

ASSUMPTIONS/CLARIFICATION/EXCEPTIONS:

1. Direct Costs are in 2016 dollars.
2. Estimate is based on internal meetings regarding scope & constructability, various reports and white papers, and schematic alignment layouts.
3. For LIRR alternative, estimate includes new retaining walls, excavation and allowance for repairs to existing inactive WB tunnel below LIRR Mainline in White Pot Junction.
4. For LIRR alternative, estimate includes new turnouts for connection between LIRR Mainline and Rockaway Branch (RBB) track running along Mainline ROW.
5. Estimate includes clearing and grubbing along abandoned portions of ROW.
6. Estimate includes removal of existing track, ties and existing high tension poles where required.
7. Estimate includes providing geogrid stabilization mattresses on approximately 25% of embankment slopes.
8. Estimate includes ballast retaining curbs along approximately 25% of the trackway between White Pot Junction and Liberty Ave.
9. Estimate includes 8-ft high security fence & access gates along the ROW between White Pot Junction and Liberty Ave.
10. Estimate includes ballasted track on grade sections and aerial structures and Direct Fixation (DF) track in tunnels and boat sections.
11. Estimate includes cleaning of viaduct where required prior to demolition.
12. For LIRR alternative, estimate includes cleaning and painting along with misc repairs to four (4) undergrade (UG) bridge structures along the LIRR Mainline.
13. For LIRR alternative, estimate includes replacement of eleven (11) UG bridge structures between White Pot Junction and Pitkin Ave.
14. For NYCT alternative, estimate includes replacement of nine (9) UG bridge structures between White Pot Junction and Atlantic Ave.
15. For BOTH alternatives, estimate includes full replacement of viaduct between 97th Ave and Rockaway Blvd.
16. For LIRR alternative, estimate includes cantilever structural modification of retained embankment between Rockaway Blvd and Pitkin Ave.
17. Estimates include requisite allowances for signals, traction power and communications.
18. For NYCT alternative, estimate includes two (2) Tunnel Ventilation Plants for new tunnels between Rego Park Station and Portal north of Fleet St.
19. Estimate includes allowances for environmental issues regarding lead abatement, hazardous/contaminated soils and other fugitive environmental conditions.
20. Contingency of 30% is included commensurate with preliminary schematics of project.
21. Soft costs for Agency Costs, Project Management and Engineering Review & Inspection as shown and per direction from LIRR.
22. Soft costs for Professional Services (Design advancement, CM, Risk Assessments, Specialists, Public Outreach as shown and per direction from LIRR.
23. Soft costs for Agency Service Support Costs (Utility Companies, etc.) assumed at total of 18% of cost.
24. Force accounts costs as shown assumed at 5% of cost.
25. No costs for real estate acquisitions or rolling stock whatsoever is included.
26. Indirect costs included at 18% of direct cost; overhead and profit at 21% of direct cost.
27. Insurance and bond costs included at 7% per direction of LIRR
28. For simplicity, absent a schedule of program implementation, 10 years of escalation at 4.25% per annum is included across the board.

CBS Code	Description	Qty	UM	Unit Cost	Total Cost
JOB	JOB: LIRR ALTERNATIVE				\$6,774,528,168
	Force Account (FA)	1.00	Lump Sum	\$236,319,410	\$236,319,410
	Total Soft Costs	1.00	Lump Sum	\$676,488,582	\$676,488,582
	3rd Party Direct Construction Costs (Raw Construction)	1.00	Lump Sum	\$1,336,909,852	\$1,336,909,852
	3rd Party Construction General Conditions Costs (Compounded)	1.00	Lump Sum	18.00%	\$404,949,212
	3rd Party Construction Overhead & Profit Costs (Compounded)	1.00	Lump Sum	21.00%	\$557,480,082
	3rd Party Construction Insurance & Bond Costs (Compounded)	1.00	Lump Sum	7.00%	\$224,850,300
	Project Level Contingency Costs (Compounded)	1.00	Lump Sum	30.00%	\$1,031,099,231
	Project Level Escalation Factor (Compounded) - ASSUMED 10 YRS TO MIDPOINT @4.25% PER ANNUM	1.00	Lump Sum	51.62%	\$2,306,431,500
1	Construction	1.00	LS	\$1,336,909,852	\$1,336,909,852
1.1	Structures (ie. Bridges & Viaducts)	1.00	LS	\$239,868,560	\$239,868,560
1.1.1	Third Party	1.00	LS	\$239,868,560	\$239,868,560
	Woodside to White Pot Junction				
1.1.1.1	57th Ave Bridge - Clean & Paint	4,949	SF	\$175.00	\$866,075
1.1.1.2	I-495 Bridge - Clean & Paint + Pier & Wall Repairs	27,932	SF	\$222.00	\$6,200,904
1.1.1.3	Woodhaven Blvd Bridge - Clean & Paint + Pier & Superstructure Repairs	10,811	SF	\$223.00	\$2,410,853
