the fixed route system. The expansion of the service would be based on two concepts: customer demand and providing service to those who have no other means of transportation.
- *Coordination of Services.* The plan calls for the coordination of all transit services offered by PBT and the social service organizations within the study area. A transit organizational structure should be developed and implemented to direct the implementation of the transit services. The actual transit operations and scheduling should be done by an independent transit board which has representatives from all transit providers. Once this has been accomplished, the next step calls for the creation of a Regional Transit Authority which would be responsible for transit services and where all the entities involved would contract with the Authority to provide transit service.

- *Alternative Transit Service.* This issue is directly related to fixed route service. The plan states that alternative services should be considered as opposed to fixed route service. The three types of services that are recommended for evaluation are the dial-a-ride service, route deviation service, and point-to-point deviation service.

The “Transit Operations and Facilities Analysis” document evaluated the existing route structures as they were prior to 1997. The process of the evaluation consisted on conducting a bus survey of riders, employer survey, and analysis of land use and populations changes. Alternative route adjustments were prepared as a result of the evaluation and for consideration of implementation

During the twenty five year planning period, PBT will have to replace buses within its bus fleet for both fixed route service and ADA (Americans with Disabilities Act) per transit service and construct a central transfer facility. Past commitments to support public transit, projected local financial resources of the city, and assistance from the federal government has enabled Pine Bluff to construct an administrative/maintenance facility and upgrade its bus fleet and services. In order to continue the transit program, the city must continue to rely on the Federal Transit Administration (FTA) Section 5307 and 5309 Operating and Capital Assistance programs. Through these programs, the federal government provides eighty percent (80%) of the funds needed to purchase capital equipment and reimburses Pine Bluff Transit with fifty percent (50%) of its net operating loss. With continued federal assistance, the City of Pine Bluff should be able to continue to upgrade transit service in accordance with the Transit Development Plan and implement those projects identified in the Public Transportation Capital Improvements Program shown on page 72.

In addition to PBT, other transit services aided by the Federal government are also in operation in Pine Bluff and Jefferson County. In 1993, the Southeast Arkansas Area Agency on Aging began an FTA Section 5311 Rural Transit Program which services a ten county area including Jefferson County. The Section 5311 Program provides federal funding assistance to rural public transit agencies in the same way the FTA Section 5309 Program does for the urban public transit agencies. The Area Agency's administrative/maintenance facility is located in the City of Pine Bluff, and some of the Rural Transit Program's routes bisect and have route termini within the City. At this time, neither the Cities of Pine Bluff and White Hall nor Jefferson County has committed any funds for Section 5311 rural transit service. For this reason, the Capital Improvements Program does not list any Section 5311 projects. The Capital Improvements Program will be updated should any of these local governments make financial commitments toward the Section 18 rural program.

Another transit program that has provided federal assistance in the Pine Bluff-Jefferson County area is the FTA Section 5310 Program. This program assists public and private non-profit organizations in purchasing capital equipment for transit services that are provided to the elderly and disabled. Through this program, the federal government provides 80% of the funds needed to purchase capital equipment such as vans; the recipient agency must provide the 20% matching funds as well as provide transportation services to their target populations. A review of past years' annual elements of the Transportation Improvement Program for the Pine Bluff study area has shown that an average of one 5310 transit vehicle is requested on a yearly basis. If this

federal assistance continues, twenty-five vehicles should be available to public and private non-profit organizations over the next twenty-five years for the purpose of providing transportation services to the elderly and disabled or other eligible clientele. These vehicles have been listed in the Capital Improvements Program.

The following Public Transportation Capital Improvement Program was developed based on the assumption that the City of Pine Bluff and the federal government will continue to fund the public transit program at the same levels that they have in the past. As stated previously, the FTA provides eighty percent (80%) of the funds needed to purchase capital equipment and reimburses PBT fifty percent (50%) of its net operating loss. As for the matching portion (20% and 50% respectively), the City of Pine Bluff has been funding the transit program through its general fund since it took over the operation of the transit system in the early 1970's. The city general funding sources consist of money received through property taxes, sales taxes, and various other sources. It does not appear that there will be a lack of funds in the future for the city to continue its support of the transit system, however, it is difficult to project what actions the federal government will take concerning its funding levels for local transit projects over the next twenty five year period. If the federal government continues to fund the transit program at the level it has in the past, PBT will be able to implement the transit services stated in this plan.

**TABLE 10
PUBLIC TRANSPORTATION
CAPITAL IMPROVEMENT PROGRAM**

2006 – 2010

DESCRIPTION	FEDERAL	LOCAL	GOVERNMENTAL UNIT	COMMENT
4 Fixed Route Buses & Related Accessories	\$640,000	\$160,000	Pine Bluff	Bus Replacement & Peak Hour Expansion
2 ADA Buses & Related Accessories	\$64,000	\$16,000	Pine Bluff	New Buses to meet ADA Requirements
2 Supervisor Vehicles	\$12,000	\$3,000	Pine Bluff	Replacements
1 Maintenance Vehicle	\$20,000	\$5,000	Pine Bluff	Replacements
Maintenance & Administration Equipment	\$9,600	\$2,400	Pine Bluff	Replacement and New
Capital Equipment & Bus Capital Equipment	\$60,000	\$12,000	Pine Bluff	New (engines, transmissions, etc.)
5-§5310 Vehicles	\$100,000	\$25,000	Public and Private Non-Profit Agencies	Vans and Buses
Mobile Lift	\$20,800	\$5,200	Pine Bluff	Lift for buses

2011 -2020

DESCRIPTION	FEDERAL	LOCAL	GOVERNMENTAL UNIT	COMMENT
8 Fixed Route Buses and Related Accessories	\$1,360,000	\$340,000	Pine Bluff	Bus Replacement and Route Expansion
5 ADA Buses and Related Accessories	\$369,600	\$92,400	Pine Bluff	Bus Replacement and New Services
2 Supervisor Vehicles	\$24,000	\$6,000	Pine Bluff	Replacements
2 Maintenance Vehicles	\$40,000	\$10,000	Pine Bluff	Replacements
Maintenance & Administration	\$40,000	\$10,000	Pine Bluff	Replacement and New
Capital Equipment Bus Capital Equipment	\$24,000	\$6,000	Pine Bluff	New (engines, transmissions, etc.)
10--§5310 Vehicles	\$200,000	\$50,000	Public and Private Non-Profit Agencies	New Vans and Buses
Construct Central Transfer Facility	\$800,000	\$20,000	Pine Bluff	New Construction

2021 – 2030

DESCRIPTION	FEDERAL	LOCAL	GOVERNMENTAL UNIT	COMMENT
12 Fixed Route Buses and Related Accessories	\$2,448,000	\$612,000	Pine Bluff	Bus Replacement and Route Expansion
7 ADA Buses and Related Accessories	\$537,600	\$134,400	Pine Bluff	Bus Replacement and New Services
2 Supervisor Vehicles	\$36,000	\$9,000	Pine Bluff	Replacements
1 Maintenance Vehicle	\$20,000	\$5,000	Pine Bluff	Replacement
Maintenance & Administration	\$40,000	\$10,000	Pine Bluff	Replacement and New
Capital Equipment Bus Capital Equipment	\$24,000	\$6,000	Pine Bluff	New (engines, transmissions, etc.)
10--§5310 Vehicles	\$200,000	\$50,000	Public and Private Non-Profit Agencies	New Vans and Buses

