

# Spokane Regional Light Rail Project Implementation Plan

Spokane County Washington

June 30, 2006



# **1 INTRODUCTION AND GENERAL INFORMATION**

## **1.1 Purpose of the Project Implementation Plan**

The purpose of the Spokane South Valley Corridor Light Rail Project Implementation Plan (IP) is threefold:

- 1) The plan provides an outline of the overall body of work necessary to successfully implement the proposed light rail project for the South Valley Corridor. To that end, the plan will identify major elements of work and significant milestones through start of revenue service;
- 2) It will identify cost issues, highlight project risks that could impact project execution, and outline feasible funding options that demonstrate a realistic approach upon which the project can proceed with an assurance of local affordability;
- 3) The plan specifically focuses on the next, most immediate phase of project development by establishing a framework for administering this complex project through the Preliminary Engineering phase. Moreover, it will suggest project management procedures and organizational structure within Spokane Transit Authority (STA) as it relates to project implementation. Finally, it will propose a guideline for the orderly interaction of the multiple agencies, organizations, and staff involved in, and committed to, this project.

The Project Implementation Plan is a framework. Managers and staff implementing the plan will provide additional, more detailed working procedures in the context of the day-to-day management of each function or task.

The Implementation Plan contains the following fourteen sections:

1. Introduction and General Information
2. Organization and Staffing
3. Management and Administration
4. Contracts and Procurement
5. Risk Management
6. Project Finance
7. Project Control
8. Agreements
9. Real Estate Acquisition
10. Public Involvement
11. Preliminary Engineering Work Plan
12. Final Design (To be determined)
13. Construction (To be determined)
14. System Testing and Start-up (To be determined)

This document places emphasis on items 1 through 11, for the Preliminary Engineering phase of the project, recognizing that it will be expanded to include detailed treatment of items 12 through 14 as the project progresses towards actual implementation. The Implementation Plan is a mechanism for communicating the objectives of the Project to all participants. It sets forth the overall management strategy and the responsibilities, authorities, and procedures guiding their portions of the project. In addition, the Plan establishes standards by which project performance will be measured.

The development of the Project Implementation Plan will be an evolutionary process. The Plan will be updated and revised as needed. The maintenance of and subsequent revisions to the Plan are the responsibility of the STA Light Rail Project Manager.

## 1.2 Project Philosophy

The Spokane South Valley Light Rail Project is also referred to as the Spokane Regional Light Rail Project, reflecting the intent that it is a key component of a regional transportation system. The project intends to seek funding through a combination of federal, state and local sources as described later in this document with local resources comprising a large portion of the initial investment in what is envisioned to become a regional light rail system. Cost containment is an ethic that will need to permeate every aspect of the project. Value engineering will be an ongoing activity as opposed to only a single event at the end of Preliminary Engineering. A value-engineering event will still occur to review Preliminary Engineering as a whole at the end of the Preliminary Engineering effort. Design standards, station finishes and amenities will be revisited in order to contain project costs.

While early phases of work have indicated broad local support for the project, it is recognized that its success will largely be based on the Project team's ability to develop a cost-effective and functional project making the best use of public funds. The commitment to develop a project in this way is unwavering and all project participants must share this philosophy in order to optimize the public's investment.

A Statement of Project Purpose and a set of goals for the project has been established through the mutual and collective priorities of many participating entities, including STA, the Spokane Regional Transportation Council (SRTC), the City of Spokane, the City of Liberty Lake, the City of Spokane Valley and Spokane County. In addition, these goals have been reviewed and adopted by the Project's Citizens Advisory Committee, Steering Committee and STA's Board of Directors during the Conceptual Design and Alternatives Analysis stage. The region has a longstanding commitment to maintaining livability through sound growth planning and management. Significant challenges are being faced as a consequence of continuous growth in the region. Effective links between transportation planning and land use patterns are seen as high-leverage opportunities to balance growth and livability forces.

