APPENDIX G GAP ANALYSIS PAPER

JACKSON COUNTY

COMMUTER CORRIDORS

ALTERNATIVES ANALYSIS

GAP ANALYSIS

August 2011

MARC

Mid-America Regional Council

ESTABLISHED 1826 JACKSON COUNTY MISSOURI

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Kansas City Area Transportation Authority

This document constitutes the product of a "gap analysis" analyzing the study documents listed below. Findings were reached in a collaborative fashion among the PB Team Members and were discussed at an internal workshop on July 20, 2011 held at PB's Lenexa Office. Subsequently, results and conclusions were presented to the Project Partnership Team (PPT) at a concluding workshop on July 21, 2011, in order to get additional insight and buy-in from the project's sponsoring agencies.

The studies we examined that were deemed relevant for this study included:

1. Smart Moves Phases I, II, and III Implementation Studies and the Mid-America Regional Council (MARC) Long Range Transportation Plan (LRTP)
2. Regional Rapid Rail conceptual planning
3. I-70 Commuter Rail AA Study
4. Commuter Rail Feasibility Study
5. MoDOT I-70 FTEIS
6. Rock Island Rails to Trails / Katy Trail Connection concept plans
7. Local Land Use Planning Efforts for cities along the proposed alignments.

Table 1 identifies studies and areas that were found to address FTA procedures and technical methods, sorted by relevant study and topic. From the contents of the matrix, we have concluded that although ample relevant planning has been conducted in the region over the past decade, much of it was at a more macro level than a corridor-focused AA designed to differentiate among mode and alignment alternatives. It was generally done in a regional planning context to set the stage for the tasks at hand, which are at a more micro level. It should be noted that the technical guidance from FTA generally offers what the agency considers to be best practices for an AA and for arriving at a decision on a Locally Preferred Alternative (LPA), and we have made our determination of "gaps" according to this.

Table 2 shows the extent to which the prior studies provide or do not provide products that can be used as part of our work, ultimately aiding in doing the requisite analysis for an AA culminating in a locally preferred alternative (LPA) and leading to the development of an application for Preliminary Engineering (PE) for a New Starts submittal, if that is ultimately decided at the conclusion of the AA phase.

Although fundamental, this gap analysis is an important part of the AA as it frames much of the remaining tasks centered on identifying the alternatives, analyzing and evaluating them, and presenting the technical results to aid in the selection of an LPA for potential advancement in the project development process.

The "gap analysis" revealed, and the PPT largely agreed, that the Scope of Work Activities of the current AA still are relevant. Accordingly, the schedule developed is also relevant and still applicable.

Significant findings from the gap analysis show that:

- The prior studies contain useful data, having focused local attention on transit and the need for expanded services in general in an urban, commuter and suburban context, and form the basis for a "systems plan". Much of the work has also narrowed the range of feasible technologies and alignment options. In this way, the previous studies provide a good general foundation for more focused corridor planning in AA.

- New work will be needed in order to fully understand and articulate the corridor's Purpose and Need in terms of travel markets and system performance. This needs to be tied to goal setting, land use and growth plans and trends, and existing and future travel demand. The adopted goals in MARC's LRTP offer a starting point for establishing project goals and objectives, but they need to be augmented with more quantifiable goals that can be used to analyze identified alternatives from other planning documents. It is important to understand the current transit system performance and any weaknesses of the commuter services and modes in the corridor in order to formulate alternatives that aim to resolve those weaknesses. . It is also important to have a feeder system to ensure connectivity and integration with existing and planned transit services at trip origins and destinations and at the intermediate points, especially along a fixed-guideway route.

- Prior studies did not lead to local decisions on a LPA(s) with regard to mode (vehicle type/technology), alignment / termini, or a finance/governance, which are the required end products of an AA. Thus, further analysis and deliberation are needed to support these local decisions. Available rail vehicle types need to be considered early on, as it will have a bearing on the selection of reasonable alignment alternatives at the to downtown Kansas City end of the corridor. Consideration of finance/governance options should occur concurrently with mode and alignment options.

