	A	B
1	**Standard Cost Categories for Capital Projects**	
2	(Rev.11, May 2, 2008)	
3	**10 GUIDEWAY & TRACK ELEMENTS (route miles)**	
4	10.01	Guideway: At-grade exclusive right-of-way
5	10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)
6	10.03	Guideway: At-grade in mixed traffic
7	10.04	Guideway: Aerial structure
8	10.05	Guideway: Built-up fill
9	10.06	Guideway: Underground cut & cover
10	10.07	Guideway: Underground tunnel
11	10.08	Guideway: Retained cut or fill
12	10.09	Track: Direct fixation
13	10.10	Track: Embedded
14	10.11	Track: Ballasted
15	10.12	Track: Special (switches, turnouts)
16	10.13	Track: Vibration and noise dampening
17	**20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)**	
18	20.01	At-grade station, stop, shelter, mall, terminal, platform
19	20.02	Aerial station, stop, shelter, mall, terminal, platform
20	20.03	Underground station, stop, shelter, mall, terminal, platform
21	20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.
22	20.05	Joint development
23	20.06	Automobile parking multi-story structure
24	20.07	Elevators, escalators
25	**30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS**	
26	30.01	Administration Building: Office, sales, storage, revenue counting
27	30.02	Light Maintenance Facility
28	30.03	Heavy Maintenance Facility
29	30.04	Storage or Maintenance of Way Building
30	30.05	Yard and Yard Track
31	**40 SITEWORK & SPECIAL CONDITIONS**	
32	40.01	Demolition, Clearing, Earthwork
33	40.02	Site Utilities, Utility Relocation
34	40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments
35	40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks
36	40.05	Site structures including retaining walls, sound walls
37	40.06	Pedestrian / bike access and accommodation, landscaping
38	40.07	Automobile, bus, van accessways including roads, parking lots
39	40.08	Temporary Facilities and other indirect costs during construction
40	**50 SYSTEMS**	
41	50.01	Train control and signals
42	50.02	Traffic signals and crossing protection
43	50.03	Traction power supply: substations
44	50.04	Traction power distribution: catenary and third rail
45	50.05	Communications
46	50.06	Fare collection system and equipment
47	50.07	Central Control

	A		B
48	**60 ROW, LAND, EXISTING IMPROVEMENTS**		
49		60.01	Purchase or lease of real estate
50		60.02	Relocation of existing households and businesses
51	**70 VEHICLES (number)**		
52		70.01	Light Rail
53		70.02	Heavy Rail
54		70.03	Commuter Rail
55		70.04	Bus
56		70.05	Other
57		70.06	Non-revenue vehicles
58		70.07	Spare parts
59	**80 PROFESSIONAL SERVICES (applies to Cats. 10-50)**		
60		80.01	Preliminary Engineering
61		80.02	Final Design
62		80.03	Project Management for Design and Construction
63		80.04	Construction Administration & Management
64		80.05	Professional Liability and other Non-Construction Insurance
65		80.06	Legal; Permits; Review Fees by other agencies, cities, etc.
66		80.07	Surveys, Testing, Investigation, Inspection
67		80.08	Start up
68	**90 UNALLOCATED CONTINGENCY**		
69	**100 FINANCE CHARGES**		

	A	B
1	**Standard Cost Categories for Capital Projects** **D E F I N I T I O N S**	
2	(Rev.11, May 2, 2008)	
3	**10 GUIDEWAY & TRACK ELEMENTS (route miles)**	
4	10.01	Guideway: At-grade exclusive right-of-way
5	10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)
6	10.03	Guideway: At-grade in mixed traffic
7	10.04	Guideway: Aerial structure
8	10.05	Guideway: Built-up fill
9	10.06	Guideway: Underground cut & cover
10	10.07	Guideway: Underground tunnel
11	10.08	Guideway: Retained cut or fill
12	10.09	Track: Direct fixation
13	10.10	Track: Embedded
14	10.11	Track: Ballasted
15	10.12	Track: Special (switches, turnouts)
16	10.13	Track: Vibration and noise dampening
17	**20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)**	
18		
19	20.01	At-grade station, stop, shelter, mall, terminal, platform
20	20.02	Aerial station, stop, shelter, mall, terminal, platform
21	20.03	Underground station, stop, shelter, mall, terminal, platform
22	20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.
23	20.05	Joint development
24	20.06	Automobile parking multi-story structure
25	20.07	Elevators, escalators
26	**30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS**	
27		
28		

	C
1	**NOTE:** The SCC cost breakdown is based on a traditional Design Bid Build model. If your project is Design Build, to the best of your ability, separate construction costs from design, administration, testing, etc. Put all construction costs in 10 through 50. Put design, administration, testing, etc. in *80 Professional Services*.
2	
3	Include guideway and track costs for all transit modes (Heavy rail, light rail, commuter rail, BRT, rapid bus, bus, monorail, cable car, etc.) The unit of measure is route miles of guideway, regardless of width. As associated with the guideway, include costs for rough grading, excavation, and concrete base for guideway where applicable. Include all construction materials and labor regardless of whom is performing the work. In your written description of the scope and in supporting graphic diagrams, indicate whether busway or rail track is single, double, triple, relocated, etc. Put guideway and track elements associated with yards in *30 Support Facilities* below.
4	
5	
6	
7	Include foundation excavation; guideway structures including caissons, columns, bridges, viaducts, cross-overs, fly-overs.
8	Include construction of earthen berms.
9	Include excavation, retaining walls, backfill, underground guideway structure and finishes.
10	Include tunneling by means of a tunnel boring machine, drill blasting, mining, and immersed tube tunneling; tunnel structure and finishes.
11	Include excavation, retaining walls, backfill, underground guideway structure and finishes.
12	Include rails, connectors.
13	Include rails, ties; ballast where applicable
14	Include rails, ties and ballast.
15	Include transitional curves.
16	Include upcharge for vib/noise dampening to any track condition above.
17	As associated with stations, include costs for rough grading, excavation, station structures, enclosures, finishes, equipment; mechanical and electrical components including HVAC, ventilation shafts and equipment, station power, lighting, public address/customer information system, safety systems such as fire detection and prevention, security surveillance, access control, life safety systems, etc. Include all construction materials and labor regardless of whom is performing the work.
18	Put guideway and track associated with stations in *10 Guideway & Track Elements* above.
19	
20	Include station structures including caissons, columns, platforms, superstructures, etc.
21	Include retaining walls, backfill, structure.
22	
23	Per FTA's Joint Development Guidance, "Joint development is any income-producing activity with a transit nexus related to a real estate asset in which FTA has an interest. . .Joint development projects are commercial, residential, industrial, or mixed-use developments that are induced by or enhance the effectiveness of transit projects. . ." See http://www.fta.dot.gov/17973_18027_ENG_HTML.htm
24	Include retaining walls, backfill, structure.
25	
26	As associated with support facilities, include costs for rough grading, excavation, support structures, enclosures, finishes, equipment; mechanical and electrical components including HVAC, ventilation shafts and equipment, facility power, lighting, public address system, safety systems such as fire detection and prevention, security surveillance, access control, life safety systems, etc. Include fueling stations. Include all construction materials and labor regardless of whom is performing the work.
27	Where a support facility shares the structure with a station, its cost may be included with station cost. Identify this with a note.
28	Except for guideway and track associated with a yard, include all guideway and track costs associated with support facilities in *10 Guideway & Track Elements* above.

