

EXECUTIVE SUMMARY

STUDY BACKGROUND

The original MetroLink light rail system, opened in 1993, extended from Lambert Airport to East St. Louis, Illinois. Prior to that time, the East-West Gateway Council of Governments (EWGCOG) completed the St. Louis Systems Analysis for Major Transit Capital Investments. That document has since served as the blueprint for light rail planning in the region.

Nine transportation corridors were identified in the Systems Analysis as potential locations for additional light rail transit (LRT). Included were two corridors into Madison County, Illinois. Potential corridors for light rail expansion were also included in the 1999 Madison County Long Range Transportation Plan. Figure ES-1 shows the MetroLink corridors and study areas throughout the St. Louis area.

The original MetroLink line and the St. Clair extension were funded through the “New Starts” program under the Federal Transit Administration (FTA). Local revenue (from the one-quarter cent transit sales tax approved in 1994) is the funding mechanism for the Cross County MetroLink line now under construction in St. Louis City and County. Federal funds will likely be required for a Madison County extension.

STUDY PURPOSE

To examine the opportunities for extending light rail into Madison County, EWGCOG entered into an agreement with Madison County Transit (MCT) to conduct this study. The primary goal of the study was to establish the general feasibility of implementing light rail in Madison County. Although the evaluation involved a variety of factors, the major issues were cost, ridership and financial funding capacity. See Figure ES-2 for an outline of the Study Area.

The technical planning work of this feasibility study was integrated with a community engagement program to both inform and involve the public. The end product was enough information to make a decision on whether to recommend and pursue a light rail corridor in Madison County. If light rail is pursued in Madison County, further detailed planning studies, including an Alternatives Analysis

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and Draft Environmental Document, would need to be completed to identify a recommended corridor and a locally preferred alternative (LPA).

PUBLIC INVOLVEMENT

Because the purpose of the study was to explore and determine the feasibility of light rail in Madison County, an outreach and media campaign was conducted to solicit public input. This effort included stakeholder interviews, focus groups and public open houses. Approximately 250 people attended the open houses. Information presented included an explanation of the planning process, the expected outcomes of the study and potential community benefits of a light rail extension. Input from the public involvement process helped the technical team:

- Understand the existing conditions impacting Madison County
- Envision future conditions for Madison County
- Determine mechanisms and obstacles to the expansion of MetroLink
- Identify key destinations, activity centers, and routes

POLICY ADVISORY COMMITTEE

A Policy Advisory Committee (PAC), created to act as a sounding board for the technical team, gave a local perspective and assisted in public outreach and consensus building. The Committee was comprised of a diverse cross-section of individuals familiar with transportation issues in Madison County. The PAC was chaired by Robert Wetzel, and other members were Monica Bristow, Ronald Capek, Dave Dietzel, Nancy Dooling, Sandra Hudson, Jerry Kane, Charles King, Jr, Steve Knobbe, George Machino, Richard Mark, Matt Melucci, James Pennekamp, Robert Plummer, Les Sterman, David Werner and Richard Worthen. The Committee met four times with the technical team during this study.

GOALS AND OBJECTIVES

Goals and objectives for light rail expansion into Madison County were identified, responding to public input and consideration of previous transportation and land use planning studies. Evaluation

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criteria were defined to support these goals and objectives and used to assess the alternatives defined.

The following goals and objectives, and their respective evaluation criteria, were established for this study:

Goal: Mitigate Congestion

Objective: Increase use of transit across Mississippi River bridges

Measure: Potential vehicle trips diverted to transit

Goal: Improve Access to Opportunity

Objectives: Increase access to employment, education and other activity centers

Reduce travel times

Serve transit-dependent populations

Measures: Activity centers within 1/2 mile of station

Zero car households within 1/2 mile of station

Low-income households within 1/2 mile station

Goal: Foster Sustainable Development

Objectives: Utilize transit accessibility to encourage economic development

Preserve quality of life

Coordinate transit and land use

Measures: 2030 Households within 1/2 mile of station

2030 Employment within 1/2 mile of station

Acres of floodplain/wetlands within 1/2 mile of alignment

Goal: Achieve Cost-Effectiveness

Objectives: Identify potential ridership

Determine capital and operating costs

Establish financial feasibility

Measures: Potential costs

Cost per mile

Constructability (ease of implementation)

Ridership potential

DEVELOPMENT OF OPTIONS

Although the purpose of this study was not to recommend a specific light rail route, conceptual yet realistic options for light rail corridors were identified and evaluated in order to better understand the feasibility of light rail extension. These options were developed in response to: (1) the stated

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goals and objectives of the project, (2) demographic and economic conditions, (3) land use, and (4) opportunities and constraints.

The light rail corridor options were categorized as minimum, moderate and full build, depending on the length of the corridor. The build areas are depicted on Figure ES-3 and further described below. All of the options show a connection with the existing St. Clair MetroLink line.

Minimum Build

The minimum build option serves the Tri-Cities area in Madison County. The length of this corridor would be approximately four miles, with a potential 2005 construction cost of \$150-165 million. Annual operating costs are estimated at about \$1.5 million (2005\$). Daily projected ridership of this option is about 7,000 passengers.

Moderate Build

The moderate build area extends to Interstate 270 in the north and Interstate 255 in the east. Within this area are several build options serving various destinations: the Illinois Route 3 corridor, serving Granite City; the Illinois Route 162 corridor, serving Granite City and Pontoon Beach; and an option extending east from the Tri-Cities area and serving Collinsville. The length of this corridor varies from about 10 to 13 miles, with a potential 2005 construction cost of \$300-400 million. Operating costs are estimated to be between \$6-9 million (2005\$) annually. Daily ridership estimates of this build option are between 8,300 and 11,000.

Full Build

The full build option would extend light rail to either the Alton or Edwardsville communities, with possible lengths between 21 and 23 miles. The 2005 estimated construction cost is \$500-650 million. Annual operating costs of \$14-15 million (2005\$) are anticipated. Daily ridership estimates of this build option are 13,600 to 14,300.

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OPPORTUNITIES AND CONSTRAINTS

The potential opportunities and constraints for extending light rail into Madison County are listed below.

Opportunities may include:

- Use of existing or future transportation corridors
- Connection of activity/population centers
- Preservation of neighborhoods
- Potential station-oriented development
- Providing direct routes
- Serving low income communities

Potential constraints include:

- Engineering design and construction issues
- Neighborhood opposition
- Impact on natural and cultural resources

FINANCIAL FEASIBILITY

Federal funds will likely be required to build any light rail extension in Madison County. The financial analysis assumed federal participation of 50% of the construction cost.

To obtain the federal participation required to advance light rail in Madison County, there will need to be a plan that shows how the region can afford to build, operate and maintain an extension, while continuing to operate and maintain the existing transit system. It seems likely that a significant new source of funding beyond just federal would be required for any of the options. Further, there would be competing demands for any new revenues. A funding plan would have to take these demands into account.

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In summary, the following conditions must be met in order for a Madison County light rail extension to be considered financially feasible:

- A much more robust state/local funding commitment for both capital and operating costs would need to be in place to compete for federal funds.
- The ultimate LPA would need to compete with other projects nationally for federal funds, utilizing the FTA evaluation criteria in effect at such time. The severity of the competition will depend on the quality of other projects being proposed, as well as the size of the federal program. At this juncture, there is no way to predict whether any of the identified alternatives would successfully compete for federal funds. However, based on a cursory analysis, one or more of the options may be successful.
- A significant increase in State of Illinois funding for transit in Madison County would be required under all of the funding scenarios. Currently, the State provides approximately \$7 million annually in operating assistance to MCT. For a Madison County extension, the amount of the capital contribution necessary from the State ranges from \$18-182 million, depending on the option and the funding scenario. Similarly, the additional annual operating and maintenance funding required from the State varies, from \$250,000-2.5 million.
- Without an unexpected increase in the level of funding from the State of Illinois, an increase in the sales tax in Madison County would most likely be required. The analysis shows that an additional local sales tax levy (or equivalent) would be required to cover initial capital and operational costs. Further, a one-quarter cent levy would be sufficient only in the case of the minimum build option. The moderate and full build options would require an increase ranging from just over one-quarter cent to three-quarter cent.

