

5 ORDER OF MAGNITUDE – STATION SITE IMPROVEMENTS

Tables 5-1 and 5-2 show the order of magnitude cost estimates respectively, for both site facility improvements: Alternative A and Alternative B. For both Tables, totals are shown for construction costs as described and do not include soft cost for design, engineering, and management but these additional costs should be considered when developing a project budget.

5.0.1 Alternatives A and B

The cost estimates for Alternative Site Plan A (Table 5-1) and Alternative Site Plan B (Table 5-2), are in the order of magnitude of \$3.52M and \$4.11M, respectively.

Table 5-1: Station Site Facility Improvements - Alternative A

Item	Element	Description	Cost
1	Selective Demolition	Remove landscaping, poles, signs, bike racks, pavement, curbs, bus shelters, and parking meters	\$177,000
2	Earthwork & Excavation	Earth excavation, removal, and replacement	\$112,000
3	Paving and Curbs	Concrete Curbs and Gutters, 4" Concrete Walks, 12" Concrete Paving at Bus Lanes, 2 1/2" Asphalt Paving, Brick Walkways, Pavement Striping, and Repave Existing Asphalt	\$882,100
4	Retaining Wall	At Widened Sidewalk Adjacent to Track Embankment: Concrete Footing, Concrete Wall (1' to 4'-8" high), Brick Veneer	\$92,700
5	Pedestrian Barriers	Metal Rail Barriers	\$46,400
6	Street Lights	Street and Walkway Light Pole Installation	\$30,300
7	Bus Platform Systems	Continuous Metal Platform and Walkway Canopies, Glazed Windscreens at Bus Platform Edges, Glazed Waiting Shelters, and Trash Receptacles	\$1,556,500
8	Landscaping	4" Topsoil, Sod, 10' high Calip Trees	\$28,400
9	Site Improvements	Install Relocated Signs and Parking Meters	\$7,300
10	Maintenance of Traffic	Temporary pedestrian and vehicle barriers	\$207,600
11	Labor Impacts	Labor cost premium for work in operating facilities	\$382,400
12	Total	(FY08) Construction Costs: Overhead, Profit, 15% Contingency Costs, and 5% Sale Tax for Materials	\$ 3,522,700

5.0.2 Funding

Two Northern Virginia Transportation Authority (NVTa) grants for Fiscal Year (FY) 09 and FY10 will provide partial funding for station site improvements in the amount of \$2.25M. A FY06 grant from the federal Regional Surface Transportation (RSTP) program provides \$100,000 in partial funds for design and engineering improvements to the King Street bus facilities. The City of Alexandria has recently applied for additional federal and state grants to funds.

5.1 Order of Magnitude – Tunnel Passageway

Table 5-3 shows the cost estimate for construction of the passageway tunnel between the King Street station and Union Station in the order of magnitude of \$4.47M. The cost shown does not

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include soft cost for design, engineering, and management but these costs should be considered when developing a project budget.

Table 5-2: Station Site Facility Improvements - Alternative B

Item	Element	Description	Cost
1	Selective Demolition	Remove landscaping, poles, signs, bike racks, pavement, curbs, bus shelters, and parking meters	\$117,000
2	Earthwork & Excavation	Earth excavation, removal, and replacement	\$112,000
3	Paving and Curbs	Concrete Curbs and Gutters, 4" Concrete Walks, 12" Concrete Paving at Bus Lanes, 2 1/2" Asphalt Paving, Brick Walkways, Pavement Striping, and Repave Existing Asphalt	\$1,302,800
4	Retaining Wall	At Widened Sidewalk Adjacent to Track Embankment: Concrete Footing, Concrete Wall (1' to 4'-8" high), Brick Veneer	\$92,700
5	Pedestrian Barriers	Metal Rail Barriers	\$21,500
6	Street Lights & Signal	Street, Walkway Light Pole and Traffic Signal	\$159,200
7	Bus Platform Systems	Continuous Metal Platform and Walkway Canopies, Glazed Windscreens at Bus Platform Edges, Glazed Waiting Shelters, and Trash Receptacles	\$1,565,000
8	Landscaping	4" Topsoil, Sod, 10' high Calip Trees	\$12,500
9	Site Improvements	Install Relocated Signs and Parking Meters	\$9,200
10	Maintenance of Traffic	Temporary pedestrian and vehicle barriers	\$207,600
11	Labor Impacts	Labor cost premium for work in operating facilities	\$451,100
12	Total	(FY08) Construction Costs: Overhead, Profit, 15% Contingency Costs, and 5% Sale Tax for Materials	\$4,110,700

Table 5-3: Tunnel Passageway

Item	Element	Description	Cost
1	Mobilization	Equipment Mobilization and Demobilization for Tunneling	\$91,350
2	West Platform Elevator	Selective Demolition and Cutting, Excavation, Sheeting and Shoring, concrete shaft structure, pre-cast/glass hoistway enclosure, elevator car and systems.	\$690,980
3	East Platform Elevator	See Item 2. Concrete Platform Extension at Walkway	\$625,330
4	Passageway Tunnel	Selective Demolition and Cutting, Excavation Support, Existing Rail Support, Excavation, Concrete Tunnel Structure, and Waterproofing.	\$2,180,530
5	Architectural Finishes	Floor Tile, Metal Ceiling Panels, Railings, PreCast Enclosure Panels at Abandoned Tunnel	\$220,700
6	Systems	Power and Lighting, Communications, and Security	\$106,030
9	Site Improvements	Brick Walkway, Sodding, and Utility Relocation	\$65,720
10	Maintenance of Traffic	Temporary pedestrian barriers	\$76,270
11	Labor Impacts	Labor cost premium for work in operating facilities	\$417,190
12	Total	(FY08) Construction Costs: Overhead, Profit, 15% Contingency Costs, and 5% Sale Tax for Materials	\$4,474,100

5.2 Order of Magnitude – Station Mezzanine Improvements

Table 5-4 shows the cost estimate for construction of a commuter store in the order of magnitude of \$188,500. The cost shown does not include soft cost for design, engineering, and management but should be considered when developing a project budget.

TABLE 5-4: Order of Magnitude - DASH Transit Store

Item	Element	Description	Cost
1	Sitework & Concrete	<i>Soil Excavation, Soil Removal, Footings and Slab</i>	\$17,820
2	Masonry	<i>Architectural Concrete Masonry Units</i>	\$19,320
3	Metals	<i>Cold Steel Framing</i>	\$ 9,110
4	Wood & Plastics	<i>Cabinetry and Countertops</i>	\$20,590
5	Exterior Systems	<i>Waterproofing, Metal Roof Screening, Fascia, Built Roofing, Glazed Storefront Door, Metal & Wood Doors</i>	\$42,630
6	Finishes & Specialties	<i>Drywall Partitions, Lay-in Ceiling, Flooring, FEC</i>	\$37,300
7	Equipment & Furnishings	<i>CCTV, Display Cabinets</i>	\$ 11,870
8	MEP	<i>Mechanical, Electrical, Fire Protection, and Plumbing Systems</i>	\$29,870
9	Total	<i>(FY08) Construction Costs: Overhead, Profit, 10% Contingency Costs, and 5% Sale Tax for Materials</i>	\$188,510