Southside Study Area

Major Transportation Investment Analysis

PURPOSE AND NEED STATEMENT

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S.0 EXECUTIVE SUMMARY

This document presents the purpose and need for surface transportation improvements in the Southside Study Area. It is the first major step in a Major Transportation Investment Analysis (MTIA), the planning process used by local decision-makers to identify major transportation projects in the region.

The Southside Study Area lies in the south and southeast portion of the City of St. Louis and St. Louis County and covers approximately 85 square miles. It contains eight municipalities partially or wholly within the Study Area limits. Figure 2.1-1 displays the location and boundaries of the Southside Study Area.

In order to develop the purpose and need for transportation improvements in the Southside Study Area, demographic trends, land use characteristics, travel patterns, and transportation concerns within the Study Area and the region were examined. This was accomplished through the collection and review of available technical data and through community engagement activities. The community engagement process included individual interviews, small group meetings, open houses, focus groups, and community forums. Technical data on demographics, travel conditions, and the regional transportation system was obtained from various sources and is summarized in the Southside Existing and Future Conditions Report (May 1999).

Analysis of the technical data, combined with public input, led to the identification of the most salient transportation issues and concerns within the Southside Study Area. These issues represent the purpose and need for transportation improvements within the Study Area and provide a foundation for the development of transportation alternatives in order to resolve these issues. As part of purpose and need, specific study goals and objectives for the Southside MTIA have been identified. These study goals and objectives support the development of evaluation criteria that will be used to measure the performance of the proposed transportation alternatives.

Regional goals and objectives as well as the regional planning and evaluation factors described in Transportation Redefined (1995) and Transportation Redefined II (1999) will guide the evaluative process used to identify and select a locally preferred alternative (LPA) for the Southside Study Area.

The purpose and need for transportation improvements in the Southside Study Area and corresponding study goals and objectives are summarized as follows:

Access to Opportunity

Identified Problem: Roadway congestion levels and lack of direct and convenient transit service make it difficult for people to travel from home to work in the Southside Study Area.

Study Goal: Improve travel for the home to work commute for Southside residents and employees.

Study Objectives:

- Provide more direct transit connections linking Southside residents with employment sites in the Southside study area and throughout the region as a whole.
- Reduce travel times (both auto and transit).
- Improve intermodal connections.

Sustainable Development

Identified Problems: Population, employment, and economic activity are declining in some portions of the Southside Study Area, mostly within in the City of St. Louis. This trend conflicts with important local and regional goals such as: neighborhood preservation, economic vitality, and development of community resources.

Goal: Maintain and/or enhance Southside neighborhoods and communities.

Objectives:

- Invest in new transportation services and/or infrastructure that contribute to maintaining and/or enhancing quality of life in Southside neighborhoods.
- Integrate transportation infrastructure investments and land development or redevelopment in ways that are economically sustainable and consistent with community values and historic preservation.

Congestion Management

Identified Problems: Travel demand has outstripped roadway capacity in some portions of the Southside Study Area, leading to high levels of congestion on major arterials and roadways. In addition, few direct roadway connections exist to accommodate major travel movements within the Study Area, particularly in South County. The traffic problem is exacerbated by high numbers of single occupant vehicles.

Goal: Relieve congestion in areas projected to experience traffic growth.

Objectives:

- Improve traffic conditions on congested major arterials within the Southside Study Area.
- Increase use of alternative transportation modes.
- Enhance roadway connectivity or provide improvements to facilitate major travel movements in the study area.

Funding Constraints

Identified Problem: Transportation funding is limited in the St. Louis metropolitan region. Transportation projects, services, and programs must compete for scarce financial resources.

Goal: Pursue cost-effective, safe transportation solutions.

Objectives:

- Make best use of the existing transportation infrastructure.
- Increase the effectiveness of the existing and planned regional transportation system in relation to funding constraints
- Provide for safer roadways, including pedestrian and bicycle opportunities.

1.0 INTRODUCTION

This document presents the purpose and need for surface transportation improvements in the Southside Study Area of the St. Louis metropolitan area. It is an integral component of the Major Transportation Investment Analysis for this Study Area, which is a planning process designed to provide local decision-makers and the public with the information necessary to determine a preferred investment strategy for the Southside Study Area.

1.1 MAJOR TRANSPORTATION INVESTMENT ANALYSIS

A Major Transportation Investment Analysis (MTIA) follows a logical order of technical analysis and complementary public engagement activities to develop and assess major transportation investment alternatives in the Study Area. Figure 1.1-1 illustrates these steps and their interaction. Each step is briefly discussed in the following paragraphs.

The first step is to compile information about the Study Area and the metropolitan region to assess the existing and future socio-demographic, economic, and transportation system conditions. This assessment is intended to determine the underlying root causes of issues related to the transportation system in each Study Area. The Purpose and Need Statement summarizes this technical information along with public input and identifies key trends and issues. These issues lead to the determination of specific goals and related objectives that shape the development of transportation alternatives as well as help identify which transportation alternative is the “best” solution for the Study Area. Specific problems and issues in the Southside Study Area are described in Section 4.0 of this Purpose and Need document. Related study goals and objectives are discussed in Section 5.0.

MTIA goals and objectives for the Southside Study Area are used in the development of a range of multi-modal transportation infrastructure and service alternatives. These alternatives are structured to address

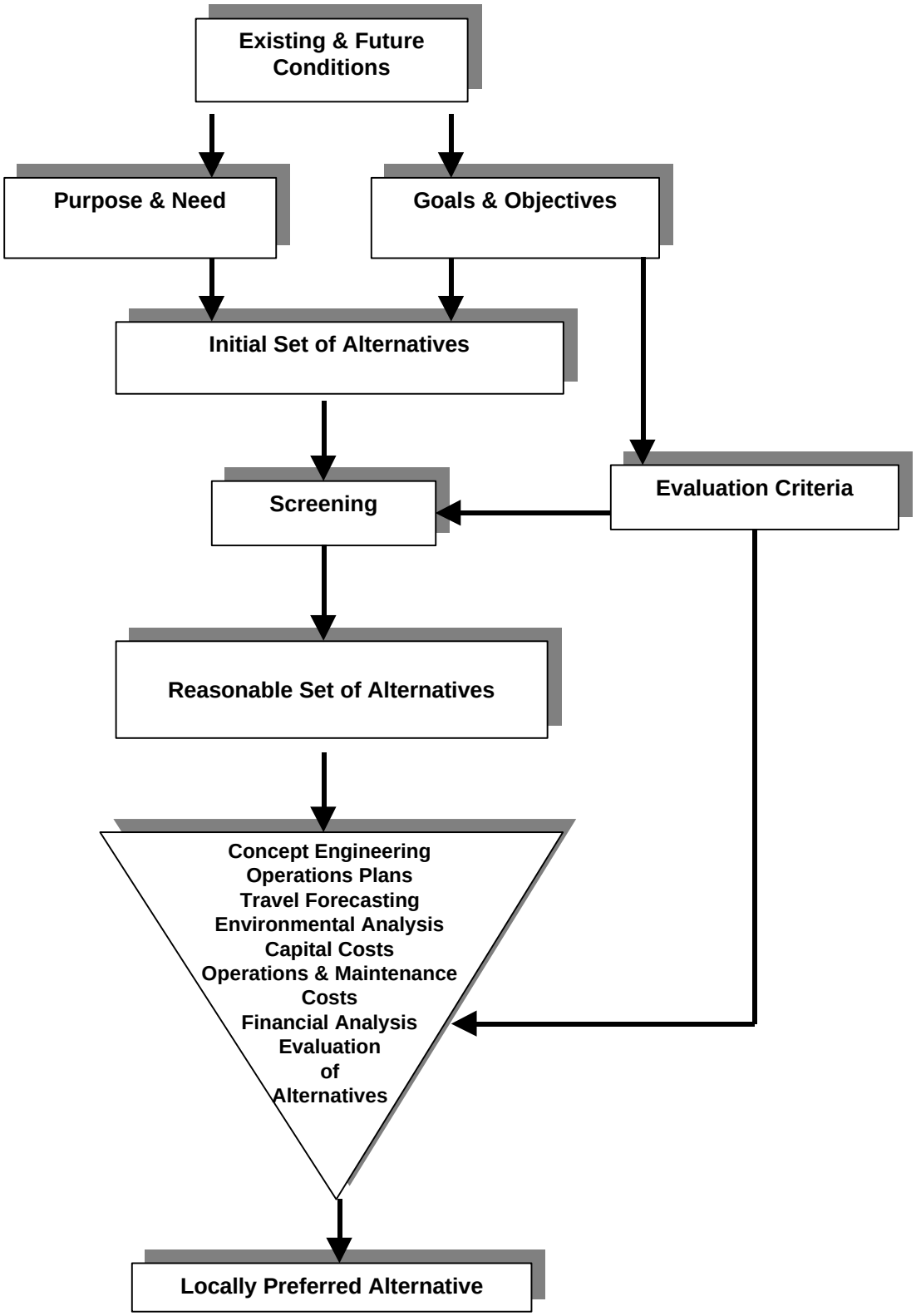
different aspects of the study goals and objectives. Included in these alternatives are the No Build and Transportation Systems Management (TSM) Alternatives as well as a number of Build Alternatives. The No Build Alternative describes the baseline transportation system and associated system performance for the planning horizon year, which has been established as the year 2020. It includes not only facilities and services in place today, but also those facilities and services thought reasonably to be in place by 2020 based upon on-going planning and project development activities as well as the projected availability of funds.

