

APPENDICES

APPENDIX 3-1

OD ZONING DATA

APPENDIX 3-1: OD Zoning Data, 2005

Appendix 3-1

OD Table								
No	Code	Name	No	Name	Total Population	Urban Population	Total GDP (Rp million)	
1	1	3171	Jaksel	1710	Jakarta S	2,393,446	2,393,446	15,056,107
	2	3172	Jaktim	1720	Jakarta E	3,130,812	3,130,812	15,956,976
	3	3173	Jakpusat	1730	Jakarta C	1,172,827	1,172,827	18,530,280
	4	3174	Jakbarat	1740	Jakarta W	2,504,155	2,504,155	13,326,822
	5	3175	Jakutara	1750	Jakarta N	1,884,899	1,884,899	17,547,592
2	6	3201	Pandeglang	2011	Pandeglang	200,808	30,359	273,532
	7	3201	Pandeglang	2012	Sakeli	357,930	963	432,769
	8	3201	Pandeglang	2013	Labuan	429,771	45,208	513,618
	9	3202	Lebak	2021	Rangkasbitung	301,812	93,592	386,323
	10	3202	Lebak	2022	Cipanas	413,688	963	442,376
	11	3202	Lebak	2023	Malingping	291,574	963	326,923
	12	3219	Tangerang	2191	Serpong	371,258	233,164	856,867
	13	3219	Tangerang	2192	Ciputat	807,224	738,698	1,445,660
	14	3219	Tangerang	2193	Cikupa	1,800,432	652,270	5,119,588
	15	3220	Serang	2201	Serang	180,169	134,704	678,740
	16	3220	Serang	2202	Kramatwatu	297,134	31,491	778,795
	17	3220	Serang	2203	Cikande	641,785	63,963	2,925,526
	18	3220	Serang	2204	Baros	292,985	21,507	634,049
	19	3220	Serang	2205	Anyer	190,338	7,114	467,086
20	3220	Serang	2206	Cilegon	336,094	238,303	2,306,740	
21	3275	K.Tangerang	2750	K.Tangerang	1,559,989	1,542,575	6,940,601	
3	22	3203	Bogor	2031	Cibinong	262,363	240,480	622,357
	23	3203	Bogor	2032	Cileungsi	719,625	397,842	3,434,698
	24	3203	Bogor	2033	Citeureup	383,208	332,781	474,372
	25	3203	Bogor	2034	Bojongsgede	293,699	235,047	379,723
	26	3203	Bogor	2035	Parung	427,741	152,843	489,703
	27	3203	Bogor	2036	Leuwiliang	1,312,207	498,233	1,547,935
	28	3203	Bogor	2037	Ciawi	335,030	174,180	446,607
	29	3203	Bogor	2038	Depok	1,261,487	1,189,607	1,677,572
	30	3203	Bogor	2039	Cisarua	196,752	124,586	275,649
	31	3204	Sukabumi	2040	Cibadak	2,063,734	427,020	2,580,504
	32	3205	Cianjur	2051	Cianjur	1,450,186	169,155	1,679,333
33	3205	Cianjur	2052	Ciranjang	213,341	11,780	266,693	
34	3205	Cianjur	2053	Cipanas	254,479	123,476	369,380	
35	3271	K.Bogor	2710	K.Bogor	864,864	854,007	1,119,517	
36	3272	K.Sukabumi	2720	K.Sukabumi	290,598	277,858	546,634	
4	37	3206	Bandung	2061	Soreang	1,338,165	620,686	4,263,632
	38	3206	Bandung	2062	Cimahi	972,880	494,608	3,552,794
	39	3206	Bandung	2063	Padalarang	549,610	207,790	1,524,194
	40	3206	Bandung	2064	Lembang	313,671	174,567	640,662
	41	3206	Bandung	2065	Majalaya	1,111,802	551,403	2,842,588
	42	3207	Garut	2071	Garut	1,557,219	275,714	1,956,473
	43	3207	Garut	2072	Nagrek	477,225	66,739	580,663
	44	3208	Tasikmalaya	2081	Tasikmalaya	1,153,914	316,480	1,341,777
	45	3208	Tasikmalaya	2082	Singaparna	490,014	53,455	533,509
	46	3208	Tasikmalaya	2083	Rajapolah	417,358	78,454	482,970
	47	3209	Ciamis	2091	Ciamis	307,155	86,527	472,285
	48	3209	Ciamis	2092	Banjar	828,215	85,109	1,198,457
	49	3209	Ciamis	2093	Kawali	439,713	7,436	648,255
	50	3273	K.Bandung	2730	K.Bandung	2,509,696	2,509,696	6,855,606
5	51	3215	Subang	2151	Subang	322,561	109,232	478,589
	52	3215	Subang	2152	Pamanukan	458,245	51,947	622,030
	53	3215	Subang	2153	Sagalaherang	207,687	26,993	304,725
	54	3215	Subang	2154	Kalijati	325,132	34,870	490,631
	55	3216	Purwakarta	2161	Purwakarta	386,108	140,211	816,528
	56	3216	Purwakarta	2162	Plered	316,504	42,137	464,250
	57	3217	Karawang	2171	Karawang	1,028,130	274,905	2,205,238
	58	3217	Karawang	2172	Cikampek	729,077	218,150	2,710,648
	59	3218	Bekasi	2181	Cibitung	873,311	560,320	5,479,469
	60	3218	Bekasi	2182	Cikarang	837,100	394,083	4,594,258
	61	3276	K.Bekasi	2760	K.Bekasi	1,886,430	1,818,285	3,809,817
6	62	3210	Kuningan	2101	Kuningan	304,362	152,990	324,940
	63	3210	Kuningan	2102	Cilimus	199,160	54,149	214,448
	64	3210	Kuningan	2103	Ciawigebang	489,705	50,012	469,685
	65	3211	Cirebon	2111	Cirebon/N	647,507	371,782	649,265
	66	3211	Cirebon	2112	Palimanan	645,284	288,522	626,268
	67	3211	Cirebon	2113	Losari	729,906	317,144	687,524
	68	3212	Majalengka	2121	Majalengka	216,935	56,912	245,492
	69	3212	Majalengka	2122	Kadipaten	550,833	156,365	599,389
	70	3212	Majalengka	2123	Cikijing	359,817	49,555	377,277
	71	3213	Sumedang	2131	Sumedang	375,106	67,368	472,177

7	78	3301	Cilacap	3011	Kotif Cilacap	220,410	200,704	672,592
	81	3302	Banyumas	3021	Purwokerto	414,751	288,632	357,468
	82	3302	Banyumas	3022	Banyumas	552,107	148,933	382,813
	83	3302	Banyumas	3023	Wangon	563,222	123,998	358,344
8	84	3303	Purbalinga	3031	Purbalingga	185,189	52,388	164,557
	85	3303	Purbalinga	3032	Bobotsari	450,363	29,943	333,005
	86	3303	Purbalinga	3033	Kemangkon	189,143	8,455	146,006
	87	3304	Banjarnegara	3041	Banjarnegara	332,901	48,699	379,183
	88	3304	Banjarnegara	3042	Wanayasa	240,976	8,487	242,441
	89	3304	Banjarnegara	3043	Mandiraja	301,652	29,698	312,961
	90	3307	Wonosobo	3071	Wonosobo	216,172	64,962	194,277
	91	3307	Wonosobo	3072	Kretek	264,044	17,346	199,992
9	92	3307	Wonosobo	3073	Leksono	289,771	5,213	210,392
	93	3305	Kebumen	3051	Kebumen	354,212	81,516	310,609
	94	3305	Kebumen	3052	Prembun	269,946	17,953	204,259
	95	3305	Kebumen	3053	Gombong	597,635	67,475	510,048
	96	3306	Purworejo	3061	Purworejo	303,324	66,463	311,172
	97	3306	Purworejo	3062	Bagelen	141,418	8,721	133,828
10	98	3306	Purworejo	3063	Kutoarjo	294,968	46,815	281,660
	99	3327	Pemalang	3271	Pemalang	344,448	209,582	361,264
	100	3327	Pemalang	3272	Petarukan	468,150	176,527	452,055
	101	3327	Pemalang	3273	Randudongkal	506,551	54,819	398,321
	102	3328	Tegal	3281	Slawi	669,737	479,101	492,662
	103	3328	Tegal	3282	Suradadi	250,045	59,814	161,330
	104	3328	Tegal	3283	Margasari	535,114	152,910	307,189
	105	3329	Brebes	3291	Brebes	462,121	200,064	389,231
	106	3329	Brebes	3292	Ketanggungan	832,739	159,348	563,001
	107	3329	Brebes	3293	Bumiayu	489,418	98,829	346,357
11	108	3376	K.Tegal	3760	K.Tegal	262,704	258,509	342,438
	109	3325	Batang	3251	Batang	241,883	180,272	336,768
	110	3325	Batang	3252	Subah	219,399	33,902	258,304
	111	3325	Batang	3253	Bandar	232,628	17,037	254,121
	112	3326	Pekalongan	3260	Kedungwuni	830,680	251,184	1,209,197
12	113	3375	K.Pekalongan	3750	K.Pekalongan	292,059	274,502	466,549
	114	3324	Kendal	3241	Kendal	351,042	113,358	845,742
13	115	3324	Kendal	3242	Sukorejo	535,687	101,286	1,183,206
	116	3323	Temanggung	3231	Temanggung	314,608	51,867	336,080
14	117	3323	Temanggun	3232	Parakan	380,213	35,392	423,338
	118	3308	Magelang	3081	Mungkid	211,137	86,533	245,218
	119	3308	Magelang	3082	Secang	248,683	44,553	251,131
	120	3308	Magelang	3083	Pakis	182,656	18,024	167,776
	121	3308	Magelang	3084	Borobudur	269,563	16,725	259,456
	122	3308	Magelang	3085	Muntilan	237,349	62,276	256,179
	123	3371	K.Magelang	3710	K.Magelang	149,156	149,156	357,530
16	124	3374	K.Semarang	3740	K.Semarang	1,659,753	1,371,838	7,340,916
	125	3321	Demak	3211	Demak	431,434	86,151	411,278
	126	3321	Demak	3212	Gajah	173,235	10,319	140,030
	127	3321	Demka	3213	Mranggen	194,100	54,094	189,463
	128	3321	Demak	3214	Karangtengah	218,262	23,063	191,655
17	129	3320	Jepara	3201	Jepara	151,884	122,855	195,778
	130	3320	Jepara	3202	Bangsri	396,288	91,260	370,874
	131	3320	Jepara	3203	Pacangaan	468,347	166,904	476,365
	132	3318	Pati	3181	Pati	251,046	107,096	253,397
18	133	3318	Pati	3182	Tayu	376,293	74,733	319,579
	134	3318	Pati	3183	Juana	320,800	58,502	287,583
	135	3318	Pati	3184	Kayen	257,069	2,540	207,578
19	136	3317	Rembang	3171	Rembang	118,751	43,078	136,229
	137	3317	Rembang	3172	Lasem	345,135	82,578	317,699
	138	3317	Rembang	3173	Sulang	120,983	929	100,151
20	139	3316	Blora	3161	Blora	134,379	53,431	132,993
	140	3316	Blora	3162	Cepu	223,754	69,348	199,426
	141	3316	Blora	3163	Randublatang	218,925	14,527	157,733
	142	3316	Blora	3164	Kunduran	274,830	18,284	213,537
21	143	3315	Grobogan	3151	Purwodadi	226,536	95,111	174,541
	144	3315	Grobogan	3152	Wirosari	451,686	31,095	273,742
	145	3315	Grobogan	3153	Toroh	178,520	38,505	111,446
	146	3315	Grobogan	3154	Godong	468,551	41,981	314,864
22	147	3309	Boyolali	3091	Boyolali	359,491	67,662	427,730
23	148	3309	Boyolali	3092	Banyudono	576,486	141,645	714,957
24	149	3310	Klaten	3101	Klaten	251,908	148,689	351,193
25	150	3310	Klaten	3102	Delanggu	607,329	259,941	780,216
26	151	3310	Klaten	3103	Manisrenggo	301,879	57,629	357,510
27	152	3311	Sukoharjo	3111	Sukoharjo	356,464	172,386	652,455
28	153	3311	Sukoharjo	3112	Grogol	305,361	292,985	466,368
29	154	3311	Sukoharjo	3113	Weru	178,139	38,638	284,631