In response to these challenges and opportunities, the Spokane South Valley Light Rail Project has established the following four core purposes:

- Help implement the Spokane region’s strategy to promote and encourage mixed and transit-oriented land uses.
- Provide additional transportation mode choice in the South Valley Corridor to create an integrated, balanced regional transportation system.
- Link important activity centers in the Spokane region to enhance regional mobility for the growing population and labor force by taking advantage of available publicly owned former railroad right-of-way, which lies along the South Valley Corridor.
- Use integrated regional transportation planning as a catalyst for growth management and economic development. The issues are time-sensitive and need attention in the near term in order to respond proactively to growing regional populations and dynamic market forces.

The STA Board of Directors adopted these goals for the project on July 28, 2004:

- Maximize mobility improvements;
- Maximize environmental benefits;
- Maximize cost effectiveness;
- Maximize operating efficiencies;
- Maximize mutual support between Transit and Land Use;
- Ensure Project Affordability: limit the initial and recurring costs to amounts the community is able to fully fund;
- Maximize Potential for Economic Development;
- Maximize Potential for Community Development; and
- Respond to Community Preferences regarding high-capacity transit.

### 1.3 Regional Context

This project is envisioned to become a component of an expanding regional multi-modal transportation system. It is important that it be developed in concert with the Comprehensive Plans of the Cities in the corridor and Spokane County, and the multiple modes making up the region’s transportation system. The South Valley Corridor Light Rail Project is envisioned to be the first segment of a future multi-corridor light rail system. It will provide light rail service from Downtown Spokane east to the City of Liberty Lake. Other future extensions are anticipated to include 1) a connection west to the Spokane International Airport/West Plains; 2) a connection to North Spokane; and 3) an extension of the South Valley Corridor east into Idaho, to the City of Coeur d’Alene. Economic studies have indicated a significant potential for transit oriented development to occur around several light rail stations in the South Valley Corridor.

In addition to a multi-corridor light rail system, the region envisions continuing to expand its regional bus services, paratransit services, and regional rideshare program, resulting in an integrated multi-modal public transportation system. STA is in the process of developing a new strategic, long-range Comprehensive Transit Plan (CTP) which will encompass a 15-year planning horizon. The CTP will incorporate this light rail project along with other emerging projects in the region.

## 1.4 Project Background and Planning

Examination of high capacity transit (HCT) options in the South Valley corridor has been an integral part of the Spokane transportation system planning for over two decades. Beginning in the early 1980's, the region began to bring into focus the opportunity to create a transportation system that provides transportation choices to the public rather than emphasizing one mode of transportation over others. Providing for the mobility of people and goods into and through the Spokane Metropolitan area became the focus rather than the movement of cars.

During the early 1980's, Spokane Transit Authority (STA) transitioned from a City owned transit system to a Public Transportation Benefit Area Authority. Through voter approval, STA collects 0.6 cents sales tax to support public transportation inside its service area. In the early 1990's, Spokane was among the first metropolitan areas in the nation to create an inter-modal passenger terminal, bringing together STA service, inter-city bus service, AMTRAK, and taxi service into one location to improve public transportation options. This was followed soon after by STA providing direct service from downtown Spokane to the Spokane International Airport.

The Metropolitan Transportation Plan (MTP) adopted by the Spokane Regional Transportation Council recognizes the need to create a balanced transportation system through strategic investments in highways, railroads, aviation, non-motorized and public transportation systems. The Spokane Regional Light Rail Project is the continuation of this well-established regional transportation strategy to enhance and expand the role of public transportation in the Spokane Metropolitan area. Population and employment forecasts indicate growth and development will continue to expand between the City of Spokane and Coeur d'Alene Idaho. This continued growth will result in significant increases in travel demand between Spokane County and Kootenai County. Traffic volumes on existing and planned highways will continue to increase, while the ability to physically expand roadway capacity becomes limited in the built-out urban environment because of older established neighborhoods adjacent to existing facilities.

