APPENDIX N. CAPITAL COST ESTIMATE

CAPITAL COST ESTIMATE

Estimated order of magnitude capital costs were developed for each of the three alternatives considered as part of the Plaistow Commuter Rail Extension Study. These capital cost estimates were used to support the evaluation process and help comparison of the alternatives.

The capital cost estimates includes all costs associated with the construction of necessary infrastructure related to the extension of commuter rail service. The cost estimate includes construction of the layover facility, station, parking, roadways or access roads, mainline track, or signal improvements. The estimate also includes costs to complete mitigation measures for noise and wetland impacts. Site acquisition, demolition, and relocation costs are also included. The cost estimate also included costs for engineering and design (10 percent of the improvement costs), project administration and construction management (10 percent), and contingency (30 percent).

The costs for each alternative are described below and summarized in Table 1.

- **Alternative I.** Alternative I has $40.5 million in capital costs, the lowest capital costs of the three alternatives. The lower costs associated with this alternative are related to the cost efficiency of using an existing NH DOT park and ride facility for the station. The real estate acquisition costs and construction of a parking lot will be significantly lower than the other costs.
- **Alternative II.** At $50.5 million, Alternative II has the highest capital costs of the three alternatives. The higher costs associated with this alternative are related to the construction of a bridge and retaining walls to minimize impacts on wetlands and stream corridors. Preliminary review also reveals that wetland mitigation (i.e., payment in lieu) will be also required.
- **Alternative III.** Alternative III is the second-most costly alternative at $49.4 million, due in part to the increased real estate and demolition costs associated with the Testa Realty, Inc. parcel. The higher costs for this alternative are due to the high land costs associated with acquisition of the Testa Realty, Inc. site. The site layout for this alternative offers some cost efficiency compared to Alternative II, but is still higher than Alternative I.

Table 1. Capital Cost Estimate Summary Table

Capital Cost	Alternative I (Westville Rd & Haverhill Layover)	Alternative II (Joanne Drive)	Alternative III (Main Street)	Comments:
Layover	$ 5,700,000	$ 10,000,000	$ 6,400,000	Includes trackwork, crew building, electrical work, bridges, retaining walls, and site work, as applicable.
Parking/Roadway Improvements	$ 1,700,000	$ 3,200,000	$ 2,700,000	Includes layover and station parking, sidewalks, lighting, and access roads.
Station	$ 3,700,000	$ 3,900,000	$ 3,800,000	Includes platform, canopy, ramps, and lighting.
Mainline Improvements	$ 11,300,000	$ 11,300,000	$ 11,100,000	Includes signal upgrades, turnouts, and surfacing.
Noise Mitigation	$ 3,700,000	$ 3,500,000	$ 3,600,000	Includes sound walls and building insulation.
Wetland Mitigation	$ -	$ 400,000	$ -	Includes payments in lieu fee.
Real Estate/Demolition	$ 900,000	$ 1,300,000	$ 5,300,000	Includes land acquisition, relocation, and demolition, as applicable.
Subtotal	$ 29,700,000	$ 33,600,000	$ 32,900,000	
Engineering/Design (10%)	$ 2,700,000	$ 3,400,000	$ 3,300,000	
Project Administration & Construction Management (10%)	$ 2,700,000	$ 3,400,000	$ 3,300,000	
Contingency (30%)*	$ 8,100,000	$ 10,100,000	$ 9,900,000	
TOTAL	$ 40,500,000	$ 50,500,000	$ 49,400,000	

**The level of contingency is consistent with FTA guidance.*