- Travel demand forecasting will be an important component of the AA. The MARC regional travel demand forecasting model must be extended to LaFayette and Johnson Counties and needs to take into account new socio-economic data and trends. The mode choice sub model also needs to be expanded and calibrated to allow for a commuter rail option / choice.

- There is a need for improved analytical tools and technical information on costs, fare revenues and impacts. While past studies have defined the commuter rail alternative in some detail, and have produced a preliminary capital cost estimate, further engineering is at a conceptual level. Continued and focused stakeholder engagement with the railroads is needed to verify assumptions in the preliminary cost estimate. . Specifically needed are robust and defensible capital and O&M cost modeling and cash flow analysis. This is true for both a bus and rail option, although there is a broader and deeper base of knowledge about the rail options when compared to the bus.

- In order for an LPA to be competitive for New Starts and Small Starts funding, it must score favorably on FTA's current cost-effectiveness index and other justification criteria, including land use and economic development. Efforts should be made to enhance the likelihood of receiving a medium or better project justification rating. Prior studies do

not suggest that the kinds of local land use policies and other steps needed to secure a medium or higher rating are yet in place. Our study needs to provide a next steps framework for how MARC, Jackson County and the local communities on the allignment could work collaboratively on an “aspirational land use scenario”.

- There is a need to separate and differentiate this AA study from what is currently going on (Downtown Circulator AA, Light Rail Referendum, RTA Planning, etc.) and what has gone on in the past. At the same time, consistent messaging among parallel efforts is necessary to combat study fatigue and confusion and to differentiate who is doing what and why.

Table 1: Comparison of Prior Studies with FTA Technical Guidance

Topic	MARC Smart Moves Phase I Urban Corridors	MARC Smart Moves Phase II	MARC Smart Moves Phase III Implementation Strategy
Purpose and Need	o Study provides definition to the concept of high-capacity (BRT) transit corridors as described in the original "Smart Moves" concept plan o Plan presents both short-term and long-term implementation strategies for six "urban corridors", including the U.S. 40 highway corridor in Jackson County	o The Phase 2 Commuter Corridors report addresses the physical, operational and ownership components necessary to develop a commuter rail system in the Kansas City metropolitan area. The report includes strategies for additional review of feasible rail transit corridors including initial system operations. The report develops an implementation plan for the pursuit of commuter options along the various Commuter Corridors as defined by Smart Moves.	o Study describes integration of four regional transit system elements as defined in the original Smart Moves concept….Urban Corridors, Commuter Corridors, Local Fixed-route service, Community-based service (paratransit) o Plan will present both short-term and long-term implementation strategies for the development of the Smart Moves Regional Transit Vision
Alternatives Development	o Describes operational characteristics for transit service in each of the defined corridors o Goals and objectives are presented.	o This report is part of a continuing effort by MARC to develop a regional transit system plan. o No specific purpose & need was included.	o Describes general operational characteristics for each of the four elements that comprise the regional system o Goals and objectives are presented.
Analysis of Capital and O&M Costs	o Describes status of service development in each corridor and describes remaining steps necessary for full implementation	o This report focuses on six corridors and the viability of commuter rail on these routes. The six corridors are built from the SmartMoves plan using a combination of active freight rail lines, abandoned or underutilized rail lines and new build segments. o The I-70 and Rock Island corridors are two of the six corridors studied. Information on each corridor is provided including general alignment, station location, condition assessment, capital and O&M costs, service plan, equipment, and ridership.	o Describes status of service development in county within the region and will describe remaining steps necessary for full implementation, including financing strategies