STUDY RECOMMENDATION

The culmination of this study was a final consensus recommendation by the PAC to Madison County officials. This recommendation addresses the feasibility of a light rail extension with regards to the findings of this study and offers advice on how the County should progress. In making this

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recommendation to Madison County officials, the PAC considered the results of all of the study efforts, avoiding speculation on a preferred route for a light rail extension and focusing on the general benefits and costs of extending light rail into the County.

NEXT STEP

Should Madison County decide to pursue light rail service, the next logical step would be the completion of an Alternatives Analysis and Draft Environmental Document. This type of analysis would be required to determine a LPA and would provide extensive information on the benefits and impacts of alternative light rail routes, how the system should be built, how much it will cost, and how it will be financed. Additionally, these detailed studies are necessary to qualify any extension for “New Starts” federal construction funding, a critical funding stream identified for light rail extension into the County.

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February 18, 2005

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October 24, 2005

This study was conducted by the East-West Gateway Council of Governments (EWGCOG), in cooperation with Madison County Transit (MCT). EWGCOG is the metropolitan planning organization (MPO) for the Missouri-Illinois bi-state area, including Madison County.

1.1 BACKGROUND

The original MetroLink light rail system, opened in 1993, extended from Lambert Airport to East St. Louis, Illinois. Prior to that time, EWGCOG completed the St. Louis Systems Analysis for Major Transit Capital Investments. That document has since served as the blueprint for light rail planning in the region.

Nine transportation corridors were identified in the Systems Analysis as potential locations for additional light rail transit (LRT). Included were two corridors into Madison County, Illinois. Potential corridors for light rail expansion were also included in the 1999 Madison County Long Range Transportation Plan. Figure ES-1 shows MetroLink corridors and study areas throughout the St. Louis area.

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1.2 PURPOSE

EWGCOG entered into an agreement with MCT to conduct this study to examine the opportunities for extending light rail into Madison County. The primary goal of the study was to establish the general feasibility of implementing light rail in Madison County. The intended end result of this study is enough information to make a decision on whether to recommend the development of a light rail corridor in Madison County. If a light rail extension is pursued in Madison County, further detailed planning studies, including an Alternatives Analysis and Draft Environmental Document,

would need to be completed to identify a recommended corridor and a locally preferred alternative (LPA). The Study Area is shown in Figure ES-2.

Evaluating the feasibility of rail extension into Madison County involved a variety of factors, with the major issues evaluated being cost, ridership potential and financial capacity. A sketch planning level of detail, conforming to local experience with MetroLink construction and operation, was employed and maximum use of existing available data were made. The technical planning work of this feasibility study was integrated with a community engagement program that strove to both inform and involve the public. The study approach is illustrated in Figure 1.

This study was broken down into three phases, Task 1 - Project Scoping, Task 2 - Definition of Alternatives, and Task 3 - Evaluation of Alternatives.

Task 1 - Project Scoping included the identification of the study's goals and objectives and related evaluation criteria, establishment of existing and future conditions, the preliminary definition of alignments, the screening evaluation of alignments, and public engagement activities. This task included two Policy Advisory Committee (PAC) meetings and a set of public open houses. The results of Task 1 are summarized in this report and detailed in the Scoping Technical Memorandum, dated June 30, 2005.

In **Task 2 - Definition of Alternatives**, three alignments were selected for further study based on the results of Task 1. These alignments represented potential minimum build; moderate build and full build categories. Each of the three alignments studied had an associated Minimum Operating Segment (MOS) that was selected to provide an analysis of a range of options that might be able to meet the study's goals if funding were not available to construct the entire alignment.

These alignments were then conceptually defined in character to determine a magnitude of construction costs and to identify potential fatal flaws. Possible station locations were identified to enable the development of conceptual bus and rail operating plans, and the refinement of the ridership estimates developed in Task 1. Typical sections were developed for alignment at-grade and for alignment on structure, using Metro guidelines; these sections were used to develop typical costs

per mile and a conceptual construction cost estimate. The results of Task 2 are summarized in this report and detailed in the Final Definition of Alternatives Technical Memorandum, dated August 26, 2005.

Task 3 - Evaluation of Alternatives was a more detailed evaluation of the final set of alignments, including identification of potential engineering and environmental constraints, ridership estimates and the capital and operating costs and financial feasibility of extending light rail into Madison County. The results of this task are summarized in this report and detailed in the Evaluation of Alternatives Technical Memorandum, dated September 2005.

Goals and objectives for a potential light rail expansion into Madison County were explored. The goals and objectives respond to issues identified through the stakeholder interviews and input received from the focus group sessions. They were developed in consideration of previous transportation planning and land use studies in the area, including the Madison County Long Range Transportation Plan and Legacy 2030, the most current metropolitan transportation plan for the Gateway Region.

2.1 FOCUS AREAS

Legacy 2030 identifies six focus areas for the region's 20-year transportation system goals that address social, economic and environmental issues. These focus areas were identified as the evaluation framework for planning this study and include:

- Preservation of Infrastructure
- Safety and Security in Travel
- Congestion
- Access to Opportunity
- Sustainable Development
- Efficient Movement of Goods

2.2 STUDY GOALS AND OBJECTIVES

The focus groups helped to identify the subjects of importance to Madison County. This led to the development of the goals and objectives for this study, and the development of the evaluation measures. The following goals and objectives were identified with input from the stakeholders and focus groups as the Purpose and Need for this study. See Section 5 for the measures developed to evaluate these goals. The goals and objectives, and related evaluation measures, were presented at the second PAC meeting.

Goal: Mitigate Congestion

Objective: Increase use of transit across Mississippi River bridges

Goal: Improve Access to Opportunity

Objectives: Increase access to employment, education and other activity centers
Reduce travel times
Serve transit-dependent populations

Goal: Foster Sustainable Development

Objectives: Utilize transit accessibility to encourage economic development
Preserve quality of life
Coordinate transit and land use

Goal: Achieve Cost-Effectiveness

Objectives: Identify potential ridership
Determine capital and operating costs
Establish financial feasibility

An existing GIS database was utilized for the Study Area. Future information for the planning year of 2030 was available from EWGCOG.

3.1 EXISTING TRANSPORTATION SYSTEM

Data defining the existing transportation system serving the Study Area are shown on Figure 2. Information shown includes the existing highway system, active railroad corridors and recreational trails. In the early 1990's, MCT initiated a "rails to trails" program with the goal of preserving urban rail corridors for future light rail possibilities and interim trail use. The rail corridor, shown as inactive, has been secured by MCT. Figure 3 shows the sections of these corridors that have already been converted into biking and walking trails.

3.2 TRANSIT RIDERSHIP DATA

MCT provides fixed route bus service for Madison County. Daily ridership, at the beginning of the study, was around 6,500 riders each day, with 1.8 million riders per year. September 2005 was their highest ridership ever, with over 200,000 riders. MCT has a fleet of 73 buses. Routes include shuttle, cross county, express, metro and special service. The MCT 2004 transit routes are shown on Figure 4.

3.3 SOCIAL, ECONOMIC AND LAND USE DATA

To assist in the development of potential light rail alignments, existing and projected social-economic conditions were documented. These data were evaluated for opportunities in meeting the study's goals and objectives identified. Figures 5 and 6 show the 2000 and 2030 population density for Madison County, respectively. The 2000 and 2030 employment density is shown in Figures 7 and 8, respectively. These graphics show that most of the population and employment is currently in the western portion of Madison County. The greatest potential for growth is in the Riverbend and Central County areas. Information was also obtained for persons below the poverty level, shown on Figure 9, and no vehicle households, shown on Figure 10.

3.4 NATURAL AND CULTURAL RESOURCES

Natural and cultural resource information in the Study Area was identified to determine any potential “fatal flaws” to alternative alignments. This information was utilized to determine the floodplains and wetlands along potential alignments.

3.5 TRANSPORTATION SYSTEM IMPROVEMENTS

Meetings were held with the Illinois Department of Transportation (IDOT) and Madison County officials to identify any significant transportation system improvements in the Study Area. In addition, the IDOT Fiscal Year 2005-2011 Proposed Highway Improvement Program, and the 1999 Madison County Long Range Transportation Plan were reviewed. The most significant project in the Study Area is the relocation of Illinois Route 3, related to the potential new Mississippi River Bridge Project. This project which is not completed, nor fully funded, will result in changes in the roadways and railroad corridors in the Tri-Cities area. At the time of this study, these have not been fully identified, and will need to be addressed in further studies of potential alignments.