In addition, Spokane's geographic setting with steep hillsides and a narrow valley floor creates an hourglass effect when it comes to regional east-west transportation movement. As a result, the ability to create new transportation corridors becomes limited and the need to redefine existing transportation corridors more essential. The Spokane Regional Light Rail Project capitalizes on reestablishing the role of an existing transportation corridor that was created in the late 1800's to provide access to the Spokane area by the railroads. Using abandoned railroad right-of-way acquired and preserved by Spokane County as well as right-of-way owned by the Union Pacific Railroad, the project provides a unique ability to provide a regionally significant public transportation alternative to support growth and development.

The project is an integral part of the Metropolitan Transportation Plan's investment strategy for the next twenty years to address mobility, transportation choice, improved air and water quality, and stimulate economic redevelopment in an established transportation corridor.

Following is a chronology of the background of rail transit operations and planning in the Spokane Region:

Late 1880's	Two street railway systems began service, operated by: <ul style="list-style-type: none"> <li>▪ Washington Water Power Company</li> <li>▪ Spokane Traction Company</li> </ul>
Circa 1922 Circa 1936	Two systems combined to become the Spokane United Railways Rail transit service ceased operations, leaving motor bus services
Circa 1974	Washington State DOT conducted cursory study of light rail potential
Circa 1983	Washington State DOT updated light rail potential
1993	Spokane Regional Transportation Council (SRTC) begins High Capacity Transit (HCT) System Plan Phase 1. County Wide Planning Policies direct look at HCT corridors for developing comprehensive land use plans.
1994	SRTC finishes HCT System Plan Phase 2, which indicates South Valley Corridor has highest potential for successful HCT Implementation.
1995	SRTC starts South Valley Corridor Major Investment Study to review reasonable alternatives in the corridor. HOV, Busway, Light Rail alternatives considered.
1997	SRTC Board selects light rail as the preferred alternative and directs the development of environmental documents to further define project.
1998	SRTC conducts public and agency scoping meetings to identify concerns.
2000	SRTC and STA agree to joint development of Spokane Light Rail Project and SRTC delivers Spokane Light Rail Project Environmental Assessment (EA) to Federal Transit Administration (FTA).
2001	STA initiates conceptual design activities for light rail in the South Valley Corridor from downtown Spokane to Liberty Lake.
2002	STA initiates development of lower cost strategies for light rail alternatives in the South Valley Corridor.
2003	STA initiates further development of lower cost strategies for light rail in the corridor and decides to consider Bus Rapid Transit alternatives in concert with light rail studies.
2004	STA continues to refine LRT alternatives definition and initiates development of a draft environmental impact statement (DEIS)

- 2005 Alternatives Analysis for the South Valley Corridor and DEIS comparing alternatives is approved by the FTA, Region X.
- 2006 DEIS is distributed for public comment. The Steering Committee submits its report summarizing the analysis with conclusions and recommendations. SRTC and the City of Liberty Lake pass resolutions supportive of a light rail project along the recommended alignment with a not to exceed capital cost of \$300M in 2006 dollars. STA Board passes a resolution accepting the proposed alignment, for the purpose of continued planning, and directed the Steering Committee to develop viable funding alternatives that encompassed the capital costs, real estate acquisition, and sustained operations upon revenue service.

### 1.5 Project Description/Corridor Overview (See Alignment Map)

The locally preferred transit alternative for the South Valley Corridor Light Rail Project is described in the report, “Recommendations of the Steering Committee: Preferred Alternative for High Capacity Transit in the South Valley Corridor” dated June 2006. The environmental implications of this alternative are addressed in the “Draft Environmental Impact Statement (DEIS), South Valley Corridor Project” dated December 2005. The Project will also be referred to as “The Spokane Regional Light Rail Project” or simply as “the Project”.