The TSM Alternative is a relatively low cost alternative that is designed to maximize the person trip capacity of both the roadway and transit systems in the Study Area. The TSM Alternative typically includes projects such as improved traffic signal systems, freeway ramp signals, and improved bus service.

Build Alternatives consist of major investments to the transportation system and include projects such as major roadway widenings, new roadways, MetroLink extensions, other rail systems/technologies, or new facilities reserved for exclusive use by buses.

Together, these alternatives form the initial set of alternatives. The initial set of alternatives may number up to twelve in the Study Area and will be subjected to a “screening” process, which will narrow down these alternatives to a reduced set. The reduced set of alternatives should be manageable in number – typically no more than six, including the No Build and TSM Alternatives – and should include only those alternatives which have a “reasonable” chance of becoming the locally preferred alternative. The No Build and TSM Alternatives are required to be included in the reduced set of alternatives by federal transportation planning regulations as comparisons to the higher cost major investment alternatives. This screening process will assess each of the initial set of alternatives against evaluation criteria derived from goals and objectives for the Study Area. The screening criteria will apply both numerical and qualitative measures to assess the performance of each alternative against the goals and objectives to be achieved

FIGURE 1.1-1
MTIA PROCESS



by major transportation investments in the Study Area. The reduced set of approximately six reasonable alternatives will be presented to the East-West Gateway Coordinating Council (EWGCC) Board of Directors for further detailed study. This action represents a major study milestone.

The reduced set of alternatives will then be analyzed with respect to a detailed set of evaluation criteria related to the goals and objectives of the Study Area. Conceptual engineering of the alternatives will be performed to provide estimates of capital costs and provide more specific information for an assessment of the environmental and community impacts and benefits of each alternative. Travel demand forecasts will be made to estimate the future usage of proposed transportation facilities and services included in each alternative. Annual operating and maintenance costs will also be estimated. A financial analysis will be performed to assess the fundability of each alternative and the regional financial resources available to undertake the implementation of each alternative.

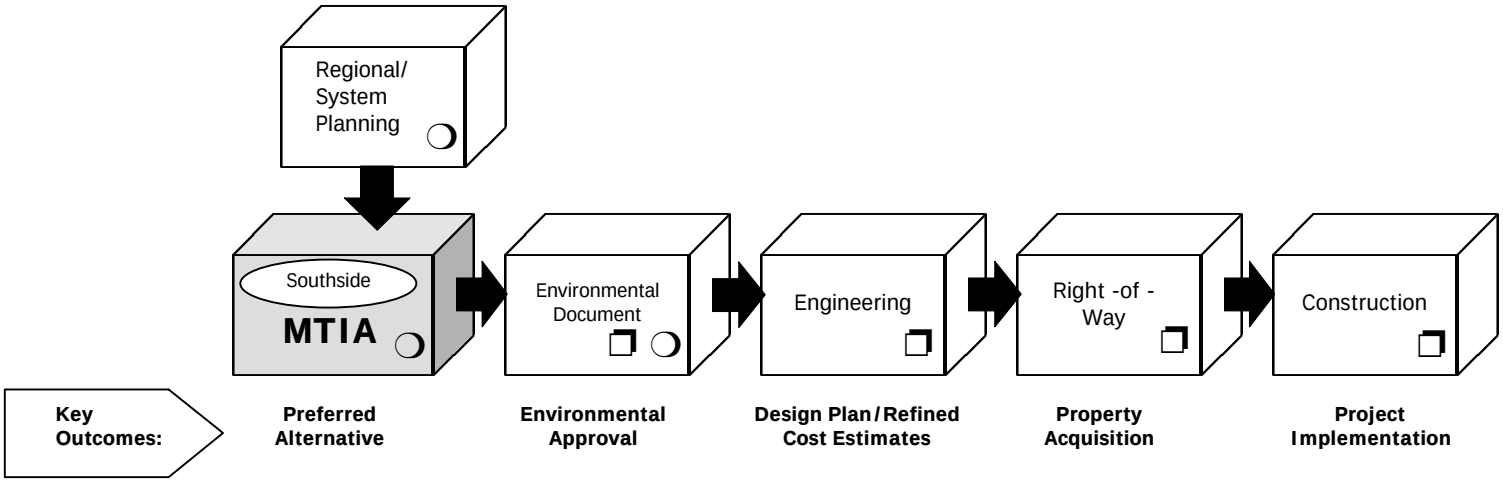
This information will be presented in an evaluation report so that decision-makers and the public can determine the relative benefits, costs, and impacts of each alternative and which alternative best meets the purpose and need for an investment strategy in the Southside Study Area. The last step of the MTIA process occurs when the EWGCC Board of Directors selects a locally preferred alternative (LPA) for the Study Area, which is then adopted into the long-range transportation plan for the St. Louis region.

1.2 PROJECT DEVELOPMENT PROCESS

The MTIA is the second step in a multi-step process for the development and construction of a federally funded major transportation investment project in an urban area. Figure 1.2-1 displays the steps in this process, which are briefly described below. EWGCC, along with its partner transportation agencies, Missouri Department of Transportation (MoDOT), Illinois Department of Transportation (IDOT), and the Bi-State Development Agency (Bi-State), have adopted a long range transportation systems plan, Transportation Redefined II (1999), which documents an on-going regional transportation planning process. This process identified the Southside Study Area, along with two others, as warranting an MTIA to determine an appropriate strategy for transportation improvements for adoption into a subsequent update of the long-range plan. Once this MTIA is completed, the EWGCC Board will adopt a preferred alternative for inclusion in the long-range plan. It will also adopt a financing strategy for the preferred alternative.

At the stage when the sponsoring agencies determine that the preferred alternative is ready to move forward from a financial perspective, the next step is to complete the required federal environmental documentation, including an Environmental Assessment (EA) or Environmental Impact Statement (EIS) for the preferred investment strategy. These documents present, in detail, the physical and operational characteristics of the proposed project(s) as well as their associated environmental and community impacts and benefits. In concert with these documents, additional preliminary engineering is performed to refine the designs and associated cost estimates developed conceptually in the MTIA. Once the sponsoring federal agency [either Federal Highway Administration (FHWA) or Federal Transit Administration (FTA)] has certified the environmental document, the project can move into final engineering design, acquisition of right-of-way as required by the project, and ultimately construction and implementation of operations. The entire project development process can take as much as eight to ten years to accomplish for a major transportation infrastructure investment depending upon the outcome of the MTIA as well as the availability of funds.