1.1.1.4	63rd Drive Bridge - Clean & Paint + Underdeck Repairs	5,335	SF	\$249.00	\$1,328,415
	White Pot Junction to Liberty Ave				
1.1.1.5	Repair Tunnels @White Pot Jct	1.00	LS	\$500,000.00	\$500,000
1.1.1.6	Demo Fleet St RR Bridge (1-Span, 65-ft) UG	1,672	SF	\$240.00	\$401,280
1.1.1.7	New Fleet St RR Bridge UG	2,030	SF	\$900.00	\$1,827,257
1.1.1.8	Demo Yellowstone Ave RR Bridge (5-Span, 200-ft) UG	7,141	SF	\$240.00	\$1,713,840
1.1.1.9	New Yellowstone Ave RR Bridge UG	6,744	SF	\$900.00	\$6,069,850
1.1.1.10	Demo Metropolitan Ave RR Bridge (3-Span, 106-ft) UG	2,998	SF	\$240.00	\$719,520
1.1.1.11	New Metropolitan Ave RR Bridge UG	3,515	SF	\$900.00	\$3,163,407
1.1.1.12	New Lower Montauk RR Bridge UG	1,546	SF	\$870.00	\$1,345,068
1.1.1.13	Demo Union Tpk RR Bridge (1-Span, 75-ft) UG	1,810	SF	\$240.00	\$434,400
1.1.1.14	New Union Tpk RR Bridge UG	1,923	SF	\$900.00	\$1,730,813
1.1.1.15	Demo Park Lane South RR Bridge (1-Span, 50-ft) UG	1,903	SF	\$240.00	\$456,720
1.1.1.16	New Park Lane South RR Bridge UG	1,703	SF	\$900.00	\$1,532,416
1.1.1.17	Demo Jamaica Ave RR Bridge (1-Span, 70-ft) UG	2,367	SF	\$300.00	\$710,100
1.1.1.18	New Jamaica Ave RR Bridge UG	2,299	SF	\$1,200.00	\$2,759,246
1.1.1.19	Demo 91st Ave RR Bridge (1-Span, 45-ft) UG	1,506	SF	\$240.00	\$361,440
1.1.1.20	New 91st Ave RR Bridge UG	1,600	SF	\$900.00	\$1,440,113
1.1.1.21	Demo Atlantic Ave RR Bridge (4-span, 180-ft) UG	9,986	SF	\$240.00	\$2,396,640
1.1.1.22	New Atlantic Ave RR Bridge UG	6,063	SF	\$900.00	\$5,456,636
1.1.1.23	Demo Viaduct	153,770	SF	\$300.00	\$46,131,000
1.1.1.24	New Viaduct	95,058	SF	\$1,200.00	\$114,069,382
	Liberty Ave to Howard Beach				
1.1.1.25	Demo Linden Blvd RR Bridge (1-span, 90-ft) UG	4,935	SF	\$240.00	\$1,184,400
1.1.1.26	New Linden Blvd RR Bridge UG	4,935	SF	\$1,000.00	\$4,935,000
1.1.1.27	Demo Pitkin Ave RR Bridge (1-span, 80-ft) UG	4,313	SF	\$240.00	\$1,035,120
1.1.1.28	New Pitkin Ave RR Bridge UG	4,389	SF	\$1,000.00	\$4,388,667
1.1.1.29	Structure Modification - Existing Retained Embankment WB (STA364 - STA390)	2,430	LF	\$10,000.00	\$24,300,000
1.1.2	Force Account	1.00	LS	\$35,980,284	\$35,980,284
1.1.2.1	Structures Allocation (15%)	1.00	LS	\$35,980,284	\$35,980,284
1.1.2.2		1.00	LS	\$0.00	\$0.00
1.1.2.3		1.00	LS	\$0.00	\$0.00
1.1.2.4		1.00	LS	\$0.00	\$0.00
1.1.2.5		1.00	LS	\$0.00	\$0.00

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1.2	Site Work Requirements (ie. Retaining Walls, Sound Walls, Embankments & ROW Vegetation Removal)	1.00	LS	\$399,172,654	\$399,172,654
1.2.1	Third Party	1.00	LS	\$399,172,654	\$399,172,654
	Woodside to White Pot Junction				
1.2.1.1	Remove Exist Rail, Ties & Ballast	15,981	TF	\$282.38	\$4,512,715
1.2.1.2	Excavation for Trackbed (Avg 2'Dx12'Wx15,981'L)	14,206	CY	\$54.44	\$773,375
1.2.1.3	Truck & Dispose Excavated Materials 100%	14,206	CY	\$56.44	\$801,787
	White Pot Junction to Liberty Ave				
1.2.1.4	Cut & Remove from White Pot Jct to Viaducts (18040 LF) including tree mitigation for Parks Dept	100,000	EA	\$1,419.02	\$141,902,000
1.2.1.5	Excavation Before Tunnel - White Pot Junction Area (10'Dx1390'Lx25'W)	12,870	CY	\$30.69	\$394,980
1.2.1.6	Excavation Disposal - White Pot Junction Area (10'Dx1390'Lx25'W)	12,870	CY	\$56.44	\$726,383
1.2.1.7	Excavation for Trackbed (Avg 2'Dx30'Wx15,383'L)	34,185	CY	\$54.44	\$1,861,031
1.2.1.8	Truck & Dispose Excavated Materials 100%	34,185	CY	\$56.44	\$1,929,401
1.2.1.9	Retaining Wall @White Pot Jct, (3,047'Lx18'Hx2'T)	54,846	SF	\$970.00	\$53,200,620
1.2.1.10	Retaining Wall @Ball Field N. of Fleet St, (630'Lx18'Hx2'T)	11,340	SF	\$970.00	\$10,999,800
1.2.1.11	Retaining Wall Lower Montauk - Union Tpk, (2,114'Lx18'Hx2'T)	38,052	SF	\$970.00	\$36,910,440
1.2.1.12	Clean Track Bed on Viaduct (5080 LF)	75,240	SF	\$236.50	\$17,794,260
1.2.1.13	Landscape Slopes (2-side x 33'W x 15,383'L)	1,015,278	SF	\$22.95	\$23,300,630
1.2.1.14	Furnish & Install Stone Stabiliz Mattress (2x33'Wx15,383'Lx1.5'T) w/Fabric 25%	253,820	SF	\$44.20	\$11,218,844
1.2.1.15	Security Fence (8'H) w/Gates Each Side ROW	36,080	LF	\$69.50	\$2,507,560
	Liberty Ave to Howard Beach				
1.2.1.16	Remove Exist Rail, Ties & Ballast	13,453	LF	\$282.38	\$3,798,858
1.2.1.17	Retaining Walls, Pitkin to N. Conduit (2,664'Lx18'Hx2'T)	47,952	SF	\$970.00	\$46,513,440
1.2.1.18	Retaining Walls, Sidings S. of Nassau Expwy (743'Lx18'Hx2'T)	13,374	SF	\$970.00	\$12,972,780
1.2.1.19	Retaining Walls for Yard areas (1,800'Lx10'Hx2'T)	18,000	SF	\$1,115.00	\$20,070,000
1.2.1.20	Misc Site Paving at Yard areas	7,000	SF	\$20.00	\$140,000
	Other, Environmental Allowance				
1.2.1.21	Allowance for Environmental Remed (Lead, ACM & Contam Soil)	1	LS	\$6,843,750	\$6,843,750