36	161	3314	Sragen	3141	Sragen	173,420	51,996	183,251
37	162	3314	Sragen	3142	Sambungmacan	332,029	14,340	277,903
38	163	3314	Sragen	3143	Tanon	380,025	11,575	325,013
39	164	3319	Kudus	3191	Kudus	339,795	257,925	1,981,479
	165	3319	Kudus	3192	Jekulo	399,008	217,021	1,973,463
40	166	3373	K.Salatiga	3730	K.Salatiga	195,879	185,410	299,400
41	167	3372	K.Surakarta	3720	K.Surakarta	628,248	628,248	1,617,843
42	168	3312	Wonogiri	3121	Wonogiri	191,208	104,527	181,203
	169	3312	Wonogiri	3122	Jatisrono	540,443	56,653	414,900
	170	3312	Wonogiri	3123	Giriwoyo	283,878	11,942	213,934
43	171	3401	Kulonprogo	4010	Kulonprogo	390,660	99,631	615,512
44	172	3402	Bantul	4020	Bantul	811,498	498,033	1,023,559
45	173	3403	Gunungkidul	4031	Wonosari	407,977	114,456	1,176,769
	174	3577	K.Madiun	5770	K.Madiun	179,406	173,695	300,574
46	175	3403	Gunungkidul	4032	Semanu	299,309	1,060	345,708
47	176	3404	Sleman	4040	Sleman	934,587	506,533	1,778,686
48	177	3471	Yogyakarta	4710	Yogyakarta	521,118	521,118	1,668,500
49	178	3501	Pacitan	5011	Pacitan	108,830	11,115	89,655
	179	3501	Pacitan	5012	Tegalombo	180,693	1,056	101,388
	180	3501	Pacitan	5013	Ngadirejo	152,140	1,432	96,994
	181	3501	Pacitan	5014	Punung	112,773	4,795	70,620
50	182	3502	Ponorogo	5021	Ponorogo	529,908	114,257	430,931
	183	3502	Ponorogo	5022	Balong	353,030	29,404	260,939
51	184	3503	Trenggalek	5031	Trenggalek	302,117	40,130	256,533
	185	3503	Trenggalek	5032	Dongko	379,748	9,088	257,945
52	186	3504	Tulungagung	5041	Tulungagung	524,654	187,316	604,408
	187	3504	Tulungagung	5042	Ngunut	232,219	42,623	269,352
	188	3504	Tulungagung	5043	Gondang	217,890	49,311	230,665
53	189	3505	Blitar	5051	Srengat	392,042	42,314	355,838
	190	3505	Blitar	5052	Wlingi	723,397	171,601	705,646
	191	3572	K.Blitar	5720	K.Blitar	130,620	127,996	163,926
54	192	3506	Kediri	5061	Tarokan	500,114	191,864	527,264
	193	3506	Kediri	5062	Pare	515,980	74,854	544,553
	194	3506	Kediri	5063	Kraas	459,265	89,523	441,994
	195	3571	K.Kediri	5710	K.Kediri	276,035	264,962	6,157,720
55	196	3507	Malang	5071	Kepanjen	298,677	93,788	383,006
	197	3507	Malang	5072	Dampit	1,161,542	167,630	1,408,956
	198	3507	Malang	5073	Pucung	248,690	27,769	269,504
	199	3507	Malang	5074	Batu	478,608	141,888	671,391
	200	3507	Malang	5075	Singosari	322,309	189,882	456,308
	201	3573	K.Malang	5730	K.Malang	931,337	847,405	2,576,765
56	202	3508	Lumajang	5081	Lumajang	423,762	165,062	460,548
	203	3508	Lumajang	5082	Klakah	291,861	24,198	256,090
	204	3508	Lumajang	5083	Pasirian	293,991	65,452	318,189
57	205	3509	Jember	5091	Jember	501,866	261,463	606,183
	206	3509	Jember	5092	Silo	450,853	31,105	361,981
	207	3509	Jember	5093	Bangsalari	1,334,981	218,422	1,329,244
58	208	3510	Banyuwangi	5101	Banyuwangi	315,874	128,058	362,679
	209	3510	Banyuwangi	5102	Rojogampi	1,236,909	256,950	1,369,543
59	210	3511	Bondowoso	5111	Bondowoso	254,648	75,787	225,488
	211	3511	Bondowoso	5112	Klabang	290,571	13,988	227,805
	212	3511	Bondowoso	5113	Maesan	181,815	7,718	151,734
60	213	3512	Situbondo	5121	Situbondo	256,327	155,459	399,681
	214	3512	Situbondo	5122	Asembagus	175,146	33,952	218,409
	215	3512	Situbondo	5123	Besuki	202,132	51,653	270,410
61	216	3513	Probolinggo	5131	Leces	296,262	22,524	411,374
	217	3513	Probolinggo	5132	Kraksaan	553,026	131,000	846,480
	218	3513	Probolinggo	5133	Tongas	200,700	8,575	283,224
	219	3574	K.Probolinggo	5740	K.Probolinggo	214,371	189,688	989,052
62	220	3514	Pasuruan	5141	Gempol	576,348	210,832	1,071,129
	221	3514	Pasuruan	5142	Purwosari	528,814	77,817	696,258
	222	3514	Pasuruan	5143	Grati	309,780	58,661	361,497
	223	3575	K.Pasuruan	5750	K.Pasuruan	196,855	183,775	308,335
63	224	3515	Sidoarjo	5151	Sidoarjo	271,097	225,515	862,508
64	225	3515	Sidoarjo	5152	Waru	693,067	583,727	2,402,726
65	226	3515	Sidoarjo	5153	Porong	293,593	159,525	901,559
66	227	3515	Sidoarjo	5154	Krian	524,221	258,885	1,589,105
67	228	3516	Mojokerto	5161	Mojosari	474,893	162,622	938,914
	229	3516	Mojokerto	5162	Trowulan	470,342	179,295	682,641
	230	3576	K.Mojokerto	5760	K.Mojokerto	134,358	129,779	253,788
68	231	3517	Jombang	5171	Jombang	330,029	206,217	395,377
69	232	3517	Jombang	5172	Mojoagung	322,461	49,715	406,213
70	233	3517	Jombang	5173	Diwek	261,857	111,846	300,359
71	234	3517	Jombang	5174	Tembelang	263,617	23,620	275,321
72	235	3518	Nganjuk	5181	Nganjuk	505,935	120,862	589,707

79	242	3521	Ngawi	5211	Ngawi	161,830	55,155	168,435
80	243	3521	Ngawi	5212	Padas	188,307	1,056	150,087
81	244	3521	Ngawi	5213	Widodaren	501,804	1,056	399,324
82	245	3522	Bojonegoro	5221	Bojonegoro	252,097	66,549	229,802
	246	3522	Bojonegoro	5222	Baureno	532,184	22,996	447,959
	247	3522	Bojonegoro	5223	Kalitudu	437,137	52,547	364,870
83	248	3523	Tuban	5231	Tuban	172,556	76,938	227,183
	249	3523	Tuban	5232	Plumpang	273,986	32,378	272,680
	250	3523	Tuban	5233	Bancar	654,136	44,858	749,171
84	251	3524	Lamongan	5241	Lamongan	392,710	40,841	407,551
	252	3524	Lamongan	5242	Paciran	218,763	47,559	232,209
	253	3524	Lamongan	5243	Babat	633,099	29,184	616,307
85	254	3525	Gresik	5251	Gresik	298,047	274,315	1,363,763
86	255	3525	Gresik	5252	Sedayu	317,026	32,100	1,370,426
87	256	3525	Gresik	5253	Mengasanti	482,602	79,690	3,091,952
88	257	3526	Bangkalan	5261	Bangkalan	317,664	103,950	381,106
	258	3526	Bangkalan	5262	Galis	522,059	50,609	428,589
	259	3527	Sampang	5270	Sampang	790,036	79,032	623,107
	260	3528	Pamekasan	5280	Pamekasan	727,318	79,976	526,061
	261	3529	Sumenep	5290	Sumenep	1,035,570	134,372	1,005,561
89	262	3578	K.Surabaya	5780	K.Surabaya	3,726,899	3,717,474	19,601,337

APPENDIX 4-1

BRIDGE LIST

BRIDGE LIST

Section : Yogya - Solo

No.	Station	Plan		Type Foundation		Bridges	
		No. of Span	Length (m)	Pier	Abutment	on Ordinary Road	on Toll Road
1	1+630	4	82	Spread	Pile		v (Road)
2	2+388	4	82	Spread	Pile	v (Toll Road)	
3	2+856	4	82	Spread	Pile	v (Toll Road)	
4	3+089	1	25	-	Pile		v (River)
5	3+188	4	82	Spread	Pile	v (Toll Road)	
6	3+877	1	16	-	Pile		v (River)
7	4+017	4	82	Spread	Pile	v (Toll Road)	
8	4+108	1	16	-	Pile		v (River)
9	4+306	4	82	Spread	Pile	v (Toll Road)	
10	4+524	1	25	-	Pile		v (River)
11	4+611	4	82	Spread	Pile	v (Toll Road)	
12	4+790	4	82	Spread	Pile	v (Toll Road)	
13	5+281	4	82	Spread	Pile	v (Toll Road)	
14	5+478	1	16	-	Pile		v (River)
15	5+618	4	82	Spread	Pile	v (Toll Road)	
16	5+887	4	82	Spread	Pile	v (Toll Road)	
17	6+143	3	80	Spread	Pile		v (River)
18	6+320	4	82	Spread	Pile	v (Toll Road)	
19	6+632	4	82	Spread	Pile	v (Toll Road)	
20	6+846	4	82	Spread	Pile	v (Toll Road)	
21	7+206	4	82	Spread	Pile	v (Toll Road)	
22	7+651	4	82	Spread	Pile	v (Toll Road)	
23	7+892	1	16	-	Pile		v (River)
24	8+063	1	25	-	Pile		v (River)
25	8+422	4	82	Spread	Pile		v (Road)
26	8+453	4	82	Spread	Pile	v (Toll Road)	
27	8+729	1	16	-	Pile		v (River)
28	8+943	4	82	Spread	Pile	v (Toll Road)	
29	9+266	1	30	-	Pile		v (River)
30	9+583	4	82	Spread	Pile	v (Toll Road)	
31	9+700	1	16	-	Pile		v (River)
32	9+883	4	82	Spread	Pile	v (Toll Road)	
33	10+646	4	82	Spread	Pile	v (Toll Road)	
34	10+821	3	62	Spread	Pile		v (River)
35	11+181	4	82	Spread	Pile	v (Toll Road)	
36	11+483	4	82	Spread	Pile	v (Toll Road)	
37	11+964	4	82	Spread	Pile	v (Toll Road)	
38	12+279	1	30	-	Pile		v (River)
39	12+462	4	82	Spread	Pile	v (Toll Road)	
40	12+667	1	30	-	Pile		v (River)
41	12+728	4	82	Spread	Pile	v (Toll Road)	
42	13+065	4	82	Spread	Pile	v (Toll Road)	
43	13+323	4	82	Spread	Pile	v (Toll Road)	
44	13+734	4	82	Spread	Pile	v (Toll Road)	
45	13+986	4	82	Spread	Pile	v (Toll Road)	
46	14+164	1	16	-	Pile		v (River)
47	14+252	4	82	Spread	Pile	v (Toll Road)	
48	14+542	4	82	Spread	Pile	v (Toll Road)	
49	14+814	4	82	Spread	Pile	v (Toll Road)	
50	14+997	1	30	-	Pile		v (River)
51	15+126	4	82	Spread	Pile	v (Toll Road)	
52	15+234	1	30	-	Pile		v (River)
53	15+355	1	30	-	Pile		v (River)
54	15+507	4	82	Spread	Pile	v (Toll Road)	
55	15+841	4	82	Spread	Pile	v (Toll Road)	
56	16+186	4	82	Spread	Pile	v (Toll Road)	
57	16+328	1	30	-	Pile		v (River)
58	16+628	4	82	Spread	Pile	v (Toll Road)	
59	16+866	4	82	Spread	Pile	v (Toll Road)	
60	17+219	4	82	Spread	Pile	v (Toll Road)	
61	17+713	4	82	Spread	Pile	v (Toll Road)	
62	18+082	4	82	Spread	Pile	v (Toll Road)	
63	18+357	4	82	Spread	Pile	v (Toll Road)	
64	18+826	1	25	-	Pile		v (River)
65	19+077	4	82	Spread	Pile	v (Toll Road)	