FIGURE 1.2-1
PROJECT DEVELOPMENT PROCESS



❒ Bi-State or MoDOT Lead Responsibility

❍ East West Gateway Lead Responsibility

1.3 ROLE OF PURPOSE AND NEED

This purpose and need discussion will establish the nature of surface transportation related problems and issues for the Southside Study Area as well as the goals and objectives to be attained by a major transportation investment. The discussion will lead to the development of transportation improvement alternatives to be considered and the means by which they will be evaluated to help decision-makers and the public identify a locally preferred alternative that best meets the purpose and need of the Southside Study Area.

1.4 MTIA DECISION-MAKING AND APPROVAL PROCESS

The decision-making body for this MTIA is the EWGCC Board of Directors. The composition of the Board of Directors reflects their commitment to an inclusive, bi-state decision-making structure. Of the Board's 21 voting members, seven are the chief elected officials from the local governments of the Illinois portion of the St. Louis region, seven are the chief elected officials from the local governments of the Missouri portion of the region, six are citizens representing both states, and one is the Chair of the Bi-State Development Agency. Representatives of a number of other state and federal agencies sit on the Board as non-voting members.

The Board will review this MTIA along with other studies, considering information and recommendations presented by senior staff from the cooperating transportation agencies, including EWGCC, MoDOT and Bi-State. These agencies have entered into cooperative agreements to jointly manage and direct the conduct of MTIAs through a Transportation Corridor Improvement Group (TCIG) staffed by all three agencies. The EWGCC Board will receive information on the MTIA and will approve study recommendations at key interim decision points. Upon completion of the MTIA, the selection of a locally preferred alternative to be adopted into the long range transportation plan for future implementation, along with possible timing of its implementation, will be made by the EWGCC Board in the context of the regional transportation system.

2.0 CORRIDOR STUDY AREA

2.1 STUDY AREA DESCRIPTION

2.1.1 Study Area Boundaries

The Southside Study Area lies in the south and southeast portion of the City of St. Louis and St. Louis County and is generally bounded by the Mississippi River on the east, Interstate 64 on the north, Gravois Road and Hampton Avenue on the west, and the Meramec River on the south. See Figure 2.1-1 for a map of the Southside Study Area.

The Southside Study Area covers approximately 85 square miles. Eight municipalities lie wholly, or in part, within the Study Area including a portion of unincorporated St. Louis County. Over thirty percent of the Study Area lies within the City of St. Louis.

2.1.2 Transportation System

This section provides a broad overview of the transportation facilities in the Southside Study Area. A more detailed description of roadway conditions, characteristics of the transit system, and other transportation facilities can be found in the Existing and Future Conditions Report (May 1999).

Roadways

Four interstates traverse the Southside Study Area. Interstate 64 (I-64/US Highway 40/61) runs east-west through the northernmost portion of the Study Area. Interstate 44 (I-44) runs east-west parallel to and south of I-64 in the northern portion of the Study Area. Interstate 55 (I-55) runs north-south through the midst of the Study Area. And Interstate 270/255 runs east-west through the southern portion of the Study Area.

In addition to the interstate highways, several arterials and other major roadways serve the Southside Study Area. Included in this list are state numbered and lettered routes (maintained by MoDOT) and arterial roadways (maintained by the St. Louis County Department of Highways and Traffic.) Local collector and feeder roads, most of which are maintained by their respective municipalities, comprise the remaining roadway network.

MoDOT maintains the following numbered and lettered routes within the Southside Study Area:

- Route 30 – Gravois Road
- Route 100 – Manchester Road
- Route 231 – Broadway/Telegraph Road
- Route 21 – Tesson Ferry Road
- Route 267 – Lemay Ferry Road
- Highway P – MacKenzie Road
- Route 61/67 – Lindbergh Boulevard/Lemay Ferry Road
- Route 366 – Chippewa Street

FIGURE 2.1-1
STUDY AREA MAP

These roadways vary in the number of lanes they provide and the type of access control. Roadways such as Lindbergh Boulevard, Manchester Road, and Gravois Road all provide up to four travel lanes with varying levels of access control. Lindbergh Boulevard is divided with a median for portions of its length. Also, in most cases, these facilities provide a median turn lane.

Several major roadway improvements are either currently underway or are anticipated to be in place by the Year 2020, the planning horizon year for the Southside Major Transportation Investment Analysis. These projects will likely influence travel in the Southside Study Area in the future years. Some of the more significant projects include: widening Telegraph Road to 5 lanes from Christopher Drive to the Meramec River; widening Forder Road to 3 lanes from Telegraph Road to Ringer Road; widening and realignment of Meramec Bottom Road near Lemay Ferry Road; and construction of Grattan Street Parkway and a new Mississippi River Bridge in downtown St. Louis. In addition to these significant improvements, numerous minor roadway improvements and enhancements are proposed for the Southside Study Area and will be included in the future year baseline analysis.

Transit

Intraregional Bus Services

St. Louis's regional transit system is generally oriented on a radial network connected by a series of ring or cross-town routes. This framework largely serves a transit pattern that links suburban communities and the outlying residential areas in the City with major concentrations of employment in downtown St. Louis. Cross town and cross county routes provide some connections between non-downtown points. Approximately 21 local routes provide regular service to the Southside Study Area. The local routes that serve the Southside Study Area tie into Bi-State's regional transit network. Fixed route service in the Southside is more concentrated in the northern portions of the Study area, mostly due to higher population and employment densities. In addition, the Southside's older, more established neighborhoods are generally located in the northern portion – in the City of St. Louis. These residential areas within the Southside Study Area have a stronger tradition of transit use and the bus network is well developed and exhibits a conventional grid pattern throughout these areas. In the southern half of the Study Area, local service is more dispersed and oriented towards serving clusters of development along major travel corridors such as Gravois Road, Tesson Ferry Road, Lemay Ferry Road, Telegraph Road, and Lindbergh Boulevard.

Within the Southside Study Area, thirteen bus routes provide express or limited stop service. Express routes operate in the peak direction in that they travel in the northbound direction in the a.m. peak and the southbound direction in the p.m. peak in order to connect residential areas with employment sites in downtown St. Louis and other major employers within the Southside Study Area. These express routes primarily serve commuter trips to downtown St. Louis and provide limited-stop service in the peak periods along major arterials throughout the Study Area. Several of these routes (Oakville, Lemay Ferry, Tesson Ferry, and Mehville) use I-55 to complete their trip to the downtown area.

Demand Response Services

Bi-State operates two demand response programs in the St. Louis region, Call-A-Ride and Call-A-Ride Plus. Demand response programs are where riders call in to make an appointment for curb-to-curb van service. These programs are an important element of Bi-State's transportation system since they have the capability of providing transit service in portions of the Study Area that are not served by fixed route service. Call-A-Ride is open to the general public in St. Louis County, whereas Call-A-Ride Plus is provided only to the disabled community in both the County and City of St. Louis.

MetroLink Light Rail Transit (LRT)

The existing MetroLink light rail system between Lambert International Airport and East St. Louis, Illinois, skirts the Southside Study Area to the north as it approaches downtown St. Louis from the west. Two MetroLink stations, Central West End and Grand, fall directly within the Study Area.

EWGCC, in cooperation with Bi-State and MoDOT, has identified extensions of MetroLink that would provide direct rail service in the Southside Study Area based an MTIA that was completed for Cross County. Design studies for Segment I, from the Forest Park MetroLink Station through Clayton to Shrewsbury, are nearly complete. As of this writing, a precise alignment for the southern Cross County MetroLink extension from Shrewsbury to Butler Hill Road has yet to be determined.

Transit Facilities

Bi-State is currently examining options to transition from the more traditional radial configuration of fixed route bus services to a transit center-based system. This is driven, in part, by the need to better serve changes in region travel patterns resulting from shifts in population and employment given constrained financial resources. In February 1998, Bi-State completed the Transit Center Hub Restructuring Study which identified seventeen potential transit centers in urban/suburban St. Louis. Five of the proposed transit centers would serve the Southside Study Area:

- Central West End MetroLink Station
- Grand MetroLink Station
- Grand/Chippewa
- Hampton Loop
- South County

Bicycle/Pedestrian Facilities

One major local bicycle/pedestrian facility exists in the Southside Study Area, which was developed by Gateway Trailnet. Grant's Trail follows the Oak Hill Branch of the old Missouri Pacific rail right-of-way, generally parallel to I-55 between Bayless Road and Green Park Road.