	A	B
29	30.01	Administration Building: Office, sales, storage, revenue counting
30	30.02	Light Maintenance Facility
31	30.03	Heavy Maintenance Facility
32	30.04	Storage or Maintenance of Way Building
33	30.05	Yard and Yard Track

	C
29	
30	Include service, inspection, and storage facilities and equipment.
31	Include heavy maintenance and overhaul facilities and equipment.
32	
33	Include yard construction, guideway and track associated with yard.

	A	B
34	**40 SITEWORK & SPECIAL CONDITIONS**	
35	40.01	Demolition, Clearing, Earthwork
36	40.02	Site Utilities, Utility Relocation
37	40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments
38	40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks
39	40.05	Site structures including retaining walls, sound walls
40	40.06	Pedestrian / bike access and accommodation, landscaping
41	40.07	Automobile, bus, van accessways including roads, parking lots
42	40.08	Temporary Facilities and other indirect costs during construction
43	**50 SYSTEMS**	
44	50.01	Train control and signals
45	50.02	Traffic signals and crossing protection
46	50.03	Traction power supply: substations
47	50.04	Traction power distribution: catenary and third rail
48	50.05	Communications
49	50.06	Fare collection system and equipment
50	50.07	Central Control
51	**Construction Subtotal (10 - 50)**	

	C
34	Include all construction materials and labor regardless of whom is performing the work.
35	Include project-wide clearing, demolition and fine grading.
36	Include all site utilities - storm, sewer, water, gas, electric.
37	Include underground storage tanks, fuel tanks, other hazardous materials and treatments, etc.
38	Include other environmental mitigation not listed.
39	
40	Include sidewalks, paths, plazas, landscape, site and station furniture, site lighting, signage, public artwork, bike facilities, permanent fencing.
41	Include all on-grade paving.
42	As a general rule and to the extent possible, appropriately allocate indirect costs among the construction costs in Categories 10 through 50. Where that is not possible, include in *40.08 Temporary Facilities* costs for mobilization, demobilization, phasing; time and temporary construction associated with weather (heat, rain, freezing, etc.); temporary power and facilities; temporary construction, easements, and barriers for storm water pollution prevention, temporary access and to mitigate construction impacts; project and construction supervision; general conditiions, overhead, profit. **NOTE: Include contractor's general liability and other insurance related to construction such as builder's risk in Cats. 10 - 50, not in 80 Professional Services below.**
43	Include all construction materials and labor regardless of whom is performing the work.
44	
45	Include signal prioritization at intersections.
46	
47	
48	Include passenger information systems at stations and on vehicles (real time travel information; static maps and schedules). Include equipment to allow communications among vehicles and with central control.
49	Include fare sales and swipe machines, fare counting equipment.
50	
51	

	A	B
52	**60 ROW, LAND, EXISTING IMPROVEMENTS**	
53	60.01	Purchase or lease of real estate
54	60.02	Relocation of existing households and businesses
55	**70 VEHICLES (number)**	
56	70.01	Light Rail
57	70.02	Heavy Rail
58	70.03	Commuter Rail
59	70.04	Bus
60	70.05	Other
61	70.06	Non-revenue vehicles
62	70.07	Spare parts
63	**80 PROFESSIONAL SERVICES (applies to Cats. 10-50)**	
64	80.01	Preliminary Engineering
65	80.02	Final Design
66	80.03	Project Management for Design and Construction
67	80.04	Construction Administration & Management
68	80.05	Professional Liability and other Non-Construction Insurance
69	80.06	Legal; Permits; Review Fees by other agencies, cities, etc.
70	80.07	Surveys, Testing, Investigation, Inspection
71	80.08	Start up
72	**Subtotal (10 - 80)**	
73	**90 UNALLOCATED CONTINGENCY**	
74	**Subtotal (10 - 90)**	
75	**100 FINANCE CHARGES**	
76	**Total Project Cost (10 - 100)**	
77		
78		

	C
52	**Include professional services associated with the real estate component of the project. These costs may include agency staff oversight and administration, real estate and relocation consultants, legal counsel, court expenses, insurance, etc.**
53	If the value of right-of-way, land, and existing improvements is to be used as local match to the Federal funding of the project, include the total cost on this line item. In backup documentation, separate cost for land from cost for improvements. Identify whether items are leased, purchased or acquired through payment or for free. Include the costs for permanent surface and subsurface easements, trackage rights, etc.
54	In compliance with Uniform Relocation Act.
55	**Include professional services associated with the vehicle component of the project. These costs may include agency staff oversight and administration, vehicle consultants, design and manufacturing contractors, legal counsel, warranty and insurance costs, etc.**
56	Include light rail and streetcar rail using electric, diesel or other power supply.
57	
58	Include locomotives (diesel, electric, or other), trailer cars, self-propelled multiple units (EMU electric or DMU diesel, or other power supply)
59	Includes "rubber-tired" buses and trolleys including new, used, historic replica, articulated, using electric, diesel, dual-power, or other power supply.
60	Include Vans, Sedan/Station Wagon, Cable Car, People Mover, Monorail, Car/Inclined Railway, Ferry Boat, Transferred Vehicle
61	
62	
63	Cat. 80 applies to Cats. 10-50. Cat. 80 includes all professional, technical and management services related to the
64	design and construction of fixed infrastructure (Cats. 10 - 50) during the preliminary engineering, final design, and
65	construction phases of the project. This includes environmental work, design, engineering and architectural services;
66	specialty services such as safety or security analyses; value engineering, risk assessment, cost estimating, scheduling,
67	Before and After studies, ridership modeling and analyses, auditing, legal services, administration and management,
68	etc. by agency staff or outside consultants.
69	
70	Include professional liability insurance and other non-construction insurance on 80.05 unless insurance for the agency
71	Include start up and training. Include in Cats. 10 - 50 above access and protection work by agency staff or outside contractors.
72	
73	Includes unallocated contingency, project reserves. Document allocated contingencies for individual line items on the Main worksheets.
74	
75	Include finance charges expected to be paid by the project sponsor/grantee prior to either the completion of the project or the fulfillment of the New Starts funding commitment, whichever occurs later in time. Finance charges incurred after this date should not be included in Total Project Cost. (See FFGA Circular FTA C5200.1A Chapter III for additional information.) Derive finance charges from the New Starts project's financial plan, based on an analysis of the sources and uses of funds. The amount and type of debt financing required and revenues available determine the finance charges. By year, compute finance charges in year-of-expenditure (YOE) dollars. On the Inflation Calculation to YOE worksheet enter the finance charges for the appropriate years.
76	
77	
78	