1.2.2	Force Account	1.00	LS	\$59,875,898	\$59,875,898
1.2.2.1	Site Work Allocation (15%)	1.00	LS	\$59,875,898	\$59,875,898
1.2.2.2		1.00	LS	\$0.00	\$0.00
1.2.2.3		1.00	LS	\$0.00	\$0.00
1.2.2.4		1.00	LS	\$0.00	\$0.00
1.2.2.5		1.00	LS	\$0.00	\$0.00
1.3	Reopening of Stations (ie. Station Building (or Kiosks\Waiting Areas) including Platforms, Station Signage, TVM & Associated Station Standards)	1.00	LS	\$298,062,325	\$298,062,325
1.3.1	Third Party	1.00	LS	\$298,062,325	\$298,062,325
1.3.1.1	Remove Existing Station @Atlantic Ave	1.00	LS	\$1,000,000.00	\$1,000,000
1.3.1.2	Rego Park - Typical 2-Side Platform Station	1.00	LS	\$26,636,292.50	\$26,636,293
1.3.1.3	Parkside - Typical 2-Side Platform Station	1.00	LS	\$26,636,292.50	\$26,636,293
1.3.1.4	Woodhaven - Typical 2-Side Platform Station (Aerial)	1.00	LS	\$38,159,288.75	\$38,159,289
1.3.1.5	Ozone Park -Typical 2-Side Platform Station (Aerial)	1.00	LS	\$38,159,288.75	\$38,159,289
	LIRR Racetrack, N. Conduit & Howard Beach Stations				
1.3.1.6	Remove existing NYCT Station & Rebuild new Island Station @Aqueduct STA	1.00	LS	\$32,703,223.17	\$32,703,223
1.3.1.7	Remove existing NYCT Station & Rebuild new Island Station @North Conduit STA	1.00	LS	\$28,725,378.67	\$28,725,379
1.3.1.8	Shift Tracks & Rebuild new Tracks including Signal Work	1.00	LS	\$46,314,000.00	\$46,314,000
1.3.1.9	Overpass Bridge 12'Wx60'L @North Conduit STA	1.00	LS	\$1,305,072.00	\$1,305,072
1.3.1.10	Overpass Bridge 12'Wx60'L @Aqueduct Racetrack STA	1.00	LS	\$3,987,720.00	\$3,987,720
1.3.1.11	Transfer Station for LIRR @North Conduit STA	1.00	LS	\$18,857,888.33	\$18,857,888
1.3.1.12	Demolish NB Platform @Howard Beach	9,000	SF	\$47.50	\$427,500
1.3.1.13	Truck & Dispose	283	CY	\$51.00	\$14,433
1.3.1.14	Howard Beach STA NB Platform Construction	1	LS	\$15,847,298.00	\$15,847,298

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1.3.1.15	Howard Beach STA Island Platform Construction	1	LS	\$19,288,649.00	\$19,288,649
1.3.2	Force Account	1.00	LS	\$59,612,464.93	\$59,612,465
1.3.2.1	Stations Allocation (20%)	1.00	LS	\$59,612,465	\$59,612,465
1.3.2.2		1.00	LS	\$0.00	\$0.00
1.3.2.3		1.00	LS	\$0.00	\$0.00
1.3.2.4		1.00	LS	\$0.00	\$0.00
1.3.2.5		1.00	LS	\$0.00	\$0.00
1.4	Switch & Signal Requirements	1.00	LS	\$38,816,682	\$38,816,682
1.4.1	Third Party	1.00	LS	\$38,816,682	\$38,816,682
1.4.1.1	Signal Work	1.00	LS	\$31,820,630	\$31,820,630
1.4.1.2	Networking/ATM/FO Work	1.00	LS	\$6,996,052	\$6,996,052
1.4.1.3		1.00	LS	\$0.00	\$0.00
1.4.1.4		1.00	LS	\$0.00	\$0.00
1.4.1.5		1.00	LS	\$0.00	\$0.00
1.4.2	Force Account	1.00	LS	\$7,763,336	\$7,763,336
1.4.2.1	Signals Allocation (20%)	1.00	LS	\$7,763,336	\$7,763,336
1.4.2.2		1.00	LS	\$0.00	\$0.00
1.4.2.3		1.00	LS	\$0.00	\$0.00
1.4.2.4		1.00	LS	\$0.00	\$0.00
1.4.2.5		1.00	LS	\$0.00	\$0.00
1.5	Track Requirements	1.00	LS	\$159,298,855	\$159,298,855
1.5.1	Third Party	1.00	LS	\$159,298,855	\$159,298,855
	Woodside to White Pot Junction				
1.5.1.1	Furnish & Install Subballast (Avg 2'Dx12'Wx15,981'L)	14,206	LF	\$85.88	\$1,220,011
1.5.1.2	Furnish & Install Concrete Ties	8,000	EA	\$281.50	\$2,252,000
1.5.1.3	Furnish & Install Rail	15,981	TF	\$243.63	\$3,893,451
1.5.1.4	Turnouts	2	EA	\$325,000.00	\$650,000
	White Pot Junction to Liberty Ave				
1.5.1.5	Furnish & Install Subballast (2'Dx30'Wx18,199'L)	40,443	CY	\$85.88	\$3,473,245
1.5.1.6	Furnish & Install Ballast Retaining Wall	9,100	LF	\$555.00	\$5,050,500
1.5.1.7	Prepare Guideway Surface (34'WX18,199'L)	618,766	SF	\$73.00	\$45,169,918
1.5.1.8	Drainage Ditch or 12" CIP Pipe for Track Drainage	36,400	TF	\$175.00	\$6,370,000
1.5.1.9	Furnish & Install Concrete Ties	18,100	EA	\$260.00	\$4,706,000
1.5.1.10	Furnish & Install Rail	36,400	TF	\$227.50	\$8,281,000
1.5.1.11	Furnish & Install DFF Ties (215 TF)	108	EA	\$370.00	\$39,960
1.5.1.12	Furnish & Install DF Rail	215	TF	\$256.25	\$55,094
1.5.1.13	Turnouts	1	EA	\$325,000.00	\$325,000
	Liberty Ave to Howard Beach				
1.5.1.14	Separation Wall between NYCT Tracks & LIRR Tracks	6,727	LF	\$2,030.42	\$13,658,635
1.5.1.15	Furnish & Install Subballast (2'Dx30'Wx6,727'L)	14,950	CY	\$85.88	\$1,283,906
1.5.1.16	Furnish & Install Concrete Ties (TF)	6,727	EA	\$260.00	\$1,749,020
1.5.1.17	Furnish & Install Rail	13,453	TF	\$227.50	\$3,060,558
1.5.1.18	Furnish & Install 10" dia pipe for Track Drainage	13,453	LF	\$135.00	\$1,816,155
1.5.1.19	Conn to Sewer System	26	EA	\$58,600.00	\$1,523,600
	Shift Tracks to West Side from Rockaway Blvd to Howard Beach STA				
1.5.1.20	Remove Exist Rail, Ties & Ballast	18,266	LF	\$282.38	\$5,157,953
1.5.1.21	Furnish & Install Subballast & Ballast	16,236	CY	\$85.88	\$1,394,348