Alternative light rail alignments were developed to respond to the stated goals and objectives of the project, demographics and economic conditions, land use, and opportunities and constraints. These alternatives also considered previous planning studies and other transportation planning documents.

Preliminary alternative alignments were presented at a series of open houses and the third PAC meeting, and were evaluated in terms of general feasibility using the evaluation criteria established for this study*. Through this process, several alignments were selected to further define at a conceptual level. For these prioritized alignments, two alternative termini were identified, possible station locations were identified, and the ridership estimates developed in the scoping task were refined. The resulting alignments were the final alternatives for which further feasibility analysis was conducted.

4.1 PRELIMINARY ALIGNMENTS

Initially, a broad set of alternative alignments, shown in Figure 11, was developed to respond to the transportation needs of the County, as identified through community engagement. Importantly, all of these alignments met the following principles:

- St. Clair MetroLink Connection
- Utilization of Existing Transportation Corridors
- Linear Connection of Activity Centers
- Directness of Route

4.1.1 Preliminary Definitions

Alignment A

Alignment A serves the Tri-Cities and Riverbend areas. This alignment would either follow Illinois Route 3 or the existing railroad corridor. The determination of the preferred route will be made in further studies. At that time, more information will be known about railroad operations in the area. This alignment would extend to Downtown Alton, a distance of approximately 22 miles.

* Evaluation criteria used during this study are defined further in Section 5.

Alignment A Alternate

Alignment A Alternate begins the same as Alignment A until Wood River, where it branches off and ends at Lewis and Clark Community College (LCCC) instead of Downtown Alton. This alignment is approximately 25 miles long. This alternate to Alignment A was presented at the open houses.

Alignment B

Alignment B generally follows the Nature Trail, serving the Tri-Cities area, and extending into Edwardsville by way of SIUE, a distance of approximately 19 miles. This alignment had been identified in the Madison County 1999 Long Range Transportation Plan.

Alignment C

Alignment C also serves the Tri-Cities area, and then follows the Schoolhouse Trail to Edwardsville, serving the Gateway Center and Maryville areas, a distance of approximately 24 miles. This alignment was also identified in the Madison County 1999 Long Range Transportation Plan.

Alignment D

Alignment D, which was included in EWGCOG's 1991 System Analysis, is approximately 19 miles long. This alignment follows the Interstate 70 corridor to the Gateway Center. From there, it heads north along Illinois Route 157, connecting with the Nickel Plate Trail to Edwardsville.

Alignment E

Alignment E is about 18 miles long from its start at the Fairview Heights MetroLink station. This alignment follows along Illinois 157, where it shifts to the Nickel Plate Trail south of Interstate 270. From here, Alignment E continues along the trail to Edwardsville.

4.1.2 Preliminary Evaluation

Each of these alternative alignments was presented to the PAC and to the public at open houses. These open houses were conducted to evaluate the alignments for general feasibility and to identify those alignments that would be further studied.

Open House Evaluation

Attendees of the open houses were asked to complete a comment form after reviewing the presentation materials. A key component of this comment form was question three, which asked respondents to review the six potential light rail routes being presented at the open houses and, for each route, identify to what degree—“Very Little,” “Somewhat,” or “Very Much”—they felt it addressed the study’s goals and objectives.

Table 1 below shows attendees’ responses. The routes are listed in descending order based on how many times they received a rating of “Very Much.” The highlighted boxes represent the route that received the most responses in each category.

Table 1 Total Responses From All Three Open Houses			
Route	Very Much	Somewhat	Very Little
B	86	51	22
A	84	46	27
Alt A	70	49	32
D	41	57	52
E	29	53	71
C	27	66	55

Most respondents thought Alignment A, which travels to the River Bend area, along Route 3, and Alignment B, which travels through Granite City and SIUE, best served the study’s goals. Attendees chose SIUE, Alton, Downtown St. Louis, LCCC and Edwardsville, as the top five activity centers.

PAC #3 Evaluation

Each of these alternative alignments was presented at the third Policy Advisory Committee (PAC) meeting on February 3, 2005. The purpose of this meeting was to present the summary of the open houses and to enlist the assistance of the PAC to identify those alignments which best met the goals of the study and would be further studied. The presentation and meeting summary are included in Appendix L.

Figure 12 shows the conceptual evaluation results presented during this meeting. Figure 13 shows these data using a three-level scheme (more favorable, median, and less favorable). This table utilizes the results of a sketch level ridership model, enabling ridership to be a part of the preliminary evaluation process without the application of the regional model. Information related to this analysis is included in Appendix B. Further information on work and non-work travel patterns of the Study Area is included in Appendix C.

Evaluation Results

The following details summarize the preliminary evaluation of the presented alignments by the public and the PAC.

Alignment E

The attendees of the open houses responded overwhelmingly that Alignment E did very little in satisfying the study's goals and objectives. This public opinion agrees with the technical results in the conceptual evaluation. This evaluation rated Alignment E as less favorable for meeting the goals and objectives. The study team therefore eliminated this alignment.

Alignment D

Alignment D was not viewed very favorably by the public in meeting the study's goals and objectives. This public consensus followed the technical results, so this alignment was also eliminated from further study.

Alignment A / Alternative Alignment A

The public strongly supported an alignment to the Alton area.

The public comments supported Alignment A over the alternate. The public comments are supported by the technical analysis, which gave Alignment A "more favorable" ratings than the Alternate Alignment A. The study team recommended carrying on only Alignment A to Alton, and not the Alternate Alignment A. This alignment better met the study's goals than the alternative to LCCC. It was determined that if light rail were extended to Alton, service could be provided from Alton to LCCC by bus. Due to the uncertainty of the ability to utilize the existing railroad right-of-way, Route 3 was shown as a possible alternate to Alignment A.

Alignment B

The public also strongly supported an alignment to the Edwardsville area. SIUE was noted as a key activity center. The study team recommended moving forward with Alignment B, as presented to the public. This alignment, mostly following existing bike trail and serving SIUE, met many of the study's goals. This alignment was strongly supported by the public.

Alignment C

The study team also recommended keeping Alignment C to Gateway Center, since it also met many of the study's goals. Two options were developed to present to the PAC. These options started near the Gateway Center, where Alignment C could continue northeast to serve the Maryville area, or continue north generally along Route 157, following the Alignment D alternate.

Alignment Modifications

The alignments selected during this process were further modified to reflect several concerns brought to light during the public and PAC preliminary evaluation process. These included the following:

- After discussions with the PAC, it was determined the best alignment from Gateway Center would be to follow Route 157 north to make a connection with SIUE. Since Alignment C would now serve SIUE, it was decided to analyze Alignment B with a terminus near Interstate 255.
- Due to the uncertainty of railroad relocations associated with the proposed Route 3 improvements, and the ability to utilize the railroad right-of-way, a possible alternative alignment for both B and C was shown.

4.2 FINAL ALIGNMENTS

Through this preliminary evaluation process, several conceptual alignments were selected and further defined for additional evaluation. The general character of each alignment was determined, and the capital costs and potential fatal flaws of each were estimated.

In particular, each alignment, shown in Figure 14, was further defined to have two alternative termini; one terminus was identified as a Minimum Operating Segment (MOS). These MOS's were analyzed to identify sections of the alignment that might be able to meet the study's goals if funding

were not available to construct the entire alignment. These light rail alignments were categorized as minimum, moderate and full build options, depending on the length of the alignment, and area served. The minimum build option serves the Tri-Cities area. The moderate build extends to Interstate 270 in the north and Interstate 255 in the east and the full build option extends to either Alton or Edwardsville.

In addition to the development of alignments, possible station locations were identified to enable the development of conceptual bus and rail operating plans, and refinement of the ridership estimates developed in the scoping task. Further details are shown in Figures 15 through 22, and documented in the text below for each alignment.

4.2.1 Minimum Build

The minimum build option was defined to serve the Tri-Cities area in Madison County. The length of this corridor would be approximately four miles, with a potential 2005 construction cost of \$150-165 million. Annual operating costs are estimated at about \$1.5 million (2005\$). Daily ridership of this option of about 7,000 passengers is projected.

Alignment B MOS

The MOS of Alignment B is almost four miles long and terminates near Route 203 in Madison (only one stop). This MOS alignment is the only minimum build option evaluated.