INTERMODAL TRANSPORTATION FACILITIES

Intermodal management planning is an important aspect of the Pine Bluff area transportation system, particularly in how it affects the economic well being of the Study Area. The objective of intermodal management planning is to improve and implement a transportation system that protects the public sector while ensuring that urban goods movement and the transportation modes used to move these goods remain competitive in the free market system. An integrated, intermodal transportation system that provides for the transporting of goods and people through a quick, high quality, cost efficient means will protect the public welfare and safety in a competitive atmosphere. The PBATS study area is blessed in terms of having a river port, railroad gravity yard, and an airport located in relatively close proximity of each other, which in the future will allow them to be developed as a major intermodal transfer complex. Because of the location of each of these transportation facilities, it may be possible to develop a major intermodal complex in the future that would give shippers the opportunity to ship their goods and commodities by air, water, rail, and highway. Accordingly, a comprehensive and coordinated intermodal management plan will improve the decisions made by the private and public transportation providers located or operating in the Pine Bluff Study Area.

The Pine Bluff Area Transportation Study area is unique in that it is one of the smallest urbanized areas required by the 1962 Federal Highway Act to have an established transportation planning process while serving as one of the major intermodal transportation hubs for goods movement in the south central region of the United States. The following are descriptions of the different transportation modes that have facilities and provide services in the Pine Bluff Study Area.

AIRPORTS

The Municipal Airport (Grider Field) is a municipal airport established in 1941 as a U.S. Army Flight Training School. After World War II, the City gradually turned the airport into a commercial airport facility. Today's Grider Field is a 600+-acre facility consisting of a large terminal and restaurant, and FAA weather monitoring stations, private corporate hangars, fixed-base operators offering fuel and avionics services, a fire station, an aviation museum, and private rental hangars. Grider field serves as the only ILS-equipped, jet capable airport in southeast Arkansas and is a designated reliever for Little Rock National Airport. Grider Field also provides a bad-weather alternative for pilots going to Warren, Fordyce, Star City, and Monticello.

Grider Field is located on U.S. Highway 65 and U.S. Highway 425 and serves as a general aviation facility. Corporate users include Tyson Foods, Jefferson Regional Medical Center, International Paper, the Pine Bluff Arsenal, the Arkansas Department of Corrections, Union Pacific Railroad, USA Drugs, and Hixson Lumber. The Little Rock Air Force Base uses the runway at Grider Field for C-130 training activities, and the FAA trains its own pilots at the Airport. The city has established the Pine Bluff Aviation Commission to operate and manage the facilities. Funding is derived from fuel sales, user leases, and City general appropriations. In

1999, the Aviation Commission adopted the Pine Bluff Municipal Airport Master Plan - 2000 to 2020. This Plan addresses the following issues: airfield (runways, taxi-ways, navigation aids, etc.), support facilities (hangars, aircraft and auto parking, etc.), major roadway access, and future industrial development of airport property.

As part of the Master Airport Plan, the Aviation Commission worked with the City of Pine Bluff and the Southeast Arkansas Regional Planning Commission in developing a long range plan to develop a 400 acre light industrial park on the airport property.

The following table is the Long-Range Capital Improvement Program as stated in the Airport master Plan 2006 – 2030.

TABLE 11
AIRPORT MASTER PLAN 2006 – 2030: CAPITAL IMPROVEMENT PROGRAM

2006 – 2010		
1.	Drainage Improvements	\$57,000
2.	Obstruction Removal from runway	\$30,000
3.	Rehabilitate Hangars	\$350,000
4.	Construct a T – hangar	<u>\$300,000</u>
	TOTAL	\$ 713,000
2011 – 2020		
1.	Industrial Park Development	\$3,550,000
2.	Property Acquisition – South of Existing Airport	\$350,500
3.	Airfield Development and the extensions of one of the runways to 8,000 feet in length	<u>\$1,500,000</u>
	TOTAL	\$5,400,500
2021 – 2030		
1.	Industrial Park Development	\$4,500,000
2.	Construction of Warehouses/Hangars	<u>\$3,500,000</u>
	TOTAL	\$8,000,000

To implement the capital improvements listed in Table 11, a number of funding sources will be utilized. These sources include the Federal Aviation Administration, the Arkansas Economic Development Commission, funds generated by the Aviation Commission, and funds from the City of Pine Bluff and Jefferson County.

PINE BLUFF-JEFFERSON COUNTY PORT AUTHORITY

The Port Authority was created in 1961, and the port facility and industrial park opened river barge service in 1970. The present harbor was constructed as part of the McClellan-Kerr Arkansas River Navigation System and was the first slackwater harbor along the Arkansas River. The Port Authority leases the twenty-acre public terminal to a private firm which operates the facility for general public use. Major commodities handled by the public port last year included:

aluminum T bars, aluminum coils, potash, steel coils, steel wire rods, urea, vermiculite, cotton seed hulls, paper, rice, soybeans, wheat and milo. In 2004, 336,288 tons of materials were moved through the port.

In 1985, the U.S. Army Corps of Engineers published a study titled "Pine Bluff Harbor Expansion Feasibility Report." This report indicates what port facilities will be needed in the Pine Bluff Urban Area within the next fifty years. It also addresses economic, social, and environmental impacts and calls for the expansion of the port facility north of Ste. Marie Park along Lake Langhoffer in two phases. Phase One of the plan calls for expanding the port facility to meet the urban area navigation needs through the year 2010; Phase Two expansion will meet the urban area needs until 2040.

RAILROADS

The Study Area is served by the Union Pacific Railroad (UP) which operates a Class I line haul railroad through the area. In 1997, UP merged with the Southern Pacific Railroad which also provided rail service to the Study Area. When the merger took place, UP granted trackage rights and sold some trackage to the Burlington Northern Railroad (BN) so competition would still be preserved for customers. UP and BN have a reciprocal switch agreement so both railroads can serve Pine Bluff rail customers. UP currently does the switching for local BN traffic, with the BN typically operating two to four trains a day through Pine Bluff. The UP operates approximately forty trains per day through Pine Bluff.

The tracks enter Pine Bluff from three directions. One track enters the Study Area from the northeast across the Arkansas River to the gravity yard (switching yard) located east of the Central Business District (CBD) and south of Lake Langhoffer. The second tract enters the study area from the southwest and continues in a northeasterly direction until it reaches Plum Street and 4th Avenue. The track then continues on 4th Avenue until it exits the gravity yard. The third track enters the Study Area from the northwest directly along the Pine Bluff Arsenal boundary to the vicinity of Plum Street, and then continues along 4th Avenue to the gravity yard.

There are five grade-separated crossings in the Study Area: Martha Mitchell Expressway, Convention Center Drive, Plum Street, Hoadley Road, and 28th Avenue. All five railroad overpasses have sufficient clearance for double stack containers on flat bed cars. There are only five at-grade railroad crossings that are not protected with flashing lights and gates. In the late 1970's and 1980's Pine Bluff participated in a Railroad Demonstration Grant Program that resulted in the construction of the Plum Street and Convention Center Drive overpasses and the closing of a number of local street at-grade railroad crossings.