1.5.1.22	Furnish & Install Concrete Ties (TF)	9,133	EA	\$281.50	\$2,570,940

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1.5.1.23	Furnish & Install Rail	18,266	TF	\$243.63	\$4,450,146
1.5.1.24	Turnouts	1	EA	\$325,000.00	\$325,000
1.5.1.25	Crossover	1	EA	\$650,000.00	\$650,000
1.5.1.26	Double Crossover	1	EA	\$1,200,000.00	\$1,200,000
1.5.1.27	Furnish & Install 10" dia pipe for Track Drainage	18,266	LF	\$135.00	\$2,465,910
1.5.1.28	Fiberglass Catwalk	9,133	LF	\$1,860.00	\$16,987,380
1.5.1.29	Conn to Sewer System	24	EA	\$58,600.00	\$1,406,400
	Yard Track & Appurts				
1.5.1.30	Furnish & Install Subballast (Avg 2'Dx12"Wx8,051'L)	7,157	CY	\$85.88	\$614,643
1.5.1.31	Furnish & Install Concrete Ties (8051 TF)	4,026	EA	\$281.50	\$1,133,319
1.5.1.32	Furnish & Install Rail	8,051	TF	\$243.63	\$1,961,465
1.5.1.33	Bump Posts	4	EA	\$12,000.00	\$48,000
1.5.1.34	Water Line	8,051	LF	\$789.00	\$6,352,239
1.5.1.35	Pump Station	6	EA	\$35,510.00	\$213,060
1.5.1.36	Employee Facility	1,600	SF	\$4,400.00	\$7,040,000
1.5.1.37	EIC Platform (10' x 30', 3 EA)	900	SF	\$553.75	\$498,375
1.5.1.38	Refuse Disposal Station including Power, etc	1	LS	\$251,625.00	\$251,625
1.5.2	Force Account	1.00	LS	\$31,859,771	\$31,859,771
1.5.2.1	Track Work Allocation (20%)	1.00	LS	\$31,859,771	\$31,859,771
1.5.2.2		1.00	LS	\$0.00	\$0.00
1.5.2.3		1.00	LS	\$0.00	\$0.00
1.5.2.4		1.00	LS	\$0.00	\$0.00
1.5.2.5		1.00	LS	\$0.00	\$0.00
1.6	3rd Rail (including all Electrification Requirements, ie. Substations)	1.00	LS	\$197,243,276	\$197,243,276
1.6.1	Third Party	1.00	LS	\$197,243,276	\$197,243,276
	Woodside to White Pot Junction				
1.6.1.1	Furnish & Install 3rd Rail w/Insulators & FG Cover	15,981	TF	\$150.45	\$2,404,341
	White Pot Junction to Liberty Ave				
1.6.1.2	Furnish & Install 3rd Rail w/Insulators & FG Cover	36,243	TF	\$150.45	\$5,452,759
	Liberty Ave to Howard Beach				
1.6.1.3	Furnish & Install 3rd Rail w/Insulators & FG Cover	13,453	TF	\$144.00	\$1,937,232
	Shift Tracks to West Side from Rockaway Blvd to Howard Beach STA				
1.6.1.4	Furnish & Install 3rd Rail w/Insulators & FG Cover	18,266	TF	\$150.45	\$2,748,120
	Yards				
1.6.1.5	Furnish & Install 3rd Rail w/Insulators & FG Cover	8,051	TF	\$144.00	\$1,159,344
	Power Distribution & Equipment				
1.6.1.6	Substations (DC)	4	EA	\$25,767,473	\$103,069,890
1.6.1.7	Circuit Breaker Houses (CBH)	1	EA	\$16,876,098	\$16,876,098
1.6.1.8	Signal Power & HT Lines	1	LS	\$46,399,400	\$46,399,400
1.6.1.9	Electric Power	1	LS	\$8,338,375	\$8,338,375
1.6.1.10	Emergency Generator Set	1	EA	\$2,450,003	\$2,450,003
1.6.1.11	Snow Melter Heaters	6,600	LF	\$213	\$1,407,714
1.6.1.12	Misc Work	1	LS	\$5,000,000	\$5,000,000
1.6.2	Force Account	1.00	LS	\$39,448,655	\$39,448,655
1.6.2.1	3rd Rail & Power Allocation (20%)	1.00	LS	\$39,448,655	\$39,448,655
1.6.2.2		1.00	LS	\$0.00	\$0.00
1.6.2.3		1.00	LS	\$0.00	\$0.00
1.6.2.4		1.00	LS	\$0.00	\$0.00
1.6.2.5		1.00	LS	\$0.00	\$0.00

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1.7	Communication Requirements (ie. PA System, CCTV & AVIS)	1.00	LS	\$4,447,500	\$4,447,500
1.7.1	Third Party	1.00	LS	\$4,447,500	\$4,447,500
1.7.1.1	PA & CIS Systems	6.00	STA	\$213,750.00	\$1,282,500
1.7.1.2	Comms/Telephone Systems w/Cables & Conduits	6.00	STA	\$192,500.00	\$1,155,000
1.7.1.3	CCTV / PID Systems	6.00	STA	\$335,000.00	\$2,010,000
1.7.2	Force Account	1.00	LS	\$1,779,000	\$1,779,000
1.7.2.1	Comms Allocation (40%)	1.00	LS	\$1,779,000	\$1,779,000
1.7.2.2		1.00	LS	\$0.00	\$0.00
1.7.2.3		1.00	LS	\$0.00	\$0.00
1.7.2.4		1.00	LS	\$0.00	\$0.00
1.7.2.5		1.00	LS	\$0.00	\$0.00
1.8	Portal Costs If Required	1.00	LS	\$0.00	\$0.00
1.8.1	Third Party	1.00	LS	\$0.00	\$0.00
1.8.1.1		1.00	LS	\$0.00	\$0.00
1.8.1.2		1.00	LS	\$0.00	\$0.00
1.8.1.3		1.00	LS	\$0.00	\$0.00
1.8.1.4		1.00	LS	\$0.00	\$0.00
1.8.1.5		1.00	LS	\$0.00	\$0.00
1.8.2	Force Account	1.00	LS	\$0.00	\$0.00
1.8.2.1		1.00	LS	\$0.00	\$0.00
1.8.2.2		1.00	LS	\$0.00	\$0.00
1.8.2.3		1.00	LS	\$0.00	\$0.00
1.8.2.4		1.00	LS	\$0.00	\$0.00
1.8.2.5		1.00	LS	\$0.00	\$0.00
2	LIRR Agency Costs (ie. Project Management, Transportation, F\A Support (Mark-out \ Tag-out) Engineering Inspection and Design Review)	1.00	LS	\$314,645,852	\$314,645,852
2.1	ASSUMED 20% OF CONSTRUCTION COSTS	1.00	LS	\$314,645,852	\$314,645,852
2.2		1.00	LS	\$0.00	\$0
2.3		1.00	LS	\$0.00	\$0
2.4		1.00	LS	\$0.00	\$0.00
2.5		1.00	LS	\$0.00	\$0.00
3	Professional Services (ie. Consultant Services - Design, CPS, CM, Risk Assessment Specialist, R\R Component Specialists & Public Outreach Firms)	1.00	LS	\$283,181,267	\$283,181,267
3.1	Design - ASSUMED 9% OF CONSTRUCTION COSTS	1.00	LS	\$141,590,634	\$141,590,634