The St. Louis Regional Bicycle Facilities Plan (1994) identifies a proposed route within the Southside Study Area. This route generally follows Lemay Ferry Road from the Meramec River north to Reavis Barracks Road, west along Reavis Barracks Road, turning back north on Telegraph Rd. where it continues north along Broadway Ave. into downtown St. Louis. This proposed bicycle corridor also provides a feeder segment to Grant's Farm area. In addition, local municipalities have either implemented or are planning individual bicycle and pedestrian paths and walkways in spot locations within the Study Area.

Freight/Intermodal

The highways located within the Southside Study Area used for goods movement are I-64 (Highway 40/61), I-44, I-55, and I-270. These facilities predominantly serve east-west truck movements and mix with commuter traffic. The Southside area contains rail freight facilities such as Gration Yard and Lesperance Yard owned by Union Pacific in addition to numerous piers, wharves, and docks along the Mississippi River. There are no airports located within the Study Area.

2.2 DEMOGRAPHIC TRENDS

This section summarizes past, current, and future projections of demographic information of the Southside Study Area. For additional information, see the Existing and Future Conditions Report (May 1999).

2.2.1 Population and Demographics

Recent Year 2020 projections made by EWGCC indicate a decline in total population of about 5,500 persons, a 1.8 percent decrease from 1996. This projection shows a substantial decline in population in the City of St. Louis portion of the Study Area of 10,700 countered by an increase in population in the County portion of about 5,200.

The City of St. Louis portion of the Study Area has the higher population densities, generally greater than 5,000 persons per square mile, while the County's portion of the Study Area has population densities closer to 3,000 persons per square mile. Higher population densities tend to encourage transit use, as a more concentrated population is easier to serve with transit as more people live within walking distance of transit stops. Conversely, lower population densities tend to encourage automobile use and discourage transit use, as households that are dispersed are more difficult to serve effectively with fixed route transit services.

Consistent with the population trends, the number of households has decreased in the City portion of the Study Area, but the number of households has increased in the County portion. Projections for the Year 2020 show a small increase of 1,500 households in the overall Study Area. Comparing this figure with the projected decrease in total population indicates that the average household size in the Study Area is dropping. Occupancy rates in the Southside are slightly lower in the City portion (86.7 percent) of the

Study Area compared to the County portion (95.6 percent), but are generally favorable relative to other areas in the region.

2.2.2 Age and Mobility

Approximately 37 percent of the population in 1990 were either under the age of 16 or over the age of 65, which indicates a need to provide transportation options for these potentially mobility deficient age groups. The two age groupings might not have access to automobiles, either because they are too young to hold a driver's license or, having reached a more elderly age, they no longer drive.

2.2.3 Income and Auto Availability

According to the 1990 census, income levels in the City portion of the Study Area are significantly below those in the County portion of the Study Area, with over 47 percent of households in the City portion earning less than $20,000 per year in 1990 compared with 21 percent in the County portion. In the Southside, the median annual household income for City residents is $17,000 below that of County residents. This indicates that residents of the City portion of the Study Area likely have fewer transportation options than the County portion as lower incomes correlate with lower vehicle ownership and operation.

The Southside Study Area has somewhat higher auto ownership compared to the City or County overall. However, the City portion of the Southside Study Area has significantly lower auto ownership than the County portion, with almost 25 percent of the City residents without autos compared to only 5 percent in the County portion. This means that mobility available to households is restricted and that the City portion of the Study Area has a higher transit dependency than the County portion due to a greater lack of access to automobiles. Conversely, the County portion of the Study Area is more auto dependent and alternative transportation modes will need to be competitive with auto travel times to attract users.

2.2.4 Employment

Year 2020 employment is a projection by EWGCC based upon information provided by state and local agencies. Employment in the study area has been decreasing during the past decade and is projected to continue to decrease through the study planning horizon year of 2020. Total Study Area employment is forecast to decrease by approximately 6,500 jobs between 1996 and 2020, a 4.4 percent decrease over the 24-year projection. However, this projected decrease is comprised of an almost 11,000 job loss in the City portion of the Study Area compared to a 4,200 job increase in the County portion of the Study Area. The Study Area's proportion of total City employment is projected to remain at about seven percent.

The highest employment densities are generally found in the northern portion of the Study Area, within the City of St. Louis. Concentrations of employment within the City portion include the City of St. Louis Central Business District (CBD), the BJC Medical Center Complex, Cardinal Glennon Hospital Complex, Ralston Purina, Anheuser Busch, and the Kosciusko Industrial Area. The highest employment densities in the central/southern portion of the Study Area include the South County Shopping Center and surrounding commercial areas clustered around the interchanges of I-55, Lindbergh Boulevard, and I-255. The employment projections anticipate relative stability of these higher density employment areas, with some decreases in employment density in the northwest portion of the Study Area.

2.3 ACTIVITY CENTERS

Activity centers encompass concentrations of recreational/cultural facilities and parks, employment centers, retail shopping centers, and educational institutions that tend to attract large numbers of trips. Within the Southside Study Area, significant recreational facilities include the Gateway Arch, Busch Stadium, Kiel Center, and Union Station, among others. Major cultural centers in the Study Area are the Missouri Botanical Gardens, Jefferson Barracks, and Grant's Farm. Regional shopping centers, which attract both visitors and employees, include St. Louis Center and Union Station in downtown St. Louis and South County Shopping Center near the juncture of I-55 and I-270. Educational institutions with high levels of enrollment are concentrated in or adjacent to the northern limits of the Study Area and include: St. Louis University, St. Louis Community College at Forest Park, and Harris Stowe State College. A

more detailed description of these and other activity centers located in the Southside Study Area can be found in the Existing and Future Conditions Report (May 1999).

2.4 TRAVEL PATTERNS

2.4.1 Total Trips

The total daily person trips produced in the Southside Study Area are forecast to increase by about 14,000 trips between 1996 and 2020. This represents a slight increase of about 1.6 percent and is consistent with the projected changes in population, households, and employment in the Study Area. Similarly, daily trips attracted to the Study Area are forecast to increase by about 1,000 trips, a 0.1 percent increase.

In 2020, the majority of person trips is estimated to both start and end within the Study Area, with 48.0 percent of the trips *produced* estimated to remain in the Study Area and 56.0 of the trips *attracted* to the Study Area estimated to come from locations within the Study Area. The second largest location of trip origins to destinations in the Southside Study Area is the rest of St. Louis County. St. Louis County, outside the Southside Study Area, is also the largest attractor of Southside trips. In 2020, about 8.7 percent of the total person trips produced in the Study Area are attracted to the St. Louis CBD, which is the third highest destination point for Southside trips.

2.4.2 Commute Trips

Work trips are estimates of the daily trips that are made directly between a person's residence and place of work, and are most likely to occur during peak commuting times (i.e., "rush hour). In the Southside Study Area, work trips represent about 27 percent of the total daily person trips that are projected to take place in the Year 2020. A majority of the work trips produced in the Study Area are attracted to work locations within the Study Area. The second largest attractor of Southside work trips is the rest of St. Louis County. About 13.8 percent of Southside's work trips are attracted to the St. Louis CBD, the third largest destination for work trips produced in the Study Area.

2.4.3 Trip Length

While estimates of average trip length by Study Area are not available, regional estimates show that daily average trip lengths are forecast to increase from 8.9 miles per trip in 1996 to 9.8 miles per trip in Year 2020. This reflects a continuation of the trend of dispersal of households and employment throughout the region, particularly in the outlying areas, requiring longer distances to be traveled to reach a variety of destinations.