4.2.2 Moderate Build

The moderate build area was defined to extend to Interstate 270 in the north and Interstate 255 in the east. Within this area are several build options serving various destinations: the Illinois Route 3 corridor, serving Granite City; the Illinois Route 162 corridor, serving Granite City and Pontoon Beach; and an option extending east from the Tri-Cities area and serving Collinsville. The length of this corridor varies from about 10 to 13 miles, with a potential 2005 construction cost of \$300-400 million. Operating costs are estimated to be between \$6-9 million (2005\$) annually. Daily ridership estimates of this build option are between 8,300 and 11,000.

Alignment A MOS

This alignment's MOS terminates near Interstate 270 and is about 10 miles long. Stations are located near Niedringhaus, Pontoon Road and I-270/Chain of Rocks Road.

Alignment B

Alignment B, serving the Tri-Cities area, generally follows the Nature Trail, ending at Interstate 255. The alignment is nearly 11 miles long, with stops at Route 203, Route 162, Route 111 and I-255. This alignment had been identified in the Madison County 1999 Long Range Transportation Plan as a possible light rail corridor.

Alignment C MOS

The MOS of Alignment C is 12.5 miles long and terminates at Gateway Center (five stops).

4.2.3 Full Build

The full build option is defined to extend light rail to either the Alton or Edwardsville communities, with possible lengths between 21 and 23 miles. The 2005 estimated construction cost is \$500-650 million. Annual operating costs of \$14-15 million (2005\$) are anticipated. Daily ridership estimates of this build option are 13,600 to 14,300.

Alignment A

Alignment A extends north and slightly westwards from the St. Clair MetroLink to Downtown Alton, serving the Tri-Cities and Riverbend areas. This alignment could either follow Illinois Route 3 or the existing railroad corridor. The actual determination will be made in further studies, when more information is known about railroad operations in the area. The alignment is nearly 21.5 miles long, with stops at Niedringhaus, Pontoon Road, I-270/Chain of Rocks Road, New Poag Road, Route 143 and Route 67.

Alignment C

Alignment C also follows along the Nature Trail, serving the Tri-Cities area. Then it follows the Schoolhouse Trail to Route 157, continuing north along Route 157 until it connects with the Nature Trail again. From here the alignment follows the Nature Trail into Downtown Edwardsville. The alignment is almost 23 miles long, with eight stops: Route 203, Route 162, Route 111, I-255,

SECTION FOUR

DEFINITION OF ALTERNATIVES

Gateway Center, Route 157 (between Route 162 and I-270), SIUE and Downtown Edwardsville. Portions of this alignment were also included in the Madison County 1999 Long Range Transportation Plan.

The following Table 2 summarizes these details as well as the order of magnitude construction cost estimates developed for each of the final alignments. Supporting documentation for the capital cost and cost per mile estimates are included in Appendix E.

Table 2 Summary Details of Final Alternatives				
Alternative	Ridership Estimate (people)	Length (miles)	Capital Cost (\$ million) 2005 Dollars	Cost per Mile (\$ million) 2005 Dollars
Minimum Build				
B MOS - Route 203/Madison	7,000	3.8	\$157.40	\$41.1
Moderate Build				
A MOS – I-270/Chain of Rocks Rd	8,300-11,000	10.2	\$303	\$29.7
B - I-255		10.9	\$326	\$29.9
C MOS - Gateway Center		12.5	\$377	\$30.2
Full Build				
A - Alton	13,600-14,300	21.5	\$544	\$25.3
C - Edwardsville		22.9	\$626	\$27.3

4.2.4 Typical Section

A typical section is a conceptual drawing or description of the cross section of a transit alignment that defines right-of-way limits, rail widths, structure widths, ditches, medians, etc. The typical sections developed for this study are based on Metro guidelines for alignment at-grade and for alignment on structure. These sections were used to assess the general capital costs of each alternative in terms of construction footprint, construction costs and right-of-way requirements. Figures of these typical sections are included in Appendix A.

This section offers a more detailed evaluation of the final set of alignments, including identification of potential engineering and environmental constraints, further ridership estimates and the capital and operating costs and financial feasibility of extending light rail into Madison County. Figure 23 summarizes, and Figure 24 details, the results of the information collected during this evaluation process.

5.1 EVALUATION CRITERIA

Criteria and technical methodologies were defined to enable a more detailed evaluation of the final set of alternatives. Evaluation criteria based on study goals and objectives were used, as well as industry-accepted, general light rail alternatives evaluation criteria.

5.1.1 Study-Specific Criteria

During the scoping process, evaluation criteria were developed to support the goals and objectives identified for the study. These measures were utilized throughout the study to evaluate the potential alternatives and are listed below.

Goal:	Mitigate Congestion
Measure:	Potential vehicle trips diverted to transit
Goal:	Improve Access to Opportunity
Measures:	Activity centers within ½ mile of station Zero car households within ½ mile of station Low-income households within ½ mile station
Goal:	Foster Sustainable Development
Measures:	2030 Households within ½ mile of station 2030 Employment within ½ mile of station Acres of floodplain/wetlands within ½ mile of alignment
Goal:	Achieve Cost-Effectiveness
Measures:	Potential costs Cost per mile Constructability (ease of implementation) Ridership potential

5.1.2 General Light Rail Alternatives Evaluation Criteria

In addition to the study-specific goals, the five categories generally used to evaluate light rail alternatives were used to assess each alternative of this study. Each of these categories, along with its respective measure(s), is defined below.

1. Right-of-Way and Construction

Under this category, issues related to right-of-way and construction were evaluated, including an assessment of engineering constraints and the cost and feasibility of proposed structures and special track features. Potential right-of-way impacts were assessed qualitatively relative to the following measures, using existing GIS data that were presented in the Scoping Technical Memorandum, assuming a 150-foot buffer on either side of an alignment's proposed centerline. Data from the EWGCOG and Illinois Geographic Information System (GIS) were used.

- Ownership Issues – This measure addresses the potential issue of negotiating with numerous property owners associated with a particular alignment. For example, if an alignment is generally located along an existing railroad corridor, potentially only one property owner (the railroad company) would be involved in implementation, in addition to property to be acquired for stations and a maintenance facility. Each alternative is given a Low, Medium or High rating, depending on the anticipated type of impact, i.e. an alignment that would require negotiations with numerous property owners would be given either a Medium or High Impact rating.
- Constructability – This measure is based on a preliminary and general assessment of an alignment's ability to share existing transportation right-of-way. For example, an alternative that generally follows an existing trail or railroad corridor might receive a Medium or High Constructability rating.
- Potential 4(f)/6(f) Impacts – This measure is a general assessment of an alignment's proximity to existing parks and recreational areas. An alignment with a High Impact rating indicates close proximity to parks and recreational areas.

- Preliminary Land Use Development/Redevelopment Potential – Existing and proposed land uses near an alignment are examined to determine their compatibility with transit development.

2. Social, Economic and Environmental Impacts

A qualitative assessment of significant social, economic and environmental impacts associated with each alternative was performed under this category. Similar to the preceding category, existing GIS data were used to assess the impact of each alignment, including a 150-foot buffer on either side of a conceptual centerline. Similarly, data from the EWGCOG and Illinois GIS were used.

The following criteria were used in the evaluation:

- Proximity to Water Resources – This measure provided a qualitative assessment of an alignment’s proximity to rivers, streams, wetlands and floodplains. Each alignment was given either a low, medium or high ranking, depending on the number and magnitude of potential crossings of a water resource associated (using visual inspection).
- Environmental Justice – A preliminary and qualitative assessment of impacts to existing low-income and minority populations adjacent to each alignment was completed using 2000 U.S. Census data. This measure used the number of households without vehicles and population below poverty level. The impact assessment under this measure included transit benefits associated with an alternative mode of transportation for transit-dependent populations potentially served.
- Social-Economic Impacts – The existing (2000) and projected (2030) population and employment densities of areas traffic analysis zones (TAZ) adjacent to each alignment were documented to determine each alignment’s ability to serve existing and future activity centers, transit-dependent populations, and general areas anticipated to experience substantial growth. Each alternative was given a low, medium or high rating. For example, a high rating indicates that an alignment was anticipated to serve areas of high population or employment density.