The Project is defined as:

Development of Light Rail from Downtown Spokane through Spokane Valley to the City of Liberty Lake over an alignment of approximately 15.5 miles. Characteristics include:

- Up to 14 passenger stations with 7 park and ride facilities.
- Forego electrification and procure diesel powered light rail vehicles
- Use single-car operations with vehicles capable of connecting into multiple unit trains
- Initially develop a single-track alignment with passing tracks for two-way operations
- Provide for simple, modest station platforms, shelters and passenger amenities

The alignment runs along 0.6 miles of an existing street in Downtown Spokane, from its western terminus adjacent to the STA Plaza Transit Center, on Riverside Avenue through the heart of the business and financial district. East of Downtown Spokane, the alignment follows alongside of approximately 1.25 miles of existing BNSF railroad right-of-way, 0.8 miles of roadway alignment in East Riverside Avenue, and 4.4 miles alongside of or sharing trackage with the UPRR branchline to Dishman Mica Road in the City of Spokane Valley. Continuing eastward first along Appleway Boulevard and then along an abandoned railroad right-of-way now owned by Spokane County, the alignment passes through the City of Spokane Valley to City of Liberty Lake. The alignment continues through the City to the developing hi-tech area on the City’s eastern fringe. The corridor includes up to 14 new light rail stations, many of which interface with existing STA transit centers and bus service.





This alignment provides high-capacity rail transit service in Central and Eastern Spokane, Spokane Valley, and Liberty Lake, supported by an expanded feeder-bus network, providing numerous points of connection between light rail and bus service throughout the metropolitan area.

The design and development of the system shall plan for expansion in the future to a full double-track alignment with longer stations for multiple-car trains

The initial capital budget for development of the system shall not exceed a ceiling of \$300 million expressed in 2006 dollars. Specific determination of budget for implementation shall be based on funding availability and design refinement during preliminary engineering. Preliminary engineering will address potential upgrades of the alignment and project definition based on an assessment of priorities and limitations of available funding.

A diversified funding strategy that includes existing resources, private sector participation, and revenues derived from any new taxes subject to approval by voters has been recommended in the report, *Report on Financing of a Light Rail System for Spokane, Washington*, dated June 30, 2006 and is summarized in Chapter 6 of this Implementation Plan. This funding strategy is anticipated to be refined and confirmed during the preliminary engineering phase of the project. This Implementation Plan assumes project completion for revenue service operations by 2014.

Beginning in Downtown Spokane, the Project is divided into five line sections:

1. Downtown Spokane Segment
2. BNSF Corridor Segment
3. UPRR Corridor Segment
4. East Valley Segment
5. Liberty Lake Segment

Each section is described below.

#### Downtown Spokane Segment

The Downtown segment consists of a single track alignment running in the center of Riverside Avenue, between Post Street and Division Street, a distance of approximately 0.6 miles. The light rail trackway will be exclusive running, but will be paved and available for emergency vehicle passage. Generally, there will be a single traffic lane preserved in each direction alongside of the LRT trackway, with on-street parking also preserved except in station blocks where parking may be removed. Local driveway access will be right-turn in and out only, such that auto traffic will only be allowed to cross the LRT tracks at signalized intersections. The western terminus will be stub-ended at the Plaza Station where turn-back operations will occur.

Two passenger stations are included in this segment, one at STA's Plaza Transit Center between Post Street and Wall Street, and the other serving the Convention Center District, located between Bernard Street and Browne Street.

## BNSF-East Riverside Segment

The first portion of this segment is approximately 1.25 miles in length, extending from the point where the LRT alignment leaves the Downtown Segment at Division Street. The alignment generally follows the northern edge of BNSF right of way to the east. Just east of Division, the City of Spokane is currently planning for an extension of Riverside Avenue. The City is reserving space for light rail to occupy the median of this future extension of Riverside for some distance east of Division. It is anticipated that the Riverside Extension will be constructed in phases. During preliminary engineering, a plan for coordinated design of light rail with the Riverside Extension will be developed. The trackway will be a single-track, tie and ballast section, except for a passing track at the Riverpoint (Trent) Station area. The alignment requires purchase of new right of way from the railroad and other adjacent property owners. At the easterly end of this segment, the LRT alignment turns into existing Madelia Street and crosses beneath the BNSF Railroad. It then turns east onto existing East Riverside Avenue and continues in the center of this street to the east where it intersects with the UPRR branchline that it will follow to the east. The section of track in this segment that is within existing Madelia and East Riverside roadway rights of way is 0.8 miles.