	A
1	**MAIN WORKSHEET - BUILD ALTERNATIVE**
2	City and County of Honolulu
3	Honolulu Rail Transit Project, East Kapolei to Ala Moana Center via Airport
4	Application for P.E.
5	
6	
7	**10 GUIDEWAY & TRACK ELEMENTS (route miles)**
8	10.01
9	10.02
10	10.03
11	10.04
12	10.05
13	10.06
14	10.07
15	10.08
16	10.09
17	10.10
18	10.11
19	10.12
20	10.13
21	**20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)**
22	20.01
23	20.02
24	20.03
25	20.04
26	20.05
27	20.06
28	20.07
29	**30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS**
30	30.01
31	30.02
32	30.03
33	30.04
34	30.05
35	**40 SITEWORK & SPECIAL CONDITIONS**
36	40.01
37	40.02
38	40.03
39	40.04
40	40.05
41	40.06
42	40.07
43	40.08
44	**50 SYSTEMS**
45	50.01
46	50.02
47	50.03

	B	C	D	E	F	G	H	I
1								
2								
3								Yr
4								Yr o
5								
6		Quantity		Base Year Dollars w/o Contingency (X000)	Base Year Dollars Allocated Contingency (X000)	Base Year Dollars TOTAL (X000)	Base Year Dollars Unit Cost (X000)	Base Year Dollars Percentage of Construction Cost
7		**20.48**		1,126,982	281,746	**1,408,728**	**$ 68,773**	**49%**
8	Guideway: At-grade exclusive right-of-way					0		
9	Guideway: At-grade semi-exclusive (allows cross-traffic)					0		
10	Guideway: At-grade in mixed traffic					0		
11	Guideway: Aerial structure	20.14		988,466	247,116	1,235,582	$ 61,350	
12	Guideway: Built-up fill					0		
13	Guideway: Underground cut & cover					0		
14	Guideway: Underground tunnel					0		
15	Guideway: Retained cut or fill	0.34		5,527	1,382	6,909	$ 20,098	
16	Track: Direct fixation			123,329	30,832	154,162		
17	Track: Embedded					0		
18	Track: Ballasted					0		
19	Track: Special (switches, turnouts)			9,660	2,415	12,075		
20	Track: Vibration and noise dampening					0		
21		**21**		244,504	61,126	**305,630**	**$ 14,554**	**11%**
22	At-grade station, stop, shelter, mall, terminal, platform					0		
23	Aerial station, stop, shelter, mall, terminal, platform	21		186,269	46,567	232,836	$ 11,087	
24	Underground station, stop, shelter, mall, terminal, platform					0		
25	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.					0		
26	Joint development					0		
27	Automobile parking multi-story structure					0		
28	Elevators, escalators			58,236	14,559	72,795		
29		20.48		97,280	24,320	**121,600**	**$ 5,936**	**4%**
30	Administration Building: Office, sales, storage, revenue counting			16,665	4,166	20,831		
31	Light Maintenance Facility					0		
32	Heavy Maintenance Facility			80,615	20,154	100,769		
33	Storage or Maintenance of Way Building					0		
34	Yard and Yard Track					0		
35		20.48		575,617	181,639	**757,256**	**$ 36,969**	**27%**
36	Demolition, Clearing, Earthwork			25,630	8,970	34,600		
37	Site Utilities, Utility Relocation			331,739	116,109	447,848		
38	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments			10,139	3,549	13,687		
39	Environmental mitigation, e.g. wetlands, historic/archeologic, parks			9,835	3,442	13,278		
40	Site structures including retaining walls, sound walls					0		
41	Pedestrian / bike access and accommodation, landscaping					0		
42	Automobile, bus, van accessways including roads, parking lots			198,275	49,569	247,843		
43	Temporary Facilities and other indirect costs during construction					0		
44		20.48		203,330	50,833	**254,163**	**$ 12,408**	**9%**
45	Train control and signals			34,610	8,652	43,262		
46	Traffic signals and crossing protection			24,225	6,056	30,281		
47	Traction power supply: substations			41,990	10,497	52,487		

	J	K	L
1		(Rev.11, May 2, 2008)	
2	Today's Date	**08/11/09**	
3	of Base Year $	FY 2009	
4	Revenue Ops	FY 2019	
5			
6	Base Year Dollars Percentage of Total Project Cost	YOE Dollars Total (X000)	
7	**32%**	**1,677,817**	1.191015459
8		0	
9		0	
10		0	
11		1,471,598	
12		0	
13		0	
14		0	
15		8,228	
16		183,609	
17		0	
18		0	
19		14,382	
20		0	
21	**7%**	**389,152**	1.27327642
22		0	
23		296,464	
24		0	
25		0	
26		0	
27		0	
28		92,688	
29	**3%**	**138,499**	1.138976774
30		23,726	
31		0	
32		114,773	
33		0	
34		0	
35	**17%**	**895,470**	1.182518469
36		40,915	
37		529,589	
38		16,186	
39		15,701	
40		0	
41		0	
42		293,079	
43		0	
44	**6%**	**311,215**	1.224469921
45		52,974	
46		37,079	
47		64,269	

	A
48	50.04
49	50.05
50	50.06
51	50.07
52	**Construction Subtotal (10-50)**
53	**60 ROW, LAND, EXISTING IMPROVEMENTS**
54	60.01
55	60.02
56	**70 VEHICLES (number)**
57	70.01
58	70.02
59	70.03
60	70.04
61	70.05
62	70.06
63	70.07
64	**80 PROFESSIONAL SERVICES (applies to Cats. 10-50)**
65	80.01
66	80.02
67	80.03
68	80.04
69	80.05
70	80.06
71	80.07
72	80.08
73	**Subtotal (10 - 80)**
74	**90 UNALLOCATED CONTINGENCY**
75	**Subtotal (10 - 90)**
76	**100 FINANCE CHARGES**
77	**Total Project Cost (10 - 100)**
78	Allocated Contingency as % of Base Yr Dollars w/o Contingency
79	Unallocated Contingency as % of Base Yr Dollars w/o Contingency
80	Total Contingency as % of Base Yr Dollars w/o Contingency
81	Unallocated Contingency as % of Subtotal (10 - 80)
82	YOE Construction Cost per Mile (X000)
83	YOE Total Project Cost per Mile Not Including Vehicles (X000)
84	YOE Total Project Cost per Mile (X000)