66	19+811	4	82	Spread	Pile	v (Toll Road)	
67	20+384	4	82	Spread	Pile	v (Toll Road)	
68	20+626	4	82	Spread	Pile		v (Road)
69	21+010	4	82	Spread	Pile	v (Toll Road)	
70	21+347	1	25	-	Pile		v (River)
71	21+408	4	82	Spread	Pile	v (Toll Road)	
72	22+056	4	82	Spread	Pile	v (Toll Road)	
73	22+295	1	25	-	Pile		v (River)
74	22+709	4	82	Spread	Pile	v (Toll Road)	
75	23+224	1	25	-	Pile		v (River)
76	23+491	4	82	Spread	Pile	v (Toll Road)	
77	23+776	4	82	Spread	Pile	v (Toll Road)	
78	24+046	1	30	-	Pile		v (River)
79	24+338	4	82	Spread	Pile	v (Toll Road)	
80	24+632	4	82	Spread	Pile	v (Toll Road)	
81	25+002	4	82	Spread	Pile	v (Toll Road)	
82	25+258	4	82	Spread	Pile	v (Toll Road)	
83	25+519	4	82	Spread	Pile	v (Toll Road)	
84	25+641	1	30	-	Pile		v (River)
85	25+886	4	82	Spread	Pile	v (Toll Road)	
86	26+146	4	82	Spread	Pile	v (Toll Road)	
87	26+240	1	16	-	Pile		v (River)
88	26+514	4	82	Spread	Pile	v (Toll Road)	
89	26+928	4	82	Spread	Pile	v (Toll Road)	
90	27+018	1	30	-	Pile		v (River)
91	27+585	4	82	Spread	Pile	v (Toll Road)	
92	27+779	1	16	-	Pile		v (River)
93	27+827	4	82	Spread	Pile	v (Toll Road)	
94	28+320	4	82	Spread	Pile	v (Toll Road)	
95	28+962	4	82	Spread	Pile	v (Toll Road)	
96	29+291	4	82	Spread	Pile	v (Toll Road)	
97	30+240	1	30	-	Pile		v (River)
98	30+683	4	82	Spread	Pile	v (Toll Road)	
99	31+098	4	82	Spread	Pile	v (Toll Road)	
100	31+271	1	30	-	Pile		v (River)
101	31+439	4	82	Spread	Pile	v (Toll Road)	
102	31+904	4	82	Spread	Pile	v (Toll Road)	
103	32+775	4	82	Spread	Pile		v (Road)
104	32+239	4	82	Spread	Pile	v (Toll Road)	
105	32+766	4	82	Spread	Pile	v (Toll Road)	
106	33+144	4	82	Spread	Pile	v (Toll Road)	
107	33+590	4	82	Spread	Pile	v (Toll Road)	
108	33+944	4	82	Spread	Pile	v (Toll Road)	
109	34+354	4	82	Spread	Pile	v (Toll Road)	
110	34+920	4	82	Spread	Pile	v (Toll Road)	
111	35+324	4	82	Spread	Pile	v (Toll Road)	
112	35+765	4	82	Spread	Pile	v (Toll Road)	
113	36+636	4	82	Spread	Pile	v (Toll Road)	
114	37+098	4	82	Spread	Pile	v (Toll Road)	
115	37+389	1	30	-	Pile		v (River)
116	37+732	4	82	Spread	Pile	v (Toll Road)	
117	38+501	4	82	Spread	Pile	v (Toll Road)	
118	38+828	4	82	Spread	Pile	v (Toll Road)	
119	39+136	4	82	Spread	Pile	v (Toll Road)	
120	39+790	4	82	Spread	Pile		v (Road)
121	40+286	3	62	Spread	Pile		v (Road)
122	40+582	1	16	-	Pile		v (River)
123	40+814	4	82	Spread	Pile	v (Toll Road)	
124	41+167	3	85	Spread	Pile		v (River)

Section : Solo - Mantingan

No.	Station	Plan		Type Foundation		Bridges	
		No. of Span	Length (m)	Pier	Abutment	on Ordinary Road	on Toll Road
1	0+450	4	82	Spread	Pile	v (Toll Road)	
2	0+789	5	172	Pile	Pile		v (River)
3	1+423	4	82	Spread	Pile	v (Toll Road)	
4	2+173	4	82	Spread	Pile	v (Toll Road)	
5	2+493	4	82	Pile	Pile	v (Toll Road)	
6	3+096	4	82	Spread	Pile	v (Toll Road)	
7	3+684	4	82	Pile	Pile	v (Toll Road)	
8	4+029	4	82	Spread	Pile	v (Toll Road)	
9	5+406	4	82	Spread	Pile	v (Toll Road)	
10	5+763	4	82	Spread	Pile	v (Toll Road)	
11	6+302	4	82	Spread	Pile	v (Toll Road)	
12	6+777	4	82	Spread	Pile	v (Toll Road)	
13	7+900	4	82	Pile	Pile	v (Toll Road)	
14	8+554	4	82	Spread	Pile	v (Toll Road)	
15	9+112	4	82	Spread	Pile	v (Toll Road)	
16	9+927	4	82	Pile	Pile	v (Toll Road)	
17	10+627	4	82	Spread	Pile	v (Toll Road)	
18	11+099	4	82	Pile	Pile		v (Road)
19	11+628	4	82	Pile	Pile	v (Toll Road)	
20	12+267	4	82	Pile	Pile	v (Toll Road)	
21	12+664	8	217	Pile	Pile		v (Railway and Road)
22	13+768	4	82	Spread	Pile	v (Toll Road)	
23	14+318	4	82	Spread	Pile		v (Road)
24	14+847	4	82	Spread	Pile	v (Toll Road)	
25	15+785	4	82	Pile	Pile	v (Toll Road)	
26	16+853	4	82	Pile	Pile	v (Toll Road)	
27	18+018	4	82	Spread	Pile	v (Toll Road)	
28	19+626	4	82	Spread	Pile	v (Toll Road)	
29	20+625	6	236	Pile	Pile		v (River)
30	20+820	4	82	Spread	Pile	v (Toll Road)	
31	21+380	4	82	Pile	Pile	v (Toll Road)	
32	22+458	4	82	Spread	Pile	v (Toll Road)	
33	23+186	4	82	Pile	Pile	v (Toll Road)	
34	24+056	4	82	Spread	Pile	v (Toll Road)	
35	25+080	1	50	-	Pile	v (Toll Road)	
36	25+567	4	82	Pile	Pile	v (Toll Road)	
37	25+887	4	62	Pile	Pile		v (River)
38	26+296	4	82	Spread	Pile	v (Toll Road)	
39	26+648	4	82	Spread	Pile	v (Toll Road)	
40	27+168	4	82	Spread	Pile	v (Toll Road)	
41	27+759	4	82	Spread	Pile	v (Toll Road)	
42	28+431	4	82	Pile	Pile	v (Toll Road)	
43	29+040	4	82	Spread	Pile	v (Toll Road)	
44	29+430	4	82	Spread	Pile	v (Toll Road)	
45	30+113	4	82	Spread	Pile	v (Toll Road)	
46	30+903	4	82	Spread	Pile	v (Toll Road)	
47	31+393	4	82	Spread	Pile	v (Toll Road)	
48	31+929	1	50		Pile	v (Toll Road)	
49	32+808	4	82	Spread	Pile	v (Toll Road)	
50	33+638	4	82	Spread	Pile	v (Toll Road)	
51	34+132	4	82	Spread	Pile	v (Toll Road)	
52	35+200	4	82	Pile	Pile		v (Road)
53	35+542	3	52	Pile	Pile		v (Road)
54	36+815	4	82	Spread	Pile	v (Toll Road)	
55	38+096	4	82	Spread	Pile	v (Toll Road)	
56	39+504	4	82	Spread	Pile	v (Toll Road)	
57	40+008	4	62	Pile	Pile		v (River)
58	40+564	4	82	Spread	Pile	v (Toll Road)	
59	40+690	1	25	Spread	Pile	v (Toll Road)	
60	41+059	4	52	Spread	Pile	v (Toll Road)	

61	41+541	4	82	Spread	Pile	v (Toll Road)	
62	42+135	4	82	Spread	Pile	v (Toll Road)	
63	42+656	4	82	Spread	Pile	v (Toll Road)	
64	43+348	4	62	Spread	Pile	v (Toll Road)	
65	44+114	4	82	Spread	Pile	v (Toll Road)	
66	44+451	4	52	Spread	Pile	v (Toll Road)	
67	45+232	4	82	Spread	Pile	v (Toll Road)	
68	45+839	4	82	Spread	Pile	v (Toll Road)	
69	46+238	4	82	Spread	Pile	v (Toll Road)	
70	46+577	4	62	Spread	Pile	v (Toll Road)	
71	47+285	4	82	Spread	Pile	v (Toll Road)	
72	47+673	3	52	Pile	Pile		v (Road)
73	48+009	1	40		Pile		v (River)
74	48+654	4	82	Spread	Pile	v (Toll Road)	
75	49+253	4	82	Pile	Pile	v (Toll Road)	
76	49+846	4	82	Pile	Pile	v (Toll Road)	
77	50+499	4	82	Spread	Pile	v (Toll Road)	
78	51+104	4	82	Pile	Pile	v (Toll Road)	
79	52+149	4	82	Spread	Pile	v (Toll Road)	
80	53+137	4	82	Pile	Pile	v (Toll Road)	
81	53+699	4	82	Spread	Pile	v (Toll Road)	
82	54+439	4	82	Spread	Pile	v (Toll Road)	
83	54+888	4	82	Spread	Pile	v (Toll Road)	
84	55+052	1	40		Pile		v (River)
85	55+342	4	82	Pile	Pile	v (Toll Road)	