The Union Pacific Railroad gravity "hump" yard is located approximately two miles east of the CBD and is adjacent to the Pine Bluff Industrial River Port. The yard provides classification switching of rail cars, operating twenty-four hours a day every day of the year. Not only are long-haul freight trains made up at the yard, local trains that serve local businesses and industries also operate from the yard.

Grunderson Wheel Service operates a railroad wheel repair business and General Electric operates a locomotive repair shop for UP. Both operations are located in the rail yard area. Both the Jefferson Industrial Park and the Pine Bluff Industrial Port are served by UP main line service.

PIPELINES

Pipelines carry gas, oil and other liquids that are essential to supplying our nation with power resources to insure the economic well being of our Nation. Compared to other modes of transportation the pipelines have a remarkable safety record.

A Kinder Morgan pipeline provides natural gas to the International Paper Plant. This pipeline enters the Study Area's northwest corner and runs in a southeasterly direction to the International Paper Plant north of U.S. Highway 425. The Center-Point Energy Services' main line runs east/west through the Study Area and the Center-Point Energy/Mississippi River Transmission mail line runs north/south through the Study Area.

At the present time there are no plans to either upgrade the pipelines or to construct new major lines. Of most concern in the planning process is to insure that the safety issues are addressed. In developing the long-range plan, efforts were made to reduce surface transportation and urban land uses conflicts with crossings and proximity of major pipelines.

INTERMODAL RECOMMENDATIONS

1. Maintenance and upgrading of roads: An asphalt overlay maintenance program should be developed that will address the maintenance problems associated with the roads providing access to the Port and railroad facilities. Michigan Street between the Martha Mitchell Expressway and Port Road and Port Road from the Martha Mitchell Expressway to Emmett Sanders Road need to be upgraded to provide a smooth traveling surface.
2. Street-railroad crossing improvements: A street-railroad crossing improvement program needs to be established for the purpose of insuring that the remaining unprotected street crossings will be gated. The following is a list of those unprotected street-railroad crossings:
 - Gaddy-Koonce Road
 - Hutchinson Street
 - Dixie Wood Drive
 - Stark Gate Road
 - Port Road
3. Intermodal Authority Study: Pine Bluff is unique in that the Port and railroad facilities are so closely located and there is available land area to expand both facilities. From a local perspective, an intermodal authority and facility that links the Port, railroads, and trucking services could boost the economy. Two primary issues should be studied, potential uses/costs associated with implementation and the operation and construction of such a facility. In a market-oriented transportation program, the service must be accepted and used

by shippers, and the quality and cost of services of each mode of transportation must be competitive.

TRUCK MOVEMENTS

Truck movement is the key element of the overall intermodal transportation process. The extensive road network in the Study Area gives trucks a distinctive advantage in choosing the routes taken to connect origin and destination locations. They have a tremendous effect on all segments of the economic, social, and environmental characteristics of the community. For instance, truck movements have made it possible for some manufacturers that once depended on rail service to locate far from rail lines. This in turn impacts the entire community through truck trips occurring over roads not designed for trucks, trucks traveling through residential neighborhoods, etc. It is also understood that without truck movements in and through our communities, we could not enjoy the convenient access to goods and services that we have today.

In order to better understand truck movements and their resulting roles and impacts in the overall intermodal transportation process, certain data must be obtained and evaluated. This data includes trip origins and destinations (external-external, external-internal, and various types of internal-internal), type and travel characteristics of the commodities transported, and trip frequency. Currently, only a limited amount of data is available regarding these elements. This plan addresses the general locations of truck trip generation and the transportation network linking these locations to other types of transportation facilities and to important geographic sites in the Study Area.

Within the Study Area, there are ten general freight trucking companies, three truck brokerage companies, five trucking companies that primarily haul household moving freight, and a number of independent trucking companies of which most haul material resources (logs and gravel) and agricultural commodities, poultry, and livestock. The majority of these trucking companies are dispersed throughout the study area, however, the household freight companies are concentrated along West 6th Avenue between Hazel Street and Blake Street.

Truck trip generation location areas are the Jefferson Industrial Park area, Pine Bluff Port Industrial Park/railroad yards, and the West 6th Avenue area. Following is a brief description of each area.

Jefferson Industrial Park Area: This general area is adjacent to Jefferson Parkway and McFadden Road, which is located between Dollarway Road (U.S. Highway 365) and U.S. Highway 79 north. The Industrial Park itself contains approximately 750 acres. In and near the Park area are fifteen business that generate a number of semi-truck trips; there are also three other manufacturers located in this area that generate a number of semi-truck trips. The majority of land in the area has not been developed.

Pine Bluff Port and Rail Road Yards: This area is adjacent to Port Road and Emmett Sanders Road and lies east of Michigan Street. There are approximately twenty-five businesses and industries in the area that generate a number of semi-truck trips.

West 6th Avenue Area: This is the area adjacent to 6th Avenue that is located between Plum Street and Blake Street (U. S. Highway 79). There are approximately twenty businesses which generate semi-truck trips including the household mover's offices/warehouse facilities.

Also located within the study area are two smaller industrial parks and a number of businesses such as wholesalers and distributors, grocery stores, etc. each of which generate truck trips.

Map 8 identifies the routes within the study area that have been designated as truck routes. While these routes provide adequate access to the commercial and industrial land uses within the area, pavement conditions, drainage, turning radii at intersections, lane widths, signage, and local regulations and policies are also important aspects that affect the efficient movement of semi-trucks along the truck routes. The majority of transportation construction projects listed on the twenty-five year Transportation Improvement Program plan are located on truck routes. It is important that when designing these projects, careful consideration is given to the design standards for semi-truck movement. The following recommendations are related to truck movement policy and minor road improvement projects that will aid in improving the efficiency of truck and other vehicle movement within the Study Area. These policies and projects should be implemented in conjunction with the twenty-five year Transportation Improvement Program.

POLICIES: REVIEW EXISTING LOCAL ORDINANCES AND POLICIES THAT AFFECT TRUCK MOVEMENTS TO ASSURE THAT MOVEMENT OF TRAFFIC CAN BE BETTER MANAGED.

1. *Zoning Ordinance. Conduct a review of the local jurisdictions' Ordinances to determine that adequate provisions exist which address adequate on-site truck loading and unloading. This should also be reviewed when considering zoning changes.*
2. *Curb-Cut Ordinance and Policy: Conduct a review of the local jurisdictions' Ordinances and policies concerning curb-cuts. It is essential that the driveway entrances used by semi-trucks and other large vehicles to access a given facility are wide enough to accommodate turning movements from and to the street without disrupting on-street traffic.*
3. *Street Construction Standards: Conduct a review of the local jurisdictions' Subdivision Regulations and policies concerning construction standards of streets. Road construction standards for collector and arterial streets as well as local streets that service commercial and industrial land uses need to be designed to sustain the weight of semi-trucks.*
4. *Truck Route Ordinance Text: Conduct a review of the local jurisdictions' existing truck route ordinance and ordinance texts. The City of Pine Bluff adopted a Truck Route Ordinance in the mid 1960 's, however, the text has not been revised*

since that time. The City of White Hall and Jefferson County do not currently have a truck route ordinance and should consider adopting one. Areas that should be addressed are: designation of routes, determination of route criteria, and time of on-street deliveries, on-street parking duration and limitations, special purpose route designations, and posting of maintenance bond, weight limits, and enforcement.