Two passenger stations are included in this segment: one serving Washington State University's River Point campus (WSU) and the University District, and the other at the intersection of East Riverside and Napa Street serving the East Central Neighborhood. WSU has developed a master plan for future development of their River Point Campus which includes light rail. The campus is envisioned to continue to develop as an urban university with higher densities occurring over time.

## UPRR Corridor Segment

At Lacey Street, East Riverside Avenue terminates at the existing right of way of the UPRR. The westerly portion of this right of way serves as the "Yard Lead" for UPRR access from the BNSF right of way to Spokane Yard that is owned by the UPRR just east of Havana Street. East of the Spokane Yard, the UPRR right of way is referred to as the Wallace Branch, a branchline on which UPRR operates freight service between Spokane and Plummer, Idaho. The LRT alignment generally follows the UPRR right of way for a distance of approximately 4.4 miles. The UPRR right-of-way varies in width, generally between 60-100 feet. The LRT alignment is conceptually designed to share trackage with the UPRR through much of this segment. The section of UPRR trackage referred to as the "Yard Lead" may no longer be necessary for use by the UPRR in the future because of a separate project called, "Bridging the Valley". That project intends to combine trackage of the UPRR with the BNSF in that section and relocate the UPRR's Spokane to another location along the BNSF joint use corridor. The Wallace Branch, however would continue in operation from Lake Street to the east, currently with two trains per day. It is intended that any light rail and freight rail operations would be temporally separated to avoid the possibility of conflicts, consistent with the standards of the Federal Transit Administration and the Federal Railway Administration. It is also the intent of the project to minimize joint use operations to the greatest degree that budget allows. The final configuration will be determined during preliminary engineering. In addition, various interfaces with industry spurs will occur, the

disposition of which will be also be addressed in preliminary engineering. The LRT and freight rail tracks will also pass under Interstate 90 beneath an existing interstate highway bridge. Right-of-way acquisition will be required both from the UPRR as well as from some adjacent property owners. There is potential for a small number of business displacements in this section as well. LRT continues to operate within the UPRR right of way until turning out to the east at Dishman Mica Road. In this vicinity, conceptual design shows an at-grade crossing of the intersection of Dishman Mica Road and Appleway Boulevard, placing the LRT alignment on the south side of Appleway east of Dishman Mica. There is a desire to consider a grade separation at this intersection during the preliminary engineering phase, subject to further traffic analysis and budget availability.

This segment may also include the location of the LRT system's operations and maintenance facility at a site in the vicinity of the Spokane County Fair and Expo. Center, to be confirmed during the Preliminary Engineering phase. Roadway crossings in this segment are either at-grade with signal and gate protection or grade separated, and generally consistent with the UPRR's adjacent crossing configuration.

There are four passenger stations in this segment. They provide access to the local community surrounding the alignment and also interface with STA bus service. In particular, the station at the Spokane County Fairgrounds provides access to this major regional attraction, as well as significant opportunity for future transit-oriented development. Park and ride facilities are anticipated at the Fairgrounds as well as the Argonne Station at the east end of this segment.

### East Valley Segment

The East Valley Segment diverges away from the operating UPRR branchline and extends eastward to the City of Liberty Lake. The western portion follows the south side of Appleway Boulevard from Dishman Mica Road to University Road, a distance of approximately 0.9 miles. The eastern portion is in former railway right of way that is now owned by Spokane County, extending to the City of Liberty Lake, a distance of approximately 5.6 miles. The County right-of-way varies generally between 60 and 100 feet in width. The City of Spokane Valley is considering the possibility of extending Appleway Boulevard east of University Road in portions of this segment. During preliminary engineering, a process to coordinate the design of light rail with this potential roadway extension will be developed. All crossings of roadways in this segment are anticipated to be at-grade with gated and signalized crossing protection.