Section : Mantingan - Ngawi

No.	Station	Plan		Type Foundation		Bridges	
		No. of Span	Length (m)	Pier	Abutment	on Ordinary Road	on Toll Road
1	56+494	4	82	Pile	Pile	v (Toll Road)	
2	57+821	4	82	Pile	Pile	v (Toll Road)	
3	58+528	4	82	Pile	Pile	v (Toll Road)	
4	59+343	4	82	Pile	Pile	v (Toll Road)	
5	60+543	4	82	Pile	Pile	v (Toll Road)	
6	61+850	4	82	Pile	Pile	v (Toll Road)	
7	62+743	4	82	Pile	Pile	v (Toll Road)	
8	63+215	4	82	Pile	Pile	v (Toll Road)	
9	64+184	4	82	Pile	Pile	v (Toll Road)	
10	64+722	1	40	Pile	Pile		v (Road)
11	65+201	3	90	Pile	Pile		v (Road)
12	65+906	4	82	Pile	Pile	v (Toll Road)	
13	66+284	4	82	Pile	Pile	v (Toll Road)	
14	67+328	4	82	Pile	Pile	v (Toll Road)	
15	67+731	4	82	Pile	Pile	v (Toll Road)	
16	69+025	4	82	Pile	Pile	v (Toll Road)	
17	69+858	4	82	Pile	Pile	v (Toll Road)	
18	70+555	4	82	Pile	Pile	v (Toll Road)	
19	71+158	4	82	Pile	Pile	v (Toll Road)	
20	71+486	4	82	Pile	Pile	v (Toll Road)	
21	72+926	4	82	Pile	Pile	v (Toll Road)	
22	73+391	4	82	Pile	Pile	v (Toll Road)	
23	73+736	4	82	Pile	Pile	v (Toll Road)	
24	74+545	4	82	Pile	Pile	v (Toll Road)	
25	74+883	4	82	Pile	Pile	v (Toll Road)	
26	75+462	3	57	Pile	Pile		v (River)
27	75+585	2	50	Pile	Pile	v (Toll Road)	
28	76+309	4	82	Pile	Pile	v (Toll Road)	
29	76+916	4	82	Pile	Pile	v (Toll Road)	
30	77+069	4	82	Pile	Pile	v (Toll Road)	
31	77+539	1	25		Pile		v (River)
32	77+937	4	82	Pile	Pile	v (Toll Road)	
33	78+518	4	82	Pile	Pile	v (Toll Road)	
34	78+704	1	25		Pile		v (River)
35	79+196	4	82	Pile	Pile	v (Toll Road)	
36	79+783	4	82	Pile	Pile	v (Toll Road)	
37	80+807	4	82	Pile	Pile	v (Toll Road)	
38	81+242	4	82	Pile	Pile	v (Toll Road)	
39	81+794	4	82	Pile	Pile	v (Toll Road)	
40	83+125	4	82	Pile	Pile	v (Toll Road)	
41	83+300	4	82	Pile	Pile	v (Toll Road)	
42	83+427	4	82	Pile	Pile	v (Toll Road)	
43	84+323	2	50	Pile	Pile	v (Toll Road)	
44	84+773	4	82	Pile	Pile	v (Toll Road)	
45	85+720	2	50	Pile	Pile	v (Toll Road)	
46	86+286	4	82	Pile	Pile	v (Toll Road)	
47	86+600	4	82	Pile	Pile	v (Toll Road)	
48	86+935	4	82	Pile	Pile	v (Toll Road)	
49	87+552	4	82	Pile	Pile	v (Toll Road)	
50	88+057	4	82	Pile	Pile	v (Toll Road)	
51	89+144	4	82	Pile	Pile	v (Toll Road)	
52	89+324	4	82	Pile	Pile		v (River)
53	89+608	3	57	Pile	Pile		v (Road)

Section : Ngawi - Kertosono

No.	Station	Plan		Type Foundation		Bridges	
		No. of Span	Length (m)	Pier	Abutment	on Ordinary Road	on Toll Road
1	89+144	4	82	Pile	Pile	v (Toll Road)	
2	90+460	4	82	Pile	Pile	v (Toll Road)	
3	91+065	4	82	Pile	Pile	v (Toll Road)	
4	91+700	4	82	Pile	Pile	v (Toll Road)	
5	92+880	4	82	Pile	Pile	v (Toll Road)	
6	93+411	4	82	Pile	Pile	v (Toll Road)	
7	94+349	4	82	Pile	Pile	v (Toll Road)	
8	95+169	4	82	Pile	Pile	v (Toll Road)	
9	95+780	4	82	Pile	Pile	v (Toll Road)	
10	96+303	4	82	Pile	Pile	v (Toll Road)	
11	97+390	4	82	Pile	Pile	v (Toll Road)	
12	98+053	4	82	Pile	Pile	v (Toll Road)	
13	98+490	4	82	Pile	Pile	v (Toll Road)	
14	99+141	4	82	Pile	Pile	v (Toll Road)	
15	100+387	4	82	Pile	Pile	v (Toll Road)	
16	101+030	4	82	Pile	Pile	v (Toll Road)	
17	101+431	4	82	Pile	Pile	v (Toll Road)	
18	101+860	4	82	Pile	Pile	v (Toll Road)	
19	102+704	3	50	Pile	Pile	v (Toll Road)	
20	103+090	4	82	Pile	Pile	v (Toll Road)	
21	103+575	4	82	Pile	Pile	v (Toll Road)	
22	104+665	3	50	Pile	Pile	v (Toll Road)	
23	105+070	4	82	Pile	Pile	v (Toll Road)	
24	106+217	4	82	Pile	Pile	v (Toll Road)	
25	107+086	4	82	Pile	Pile	v (Toll Road)	
26	107+624	4	82	Pile	Pile	v (Toll Road)	
27	108+001	4	82	Pile	Pile	v (Toll Road)	
28	108+548	6	210	Pile	Pile		v (River)
29	108+677	4	82	Pile	Pile		v (Road)
30	109+354	4	82	Pile	Pile	v (Toll Road)	
31	109+782	4	82	Pile	Pile		v (Road)
32	110+382	3	57	Pile	Pile		v (River)
33	110+958	4	82	Pile	Pile	v (Toll Road)	
34	111+784	4	82	Pile	Pile	v (Toll Road)	
35	112+445	4	82	Pile	Pile	v (Toll Road)	
36	113+619	4	82	Pile	Pile	v (Toll Road)	
37	115+011	3	50	Pile	Pile	v (Toll Road)	
38	115+952	4	82	Pile	Pile	v (Toll Road)	
39	117+256	4	82	Pile	Pile	v (Toll Road)	
40	118+320	4	82	Pile	Pile	v (Toll Road)	
41	119+569	3	57	Pile	Pile	v (Toll Road)	
42	120+174	4	82	Pile	Pile	v (Toll Road)	
43	120+855	4	82	Pile	Pile	v (Toll Road)	
44	121+462	3	57	Pile	Pile		v (River)
45	121+819	4	82	Pile	Pile	v (Toll Road)	
46	122+167	4	82	Pile	Pile	v (Toll Road)	
47	122+924	3	50	Pile	Pile	v (Toll Road)	
48	123+581	4	82	Pile	Pile	v (Toll Road)	
49	124+902	4	82	Pile	Pile	v (Toll Road)	
50	125+453	4	82	Pile	Pile	v (Toll Road)	
51	122+080	4	82	Pile	Pile	v (Toll Road)	
52	122+780						
53	123+959	4	82	Pile	Pile	v (Toll Road)	
54	124+795	4	82	Pile	Pile	v (Toll Road)	
55	125+733	4	82	Pile	Pile	v (Toll Road)	
56	126+465	4	82	Pile	Pile	v (Toll Road)	
57	126+782						
58	127+957	4	82	Pile	Pile	v (Toll Road)	
59	128+475	4	82	Pile	Pile	v (Toll Road)	
60	129+132	4	82	Pile	Pile	v (Toll Road)	

61	129+742	4	82	Pile	Pile	v (Toll Road)	
62	130+488	4	82	Pile	Pile	v (Toll Road)	
63	130+923	4	82	Pile	Pile	v (Toll Road)	
64	132+527	4	82	Pile	Pile	v (Toll Road)	
65	133+365	4	82	Pile	Pile	v (Toll Road)	
66	133+767	4	82	Pile	Pile	v (Toll Road)	
67	134+388	4	82	Pile	Pile	v (Toll Road)	
68	134+660	3	62	Pile	Pile	v (Toll Road)	
69	134+886	3	62	Pile	Pile		v (River)
70	135+828	4	82	Pile	Pile	v (Toll Road)	
71	136+520	4	82	Pile	Pile	v (Toll Road)	
72	136+751	4	82	Pile	Pile	v (Toll Road)	
73	137+118	4	82	Pile	Pile	v (Toll Road)	
74	137+768	4	82	Pile	Pile	v (Toll Road)	
75	139+105	4	82	Pile	Pile	v (Toll Road)	
76	140+160	4	82	Pile	Pile	v (Toll Road)	
77	140+650	4	82	Pile	Pile	v (Toll Road)	
78	141+528	4	82	Pile	Pile	v (Toll Road)	
79	142+780	4	82	Pile	Pile		v (Road)
80	144+503	4	82	Pile	Pile	v (Toll Road)	
81	146+108	4	82	Pile	Pile	v (Toll Road)	
82	147+238	1	25		Pile	v (Toll Road)	
83	147+492	4	82	Pile	Pile		v (River)
84	148+113	4	82	Pile	Pile		v (Road)
85	148+645	4	82	Pile	Pile	v (Toll Road)	
86	149+117	4	82	Pile	Pile	v (Toll Road)	
87	150+009	4	82	Pile	Pile	v (Toll Road)	
88	151+358	4	82	Pile	Pile	v (Toll Road)	
89	152+504	4	82	Pile	Pile	v (Toll Road)	
90	154+160	4	82	Pile	Pile	v (Toll Road)	
91	156+002	4	82	Pile	Pile		v (River)
92	157+301	4	82	Pile	Pile	v (Toll Road)	
93	158+955	4	82	Pile	Pile	v (Toll Road)	
94	159+233	4	82	Pile	Pile	v (Toll Road)	
95	160+039	4	82	Pile	Pile	v (Toll Road)	
96	160+796	4	82	Pile	Pile	v (Toll Road)	
97	161+049	4	82	Pile	Pile	v (Toll Road)	
98	161+984	4	82	Pile	Pile	v (Toll Road)	
99	163+658	4	82	Pile	Pile	v (Toll Road)	
100	164+852	4	82	Pile	Pile	v (Toll Road)	
101	165+191	4	82	Pile	Pile	v (Toll Road)	
102	165+942	4	82	Pile	Pile	v (Toll Road)	
103	166+778	4	82	Pile	Pile	v (Toll Road)	
104	167+846	4	82	Pile	Pile	v (Toll Road)	
105	169+133	4	82	Pile	Pile	v (Toll Road)	
106	170+262	4	82	Pile	Pile	v (Toll Road)	
107	170+664	7	232	Pile	Pile		v (River)