Table 1: Comparison of Prior Studies with FTA Technical Guidance

Topic	MARC Smart Moves Phase I Urban Corridors	MARC Smart Moves Phase II	MARC Smart Moves Phase III Implementation Strategy
Analysis of Benefits and Impacts	o Provides preliminary capital and O&M cost estimates for each route and technology. Capital costs are "order of magnitude" and based on estimates developed for other planned projects. o O&M cost estimate based on local fully-allocated costing methodologies	o The opinion of probable capital cost is considered preliminary and subject to change as specific alignment options remain to be studied. o Expressed in current 2010 dollars including a 20% contingency and 15% Engineering Administration for a programming level budget. o Common to the system's capital costs is a maintenance facility (at $10.0 million) and three overnight storage yards for the six corridors at $500,000 each. The total cost is split equally to each corridor at $1,920,000. o Negotiated costs with the host railroad are essentially unknown at this stage. o Construction costs are based upon a cost per mile basis that includes track (ballast, ties and rail) as well as signal control systems and structures (crossing manmade and natural features) o Right-of-way costs vary by corridor from a low $3.2 million to a high of $26.4 million. As a system, the average cost for right-of-way expressed as a percentage of construction cost is 11%, prior to contingencies. For each corridor the percentage ranges from 3% to 21%. The corridor with the highest right-of-way cost is associated with the purchase of the Rock Island line from Union Pacific. o A preliminary estimate of the number of rail vehicles is 50 units which include spares. Recent purchase of a set (2 units) by the Austin Metro of the Stadler rail vehicle was $5.1 million. This represents $127.5 million in capital cost. Again, ridership estimates can influence this estimate of the number of rail vehicles. o The overall costs sum to approximately $1.2 billion. Right-of-way costs represent approximately 11% of total construction costs with stations and facilities representing another 6%. The remaining 83% of the construction cost is associated with rail track and signal work. On a cost per mile basis, costs range from a low of $3.8 million per mile to a high of $15.6 million per mile. The average capital cost for the entire system is approximately $8.4 million per mile. o The I-70 (Blue Springs) corridor is $108M and the Rock Island (Lee's Summit) corridor is $187M.	o Provides preliminary capital and O&M cost estimates for each concept element. Capital costs are "order of magnitude" and based on estimates developed for other planned projects. O&M cost estimate based on local fully-allocated costing methodologies
Evaluation of Alternatives	o Ridership forecasts are not presented o Traffic impacts of proposed road improvements were not assessed	o This report was an implementation plan and did not include an analysis of benefits and impacts.	o Ridership forecasts are not presented o Traffic impacts of proposed road improvements were not assessed
Financial Plan	o For the most part, did not have a financial aspect as this was a regional planning type document	o This study was a system plan from implementing commuter rail over a long-term planning horizon. No evaluation of alternatives was included.	o
Public Involvement and Interagency Coordination	o Relied on traditional MPO level and type of involvement techniques	o Institutional matters were discussed in the study. A strategy for future study included developing a funding implementation plan.	o

Topic	MARC Smart Moves Phase I Urban Corridors	MARC Smart Moves Phase II	MARC Smart Moves Phase III Implementation Strategy
	o	o Presentations were made to MARC's transit committee and the Regional Transit Alliance on a regular basis. Interviews were held with local government representatives.	o

Table 1: Comparison of Prior Studies with FTA Technical Guidance (continued)

