

	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	
	DEFINITIONS	
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 <i>80 Professional Services</i> .
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 <i>30 Support Facilities</i> below.
4	
5	
6	
7	Include foundation excavation; guideway structures including caissons, columns, bridges, viaducts, cross-overs, flyovers.
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 <i>10 Guideway & Track Elements</i> 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 <i>10 Guideway & Track Elements</i> 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 <i>40.08 Temporary Facilities</i> 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 conditions, 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).
49	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 design and construction of fixed infrastructure (Cats. 10 - 50) during the preliminary engineering, final design, and construction phases of the project. This includes environmental work, design, engineering and architectural services;
64	
65	specialty services such as safety or security analyses; value engineering, risk assessment, cost estimating, scheduling;
66	
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	B	C
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			Quantity
7	10 GUIDEWAY & TRACK ELEMENTS (route miles)		20.48
8		10.01 Guideway: At-grade exclusive right-of-way	
9		10.02 Guideway: At-grade semi-exclusive (allows cross-traffic)	
10		10.03 Guideway: At-grade in mixed traffic	
11		10.04 Guideway: Aerial structure	20.14
12		10.05 Guideway: Built-up fill	
13		10.06 Guideway: Underground cut & cover	
14		10.07 Guideway: Underground tunnel	
15		10.08 Guideway: Retained cut or fill	0.34
16		10.09 Track: Direct fixation	
17		10.10 Track: Embedded	
18		10.11 Track: Ballasted	
19		10.12 Track: Special (switches, turnouts)	
20		10.13 Track: Vibration and noise dampening	
21	20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)		21
22		20.01 At-grade station, stop, shelter, mall, terminal, platform	
23		20.02 Aerial station, stop, shelter, mall, terminal, platform	21
24		20.03 Underground station, stop, shelter, mall, terminal, platform	
25		20.04 Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	
26		20.05 Joint development	
27		20.06 Automobile parking multi-story structure	
28		20.07 Elevators, escalators	
29	30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS		20.48
30		30.01 Administration Building: Office, sales, storage, revenue counting	
31		30.02 Light Maintenance Facility	
32		30.03 Heavy Maintenance Facility	
33		30.04 Storage or Maintenance of Way Building	
34		30.05 Yard and Yard Track	
35	40 SITEWORK & SPECIAL CONDITIONS		20.48
36		40.01 Demolition, Clearing, Earthwork	
37		40.02 Site Utilities, Utility Relocation	
38		40.03 Haz. mat'l, contam'd soil removal/mitigation, ground water treatments	
39		40.04 Environmental mitigation, e.g. wetlands, historic/archeologic, parks	
40		40.05 Site structures including retaining walls, sound walls	
41		40.06 Pedestrian / bike access and accommodation, landscaping	
42		40.07 Automobile, bus, van accessways including roads, parking lots	
43		40.08 Temporary Facilities and other indirect costs during construction	
44	50 SYSTEMS		20.48
45		50.01 Train control and signals	
46		50.02 Traffic signals and crossing protection	
47		50.03 Traction power supply: substations	
48		50.04 Traction power distribution: catenary and third rail	

	D	E	F	G	H	I	J	K	L
1								(Rev.11, May 2, 2008)	
2							Today's Date	08/11/09	
3							Yr of Base Year \$	FY 2009	
4							Yr of Revenue Ops	FY 2019	
5									
6		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	YOE Dollars Total (X000)	
7		1,126,982	281,746	1,408,728	\$ 68,773	49%	32%	1,677,817	1.191015459
8				0				0	
9				0				0	
10				0				0	
11		988,466	247,116	1,235,582	\$ 61,350			1,471,598	
12				0				0	
13				0				0	
14				0				0	
15		5,527	1,382	6,909	\$ 20,098			8,228	
16		123,329	30,832	154,162				183,609	
17				0				0	
18				0				0	
19		9,660	2,415	12,075				14,382	
20				0				0	
21		244,504	61,126	305,630	\$ 14,554	11%	7%	389,152	1.27327642
22				0				0	
23		186,269	46,567	232,836	\$ 11,087			296,464	
24				0				0	
25				0				0	
26				0				0	
27				0				0	
28		58,236	14,559	72,795				92,688	
29		97,280	24,320	121,600	\$ 5,936	4%	3%	138,499	1.138976774
30		16,665	4,166	20,831				23,726	
31				0				0	
32		80,615	20,154	100,769				114,773	
33				0				0	
34				0				0	
35		575,617	181,639	757,256	\$ 36,969	27%	17%	895,470	1.182518469
36		25,630	8,970	34,600				40,915	
37		331,739	116,109	447,848				529,589	
38		10,139	3,549	13,687				16,186	
39		9,835	3,442	13,278				15,701	
40				0				0	
41				0				0	
42		198,275	49,569	247,843				293,079	
43				0				0	
44		203,330	50,833	254,163	\$ 12,408	9%	6%	311,215	1.224469921
45		34,610	8,652	43,262				52,974	
46		24,225	6,056	30,281				37,079	
47		41,990	10,497	52,487				64,269	
48		68,478	17,119	85,597				104,811	