APPENDICES

Appendix 7.1 Project Structure

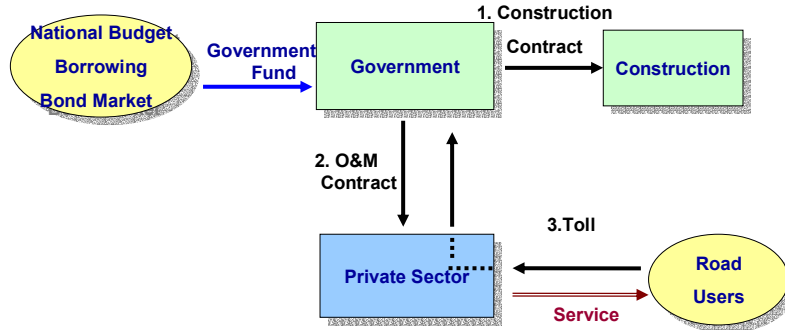
Appendix 7.2 Payment Mechanism

Appendix 7.3 Risk Allocation

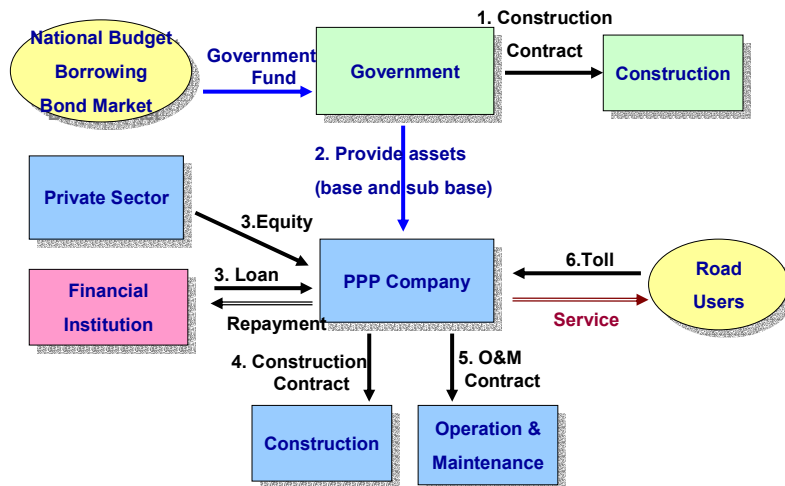
APPENDIX 7.1

PROJECT STRUCTURE

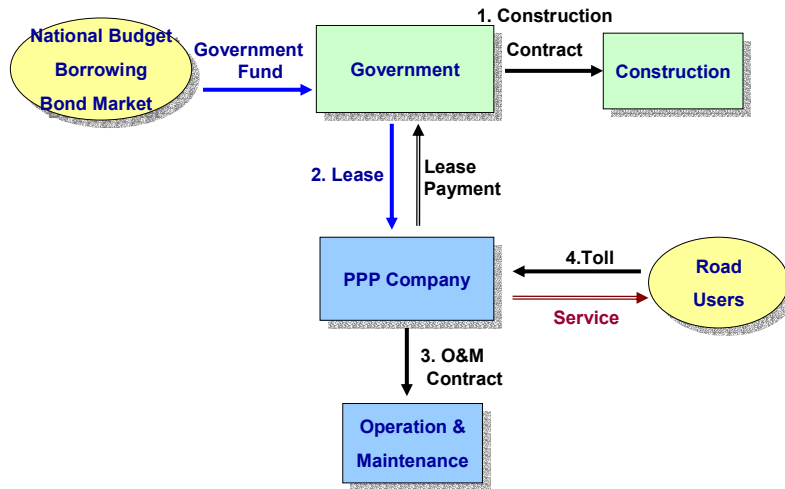
Option 1: Public Work with O&M Outsourcing – Project Structure



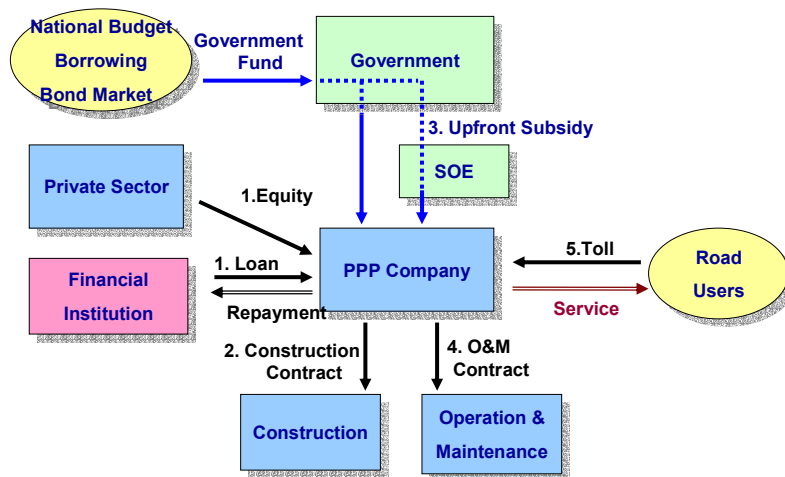
Option 2: Scope of Work Dividing – Project Structure



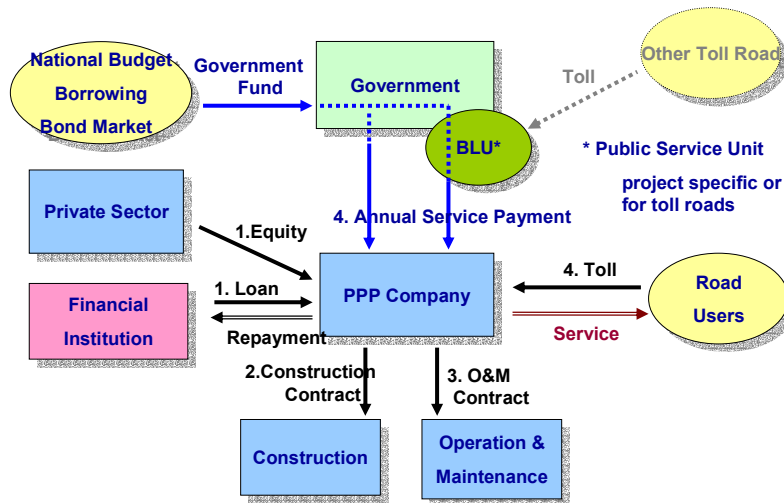
Option 3: Lease – Project Structure



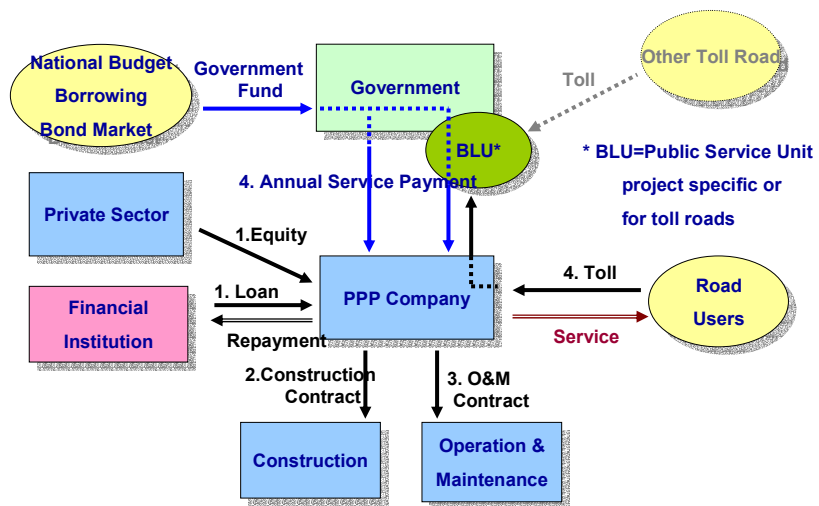
Option 4: DBFO with Upfront Subsidy – Project Structure



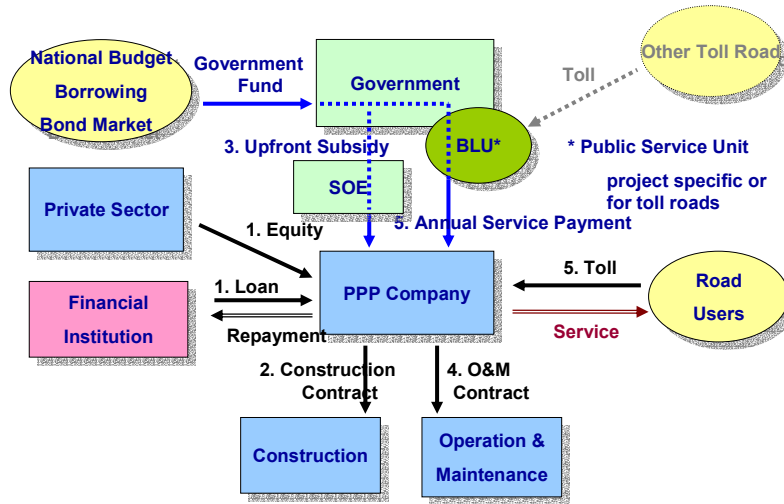
Option 5-1: DBFO with Service Payment – Project Structure



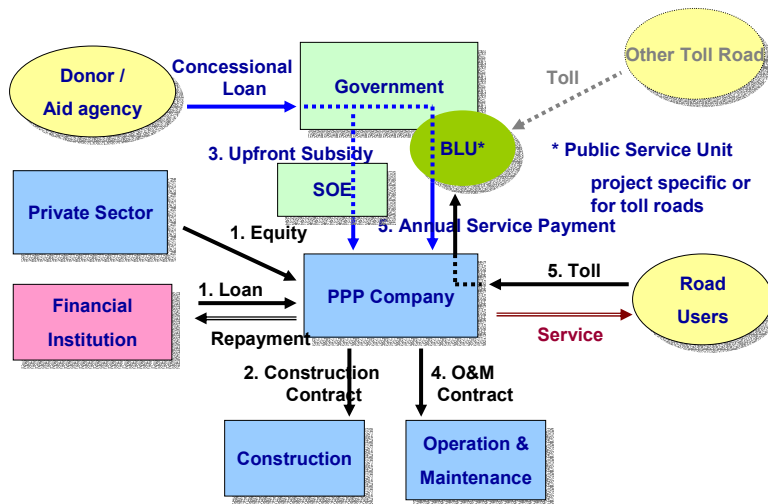
Option 5-2: DBFO with Service Payment – Project Structure



Option 6-1: DBFO with Upfront Subsidy and Service Payment – Project Structure



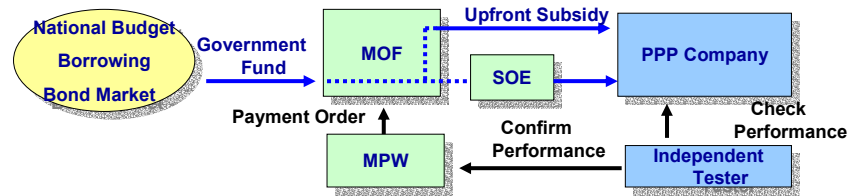
Option 6-2: DBFO with Upfront Subsidy and Service Payment – Project Structure



APPENDIX 7.2

PAYMENT MECHANISM

Upfront Subsidy Payment Mechanism

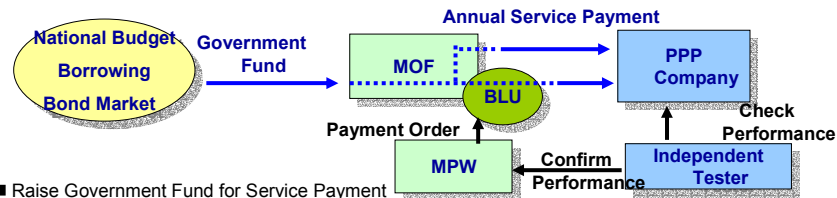


- Raise Government Fund for its Participation
 - 75% of upfront subsidy is raised by concessional loan borrowing as a project loan
 - 25% of costs is raised by local source, i.e. budget, and/or government bond
- Disbursement Condition
 - disbursement in tranches matching the construction milestones of PPP Co.
 - Independent Tester confirms previously- agreed milestones achieved
 - construction milestones are set in each phase
- Disbursement Mechanism (during construction period)
 - Disbursement is based on existing disbursement procedure for construction in principle
 - Government provides subsidy
 - Send confirmation of agreed milestone achieved from Independent Tester to MPW
 - MPW reviews documents and checks whether necessary conditions are met MOF
 - MPW sends payment order and necessary data to MOF
 - MOF disburses the proposed amount to PPP Co. (loan disbursement is based on the conditions lenders impose including % of total costs, eligible items, etc.)