Topic	Kansas City Regional Rapid Rail - 2011	Commuter Rail Feasibility Study – 2002
Purpose and Need	o Transport People to Their Places of Employment o Support Event Center Transportation o Promote Localized Economic Development o Create a System That is Affordable and Accessible o Develop Environmentally Friendly Transit o The purpose of the Kansas City Regional Rapid Rail system is to make the Kansas City region competitive by providing alternative means of low cost transportation in an effort to connect people with jobs.	o First step in evaluating commuter rail's potential role in the greater Kansas City region over a 20 year planning horizon o (1) maintain the commuter rail option until the time is right o (2) lead to service implementation when the decision is made to proceed o The study's purpose is to determine whether existing rail corridors or rights of way could effectively serve the region's needs, and to identify strategies to assess commuter rail feasibility and development and implementation steps, if warranted.
Alternatives Development	o System plan for 6 regional rail corridors capitalizing on the abundance of underutilized, abandoned or out of service rail in the region o Regional rapid rail is a uniquely combined system providing passenger rail service from suburbs to central cities. It is a system with an increase in station stops, headways and area coverage linking central cities to suburban centers through transit technologies with high speeds, acceleration and deceleration rates, passenger capacity and design standards to approach rapid transit in characteristics.	o Eight commuter rail corridors containing 19 rail lines radiating from downtown Kansas City were identified. o Population density, employment density, activity centers and existing rail infrastructure were used to determine corridors and alignments.
Analysis of Capital and O&M Costs	o High-level capital cost estimates completed for all six corridors. o Complete system cost is $1.1B for 143 miles ($7.56M per mile). o Individual costs for the I-70 and Rock Island corridors available.	o Capital cost estimation was largely a "desk top" exercise, in which service plans were developed and information concerning railroad tracks and facilities evaluated. o Operating costs were developed by applying a representative cost per train-mile to the annual train-miles operated in each corridor. o Capacity-related improvements necessary to enable shared use of tracks were assumed to be funded by the would-be commuter rail sponsor; those costs were not incorporated in the capital cost estimates.
Analysis of Benefits and Impacts	o The Phase II MARC study included limited ridership estimates based on the RRR system. o Major benefit is the economical option provided by this service; the fare is set so that is reasonably competes with passenger vehicle service. o A study titled "Socio-Economic Factors Relating to the Kansas City Regional Rapid Rail South Line" resulted in a transportation savings per household around $4,000 per year for families using Regional Rapid Rail. o Benefits of the system have been discussed with local government, property owners, CIDs and resulted in ground up support for the concept.	o The commuter rail ridership model utilized travel demand information and files from the MARC regional travel model. Because the area being studied is larger than that included in the MARC model, the data was supplemented with travel data from the Kansas and Missouri journey-to-work census data from 1990 factored to the year 2020. The mode choice model was run to produce year 2020 estimates of market share for the commuter rail service in the seven travel corridors under study. o The most difficult matter to overcome will be the combined issue of track capacity, cost of capacity improvements and reaching an agreement with the host railroads.

Table 1: Comparison of Prior Studies with FTA Technical Guidance (continued)

Topic	Kansas City Regional Rapid Rail - 2011	Commuter Rail Feasibility Study – 2002
Evaluation of Alternatives	o This concept did not evaluate mode alternatives, it focuses on rail transit. Various FRA compliant equipment types are considered. o Alternative alignments were evaluated including numerous underutilized rail corridors and roadways. o Interconnectivity with local transit services is included (local transfer coaches). Two routes in Lee's Summit and two routes in Blue Springs are developed. Six lines in Independence are modified. A transfer station at the Truman Sports Complex for Routes 28, 31, 35, 39, and 47 is outlined. Connectivity with downtown service (streetcar or BRT) is available.	o Used specific corridor screening measures that related to the FTA New Starts criteria. Mainly emphasized ridership.
Financial Plan	o Discussion of county sales tax, TOD and PPP as funding mechanism is ongoing.	o The study indicated that most important thing for MARC to do is to get a Congressional "earmark" inserted in the new authorizing legislation. o The study discussed employing three basic revenue sources (federal, state and local) to cover projected capital costs as well as the continuing costs of commuter rail operation and maintenance. These funding sources are anticipated to supplement fare-box revenue that is projected to be insufficient to fund ongoing operation costs.
Public Involvement and Interagency Coordination	o RRR System Concept has been backed by Jackson County Executive Mike Sanders for three years. The concept has been presented to nearly 5000 citizens throughout the region. Local government officials in every effected jurisdiction have been met with regarding the concept. o Media coverage has included news articles, letters to the editor and editorials. o Local and DC-based FRA and FTA representations have been briefed.	o Developed evaluation measures in harmony with the Federal Transit Administration's New Starts Criteria to the extent possible in a preliminary feasibility study o Media relations, Fact Sheet posted on the MARC web site, the Leadership Focus Group, PowerPoint presentation for use in speaking engagements

Table 1: Comparison of Prior Transit / Corridor Studies with FTA Technical Guidance