- Proximity to Farmlands, Parklands and Trails – Potential impacts of an alternative to farmlands, parklands and trails were assessed qualitatively using mapping available from EWGCOG and Illinois GIS.

3. Ridership Estimates and Transportation Impacts

Under this category, the following measures, some typically included in the FTA New Starts program, were used to evaluate each alignment. The travel demand model results were year 2030 ridership estimates:

- Total Average Weekday Linked Trips – This estimate was in production and attraction (P-A) format and included an estimate for both the whole Metro System (Systemwide) and Madison County for each alignment.
- Total Average Weekday Boardings – This estimate was also in production and attraction format. It was an estimate of the number of persons boarding the system either as a beginning of a new trip or a transfer (continuation of a trip) for each alignment.
- Change from No Build – This measure was an estimate of the number of transit riders associated with each alignment relative to the No Build Alternative. An estimate was provided for Systemwide and Madison County.
- Daily Modes of Access – This measure was a year 2030 estimate of the number of persons who would access a light rail alignment by driving or walking and/or by bus.
- Total Daily Reduction in Automobiles – This measure was an estimate of the reduction in the number of automobile trips associated with each full alignment.

The methodology used, and analyses completed, to develop the preceding measures are in the 2030 Ridership Forecasts and Feeder Bus Planning Report in Appendix D.

4. Capital and Operating Costs

Order-of-magnitude capital and operating and maintenance costs associated with each alignment were developed.

- Capital Cost – This measure included the cost of constructing various elements including guideway, stations, park-and-ride facilities and structures. It also included an allowance for right-of-way and cost of engineering design and administration and contingencies. The cost was presented in year 2005 dollars and was included in the Final Definition of Alternatives Technical Memorandum. Year of expenditure (YOE) dollars were based on a 2.5 percent annual rate of increase. A detailed capital cost estimate is included in Appendix E.
- Operating and Maintenance Cost – This measure included the annual operating and maintenance cost for the bus and rail elements of each alignment, using current unit cost data for Metro transit service and estimated operating statistics. This cost was presented through year 2024 using a 5 percent annual rate of increase.

5. Financial Capacity

Using the order-of-magnitude capital and operating and maintenance cost estimates, the general financial feasibility of each alignment was evaluated. A range of funding scenarios was developed reflecting different assumptions about federal, state and local participation. Financial projections for each scenario were also developed, and the adequacy of these scenarios to meet project costs was evaluated. Working knowledge of EWGCOG and Metro financial models was used to determine general financial feasibility. A detailed report of the financial feasibility of each alignment is included in Appendix F.

5.2 SUMMARY OF EVALUATION

A summary of the results of the evaluation is presented in Figures 26 and 27. The following statements also summarize the feasibility of the alignments using the various criteria:

5.2.1 Right-of-Way and Construction

Generally, there are no significant right-of-way or construction issues that would bar the constructability of any of the alignments.

- Perhaps a potential issue would be negotiating with railroad companies to obtain easement within existing rail corridors, as well as with various property owners at station locations and

a maintenance facility. MCT owns the right-of-way utilized by trails and the IDOT controls the Route 157 right-of-way.

- Potential 4(f)/6(f) impacts are low to medium with the shared use of existing trails being the only significant issue.
- Land use development/redevelopment potential ranges from medium to high.

5.2.2 Social, Economic and Environmental Impacts

Each alignment was reviewed to determine its ability to serve activity centers and areas of high population and employment. The denser population and employment areas are generally centered around the Tri-Cities Area, Alton and Edwardsville. The areas between these communities are much less dense in both population and employment, resulting in less potential for ridership.

In terms of environmental justice, the shorter alignments were found to be the most effective with respect to benefit per mile. This is because these shorter alignments operate completely within areas that have higher transit-dependent populations and households without vehicles. Conversely, the longer alignments (A, B and C) serve areas of high transit-dependent populations and households without vehicles, but also require significant connecting rail stretches through areas with much lower such populations.

Each alignment was analyzed in terms of environmental issues, such as proximity to water resources, farmlands, parklands and trails to identify potential fatal flaws. During this analysis, no fatal flaws were identified for any of the alignments considered. All alignments were found to be proximate to water resources, but were assessed to have a potential low impact on those resources. In terms of affecting prime farmland and trails, some of the alignments are noted to pass along farmland and share right of way with trails. Environmental impacts on these resources are expected to be low to medium.

5.2.3 Ridership Estimates and Transportation Impacts

Under this category, each alignment was evaluated in terms of total average weekday linked trips, total average weekday boardings, change from no build, daily modes of access, and total daily reduction in automobiles. Information related to this analysis is summarized below and detailed in Appendix D.

- **2030 Average Weekday Linked Trips**

- Systemwide, the estimates range from 164,500 (Alignment B MOS) to 172,500 (Alignment C).
- Within Madison County, the range is from 7,000 (Alignment B MOS) to 14,300 (Alignment C).
- For the No Build Alignment, the estimates for the entire system and Madison County are 161,900 and 5,300, respectively.

- **2030 Average Weekday Boardings**

- Systemwide, Alignment C has the highest number of boardings at 239,600 while Alignment B MOS has the lowest at 230,900.
- Similarly, within Madison County, the range of boardings is from 7,500 (Alignment B MOS) to 15,100 (Alignment C).
- For the No Build Alignment, the estimated boardings for the entire system and Madison County are 226,500 and 5,300, respectively.

- **2030 Change in Linked Trips and Boardings from No Build**

- Systemwide, the change in linked trips is between 2,600 (Alignment B MOS) and 10,600 (Alignment C).
- Within Madison County, the change in linked trips is between 1,700 (Alignment B MOS) and 9,000 (Alignment C).

The change in weekday boardings relative to the No Build Alignment for the entire system is between 4,500 (Alignment B MOS) and 13,100 (Alignment C). Similarly, within Madison County, this range is between 2,300 and 9,900.

- **2030 Daily Modes of Access at LRT Stations**
 - Alignment B (52 percent) and Alignment B MOS (77 percent) both show a significantly high number of trips by walking and bus transfer.
- **2030 Daily Reduction in Automobiles**
 - Alignment C shows the highest daily reduction (7,800) relative to the No Build Alignment (estimated at 4,400).
 - Alignment A showed a reduction of almost 7,200 trips.
- **2030 Daily Trips Across the Mississippi River**
 - Alignments A and C show relatively similar estimates (9,300 and 9,600 trips, respectively).
 - Alignment B shows 7,100 trips.
 - The estimate for the No Build Alignment is 2,100.

5.2.4 Capital and Operating Costs

Capital and operating cost estimates were developed for the final alignments and are summarized in the bullets below. Supporting documentation is included in Appendix E.

- **Capital (Construction) Costs**
 - In year 2005 dollars, the range of capital costs is between \$157.4 million (Alignment B MOS) and \$625.5 million (Alignment C).
 - In Year of Expenditure (YOE) dollars, this range is between \$183.0 million and \$727.3 million.

- **Capital Costs per Mile of Alignment**
 - In year 2005 dollars, the range of capital costs per mile of alignment is between \$25.3 million (Alignment A) and \$41.4 million (Alignment B MOS).
 - In YOE dollars, this range is between \$33.8 million and \$48.1 million.
- **Annual Operating Costs**
 - In year 2003 dollars, the range of annual operating costs is from \$1.4 million (Alignment B MOS) to \$13.1 million (Alignment C).
 - Similarly, the estimated annual operating costs from 2013/2014 to 2024, assuming a 5% annual rate of increase, is between \$34.6 million to \$319.5 million.

5.2.5 Financial Feasibility

At this stage of planning, it is impossible to prepare a financial plan for the project. There simply are too many uncertainties about project timing, potential revenue sources, and whether the project will even go forward. This study does not attempt to create a financial plan, but it does examine a number of plausible financial alignments for constructing and operating a potential light rail extension.

Given the current financial condition of transit services in Madison County and the St. Louis region, it seems likely that a significant new source of funding would be required for any of the alignments. Federal funds will likely be required to build any light rail extension in Madison County. The financial analysis assumed federal participation of 50% of the construction cost. Further, it seems likely that there would be competing demands for any new revenues, and a funding plan would have to take these demands into account.