5. Truck Route Ordinance Map: The City of White Hall and Jefferson County should consider adopting a Truck Route Map. The City of Pine Bluff has an adopted Truck Route Map and has amended it from time to time to reflect changes that have occurred within the City.

PROJECTS: THE FOLLOWING PROJECTS CAN BE CATEGORIZED AS EITHER ROUTINE MAINTENANCE PROJECTS, LOW COST ROADWAY IMPROVEMENTS PROJECTS, OR TRAFFIC FLOW MANAGEMENT PROJECTS. THESE PROJECTS ARE LOCATED ON EXISTING ROADS DESIGNATED AS A TRUCK ROUTES, OTHER COLLECTOR AND ARTERIAL STREETS NOT DESIGNATED AS TRUCK ROUTES, AND LOCAL STREETS LOCATED IN COMMERCIAL AND INDUSTRIAL AREAS.

1. Port Road, from U.S. Highway 65 to Emmett Sanders Road: This road is the access road to the Pine Bluff Port Industrial Park. The road is rutted from the truck traffic and needs to be overlaid.
2. Michigan Street, from U.S. Highway 65 to Port Road: This road is not on the truck route but is heavily used by trucks to service the adjacent industries and the Pine Bluff Port Industrial Park. The road needs to be overlaid, the turning radius at the intersection of 2nd Avenue needs to be increased, the slope of the road leading to the intersection of U. S. Highway 65 needs to be decreased, and "No Parking" signs need to be installed on the street.
3. Walnut Street/Olive Street, between U. S. Highway 65 and Harding Avenue: The City of Pine Bluff added this street to the Truck Route when the street jog at 11th Avenue was eliminated. In order for it to function as a truck route, "No Parking " Signs need to be installed on Olive Street from Harding Avenue to 6th Avenue. The turning radii of the intersections of 6th and 8th Avenues need to be increased.
4. Cherry Street, from 46th Avenue to U.S. Highway 65: This route provides access to the central portion of the City. Turning radii at the intersections of U.S. Highway 65 and 6th, 8th, 27th, and 28th Avenues need to be increased, and on-street parking where it is currently allowed needs to be eliminated..
5. Hazel Street, from 13th Avenue to Ridgway Road: This street provides a north-south route to the central portion of Pine Bluff. The turning radii at the intersections of 13th, 17th, and 28th Avenues need to be increased. A central turning lane needs to be installed along Hazel Street between 28th Avenue and 31st Avenue.

6. Catalpa Street, between 28th Avenue and 34th Avenue/34th Avenue, between Catalpa Street and Apple Street/Apple Street between 28th Avenue and 34th Avenue: These streets are part of the truck route in order to serve the industrial land uses in the area. The streets were designed as local streets and were not originally intended to be used by trucks. All three streets need to be widened; Apple Street and Catalpa Street need to be overlaid. The intersections of Apple Street and Catalpa Street with 28th Avenue, and 34th Avenue with Catalpa Street and Apple Street need to have the turning radii increase.
7. 6th Avenue, from Blake Street (U.S. Highway 79) to the Arkansas Correctional Facilities: The intersection of Bryant Street and Hutchinson Street need to have the turning radii increased.
8. U.S. Highway 65, from East U.S. Highway 65B to West U.S. Highway 65B: The turning radii at the intersections of Cherry Street and Walnut Street need to be increased.
9. Miscellaneous Recommendations: a) A signage survey needs to be conducted to determine what type of directional signs need to be installed indicating truck routes, major industrial and commercial areas, and governmental, school and other community facilities that generate truck trips. b) Rubber railroad grade crossings need to be installed on the following roads that cross the railroad tracks: Michigan, Main, Walnut, Cherry, Miramar, and 34th.

INTELLIGENT TRANSPORTATION SYSTEMS

In 1997, Congress passed the Transportation Equity Act for the 21st Century (TEA-21), which addresses an array of transportation issues facing the nation. One of the objectives of the TEA-21 act is that urban areas with a population of over 50,000 need to work toward developing a regionally integrated intelligent transportation system (ITS) to address safety and efficiency issues in their transportation systems in accordance with the National ITS standards. Under the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) program regulations, all ITS projects that receive funds from the Highway Trust Fund have to conform with the National ITS standards.

The major goals of the ITS program is to manage and operate the Nation's regional transportation systems more efficiently to reduce congestion and enhance emergency responses through the use of advanced technologies and new governmental and institutional integration. The main method of creating an ITS focus on technology to develop informational and communication systems for cars, trucks, buses, and trains so that the managers and operators can make better decisions for the transportation system.

The U.S. Department of Transportation has identified nine ITS components that can be integrated into the planning process. They are to be used as a platform for using new technology to better manage travel movements in and throughout the region and nation. Over the next twenty-five years, the following seven components are seen as being applicable to the Study Area Transportation System:

- Traffic Signal Control Systems – Provide for the control and coordination of traffic signals, the monitoring of traffic, and the monitoring of hardware and software malfunctions.
- Freeway Management Systems – Provide for the following on a limited access: facilities surveillance and incident detection, signalized ramp control, information dissemination, incident management, land use control, and coordination/integration with all appropriate local governments that are in the study area.
- Transit Management System – Provides for the following: transit vehicle tracking, demand-responsive operations, passenger and fare management, land use control, and coordination/integration with all appropriate local governments that are in the study area.
- Regional Multi-Modal Travel Information System – Provides emergency evacuation route information, traveler advisor functions, and special events information.
- Emergency Management System – Provides for the integration and coordination of appropriate emergency agencies (law enforcement agencies, fire departments, and E – 91) with respect to the transportation infrastructure. Detection and response of incidents, as well as real-time traffic information for timely dispatch of personnel, are emphasized.
- Incident Management Program – Provides for the detection and verification of roadway incidents, appropriate response to incidents, site traffic management, incident clearance and motorist information.
- Rail Grade Crossing Warning System – Provides for the implementation of technologies, which increase roadway and rail safety for at-grade crossings throughout the Study Area.

Short Range Period – The ITS program is a very important element in the PBATS planning process because of the U.S. Army program to eliminate the hazardous chemical ingredients for weapons at the Pine Bluff Arsenal. This program has already been started and a Chemical Stockpile Emergency Preparedness Program (CSEPP) has been established. The CSEPP has established and identified evacuation routes through the Study Area in case there is an emergency at the Arsenal. The PBATS planning program has been coordinated with the CSEPP planning program to ensure that there will be safe and efficient evacuation routes from the Arsenal and all locations within the Study Area to safety zone areas designated by CSEPP for various types of evacuations. The first step in developing a Regional ITS Architecture (framework) and Deployment (implementation) Plan is to identify the stakeholders and then establish an ITS Committee. The ITS Committee's function is to identify what ITS projects exist in the planning area and what future ITS projects need to be implemented. The Committee members as stakeholders are responsible for developing, operating and maintaining the components of the ITS system as identified in the ITS Plan. The ITS Plan will also indicate how each ITS component will be interfaced and connected with each other in terms of communicating and exchange of information so to insure that the entire transportation system is operating in the most efficient manner. The stakeholders participate in identifying the components of ITS that they anticipate utilizing in both the near future and over the next 25 years. The components and the level of interconnectivity needed are established in the ITS Architecture. Components must be identified in the Architecture to be eligible for Federal funding. Like the Long Range Plan, the ITS Architecture is a living document, and will be reviewed and updated as necessary.

