New Starts/Alternatives Analysis/Major Investments[1]

Resources:

Federal Transit Administration rules and guidelines are on their web page.
See: http://www.fta.dot.gov/planning/planning_environment_5221.html

These include specific funding allocations for the current year to projects, procedural guidelines, and specific technical guidance for the preparation of funding applications for new starts money. Anyone involved in this process should consult FTA to make sure that they are following the most up to date regulations and procedures.

An important resource is the FTA annual report of the status of the new starts program which indicates the allocation of funds to separate projects and also explains the process that is used to rate competing projects. This is given in an appendix of the new starts annual report. In addition FTA provides reporting instructions for the Section 5309 new starts criteria. This available from the following web site:
http://www.fta.dot.gov/15052_ENG_HTML.htm

In addition FTA conducts outreach meetings and new starts roundtables that provide briefings on the latest procedures. These should be consulted for more information.

Overview

New starts is the term used by the Federal Transit Administration for the process of funding major new fixed guideway transit facilities such as light rail transit lines, bus rapid transit, commuter rail or heavy rail transit. Such systems are eligible for federal capital funds to pay a portion of their costs. To receive such funding, agencies must conduct a series of planning and analysis steps that meet specific guidelines and may also include a full environmental impact statement.

Federal legislation "directs FTA to evaluate and rate candidate New Starts projects as an input to Federal funding decisions and at specific milestones throughout each project's planning and development. TEA-21 further establishes a comprehensive planning and project development process which New Starts projects must follow, and which is intended to assist local agencies and decision makers evaluate alternative strategies for addressing transportation problems in specified corridors and select the most appropriate improvement to advance into engineering, design, and construction. Planning and project development for New Starts projects is a continuum of analytical activities carried out as part of the metropolitan planning and National Environmental Policy Act of 1969 (NEPA) review processes."[2]

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[1] This material was developed as part of work being conducted by the Great Cities University consortium under the lead of the University of Alabama at Birmingham using funds provided by the Federal Transit Administration of the U.S. Department of Transportation. The opinions expressed are the product of independent university work and not necessarily those of the sponsoring agencies or of the agencies supplying data for the project.

[2] From http://www.fta.dot.gov/16228_ENG_HTML.htm#B, accessed April 19, 2006

New starts funding is limited and communities must compete with each other for funds. It is a competitive process, in that different projects are rated by FTA and only those ranked above others will be eligible for federal funds. The process used to rate projects is shown in the figure on the following page: (note that this process changes over time, it is important to use the latest information and guidance from the FTA web page)

The new starts process includes a sequence of studies as shown in the figure below[3]. First and alternatives analysis (AA) is conducted. This typically follows a regional planning effort and looks at possible alternatives in a given corridor in the community. The purpose of the alternatives analysis is to an alternative that the community feels best meets its needs at a reasonable cost. It is the alternative that is better than any other for serving a travel market given reasonable funding assumptions (LPA: locally preferred alternative).

The alternatives analysis is used to select the mode (technology) to be used and its alignment in a specific corridor. Alternative technologies such as bus rapid transit, light rail, heavy rail and others would typically be considered in the AA.

Following the selection of a LPA and approval of the Federal Transit Administration, the project advances to preliminary engineering. In Preliminary engineering, the final scope of the project and its cost are developed. A key element of this step is meeting the requirements of the National Environmental Policy Act and often this means the preparation of an environmental impact statement.

Final Design takes place following FTA approval and involves the preparation of construction documents and final cost estimates. When FTA issues a Full Funding Grant Agreement, then project construction can proceed. As shown in the diagram, the overall process can take a minimum of 6-12 years. In many locations it can be longer if there are major local issues such as financing to resolve.

Relationship to Environmental Impact Assessment

Very often a new starts project will also include a full environmental impact assessment (EA) and an environmental impact statement (EIS). Procedures for preparing an EA and EIS are complex and involve a full examination of the impacts of the project on the natural and man-made environment. An overview of FTA Environmental analysis procedures are given on the FTA web site.