There are currently envisioned to be four passenger stations in this segment. The station at University Road will provide an interface to STA's existing bus transit center and park and ride facility. It is anticipated that convenient access between the transit center and the LRT station will be developed. It is desired to locate park and ride facilities at the other stations in this segment as well, subject to suitable sites being made available. There also exists the potential for the City of Spokane Valley to develop a City Center complex in the vicinity of the former shopping center development between Dartmouth Rd. and University Rd. This is a significant opportunity for transit-oriented development to occur, along with the possibility of an additional LRT station. Finally, the recommended site for the location of an LRT operations and maintenance facility is located in this segment, just east of Bowdish Rd. where Spokane Transit

Authority currently has it's Fleck Service Center. This would require conversation of this facility to use for LRT.

### Liberty Lake Segment

At the east end of the Project, the alignment enters the City of Liberty Lake. This section continues another 2.0 miles to the eastern terminus at the intersection Signal Rd. This terminus will also be a stub-end configuration. The alignment continues to be located generally within County right-of-way (former railroad right-of-way). At the western end of this segment, a recently constructed interchange of I-90 with Appleway and Country Vista Rd. requires the alignment to diverge away from County-owned right of way. Consideration is also being given to further expansion of this interchange. Coordination with any plans for expansion will also need to occur during preliminary engineering. Toward the east end of this segment, the alignment passes in proximity to commercial and campus industrial developments. A single business (fast-food restaurant) is anticipated to require displacement. There will be some at-grade roadway crossings that will be signalized and protected with gates.

Two stations are included in this segment. One at the Appleway interchange will include a park and ride facility with convenient interchange access to/from I-90 as well as good surface roadway access to Liberty Lake. The size of this facility is to be determined during preliminary engineering. The Liberty Lake Station at the eastern terminus will also include a park and ride, bus transit center. The Liberty Lake station location is subject to coordination with the City regarding a possible interface with their new government center.

### Light Rail Vehicles

The project includes purchase of eight (8) diesel light rail vehicles. The vehicles will be similar to the low-floor vehicles operating on the Southern New Jersey Light Rail Project and the Sprinter Diesel Light Rail system in Oceanside, California. The issue of potential use of electrified light rail vehicles will also be revisited during preliminary engineering. Consideration will also be given to increasing the number of vehicles, subject to budgetary constraints and project priorities.

### Operations Description

Single-car trains are envisioned to operate at 15 minute headways during peak and mid-day hours and at 30 minute headways during evenings. The frequency of service is limited by the single-track alignment and location of passing tracks. During preliminary engineering, consideration will be given to increasing the extent of double-track alignment and passing tracks to the extent that budget allows.

Travel time between the Plaza station in downtown Spokane and the eastern terminus in Liberty Lake is estimated to be 37 minutes. Typical dwell times at stations are anticipated to be 30 seconds. Average weekday ridership is estimated to generate approximately 3,500 daily boardings for the design year of 2025. Ridership estimates will be revised during the preliminary engineering phase.

## 1.6 Environmental Clearance History and Status

During development of the Alternatives Analysis for the project, a Draft Environmental Impact Statement (DEIS) was prepared according to the guidelines of the National Environmental Policy Act and the Federal Transit Administration (FTA). The FTA certified the DEIS for publication on December 29, 2005 and the document was published and circulated for a 45-day public review and comment period. The DEIS provides analysis of project alternatives and identifies impacts to the environment, mobility, land use, cultural resources, safety and economic/community development potential. The public comment period extended from January 18 to March 3, 2006. The public was invited to attend four public meetings/open houses to comment on the DEIS during the month of February 2006.

All DEIS comments received during the public comment period were assembled and documented in the report, *South Valley Corridor Project, Public Comment Report, May 2006*. These will be addressed in the Final Environmental Impact Statement, planned for production during the preliminary engineering phase.