Set up Upfront Subsidy Mechanism

- Determine Subsidy scheme (PSO) in MPW
 - PSO for the project needs to be developed under MPW complying with MPW's policy
 - Examples exists for inland ferry services etc.
- Draft a details of PSO and set a policy in MPW [consulting with KKPPi, RMC of MOF]*
 - PSO may includes:
 - Feasibility study of the project;
 - Scheme of subsidy (structure, amount, term etc.);
 - Procedure of subsidy payment;
 - Project financing plan including financing source;
 - Project implementation plan (schedule, steps etc.);
 - Monitoring and reporting system of the use of subsidy ;
 - Bidding procedure for private sector participation;
 - Risks on the use of government funds;
 - [Cost recovery of government funds]
- Identify financing plan including funding source of GOI
- Consider the use of SOE as a conduit
- Propose PSO to BAPPENAS and MOF for approval
- Draft bidding procedure and documents
 - [* requirement by KKPPi. RMC of MOF to be confirmed]

Service Payment Mechanism



- Raise Government Fund for Service Payment
 - 75% of subsidy is raised by concessional loan borrowing as a project loan or a program loan
 - 25% of costs is raised by local source, i.e. budget and/or government bond
- Set up BLU (Public Service Unit) or Escrow Account / Special Account
 - set up BLU / an account and secure funds for a long-term subsidy payment
 - deposit funds in BLU / an account from borrowing and own source
 - the account is *[under operation of MPW and under supervision of MOF]**
 - the account is replenished every year to assure annual service payment
- Disbursement Condition
 - set out service level (technical specification, lane closure, safety performance etc.) for PPP Co.
 - Independent Tester confirms previously- agreed conditions achieved
- Disbursement Mechanism
 - Disbursement is based on service performance: (i) service availability; and (ii) performance
 - Send confirmation of agreed conditions achieved from Independent Tester to MPW
 - MPW reviews, check whether conditions are met or not , and calculates payment amount
 - MPW sends a payment order to MOF
 - *[MOF]** disburse the proposed amount to PPP Co. from BLU (loan disbursement is based on the conditions lenders impose including % of total costs, eligible items, etc.)

[Responsibility of MOF and MPW to be confirmed]*

Set up Service Payment Mechanism

- **Determine service payment scheme (PSO) in MPW**
 - PSO for the project needs to be developed under MPW complying with MPW's policy
 - Examples exists for inland ferry services etc.
- **Draft a details of PSO and set a policy in MPW** *[consulting with KKPPPI, RMC of MOF]**

PSO may includes:

 - Feasibility study of the project;
 - Scheme of service payment (structure, amount, term etc.);
 - Procedure of service payment;
 - Project financing plan including financing source;
 - Project implementation plan (schedule, steps etc.);
 - Monitoring and reporting system of the use of subsidy ;
 - Bidding procedure for private sector participation;
 - Risks on the use of government funds;
 - *[Cost recovery of government funds]*
- **Identify financing plan including funding source of GOI**
- **Consider the use of BLU or Escrow Account/Special Account to secure funds**
- **Propose Service Payment scheme to BAPPENAS and MOF for approval**
- **Draft bidding procedure and documents**

[requirement by KKPPPI. RMC of MOF to be confirmed]*

APPENDIX 7.3

RISK ALLOCATION

Risk Allocation and Payment Mechanism of Option 1

Jogjakarta to Solo				Solo to Kertosono			
Risk	Public	Private	Shared	Risk	Public	Private	Shared
Design		✓		Design	✓		
Construction		✓		Construction	✓		
Technology & Integration		✓		Technology & Integration	✓		
Approval Process	✓			Approval Process	✓		
Customer Acceptance		✓		Customer Acceptance	✓		
Right of Way Acquisition	✓			Right of Way Acquisition	✓		
Operations & Maintenance		✓		Operations & Maintenance		✓	
Traffic & Revenue		✓		Traffic & Revenue		✓	
Finance		✓		Finance	✓		
Force Majeure	✓			Force Majeure	✓		
Inflation			✓	Inflation			✓

Risk Allocation and Payment Mechanism of Option 1

■ Proposed Payment Model - Overview

- Government funds construction cost of Solo-Kertosono section out of either budget allocation or JBIC loan.
- PPP Co. finances construction cost of Yogyakarta-Solo section via debt/bond.
- PPP Co. operates both sections and collects tolls.
- Toll used to repay debt/bond and equity on Yogyakarta-Solo section.

Risk Allocation and Payment Mechanism of Option 2

Construction scope divided between GOI and PPP Co.

Risk	Public	Private	Shared
Design			✓
Construction			✓
Technology & Integration			✓
Approval Process	✓		
Customer Acceptance	✓		
Right of Way Acquisition	✓		
Operations & Maintenance		✓	
Traffic & Revenue		✓	
Finance			✓
Force Majeure	✓		
Inflation			✓

■ Proposed Payment Model - Overview

- Government funds portion of construction cost (eg. sub-base) out of either budget allocation, borrowing, or government bond.
- PPP Co. funds portion of construction cost out of debt/bond.
- PPP Co. operates entire road and collects tolls which are used to repay debt/bond and equity.

Risk Allocation and Payment Mechanism of Option 3

Government Construction with Annual Lease Payment from PPP Co.

Risk	Public	Private	Shared
Design	✓		
Construction	✓		
Technology & Integration	✓		
Approval Process	✓		
Customer Acceptance	✓		
Right of Way Acquisition	✓		
Operations & Maintenance		✓	
Traffic & Revenue		✓	
Finance	✓		
Force Majeure	✓		
Inflation			✓

■ Proposed Payment Model - Overview

- Government funds entire construction cost out of either budget allocation, borrowing, or government bond.
- Government tenders lease for toll road operations.
- PPP Co. operates road and collects tolls.

■ Approach

Initial Construction

- Government funds entire construction cost out of either budget allocation or borrowing, or government bond.

Operations and Maintenance

- Government tenders lease for toll road operations.
- PPP Co. bids a price for right to collect tolls, in return they are required to undertake complete Operations and Maintenance of the road for the length of the lease; and
- Lease could be long-term (say 25 years) or renewed periodically (say every 8-10 years).

Risk Allocation and Payment Mechanism of Option 4

Upfront Government Participation Only

Risk	Public	Private	Shared
Design		✓	
Construction		✓	
Technology & Integration		✓	
Approval Process	✓		
Customer Acceptance		✓	
Right of Way Acquisition	✓		
Operations & Maintenance		✓	
Traffic & Revenue		✓ ¹	
Finance			✓
Force Majeure	✓		
Inflation			✓

■ Proposed Payment Model - Overview

- Government makes initial subsidy payment to PPP Co. through SOE to reduce borrowing for construction to a level supportable by tolls.
- PPP Co. operates road and collects tolls.

Risk Allocation and Payment Mechanism of Option 4

■ Approach

Initial Construction

- Initial government contribution for portion of construction cost through SOE:
 - Payment could be structured to match the construction milestones of the PPP Co. Payment only made when Independent Tester confirms previously-agreed milestones achieved;
 - Amount of subsidy would be a percentage of the amount needed to make Project viable (e.g. if overall subsidy required is US\$600 M (NPV), then initial subsidy might be US\$600 M (NPV));
 - PPP Co. provides debt or bond to fund the remaining construction amount; and
 - Payment from Government to PPP Co. for upfront subsidy could be funded by a long-term (30 – 40 yr) loan.

Operations and Maintenance

- PPP Co. then has complete Operation and Maintenance risk for the toll road, including responsibility for toll collection:
 - PPP Co. uses the collected tolls to offset O&M costs and repay equity. Depending on risk appetite of debt/bond providers for demand risk, could also be used to repay portion of debt/bond.

Risk Allocation and Payment Mechanism of Option 5

No Upfront Subsidy but Ongoing Subsidy Only

Risk	Public	Private	Shared
Design		✓	
Construction		✓	
Technology & Integration		✓	
Approval Process	✓		
Customer Acceptance		✓	
Right of Way Acquisition	✓		
Operations & Maintenance		✓	
Traffic & Revenue			✓*
Finance		✓	
Force Majeure	✓		
Inflation			✓

■ Proposed Payment Model - Overview

- PPP Co. finances construction cost of road via debt/bond.
- PPP Co. operates road and collects tolls.
- Government provides an ongoing annual subsidy payment to the PPP Co. over the life of the road.

*In case GOI takes toll revenue, risk can be born by Public.

Risk Allocation and Payment Mechanism of Option 5

■ Approach (Scenario 5-1) – PPP Co. Takes Demand Risk

Initial Construction

- PPP Co. borrows via debt/bond to fund entire construction cost of road

Operations and Maintenance

- PPP Co. has complete Operation and Maintenance risk for the toll road, including responsibility for toll collection:
- PPP Co. uses the collected tolls to offset O&M costs and repay equity. Depending on risk appetite of debt/bond providers for demand risk, could also be used to repay portion of debt/bond.

Operating Subsidy

- An ongoing operational subsidy is made by Government to the PPP Co. during the Operational phase:
- Payment from Government to PPP Co. could be funded by a long-term (30 – 40 yr) loan from facility into a project-specific BLU. Payments then made from BLU to PPP Co.;
- Amount of subsidy would be the amount needed to make Project viable (e.g. if overall subsidy required is US\$600 M (NPV), then operating subsidy would be US\$600 M (NPV)); and
- Operating subsidy, along with portion of collected tolls, would serve to repay debt/bond.

Risk Allocation and Payment Mechanism of Option 5

■ Approach (Scenario 5-2) – Government Takes Demand Risk

Initial Construction

- PPP Co. borrows via debt/bond to fund entire construction cost of road

Operations and Maintenance

- PPP Co. has complete Operation and Maintenance risk for the toll road, including responsibility for toll collection:
 - PPP Co. passes the collected tolls to Government; and
 - Tolls are placed into a project-specific BLU.