Topic	I-70 FTEIS
Objectives of Study & Study Conclusions	The process of the First Tier Environmental Impact Statement (FTEIS) will result with the following outcomes: o Approval of a Preferred Strategy for improving I-70 from the end of the last ramp east of the Missouri and Kansas state line to east of the I-470 interchange, including the Kansas City, Missouri downtown loop. o Identification of portions of I-70 that can be considered "sections of independent utility" (SIU) for analysis in future Second Tier studies. o Environmental documentation that can be referenced by Second Tier studies and reduces the amount of duplication between studies. o Public and agency consensus and understanding around the overall improvement plan.
Purpose and Need	The overall purpose of the I-70 FTEIS is to determine an improvement strategy for the corridor, including future capacity and mode choices, which addresses the following items: o Improve Safety: Reduce crash rates and crash severity on I-70 and within the downtown loop. o Reduce Congestion: Remove key bottlenecks; reduce the potential for ramp back-up onto the freeway; and improve multi-modal travel times in coordination with plans put forward by local and regional agencies. o Restore and Maintain Existing Infrastructure: Improve bridge and pavement conditions on I-70 and the downtown loop and implement cost effective investment strategies. o Improve Accessibility: Provide travel options for all residents; increase safe access across I-70 and the downtown loop for non-motorized travel; and support local and regional land use plans. o Improve Goods Movement: Improve the efficiency of freight movement on I-70 and the downtown loop. Chapter 1 of the Draft and Final First Tier EIS documents provide more information on the purpose and need. Appendix B of the Draft FTEIS is the Purpose and Need Technical Memorandum. Below is the website address to locate the documents. http://www.modot.mo.gov/kansascity/metroi70/documents.html
Identification / Alternatives Development	o The Study Team presented a wide set of concepts to the local agencies, stakeholders, and the pubic for improving I-70. The improvements concepts included such ideas as: telecommuting, carpooling, incident management practices, bus/rail transit, improving roadway design, adding capacity on bridge structures, and adding capacity in a tunnel. o The Study Team combined various concepts to develop 15 Initial Strategy Packages based on initial engineering and environmental analysis, MARC's Congestion Management System (CMS) toolbox, as well as comments and feedback from local agencies, stakeholders, and the public. The first seven strategy packages evolved from the previously completed I-70 Major Investment Study (MIS). Eight other packages were focused goal oriented strategy packages meant to address specific needs or issues along I-70. Section 2.1 of the Draft FTEIS describes each of the 15 Initial Strategy Packages. These strategies were evaluated against the purpose and need that resulted in four strategy packages (also called first tier or reasonable strategy packages) being carried forward for further analysis. The complete Screening Memorandum is in Appendix C in the Draft FTEIS. Chapter 2 of the Draft FTEIS provides The Draft FTEIS can be located at the following website address: http://www.modot.mo.gov/kansascity/metroi70/documents2.html o The recommended first tier strategy packages included: No-Build Strategy, Improve Key Bottlenecks Strategy, Add General Lanes Strategy, and Transportation Improvement Corridor Strategy. Based on further evaluation of these strategies, MoDOT decided on an Identified Preferred Strategy. Section 2.4 of the Draft FTEIS discusses how MoDOT screened the first tier strategy packages. The environmental analysis of the strategies is contained in Chapter 3 of the Draft FTEIS. The Draft FTEIS can be located at the following website address: http://www.modot.mo.gov/kansascity/metroi70/documents2.html o The preferred strategy is the Improve Key Bottlenecks Strategy from the downtown loop to east of I-435. The preferred strategy from east of I-435 to I-470 is either the Improve Key Bottlenecks Strategy or the Add General Lanes Strategy. One of the reasons to carry forward both strategies is the uncertainty of the Add General Lanes Strategy compatibility with future regional transit plan investments such as a fixed guide way system. Improving capacity in the I-70 corridor could potentially be solved by either adding new lanes to I-70 or through regional transit improvements. However, a significant investment to both potential highway and transit solutions is not necessary. If the region, supported by regional transit plans, concludes a significant transit investment would adequately address the traffic needs in the I-70 corridor, MoDOT, working with the region, would reevaluate the decision in the tiered environmental process. Section 2.4 of the Draft FTEIS discusses the preferred Strategy. The Draft FTEIS can be located at the following website address: http://www.modot.mo.gov/kansascity/metroi70/documents2.html
Identification and Analysis of Capital and O&M Costs	o The Record of Decision provides the total costs (land acquisition and construction) for each of the first tier strategy packages and the preferred strategy (Table 1). The Record of Decision can be located at the following website address: http://www.modot.mo.gov/kansascity/metroi70/documents.html
Identification and Analysis of Benefits and Impacts	o The first tier strategies were modeled using a modified 2005 MARC regional travel demand model and the Highway Capacity Software (HCS). The modified MARC regional travel demand model was used to identify the daily volumes on I-70 while HCS was used to evaluate the peak hour congestion through the corridor for each strategy. Additional traffic details are available in Section 2.4 and Appendix D of the Draft FTEIS. The Draft FTEIS can be located at the following website address: http://www.modot.mo.gov/kansascity/metroi70/documents2.html