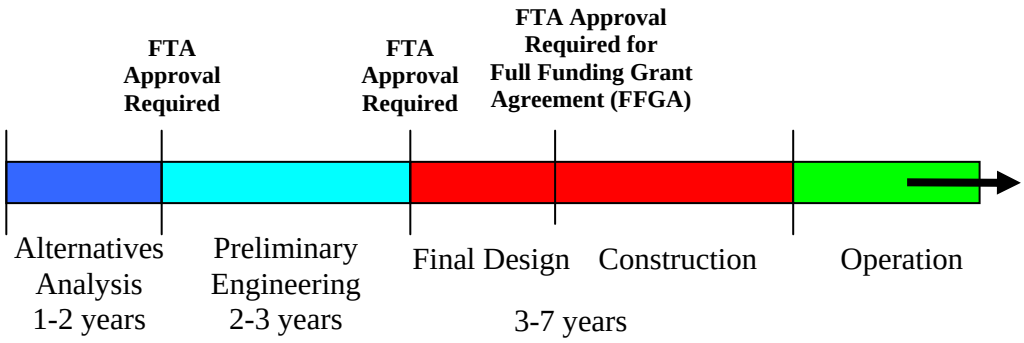
For some projects, an EIS is performed automatically because of the nature of the projects, in other cases, an environmental assessment is first performed to determine if there are impacts on the environment from the proposed project and if those impacts are 'significant". If the impacts are not significant, a FONSI (finding of no significant impact) is issued, they are deemed to be significant, then an EIS is issued. The EA study is similar in either case, but the end documents are different.

[3]Introduction to FTA's new Starts Program, APTA Beginners Course, APTA annual Conference, Dallas, Sept 29, 2005
http://www.fta.dot.gov/grant_programs/transportation_planning/major_investment/17811_ENG_HTML.htm

The EA is normally done as part of the alternatives analysis phase where different modes and locations are examined. Projects are scoped out for the alternatives analysis and for the EA. Project scoping includes a definition of the alternatives and the criteria to be used to evalusate the alternatives. As part of the alternatives analysis, empacts are analyzed for each alternative. Selection of a 'locally preferred alternative' (LPA) should be made by considering the impacts. Before a project can proceed to preliminary engineering, the environmental impact issues should be addressed.

New Starts Process

- Project Development: Typically 6-12 Years



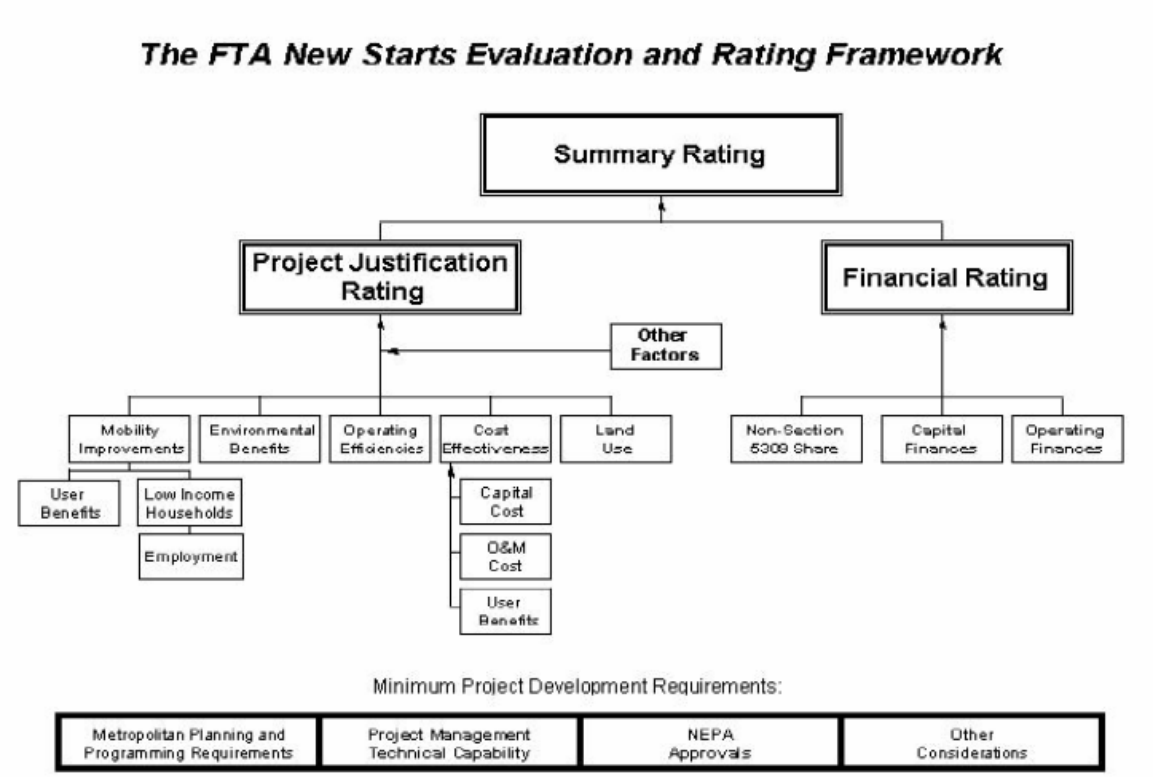
Alternatives:

The alternatives analysis phase of the process involves the selection of a preferred technology and alignment. Alternative technologies that may be considered are light rail, heavy rail, commuter rail, bus rapid transit and others (see the section of the course dealing with alternative technologies). Alternative alignments must also be considered for each of the technologies. This can result in a large number of combinations. In some places, the technology choices are narrowed down to a set of promising alternatives to reduce the number of combinations. This is an important step in defining the scope of the study.

A key alternative that must be included is the base line alternative. The base alternative is the best that can be done to provide transit service without the construction of some sort of guideway. This alternative is used as a basis for comparison to all the other 'build' alternatives. Benefits of a build alternative are found by comparing it with the base alternative.

Project Justification and Rating:

Projects are rated in two general areas - project justification and financial rating. These two factors are combined into an overall rating.



Project justification includes: cost effectiveness, transportation supportive land use policies and future patterns, mobility improvements, environmental benefits, operating efficiencies, and other factors. Cost effectiveness is measured by annualized total capital and operating costs per dollar of incremental value of transit user benefits

In addition, SAFETEA-LU legislation has added two additional criteria: Economic Development and reliability of the forecasting methods used (for both ridership and costs.

Criterion	Measures/Categories
Cost Effectiveness	• Incremental Cost per Hour of Transportation System User Benefit
Transit Supportive Land Use and Future Patterns	• Existing Land Use • Transit Supportive Plans and Policies • Performance and Impacts of Policies
Mobility Improvements	• Normalized Travel Time Savings (Transportation System User Benefit per Project Passenger Mile) • Low-Income Households Served • Employment Near Stations
Operating Efficiencies	• System Operating Cost per Passenger Mile
Environmental Benefits	• Change in Regional Pollutant Emissions • Change in Regional Energy Consumption • EPA Air Quality Designation

The **cost effectiveness** measure is the total annual cost divided by the user benefits.

User benefits are found by comparing the proposed project with a base alternative. User benefits consist of changes in the following components of trip characteristics:

- In-vehicle time
- Walk and wait time
- Number of transfers
- Mode specific constants

These factors are weighted in their importance based on calibration results of local travel demand models. For example, assume an alternative reduces travel time by five minutes and also reduces walking time by five minutes for some users. Local travel models show that wait time three times as important as travel time since travelers typically think that wait time is more important than traveling time. Thus the total benefit is twenty minutes, since the savings in walk time is weighted differently than savings in travel time. This is done for all travelers and all trip purposes to get an estimate of overall user time for an alternative. User benefits are then the savings in user time for an alternative as compared to the baseline alternative.

The **costs** of an alternative are the annualized total capital cost of the project in base year dollars and the annual operating and maintenance costs of the project. The cost effectiveness measure is then the total annual cost divided by the user benefits. If a community has low number, it indicates a good project since it costs a smaller amount to create benefits than in another community.

The local travel forecasting results are interpreted by software (Summit) developed by FTA to calculate cost effectiveness measures. Calculation of user benefits may require some modifications to the regional travel demand model set employed in the alternatives analysis study effort in order to produce the set of fixed person trip tables and generalized cost files which are read into the "Summit" software developed by FTA to generate the measure.[4]

The second criteria used by FTA are transportation supportive **land use policies** and future patterns. Transit and land use are highly related and should be planned together. This criteria looks at how well transit projects facilitate and enhance land use along their routes. Separate criteria are used for different phases of analysis – depending if the project is in preliminary engineering and/or final design. (A variety of criteria are used as given on the tables on the following pages[5]. The general categories are" characteristics of existing land use in the corridor, the presence of transit supportive plans and policies and the performance impact of the land use plans and policies. These criteria are used to encourage a mix of programs that lead to a good fit between land use and transit service.