Intermediate Range Period – Once the architecture is developed, a list of projects can be developed and intergovernmental agreements can be prepared where needed. This will be based on the appropriate time period to implement ITS projects.

PEDESTRIAN MOVEMENTS

The PBATS Study Area is a low density urban area that is vehicle oriented and where few people use pedestrian trips to carry out their daily activities. The major emphasis of pedestrian planning in the PBATS area should focus on the type of pedestrian trips that normally begin and end from the end of a vehicular trip. Nevertheless, an overall pedestrian circulation network should be considered in the planning process, particularly in those areas identified as new subdivisions and arterial and collector streets. With the increased awareness of environmental issues and the trend toward neighborhood revitalization, there is a need to consider long range pedestrian plans that link neighborhoods with other neighborhoods and commercial developments. Local pedestrian circulation plans for key areas such as the CBD and the University of Arkansas at Pine Bluff should also be studied.

However, in order to implement any type of pedestrian plan, the public must be convinced that there is a real and perceived need for sidewalk projects, something that has been lacking in the Study Area over the past several years. The last subdivision constructed in Pine Bluff that had

sidewalks installed was Belmont Subdivision which was constructed in the 1960's. In the City of White Hall, there are no sidewalks on any of the streets with the exception of Dollarway Road.

Because of the lack of pedestrian-ways and sidewalks within the Study Area, the initial plan consists of identifying transportation-management-system types of projects that are directed toward improving safety of children walking to and from school. The following is a brief description of the sidewalk network and recommendations of where sidewalks should be installed near schools.

- **Pine Bluff High School - 11th Avenue:** The school is in the central city area which has an extensive sidewalk network within the neighborhoods. No new sidewalk facilities are needed.
- **Jack Robey Junior High School - 4101 South Olive Street:** The school has sidewalks on a part of its property along 38th Avenue and Main Street. There is not an extensive network of local streets in the vicinity of the school; however, the existing streets all lack sidewalks, except on Olive Street and Main Street located north of the school.
- **Southeast Junior High School - 20th Avenue and Ohio Street:** The school has a sidewalk running along Ohio Street from Harding Avenue to 38th Avenue. A sidewalk should be installed on Ohio Street between Harding Avenue and 8th Avenue. Pedestrian crossing improvements should be installed at the intersection of Harding Avenue and Ohio Street. There is not an extensive network of local streets in the vicinity of the school; however, the existing streets all lack sidewalks.
- **Belair Elementary School - 1301 Commerce Road:** The school has a sidewalk on its property adjacent to Commerce road; the only portion missing is along Commerce Road between the school driveway entrances. All the streets in the vicinity have sidewalks.
- **Broadmoor Elementary School - 1800 East 11th Avenue:** This school is located in the Broadmoor Subdivision which has an extensive sidewalk network. The only place where no sidewalks are located is on school property adjacent to the public streets.
- **Carver Elementary School - 300 N. Linden Street:** The school has sidewalks on its property adjacent to Linden Street. The sidewalk runs south to Pullen Street which has sidewalks on both sides. Linden Street is the only street that is adjacent to the school site.
- **First Ward Elementary School - 1300 East 5th Avenue:** This school is in the central city area having a number of sidewalks in the vicinity of the school. However, a sidewalk needs to be installed on Ohio Street between 5th and 6th Avenues and on 5th Avenue from Ohio Street to Pennsylvania Street.
- **Forrest Park Elementary School - 34th Avenue and Hickory Street:** The school does not have any sidewalks along its property adjacent to the streets, nor are there any sidewalks in the adjoining neighborhoods. Sidewalks should be installed on the school property on 34th

Avenue between Cherry Street and Hazel Street, on 33rd Avenue between Linden Street and Hazel Street, and on Hickory Street between 34th Avenue and 37th Avenue.

- **Greenville Elementary School - 2501 West 10th Avenue:** The school is located in a neighborhood that does not have any sidewalks, but sidewalks are located on the streets adjacent to the school - on Fir Street between 8th and 13th Avenues and on 10th Avenue from Fir Street to Hazel Street.
- **Indiana Street Elementary School - 1519 Indiana Street:** There are sidewalks along the two streets adjacent to the school. Along Indiana Street the sidewalk is located between Harding Avenue and 13th Avenue. Along 15th Avenue the sidewalk is located between Indian Street and Ohio Street. All the other neighborhood streets in the area are narrow streets with ditches on both sides that do not have sidewalks.
- **Lakeside Elementary School - 609 West 15th Avenue:** The school is in the central city area which has an extensive sidewalk network in the neighborhoods near the school. No new sidewalk facilities are needed.
- **Oak Park Elementary School - 3010 South Orange Street:** There are no sidewalks on the school property adjacent to the streets, nor are there any sidewalks on any of the streets within the adjoining neighborhoods. Most of the streets in the neighborhood are 18 feet or less in pavement and shoulders. A site study should to be conducted to determine what type of sidewalk system should be installed to access the school.
- **Sam Taylor Elementary School - 1415 West 13th Avenue:** The school has sidewalks on West 13th Avenue and on Ash Street. Sidewalks need to be installed along 12th Avenue from the school east to Hickory Street and on Plum and Locust Streets from 13th Avenue to 17th Avenue.
- **34th Avenue Elementary School - 34th Avenue and Missouri Street:** The school has a sidewalk on Missouri Street the length of the school property. There is also a sidewalk on the south side of 34th Avenue between the school and Main Street. A sidewalk should be installed on Missouri Street from 32nd Avenue to 31st Avenue to provide access to the students who live north of the school.
- **Dollarway High School - 1900 Dollarway Road:** The school has sidewalks on all adjoining streets. The neighborhood located southeast of the school has an extensive sidewalk network, whereas the neighborhood located southwest of the school does not have any sidewalks. A sidewalk should be installed along Dollarway Road from the school to the intersection of Williams Street and Dollarway Road.
- **Dollarway Junior High School/Townsend Elementary School - 2601 Fluker Street:** Fluker Street is a major east-west transportation link. The Elementary School is located on the south side of Fluker Street, and the Junior High School is located on the north side of the street. The students are required to cross the street for various activities. There is a school

crossing flasher sign at the pedestrian crossing. Sidewalks are located on both sides of the school property adjacent to the street. The sidewalks are located from the Townsend Park main entrance road to U. S. Highway 79, and on the south side of Fluker Street. The streets in the neighborhood east of the school do not have curb and gutter or sidewalks. A traffic engineering study should be conducted to determine if the existing school street crossing is located properly and meets safety standards for pedestrian crossings.