2.4.4 Transit Share

Year 2020 projections of the transit share of total daily person trips assume the completion of the St. Clair County MetroLink extension and all three segments of the Cross County Corridor MetroLink line. Associated improvements to Bi-State bus routes to provide feeder service to the new MetroLink stations are also assumed to be in place. The transit share of work trips produced by households in St. Louis County is estimated to increase from 1.9 percent in 1996 to 2.3 percent of work trips in 2020. The transit share of work trips produced by households in St. Louis City in 1996 is estimated to be 10.1 percent, slightly decreasing to 9.7 percent in 2020. Due to the lower levels of car ownership in the City and corresponding higher levels of transit, the transit share in the City is significantly higher than the transit share in St. Louis County.

Similarly, the transit share of work trips attracted to jobs located in St. Louis County in 1996 is estimated to be 0.9 percent, increasing to 1.3 percent of trips in 2020. The increase in transit share from St. Louis County is most likely due to the proposed implementation of MetroLink service in the Cross County Corridor. The transit share of work trips attracted to St. Louis City is estimated to be 5.7 percent in 1996, increasing slightly to 6.2 percent in 2020. Within the metropolitan area, the St. Louis CBD attracts the largest share of transit riders. In 2020, the transit share of work trips from the County of St. Louis to the CBD is projected to be 12.7 percent and from the City of St. Louis to the CBD the estimated transit share is 22.0 percent of total work trips.

3.0 PLANNING CONTEXT

3.1 PLANNING HISTORY / BACKGROUND STUDIES

The Southside Study Area was originally conceptualized and illustrated in the St. Louis Systems Analysis for Major Transit Capital Investments (1989, revised 1991). In this study, nine transportation corridors reflecting primary commuting patterns in the region were analyzed. One purpose of the systems analysis was to establish a priority ranking of the nine corridors and identify those corridors that should be advanced into the next phase of project development. Where federal funds are involved, this next step is a major transportation investment analysis (MTIA).

Systems analysis examined the performance of modal alternatives within each of the nine corridors according to criteria such as ridership, costs, congestion levels and ease of implementation. Based on the study results, these corridors were then grouped into four tiers for possible system expansion of MetroLink light rail service. Tier 1, or the first phase of expansion, included the St. Clair, St. Charles, and Cross County Corridors. The Southside Study Area was selected for Tier 2, along with two other corridors within the St. Louis metropolitan area - West County (now the Daniel Boone) Study Area and the Northside Study Area. Tier 2 represented the second phase of system expansion. Findings from the systems analysis served as input into the region's long range planning process.

Transportation Redefined (1995), a document prepared as part of the region's long range planning process, affirmed the need for major transportation improvements in the Southside Study Area. In this document, the Southside Study Area was identified for priority implementation of transportation improvements in the mid-term because of concerns with mobility and congestion in this corridor.

To date, the region has made significant progress towards implementing key elements of the long range transportation plan in tandem with other goals such as preservation of the existing infrastructure through an extensive list of maintenance and rehabilitation projects. The Tier 1 transportation corridors, previously identified in systems analysis, are all at various stages in project development. The St. Clair MetroLink extension is presently under construction. In St. Charles, initial feasibility studies were completed. However, expansion of MetroLink within the St. Charles Corridor was recently tabled due to a lack of a local funding source and local commitment for transit improvements. An MTIA was completed for the Cross County Corridor in 1997, which identified MetroLink light rail service among other strategic transportation improvements. Segment I of Cross County, from Forest Park to Clayton then south to Shrewsbury, is in preliminary design. Both Segment 2 of Cross County, from Shrewsbury south to Butler Hill Road, and Segment 3 of Cross County, from Clayton north as far as I-270, are awaiting completion of design studies for the first segment as well as funding resources in order to advance further into project development.

MTIAs for the Tier 2 corridors, the Southside, Daniel Boone and Northside Study Areas, were initiated in September 1998. These MTIAs will build on previous planning work accomplished in the region to date. Technical analysis conducted for the Southside MTIA is being carried out in conjunction with the Daniel Boone and Northside Study Areas. Consequently, potential transportation solutions for the Southside Study Area will not only need to complement the existing and planned transportation system, but will also need to consider and respond to study findings in the other two study areas.

3.2 REGIONAL GOALS AND OBJECTIVES

Transportation Redefined (1995) and Transportation Redefined II (1999) serve as the region's planning guideline for transportation improvements. The region's long range planning process is comprised of six major elements:

- Regional Transportation Plan
- Transportation Project Planning
- Regional Project Selection
- Project Implementation
- Project Monitoring and Evaluation
- Community Engagement

Development of a Regional Transportation Plan, the first element, is a requirement of the federal planning process for metropolitan areas. The regional plan includes both fiscally constrained and illustrative transportation projects. Illustrative projects are priority projects of regional significance that do not yet have a funding source identified. The Southside MTIA is considered an illustrative project. Typically, the planning horizon for the Regional Transportation Plan is 20 years, which is similar to the planning timeframe for a major transportation investment analysis. The regional plan is generally updated every three years to respond to shifts in regional priorities, new information, changes in project status, and funding availability.

Transportation Redefined and Transportation Redefined II describe the region's goals and objectives and their role in the transportation planning process for the region. Regional goals and objectives are organized into seven major categories or focus areas. These focus areas help ensure that regional priorities are considered and addressed at the project planning level.

The focus areas relate to various aspects of the transportation planning process including access and mobility, planning and financing, and physical design. The seven focus areas described in Transportation Redefined are summarized as follows:

- Preservation of the Existing Infrastructure - Managing and maintaining current road, bridge, transit, and intermodal assets.
- Safety and Security in Travel - Decreasing the risk of personal injury and property damage on, in, and around transportation facilities.
- Congestion Management - Ensuring that congestion on the region's roadways does not reach levels which compromise economic competitiveness.
- Access to Opportunity - Addressing the complex mobility needs of persons living in low-income communities and persons with mobility needs.
- Sustainable Development - Coordinating land use, transportation, economic development, environmental quality, and community aesthetics.
- Efficient Movement of Goods - Improving the movement of freight within and through the region by rail, water, air, and surface transportation modes.
- Resource Conservation - Ensure that the operation of the region's transportation system supports air, water, land, and energy conservation objectives.

In the Southside MTIA, potential transportation solutions will be developed and examined in light of their respective abilities to address these regional goals in addition to specific concerns and needs within the Study Area. As such, the seven focus areas are an important element in the decision-making framework of the MTIA.

3.3 LOCAL PLANS AND POLICIES

The Southside Study Area encompasses eight localities, either wholly or in part. The eight local jurisdictions are:

- St. Louis County
- City of St. Louis
- City of Bella Villa
- City of Green Park
- City of Lakeshire
- City of St. George
- City of Sunset Hills
- Village of Wilbur Park

In addition, the Southside Study Area contains several neighborhoods and communities. The City of St. Louis has over forty neighborhoods in the Southside Study Area. Within the St. Louis County portion of the Study Area, several communities such as Lemay, Mehlville, and Oakville exist but are not incorporated. While these communities have their own character and identity, they rely on the County of St. Louis to provide both planning and transportation services.

Local priorities with regard to transportation and related issues such as economic vitality, neighborhood preservation, quality of life, and land use, are an important consideration within the MTIA study process. As part of the community engagement activities conducted for the Southside MTIA, interviews have been held with representatives of many of the municipalities in the Study Area to develop an understanding of local needs and concerns. Discussion at these interviews included future land use and/or anticipated changes in transportation. Information obtained from these interviews has been summarized in the Major Transportation Investment Analysis for Northside, Southside, and Daniel Boone Study Areas Community Engagement Working Preliminary Baseline Paper (1999).

Local plans and resolutions are particularly useful in the MTIA study analysis since these documents directly represent the commitments and policy direction of the local jurisdictions within the Southside. A review of the planning documents for the incorporated communities and the unincorporated portions of St. Louis County indicate a wide variation in plans. Some communities have no plan because they are small in both size and population. Yet others have a homogeneous land use, mostly single-family residential, which understandably affects the breadth and scope of their local plans. In these cases, where such plans exist, they provide development guidelines.