	B	C	D	E	F	G	H	I
48	Traction power distribution: catenary and third rail			68,478	17,119	85,597		
49	Communications			20,811	5,203	26,013		
50	Fare collection system and equipment			4,361	1,090	5,452		
51	Central Control			8,856	2,214	11,070		
52		20.48		2,247,714	599,663	**2,847,377**	**$ 139,007**	**100%**
53		20.48		85,634	42,817	**128,452**	**$ 6,271**	
54	Purchase or lease of real estate			83,264	41,632	124,897		
55	Relocation of existing households and businesses			2,370	1,185	3,555		
56		**76**		275,239	66,058	**341,297**	**$ 4,491**	
57	Light Rail					0		
58	Heavy Rail	76		245,675	58,963	304,638	$ 4,008	
59	Commuter Rail					0		
60	Bus					0		
61	Other					0		
62	Non-revenue vehicles			4,996	1,199	6,195		
63	Spare parts			24,568	5,896	30,464		
64		20.48		589,972	157,398	**747,370**	**$ 36,486**	**26%**
65	Preliminary Engineering			17,752	4,736	22,488		
66	Final Design			99,334	26,501	125,836		
67	Project Management for Design and Construction			97,623	26,045	123,668		
68	Construction Administration & Management			220,743	58,892	279,635		
69	Professional Liability and other Non-Construction Insurance			33,111	8,834	41,945		
70	Legal; Permits; Review Fees by other agencies, cities, etc.			33,111	8,834	41,945		
71	Surveys, Testing, Investigation, Inspection			11,037	2,945	13,982		
72	Start up			77,260	20,612	97,872		
73		20.48		3,198,560	865,936	**4,064,496**	**$ 198,425**	
74						**153,620**		
75		20.48				**4,218,116**	**$ 205,925**	
76						**244,434**		
77		20.48				**4,462,550**	**$ 217,858**	
78						27.07%		
79						4.80%		
80						31.88%		
81						3.78%		
82								
83								
84								

	J	K	L
48		104,811	
49		31,852	
50		6,676	
51		13,554	
52	**64%**	**3,412,153**	
53	**3%**	**128,635**	**1.001427917**
54		125,075	
55		3,560	
56	**8%**	**398,825**	**1.168557604**
57		0	
58		355,987	
59		0	
60		0	
61		0	
62		7,239	
63		35,599	
64	**17%**	**933,589**	**1.249165411**
65		28,091	
66		157,190	
67		154,481	
68		349,310	
69		52,397	
70		52,397	
71		17,466	
72		122,259	
73	**91%**	**4,873,201**	
74	**3%**	**184,186**	1.198968221
75	**95%**	**5,057,387**	
76	**5%**	**290,294**	1.18761832
77	**100%**	**5,347,681**	**1.198346536**
78			
79			
80			
81			
82		$166,579	
83		$241,599	
84		$261,069	

Cell: K3
Comment: Year of Base Year Dollars should match the year in "Today's Date."

Cell: K6
Comment: YOE Dollars automatically arrive from Inflation Worksheet.

Cell: E8
Comment: For all cells, round to the nearest 1,000 before inserting costs!

Cell: K8
Comment: YOE costs for individual line items within a Category are derived as a percentage of the YOE cost of the Category.

Cell: J19
Comment: Preparing for bid:

For each separate contract package generate a Main Worksheet and an Inflation Worksheet.

In the Special Conditions of the Contract, require the construction contractor to update these worksheets and submit them with the monthly pay application.

This should make it easy to track costs in the SCC format throughout construction, and make it easy to submit the final costs to FTA at contract closeout and at the two-year post-rev ops date required by the Before and After Study.

Cell: G76
Comment: Enter finance charges on Inflation Worksheet.

	A	B	C
1	**INFLATION WORKSHEET**		
2	City and County of Honolulu		
3	Honolulu Rail Transit Project, East Kapolei to Ala Moana Center via Airport		
4	Application for P.E.		
5			
6			
7	**BASE YEAR DOLLARS (X$000)**		Base Yr Dollars
8	10 GUIDEWAY & TRACK ELEMENTS		1,408,728
9	20 STATIONS, STOPS, TERMINALS, INTERMODAL		305,630
10	30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS		121,600
11	40 SITEWORK & SPECIAL CONDITIONS		757,256
12	50 SYSTEMS		254,163
13	60 ROW, LAND, EXISTING IMPROVEMENTS		128,452
14	70 VEHICLES		341,297
15	80 PROFESSIONAL SERVICES (applies to Cats. 10-50)		747,370
16	90 UNALLOCATED CONTINGENCY		153,620
17	100 FINANCE CHARGES		244,434
18	**Total Project Cost (10 - 100)**		4,462,550
19			
20	**Inflation Rate**		
21	**Compounded Inflation Factor**		
22			
23	**YEAR OF EXPENDITURE DOLLARS (X$000)**		YOE Dollars
24	10 GUIDEWAY & TRACK ELEMENTS		1,677,817
25	20 STATIONS, STOPS, TERMINALS, INTERMODAL		389,152
26	30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS		138,499
27	40 SITEWORK & SPECIAL CONDITIONS		895,470
28	50 SYSTEMS		311,215
29	60 ROW, LAND, EXISTING IMPROVEMENTS		128,635
30	70 VEHICLES		398,825
31	80 PROFESSIONAL SERVICES (applies to Cats. 10-50)		933,589
32	90 UNALLOCATED CONTINGENCY		184,186
33	100 FINANCE CHARGES		290,294
34	**Total Project Cost (10 - 100)**		5,347,681

	D	E	F	G	H	I	J	K	L	M
1					(Rev.11, May 2, 2008)					
2				Today's Date	**8/11/09**				Today's Date	
3				Yr of Base Year $	FY 2009				Yr of Base Year $	
4				Yr of Revenue Ops	FY 2019				Yr of Revenue Ops	
5										
6										
7	Double-Check Total	2000	2001	2002	2003	2004	2005	2006	2007	2008
8	1,408,728	0	0	0	0	0	0	0	0	0
9	305,630	0	0	0	0	0	0	0	0	0
10	121,600	0	0	0	0	0	0	0	0	0
11	757,256	0	0	0	0	0	0	0	0	0
12	254,163	0	0	0	0	0	0	0	0	0
13	128,452	0	0	0	0	0	0	0	0	0
14	341,297	0	0	0	0	0	0	0	0	0
15	747,370	0	0	0	0	0	0	0	0	0
16	153,620	0	0	0	0	0	0	0	0	0
17	244,434	0	0	0	0	0	0	0	0	
18	4,462,550	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
19										
20		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	#DIV/0!
21		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
22										
23		2000	2001	2002	2003	2004	2005	2006	2007	2008
24		0	0	0	0	0	0	0	0	0
25		0	0	0	0	0	0	0	0	0
26		0	0	0	0	0	0	0	0	0
27		0	0	0	0	0	0	0	0	0
28		0	0	0	0	0	0	0	0	0
29		0	0	0	0	0	0	0	0	0
30		0	0	0	0	0	0	0	0	0
31		0	0	0	0	0	0	0	0	0
32		0	0	0	0	0	0	0	0	0
33		0	0	0	0	0	0	0		
34		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	N	O	P	Q
1	(Rev.11, May 2, 2008)			
2	**8/11/09**			
3	FY 2009			
4	FY 2019			
5				
6				
7	2009	2010	2011	2012
8	0	25,573	139,316	209,371
9	0	0	1,429	27,241
10	0	6,404	29,589	29,670
11	0	9,701	55,125	190,572
12	0	0	28,651	29,373
13	0	50,367	44,528	33,556
14	0	0	14,839	4,946
15	0	76,548	121,354	93,497
16	0	6,372	16,435	23,366
17				505
18	**0**	**174,965**	**451,266**	**642,097**
19				
20	#DIV/0!	#DIV/0!	0.04253	0.04373
21	#DIV/0!	1.03087	1.07471	1.12171
22				
23	2009	2010	2011	2012
24	0	26,559	150,261	235,477
25	0	0	1,541	30,560
26	0	6,651	31,915	33,301
27	0	10,087	59,604	215,321
28	0	0	30,650	32,501
29	0	50,367	44,602	33,666
30	0	0	15,757	5,413
31	0	80,134	132,988	107,260
32	0	6,569	17,663	26,211
33				535
34	**0**	**180,366**	**484,981**	**720,244**