3.2	CPS - ASSUMED 5% OF CONSTRUCTION COSTS	1.00	LS	\$78,661,463	\$78,661,463
3.3	CM, Other - ASSUMED 4% OF CONSTRUCTION COSTS	1.00	LS	\$62,929,170	\$62,929,170
3.4		1.00	LS	\$0.00	\$0.00
3.5		1.00	LS	\$0.00	\$0.00
4	Outside Agency Service Support Costs (ie. Utility Relocations - Permanent & Temporary)	1.00	LS	\$78,661,463	\$78,661,463
4.1	ASSUMED 5% OF CONSTRUCTION COSTS	1.00	LS	\$78,661,463	\$78,661,463
4.2		1.00	LS	\$0.00	\$0.00
4.3		1.00	LS	\$0.00	\$0.00
4.4		1.00	LS	\$0.00	\$0.00
4.5		1.00	LS	\$0.00	\$0.00
RAW COST SUBTOTALS					

CBS Code	Description	Qty	UM	Unit Cost	Total Cost
JOB	JOB: NYCT ALTERNATIVE				\$8,102,293,160
	Force Account (FA)	1.00	Lump Sum	\$266,918,543	\$266,918,543
	Total Soft Costs	1.00	Lump Sum	\$809,076,098	\$809,076,098
	3rd Party Direct Construction Costs (Raw Construction)	1.00	Lump Sum	\$1,614,653,777	\$1,614,653,777
	3rd Party Construction General Conditions Costs (Compounded)	1.00	Lump Sum	18.00%	\$484,316,715
	3rd Party Construction Overhead & Profit Costs (Compounded)	1.00	Lump Sum	21.00%	\$666,742,678
	3rd Party Construction Insurance & Bond Costs (Compounded)	1.00	Lump Sum	7.00%	\$268,919,547
	Project Level Contingency Costs (Compounded)	1.00	Lump Sum	30.00%	\$1,233,188,207
	Project Level Escalation Factor (Compounded) - ASSUMED 10 YRS TO MIDPOINT @4.25% PER ANNUM	1.00	Lump Sum	51.62%	\$2,758,477,595
1	Construction	1.00	LS	\$1,614,653,777	\$1,614,653,777
1.1	Structures (ie. Bridges & Viaducts)	1.00	LS	\$920,544,426	\$920,544,426
1.1.1	Third Party	1.00	LS	\$920,544,426	\$920,544,426
	QBL to Fleet St				
1.1.1.1	Cut & Cover Tunnels	1,422	TF	\$210,000.00	\$298,620,000
1.1.1.2	Repair Tunnel beneath QB Line	1	LS	\$300,000.00	\$300,000
1.1.1.3	Launch Pit & Tunnel Box	200	RF	\$210,000.00	\$42,000,000
1.1.1.4	Receiving Pit & Tunnel Box	50	RF	\$420,000.00	\$21,000,000
1.1.1.5	SEM Tunnels	199	TF	\$250,000.00	\$49,750,000
1.1.1.6	TBM Tunnels	3,649	TF	\$40,000.00	\$145,960,000
1.1.1.7	Geotechnical Instrumentation & Monitoring (C & C & Tunnels)	1	LS	\$3,000,000.00	\$3,000,000
1.1.1.8	2-Track Boat Section (200 LF)	1	LS	\$62,011,800.00	\$62,011,800
1.1.1.9	Geotechnical Instrumentation & Monitoring (Boat Section)	1	LS	\$500,000.00	\$500,000
1.1.1.10	Vent Buildings including Finishes	2	EA	\$37,360,000.00	\$74,720,000
1.1.1.11	Fan Plants	2	EA	\$14,981,750.00	\$29,963,500
	Fleet St to Conn 'A' Line				
1.1.1.12	Demo Fleet St RR Bridge (1-Span, 65-ft) UG	1,672	SF	\$240.00	\$401,280
1.1.1.13	New Fleet St RR Bridge UG	2,030	SF	\$900.00	\$1,827,257
1.1.1.14	Demo Yellowstone Ave RR Bridge (5-Span, 200-ft) UG	7,141	SF	\$240.00	\$1,713,840
1.1.1.15	New Yellowstone Ave RR Bridge UG	6,744	SF	\$900.00	\$6,069,850
1.1.1.16	Demo Metropolitan Ave RR Bridge (3-Span, 106-ft) UG	2,998	SF	\$240.00	\$719,520
1.1.1.17	New Metropolitan Ave RR Bridge UG	3,515	SF	\$900.00	\$3,163,407
1.1.1.18	New Lower Montauk RR Bridge UG	1,546	SF	\$870.00	\$1,345,068
1.1.1.19	Demo Union Tpk RR Bridge (1-Span, 75-ft) UG	1,810	SF	\$240.00	\$434,400
1.1.1.20	New Union Tpk RR Bridge UG	1,923	SF	\$900.00	\$1,730,813
1.1.1.21	Demo Park Lane South RR Bridge (1-Span, 50-ft) UG	1,903	SF	\$240.00	\$456,720
1.1.1.22	New Park Lane South RR Bridge UG	1,703	SF	\$900.00	\$1,532,416
1.1.1.23	Demo Jamaica Ave RR Bridge (1-Span, 70-ft) UG	2,367	SF	\$300.00	\$710,100
1.1.1.24	New Jamaica Ave RR Bridge UG	2,299	SF	\$1,200.00	\$2,759,246
1.1.1.25	Demo 91st Ave RR Bridge (1-Span, 45-ft) UG	1,506	SF	\$240.00	\$361,440
1.1.1.26	New 91st Ave RR Bridge UG	1,600	SF	\$900.00	\$1,440,113
1.1.1.27	Demo Atlantic Ave RR Bridge (4-span, 180-ft) UG	9,986	SF	\$240.00	\$2,396,640
1.1.1.28	New Atlantic Ave RR Bridge UG	6,063	SF	\$900.00	\$5,456,636
1.1.1.29	Demo Viaduct	153,770	SF	\$300.00	\$46,131,000
1.1.1.30	New Viaduct	95,058	SF	\$1,200.00	\$114,069,382
1.1.2	Force Account	1.00	LS	\$138,081,664	\$138,081,664
1.1.2.1	Structures Allocation (15%)	1.00	LS	\$138,081,664	\$138,081,664
1.1.2.2		1.00	LS	\$0.00	\$0.00
1.1.2.3		1.00	LS	\$0.00	\$0.00
1.1.2.4		1.00	LS	\$0.00	\$0.00
1.1.2.5		1.00	LS	\$0.00	\$0.00

CBS Code	Description	Qty	UM	Unit Cost	Total Cost
1.2	Site Work Requirements (ie. Retaining Walls, Sound Walls, Embankments & ROW Vegetation Removal)	1.00	LS	\$214,524,812	\$214,524,812
1.2.1	Third Party	1.00	LS	\$214,524,812	\$214,524,812
	Fleet St to Conn 'A' Line				
1.2.1.1	Excavation for Trackbed (Avg 2'Dx30'Wx14,022'L)	31,160	CY	\$54.44	\$1,696,350
1.2.1.2	Truck & Dispose Excavated Materials 100%	31,160	CY	\$56.44	\$1,758,670
1.2.1.3	Retaining Wall Lower Montauk - Union Tpk, (2,114'Lx18'Hx2'T)	38,052	CY	\$970.00	\$36,910,440
1.2.1.4	Landscape Slopes (2-side x 33'W x 14,022'L)	925,452	SF	\$22.95	\$21,239,123