In summary, one can say that the following conditions will need to be met in order for a Madison County light rail extension to be considered financially feasible:

- A much more robust state/local funding commitment for both capital and operating costs will need to be in place to compete successfully for federal funds.
- In addition, the LPA will need to compete well with other projects nationally at the time an application is made for federal funds when evaluated pursuant to the FTA evaluation criteria in effect at such time. The severity of the competition will depend on the quality of other projects being proposed, as well as on the size of the federal program. At this juncture, there is no way to predict with confidence whether any of the identified alignments would successfully compete for federal funds. However, based on a very limited analysis, it is possible that one or more of the alignments might be successful in competing for federal funds.
- It should be noted that one of FTA's priorities is not to fund rail extensions in areas where the bus system is being allowed to deteriorate. MCT currently is forecasting future year funding shortfalls, a condition that will need to be remedied. Similarly, Metro's overall financial condition and stability will need to significantly improve over the present day situation, although this issue is mitigated to some extent given the more or less "stand alone" financing of light rail extensions on the Illinois side.
- If the LPA is to advance with federal participation, there will need to be a plan that shows how the agencies can afford to build, operate and maintain a Madison County light rail extension, while continuing to operate and maintain the existing transit system.
- A significant increase in State of Illinois funding for transit in Madison County will be required under all of the funding scenarios. Currently, the State provides approximately \$7 million annually in operating assistance to MCT. For a Madison County light rail extension, the amount of the capital contribution from the State ranges from \$18 million to \$182 million, depending on the alignment and the funding scenario. Similarly, the annual operating and maintenance-funding requirement from the State varies widely, from \$250,000 to \$2.5 million, depending on the alignment and scenario.
- Absent an unexpected level of funding from the State of Illinois, an increase in the sales tax in Madison County will in all likelihood be needed. Our analysis shows that in every case an additional local sales tax levy (or equivalent) will be required to cover capital and operating

costs. Further, a one-quarter cent levy will be sufficient only in the case of the B MOS alignment. Other alignments will require an increase ranging from just over one-quarter cent to roughly three-quarter cent.

The purpose of the public involvement process for the Madison County Light Rail Feasibility Study was to inform and to involve citizens in deciding whether to pursue a light rail corridor in the County. The process was not intended to have the public recommend a corridor.

Engaging the public included a number of tasks, including outreach and media relations, during all three phases of the study. During the first two phases, Task 1 – Scoping and Task 2 – Definition of Alignments, community input was gathered through stakeholder phone interviews, focus groups, Policy Advisory Committee (PAC) meetings and public open houses. The technical team used the information gathered during these tasks to: (1) familiarize itself with County issues and existing conditions, (2) develop the study's goals and objectives, and (3) identify preliminary alignments for further detailed analysis. The final phase, Task 3 – Evaluation of Alignments, involved a final PAC meeting.

To ensure maximum citizen engagement, all public involvement tasks were divided into three Madison County areas – Tri-Cities, Riverbend and Central County. In total, more than 300 residents and business owners directly participated in the study. More than 2,200 people were directly informed about the study. Below is a summary of each activity, its purpose, findings and results in the order in which they occurred.

6.1 STAKEHOLDER PHONE INTERVIEWS

The first public involvement task was to conduct stakeholder phone interviews with twelve political, business and community leaders to obtain a firsthand understanding of the transportation issues facing Madison County. The interviews occurred during late July 2004. An equal number of residents from Alton, Edwardsville, Glen Carbon and Granite City were interviewed. From the employment perspective, six interviewees worked in Edwardsville, two in Alton and one each in Glen Carbon, Granite City, Godfrey and southwest Madison County. Madison County Chairman Alan Dunstan provided the names of the stakeholders to be interviewed.

At the beginning of each interview, stakeholders were told that the purpose of the phone call was to:

- Learn about their interests regarding light rail in Madison County;
- Learn about the key issues facing the County and how they could potentially impact the study;
- Inquire about the best sites for public meetings and avenues for distributing information; and,
- Gather names for the upcoming small group interviews.

Each stakeholder was asked a total of 16 questions. Question content focused on: commuting experience; congested roadways; future development; activity centers and destination points; MetroLink's value to Madison County; citizen sentiment regarding MetroLink; media coverage of MetroLink; and non-transportation issues impacting the County. See Appendix G for the complete list of stakeholder phone interview questions.

All stakeholders interviewed felt the expansion of MetroLink into Madison County would be extremely valuable because it would link residents to St. Louis for recreation and employment and make the County more available to St. Louis residents. The political, business and community leaders interviewed considered light rail part of a broader, long-range vision for the County. However, the residents were only in favor of the system if it were to travel through their municipality. It was apparent from the interviews that residents would need more tangible facts before seeing light rail as a viable and economical means for improving their quality of life. In addition for those residents who currently use MetroLink from the East St. Louis, Illinois station, the interviewees stated that service was used to attend recreation events in St. Louis. Thus it was evident from the stakeholder phone interviews that for MetroLink to be widely used in Madison County, residents would need to view light rail for all local transportation needs, not just for recreational travel. See Appendix G for the stakeholder interview final report.

6.2 FOCUS GROUPS

After the stakeholder phone interviews, the study team conducted three focus groups in the Riverbend, Tri-Cities and Central County areas during mid-September 2004. Each focus group included three to five participants who were recommended by the stakeholders interviewed at the study's start. The objectives of each 90-minute session were to:

- Understand the existing conditions impacting Madison County;
- Envision future conditions for Madison County;
- Generate facilitators and barriers impacting the expansion of light rail; and,
- Identify key destination points, activity centers and routes.

In discussing the County's existing conditions, focus group participants said all interstates leading into St. Louis, such as I-270 and I-55/70, were major bottlenecks. They mentioned apparent low ridership on MCT buses and wondered if this was either a symptom of low public awareness about the transit system or an excessively auto-dependent public. Participants also talked about commercial and residential growth being prevalent but uneven in Madison County. They cited affordable housing and quality education as the major reasons why St. Louis families were moving to Edwardsville and Glen Carbon.

Regarding future conditions, focus group participants expected to continue seeing greater residential, retail and commercial growth in Madison County, but in the areas already experiencing this such as Edwardsville and Glen Carbon. With the population increasing, participants believed MetroLink would be an asset because more residents would consider using light rail to travel between St. Louis and Madison County.

As for the facilitators impacting light rail expansion, focus group participants felt that Madison County was poised for such growth because of its abundant acreage, the preponderance of abandoned rail lines, the increasing cost of transportation and the rising enrollment at higher education institutions such as SIUE and LCCC. Participants cited three barriers to expansion:

- Residents' likely reluctance to approve a tax referendum if the route does not benefit them directly;
- Residents' concern with current low MCT bus ridership;
- The financial costs and long planning horizon. If MetroLink could be expanded into Madison County's densely populated areas within the next five to six years, then residents would support light rail.

As the final focus group exercise, participants were asked to locate on a map what they considered to be Madison County's key destination areas. Then they linked the destination points to form alignment routes. Edwardsville was selected as the most important destination point. Alton, Godfrey, Granite City and Collinsville were chosen as the second or third most popular destination points. As for proposed routes, participants said light rail should travel from St. Clair MetroLink stations to:

- LCCC, with stations at Gateway International Raceway, Tri-Cities Port Authority, Tri-City Speedway, Alton Belle Casino, or to,
- Edwardsville and Glen Carbon, with stations close to the Gateway Center, Glen Carbon, SIUE and finally to downtown Edwardsville.

In summary, focus group participants made three key points:

- MetroLink is desired in Madison County;
- Low bus ridership impacts how MCT is viewed in the County and may indicate that residents may not want to use any type of public transit; and,
- Destination points and potential routes need to include institutions of higher education and high-density residential areas.

The study team used the stakeholder phone interviews and focus group information to develop the study's goals and objectives, evaluation criteria and a set of possible alignment alignments. See Appendix H for the complete focus group summary report.