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4 http://www.fta.dot.gov/grant_programs/transportation_planning/major_investment/technical_guidance/amti_report/10689_10704_ENG_HTML.htm

5 FY 2007 New Starts Evaluation and Rating Process, Appendix B, Annual Report on New Starts, Federal Transit Administration, http://www.fta.dot.gov/18022_ENG_HTML.htm May 10, 2006

Table II-3 Ratings Applied in Assessment of Land Use Criterion

I. EXISTING LAND USE		
Existing Land Use		
Phase of Project Development	Land Use Assessment Ratings	
Preliminary Engineering and Final Design	HIGH (5)	Current levels of population, employment, and other trip generators in station areas are sufficient to support a major transit investment. Most station areas are pedestrian-friendly and fully accessible.
	MEDIUM (3)	Current levels of population, employment, and other trip generators in station areas marginally support a major transit investment. Some station areas are pedestrian-friendly and accessible. Significant growth must be realized.
	LOW (1)	Current levels of population, employment, and other trip generators in station areas are inadequate to support a major transit investment. Station areas are not pedestrian-friendly.
Ratings based on assessment of the following: • Existing corridor and station area development; • Existing corridor and station area development character; • Existing station area pedestrian facilities, including access for persons with disabilities; and • Existing corridor and station area parking supply.		
II. TRANSIT-SUPPORTIVE PLANS AND POLICIES		
Growth Management		
Phase of Project Development	Land Use Assessment Ratings	
Preliminary Engineering and Final Design	HIGH (5)	Adopted and enforceable growth management and land conservation policies are in place throughout the region. Existing and planned densities, along with market trends in the region and corridor are strongly compatible with transit.
	MEDIUM (3)	Significant progress has been made toward implementing growth management and land conservation policies. Strong policies may be adopted in some jurisdictions but not others, or only moderately enforceable policies (e.g., incentive-based) may be adopted regionwide. Existing and/or planned densities and market trends are moderately compatible with transit.
	LOW (1)	Limited consideration has been given to implementing growth management and land conservation policies; adopted policies may be weak and apply to only a limited area. Existing and/or planned densities and market trends are minimally or not supportive of transit.
Ratings based on assessment of the following: • Concentration of development around established activity centers and regional transit; and • Land conservation and management.		

Table II-3 Ratings Applied in Assessment of Land Use Criterion (cont.)

II. TRANSIT-SUPPORTIVE PLANS AND POLICIES		
Transit-Supportive Corridor Policies		
Final Design	HIGH (5)	Conceptual plans for the corridor and station areas have been developed. Local jurisdictions have adopted or drafted revisions to comprehensive and/or small area plans in most or all station areas. Land use patterns proposed in conceptual plans and local and institutional plan revisions are strongly supportive of a major transit investment.
	MEDIUM (3)	Conceptual plans for the corridor and station areas have been developed. Local jurisdictions have initiated the process of revising comprehensive and/or small area plans. Land use patterns proposed in conceptual plans and local and institutional plan revisions are at least moderately supportive of a major transit investment.
	LOW (1)	Limited progress, to date, has been made toward developing station area conceptual plans or revising local comprehensive or small area plans. Existing station area land uses identified in local comprehensive plans are marginally or not transit-supportive.
Preliminary Engineering	HIGH (5)	Conceptual plans for the corridor and station areas have been developed. Discussions have been undertaken with local jurisdictions about revising comprehensive plans. Land use patterns proposed in conceptual plans for station areas (or in existing comprehensive plans and institutional master plans throughout the corridor) are strongly supportive of a major transit investment.
	MEDIUM (3)	Conceptual plans for the corridor and station areas are being developed. Discussions have been undertaken with local jurisdictions about revising comprehensive plans. Land use patterns proposed in conceptual plans for station areas (or existing in local comprehensive plans and institutional master plans) are at least moderately supportive of a major transit investment.
	LOW (1)	Limited progress, to date, has been made toward developing station area conceptual plans or working with local jurisdictions to revise comprehensive plans. Existing station area land uses identified in local comprehensive plans are marginally or not transit-supportive.
Ratings based on assessment of the following: • Plans and policies to increase corridor and station area development; • Plans and policies to enhance transit-friendly character of corridor and station area development; • Plans to improve pedestrian facilities, including facilities for persons with disabilities; and • Parking policies.		

Table II-3 Ratings Applied in Assessment of Land Use Criterion (cont.)