1.2.1.5	Furnish & Install Stone Stabiliz Mattress (2x33'Wx14,022'Lx1.5'T) w/Fabric 25%	231,363	SF	\$44.20	\$10,226,245
1.2.1.6	Cut & Remove from White Pot Jct to Viaducts (14,022LF) including tree mitigation for Parks Dept	84,160	EA	\$1,419.02	\$119,424,723
1.2.1.7	Clean Track Bed on Viaduct (5080 LF)	75,240	SF	\$236.50	\$17,794,260
	Other, Environmental Allowance				
1.2.1.8	Allowance for Environmental Remed (Lead, ACM & Contam Soil)	1	LS	\$5,475,000.00	\$5,475,000
1.2.2	Force Account	1.00	LS	\$32,178,722	\$32,178,722
1.2.2.1	Site Work Allocation (15%)	1.00	LS	\$32,178,722	\$32,178,722
1.2.2.2		1.00	LS	\$0.00	\$0.00
1.2.2.3		1.00	LS	\$0.00	\$0.00
1.2.2.4		1.00	LS	\$0.00	\$0.00
1.2.2.5		1.00	LS	\$0.00	\$0.00
1.3	Reopening of Stations (ie. Station Building (or Kiosks\Waiting Areas) including Platforms, Station Signage, TVM & Associated Station Standards)	1.00	LS	\$194,273,739	\$194,273,739
1.3.1	Third Party	1.00	LS	\$194,273,739	\$194,273,739
1.3.1.1	Remove Existing Station @Atlantic Ave	1.00	LS	\$204,000.00	\$204,000
1.3.1.2	Parkside - Typical 2-Side Platform Station	1.00	LS	\$23,045,992.50	\$23,045,993
1.3.1.3	Brooklyn Manor - Typical 2-Side Platform Station	1.00	LS	\$23,045,992.50	\$23,045,993
1.3.1.4	Woodhaven - Typical 2-Side Platform Station (Aerial)	1.00	LS	\$34,568,988.75	\$34,568,989
1.3.1.5	Ozone Park -Typical 2-Side Platform Station (Aerial)	1.00	LS	\$34,568,988.75	\$34,568,989
	LIRR Racetrack & N. Conduit Stations				
1.3.1.6	Remove existing NYCT Station & Rebuild new Island Station @Aqueduct STA	1.00	LS	\$29,293,999.17	\$29,293,999
1.3.1.7	Remove existing NYCT Station & Rebuild new Island Station @North Conduit STA	1.00	LS	\$25,395,096.67	\$25,395,097
1.3.1.8	Overpass Bridge 12'Wx60'L @North Conduit STA	1.00	LS	\$1,305,072.00	\$1,305,072
1.3.1.9	Overpass Bridge 12'Wx60'L @Aqueduct Racetrack STA	1.00	LS	\$3,987,720.00	\$3,987,720
1.3.1.10	Transfer Station for LIRR @North Conduit STA	1.00	LS	\$18,857,888.33	\$18,857,888
1.3.2	Force Account	1.00	LS	\$38,854,748	\$38,854,748
1.3.2.1	Stations Allocation (20%)	1.00	LS	\$38,854,748	\$38,854,748
1.3.2.2		1.00	LS	\$0.00	\$0.00
1.3.2.3		1.00	LS	\$0.00	\$0.00
1.3.2.4		1.00	LS	\$0.00	\$0.00
1.3.2.5		1.00	LS	\$0.00	\$0.00
1.4	Switch & Signal Requirements	1.00	LS	\$31,053,346	\$31,053,346
1.4.1	Third Party	1.00	LS	\$31,053,346	\$31,053,346
1.4.1.1	Signal Work	1.00	LS	\$25,456,504	\$25,456,504
1.4.1.2	Networking/ATM/FO Work	1.00	LS	\$5,596,842	\$5,596,842
1.4.2	Force Account	1.00	LS	\$6,210,669	\$6,210,669
1.4.2.1	Signals Allocation (20%)	1.00	LS	\$6,210,669	\$6,210,669
1.4.2.2		1.00	LS	\$0.00	\$0.00
1.4.2.3		1.00	LS	\$0.00	\$0.00

CBS Code	Description	Qty	UM	Unit Cost	Total Cost
1.4.2.4		1.00	LS	\$0.00	\$0.00
1.4.2.5		1.00	LS	\$0.00	\$0.00
1.5	Track Requirements	1.00	LS	\$71,661,798	\$71,661,798
1.5.1	Third Party	1.00	LS	\$71,661,798	\$71,661,798
	QBL to Fleet St				
1.5.1.1	Furnish & Install DFF Ties (7600 TF)	3,800	EA	\$370	\$1,406,000
1.5.1.2	Furnish & Install DF Rail	7,600	TF	\$256	\$1,947,500
1.5.1.3	Turnouts	2	EA	\$325,000	\$650,000
	Fleet St to Conn 'A' Line				
1.5.1.5	Furnish & Install Subballast (Avg 2'Dx30'Wx16,831'L)	37,402	CY	\$86	\$3,212,084
1.5.1.6	Furnish & Install Ballast Retaining Wall	10,000	LF	\$555	\$5,550,000
1.5.1.7	Prepare Guideway Surface	504,930	SF	\$73	\$36,859,890
1.5.1.8	Drainage Ditch or 12" CIP Pipe for Track Drainage	33,493	LF	\$175	\$5,861,275
1.5.1.9	Security Fence (8'H) w/Gates Each Side ROW	33,493	LF	\$70	\$2,327,764
1.5.1.10	Furnish & Install Concrete Ties	16,747	EA	\$260	\$4,354,220
1.5.1.11	Furnish & Install Rail	33,493	TF	\$228	\$7,619,658
	Realign NYCT Track				
1.5.1.14	Remove Exist Rail, Ties & Ballast	785	LF	\$282	\$221,668
1.5.1.15	Furnish & Install Subballast (Avg 2'Dx30'Wx785'L)	1,745	CY	\$86	\$149,861
1.5.1.16	Furnish & Install Concrete Ties (TF)	393	EA	\$282	\$110,630
1.5.1.17	Furnish & Install Rail	785	TF	\$244	\$191,250
1.5.1.18	Double Crossover	1	EA	\$1,200,000	\$1,200,000
1.5.2	Force Account	1.00	LS	\$14,332,360	\$14,332,360
1.5.2.1	Track Work Allocation (20%)	1.00	LS	\$14,332,360	\$14,332,360
1.5.2.2		1.00	LS	\$0.00	\$0.00
1.5.2.3		1.00	LS	\$0.00	\$0.00
1.5.2.4		1.00	LS	\$0.00	\$0.00
1.5.2.5		1.00	LS	\$0.00	\$0.00
1.6	3rd Rail (including all Electrification Requirements, ie. Substations)	1.00	LS	\$178,889,406	\$178,889,406
1.6.1	Third Party	1.00	LS	\$178,889,406	\$178,889,406
	QBL to Fleet St				
1.6.1.1	Furnish & Install 3rd Rail w/Insulators & FG Cover	7,600	TF	\$150.45	\$1,143,420
	Fleet St to Conn 'A' Line				
1.6.1.2	Furnish & Install 3rd Rail w/Insulators & FG Cover	33,493	TF	\$150.45	\$5,039,022
	Realign NYCT Track				