	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD
1													
2													
3													
4													
5													
6													
7	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
8	385,842	317,641	219,064	102,664	9,257	0	0	0	0	0	0	0	0
9	48,459	34,094	38,973	63,002	57,096	35,337	0	0	0	0	0	0	0
10	29,589	26,347	0	0	0	0	0	0	0	0	0	0	0
11	285,959	132,670	39,901	29,381	11,262	2,686	0	0	0	0	0	0	0
12	29,293	29,293	29,373	29,293	29,293	29,293	20,304	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	0
14	29,678	148,390	143,444	0	0	0	0	0	0	0	0	0	0
15	100,572	85,078	68,503	61,290	54,383	52,461	33,683	0	0	0	0	0	0
16	34,371	29,235	20,382	10,796	6,096	4,527	2,040	0	0	0	0	0	0
17	5,642	22,974	39,688	46,029	45,498	45,632	38,467					0	0
18	**949,405**	**825,720**	**599,327**	**342,454**	**212,885**	**169,936**	**94,494**	**0**	**0**	**0**	**0**	**0**	**0**
19													
20	0.04852	0.02854	0.02928	0.04640	0.02956	0.03238	0.01833	0.02800	0.02800	0.02800	0.02800	0.02800	0.02800
21	1.17613	1.20970	1.24513	1.30290	1.34142	1.38485	1.41023	1.44972	1.49031	1.53204	1.57494	1.61903	1.66437
22													
23	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
24	453,058	387,351	277,436	135,031	12,644	0	0	0	0	0	0	0	0
25	56,615	41,366	49,108	82,441	77,591	49,930	0	0	0	0	0	0	0
26	34,619	32,013	0	0	0	0	0	0	0	0	0	0	0
27	337,963	163,042	50,989	39,041	15,560	3,863	0	0	0	0	0	0	0
28	33,557	34,708	35,997	37,131	38,405	39,760	28,506	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0
30	33,466	172,428	171,761	0	0	0	0	0	0	0	0	0	0
31	120,780	106,958	90,155	84,439	78,434	79,205	53,236	0	0	0	0	0	0
32	40,444	35,447	25,529	14,290	8,415	6,530	3,089	0	0	0	0	0	0
33	6,125	25,563	45,266	53,811	54,519	56,048	48,428					0	0
34	**1,116,627**	**998,877**	**746,240**	**446,183**	**285,568**	**235,336**	**133,259**	**0**	**0**	**0**	**0**	**0**	**0**

Cell: E20
Comment: In Line 20 for each year insert the rate of inflation that you believe to be correct. FTA reviews these rates for reasonableness.

Cell: E24
Comment: For past years, enter the actual dollars spent in each year. The dollars will inflate when converted to the current base year.

Cell: E33
Comment: Enter Finance Charges on this line.

	A
1	**ANNUALIZED COST-BUILD ALTERNATIVE**
2	City and County of Honolulu
3	Honolulu Rail Transit Project, East Kapolei to Ala Moana Center via Airport
4	Application for P.E.
5	
6	
7	**10 GUIDEWAY & TRACK ELEMENTS (route miles)**
8	10.01
9	10.02
10	10.03
11	10.04
12	10.05
13	10.06
14	10.07
15	10.08
16	10.09
17	10.10
18	10.11
19	10.12
20	10.13
21	**20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)**
22	20.01
23	20.02
24	20.03
25	20.04
26	20.05
27	20.06
28	20.07
29	**30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS**
30	30.01
31	30.02
32	30.03
33	30.04
34	30.05
35	**40 SITEWORK & SPECIAL CONDITIONS**
36	40.01
37	40.02
38	40.03
39	40.04
40	40.05
41	40.06
42	40.07
43	40.08
44	**50 SYSTEMS**
45	50.01

	B	C	D	E	F	G	H
1							
2							
3							
4							
5							
6		Quantity	Total Base Year Dollars (X000)	Cat. 80 Prof. Svc. spread proportionally over Cats. 10 - 50 (X000)	Spread Cat. 90 Unalloc. Cont. according to perceived risks (X000)	Revised Total Base Year Dollars (X000)	Years of Useful Life
7		**20.48**	**1,408,728**	**369,758**	**110,000**	**1,888,486**	
8	Guideway: At-grade exclusive right-of-way	0.00	0	0		0	125
9	Guideway: At-grade semi-exclusive (allows cross-traffic)	0.00	0	0		0	30
10	Guideway: At-grade in mixed traffic	0.00	0	0		0	20
11	Guideway: Aerial structure	20.14	1,235,582	324,311	110,000	1,669,894	80
12	Guideway: Built-up fill	0.00	0	0		0	80
13	Guideway: Underground cut & cover	0.00	0	0		0	125
14	Guideway: Underground tunnel	0.00	0	0		0	125
15	Guideway: Retained cut or fill	0.34	6,909	1,813		8,722	125
16	Track: Direct fixation		154,162	40,464		194,625	30
17	Track: Embedded		0	0		0	20
18	Track: Ballasted		0	0		0	35
19	Track: Special (switches, turnouts)		12,075	3,169		15,245	30
20	Track: Vibration and noise dampening		0	0		0	30
21		**21**	**305,630**	**80,221**	**21,000**	**406,851**	
22	At-grade station, stop, shelter, mall, terminal, platform	0	0	0		0	70
23	Aerial station, stop, shelter, mall, terminal, platform	21	232,836	61,114	21,000	314,950	70
24	Underground station, stop, shelter, mall, terminal, platform	0	0	0		0	125
25	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	0	0	0		0	70
26	Joint development		0	0		0	70
27	Automobile parking multi-story structure		0	0		0	50
28	Elevators, escalators		72,795	19,107		91,902	30
29			**121,600**	**31,917**	**10,000**	**163,517**	
30	Administration Building: Office, sales, storage, revenue counting		20,831	5,468		26,299	50
31	Light Maintenance Facility		0	0		0	50
32	Heavy Maintenance Facility		100,769	26,449	10,000	137,218	50
33	Storage or Maintenance of Way Building		0	0		0	50
34	Yard and Yard Track		0	0		0	80
35			**757,256**	**198,762**	**12,620**	**968,639**	
36	Demolition, Clearing, Earthwork		34,600	9,082		43,682	125
37	Site Utilities, Utility Relocation		447,848	117,550		565,398	125
38	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		13,687	3,593	6,620	23,900	125
39	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		13,278	3,485	6,000	22,763	125
40	Site structures including retaining walls, sound walls		0	0		0	80
41	Pedestrian / bike access and accommodation, landscaping		0	0		0	20
42	Automobile, bus, van accessways including roads, parking lots		247,843	65,053		312,896	20
43	Temporary Facilities and other indirect costs during construction		0	0		0	100
44			**254,163**	**66,712**	**0**	**320,875**	
45	Train control and signals		43,262	11,355		54,618	30