- **James Matthews Elementary School – 4501 Dollarway Road:** There are sidewalks on both sides of Dollarway Road. There is a sidewalk located across from the school on Cottonwood Street. This sidewalk is substandard in width and in need of repair. It should be extended north to the Cottonwood Housing Development.
- **Pinecrest Elementary School – 5601 Calhoun Street:** There are no sidewalks on the school property adjacent to the street nor are there any sidewalks within the neighborhood. The majority of the streets in the neighborhood are 18 feet or less in width and have no shoulders. A study should be conducted to determine what type of sidewalk system should be installed to access the school.
- **White Hall High School - 700 Bull Dog Drive:** The school site is designed as a self-contained facility in a natural setting. The school is located approximately 1,000 feet from the only public street serving it. The location of the facility is not conducive to pedestrian access, particularly in light of the sparsely populated neighborhood. A sidewalk should be installed along Bulldog Drive (a private street) from its entrance at Holland Street to the school.
- **White Hall Junior High School - 8106 Dollarway Road:** There are no sidewalks on the school property adjacent to the streets, nor are there any sidewalks on any of the streets within the neighborhood. Sidewalks should be installed along Dollarway Road. A traffic engineering study should be conducted to determine what type of sidewalk system should be installed along the other streets adjacent to the school.
- **Gandy School - 400 Gandy Avenue:** There are no sidewalks on the school property adjacent to the streets nor are there any sidewalks on any of the streets in the neighborhood. Sidewalks should be installed along the school property adjacent to Gandy Avenue and along Taylor Street from the school site to Bessie Drive.
- **Moody Elementary School - 700 Moody Drive:** The school site is a self contained facility which is located 1,500 feet from Moody Drive, the only public road serving the school. The location of the facility is not conducive to pedestrian access from the adjacent, sparsely populated neighborhood. A sidewalk should be installed along Moody Drive from Holland Street to the school.
- **Watson Chapel Senior and Junior High School - 3900 and 4100 Camden Road:** There are no sidewalks on the school property adjacent to the two highways nor on any of the streets within the neighborhood. Sidewalks should be installed along State Highway 54 from

the school site to East Lake Drive and along Oakwood Road from the school to near the U. S. Highway 65 overpass. A traffic engineering study should be conducted to determine what other pedestrian improvements need to be implemented to meet safety standards for pedestrians.

- **Coleman Elementary School - 4600 West 13th Avenue:** The school site has facilities on both the north and south sides of 13th Avenue and on the east and west side of Redbud Street. Redbud Street is barricaded during school hours. Thirteenth Avenue is a major east-west transportation link. The students are required to cross 13th Avenue for various activities. There is a school crossing flasher sign at the pedestrian crossing. Sidewalks are located on both sides of the school property adjacent to 13th Avenue and continue east to the intersection of Blake Street. The streets within the neighborhood are narrow and have no curb, gutter, sidewalks, or shoulders. A traffic engineering study needs to be conducted to determine if any sidewalks need to be installed on the neighborhood streets for the purpose of accessing the school.
- **Edgewood Elementary School - 4100 West 32nd Avenue:** There are no sidewalks on the school property adjacent to the streets. There is a pedestrian walkway connecting Taylor Drive with the school. A sidewalk should be installed in front of the school adjacent to 32nd Avenue. A traffic engineering study should be conducted to determine if additional sidewalks should be constructed along adjacent streets for the purpose of accessing the school.
- **L.L. Owen Elementary School - 3605 Oakwood Road:** There are no sidewalks along Oakwood Road which is the only street adjacent to school property. The recommendations are similar to those for Watson Chapel High School. Sidewalks need to be constructed on Arkansas Highway 54 and on Oakwood from Highway 54 to a point near the U. S. Highway overpass.
- **University of Arkansas at Pine Bluff – 1200 University Drive:** The University is currently working on establishing a pedestrian walkway system within its campus in those areas not currently served by sidewalks.

Other foci of pedestrian movement planning in the PBATS Study Area should be directed towards the following areas:

- **Central Business District/Urban Core Area.** The existing pedestrian walkways should be maintained. Emphasis should be placed on making the pedestrian ways accessible to all persons. Installing amenities that give the pedestrian a perception of well-being and safety and that will promote a willingness to use the walkways should be an objective. Pedestrian crosswalks need to be installed on Main Street at the 4th Avenue rail crossing.
- **New Commercial and Multifamily Residential Developments.** A pedestrian walkway system should be designed and incorporated into new commercial developments and new multi-family construction. Emphasis should be placed on separating pedestrian movements

from vehicular movements and providing pedestrian walkways to the developments' perimeters.

- **New Subdivisions.** Pedestrian walkways should be required in all subdivisions receiving approval from local entities. The walkway systems should be designed so as to reduce pedestrian-vehicular conflict where possible and to foster effective pedestrian movement that links different land uses as would a vehicular transportation network.
- **Arterial and Collector Streets.** Pedestrian walkways should be installed along those arterial and collector streets where there is evidence of pedestrian movement.
- **Pedestrian T.S.M. Projects.** Pedestrian movement projects that are safety oriented and which can be implemented at a low capital cost should be installed. Such improvements include pavement crossing markings, signing, curb cuts, etc.

BICYCLE PLANNING

In the past there has been very little demand by the public for the establishment of road and off-road bikeways in the PBATS Study Area. At the same time, local governments have ignored the needs of bicycle riders, perpetuating the lack of bicycle use as an alternative transportation mode. However, in areas that are already densely developed as is much of Pine Bluff, implementing a bikeway plan is difficult, particularly when one considers that developed areas contain the destinations of most travel trips. Since safety is of the utmost importance in terms of bikeway design, minimizing potential conflicts between bicycles and automobiles by physically separating the two is the optimum method of providing a bikeway. But densely developed areas rarely contain enough available land to provide for separate bike paths, and even if land were available, the costs of land purchase and bike path construction would be prohibitive. Therefore, in the PBATS Study Area, the only viable alternative to separate bike paths is to confine bikeways to the existing street system through a program of signing and bike lane striping. Such a program alerts motorists that bicycles are more prevalent on signed and striped streets and assists in making bicycle movements safer and more predictable.

The bicycle plan prepared by PBATS consists of a bicycle transportation network that resembles the major street network. This network is designed to be relatively direct so that it will be more attractive to those riders using the network for non-recreational trips, and it also provides for as much continuous movement as possible. Since bike riders must comply to the same traffic regulations as does a motorist, bikeways containing continuous disruptions such as stop signs at every block and street jogs discourage use of the system. Therefore, major roads rather than local streets have been recommended as primary bike routes under the bicycle plan. The proposed bike route system can be implemented by properly signing the routes, and in cases where the existing pavement is wide enough for both automobile and bicycle lanes, installing designated bike lane pavement markings. Map 9 on page 90 shows the proposed bicycle network.

The following recommendations should also be given consideration when new development occurs:

- When constructing or reconstructing arterial streets, the inclusion of bikeways along the route should be considered.
- Local entities should be encouraged to modify their subdivision regulations to provide for a bicycle circulation network that will connect various types of land uses.
- Encourage major activity centers that generate a large number of trips to install bicycle parking areas and bicycle racks.
- Encourage local entities to implement a bicycle registration fee program and allocate fees collected being allocated to bikeway improvements.
- Encourage local entities to implement a bicycle safety and road use training and education program designed to teach elementary school children how to abide by the rules governing safe bicycle riding.

In addition, local entities should research using abandoned railroad rights-of-way, utility rights-of-way/corridors, and drainage rights-of-way/corridors for bikeways.

TRANSPORTATION ENHANCEMENT PROGRAM

The Transportation Equity Act for the 21st Century (TEA-21) contains provisions for improving the surface transportation system through development of transportation enhancements.