	A	B	C
49		50.05 Communications	
50		50.06 Fare collection system and equipment	
51		50.07 Central Control	
52	Construction Subtotal (10-50)		20.48
53	60 ROW, LAND, EXISTING IMPROVEMENTS		20.48
54		60.01 Purchase or lease of real estate	
55		60.02 Relocation of existing households and businesses	
56	70 VEHICLES (number)		76
57		70.01 Light Rail	
58		70.02 Heavy Rail	76
59		70.03 Commuter Rail	
60		70.04 Bus	
61		70.05 Other	
62		70.06 Non-revenue vehicles	
63		70.07 Spare parts	
64	80 PROFESSIONAL SERVICES (applies to Cats. 10-50)		20.48
65		80.01 Preliminary Engineering	
66		80.02 Final Design	
67		80.03 Project Management for Design and Construction	
68		80.04 Construction Administration & Management	
69		80.05 Professional Liability and other Non-Construction Insurance	
70		80.06 Legal; Permits; Review Fees by other agencies, cities, etc.	
71		80.07 Surveys, Testing, Investigation, Inspection	
72		80.08 Start up	
73	Subtotal (10 - 80)		20.48
74	90 UNALLOCATED CONTINGENCY		
75	Subtotal (10 - 90)		20.48
76	100 FINANCE CHARGES		
77	Total Project Cost (10 - 100)		20.48
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)		

	D	E	F	G	H	I	J	K	L
49		20,811	5,203	26,013				31,852	
50		4,361	1,090	5,452				6,676	
51		8,856	2,214	11,070				13,554	
52		2,247,714	599,663	2,847,377	\$ 139,007	100%	64%	3,412,153	
53		85,634	42,817	128,452	\$ 6,271		3%	128,635	1.001427917
54		83,264	41,632	124,897				125,075	
55		2,370	1,185	3,555				3,560	
56		275,239	66,058	341,297	\$ 4,491		8%	398,825	1.168557604
57				0				0	
58		245,675	58,963	304,638	\$ 4,008			355,987	
59				0				0	
60				0				0	
61				0				0	
62		4,996	1,199	6,195				7,239	
63		24,568	5,896	30,464				35,599	
64		589,972	157,398	747,370	\$ 36,486	26%	17%	933,589	1.249165411
65		17,752	4,736	22,488				28,091	
66		99,334	26,501	125,836				157,190	
67		97,623	26,045	123,668				154,481	
68		220,743	58,892	279,635				349,310	
69		33,111	8,834	41,945				52,397	
70		33,111	8,834	41,945				52,397	
71		11,037	2,945	13,982				17,466	
72		77,260	20,612	97,872				122,259	
73		3,198,560	865,936	4,064,496	\$ 198,425		91%	4,873,201	
74				153,620			3%	184,186	1.198968221
75				4,218,116	\$ 205,925		95%	5,057,387	
76				244,434			5%	290,294	1.18761832
77				4,462,550	\$ 217,858		100%	5,347,681	1.198346536
78				27.07%					
79				4.80%					
80				31.88%					
81				3.78%					
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	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	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