The new City of Green Park is the only one of the five municipalities within the County portion of the Study Area that has a Comprehensive Plan. The city is highly supportive of transit options that would link Green Park with other communities in St. Louis County. A District Councilman for the County of St. Louis has requested a study for the 6th District, which covers the County portion of the Southside Study Area. It is anticipated that this study will provide some policy direction for planning in this area of the County. At this writing, no timetable has been set for the completion of this study. Planning activities are somewhat fragmented within the City of St. Louis, with several organizations and agencies sharing responsibilities within this portion of the Southside Study Area. It is anticipated that area-specific planning efforts within the City will have a bearing on the analysis performed for the Southside MTIA. These specific plans include Downtown Now, a comprehensive plan for redevelopment efforts in the Central Business District of St. Louis, the Darst-Webbe/City Hospital Redevelopment project, and the Lafayette Square and Soulard Housing Rehabilitation projects, among others.

For coordination among the municipalities on technical issues and concerns arising from the Southside MTIA, a Technical Advisory Committee (TAC) was formed for the study with applicable representatives of local governing agencies. These representatives provide information and technical assistance on items such as planned transportation projects, local planning activities, need for transportation improvements, and operational issues or constraints. This group will also provide technical input at key milestones in study, including purpose and need, development of transportation alternatives, evaluation of alternatives, and selection of a locally preferred alternative.

In addition to the TAC, an active community engagement process has been established to encourage involvement with public and private interests as well as local municipalities. To date, focus group meetings, public opinion polls, community workshops and public open houses have been implemented to gather public input and to foster public discussion of study analysis and recommendations.

3.4 RELATED PROJECTS AND STUDIES

In addition to the Northside and Daniel Boone MTIAs, several other major transportation studies/projects have been completed or are currently in progress within the region. Each of these projects has the potential to influence future transportation conditions within the Southside Study Area to varying degrees. A brief overview of these projects, including how they relate to MTIA planning activities, is provided as follows:

Transit Center Hub Restructuring Study – This study was finalized in February 1998 and provides recommendations for the restructuring of bus service throughout the Missouri portion of the St. Louis metropolitan region. The primary outcome of the study was the reorientation of the radial fixed route network towards a transit center-based bus system. Transit centers would be connected by a network of direct and frequent principal routes. Feeder routes converge on the transit centers, where timed-

transfers occur. This enables Bi-State to provide a higher frequency of service and yet still provide adequate route coverage for the entire service area. This type of system also better serves changing trip patterns in the St. Louis metropolitan area, where multi-centered and dispersed population and employment concentrations are becoming more typical. Bi-State has already initiated efforts to implement the transit center recommendations, which affects the future structure of transit service in the Southside Study Area. Proposed transit solutions in the Southside Study Area will need to complement or build upon these future plans.

Downtown Multimodal Center – The City of St. Louis will soon begin construction of a Multimodal Center that will connect airport users with downtown transportation modes: Amtrak, Greyhound, and MetroLink. The station will be able to accommodate a future high-speed rail line and will be located at 14th and Spruce Streets. This central transportation center is located just north of the Mill Creek Valley at the existing Amtrak station south of Kiel Center. The project will consist of a terminal building; railroad and bus staging areas; pedestrian connections to the Kiel MetroLink Station, Kiel Triangle Park, and related street improvements. Terminal construction is scheduled to commence in Spring 2000, although related track work will occur sooner. This downtown multimodal center provides a logical and strategically located connection point for light rail and other transit alternatives considered in the Southside MTIA.

South County Transit Center – The Transit Center Hub Restructuring Study tentatively identified a transit center for the South County Shopping Center. The study envisioned that the South County Transit Center would play a major role in facilitating travel between south St. Louis County and the City of St. Louis as well as other areas in the region such as Clayton and west St. Louis County. In addition, this location would provide a connection point between conventional local bus service and more innovative transit strategies such as collector-distributor shuttle services and flexible route services. The South County transfer facility would also figure significantly in the development of flexible bus routes and point deviation routing. The planned transit facility, combined with the relatively high concentration of employment and shopping trip destination points, presents an important transportation opportunity in the southern portion of the Study Area for the Southside MTIA.

Cross County MTIA – In 1997, EWGCC in cooperation with MoDOT and Bi-State, completed a major transportation investment analysis of the Cross County Corridor. Through this study, a locally preferred alternative was selected that extends MetroLink light rail service from the existing Forest Park station, west, generally along Forest Park Parkway, to Clayton. From Clayton, one leg of the proposed alignment travels north and another leg south. The southern leg of the Cross County light rail extension runs from Clayton south along railroad rights-of-way to Shrewsbury and then to South County Center where it enters the I-55 right of way and continues south as far as Butler Hill Road. Although the southern segment of Cross County from Shrewsbury to Butler Hill Road is still in the planning stages of project development, it is assumed that this light rail line will be in place by the Year 2020 in the Southside Study Area. As such, connections to this planned light rail alignment will be examined in the Southside MTIA.

Downtown Now – As of this writing, a coalition of groups including the City of St. Louis, St. Louis Development Corporation, Downtown Saint Louis Partnership, Regional Commerce and Growth Association, and Saint Louis 2004, is finalizing plans for the redevelopment of the downtown area in the City of St. Louis. The project, entitled “Downtown Now!,” provides a blueprint for redevelopment activities for downtown St. Louis and makes recommendations regarding land use, transportation facilities, parking, design and architectural features, financing, and phasing. In addition to specific infrastructure improvements, supporting policies and programs are also identified and described. Although a good portion of this redevelopment area is outside the Southside Study Area, transportation alternatives considered in the Southside MTIA will need to tie into the regional transportation system either in or near the downtown area. In addition, the St. Louis Central Business District has the highest concentration of destination points for Southside trips, which means that in order to effectively address transportation needs in the Southside Study Area, downtown St. Louis should be served. Consequently, major transportation improvements proposed in the Southside MTIA will need to be integrated with planned land use and transportation changes in the downtown area.

New Mississippi River Bridge – A new bridge crossing for vehicular traffic over the Mississippi River, connecting Illinois with downtown St. Louis just north of the Convention Center is in the early design

phases of project development. It is envisioned that this project, when implemented, will significantly affect circulation and travel movements within the downtown area. In addition, the physical features associated with new bridge and related ramp structures could present a potential barrier for north-south transportation infrastructure improvements in the vicinity of 14th St. and Tucker Blvd. within downtown St. Louis. These potential physical and operational constraints associated with the New Mississippi River Bridge will need to be factored into the MTIA study analysis.

Regional Bicycle Studies – Gateway Trailnet, MoDOT, and St. Louis County Parks and Recreation have undertaken various studies of bicycle and pedestrian facilities within the St. Louis region. In general, the purpose of these studies is to note existing routes and facilities, analyze trends, and identify specific routes for future development. For example, in the Regional Bicycle Facilities Plan (1994), Gateway Trailnet identifies one existing and one proposed bicycle route in the Southside Study Area. In the Southside MTIA, transportation alternatives (roadway, transit, and transportation systems management strategies) will need to recognize both planned and existing bicycle routes.

4.0 PROBLEMS AND OPPORTUNITIES

Technical information presented in the Southside Existing and Future Conditions Report (1999) and input from stakeholders and members of the public as documented in the Major Transportation Analysis for Northside, Southside, and Daniel Boone Study Areas Community Engagement Preliminary Baseline Paper, "Focus Group Notes" (February 1999), and "Community Forum Notes" (April 1999) identified a number of transportation concerns in the Southside Study Area. Through analysis of this material, key issues and trends related to transportation problems and opportunities in the Southside Study Area have emerged. These key issues are highlighted and discussed in the following sections.

4.1 ACCESS TO OPPORTUNITY

A major concern identified early the community engagement process in the Southside Study Area is that residents are in need of better, more direct access to their place of work. This public perception was bolstered by the technical analysis on existing and projected travel conditions within the Study Area. The home to work commute is one of the principal travel movements in the Study Area. Several access issues and contributing factors leading to the home to work mobility problem were cited by members of the public. Many of these factors are interrelated.