Transportation enhancements are defined in TEA-21 as follows:

1. Provision of facilities for pedestrians and bicycles.
2. Provision of safety and educational activities for pedestrians and bicyclists.
3. Acquisition of scenic or historic sites (including historic battlefields).
4. Scenic or historic highway programs (including the provision of tourist and welcome center facilities) includes historic battlefields acquisition.
5. Landscaping and other scenic beautification.
6. Historic preservation.
7. Rehabilitation and operation of historic transportation buildings, structures, or facilities (including historic railroad facilities and canals).
8. Preservation of abandoned railway corridors (including the conversion and use of the corridors for pedestrian or bicycle trails).
9. Inventory, control, and removal of outdoor advertising.
10. Archaeological planning and research.
11. Environmental mitigation: (1) to address water pollution due to highway runoff; or (2) reduce vehicle-caused wildlife mortality while maintaining habitat connectivity.
12. Establishment of transportation museums.

The Arkansas Transportation Enhancement Program (ATEP) enables the Arkansas State Highway and Transportation Department (AHTD) to make a portion of Arkansas' enhancement funding available to city, county, and other state government agencies. ATEP funding is based on a formula with a maximum federal share of 80% and a minimum local share of 20%.

ATEP projects are divided into three broad categories encompassing the ten items mentioned in TEA-21: historic projects, scenic and environmental projects, and bicycle and pedestrian projects. While no specific dollar amount will be set aside for any specific category, the AHTD has set a goal of 30% of available enhancement funds for projects submitted by other jurisdictions and other state agencies.

Applicants for ATEP grant funding must be official governmental bodies (city or county government or state agencies). Requests for ATEP grant funding for projects within urbanized areas greater than 50,000 population must be submitted through the appropriate MPO. In Jefferson County, ATEP requests must be submitted through SARPC. The project must clearly demonstrate that it will serve one or more of the ten identified purposes or functions included in the definition of transportation enhancement activities as stated on the previous page. The applicant must demonstrate that the project is financially feasible, that it has the resources and capabilities to complete the project, and that it has a plan for maintenance of the new or improved facility. The applicant must certify that it will provide the required matching funds equal to at least twenty percent of the project's total cost.

The Transportation Enhancement Program is one option that cities and counties can use to provide for pedestrian and/or bikeway projects. Most times, budget constraints limit cities and counties to providing maintenance on existing streets and implementing a few new street projects that are necessary to improve access and traffic flow of automobiles and trucks. Pedestrian and bicycle ways may not even be considered in light of more pressing street needs. Pedestrian or bicycle projects that are for recreational or transportation purposes can be applied for under the enhancement program. However, if an applicant wishes to apply for pedestrian or bicycle projects to be located on or in close proximity to roadway right-of-way, the major purpose or function of the project must be for transportation purposes, and that recreational or scenic aspects comprise only an incidental or secondary purpose of a temporary nature.

SOCIAL EQUITY AND ENVIRONMENTAL JUSTICE

Title VI of the 1964 Civil Rights Act states that “No person in the United States shall, on the grounds of race, color, or National Origin, be excluded from participating in, be denied the benefits of, or be subject to discrimination under any program or activity receiving Federal financial assistance”. Social equity and environmental justice issues need to be addressed to insure that public expenditures on transportation projects benefit all segments of the community in terms of meeting the 1964 Civil Rights Act. A mechanism has been developed to insure that all segments of the community and individuals within the Study Area have equal opportunities to participate in determining what transportation projects will be implemented and where the projects will be located. An evaluation of the distribution of transportation projects must be made so all segments of the community share in the social, economic, and environmental benefits of the projects.

A document titled “Environmental Justice Planning and Documental Procedures” has been developed for the PBATS Study Area. This document is updated during the same time period the Transportation Improvement Program is being developed. The document states the policies and procedures that are used in the transportation planning process in terms of soliciting minority public involvement. It also includes the analysis of where the expenditures for transportation projects and services are disturbed by census tracts within the Study Area. Each census tract represents a neighborhood in the Study Area, and of the sixteen census tracts in the Study Area, nine are considered minority and low income area minority neighborhoods. The policy for obtaining public involvement in the minority and low income areas is that we hold a minimum of open houses in the minority area and low income areas for the purpose of soliciting public involvement. As part of the open house process we send out notices to the various organizations that represent minority interest, neighborhood watch groups, Pine Bluff Community Block Grant Program advisory committee, elected officials. We also advertised the open houses in the newspaper.

Based on the 2000 Census, 67.1% of the City of Pine Bluff’s population are classified as minority whereas 54.9% of the Study Area’s population are classified as minority. In evaluating the Year 2005-2007 Transportation Improvement Program, over 80% of the transit projects and service expenditures are allocated to be spent in the minority and low income areas. This does not include the \$30,625,000 expenditures for the I-69 Connector. In terms of other transportation projects identified in the 2005-2007 Transportation Improvement Program, it is

impossible to determine the amount of transportation expenditures will be made in the minority and low income areas because of the following factors: (1) There are no road projects scheduled to take place; and (2) the trail projects, enhancement projects, railroad protective devices and signalization projects as listed in the Transportation Improvement Program are not site specific.

SYSTEMS MONITORING

Monitoring the existing transportation system is a vital function of the planning process. A transportation management system which evaluates the existing transportation infrastructure and transit system is an essential element not only in establishing a maintenance program but also in selecting projects for inclusion in the transportation improvement program. The development of the management systems will be a joint venture undertaken by the Arkansas Highway and Transportation Department, local jurisdictions, and PBATS. Brief descriptions of these management systems are as follows:

- Pavement Management. This system consists of a process to analyze and summarize pavement information for use in selecting and implementing cost-effective pavement construction rehabilitation and maintenance programs.

- Bridge Management. This system consists of analyzing and summarizing bridge conditions to be used in selecting and implementing cost-effective bridge replacement, rehabilitation, and maintenance programs.

- Highway Safety Management. This system's goal is to reduce all transportation accidents. A major objective is to consider safety aspects in the earliest stages of the planning process. Another major objective is to identify, analyze, and develop counter-measures for high accident rate locations and categorical-type accidents.

- Traffic Congestion Management. This system provides information on transportation system performance and analyzes and summarizes alternative methods to reduce congestion.

- Public Transportation Management. This system consists of a process to analyze and summarize information for selecting and implementing cost-effective means of providing transit service.

- Intermodal Management. This system was addressed in the section titled "Intermodal Transportation Facilities beginning on page 73 of this document.

The Arkansas Highway and Transportation Department is taking the lead role in developing the methodology and the evaluation procedures for the pavement and bridge management systems since development and implementation of these two systems require the use of highly sophisticated equipment. Following is a more in-depth discussion of the process of developing and implementing the highway safety, traffic congestion, and public transportation management systems that will be conducted by PBATS.

TRAFFIC SAFETY PROGRAMS

The PBATS staff with the assistance of local governments and AHTD is identifying bicycle, pedestrian, and vehicle safety problem areas and recommending solutions to correct the safety problem. The objective is to develop solutions to improve the safety features of the transportation system. These solutions may be minor transportation management projects such as re-striping streets while others might be costly and require significant design changes and re-construction of a street. All recommended change will comply with adopted State and Federal design standards. In addition, PBATS staff will work with and coordinate other broad-based groups in developing and implementing bicycle and pedestrian safety programs.