	I	J
1		(Rev.11, May 2, 2008)
2	Today's Date	**8/11/09**
3	Yr of Base Year $	**FY 2009**
4	Yr of Revenue Ops	**FY 2019**
5		
6	Annualization Factor (based on 7% rate) [.07/1 - (1.07)^-no. yrs]	**Annualized Cost (X000)**
7		**134,940**
8	0.0700	0
9	0.0806	0
10	0.0944	0
11	0.0703	117,416
12	0.0703	0
13	0.0700	0
14	0.0700	0
15	0.0700	611
16	0.0806	15,684
17	0.0944	0
18	0.0772	0
19	0.0806	1,229
20	0.0806	0
21		**29,648**
22	0.0706	0
23	0.0706	22,242
24	0.0700	0
25	0.0706	0
26	0.0706	0
27	0.0725	0
28	0.0806	7,406
29		**11,848**
30	0.0725	1,906
31	0.0725	0
32	0.0725	9,943
33	0.0725	0
34	0.0703	0
35		**75,447**
36	0.0700	3,058
37	0.0700	39,586
38	0.0700	1,673
39	0.0700	1,594
40	0.0703	0
41	0.0944	0
42	0.0944	29,535
43	0.0701	0
44		**25,809**
45	0.0806	4,401

	A
46	50.02
47	50.03
48	50.04
49	50.05
50	50.06
51	50.07
52	**Construction Subtotal (10 - 50)**
53	**60 ROW, LAND, EXISTING IMPROVEMENTS**
54	60.01
55	60.02
56	**70 VEHICLES (number)**
57	70.01
58	70.02
59	70.03
60	70.04
61	70.05
62	70.06
63	70.07
64	**80 PROFESSIONAL SERVICES (applies to Cats. 10-50)**
65	80.01
66	80.02
67	80.03
68	80.04
69	80.05
70	80.06
71	80.07
72	80.08
73	**Subtotal (10 - 80)**
74	**90 UNALLOCATED CONTINGENCY**
75	**Subtotal (10 - 90)**
76	
77	
78	**TOTAL**

	B	C	D	E	F	G	H
46	Traffic signals and crossing protection		30,281	7,948		38,230	30
47	Traction power supply: substations		52,487	13,777		66,264	50
48	Traction power distribution: catenary and third rail		85,597	22,467		108,064	30
49	Communications		26,013	6,828		32,841	20
50	Fare collection system and equipment		5,452	1,431		6,883	25
51	Central Control		11,070	2,906		13,975	30
52			**2,847,377**	**747,370**	**153,620**	**3,748,367**	
53			**128,452**		**0**	**128,452**	
54	Purchase or lease of real estate		124,897			124,897	125
55	Relocation of existing households and businesses		3,555			3,555	125
56		**673**	**788,860**		**0**	**788,860**	
57	Light Rail	0	0			0	25
58	Heavy Rail	85	340,714			340,714	25
59	Commuter Rail	0	0			0	25
60	Bus	588	407,880			407,880	12
61	Other	0	0			0	12
62	Non-revenue vehicles	0	6,195			6,195	12
63	Spare parts	0	34,071			34,071	12
64			**747,370**				
65	Preliminary Engineering		22,488				
66	Final Design		125,836				
67	Project Management for Design and Construction		123,668				
68	Construction Administration & Management		279,635				
69	Professional Liability and other Non-Construction Insurance		41,945				
70	Legal; Permits; Review Fees by other agencies, cities, etc.		41,945				
71	Surveys, Testing, Investigation, Inspection		13,982				
72	Start up		97,872				
73			**4,512,059**				
74			**153,620**				
75			**4,665,679**	747,370	153,620	**4,665,679**	
76	Bus Maintenance Base		25,637		0	25,637	50
77	Transit Centers		10,300		0	10,300	70
78			**4,701,616**		153,620	**4,701,616**	

	I	J
46	0.0806	3,081
47	0.0725	4,801
48	0.0806	8,709
49	0.0944	3,100
50	0.0858	591
51	0.0806	1,126
52		**277,692**
53		**8,994**
54	0.0700	8,745
55	0.0700	249
56		**85,659**
57	0.0858	0
58	0.0858	29,237
59	0.0858	0
60	0.1259	51,353
61	0.1259	0
62	0.1259	780
63	0.1259	4,290
64		
65		
66		
67		
68		
69		
70		
71		
72		
73		
74		
75		**372,344**
76	0.0725	1,858
77	0.0706	727
78		**374,929**

Cell: H60
Comment: The range for buses is 12 to 18 years. Provide supporting documentation for an estimated useful life of more than 12 years.

Cell: E75
Comment: E75 and F75 are double-checks

Cell: B77
Comment: Additional project components may be required to be included in the Annualized Cost. Insert vehicle additions in Cat. 70. Insert any other item in Lines 76 and 77; insert useful life and annualization factor as well.

