

Alameda-San Joaquin Regional Rail Working Group

Project and
Program
Development



LIVERMORE
CALIFORNIA



Project Development Concept Plan



A Look Ahead

- Project Implementation
- Early Action

Project / Program Development

- The Concept Plan
- Preliminary Engineering

Project Definition

- Standards / Specifications
- Design
- Performance / Functional
- Typical Cross sections
- Preliminary Evaluation of Options

Technical Product Hard Costs

- Guideway
- Stations and Parking
- Integration / Connections
- Systems
- Support facilities
- Rolling stock
- Real Estate
- Site work

EXAMPLE: Use \$ 700 Million

Technical Product Soft Costs

Professional Services

- Preliminary Engineering
- Final Design
- Project Management
 - Design
 - Construction
- Construction Management and Administration
- Legal, Permits, Fees
- Surveys, Testing, Investigations
- Agency Staffing and Administration
- Start-up
- Contingencies

EXAMPLE: Costs expressed as % of Hard Cost

Commercial Process

- Procurement Methods
- Delivery Methods
- Contract T&C Provisions
- Risk Register
- Warranties and Guaranties
- Insurance Programs
- Plan of Finance

Soft Costs

Professional Services	Methods		
	Industry	BART	Innovative
Project Development			
Preliminary Engineering	4%	4%	4%
Final Design	10%	10%	10%
Project Management	4%	7%	2%
Design & Construction			
Construction Management & Administration	8%	8%	3%
Legal, Permits, & Other Fees	1%	1%	1%
Surveys, Testing, Investigations & Inspections	1%	1%	1%
Start Up	1%	2%	3%
Agency Support	2%	3%	-
Contingency	8%	10%	10%
TOTAL % of Hard Costs	40%	47%	32%

Industry Range 11% --- 54%
BART Method 47%
Innovative Method 32%
Difference 15% and \$105 M

Project / Program Development

	Hard costs 700M	
Concept Plans	1%	7M
Preliminary Engineering	3%	21M
Total	4%	28M

Project / Program Development

Scope of Work

- Tail track relocation options
- Maintenance facility plan / location and functions
- Tunnel investigations and options evaluation
- Real Estate / ROW impact assessments
- Track layouts to support operating service concepts
- Risk Identification
- EIR assessments of critical impacts
- Rolling stock characteristic profiles