Most of home to work commute trips take place in the morning and evening rush hours, which is when the greatest stress is placed on the regional transportation system. Within the Southside Study Area, it is estimated that 27 percent of the trips that take place during a typical work day occur during the five hours of the day which comprise the peak period – two hours in the a.m. and three hours in the p.m. In the peak hours, many segments of the roadway system experience congestion. Congestion is particularly high in some locations within the Southside Area mostly due to a combination of high travel demand and limited roadway capacity. Specific locations and causes of recurring congestion in the Southside Area are further described in Section 4.3. During the peak hours, high levels of congestion impede the home to work travel movement within the Study Area for both automobiles and transit vehicles alike.

A significant fraction of the residents in the Southside Study Area do not have access to an automobile. According to the 1990 U.S. Census, over 16 percent of the households located in the Southside Study Area do not have automobiles. This is more of an issue within the City of St. Louis, where residents in over 24 percent of the Southside households do not have access to a car.

These residents tend to be more transit dependent and must rely on the bus to travel to work. Southside residents who are transit dependent are more likely to experience mobility problems compared to auto users because transit service is limited throughout much of the Study Area, particularly in south St. Louis County. In some areas, route coverage in insufficient in that many Southside residents do not live or work within walking distance of a bus stop. In other cases, transfers are frequently required and/or buses do not run often enough. For those employees who work either an early morning or late evening shift, bus service may not even be available. In addition, bus riders traveling to work during the peak hour experience the same congestion levels on the highways and roadways as do auto users. All of these factors lead to lengthy and inconvenient travel times for the transit user. In addition, Southside residents cited problems with inadequate or unsafe pedestrian access and lack of intermodal facilities, which discourage or inhibit transit use in the Study Area.

Identified Problem: *Roadway congestion levels and the lack of direct and convenient transit service make it difficult for people to travel from home to work in the Southside Study Area.*

4.2 SUSTAINABLE DEVELOPMENT

Yet another concern voiced by Southside residents and community representatives was the need for sustainable development within the Southside Study Area, particularly within the City of St. Louis.

Community members described a number of urban problems including: deterioration of housing stock, exodus of City residents to the outer suburbs, loss of stable businesses, and urban sprawl.

Analysis of Year 2020 projections for the Southside Study Area indicate a decline in total population of about 5,500 persons, a 1.8 percent decrease from 1996. The portion of the Study Area that lies within the City of St. Louis will be the hardest hit. Demographic projections show a loss of 10,700 residents, which translates to a decrease of 6.6 percent of the Southside's City population.

The 2020 projection is based upon the presumption that there will continue to be an out-migration of population from the City of St. Louis and inner suburbs of St. Louis County to the outer suburbs of St. Louis County and other counties in the region. The 2020 projection also reflects the declining household sizes in the region. This represents the continuation of a long-term trend. Over a forty-year period between 1980 and 2020, the City of St. Louis is projected to lose about 34,000 of its Southside residents, an 18.5 percent drop. In contrast, the County of St. Louis is gaining in population. During this same time period, the County of St. Louis will gain 16,000 residents in this portion of the Study Area, an increase of about 12.5 percent.

Economically, City residents are less well-off compared to County residents in the Southside. According to the 1990 U.S. Census, the median annual household income for the City portion of the Study Area was $17,000 below the County portion. The most significant difference is among those City and County residents at the lowest end of the socio-economic scale. Over 47 percent of the households in the City portion earned less than $20,000 per year in 1990 compared with 21 percent in the County portion of the Southside Study Area. In addition, housing vacancy rates are higher in the City compared to the County. In the Southside Study Area, about 13.4 percent of the City housing was classified as vacant by the 1990 Census, whereas only 4.4 percent of the housing in the County portion was vacant.

Total employment in the Southside is dropping as well. Between 1990 and 2020, the Southside is expected to lose about 9.1 percent of its employees. These job losses are occurring primarily in the City portion of the Study Area. Within the Study Area, the City of St. Louis will lose about 18,000 or 15 percent of its employees during the 1990 to 2020 time period. On the other hand, employment is growing in the St. Louis County portion of the Southside Study Area.

The communities and the localities in the Study Area are making efforts to counteract these downward trends through strategic development and reinvestment, particularly within or near downtown St. Louis. These include redevelopment plans as well as neighborhood preservation projects. For instance, the City of St. Louis Downtown Development Action Plan proposes a billion dollar investment in the downtown area over a six-year period. A recent survey of business owners and operators with the St. Louis Central Business District indicates that the region's center of business and finance is beginning to turn around. The 1998 survey was conducted by the Downtown St. Louis Partnership and provided an opportunity for comparing similar data collected in 1996. According to the 1996 survey, downtown St. Louis had 1,538 businesses and government entities, which employed 88,087 people. By 1998, the area had 1,658 businesses and government entities (a net gain of 120 businesses, or 7.2 percent) and 91,338 employees (a net gain of 3,251 employees, or 3.6 percent.)

As evidenced by the MTIA community engagement findings, Southside residents, community representatives, and private entities such as the Missouri Botanical Gardens are critically aware that transportation improvements and investment are an important element of local revitalization efforts. Sound, well-planned transportation improves quality of life and helps attract residents, businesses, jobs, visitors, and customers.

Identified Problems: *Population, employment, and economic growth is declining in some portions of the Southside Study Area, mostly within in the City of St. Louis. This trend conflicts with important local and regional goals such as: neighborhood preservation, economic vitality, and development of community resources.*

4.3 CONGESTION MANAGEMENT

The problem of traffic congestion was frequently raised during the community engagement activities, especially in South County. Technical analysis of existing and future travel conditions within the Southside Study Area as well as discussions with local transportation officials confirmed these public comments and concerns. Congestion, especially during the peak periods, is occurring on the principal roadway system and along major arterials within the Study Area. Forecasts for 2020 indicate this congestion will continue to be a problem, even with planned transportation improvements.

4.3.1 Lack of Direct Roadway Connections

As explained in Section 2, population and employment in the suburbs of St. Louis County is growing. Jefferson County, located just south of the Study Area, is growing as well due to the relatively rapid pace of new development. These demographic trends affect regional travel in and through the Southside Study Area. Increases in population, households, and employment mean higher traffic volumes in these areas of the region.

In addition, regional estimates show that daily average trip lengths are forecast to increase from 8.9 mile per trip in 1996 to 9.8 miles in 2020. This signifies a continuation of the trend of dispersal of households and employment throughout the outer areas of the region, including to the south. Patterns of highly dispersed residential and employment locations mean that motorists must travel longer distances on the roadway system to get to their destinations.

In the Southside Study Area, a primary travel movement is the home to work commute. A significant proportion of the residents who live in Jefferson County and south St. Louis County are traveling to clusters of employment in and near downtown St. Louis, Clayton, and outer West County. Consequently, there is a relatively high demand for both the north-south and east-west directions in the southern portion of the Southside Study Area. In areas south of I-270/I-255, daily north-south traffic is projected to grow about 36 percent between 1996 and 2020. In the area between I-270/I-255 and River Des Peres, north-south traffic is projected to grow 16 percent. East of I-55, east-west traffic in South County is also expected to increase by 16 percent.

The roadway network is less well developed in the southernmost portions of St. Louis County compared to the inner suburbs and the City of St. Louis. In South County, motorists have a limited number of options: Gravois, Tesson Ferry Road, I-55, Lemay Ferry Road, and Telegraph Road. A significant proportion of the existing roadway system is oriented in the north-south direction. With the exception of I-270/I-255 and Lindbergh Blvd., very few east-west principal arterials and roadways exist and those that do primarily serve a residential purpose.

Identified Problem*: Few direct roadway connections exist to accommodate major travel movements within the Study Area, particularly in South County.*

4.3.2 Deficient Roadway Capacity

Congestion data for existing (1996) and forecast (2020) conditions was obtained from the regional forecasting model maintained by EWGCC. The data was evaluated for all interstates and arterial roadways within the Study Area and the region as a whole. The regional travel demand model is based on population and employment forecasts, known traffic volumes and patterns, and assumptions regarding planned transportation improvements, land use, and operating capacities. Among other things, it forecasts traffic volumes and operating conditions for the a.m. and p.m. peak periods.