	A
1	**MAIN WORKSHEET-BASELINE ALTERNATIVE**
2	City and County of Honolulu
3	Honolulu Rail Transit Project, East Kapolei to Ala Moana Center via Airport
4	Application for P.E.
5	
6	
7	**10 GUIDEWAY & TRACK ELEMENTS (route miles)**
8	10.01
9	10.02
10	10.03
11	10.04
12	10.05
13	10.06
14	10.07
15	10.08
16	10.09
17	10.10
18	10.11
19	10.12
20	10.13
21	**20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)**
22	20.01
23	20.02
24	20.03
25	20.04
26	20.05
27	20.06
28	20.07
29	**30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS**
30	30.01
31	30.02
32	30.03
33	30.04
34	30.05
35	**40 SITEWORK & SPECIAL CONDITIONS**
36	40.01
37	40.02
38	40.03
39	40.04
40	40.05
41	40.06
42	40.07
43	40.08
44	**50 SYSTEMS**
45	50.01
46	50.02

	B	C	D	E	F	G	H	I
1								
2								Today's Date
3								Yr of Base Year $
4								Yr of Revenue Ops
5								
6		Quantity	Base Year Dollars w/o Contingency (X000)	Base Year Dollars Allocated Contingency (X000)	Base Year Dollars TOTAL (X000)	Base Year Dollars Unit Cost (X000)	Base Year Dollars Percentage of Construction Cost	Base Year Dollars Percentage of Total Project Cost
7		**0.00**	0	0	**0**		**0%**	**0%**
8	Guideway: At-grade exclusive right-of-way				0			
9	Guideway: At-grade semi-exclusive (allows cross-traffic)				0			
10	Guideway: At-grade in mixed traffic				0			
11	Guideway: Aerial structure				0			
12	Guideway: Built-up fill				0			
13	Guideway: Underground cut & cover				0			
14	Guideway: Underground tunnel				0			
15	Guideway: Retained cut or fill				0			
16	Track: Direct fixation				0			
17	Track: Embedded				0			
18	Track: Ballasted				0			
19	Track: Special (switches, turnouts)				0			
20	Track: Vibration and noise dampening				0			
21		**2**	0	0	**10,300**	**$ 5,150**	**15%**	**2%**
22	At-grade station, stop, shelter, mall, terminal, platform				0			
23	Aerial station, stop, shelter, mall, terminal, platform				0			
24	Underground station, stop, shelter, mall, terminal, platform				0			
25	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	2			10,300	$ 5,150		
26	Joint development				0			
27	Automobile parking multi-story structure				0			
28	Elevators, escalators				0			
29		0.00	0	0	**35,041**		**51%**	**6%**
30	Administration Building: Office, sales, storage, revenue counting				0			
31	Light Maintenance Facility				35,041			
32	Heavy Maintenance Facility				0			
33	Storage or Maintenance of Way Building				0			
34	Yard and Yard Track				0			
35		0.00	0	0	**22,795**		**33%**	**4%**
36	Demolition, Clearing, Earthwork				0			
37	Site Utilities, Utility Relocation				0			
38	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments				0			
39	Environmental mitigation, e.g. wetlands, historic/archeologic, parks				0			
40	Site structures including retaining walls, sound walls				0			
41	Pedestrian / bike access and accommodation, landscaping				0			
42	Automobile, bus, van accessways including roads, parking lots				22,795			
43	Temporary Facilities and other indirect costs during construction				0			
44		0.00	0	0	**0**		**0%**	**0%**
45	Train control and signals				0			
46	Traffic signals and crossing protection				0			

	J
1	(Rev.11, May 2, 2008)
2	**8/11/09**
3	**FY 2009**
4	**FY 2019**
5	
6	**Baseline** Alternative Cost Parameters (X000) see New Starts Reporting Instructions for additional info
7	
8	
9	1082/route mile
10	1082/route mile
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	216/station
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	5.4/on-grade space
43	
44	
45	
46	27/intersection

	A
47	50.03
48	50.04
49	50.05
50	50.06
51	50.07
52	**Construction Subtotal (10 - 50)**
53	**60 ROW, LAND, EXISTING IMPROVEMENTS**
54	60.01
55	60.02
56	**70 VEHICLES (number)**
57	70.01
58	70.02
59	70.03
60	70.04
61	70.05
62	70.06
63	70.07
64	**80 PROFESSIONAL SERVICES (applies to Cats. 10-50)**
65	80.01
66	80.02
67	80.03
68	80.04
69	80.05
70	80.06
71	80.07
72	80.08
73	**Subtotal (10 - 80)**
74	**90 UNALLOCATED CONTINGENCY**
75	**Subtotal (10 - 90)**
76	**100 FINANCE CHARGES**
77	**Total Project Cost (10 - 100)**
78	Total Base Year Cost per Mile Not Including Vehicles (X000)
79	Allocated Contingency as % of Base Yr Dollars w/o Cont.
80	Unallocated Contingency as % of Base Yr Dollars w/o Contingency
81	Total Contingency as % of Base Yr Dollars w/o Contingency
82	Unallocated Contingency as % of Subtotal (10 - 80)

	B	C	D	E	F	G	H	I
47	Traction power supply: substations				0			
48	Traction power distribution: catenary and third rail				0			
49	Communications				0			
50	Fare collection system and equipment				0			
51	Central Control				0			
52		0.00	0	0	**68,136**		**100%**	**12%**
53		0.00	0	0	**0**			**0%**
54	Purchase or lease of real estate				0			
55	Relocation of existing households and businesses				0			
56		**703**	0	0	**503,500**	**$ 716**		**88%**
57	Light Rail				0			
58	Heavy Rail				0			
59	Commuter Rail				0			
60	Bus	703			503,500	$ 716		
61	Other				0			
62	Non-revenue vehicles				0			
63	Spare parts				0			
64		0.00	0	0	**0**		**0%**	**0%**
65	Preliminary Engineering				0			
66	Final Design				0			
67	Project Management for Design and Construction				0			
68	Construction Administration & Management				0			
69	Professional Liability and other Non-Construction Insurance				0			
70	Legal; Permits; Review Fees by other agencies, cities, etc.				0			
71	Surveys, Testing, Investigation, Inspection				0			
72	Start up				0			
73		0.00	0	0	**571,636**			**100%**
74								**0%**
75		0.00			**571,636**			**100%**
76					NA			
77		0.00			**571,636**			**100%**
78								
79								
80								
81								
82								

	J
47	
48	
49	13/bus and 13/sign
50	10.8/bus
51	16.2-27 /bus
52	
53	
54	
55	
56	
57	
58	
59	
60	433 conventional or
61	703 articulated bus
62	
63	
64	
65	
66	
67	
68	
69	
70	
71	
72	
73	
74	
75	
76	
77	
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79	
80	
81	
82	

Cell: J9
Comment: April 25, 2008: Please note that these cost parameters have been increased by 4% from the 2007 costs. They include allocated contingency as before.