ACCIDENTS

Accidents are a result of many factors ranging from inattentive drivers to visual obstructions. Accidents occur on all types of roads and under all types of conditions. Many accidents are located along congested roadways and as intersections, and the number of accidents may be reduced by implementing various type of low-cost, short-range projects such as making changes to the traffic signals, improve the road striping, or eliminating visual obstructions at intersections. The study area traffic corridors that had the highest number of accidents are University Drive from the Martha Mitchell Expressway to Liver Drive and Blake Street from the Martha Mitchell to Bay Street.

Traffic Corridors: An evaluation of each major traffic corridor will be conducted every four years. The objectives of each evaluation are:

1. Monitor the traffic accident reports filed along the major corridors.
2. Evaluate pavement makings and signs along the roadway as well as the signalized intersections.
3. Conduct a field check of the intersections that have experienced more than four accidents over a year's time to determine what improvements may be made to reduce the number of accidents at the intersections.

Top 25 Accident Locations: An evaluation of the top 25 accidents locations will be conducted annually. The objectives of each evaluation are:

1. Review the accident reports of each location.
2. Conduct a field check of the intersections to determine what improvements may be made to reduce the number of accidents at each location.

CONGESTION AND CONGESTION MANAGEMENT

Highway capacity is a measure of the roadway's ability to accommodate traffic flow. As traffic increases beyond the capacity of a road, the result is congestion. Congestion is costly in terms of time delays, accidents, and air pollution.

Congestion can be reduced either by increasing roadway capacity or reducing the number of vehicles using the roadway. Capacity can be increased by building new roads or increasing the number of travel lanes on existing roadways, but either of these alternatives is very costly, and usually takes many years of planning, funding, and construction. Another method of reducing congestion is implementing Transportation System Management (TSM) projects to improve the efficiency of the existing roadways so its capacity can be increased. TSM projects are far less costly than building new roads and widening existing roads, can be funded and implemented more quickly, and frequently reduce traffic accidents. They also aid in pushing back the time frame of implementing long-range transportation improvements. Additionally, utilization of public transit can aid in the reduction of congestion.

Examples of TSM projects include:

- Adoption of curb cut policies which encourage the use of joint driveway access and which regulate driveway spacing.
- Improvements to traffic signalization.
- Elimination of road jogs.
- Improvements in intersection alignments and turning radius.
- Creation of center turn lanes, channelization, median control, and various other pavement markings.

TSM projects can be implemented to improve traffic flow on both those roads identified on the Transportation Plan and on local streets. They are considered short-range projects that can be implemented on an on-going basis, similar to a routine maintenance program. As an example, the City of Pine Bluff has implemented a TSM program of upgrading the traffic signals on an on-going basis.

Congestion Location Overview

At the present time, there are no roads within the Study Area that experience long-term congestion problems with the possible exception of Harding Avenue located between Main Street and Ohio Street. There are a number of roads that experience short-term morning and evening congestion, especially during the school year. Although the PBATS area will experience only a small growth in population over the next twenty-five years, the vehicle miles and travel growth rate will continue to out-pace the population growth rate. The following is a list of roadway locations where congestion occurs at various times of the day.

1. Harding Avenue: Between Olive Street and Ohio Street
2. University Avenue: Between Reeker Avenue and 3rd Avenue
3. Sulphur springs Road: Between Chapel Heights Drive and Camden Road
4. Martha Mitchell: Between Blake Street and Walnut Street
5. Blake Street/Dollarway Road: Between 4th Avenue and Hutchinson Street
6. Hazel Street: Between 17th Avenue and Ridgway Road
7. Olive Street: Between 23rd Avenue and 30th Avenue
8. 28th Avenue: Between Hazel Street and Catalpa Street

In addition, there are a number of street intersections that experience congestion at selected times of the day, such as the intersection of Olive Street and 39th Avenue, Blake Street and 6th Avenue, University Drive and 6th Avenue, and the off-ramps of I-530.

Even with the construction of projects identified in the Transportation Improvement Program of the Year 2030 Transportation Plan, congestion will continue to increase on the roadway system. Without using a computer modeling program to distribute future trips over the existing street network, it is difficult to determine which streets will be at or above capacity. However, in order to determine where capacity problems may occur in the future, an evaluation of the proposed Land Use Plan and Unconstrained Transportation Plan was conducted in conjunction with the monitoring of urban development trends that have been taking place. Although there has been little urban growth occurring in the PBATS study area, the following trends have been recognized:

- There has been an out-migration of population from the center core area of the City of Pine Bluff to the urban fringe areas of the City and to White Hall. The fringe area can generally be defined as that area from Old Warren Road to Sulphur Springs Road and the State Highway 104 corridor.
- There has been very little in-fill of residential, commercial, or industrial land uses with the core area.
- The residential development taking place in the fringe area can be described as large lot development (two acres or more) located on existing roads, and which has not required the development of collector roads as identified on the Unconstrained Plan.

Based on the development trends that have been occurring in conjunction with the implementation of those projects identified in the Transportation Improvement Plan, it appears that 1) travel mileage will increase over the existing roadways, and 2) construction of a collector street system as identified in the Unconstrained Plan to service the needs of residents will lag behind the travel mileage expected.

Congestion Management Plan

The congestion management planning program involves setting up a system to collect and analyze traffic data and formulating strategies to relieve congested areas. The goal is to make improvements to existing facilities as a cost-efficient measure to reduce congestion rather than expanding facilities.

CONGESTION RELIEF STRATEGIES

<u>PROJECT</u>	<u>ANTICIPATED COMPLETION DATE</u>
1. Review existing TSM plan to determine what projects are still valid for implementation; prepare prior listing of projects.	2007
2. Conduct a vehicle time study to determine what the travel times are and what the travel purpose is in order to establish a base-line travel time to be used to monitor congestion on an on-going basis.	2007
3. Prepare a priority list of TSM projects to be submitted to local jurisdictions for consideration of implementation.	2008
4. Conduct an evaluation of congested areas to determine what types of pavement markings, signage, and other minor improvements can be made to relieve congestion.	2008
5. Conduct an evaluation of congested areas to determine what type of minor physical improvements can be made to reduce congestion.	2008
6. Prepare a curb cut and driveway policy that could be adopted by local government.	2008
7. Conduct an evaluation of the congested intersections to determine what physical improvements and/or traffic signal improvements can be made to reduce congestion.	2009
8. Conduct an evaluation of the truck route regulations to determine if any changes need to be made to reduce congestion.	2009

These strategies will be evaluated and undertaken every four years throughout the planning time period. The local agency responsible for overseeing work conducted for the projects will be the MPO.

PUBLIC TRANSPORTATION MANAGEMENT SYSTEM

During the planning period, the MPO, with the assistance of the local public transit provider and other transportation providers, will monitor the transportation services provided to the public and the cost of providing these services. The objectives are to 1) increase the public transportation ridership, 2) encourage coordination between the various transportation providers, and 3) provide transit service through the most cost efficient method. An examination of the transit system will be conducted periodically to identify what changes can be made in the existing transit service that would improve the efficiency of the operation.

EMERGENCY ROUTE PLAN

Though the Transportation Planning Program, the MPO will work with the Jefferson County Office of Emergency Services in preparing evacuation route plans that are to be used if a disaster is declared at the Pine Bluff Arsenal.