

Appendix 7

Operating Revenue and Capital Costs

Appendix 7
Annualized Operating Cost, Revenue, and Capital Cost of the Project

Capital Improvements on the NHHS Corridor

Capital improvements of the NHHS Corridor are those that are necessary to provide the infrastructure to increase passenger service while maintaining the on time performance of the freight operators.

The total project cost to construct this project is \$721.3 Million including contingency, professional services, and escalation to the year of expenditure. This cost is developed in a separate technical report “Project Cost Estimate” and is developed using the FRA’s Service Development Program Budget and Schedule Form (FRA F6180.134). Also included in the technical report is the NHHS Corridor Detailed Cost Estimate for construction cost.

Of the total project cost amount, the following items are considered either mandated improvements not related to the project or future studies or work not required to implement the Service Plan:

Table 1 Costs Not Required for the Service Plan

Description of Cost	Cost in 2011 Dollars (000)
50.03 and 50.04 Positive Train Control	\$8,600
20.02 Springfield Station Construction	\$13.684
80.01 Professional Services for Future Studies	\$7,162

Removing these costs from the project along with their attendant, professional services, and contingency yield a total project cost of \$632.0 Million which represents a base cost reduction of 43.9 Million.

Operating Costs and Revenue for the NHHS Corridor

- The Incremental Operating Cost Estimate of \$41.7 Million is included in the Service Development Plan. The Incremental Operating Cost Estimate is the additional operating cost required to increase one-way intercity and regional trains from 12 to 24 per day and add 21 one-way commuter trains per day (an increase of 31 one-way trips per day) as proposed in the C-1 2020 Concept Service Development Plan.

- The Incremental Revenue of \$18 Million is included in the Service Development Plan.

Capital Costs for the NHHS Corridor

Construction costs are annualized based on a 7% discount rate and the life of the various project components. Table 2 calculates the annualized cost of the project as \$47.1 Million.

Table 2 – Annualized Capital Costs

Item	Base Year Dollars w/Contingency (X000)	Lifetime	Annualization Factor (based on 7% rate)	Annualized Cost (X000)
10 Guideway & Track Elements	\$117,188	35	0.0772	\$9,047
20 Stations, Stops, Terminals, Intermodal	\$177,685	70	0.0706	\$12,545
30 Support Facilities: Yards, Shops, Admin. Bdgs	\$11,130	50	0.0725	\$807
40 Sitework and Special Conditions	\$34,372	125	0.0700	\$2,406
50 Communications and Signaling	\$13,888	30	0.0806	\$11,194
60 Electric Traction	-			
70 Vehicles	-			
80 Professional Services	\$ 196,597	50	0.725	\$14,253
Cost of non project improvements	\$(43,900)	50	0.725	\$(3,183)
Total	\$631,960			\$47,069

Summary of Annual Costs

- Annualized Capital Cost: \$47.1 Million
- Incremental Operation and Maintenance: \$41.7 Million
- Incremental Revenue: \$18.0 Million