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

	C	D	E	F	G	H	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	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	Annualization Factor (based on 7% rate) [.07/1 - (1.07)^-no. yrs]	Annualized Cost (X000)
7	20.48	1,408,728	369,758	110,000	1,888,486			134,940
8	0.00	0	0		0	125	0.0700	0
9	0.00	0	0		0	30	0.0806	0
10	0.00	0	0		0	20	0.0944	0
11	20.14	1,235,582	324,311	110,000	1,669,894	80	0.0703	117,416
12	0.00	0	0		0	80	0.0703	0
13	0.00	0	0		0	125	0.0700	0
14	0.00	0	0		0	125	0.0700	0
15	0.34	6,909	1,813		8,722	125	0.0700	611
16		154,162	40,464		194,625	30	0.0806	15,684
17		0	0		0	20	0.0944	0
18		0	0		0	35	0.0772	0
19		12,075	3,169		15,245	30	0.0806	1,229
20		0	0		0	30	0.0806	0
21	21	305,630	80,221	21,000	406,851			29,648
22	0	0	0		0	70	0.0706	0
23	21	232,836	61,114	21,000	314,950	70	0.0706	22,242
24	0	0	0		0	125	0.0700	0
25	0	0	0		0	70	0.0706	0
26		0	0		0	70	0.0706	0
27		0	0		0	50	0.0725	0
28		72,795	19,107		91,902	30	0.0806	7,406
29		121,600	31,917	10,000	163,517			11,848
30		20,831	5,468		26,299	50	0.0725	1,906
31		0	0		0	50	0.0725	0
32		100,769	26,449	10,000	137,218	50	0.0725	9,943
33		0	0		0	50	0.0725	0
34		0	0		0	80	0.0703	0
35		757,256	198,762	12,620	968,639			75,447
36		34,600	9,082		43,682	125	0.0700	3,058
37		447,848	117,550		565,398	125	0.0700	39,586
38		13,687	3,593	6,620	23,900	125	0.0700	1,673
39		13,278	3,485	6,000	22,763	125	0.0700	1,594
40		0	0		0	80	0.0703	0
41		0	0		0	20	0.0944	0
42		247,843	65,053		312,896	20	0.0944	29,535
43		0	0		0	100	0.0701	0
44		254,163	66,712	0	320,875			25,809
45		43,262	11,355		54,618	30	0.0806	4,401

	A	B
46		50.02 Traffic signals and crossing protection
47		50.03 Traction power supply: substations
48		50.04 Traction power distribution: catenary and third rail
49		50.05 Communications
50		50.06 Fare collection system and equipment
51		50.07 Central Control
52	Construction Subtotal (10 - 50)	
53	60 ROW, LAND, EXISTING IMPROVEMENTS	
54		60.01 Purchase or lease of real estate
55		60.02 Relocation of existing households and businesses
56	70 VEHICLES (number)	
57		70.01 Light Rail
58		70.02 Heavy Rail
59		70.03 Commuter Rail
60		70.04 Bus
61		70.05 Other
62		70.06 Non-revenue vehicles
63		70.07 Spare parts
64	80 PROFESSIONAL SERVICES (applies to Cats. 10-50)	
65		80.01 Preliminary Engineering
66		80.02 Final Design
67		80.03 Project Management for Design and Construction
68		80.04 Construction Administration & Management
69		80.05 Professional Liability and other Non-Construction Insurance
70		80.06 Legal; Permits; Review Fees by other agencies, cities, etc.
71		80.07 Surveys, Testing, Investigation, Inspection
72		80.08 Start up
73	Subtotal (10 - 80)	
74	90 UNALLOCATED CONTINGENCY	
75	Subtotal (10 - 90)	
76		Bus Maintenance Base
77		Transit Centers
78	TOTAL	

	C	D	E	F	G	H	I	J
46		30,281	7,948		38,230	30	0.0806	3,081
47		52,487	13,777		66,264	50	0.0725	4,801
48		85,597	22,467		108,064	30	0.0806	8,709
49		26,013	6,828		32,841	20	0.0944	3,100
50		5,452	1,431		6,883	25	0.0858	591
51		11,070	2,906		13,975	30	0.0806	1,126
52		2,847,377	747,370	153,620	3,748,367			277,692
53		128,452		0	128,452			8,994
54		124,897			124,897	125	0.0700	8,745
55		3,555			3,555	125	0.0700	249
56	673	788,860		0	788,860			85,659
57	0	0			0	25	0.0858	0
58	85	340,714			340,714	25	0.0858	29,237
59	0	0			0	25	0.0858	0
60	588	407,880			407,880	12	0.1259	51,353
61	0	0			0	12	0.1259	0
62	0	6,195			6,195	12	0.1259	780
63	0	34,071			34,071	12	0.1259	4,290
64		747,370						
65		22,488						
66		125,836						
67		123,668						
68		279,635						
69		41,945						
70		41,945						
71		13,982						
72		97,872						
73		4,512,059						
74		153,620						
75		4,665,679	747,370	153,620	4,665,679			372,344
76		25,637		0	25,637	50	0.0725	1,858
77		10,300		0	10,300	70	0.0706	727
78		4,701,616		153,620	4,701,616			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	B
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 Guideway: At-grade exclusive right-of-way
9		10.02 Guideway: At-grade semi-exclusive (allows cross-traffic)
10		10.03 Guideway: At-grade in mixed traffic
11		10.04 Guideway: Aerial structure
12		10.05 Guideway: Built-up fill
13		10.06 Guideway: Underground cut & cover
14		10.07 Guideway: Underground tunnel
15		10.08 Guideway: Retained cut or fill
16		10.09 Track: Direct fixation
17		10.10 Track: Embedded
18		10.11 Track: Ballasted
19		10.12 Track: Special (switches, turnouts)
20		10.13 Track: Vibration and noise dampening
21	20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)	
22		20.01 At-grade station, stop, shelter, mall, terminal, platform
23		20.02 Aerial station, stop, shelter, mall, terminal, platform
24		20.03 Underground station, stop, shelter, mall, terminal, platform
25		20.04 Other stations, landings, terminals: Intermodal, ferry, trolley, etc.
26		20.05 Joint development
27		20.06 Automobile parking multi-story structure
28		20.07 Elevators, escalators
29	30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	
30		30.01 Administration Building: Office, sales, storage, revenue counting
31		30.02 Light Maintenance Facility
32		30.03 Heavy Maintenance Facility
33		30.04 Storage or Maintenance of Way Building
34		30.05 Yard and Yard Track
35	40 SITEWORK & SPECIAL CONDITIONS	
36		40.01 Demolition, Clearing, Earthwork
37		40.02 Site Utilities, Utility Relocation
38		40.03 Haz. mat'l, contam'd soil removal/mitigation, ground water treatments
39		40.04 Environmental mitigation, e.g. wetlands, historic/archeologic, parks
40		40.05 Site structures including retaining walls, sound walls
41		40.06 Pedestrian / bike access and accommodation, landscaping
42		40.07 Automobile, bus, van accessways including roads, parking lots
43		40.08 Temporary Facilities and other indirect costs during construction
44	50 SYSTEMS	
45		50.01 Train control and signals
46		50.02 Traffic signals and crossing protection