Operating Subsidy

- An ongoing operational subsidy is made by Government to the PPP Co. during the Operational phase:
 - Payment from Government to PPP Co. could be funded by a long-term (30 – 40 yr) loan from facility into a project-specific BLU, supplemented by deposits of toll revenue. Payments then made from BLU to PPP Co.;
 - Total amount of subsidy would be the total Project cost (e.g. total amount of debt and equity required to fund construction plus O&M cost);
 - Operating subsidy, along with portion of collected tolls, would serve to repay debt/bond; and
 - Payment to PPP Co. could be put at risk for poor performance of not meeting of technical and service standards. For example, if road not completed on time then no payment made to PPP Co. Further, if not maintained to desired standard then payment reduced. This mechanism can also be modified to have ~~PPP Co. assume an amount of demand risk.~~
-

Risk Allocation and Payment Mechanism of Option 6

Upfront and Ongoing Subsidy

Risk	Public	Private	Shared
Design		✓	
Construction		✓	
Technology & Integration		✓	
Approval Process	✓		
Customer Acceptance		✓	
Right of Way Acquisition	✓		
Operations & Maintenance		✓	
Traffic & Revenue			✓*
Finance			✓
Force Majeure	✓		
Inflation			✓

■ Proposed Payment Model - Overview

- Government makes initial subsidy payment to PPP Co. to reduce borrowing for construction to an amount supportable by tolls and the ongoing Operational subsidy.
- PPP Co. operates road and collects tolls.
- Government provides an ongoing annual subsidy payment to the PPP Co. over the life of the road.

*In case GOI takes toll revenue, risk can be born by Public.

Risk Allocation and Payment Mechanism of Option 6

■ Approach (Scenario 6-1) – PPP Co. Takes Demand Risk

Initial Construction

- PPP Co. borrows via debt/bond to fund entire construction cost of road

Operations and Maintenance

- PPP Co. has complete Operation and Maintenance risk for the toll road, including responsibility for toll collection:
 - PPP Co. uses the collected tolls to offset O&M costs and repay equity. Depending on risk appetite of debt/bond providers for demand risk, could also be used to repay portion of debt/bond.

Upfront Subsidy

- An upfront subsidy is made by Government to the PPP Co. during the Operational phase:
 - Payment from Government to PPP Co. could be funded by a long-term (30 – 40 yr) loan from facility into a project-specific BLU. Payments then made from BLU to PPP Co.;
 - Amount of subsidy would be the amount needed to make Project viable (e.g. if overall subsidy required is US\$600 M (NPV), then operating subsidy would be US\$600 M (NPV)); and
 - Operating subsidy, along with portion of collected tolls, would serve to repay debt/bond.

Risk Allocation and Payment Mechanism of Option 6

Operating Subsidy

- An ongoing operational subsidy is made by Government to the PPP Co. during the Operations phase:
 - Amount of subsidy would be a percentage of the amount needed to make Project viable (e.g. if overall subsidy required is US\$600 M (NPV), then operating subsidy might be US\$400 M (NPV)). Proportion of Initial subsidy versus Operating subsidy could be adjusted;
 - Portion of subsidy could be tied to PPP Co.'s performance, e.g. poor quality of maintenance could reduce size of subsidy paid to PPP Co.;
 - Subsidy could be funded out of MPW budget allocation or via depositing a portion of loan into a BLU from which it is then drawn down to fund Operating subsidy; and
 - Operating subsidy, along with portion of collected tolls, would serve to repay debt/bond.

Risk Allocation and Payment Mechanism of Option 6

■ .Approach (Scenario #2) – Government Takes Demand Risk

Operations and Maintenance

- PPP Co. has complete Operation and Maintenance risk for the toll road, including responsibility for toll collection:
 - PPP Co. passes the collected tolls to Government; and
 - Toll revenue is placed into a project-specific BLU.

Operating Subsidy

- An ongoing operational subsidy is made by Government to the PPP Co. during the Operations phase:
 - Payment from Government to PPP Co. could be funded by a long-term (30 – 40 yr) loan from facility into a project-specific BLU, supplemented by deposits of toll revenue. Payments then made from BLU to PPP Co.;
 - Total amount of subsidy would be the total Project cost (e.g. total amount of debt and equity required to fund construction plus O&M cost);
 - Operating subsidy, along with portion of collected tolls, would serve to repay debt/bond; and
 - Payment to PPP Co. could be put at risk for poor performance of not meeting of technical and service standards. For example, if road not completed on time then no payment made to PPP Co. Further, if not maintained to desired standard then payment reduced. This mechanism can also be modified to have PPP Co. assume a certain amount of demand risk.

APPENDIX 8-1

**WORK SHARING BETWEEN
THE PUBLIC SECTOR AND THE PRIVATE SECTOR**

Work Sharing between the Public Sector and the Private Sector

PU: Ministry of Public Works; DGH: Directorate General of Highways; BPJT: Toll Road Regulatory Board; PPP Co: PPP company (the private sector)

Works			Responsible Entity		Remarks
Top category	Sub Category	No	GOI	PPP	
Basic Conditions for Development	Road investment planning	1	✓		* PU plans toll road construction and defines ideal route.
	Government approval to implement the Project	2	✓		* PU increases awareness and understanding and acquire approvals from relevant government agencies and the parliament.
	Consensus building on development of toll road with national public	3	✓		* PU increases awareness and understanding of national public especially people who will be affected by the development of toll road.
	Establishing subsidy mechanism for funding of toll road	4	✓		* PU needs to take a necessary measures for establishing subsidy mechanism for the toll road funding which is economically feasible but not financially feasible.
	Establishing BLU or an escrow account for collecting toll revenue under PU	5	✓		* PU establishes BLU or an escrow account which can secure and retain toll revenues collected by the private sector separately from other budget.
Common issues	Other road network development connecting to Solo - Kertosono	6	✓		* Success of Solo - Kertosono toll road substantially depends on the integration with other part of Trans Java Toll Road network. * Development of alternative route will effect substantially on the traffic of the Project.
	Environmental and social regulation and monitoring	7	✓		* PU with Ministry of Environment will regulates and monitors environmental and social issues. * Major environment issues include noise, visual obstruction, emission of gas, air pollution, land acquisition and relocation of people. * Effective monitoring of implementation and penalty system are vital to enforce PPP Co. and the subcontractors.
	Executing environmental and social protection and meeting the regulation	8		✓	* PPP Co. and its subcontractors are required to comply with the environmental and social regulation.
	Monitoring the private sector's performance	9	✓		* Performance provided by PPP Co, would be controlled by PU through a project agreement with an appropriate payment mechanism and an effective monitoring system.
	Feasibility study	10	✓		* Feasibility study on Solo - Kertosono is prepared by PU.
	Identify scope of works and package tender documents	11	✓		PU and BPJT will identify scope of work for the public and the private sectors, structure of PPP, and prepare tender documents.
	Detail design	12		✓	* Detailed design is conducted by PPP Co. * Packaging design, construction, and operation enables more efficient operation in lower costs than traditional procurement.

Work Sharing between the Public Sector and the Private Sector

PU: Ministry of Public Works; DGH: Directorate General of Highways; BPJT: Toll Road Regulatory Board; PPP Co: PPP company (the private sector)

Works			Responsible Entity		Remarks
Top category	Sub Category	No	GOI	PPP	
Design and Construction	EIA	13	✓		* Environment Impact Assessment (EIA) is conducted by BPJT in line with feasibility study.
	Public funding	14	✓		* PU sets up subsidy scheme and ensures approvals from MOF, BAPPENAS and related government agencies on funding from the public sector.
	Executing public funding	15	✓		* MOF executes fund raising from borrowing and/or bond issuance and upfront and operating subsidy payments during the project period.
	Private funding	16		✓	* The private sector finances a part of initial capital costs.
	Funding and implementation of land acquisition	17	✓		* PU finances and implements land acquisition in a timely manner.
	Construction management	18		✓	* PPP Co conducts construction management.
	Construction work and its supervision	19		✓	* PPP Co conducts construction.
	Confirmation of construction completion	20	✓		* PU confirms completion of construction.
Operation	Patrolling	21		✓	
	Traffic control	22		✓	
	Emergency traffic control	23		✓	
	24 hours emergency response	24		✓	* PPP Co sets up a system for 24-hour emergency response.
	Clearance of accident vehicles and cleaning of toll road	25		✓	* PPP Co clears road surface and removes accident vehicles including broken vehicles. * Damaged toll road needs to be compensated by a person who caused an accident.
	Emergency care services	26		✓	* PPP Co. provides emergency care services on toll road with ambulance services.
	Toll collection	27		✓	* PPP Co collects toll from road users on behalf of PU. * Collected toll revenue is transferred to PU's bank account.
	Traffic monitoring, data collection and processing	28		✓	* PPP Co collects traffic data of the network in order to provide traffic information for users. (Ex. Counting traffic volume by vehicle detector)

Work Sharing between the Public Sector and the Private Sector

PU: Ministry of Public Works; DGH: Directorate General of Highways; BPJT: Toll Road Regulatory Board; PPP Co: PPP company (the private sector)

Works			Responsible Entity		Remarks
Top category	Sub Category	No	GOI	PPP	
	Providing traffic information to users	29		✓	* PPP Co provides information on traffic conditions of the network.
	Providing rest areas	30		✓	* PPP Co provides necessary rest areas for road users.
Maintenance and Upgrading	Road inspection	31		✓	* PPP Co conducts road inspection based on a project agreement.
	Cleaning	32		✓	* PPP Co conducts cleaning of toll road based on a project agreement.
	Planting	33		✓	* PPP Co maintains plants based on a project agreement.
	Road lighting	34		✓	* PPP Co provides maintenance of road lighting of the route base on a project agreement.
	Paving and lining	35		✓	* PPP Co conducts paving and lining based on a project agreement.
	Maintenance works	36		✓	* PPP Co conducts maintenance based on a project agreement.
	Rehabilitation works	37		✓	* PPP Co conducts rehabilitation based on a project agreement.

APPENDIX 8-2

**RISK SHARING BETWEEN
THE PUBLIC SECTOR AND THE PRIVATE SECTOR**

Risk Sharing between the Public Sector and the Private Sector

		What steps can mitigate/minimize the risk?	Main Risk Taker	
Lower Category	No	Mitigation Measures	GOI	PPP Co.
Political and Legislative Risks				
Deterioration of regional political stability and security	1	* The private sector will be entitled to terminate the contract if the government defaults. The government will pay compensation to the private sector.	✓	
Breach or cancellation of the contract	2	* The private sector will be entitled to terminate the contract if the government defaults. The government will pay compensation to the private sector.	✓	
Breach or cancellation of the contract	3	* PU will be entitled to terminate the contract if the private sector defaults. The private sector will pay compensation to the private sector.		✓
Expropriation	4	* Compensation from GOI	✓	
Strengthening the environmental policy and regulations	5	* Compensation from GOI	✓	
Changes of associated laws and strengthening related regulations	6	* Compensation from PU	✓	
Changes of general business laws (including taxation policy, accounting rules) and regulations	7			✓
Slow and delay in decision making, licensing and approvals by the government	8	* Depending on the approvals required, PU will provide compensation.	✓	
Cancel licensing and approvals given by the government	9	* Depending on the approvals required, PU will provide compensation.	✓	
Coordination failure between PU and the government	10	* Developing clear, efficient and transparent framework * The above issues are secured by the passage of new regulations or the amendment of related law	✓	
Government inability to meet its contractual obligations	11	* GOI commits to provide necessary guarantee in order to compensate default of the contractual obligations.	✓	
Acceptance from national public	12	* Setting public hearing process etc. on development of toll road.	✓	