II. TRANSIT-SUPPORTIVE PLANS AND POLICIES		
Supportive Zoning Regulations Near Transit Stations		
Final Design	HIGH (5)	Local jurisdictions have adopted zoning changes that strongly support a major transit investment in most or all transit station areas.
	MEDIUM (3)	Local jurisdictions are in the process of adopting zoning changes that moderately or strongly support a major transit investment in most or all transit station areas. Alternatively: strongly transit-supportive zoning has been adopted in some station areas but not in others.
	LOW (1)	No more than initial efforts have begun to prepare station area plans and related zoning. Existing station area zoning is marginally or not transit-supportive.
Preliminary Engineering	HIGH (5)	A conceptual planning process is underway to recommend zoning changes for station areas. Conceptual plans and policies for station areas are recommending transit-supportive densities and design characteristics. Local jurisdictions have committed to examining and changing zoning regulations where necessary. Alternatively, a "high" rating can be assigned if existing zoning in most or all transit station areas is already strongly transit-supportive.
	MEDIUM (3)	A conceptual planning process is underway to recommend zoning changes for station areas. Local jurisdictions are in the process of committing to examining and changing zoning regulations where necessary. Alternatively, a "medium" rating can be assigned if existing zoning in most or all transit station areas is already moderately transit-supportive.
	LOW (1)	Limited consideration has been given to preparing station area plans and related zoning. Existing station area zoning is marginally or not transit-supportive.
Ratings based on assessment of the following: • Zoning ordinances that support increased development density in transit station areas; • Zoning ordinances that enhance transit-oriented character of station area development and pedestrian access; and • Zoning allowances for reduced parking and traffic mitigation.		

Table II-3 Ratings Applied in Assessment of Land Use Criterion (cont.)

II. TRANSIT-SUPPORTIVE PLANS AND POLICIES		
Tools to Implement Land Use Policies		
Final Design	HIGH (5)	Transit agencies and/or regional agencies are working proactively with local jurisdictions, developers, and the public to promote transit-supportive land use planning and station area development. The transit agency has established a joint development program and identified development opportunities. Agencies have adopted effective regulatory and financial incentives to promote transit-oriented development. Public and private capital improvements are being programmed in the corridor and station areas which implement the local land use policies and which leverage the Federal investment in the proposed corridor.
	MEDIUM (3)	Transit agencies and/or regional agencies have conducted some outreach to promote transit-supportive land use planning and station area development. Regulatory and financial incentives to promote transit-oriented development are being developed, or have been adopted but are only moderately effective. Capital improvements are being identified that support station area land use plans and leverage the Federal investment in the proposed major transit corridor.
	LOW (1)	Limited effort has been made to reach out to jurisdictions, developers, or the public to promote transit-supportive land use planning; to identify regulatory and financial incentives to promote development; or to identify capital improvements.
Preliminary Engineering	HIGH (5)	Transit agencies and/or regional agencies are working proactively with local jurisdictions, developers, and the public to promote transit-supportive land use planning and station area development. Local agencies are making recommendations for effective regulatory and financial incentives to promote transit-oriented development. Capital improvement programs are being developed that support station area land use plans and leverage the Federal investment in the proposed major transit corridor.
	MEDIUM (3)	Transit agencies and/or regional agencies have conducted some outreach to promote transit-supportive land use planning and station area development. Agencies are investigating regulatory and financial incentives to promote transit-oriented development. Capital improvements are being identified that support station area land use plans and leverage the Federal investment in the proposed major transit corridor.
	LOW (1)	Limited effort has been made to reach out to jurisdictions, developers, or the public to promote transit-supportive land use planning; to identify regulatory and financial incentives to promote development; or to identify capital improvements.

Table II-3 Ratings Applied in Assessment of Land Use Criterion (cont.)

II. TRANSIT-SUPPORTIVE PLANS AND POLICIES		
Tools to Implement Land Use Policies (Continued)		
Ratings based on assessment of the following: • Outreach to government agencies and the community in support of land use planning; • Regulatory and financial incentives to promote transit-supportive development; and • Efforts to engage the development community in station area planning and transit-supportive development.		
III. PERFORMANCE AND IMPACTS OF LAND USE POLICIES		
Performance of Land Use Policies		
Final Design	HIGH (5)	A significant number of development proposals are being received for transit-supportive housing and employment in station areas. Significant amounts of transit-supportive development have occurred in other, existing transit corridors and station areas in the region.
	MEDIUM (3)	Some development proposals are being received for transit-supportive housing and employment in station areas. Moderate amounts of transit-supportive development have occurred in other existing transit corridors and station areas in the region.
	LOW (1)	A limited number of proposals for transit-supportive housing and employment development in the corridor are being received. Other existing transit corridors and station areas in the region lack significant examples of transit-supportive housing and employment development.
Preliminary Engineering	HIGH (5)	Transit-supportive housing and employment development is occurring in the corridor. Significant amounts of transit-supportive development have occurred in other, existing transit corridors and station areas in the region.
	MEDIUM (3)	Station locations have not been established with finality, and therefore, development would not be expected. Moderate amounts of transit-supportive housing and employment development have occurred in other, existing transit corridors and station areas in the region.
	LOW (1)	Other existing transit corridors and station areas in the region lack significant examples of transit-supportive housing and employment development.
Ratings based on assessment of the following: • Demonstrated cases of development affected by transit-oriented policies; and • Station area development proposals and status.		