	C	D	E	F	G	H	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	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	Baseline Alternative Cost Parameters (X000) see New Starts Reporting Instructions for additional info
7	0.00	0	0	0		0%	0%	
8				0				
9				0				1082/route mile
10				0				1082/route mile
11				0				
12				0				
13				0				
14				0				
15				0				
16				0				
17				0				
18				0				
19				0				
20				0				
21	2	0	0	10,300	\$ 5,150	15%	2%	
22				0				216/station
23				0				
24				0				
25	2			10,300	\$ 5,150			
26				0				
27				0				
28				0				
29	0.00	0	0	35,041		51%	6%	
30				0				
31				35,041				
32				0				
33				0				
34				0				
35	0.00	0	0	22,795		33%	4%	
36				0				
37				0				
38				0				
39				0				
40				0				
41				0				
42				22,795				5.4/on-grade space
43				0				
44	0.00	0	0	0		0%	0%	
45				0				
46				0				27/intersection

	A	B
47		50.03 Traction power supply: substations
48		50.04 Traction power distribution: catenary and third rail
49		50.05 Communications
50		50.06 Fare collection system and equipment
51		50.07 Central Control
52	Construction Subtotal (10 - 50)	
53	60 ROW, LAND, EXISTING IMPROVEMENTS	
54		60.01 Purchase or lease of real estate
55		60.02 Relocation of existing households and businesses
56	70 VEHICLES (number)	
57		70.01 Light Rail
58		70.02 Heavy Rail
59		70.03 Commuter Rail
60		70.04 Bus
61		70.05 Other
62		70.06 Non-revenue vehicles
63		70.07 Spare parts
64	80 PROFESSIONAL SERVICES (applies to Cats. 10-50)	
65		80.01 Preliminary Engineering
66		80.02 Final Design
67		80.03 Project Management for Design and Construction
68		80.04 Construction Administration & Management
69		80.05 Professional Liability and other Non-Construction Insurance
70		80.06 Legal; Permits; Review Fees by other agencies, cities, etc.
71		80.07 Surveys, Testing, Investigation, Inspection
72		80.08 Start up
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)	

	C	D	E	F	G	H	I	J
47				0				
48				0				
49				0				13/bus and 13/sign
50				0				10.8/bus
51				0				16.2-27 /bus
52	0.00	0	0	68,136		100%	12%	
53	0.00	0	0	0			0%	
54				0				
55				0				
56	703	0	0	503,500	\$ 716		88%	
57				0				
58				0				
59				0				
60	703			503,500	\$ 716			433 conventional or 703 articulated bus
61				0				
62				0				
63				0				
64	0.00	0	0	0		0%	0%	
65				0				
66				0				
67				0				
68				0				
69				0				
70				0				
71				0				
72				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								

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
43		40.08

	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
43	Temporary Facilities and other indirect costs during construction		0	0		0	100

	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		
	Annualization Factor (based on 7% rate) [.07/1 - (1.07)^-no. yrs]	Annualized Cost (X000)
6		
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
43	0.0701	0

		A
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
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
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.