Table 1: Comparison of Prior Transit / Corridor Studies with FTA Technical Guidance (continued)

Topic	I-70 FTEIS
Evaluation of Alternatives	o The 15 initial strategies were evaluated against the purpose and need and also considered engineering issues and impacts to the human environment, the natural environment, and the cultural resources within the study area. The complete Screening Memorandum is in Appendix C in the Draft FTEIS. The Draft FTEIS can be located at the following website address: http://www.modot.mo.gov/kansascity/metroi70/documents2.html o Each of the four first tier strategies is evaluated in terms of purpose and need, traffic, engineering issues, and environmental impacts. The strategy evaluation matrix, Table 1 is located in the Record of Decision. The Record of Decision can be located at the following website address: http://www.modot.mo.gov/kansascity/metroi70/documents.html
Financial Plan	o Funding was not identified for the preferred strategy in the FTEIS. o The step is conducting the Second Tier studies. This fall, MoDOT is going to conduct an EIS for two (Urban Sub-Area and I-435 Interchange Sub-Area) of the five SIUs. Funding has not been identified for conducting Second Tier studies on the remaining SIUs. Section 2.5 of the Final FTEIS discusses the recommended SIUs. The Final FTEIS can be located at the following website address: http://www.modot.mo.gov/kansascity/metroi70/documents.html
Public Involvement and Interagency Coordination	o MoDOT developed a detailed Public Involvement and Agency Coordination Plan specifically for the I-70 FTEIS. The document outlines the plans and process for the Study Team to achieve public participation and agency coordination as required by SAFTEA-LU, the National Environmental Policy Act, and MoDOT. The coordination plan can be located at the following website address: http://www.modot.mo.gov/kansascity/metroi70/community.html

Table 2: Comparison of Prior Studies with FTA PE Checklist

PRODUCTS	Prepared in Prior Studies?	Submitted to FTA?	Comments
ALTERNATIVES ANALYSIS (AA)			
Study Initiation			
RFP/Scope of Work[1]	Yes	No	Until this project, many preceding projects did not always follow a FTA compatible process
Problem Statement/Purpose and Need [1]	Yes, but not always corridor specific or market solutions specific as will be needed in this study	No	
Alternatives			
Conceptual Alternatives (Alternatives Analysis Initiation Package/Scoping Report) [1]	No	No	The current MARC JCCC AA will submit an Initiation Package in September 2011
Detailed Alternatives (and Operating Plans) [1]	No	No	Will be included in the existing effort
Final Alternatives (and Operating Plans) [1]	No	No	Will be included in the existing effort
Baseline Alternative	No	No	Specific Need for "Best Bus" alternative to compare to any rail alternative
1.1.1.1.1 Travel Forecasts	*1.1.1.1.2*	*1.1.1.1.3*	*1.1.1.1.4*
Documentation of Methodologies and Assumptions	Yes	No	Travel demand forecasting methodology used in previous studies is unlikely to be acceptable to FTA
Summit Reports and Maps	No	No	Will use Summit to derive user benefits
Travel Forecasts Template	No	No	Will have this element
1.1.1.1.5 Cost, Scope and Schedule	*1.1.1.1.6*	*1.1.1.1.7*	*1.1.1.1.8*
Summary of O&M Cost Assumptions/Productivities	Yes, some assumptions documented	No	Need to update previous work, assumptions and conclusions. Prior work on "rail" side more defined that work on "bus" side.
Capital Cost Estimate and Project Schedule in Original Format and Standard Cost Category (SCC) Format	Yes, some prior work prepared for previous studies	No	Need to update previous work, assumptions and conclusions. Prior work on "rail" side more defined that work on "bus" side.