Table II-3 Ratings Applied in Assessment of Land Use Criterion (cont.)

III. PERFORMANCE AND IMPACTS OF LAND USE POLICIES		
Potential Impact of Transit Project on Regional Land Use		
Preliminary Engineering and Final Design	HIGH (5)	A significant amount of land in station areas is available for new development or redevelopment at transit-supportive densities. Local plans, policies, and development programs, as well as real estate market conditions, strongly support such development.
	MEDIUM (3)	A moderate amount of land in station areas is available for new development or redevelopment at transit-supportive densities. Local plans, policies, and development programs, as well as real estate market conditions, moderately support such development.
	LOW (1)	Only a modest amount of land in station areas is available for new development or redevelopment. Local plans, policies, and development programs, as well as real estate market conditions, provide marginal support for new development in station areas.
Ratings based on assessment of the following: • Adaptability of station area land for development; and • Corridor economic environment.		

As Table II-3 indicates, FTA takes into consideration the stage of development of a proposed project in its evaluation of land use information. For example, the planning and policy oriented factors (existing land use, containment of sprawl, and corridor policies) are relevant in evaluating projects in all stages of project development, but particularly useful for projects early in project development. On the other hand, the implementation-oriented factors (supportive zoning regulations, implementation tools, and performance of land use policies) are more applicable in evaluating projects more advanced in preliminary engineering or final design.

Mobility Improvements

Mobility improvements are measured in three ways: normalized travel time savings as measured in transportation user benefits per passenger mile, Number of low income households served and number of jobs served. User benefits are measured the same as with the cost effectiveness strategies, using savings in in-vehicle travel time, walk time, wait time, transfers and mode specific constants.

Jobs and households served within ½ mile of the stations on the proposed system are estimated and reported as jobs pre station and low income households per station.

Operating Efficiencies

Operating efficiencies are measured by system operating costs per passenger mile. This is done by comparing total operating costs of the system with the new start vs. the baseline alternative.

However, FTA has found that the operating efficiency criteria does not show significant differences between competing new starts projects nationwide and does not use this criteria to select projects. All applicants tend to have similar operating efficiencies and when projects are compared from different cities, few differences the criteria does Nonetheless, it is of local importance

Environmental Benefits

Environmental benefits deal with air quality effects. If the project is in a non-attainment area for air quality and pollution levels are reduced the project gets a high rating, if the project is in an attainment area and reduces pollutants, it gets a medium rating.

Other environmental factors while important locally are not considered by FTA in their ratings because they have found that there are not major differences between competing projects among different cities.

Other Factors

FTA will also consider other factors when evaluating projects. These include:

- Environmental justice and equity
- Access to employment and welfare to work initiatives
- Livable communities and local economic development
- Innovative financing procurement and construction techniques
- Cost effectiveness with alternative land use related to economic development impacts
- Any other factor that provides additional benefits

Financial Rating

In addition to project justification using the above criteria, FTA separately looks at the financial rating of the project. Three factors are included: the share of costs from other funds than the new starts funds, the proposed capital financing plan and the ability of the agency to fund the operating and maintenance costs of the entire system once the new project is built.

Funding for the project can come from federal new starts money, other federal sources, state or local funds. A project with a high percentage of non-new starts money will be rated higher than one than has a lower share.

The capital funding plan is evaluated according to criteria give in the table on the following page. Important factors are the current capital condition, completeness of plan, commitments for funding, funding capabilities and the reasonableness of assumptions and estimates.

Similarly, the operating and maintenance plan is rated according to criteria given in the table after the capital funding factors. Important considerations are; current operating financial condition, completeness of plan, commitments for operating and maintenance funds, funding capacity and reasonableness of assumptions and estimates

Analysis and Forecasting Considerations:

FTA requires that the travel demand models used to forecast future demand, cost analysis procedures and other procedures to assess impacts meet certain standards and that there is agreement on these methods by participating agencies. The forecasting process should use "consistent and defensible measures, reliable data and analytical data consistent with best practices and FTA requirements"[6].