6.3 POLICY ADVISORY COMMITTEE (MEETINGS #1 & #2)

To serve as a sounding board for the study's technical team, the PAC was formed consisting of sixteen community representatives with extensive civic knowledge and involvement. Former Bank of Edwardsville President Robert Wetzel chaired the advisory committee. The other PAC members were:

- Monica Bristow, Growth Association of SW Illinois
- Ronald Capek, The Korte Company
- Dave Dietzel (then Gary Stahlhut), Madison County Highway Department
- Noncy Dooling, St. Anthony's Health Center
- Sandra Hudson, Edwardsville School District #7
- Jerry Kane, Madison County Transit
- Charles King, Jr., Tri-City Regional Port District
- Steve Knobbe, Metro
- George Machino, International Union of Operating Engineers
- Richard Mark, Ameren
- Matt Melucci, Madison County Circuit Clerk
- James Pennekamp, Leadership Council of SW IL
- Robert Plummer, R.P. Lumber Company, Inc.
- Les Sterman, EWGCOG
- David Werner, Retired SIUE Chancellor
- Richard Worthen, Sierra Club

The PAC met four times during the course of the study. Two meetings were held before the first round of public open houses and two afterwards. The role of the PAC was to support the study team by openly and candidly sharing their thoughts and to validate the public input. Because of

their community connections and knowledge, the PAC also assisted the technical team by informing citizens about public feedback opportunities.

6.3.1 PAC Meeting #1

The first PAC meeting, held October 19, 2004, outlined the committee's role, the study's purpose, approach and timeline, initial findings from the stakeholder phone interviews and focus groups, potential light rail alignments and evaluation criteria. Study team members outlined the four conditions that any potential alignment must satisfy. They were:

- Link to St. Clair MetroLink station;
- Utilize existing transportation corridors;
- Connect linearly to activity centers; and
- Provide a direct route to stations and destination points.

The study team then suggested five initial light rail concept alignments to the PAC. After hearing and reviewing the study team's information, PAC members asked that Madison County's shopping centers also be considered as destination points. In addition, they encouraged the study team to educate residents about the economic value of MetroLink to the region so they can see how expansion can benefit them directly. Lastly, members said residents must view light rail as an answer to a problem. Therefore, it must be cost effective, convenient and easy to use. If MetroLink takes longer to travel than vehicles, then PAC members said residents would not support light rail expansion.

See Appendix I for the complete PAC Meeting #1 summary.

6.3.2 PAC Meeting #2

The second PAC meeting occurred on November 30, 2004 and focused primarily on having members review and comment on the boards and materials that would be shown at the first round of public open houses. The study team presented the study's goals and objectives.

After presenting the study's goals, the study team then presented the County's existing conditions information, which included: population density now and in 2030; employment density now and in 2030; current households with no vehicles; and the current number of people below poverty density. The team then reviewed the six potential alignment alignments that would be presented to the public for comment. Team members mentioned that in light of comments received at the initial PAC meeting, alternate connections to the alignments were added. One alternate was to extend Alignment A that runs along the railroad near Route 3 to LCCC instead of to Alton. The potential alignments that were presented to the PAC to be shown to the public were described in Section 4.1.1. The study team also presented the evaluation criteria to the PAC as it would be presented to the public and used to analyze the alignments.

See Appendix J for the complete PAC Meeting #2 summary.

6.4 PUBLIC OPEN HOUSES

To engage the general public in the Madison County MetroLink Feasibility Study, a round of three public open houses was planned and conducted in mid-December 2004. The purpose of these meetings was to present the study's goals and objectives, and to solicit feedback. The bulk of the public involvement time on the study was spent organizing outreach and media relations for these open houses as well as planning and conducting them.

6.4.1 Outreach and Media Relations

To drive attendance to the public meetings, a newsletter was designed and distributed. This newsletter announced the study, outlined the importance of public input and gave the dates, times and locations for each of the three open houses.

More than 2,200 newsletters were distributed to County municipalities, public libraries, churches and other institutions. Fifty newsletters were distributed to each of the County's municipalities. PAC members also distributed newsletters to their constituents. Some of them, such as representatives from the Growth Association of Southwestern Illinois and the Sierra Club, also sent a meeting announcement out to their individual email lists.

A newspaper ad was developed and placed in several Illinois newspapers. These newspapers were: the Alton Telegraph; the Collinsville Herald; Edwardsville Intelligencer and Granite City Journal.

To supplement the outreach efforts, a media relations campaign was conducted. A press advisory was developed and distributed to 19 media organizations in the Metro East area in addition to the St. Louis Post-Dispatch and network television stations in St. Louis.

The media campaign resulted in six stories—on radio, television and in print—before the open houses explaining the study’s purpose and giving the meeting dates, times and locations. In addition, the media also printed and broadcasted several stories after the open houses. The media campaign resulted in:

- Ten newspaper articles in the St. Louis Post-Dispatch’s Alton Area Post, the Alton Telegraph, the Belleville News-Democrat, the Collinsville Herald, and the Suburban Journals;
- Three radio interviews on Metro Network News, which distributes stories to nearly 30 radio stations, WSIE 88.7 FM, and WBGZ 1570 AM, which included an hour-long show on “Let’s Talk” with Kathy Peek;
- Two interviews on television morning shows, KSDK-TV/Channel 5 and KTVI-TV/Channel 2.

6.4.2 Format and Results

The first open house was held in Alton and had 100 people in attendance. The second was in Granite City and had nearly 45 attendees. The third and final open house was in Edwardsville and had 100 participants. In total, approximately 250 people attended the open houses. One hundred and eighty-six attendees or 75% of the attendees at this round of meetings completed comment forms.

The content and format was the same at all three meetings. Upon arrival, attendees signed-in and were given a welcome handout and comment form. There were nineteen display boards outlining

information about the study's purpose, stakeholder phone interviews and focus group summaries, goals and objectives, existing conditions, initial evaluation measures and possible alternatives. Attendees viewed the boards at their leisure and were able to talk to study team members one-on-one. After viewing the boards, participants were encouraged to complete a comment form.

The comment form began by asking respondents whether they thought MetroLink would benefit Madison County and whether they had ever ridden the light rail system. Ninety-six percent of respondents said that MetroLink would benefit Madison County by reducing congestion, providing a fuel-efficient, environmentally sound alternative to the automobile, connecting people to employment and major activity centers, helping to sustain some areas and to encourage new development in others and providing transportation to the transit-dependent. Ninety percent of respondents said they had ridden MetroLink.

The main portion of the comment form asked respondents if they agreed with the study's goals and objectives and whether some were more important than others. Ninety-five percent of the respondents agreed with the goals. The majority felt "mitigate congestion" was the most important goal with "improve access to opportunity" a close second. "Foster sustainable development" was third and "achieve cost-effectiveness" last.

Respondents were also asked to check the top three activity centers on a list of ten that they felt were most important to the viability of light rail, respondents said in the following order of importance: SIUE; Alton; Downtown St. Louis; and close behind LCCC. The other activity centers mentioned on the list were: Collinsville; Edwardsville; Gateway Center; Gateway Commerce; Granite City; and St. Louis Regional Airport.

Respondents were also asked to rate how they thought each potential alternative addressed the goals and objectives by circling "very little", "somewhat", or "very much". Respondents selected Route B (which follows the Nature Trail through Granite City and continues to SIUE and then to Edwardsville) and Route A (which serves the Riverbend area by traveling on existing rail lines near Route 3) respectively. The alternative to Route A (which begins the same as Route A until Wood

River where it branches off and travels to LCCC instead of to Alton) was not far behind. These results were summarized in Section 4.1.2.

The last part of the comment form asked respondents about the meeting process and to describe themselves. The majority felt the open house was “useful”, “helpful”, and “organized”. Residents made up the majority of attendees. The newspaper advertisements attracted the largest number of attendees, followed by email and the study newsletter.

See Appendix K for the open house materials and summary report.

6.5 POLICY ADVISORY COMMITTEE (MEETINGS #3 & #4)

Two more PAC meetings took place after the public open houses. A synopsis of each one is below and details can be found in the appendices.

6.5.1 PAC Meeting #3

The third PAC meeting occurred on February 3, 2005. It focused on having committee members, in light of public input, decide which two or three light rail alternatives out of the six should be studied further. Study team members summarized the results of public comments received at the open houses. Then they reviewed the conceptual evaluation results of the six alternatives. After much discussion, the PAC decided that three alternatives, as described in Section 4.2, should move forward for further study.

The group also decided that when the study team presented its findings to the public, the following should be emphasized:

- These alternatives are not necessarily the final routes;
- None of the alternatives alone will satisfy all of Madison County;
- To bring MetroLink to Madison County, we need to start small; and
- A MetroLink route for Madison County should be based on connecting important activity centers.

See Appendix L for the complete PAC Meeting #3 summary report.

