

# **Modern Streetcar Planning and Design Project — Detailed Scope of Work**

## **Background and Intent**

The City of Fort Worth envisions modern streetcars serving as an urban circulator for the central city, providing an important alternative transportation option for employees, residents and visitors. Due to its unique characteristics as a transit mode, streetcars have been recognized as a strong catalyst for compact, walkable, high-density, sustainable developments. The City of Fort Worth has established policies, goals, and objectives, such as an urban village program, mixed-use zoning, and designated mixed-use growth centers, which promote walkable urbanism in our central city. It is anticipated that a central city streetcar will significantly assist with these efforts.

In July 2008, the Mayor and City Council appointed a Modern Streetcar Study Committee to evaluate the feasibility of developing a modern streetcar system to complement the regional rail system, including identifying a starter alignment and recommending implementation steps. In December 2008, the Modern Streetcar Study Committee recommended to the City Council next steps for implementation of a modern streetcar system that would connect Downtown with up to six urban villages.

The scope of work for streetcar planning and design project includes three phases. Phase one is evaluating the Modern Streetcar Study Committee's recommendations, preparing design and operational assumptions, estimating ridership, and analysis of economic impacts; phase two is financial and business planning; and phase three is preliminary engineering and environmental assessment of a starter alignment.

## **Specific Tasks to be performed**

### ***Phase 1 – Alignment Evaluation and Definition, Economic Analysis and Cost Estimates***

#### **Task 1 - Recommended Alignment Evaluation and Development of Design and Operation Assumptions**

The purpose of this task is to review the recommended starter alignment for issues that limit its effectiveness as an urban circulation transit mode and provide assumptions to be used for developing the necessary schematic design work for alignment refinement and cost estimate preparation. Subtasks would include but are not limited to:

- Provide assumptions of the starter alignment
- Provide preferred technology options
- Assess vehicle procurement timelines and preferred vehicle selection process.
- Assess issues with operation of the starter alignment.
- Evaluate Bus-Rapid Transit as a mode for the recommended starter alignment.
- Conduct a basic utility review.
- Determine the type and schedule for preparation of an environmental document

**Deliverables: Technical Memorandums for Design Assumptions, Alignment Refinement, and Vehicle Options**

**Task 2 — Economic Development Impact Analysis**

The purpose of this task is to provide an analysis of economic development potential of properties within a 1000-foot buffer of all five lines identified by the Study Committee as possible routes. Items to be considered will include:

- An analysis of vacant and under-developed sites and their development potential,
- Projected property value appreciation and forecasted increase in property tax revenues over a no-build scenario,
- Projected new residential units and new commercial square feet

**Deliverables:** A Technical Memorandum describing the total potential economic impact of the streetcar including the potential role of Public Private Partnerships and the analysis of the components of the economic impact.

**Task 3 — Ridership, Initial Capital and Operating Cost Estimates**

The purpose of this task is to provide estimated ridership and operating costs of the starter alignment based on the findings and assumptions developed in Task 1 and the economic development projected in Task 2.

- Estimated ridership
- Capital Cost Estimate for the starter alignment, and
- Estimated 5-year operating and maintenance cost forecast.

**Deliverables:** Technical Memorandums with ridership forecasts and capital and operating and maintenance cost forecasts

***Phase 2 – Business Plan and Phasing Recommendation***

**Task 4 — Business Plan**

The purpose of this task is to provide the framework for the organizational and financial structures necessary for a streetcar system in Fort Worth. This includes the subtask to explore, evaluate and document opportunities for cooperative effort between this and other planned streetcar projects, especially concerning the project under development by the City of Dallas and DART. Incorporating the results of all project work to date, HDR will work with the stakeholders to develop a project phasing recommendation.

- Organizational Plan
- Financial Plan
- Project Phasing Plan

**Deliverables:** A Finance and Implementation Technical Memorandum, a Project Phasing Recommendation, and a Phase 1 and 2 Summary Report and Presentation.

*Phase 3 – Design and Documentation – To proceed after approval of Phase 1 and 2 documents by City Council, The T Board, and other appropriate governmental bodies (July 2010).*

## **Task 5 — Preliminary Engineering and Environmental Assessment**

### **Preliminary Engineering:**

The purpose of this task is to provide schematic design and preliminary engineering for the selected first phase as determined after consideration of the recommendation of the project team.

- Drainage, surveying, mapping, geotechnical survey and analysis
- Utility relocation.
- Track Alignment, typical sections, grade crossings, stop locations and layouts
- Traffic signalization plans
- Site civil design
- Right-of-way engineering and plans
- Maintenance facility specifications
- NEPA Environmental Assessment
- Coordination with streetscape, street/bridge reconstruction, and adjacent private construction projects

**Deliverables: Preliminary Engineering Plans, Geotechnical Report, Traffic Operations Study, Construction Cost Estimate, Maintenance Facility Site Selection Report**

### **Environmental Assessment:**

Concurrent with PE, HDR will conduct environmental analyses to support an anticipated Environmental Assessment (EA) to advance potential receipt of FTA funds for project development. The EA will be organized per NEPA requirements.

**Deliverables: Draft and Final Environmental Assessment, FONSI**

## **Task 6 — Public Involvement**

The purpose of this task is to ensure transparency in the planning process while receiving input and building consensus among stakeholders.

- Conduct meetings
- Provide briefings to City Council, The T Board of Directors and other key stakeholders
- Prepare meeting displays and conduct the technical presentation of these displays.
- Communicate with the Project Managers on a regular basis to report on the project progress.
- Establish guiding principles for the project.

**Deliverables: Public Involvement Plan, Web-based media support, Stakeholder and Community/public meeting coordination and implementation**