FTA will consider the use of 'mode specific constants' in the travel forecasting process. These are factors that are used to modify travel demand models to recognize that there are factors beyond time and cost that may affect traveler choices. For example, it may be argued that travelers prefer a particular type of system such as rail over bus, because of the mode itself rather than because of differences in time and cost characteristics of the choices. These mode specific constants should be similar or the same in different urban areas.[7]

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[6] Federal Transit Administration "Guidance on New Starts Policies and Procedures, May 16, 2006, accessed May 23, 2006 from: http://dmses.dot.gov/docimages/pdf96/398543_web.pdf

[7] Federal Transit Administration "Guidance on New Starts Policies and Procedures, Chapter 3" January 11 , 2006 accessed May 2006 from: *http://www.fta.dot.gov/grant_programs/transportation_planning/major_investment/17988_ENG_HTML.htm*

	High (5)	Medium-High (4)	Medium (3)	Medium-low (2)	Low (1)
Current capital condition	- Average bus fleet age under 6 years. - Bond ratings less than 2 years old (if any) of AAA (Fitch/S&P) or Aaa (Moody's) or better	- Average bus fleet age under 6 years. - Bond ratings less than 2 years old (if any) of A (Fitch/S&P) or A2 (Moody's) or better	- Average bus fleet age under 8 years. - Bond ratings less than 2 years old (if any) of A - (Fitch/S&P) or A3 (Moody's) or better	- Average bus fleet age under 12. - Bond ratings less than 2 years old (if any) of BBB+ (Fitch/S&P) or Baa (Moody's) or better	- Average bus fleet age 12 years or more. - Bond ratings less than 2 years old (if any) of BBB (Fitch/S&P) or Baa3 (Moody's) or below
Completeness	Capital plan includes: - 20-year cash flow - All assumptions are clearly explained - High level of detail - Fleet Management Plan - Extensive Sensitivity analysis - More than 5 years of historical data	Capital plan is complete, i.e. it includes: - 20-year cash flow - Key assumptions - Moderate level of detail - Fleet Management Plan - Sensitivity Analysis - More than 5 years of historical data	Capital plan is complete, i.e. it includes: - 20-year cash flow - Key assumptions - Missing some explanatory details - Fleet Management Plan - 5 years historical data	Capital plan is partially complete, i.e. it includes: - 20-year cash flow - Missing other items of supporting documentation (i.e. fleet management plan, key assumptions, historical data)	Capital plan is incomplete. Missing some key components, including the 20-year cash flow.
Commitment of capital funds	For final design - 100% of Non-Section 5309 New Starts Funds are committed or budgeted. For PE – Over 50% of Non-Section 5309 New Starts Funds are committed or budgeted. The remaining funds are planned.	For final design - Over 75% of Non-Section 5309 New Starts Funds are committed or budgeted. For PE – Over 25% of Non-Section 5309 New Starts Funds are committed or budgeted. The remaining funds are planned.	For final design - Over 50% of Non-Section 5309 New Starts Funds are committed or budgeted. For PE - No Non-Section 5309 New Starts Funds are committed or budgeted, but the sponsor has a reasonable plan to secure all needed funding.	For final design – Between 25% and 50% of Non-Section 5309 New Starts Funds are committed or budgeted. For PE - No Non-Section 5309 New Starts funds are committed. The sponsor has no reasonable plan to secure the necessary funding.	For final design - Under 25% of Non-Section 5309 New Starts Funds are committed or budgeted. For PE - The sponsor has not identified any reasonable funding sources for the Non-Section 5309 New Starts funding share.
Capital funding capacity	The applicant has access to funds via additional debt capacity, cash reserves, or other committed funds to cover cost increases or funding shortfalls equal to at least 50% of estimated project costs.	The applicant has available cash reserves, debt capacity, or additional funding commitments to cover cost increases or funding shortfalls equal to at least 25% of estimated project costs.	For final design - The applicant has available cash reserves, debt capacity, or additional committed funds to cover cost increases or funding shortfalls equal to at least 10% of estimated project costs. For PE - The applicant has a reasonable plan to cover cost increases or funding shortfalls equal to at least 25% of project costs.	The applicant has a reasonable plan to cover only minor (under 10%) cost increases or funding shortfalls. For PE –The applicant has a reasonable plan to cover cost increases or funding shortfalls equal to at least 10% of estimated project costs.	The applicant has no reasonable plan to cover cost increases or funding shortfalls.
Reasonable capital planning assumptions	Financial plan contains very conservative capital planning assumptions and cost estimates when compared with recent historical experience.	Financial plan contains conservative capital planning assumptions and cost estimates when compared with recent historical experience.	Financial plan contains capital planning assumptions and cost estimates that are in line with historical experience.	Financial plan contains optimistic capital planning assumptions and cost estimates.	Financial plan contains capital planning assumptions and cost estimates that are far more optimistic than recent history suggests.