[1] Not required at this time, but strongly encouraged.

PRODUCTS	Prepared in Prior Studies?	Submitted to FTA?	Comments
Planning Diagrams, Design Criteria, Concept Design Drawings and Specifications for guideway, stations, support facilities, sitework, systems, real estate, vehicles	Yes, conceptual diagrams developed for some alternatives considered in previous studies	No	Need to update previous work, assumptions and conclusions. Prior work on "rail" side more defined that work on "bus" side.
1.1.1.1.9 Completion of AA Study	*1.1.1.1.10 -*	*1.1.1.1.11*	*1.1.1.1.12*
Alternatives Analysis Final Report	No	No	Will have this as part of scope of work
LPA Adoption by MPO in Constrained (and conforming) Long Range Plan	No	No	Will recommend adoption of the LPA in MPO MTP
TIP Programming of PE	No	No	Will recommend PE for the LPA in TIP
NEPA Scoping	No	No	NEPA Scoping not required if this project qualifies for an EA. We may want to assume an EA document, but may want to get concurrence of agencies

Table 2: Comparison of Prior Studies with FTA PE Checklist (continued)

1.1.1.1.13 PROJECT MANAGEMENT PLAN (PMP)[2]	*1.1.1.1.14 -*	*1.1.1.1.15*	*1.1.1.1.16*
Basic Requirements	-		
Project Sponsor Staff Organization	No	No	Need to perform some high level of work on this as part of "Project Governance"
Project Budget & Schedule	No	No	Will be outlined in on-going project management plan and documented in Next Steps
Procedures	-		
Document Control Procedures	No	No	Will be part of Management Plan
Change Order Procedures	No	No	Will be part of Management Plan
Material Testing Procedures	No	No	Will be part of Management Plan
Internal Reporting Procedures	No	No	Will be part of Management Plan
Operational Testing Procedures	No	No	Will be part of Management Plan
Quality Assurance/Quality Control (QA/QC)	No	No	Will be part of Management Plan
Plans	-		
Contracting Plan for Preliminary Engineering Phase	No	No	Will be part of Project Management Plan
Contingency Management Plan (identifying significant areas of uncertainty in scope, cost and schedule)	No	No	?? Will be part of Project Management Plan
Real Estate Acquisition Management Plan (RAMP)	No	No	?? Will be part of Project Management Plan
Rail Fleet Management Plan (RFMP)	No	No	?? Will be part of Project Management Plan
Bus Fleet Management Plan (BFMP)	No	No	?? Will be part of Project Management Plan
Safety & Security Management Plan (SSMP)	No	No	?? Will be part of Project Management Plan
Third Party Agreements and Permits (Identified and Scheduled)[3]	No	No	?? Will be part of Project Management Plan
1.1.1.1.17 NEW STARTS TEMPLATES, CERTIFICATIONS, AND OTHER REPORTS	*1.1.1.1.18 -*	*1.1.1.1.19*	*1.1.1.1.20*
New Starts Criteria Templates and Certifications	No	No	Will be part of New Starts submission
SCC Annualized Cost Worksheets	No	No	Will be part of New Starts submission

[2] The PMP subcategories listed here are based on the PMP requirements per 49 CFR 633 and FTA's P&CM Guidelines. The RAMP, RFMP, BFMP, SSMP, and Third Party Agreements and Permits are typically submitted to FTA as stand-alone documents which supplement the PMP.
[3] Not required at this time, but strongly encouraged.

Land Use Supporting Information	No	No	Will be part of New Starts submission
Project Finance Plan and Supporting Information	No	No	Will be part of New Starts submission
Making the Case Document	No	No	Will be part of New Starts submission
1.1.1.1.21 ADMINISTRATIVE REQUIREMENTS	*1.1.1.1.22* -	*1.1.1.1.23*	*1.1.1.1.24*
Legal Capacity (Authority to undertake implementation of proposed transit mode)	No	No	TBD – As part of on-going governance discussion
1.1.1.1.25 Grantee Letter of Request for PE Initiation	*1.1.1.1.26* No	*1.1.1.1.27* No	*1.1.1.1.28* Will be part of New Starts submission