1.6.1.3	Furnish & Install 3rd Rail w/Insulators & FG Cover	785	TF	\$144.00	\$113,040
	Power Distribution & Equipment				
1.6.1.6	Substations (DC)	4	EA	\$25,767,472.50	\$103,069,890
1.6.1.7	Circuit Breaker Houses (CBH)	1	EA	\$16,876,097.50	\$16,876,098
1.6.1.8	Signal Power & HT Lines	1	LS	\$37,119,520.00	\$37,119,520
1.6.1.9	Electric Power	1	LS	\$6,670,700.00	\$6,670,700
1.6.1.10	Emergency Generator Set	1	EA	\$2,450,003.00	\$2,450,003
1.6.1.11	Snow Melter Heaters	6,600	LF	\$213.29	\$1,407,714
1.6.1.12	Misc Work	1	LS	\$5,000,000.00	\$5,000,000
1.6.2	Force Account	1.00	LS	\$35,777,881	\$35,777,881
1.6.2.1	3rd Rail & Power Allocation (20%)	1.00	LS	\$35,777,881	\$35,777,881
1.6.2.2		1.00	LS	\$0.00	\$0.00

CBS Code	Description	Qty	UM	Unit Cost	Total Cost
1.6.2.3		1.00	LS	\$0.00	\$0.00
1.6.2.4		1.00	LS	\$0.00	\$0.00
1.6.2.5		1.00	LS	\$0.00	\$0.00
1.7	Communication Requirements (ie. PA System, CCTV & AVIS)	1.00	LS	\$3,706,250.0	\$3,706,250
1.7.1	Third Party	1.00	LS	\$3,706,250	\$3,706,250
1.7.1.1	PA & CIS Systems	5	STA	\$213,750.00	\$1,068,750
1.7.1.2	Comms/Telephone Systems w/Cables & Conduits	5	STA	\$192,500.00	\$962,500
1.7.1.3	CCTV / PID Systems	5	STA	\$335,000.00	\$1,675,000
1.7.2	Force Account	1.00	LS	\$1,482,500	\$1,482,500
1.7.2.1	Comms Allocation (40%)	1.00	LS	\$1,482,500	\$1,482,500
1.7.2.2		1.00	LS	\$0.00	\$0.00
1.7.2.3		1.00	LS	\$0.00	\$0.00
1.7.2.4		1.00	LS	\$0.00	\$0.00
1.7.2.5		1.00	LS	\$0.00	\$0.00
1.8	Portal Costs If Required	1.00	LS	\$0.00	\$0.00
1.8.1	Third Party	1.00	LS	\$0.00	\$0.00
1.8.1.1		1.00	LS	\$0.00	\$0.00
1.8.1.2		1.00	LS	\$0.00	\$0.00
1.8.1.3		1.00	LS	\$0.00	\$0.00
1.8.1.4		1.00	LS	\$0.00	\$0.00
1.8.1.5		1.00	LS	\$0.00	\$0.00
1.8.2	Force Account	1.00	LS	\$0.00	\$0.00
1.8.2.1		1.00	LS	\$0.00	\$0.00
1.8.2.2		1.00	LS	\$0.00	\$0.00
1.8.2.3		1.00	LS	\$0.00	\$0.00
1.8.2.4		1.00	LS	\$0.00	\$0.00
1.8.2.5		1.00	LS	\$0.00	\$0.00
2	LIRR Agency Costs (ie. Project Management, Transportation, F\A Support (Mark-out \ Tag-out) Engineering Inspection and Design Review)	1.00	LS	\$376,314,464	\$376,314,464
2.1	ASSUMED 20% OF CONSTRUCTION COSTS	1.00	LS	\$376,314,464	\$376,314,464
2.2		1.00	LS	\$0.00	\$0.00
2.3		1.00	LS	\$0.00	\$0.00
2.4		1.00	LS	\$0.00	\$0.00
2.5		1.00	LS	\$0.00	\$0.00
3	Professional Services (ie. Consultant Services - Design, CPS, CM, Risk Assessment Specialist, R\R Component Specialists & Public Outreach Firms)	1.00	LS	\$338,683,018	\$338,683,018
3.1	Design - ASSUMED 9% OF CONSTRUCTION COSTS	1.00	LS	\$169,341,509	\$169,341,509
3.2	CPS - ASSUMED 5% OF CONSTRUCTION COSTS	1.00	LS	\$94,078,616	\$94,078,616
3.3	CM, Other - ASSUMED 4% OF CONSTRUCTION COSTS	1.00	LS	\$75,262,893	\$75,262,893
3.4		1.00	LS	\$0.00	\$0.00
3.5		1.00	LS	\$0.00	\$0.00
4	Outside Agency Service Support Costs (ie. Utility Relocations - Permanent & Temporary)	1.00	LS	\$94,078,616	\$94,078,616
4.1	ASSUMED 5% OF CONSTRUCTION COSTS	1.00	LS	\$94,078,616	\$94,078,616
4.2		1.00	LS	\$0.00	\$0.00
4.3		1.00	LS	\$0.00	\$0.00
4.4		1.00	LS	\$0.00	\$0.00
4.5		1.00	LS	\$0.00	\$0.00

CBS Code	Description	Qty	UM	Unit Cost	Total Cost
JOB	JOB: ATLANTIC CONN OPTION				\$48,722,548
	Force Account (FA)	1.00	Lump Sum	\$1,873,283	\$1,873,283
	Total Soft Costs	1.00	Lump Sum	\$4,865,320	\$4,865,320
	3rd Party Direct Construction Costs (Raw Construction)	1.00	Lump Sum	\$9,441,415	\$9,441,415
	3rd Party Construction General Conditions Costs (Compounded)	1.00	Lump Sum	18.00%	\$2,912,403
	3rd Party Construction Overhead & Profit Costs (Compounded)	1.00	Lump Sum	21.00%	\$4,009,408
	3rd Party Construction Insurance & Bond Costs (Compounded)	1.00	Lump Sum	7.00%	\$1,617,128
	Project Level Contingency Costs (Compounded)	1.00	Lump Sum	30.00%	\$7,415,687
	Project Level Escalation Factor (Compounded) - ASSUMED 10 YRS TO MIDPOINT @4.25% PER ANNUM	1.00	Lump Sum	51.62%	\$16,587,904
1	Construction	1.00	LS	\$9,441,415	\$9,441,415
1.1	Structures (ie. Bridges & Viaducts)	1.00	LS	\$2,500,000	\$2,500,000
1.1.1	Third Party	1.00	LS	\$2,500,000	\$2,500,000
1.1.1.1	Clear out Portal Area	1.00	LS	\$500,000	\$500,000
1.1.1.2	Connect into existing Bellmouth	1	LS	\$1,000,000	\$1,000,000
1.1.1.3	Structural Repairs & Improvements	1	LS	\$1,000,000	\$1,000,000
1.1.2	Force Account	1.00	LS	\$500,000	\$500,000
1.1.2.1	Structures Allocation (20%)	1.00	LS	\$500,000	\$500,000
1.1.2.2		1.00	LS	\$0.00	\$0.00
1.1.2.3		1.00	LS	\$0.00	\$0.00
1.1.2.4		1.00	LS	\$0.00	\$0.00
1.1.2.5		1.00	LS	\$0.00	\$0.00
1.2	Site Work Requirements (ie. Retaining Walls, Sound Walls, Embankments & ROW Vegetation Removal)	1.00	LS	\$300,000	\$300,000
1.2.1	Third Party	1.00	LS	\$300,000	\$300,000
	Other, Environmental Allowance				