Figure 4.1-1 presents the forecast level of service (LOS) for major study area roadways for the peak travel period for the Year 2020, the planning horizon year for the Southside MTIA. LOS is a measure of traffic congestion on roadway segments or intersections. The categories LOS D, E, or F represent congestion. Congestion generally occurs when travel demand outstrips roadway system capacity.

FIGURE 4.1-1
FORECAST LEVEL OF SERVICE - 2020

The traffic forecasts shown in Figure 4.1-1 indicate congestion along segments of several arterials within the Southside Study Area, including Grand Avenue, Morganford Road, Tesson Ferry Road, Lemay Ferry Road, and Telegraph Road as well as all four interstates, I-64, I-44, I-55, and I-255. Traffic flow breakdown conditions, LOS F, are predicted for segments of Arsenal Street, Tesson Ferry Road, Telegraph Road, and I-55 in the Year 2020. It is important to note that these congestion forecasts already incorporate the new roadways and capacity improvements planned to take place in the Southside Study Area by the Year 2020.

Identified Problem*: Travel demand has outstripped roadway capacity in some portions of the Southside Study Area, leading to high levels of congestion on major arterials and roadways.*

4.3.3 Reliance on Automobiles

The single occupant vehicle is the dominant mode of travel in the region, including the Southside Study Area. The average vehicle occupancy for work trips that take place in the region is 1.1 persons per vehicle. Travel demand estimates indicate that only 2 percent of St. Louis County residents use transit to get from home to work. Transit use in the City of St. Louis is higher, but transit trips still make up only 10 percent of the work trips made by City residents. A very small percentage of St. Louis residents walk or ride their bike to work. The remainder, which represents the vast majority of the residents in the region, drive their car. Some motorists carpool to work, but most of these commuters drive alone. This means that during the morning and evening rush hours, many vehicles are competing for limited space on the region's roadways due, in part, to high numbers of drive alone commuters.

A number of factors contribute to transportation mode choices made by St. Louis City residents compared to County residents in the Southside Study Area. Both employment and population densities are relatively low in the County portion of the Study Area. Levels of transit service as measured by route coverage and frequency of buses are also much lower in South County compared to the City of St. Louis. In addition, car ownership in South County is high relative to the other more urban areas in the region. Low transit ridership and high automobile usage translates into greater vehicle demand in the County portion of the Study Area roadways and contributes to higher traffic congestion.

These travel statistics indicate that transit options currently available in the Southside are not being utilized to their fullest potential, whether as an express commuter route or for more local trips. In addition to non-competitive in-vehicle, travel times, another factor is that a significant majority of the bus stops in the Study Area do not have adequate park-and-ride or pedestrian facilities. For instance, some stops near commercial land uses have signs posted indicating customer-only parking. Yet other stops are located on arterial roadways on which parking is prohibited. In South County, where land uses are widely scattered and housing is low density, walk access to transit services is limited, particularly south of I-270/I-255. Under these circumstances, Southside residents have very few transportation options that can compete with the single occupant vehicle in terms of access, convenience, and travel time.

Identified Problem: *Congestion in the Southside Study Area is exacerbated by high numbers of single occupant vehicles and lack of viable alternative transportation choices.*

4.4 FUNDING CONSTRAINTS

The East-West Gateway Coordinating Council, with input from other cooperating transportation agencies, currently evaluates and prioritizes projects based on a 3-year plan, currently known as the Transportation Improvement Program (TIP). These projects are prioritized based on areas of greatest need and limited to available funding. The TIP is the short-term implementation program for the regional long-range transportation plan. Before a project is included in the TIP, it must be adopted into the long-range plan. Under the overall process, the preferred alternative identified by the study team for the Southside Study Area will be presented to the EWGCC Board of Directors for approval and possible incorporation into the long-range transportation plan.

The plan identifies reasonably anticipated revenues available for both highway and transit improvements through 2020 and then compares the costs of proposed improvements against that revenue stream. Only projects that fit within that revenue stream are considered "committed" for the purposes of the financially constrained plan. The three corridors now under study in MTIAs (Daniel Boone, Northside and Southside) are considered "illustrative" in the current version of the plan. This indicates that the funding available through 2020 is not considered sufficient, without revenue enhancements, to cover the cost of

all major improvements that might emerge from these MTIAs. As these MTIAs are completed, a new round of revenue estimates will be developed, the region's financial constraint will be reevaluated, and prospects for moving Study Area improvements into the plan will be judged. There are three possible outcomes of this analysis: growth in revenues will be sufficient to produce a surplus over the 20 year horizon of the plan that can be used to fund the improvements; projects currently in the plan will be adjusted to make room for the improvements; or the improvements will be identified as illustrative, with their implementation dependent on revenue enhancements. Regardless, funding for transportation improvements in the region is competitive and the Locally Preferred Alternative (LPA) for the Southside Study Area will be competing for funding with the LPA recommendations from the Northside and Daniel Boone MTIAs as well as with other regional projects. Once approved, transportation improvements will be referred to the respective agencies (i.e., Bi-State, MoDOT) for development as a project.
Transportation needs in the region far exceed financial resources. The various sources of funding for these projects include federal, state and local taxes. Special federal funding sources are also available and include the following:

- Interstate Maintenance Program (I-M)
- National Highway System Program (NHS)
- Surface Transportation Program (STP)
- Highway Bridge Replacement and Rehabilitation Program (HBRRP)
- Congestion Mitigation and Air Quality Program (CMAQ)

Individual municipalities collect and allocate their own funds as well as prioritize projects for facilities that they maintain. Projects funded through these sources are generally smaller in nature and have less impact to regional transportation infrastructure. Some municipalities and other local agencies, however, have been successful in attracting federal funds for larger scale projects.
Identified Problem: Limited regional funding for major transportation improvements.

5.0 NEED FOR ACTION

The problems and opportunities described in Section 4.0 of this document translate into a set of interrelated issues and goals related to surface transportation in the Southside Study Area. Each of these goals are further delineated into a corresponding set of specific objectives that proposed transportation projects and services should attempt to meet in the Study Area. These objectives guide the development and selection of transportation alternatives. For clarification, specific goals and objectives for the Southside Study Area are grouped into the following three categories consistent with the broad-based, focus areas outlined in Transportation Redefined (1995): Access to Opportunity, Sustainable Development, and Congestion Mitigation. A fourth category was added to the Southside MTIA goals and objectives, Cost-Effectiveness and Safety, which also corresponds to regional objectives in transportation planning.

5.1 ACCESS TO OPPORTUNITY

Goal: Improve travel for the home to work commute for Southside residents and employees.

Objectives:

- Provide more direct transit connections linking Southside residents with employment sites in the Southside study area and throughout the region as a whole.
- Reduce travel times (both auto and transit).
- Improve intermodal connections.

5.2 SUSTAINABLE DEVELOPMENT

Goal: Maintain and/or enhance Southside neighborhoods and communities.

Objectives:

- Invest in new transportation services and/or infrastructure that contribute to maintaining and/or enhancing quality of life in Southside neighborhoods.
- Integrate transportation infrastructure investments and land development or redevelopment in ways that are economically sustainable and consistent with community values and historic preservation.

5.3 CONGESTION MANAGEMENT

Goal: Relieve congestion in areas projected to experience traffic growth.

Objectives:

- Improve traffic conditions on congested major arterials within the Southside Study Area.
- Increase use of alternative transportation modes.
- Enhance roadway connectivity or provide improvements to facilitate major travel movements in the study area.

5.4 FUNDING CONSTRAINTS

Goal: Pursue cost-effective, safe transportation solutions

Objectives:

- Make best use of the existing transportation infrastructure.
- Increase the effectiveness of the existing and planned regional transportation system in relation to funding constraints.
- Provide for safer roadways, including pedestrian and bicycle opportunities.

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