6.5.2 PAC Meeting #4

The fourth and final PAC meeting occurred on August 12, 2005. The primary purpose of this meeting was to solicit members' comments on the evaluation results, financial feasibility and the executive summary. The other meeting purpose was to decide what the PAC should recommend to Madison County Chairman Alan Dunstan regarding the feasibility of MetroLink in the County.

Study team members explained that the Executive Summary should provide a general explanation of the technical analysis results and discuss potential impacts, costs, ridership and financial scenarios for the extension of light rail into Madison County. Based on the PAC's suggestion, a map was developed as part of the Executive Summary showing minimum, moderate and full build options instead of specific alignments.

PAC members said that the Executive Summary shows that Madison County light rail has to start somewhere, just like it did in St. Clair County. They reiterated that in order to move forward with MetroLink, the public would need to be educated on the benefits.

The PAC then discussed what its recommendation should be to Madison County Chairman Alan Dunstan. Members decided that in light of the public and technical input, they should recommend that MetroLink is a viable transit alternative for the County and planning should move to the next step. This next step would be an Alternatives Analysis and Draft Environmental Impact Statement, which will determine an exact route, potential ridership, and costs. It will allow the County to move an identified MetroLink route into the FTA's New Starts program, which is an opportunity to obtain federal money for construction.

The PAC agreed to have Jerry Blair, Director of Transportation at EWGCOG, which led the study, compile all of its comments discussed at the final meeting and draft a letter of recommendation to Chairman Dunstan for members to review before submitting it. Members emphasized once again that the recommendation should state that the alternatives are not final routes, none of them will

satisfy all of Madison County, and that they should connect important activity centers. Last but not least, it should also suggest that to bring MetroLink to Madison County, officials should start small.

Study team members concluded the final PAC meeting by discussing the possibility of a second round of open houses. The PAC decided that a second round was not needed because there were no recommended alignments to present. Instead, it suggested sending a newsletter to all citizens who attended the public meetings as well as to the media about the PAC's recommendation and possible next steps that would be coordinated with Madison County officials. See Appendix M for the complete PAC Meeting #4 summary report.

6.6 CONCLUSION

The public involvement process for the Madison County MetroLink Feasibility Study helped achieve the study's goal, which was to determine whether light rail would be viable for the County. Through the help of a dedicated PAC and public input, the study technical team was able to define goals and objectives, develop possible light rail alternatives that would satisfy the study's goals, and then evaluate them. The PAC's formal recommendation to County officials was delivered to Chairman Dunstan. County officials will determine the next step, whether to conduct a detailed Alternatives Analysis and Draft Environmental Impact Statement.

The conclusion of this study is a final consensus recommendation by the PAC to Madison County officials. This recommendation addresses the feasibility of a light rail extension with regards to the findings of this study and offers advice on how the County should progress towards the recommendation. In making this recommendation to Madison County officials, the PAC considered the results of all of the study efforts, avoiding speculation on a preferred route for a MetroLink extension and focusing on the general benefits and costs of extending light rail into the County. See Appendix N for a copy of the final recommendation letter to Madison County Board Chairman Alan Dunstan.

7.1 FINAL RECOMMENDATION

The final recommendation of the PAC is that light rail service would be a valuable, and feasible, asset for Madison County.

Major benefits of a MetroLink extension that were identified by this study include:

- Creation of an attractive travel option for County residents
- Provision of high quality service for transit-reliant citizens
- Connection of major activity centers, and,
- Support for existing and future development.

The study found no major planning or engineering obstacles to expanding light rail into the County, and citizens at the public meetings expressed hopes that light rail would someday be a reality in the County.

Two major challenges with respect to this recommendation were uncovered during the study process. The first challenge revolves around selecting one route that attracts widespread support throughout the County. The second challenge is developing the additional revenue needed to build, operate, and maintain a light rail route. Considering these challenges, the feasibility of a light rail extension will ultimately depend on the political and public will to make it a reality.

Considering these conditions, it is recommended that Madison County officials initiate a more detailed study of light rail extension in the County. The County should proceed with an Alternatives Analysis of possible light rail routes and prepare an Environmental Impact Statement. The goal of these studies would be to select a specific route for implementation and develop a financing plan. This type of analysis will provide extensive information on the benefits and impacts of alternative light rail routes, how the system should be built, how much it will cost, and how it will be financed. Additionally, these detailed studies are necessary to qualify any extension for federal construction funding, a critical funding stream identified for light rail extension into the County.

It is also recommended that Madison County “start small” in considering the extension of MetroLink. There are solid opportunities to build a first, relatively short segment of what could become a much broader system. Starting small would minimize the initial financial outlay without jeopardizing the County’s future ability to expand MetroLink to multiple destinations.

7.2 FINAL PRODUCTS

7.2.1 Executive Summary

The Executive Summary, dated August 12, 2005, provides a general explanation of the results of the technical analysis, along with a discussion on potential impacts, costs, ridership and financial scenarios for the extension of light rail. Based on the earlier direction of the PAC, a map for public review was developed and included in the summary (Figure ES-3). This map shows minimum, moderate and full build options.

7.2.2 Technical Memoranda and Final Report

The technical memoranda, along with the study's final report, document this study process and results. These documents will serve as the foundation for any future light rail study in Madison County. Their names and dates are listed below:

Scoping Technical Memorandum, Final Report, Madison County Light Rail Feasibility Study, June 30, 2005.

Final Definition of Alternatives Technical Memorandum, Final Report, Madison County Light Rail Feasibility Study, August 26, 2005.

Evaluation of Alternatives Technical Memorandum, Final Report, Madison County Light Rail Feasibility Study, September 2005.

Madison County Light Rail Feasibility Study Final Report, September 2005.

FIGURES

FIGURES	
Figure ES-1	MetroLink Corridors
Figure ES-2	Study Area
Figure ES-3	Light Rail Options
Figure 1	Study Approach
Figure 2	Transportation, Railroads and Trails
Figure 3	Bicycle & Pedestrian Facilities
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Figure 5	2000 Population Density by TAZ
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Figure 9	2000 Below Poverty Level by Census Block Group
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Figure 15	Alignment A-1
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Figure 19	Alignment B-2
Figure 20	Alignment C-1
Figure 21	Alignment C-2
Figure 22	Alignment C-3
Figure 23	Summary of Evaluation Matrix
Figure 24	Final Evaluation Results

APPENDICES

Appendix A
Typical Sections

Appendix B
“Ridership Estimates for the Madison County Feasibility Study”
Memorandum
February 18, 2005

Appendix C
“Model-Based Travel Patterns of Madison County”
Memorandum
February 18, 2005

Appendix D
“2030 Ridership Forecasts and Feeder Bus Planning Study”
Final Report
August 2005

Appendix E
Order-of-Magnitude Cost Estimates and Assumptions

Appendix F
Financial Alternatives & Feasibility Study
Executive Summary and Final Report
September 2005

Appendix G
Report of Stakeholder Interviews
August 2004

Appendix H
Focus Group Summary
October 2004

Appendix I
Policy Advisory Committee Meeting #1; October 19, 2004
Meeting Summary
Presentation

Appendix J
Policy Advisory Committee Meeting #2; November 30, 2004
Meeting Summary
Presentation

APPENDICES

Appendix K

- Open House; December 14-16, 2004
- Summary Report January 2005
- Open House Notification List
- Newspaper Articles
- Welcome Handout
- Comment Form
- Map of Potential Light Rail Routes
- Verbatim Comments from Section One, Question 1a
- Verbatim Comments from Section One, Question 1b
- Verbatim Comments from Section Two, Question 1a
- Verbatim Comments from Section Two, Question 1b
- Verbatim Comments from Section Two, Question 1c
- Verbatim Comments from Section Two, Question 2b
- Verbatim Comments from Section Two, Additional Comments
- Verbatim Comments from Section Three, Additional Comments
- Newsletter #1
- Newspaper Advertisement
- Display Board Summary
- Press Advisory
- Press Release

Appendix L

- Policy Advisory Committee Meeting #3; February 3, 2005
- Meeting Summary
- Presentation

Appendix M

- Policy Advisory Committee Meeting #4; August 12, 2005
- Meeting Summary
- Presentation

Appendix N

- Policy Advisory Committee Final Recommendation Letter
- October 24, 2005