	A
1	**ANNUALIZED COST-BASELINE ALTERNATIVE**
2	City and County of Honolulu
3	Honolulu Rail Transit Project, East Kapolei to Ala Moana Center via Airport
4	Application for P.E.
5	
6	
7	**10 GUIDEWAY & TRACK ELEMENTS (route miles)**
8	10.01
9	10.02
10	10.03
11	10.04
12	10.05
13	10.06
14	10.07
15	10.08
16	10.09
17	10.10
18	10.11
19	10.12
20	10.13
21	**20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)**
22	20.01
23	20.02
24	20.03
25	20.04
26	20.05
27	20.06
28	20.07
29	**30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS**
30	30.01
31	30.02
32	30.03
33	30.04
34	30.05
35	**40 SITEWORK & SPECIAL CONDITIONS**
36	40.01
37	40.02
38	40.03
39	40.04
40	40.05
41	40.06
42	40.07

	B	C	D	E	F	G	H
1							
2							
3							
4							
5							
6		Quantity	Total Base Year Dollars (X000)	Cat. 80 Prof. Svc. spread proportionally over Cats. 10 - 50 (X000)	Spread Cat. 90 Unalloc. Cont. according to perceived risks (X000)	Revised Total Base Year Dollars (X000)	Years of Useful Life
7		**0.00**	**0**	**0**	**0**	**0**	
8	Guideway: At-grade exclusive right-of-way	0.00	0	0		0	125
9	Guideway: At-grade semi-exclusive (allows cross-traffic)	0.00	0	0		0	30
10	Guideway: At-grade in mixed traffic	0.00	0	0		0	20
11	Guideway: Aerial structure	0.00	0	0		0	80
12	Guideway: Built-up fill	0.00	0	0		0	80
13	Guideway: Underground cut & cover	0.00	0	0		0	125
14	Guideway: Underground tunnel	0.00	0	0		0	125
15	Guideway: Retained cut or fill	0.00	0	0		0	125
16	Track: Direct fixation		0	0		0	30
17	Track: Embedded		0	0		0	20
18	Track: Ballasted		0	0		0	35
19	Track: Special (switches, turnouts)		0	0		0	30
20	Track: Vibration and noise dampening		0	0		0	30
21		**2**	**10,300**	**0**	**0**	**10,300**	
22	At-grade station, stop, shelter, mall, terminal, platform	0	0	0		0	70
23	Aerial station, stop, shelter, mall, terminal, platform	0	0	0		0	70
24	Underground station, stop, shelter, mall, terminal, platform	0	0	0		0	125
25	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	2	10,300	0		10,300	70
26	Joint development		0	0		0	70
27	Automobile parking multi-story structure		0	0		0	50
28	Elevators, escalators		0	0		0	30
29			**35,041**	**0**	**0**	**35,041**	
30	Administration Building: Office, sales, storage, revenue counting		0	0		0	50
31	Light Maintenance Facility		35,041	0		35,041	50
32	Heavy Maintenance Facility		0	0		0	50
33	Storage or Maintenance of Way Building		0	0		0	50
34	Yard and Yard Track		0	0		0	80
35			**22,131**	**0**	**0**	**22,131**	
36	Demolition, Clearing, Earthwork		0	0		0	125
37	Site Utilities, Utility Relocation		0	0		0	125
38	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		0	0		0	125
39	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		0	0		0	125
40	Site structures including retaining walls, sound walls		0	0		0	80
41	Pedestrian / bike access and accommodation, landscaping		0	0		0	20
42	Automobile, bus, van accessways including roads, parking lots		22,131	0		22,131	20

	I	J
1		(Rev.11, May 2, 2008)
2	Today's Date	**8/11/09**
3	Yr of Base Year $	FY 2009
4	Yr of Revenue Ops	FY 2019
5		
6	Annualization Factor (based on 7% rate) [.07/1 - (1.07)^-no. yrs]	**Annualized Cost (X000)**
7		**0**
8	0.0700	0
9	0.0806	0
10	0.0944	0
11	0.0703	0
12	0.0703	0
13	0.0700	0
14	0.0700	0
15	0.0700	0
16	0.0806	0
17	0.0944	0
18	0.0772	0
19	0.0806	0
20	0.0806	0
21		**727**
22	0.0706	0
23	0.0706	0
24	0.0700	0
25	0.0706	727
26	0.0706	0
27	0.0725	0
28	0.0806	0
29		**2,539**
30	0.0725	0
31	0.0725	2,539
32	0.0725	0
33	0.0725	0
34	0.0703	0
35		**2,089**
36	0.0700	0
37	0.0700	0
38	0.0700	0
39	0.0700	0
40	0.0703	0
41	0.0944	0
42	0.0944	2,089

	A
43	40.08
44	**50 SYSTEMS**
45	50.01
46	50.02
47	50.03
48	50.04
49	50.05
50	50.06
51	50.07
52	**Construction Subtotal (10 - 50)**
53	**60 ROW, LAND, EXISTING IMPROVEMENTS**
54	60.01
55	60.02
56	**70 VEHICLES (number)**
57	70.01
58	70.02
59	70.03
60	70.04
61	70.05
62	70.06
63	70.07
64	**80 PROFESSIONAL SERVICES (applies to Cats. 10-50)**
65	80.01
66	80.02
67	80.03
68	80.04
69	80.05
70	80.06
71	80.07
72	80.08
73	**Subtotal (10 - 80)**
74	**90 UNALLOCATED CONTINGENCY**
75	**Subtotal (10 - 90)**

	B	C	D	E	F	G	H
43	Temporary Facilities and other indirect costs during construction		0	0		0	100
44			**0**	**0**	**0**	**0**	
45	Train control and signals		0	0		0	30
46	Traffic signals and crossing protection		0	0		0	30
47	Traction power supply: substations		0	0		0	50
48	Traction power distribution: catenary and third rail		0	0		0	30
49	Communications		0	0		0	20
50	Fare collection system and equipment		0	0		0	25
51	Central Control		0	0		0	30
52			**67,472**	**0**	**0**	**67,472**	
53			**0**		**0**	**0**	
54	Purchase or lease of real estate		0			0	125
55	Relocation of existing households and businesses		0			0	125
56		**703**	**503,500**		**0**	**503,500**	
57	Light Rail	0	0			0	25
58	Heavy Rail	0	0			0	25
59	Commuter Rail	0	0			0	25
60	Bus	703	503,500			503,500	12
61	Other	0	0			0	12
62	Non-revenue vehicles	0	0			0	12
63	Spare parts	0	0			0	12
64			**0**				
65	Preliminary Engineering		0				
66	Final Design		0				
67	Project Management for Design and Construction		0				
68	Construction Administration & Management		0				
69	Professional Liability and other Non-Construction Insurance		0				
70	Legal; Permits; Review Fees by other agencies, cities, etc.		0				
71	Surveys, Testing, Investigation, Inspection		0				
72	Start up		0				
73			**570,972**				
74			**0**				
75			**570,972**	0	0	**570,972**	

	I	J
43	0.0701	0
44		**0**
45	0.0806	0
46	0.0806	0
47	0.0725	0
48	0.0806	0
49	0.0944	0
50	0.0858	0
51	0.0806	0
52		**5,355**
53		**0**
54	0.0700	0
55	0.0700	0
56		**63,392**
57	0.0858	0
58	0.0858	0
59	0.0858	0
60	0.1259	63,392
61	0.1259	0
62	0.1259	0
63	0.1259	0
64		
65		
66		
67		
68		
69		
70		
71		
72		
73		
74		
75		**68,747**

Cell: H60
Comment: The range for buses is 12 to 18 years. Provide supporting documentation for an estimated useful life of more than 12 years.

Cell: E75
Comment: E75 and F75 are double-checks.