1.2.1.1	Allowance for Environmental Remed (Lead, ACM & Contam Soil)	1	LS	\$300,000.00	\$300,000
1.2.2	Force Account	1.00	LS	\$45,000	\$45,000
1.2.2.1	Site Work Allocation (15%)	1.00	LS	\$45,000	\$45,000
1.2.2.2		1.00	LS	\$0.00	\$0.00
1.2.2.3		1.00	LS	\$0.00	\$0.00
1.2.2.4		1.00	LS	\$0.00	\$0.00
1.2.2.5		1.00	LS	\$0.00	\$0.00
1.3	Reopening of Stations (ie. Station Building (or Kiosks\Waiting Areas) including Platforms, Station Signage, TVM & Associated Station Standards)	1.00	LS	\$0	\$0
1.3.1	Third Party	1.00	LS	\$0	\$0
1.3.1.1					\$0
1.3.2	Force Account	1.00	LS	\$0.00	\$0
1.3.2.1	Stations Allocation (20%)	1.00	LS	\$0	\$0
1.3.2.2		1.00	LS	\$0.00	\$0.00
1.3.2.3		1.00	LS	\$0.00	\$0.00
1.3.2.4		1.00	LS	\$0.00	\$0.00
1.3.2.5		1.00	LS	\$0.00	\$0.00
1.4	Switch & Signal Requirements	1.00	LS	\$2,000,000	\$2,000,000
1.4.1	Third Party	1.00	LS	\$2,000,000	\$2,000,000
1.4.1.1	Signal Work	1.00	LS	\$1,500,000.00	\$1,500,000
1.4.1.2	Networking/ATM/FO Work	1.00	LS	\$500,000.00	\$500,000

CBS Code	Description	Qty	UM	Unit Cost	Total Cost
1.4.2	Force Account	1.00	LS	\$400,000	\$400,000
1.4.2.1	Signals Allocation (20%)	1.00	LS	\$400,000	\$400,000
1.4.2.2		1.00	LS	\$0.00	\$0.00
1.4.2.3		1.00	LS	\$0.00	\$0.00
1.4.2.4		1.00	LS	\$0.00	\$0.00
1.4.2.5		1.00	LS	\$0.00	\$0.00
1.5	Track Requirements	1.00	LS	\$4,215,740	\$4,215,740
1.5.1	Third Party	1.00	LS	\$4,215,740	\$4,215,740
1.5.1.1	Furnish & Install Subballast (Avg 2'Dx20'Wx750'L)	1,112	CY	\$85.88	\$95,499
1.5.1.2	Furnish & Install Concrete Ties	325	EA	\$281.50	\$91,488
1.5.1.3	Furnish & Install Rail	750	TF	\$243.63	\$182,723
1.5.1.4	Furnish & Install DFF Ties (750 TF)	325	EA	\$370.00	\$120,250
1.5.1.5	Furnish & Install DF Rail	325	TF	\$256.25	\$83,281
1.5.1.6	Furnish & Install 10" dia pipe for Track Drainage	1,500	LF	\$135.00	\$202,500
1.5.1.7	Fiberglass Catwalk	1,500	LF	\$1,860.00	\$2,790,000
1.5.1.8	Turnouts	2	EA	\$325,000.00	\$650,000
1.5.2	Force Account	1.00	LS	\$843,148	\$843,148
1.5.2.1	Track Work Allocation (20%)	1.00	LS	\$843,148	\$843,148
1.5.2.2		1.00	LS	\$0.00	\$0.00
1.5.2.3		1.00	LS	\$0.00	\$0.00
1.5.2.4		1.00	LS	\$0.00	\$0.00
1.5.2.5		1.00	LS	\$0.00	\$0.00
1.6	3rd Rail (including all Electrification Requirements, ie. Substations)	1.00	LS	\$425,675	\$425,675
1.6.1	Third Party	1.00	LS	\$425,675	\$425,675
1.6.1.1	Furnish & Install 3rd Rail w/Insulators & FG Cover	1,500.00	TF	\$150.45	\$225,675
1.6.1.2	Misc Work	1	LS	\$200,000.00	\$200,000
1.6.2	Force Account	1.00	LS	\$85,135	\$85,135
1.6.2.1	3rd Rail & Power Allocation (20%)	1.00	LS	\$85,135	\$85,135
1.6.2.2		1.00	LS	\$0.00	\$0.00
1.6.2.3		1.00	LS	\$0.00	\$0.00
1.6.2.4		1.00	LS	\$0.00	\$0.00
1.6.2.5		1.00	LS	\$0.00	\$0.00
1.7	Communication Requirements (ie. PA System, CCTV & AVIS)	1.00	LS	\$0.00	\$0
1.7.1	Third Party	1.00	LS	\$0	\$0
1.7.1.1					\$0
1.7.1.2					\$0
1.7.1.3					\$0
1.7.2	Force Account	1.00	LS	\$0	\$0
1.7.2.1	Comms Allocation (40%)	1.00	LS	\$0	\$0
1.7.2.2		1.00	LS	\$0.00	\$0.00
1.7.2.3		1.00	LS	\$0.00	\$0.00
1.7.2.4		1.00	LS	\$0.00	\$0.00
1.7.2.5		1.00	LS	\$0.00	\$0.00
1.8	Portal Costs If Required	1.00	LS	\$0.00	\$0.00
1.8.1	Third Party	1.00	LS	\$0.00	\$0.00

CBS Code	Description	Qty	UM	Unit Cost	Total Cost
1.8.1.1		1.00	LS	\$0.00	\$0.00
1.8.1.2		1.00	LS	\$0.00	\$0.00
1.8.1.3		1.00	LS	\$0.00	\$0.00
1.8.1.4		1.00	LS	\$0.00	\$0.00
1.8.1.5		1.00	LS	\$0.00	\$0.00
1.8.2	Force Account	1.00	LS	\$0.00	\$0.00
1.8.2.1		1.00	LS	\$0.00	\$0.00
1.8.2.2		1.00	LS	\$0.00	\$0.00
1.8.2.3		1.00	LS	\$0.00	\$0.00
1.8.2.4		1.00	LS	\$0.00	\$0.00
1.8.2.5		1.00	LS	\$0.00	\$0.00
2	LIRR Agency Costs (ie. Project Management, Transportation, F\A Support (Mark-out \ Tag-out) Engineering Inspection and Design Review)	1.00	LS	\$2,262,940	\$2,262,940
2.1	ASSUMED 20% OF CONSTRUCTION COSTS	1.00	LS	\$2,262,940	\$2,262,940
2.2		1.00	LS	\$0.00	\$0.00
2.3		1.00	LS	\$0.00	\$0.00
2.4		1.00	LS	\$0.00	\$0.00
2.5		1.00	LS	\$0.00	\$0.00
3	Professional Services (ie. Consultant Services - Design, CPS, CM, Risk Assessment Specialist, R\R Component Specialists & Public Outreach Firms)	1.00	LS	\$2,036,646	\$2,036,646
3.1	Design - ASSUMED 9% OF CONSTRUCTION COSTS	1.00	LS	\$1,018,323	\$1,018,323
3.2	CPS - ASSUMED 5% OF CONSTRUCTION COSTS	1.00	LS	\$565,735	\$565,735
3.3	CM, Other - ASSUMED 4% OF CONSTRUCTION COSTS	1.00	LS	\$452,588	\$452,588
3.4		1.00	LS	\$0.00	\$0.00
3.5		1.00	LS	\$0.00	\$0.00
4	Outside Agency Service Support Costs (ie. Utility Relocations - Permanent & Temporary)	1.00	LS	\$565,735	\$565,735
4.1	ASSUMED 5% OF CONSTRUCTION COSTS	1.00	LS	\$565,735	\$565,735
4.2		1.00	LS	\$0.00	\$0.00
4.3		1.00	LS	\$0.00	\$0.00
4.4		1.00	LS	\$0.00	\$0.00
4.5		1.00	LS	\$0.00	\$0.00