FTA Capital Plan Rating Standards

	High (5)	Medium-High (4)	Medium (3)	Medium-low (2)	Low (1)
Current Operating Financial Condition	- Historical and actual positive cash flow. No cash flow shortfalls. - Current operating ratio exceeding 2.0 - No service cutbacks in recent years.	- Historical and actual balanced budgets. Any annual cash flow shortfalls paid from cash reserves or other committed sources. - Current operating ratio is at least 1.5 - No service cutbacks in recent years.	- Historical and actual balanced budgets. Any annual cash flow shortfalls paid from cash reserves or annual appropriations. - Current operating ratio is at least 1.2 - No service cutbacks or only minor service cutbacks in recent years	- Historical and actual cash flow show several years of revenue shortfalls. Any annual cash flow shortfalls paid from short-term borrowing. - Current operating ratio is at least 1.0 - Major Service cutbacks in recent years	- Historical and actual cash flow show several years of revenue shortfalls, or historical information not provided. - Current operating ratio is less than 1.0 - Major Service cutbacks in recent years
Completeness	Operating plan includes: - More than 5 years of historical data - 20-year cash flow - Key assumptions identified - Extensive level of detail - Extensive Sensitivity Analysis	Operating plan is complete, including: - More than 5 years of historical data - 20-year cash flow - Key assumptions identified - Moderate level of detail -Sensitivity Analysis	Operating plan is complete, including: - 20-year cash flow - 5 years of historical data - Key assumptions identified - Missing some explanatory detail	Operating plan is missing no key components, i.e.: - 3 years or less of historical data - 20-year cash flow - Missing key assumptions	Operating plan is missing some key components, i.e.: - No cash flow - No historical data
Commitment of O&M Funds	For final design - 100% of the funds needed to operate and maintain the proposed transit project are committed or budgeted. For PE – Over 75% of the funds needed to operate and maintain the proposed transit system are committed or budgeted. The remaining funds are planned.	For final design - Over 75% of the funds needed to operate and maintain the proposed transit project are committed or budgeted. For PE - Over 50% of the funds needed to operate and maintain the proposed transit system are committed or budgeted. The remaining funds are planned.	For final design – Over 50% of the funds needed to operate and maintain the proposed transit system are committed or budgeted. For PE – While no additional O&M funding has been committed, a reasonable plan to secure funding commitments has been presented.	For final design - Sponsor has identified reasonable potential funding sources, but has received less than 50% commitments to fund transit operations and maintenance. For PE - Sponsor does not have a reasonable plan to secure O&M funding. No unspecified sources.	For final design - Sponsor has not yet received any funding commitments to fund transit operations and maintenance and has not identified any reasonable plan for securing funding commitments. For PE - Sponsor has not identified any reasonable funding sources for the operation and maintenance of the proposed project.
O&M Funding Capacity	- Projected cash balances, reserve accounts or access to line of credit exceeding 50 percent (6 months) of annual operating expenses.	- Projected cash balances, reserve accounts or access to line of credit exceeding 25 percent (3 months) of annual operating expenses.	- Projected cash balances, reserve accounts or access to line of credit exceeding 12 percent (1.5 months) of annual operating expenses.	- Projected cash balances, reserve accounts or access to line of credit are less than 8 percent (1 month) of annual operating expenses.	- Projected cash balances are insufficient to maintain balanced budgets.
Operating Planning Assumptions	The assumptions supporting the operating and maintenance cost estimates and revenue forecasts are very conservative relative to historical experience.	The assumptions supporting the operating and maintenance cost estimates and revenue forecasts are conservative relative to historical experience.	The assumptions supporting the operating and maintenance cost estimates and revenue forecasts are consistent with historical experience.	The assumptions supporting the operating and maintenance cost estimates and revenue forecasts are optimistic relative to historical experience.	The assumptions supporting the operating and maintenance cost estimates and revenue forecasts are far more optimistic than historical experience suggests is reasonable.

Operating Plan Rating Standards