		What steps can mitigate/minimize the risk?	Main Risk Taker	
Lower Category	No	Mitigation Measures	GOI	PPP Co.
Economic and Financial Risk				
Capital transaction restriction	13	* Private sector is free from capital transaction restriction, such as currency convertability, for operation	✓	
Exchange rate risks (devaluation of local currency, fluctuation of foreign currencies)	14	* Include hedging scheme against exchange rate risks, such as currency swaps, options		✓
Construction cost movement due to currency fluctuation	15	* PU bears cost increase due to currency fluctuation after a certain point.	✓	✓
Imported operational equipment and material cost movement due to currency fluctuation	16	* The private sector bears a certain amount/percentage in order to provide an incentive to minimize the risk. [This is a possible structure for risk sharing.]	✓	✓
Finance cost increase due to currency fluctuation	17	* PPP Co and PU prioritize local currency financing rather than foreign currency financing. * Utilization insurance or guarantee from multilateral or bilateral institutions.		✓
Interest rate fluctuation	18	* Introduce fixed rate loan and/or interest rate swaps to mitigate interest rate fluctuation. [It will be required to set out project scheme requires private fixed cost fundings only shorter than publicly available duration.]		✓
Construction cost increase due to Inflation	19			✓
Operation and maintenance cost increase due to Inflation	20	* Automatic tariff adjustment mechanism is introduced and additionally stipulated in the public road law. * The mechanism enable tariff to contain inflation.		✓
Force majeure (Natural disasters, political embargos, riot, wars, invasions and civil disturbance)	21	*GOI to compensate for private sector if it happens.	✓	
Insolvency of subcontractors, or members of consortium	22	* PU carefully examines financial positions of bidders in PPP bidding stage. * Substitution clause is necessary.		✓
Common Risk				
Force Majeure	23		✓	

		What steps can mitigate/minimize the risk?	Main Risk Taker	
Lower Category	No	Mitigation Measures	GOI	PPP Co.
Design Risk				
Faults in tender specification	24	* Require PU to provide a remedy or compensate a PPP Co.	✓	
Innovation	25	* Linking and consolidating design, construction and operation as much as possible as one package when PU considers to tender in order to encourage the private sector to apply their advanced know-how and innovative skills.		✓
Design contractor fault	26	* PPP Co will include provisions in the design contract requiring a PPP Co. to provide a remedy or pay damages (of insurance to cover).		✓
Design change due to Government	27	* If GOI asks for a PPP Co. to change design, GOI covers the cost increase.	✓	
Incorrect geotechnical assumptions at design stage based on the information provided by PU	28	* PU provides necessary information on geotechnical data. * In order to support design work, PU will coordinate with concerned organizations.	✓	
Delay in approval procedure (including EIA) leads to increasing costs	29	* Over half a year delay(what duration is appropriate?), PU would provide compensation.	✓	
Follow Government Regulation	30	* PPP Co. needs to follow government regulation on toll road designing		✓
Land Acquisition Risk				
Delay in land acquisition	31	* Adequate consultations with settlers from the early stage * Timely budget allocation * The process of land acquisition complies with related laws.	✓	
Delay in resettlement	32	* Adequate consultations with settlers from the early stage * Timely budget allocation * The process of land acquisition complies with related laws.	✓	
Claims and protest from settlers due to land acquisition	33	* Adequate consultations with settlers from the early stage * Enough compensation * PU law does not allow PU starting construction without completion of land acquisition and resettlement.	✓	

		What steps can mitigate/minimize the risk?	Main Risk Taker	
Lower Category	No	Mitigation Measures	GOI	PPP Co.
Construction Risk				
Completion risk with regard to not meeting specifications and design requirements	34	* Fixed amount contract for construction work with good record company. * Consolidating design, construction and operation as one package.		✓
Completion risk with regard to delay of construction	35	* Turnkey contract for construction work with good record company * Require liquidated damages from the turnkey contractor under the construction contract (sufficient to cover interest due to lenders and fixed operating costs). * Consolidating design, construction and operation as one package		✓
Cost increase due to contractor failure	36	* PPP Co will provide a fixed lump sum amount		✓
Cost increase due to changes in safety requirements	37	* <i>PU is responsible for requirements setting, and PU pays for the increase.</i> <i>[It will be required further discussion among GOI.]</i>	✓	
Cost increase due to change in environmental regulation	38	* <i>GOI/PU is responsible for regulation setting, and PU pays for the increase.</i> <i>[It will be required further discussion among GOI.]</i>	✓	
Problems with quality of labor, materials, and road to meet performance criteria	39	* Require liquidated damages payable by a PPP Co., supplemented by insurance.		✓
Problems with sub contractor	40	* Use own business relation, due diligence skill and conducting market survey.		✓
Defect liabilities	41	* Fixed amount contract for construction work with good record company * Linking and consolidating design, construction and operation as much as possible as one package when PU consider to tender.		✓

		What steps can mitigate/minimize the risk?	Main Risk Taker	
Lower Category	No	Mitigation Measures	GOI	PPP Co.
Adverse weather condition	42	* PU pays for some extent of cost increase due to adverse weather condition considered force majeure * PPP Co purchases applicable insurance.	✓	✓
Labor problems	43	* Good relationship with employees.		✓
Death or injuries on site	44	* The private sector insures workers accident insurance. * PPP Co purchases applicable insurance.		✓
Interference from third parties, e.g. protesters and NGOs, on route planning and toll road construction	45	* PU conducts public awareness campaign, implement land acquisition in good manner and enforce itself and private sector to meet environmental requirements. * PU represents to handle this issue if it occurs.	✓	
Traffic Demand and Revenue Risk				
Traffic volume is lower than expected	46	* Risk depends on extent of government support. Use of shadow toll, or minimum guarantee leaves the demand risk to the Government. * Accurate assessment is required on how users will react both to the presence of a new piece of road and to the application of a toll.	✓	✓
Failure of introducing toll system	47	* PU conducts public awareness campaign to get understanding from the national public under strong political commitment. * PU chooses reasonable tariff level and tariff system at the beginning.	✓	
Toll increases do not happen	48	* PU conducts public awareness campaign to get understanding from the national public under strong political commitment. * Tariff increase is in line with service level up such as installation of new routes.	✓	
Adversary affect of toll increase on traffic demand	49	* Risk depends on extent of government support. Use of shadow toll, or minimum guarantee leaves the demand risk to the Government.	✓	✓
Failure to improve local road access deters traffic	50	* PU coordinate closely with local governments.	✓	
Improvements in other competing roads reduce traffic	51	* PU coordinate closely with local governments.	✓	
Improvements in competing modes reduces traffic	52	* PU carefully assess effect from other transportation development in Java.	✓	
Change of network development plan	53		✓	
Nonpayment by toll road users	54	* To register and report dishonest nonpayment users to police and penalize them with cooperation from traffic police * Refusing dishonest nonpayment users entering toll road with effective law enforcement [It is required to consider who has the right for law enforcement.]	✓	✓

		What steps can mitigate/minimize the risk?	Main Risk Taker	
Lower Category	No	Mitigation Measures	GOI	PPP Co.
Operation and Maintenance Risk				
Labor cost increase	55	* Strengthening automation system to reduce labor work.		✓
Operation cost increase	56	* Entity in charge on concerned operation pays for cost increase. * Linking and consolidating design, construction and operation as much as possible as one package when PU consider to tender.		✓
Import cost increase (excluding exchange rate change)	57	* Entity in charge on concerned operation pays for cost increase.		✓
Change in level of services required by the government/PU	58	<i>[* It will be required to announce clear requirements and specifications of service from the bidding stage.]</i>	✓	
Demand decrease and cost increase due to unexpected weather	59	* Entity in charge on concerned operation pays for cost increase.	✓	✓
Non compliance with operation and maintenance requirements by private sector	60	* PU concludes and signs contracts, which states clear requirements and specifications of service, with private sector. * PU monitors performance done by a PPP Co. and adjustment revenue of private sector in response to the performance. * PU includes a penalty clause in the operating contract.		✓
Negative environmental impacts due to operation	61	* Entity in charge on concerned operation pays for cost increase.		✓

APPENDIX 11-1

INVITATION TO TENDER

INVITATION TO TENDER

IMPORTANT NOTICE

The Invitation to Tender Documents and any supporting information from the Data Room or elsewhere provided by the Departemen Pekerjaan Umum (the Department) are being made available only to those parties who have prequalified and have subsequently been invited to tender for the DBFO Contract. They are made available on condition that they are used in connection with the Tender and for no other purpose whatsoever.

Whilst the information in the Invitation to Tender Documents has been prepared in good faith, it does not purport to be comprehensive or to have been independently verified. The Department does not accept any liability or responsibility for the adequacy, accuracy or completeness of, or makes any representation or warranty, express or implied, with respect to, the information contained in the Invitation to Tender Documents or on which such documents are based, or with respect to any written or oral information made, or to be made, available to any interested recipient or its professional advisers, and any liability therefore is hereby expressly disclaimed.

The information contained in the Invitation to Tender Documents is being made available only to persons who are subject to the Confidentiality Agreement and recipients are accordingly bound by that agreement in respect of all information contained herein or otherwise made available. Save as specifically permitted by the terms of the Confidentiality Agreement, such information must not be copied, reproduced, distributed or passed to any other person at any time.

The Invitation to Tender Documents are not intended to provide the basis of any investment decision and should not be considered as a recommendation by the Department or the Government of Indonesia to any recipient of the Invitation to Tender Documents.

Nothing in the Invitation to Tender Documents is, or should be relied on as, a promise or representation as to the future. Neither the Department or the Government of Indonesia undertakes to provide the recipient with access to any additional information or to update the information in the Invitation to Tender Documents or to correct any inaccuracies which may become apparent. The Department reserves the right, without prior notice, to change the procedure for the Project competition or to terminate discussions and the delivery of information at any time before the signing of any agreement relating to the Project.

**TRANS JAVA ROAD PPP
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VOLUME 2: THE PROJECT AGREEMENT

[To be developed by the Legal Advisors in discussion with the Department and the Financial and Technical Advisors]

PART ONE GENERAL**1 Introduction**

- 1.1 These Instructions provide the details of the competition being conducted by the Department to select a private sector partner to enter into a DBFO Contract for the Road. The basis of the competition and the associated information is set out in the Invitation to Tender Documents which are listed in paragraph 2.1 to this Part One.
- 1.2 Part One of these Instructions provides general information in respect of the competition and the Invitation to Tender Documents. Part Two sets out the Instructions to Tenderers. Part Three contains the Guidance for Tenderers, which is intended to assist them in compiling the technical and commercial aspects of the Tender. Part Four sets out the information and requirements which are specific to this Project.
- 1.3 The Invitation to Tender Documents repeat some parts of the Prequalification Document issued in respect of the Project. They also incorporate additional material reflecting the development of the proposals and of the documentation since the Prequalification Document. In the case of conflict between the Prequalification Document and the Invitation to Tender Documents, the Invitation to Tender Documents shall take precedence.
- 1.4 The Tenderers which have prequalified for this Project are named in Section 2 of Part Four. The Tenderers are now invited to submit proposals to the Invitation to Tender Documents by the date stated in Section 8 of Part Four, drawn up in accordance with the Instructions to Tenderers in Part Two.
- 1.5 All Tenders will be treated on a confidential basis by the Department and its advisers.
- 1.6 The Department is keen to proceed with the competition as quickly as possible. The Department expects that it will hold discussions with the Tenderers during the Tender preparation period and that a period of progressively more detailed negotiations will be needed following the receipt of Tenders. **The Department expects to award on the basis of the Tenders submitted, and Tenderers should not assume that they will have the opportunity to revise their Tenders following the submission of Tenders.**
- 1.7 The Department reserves the right to make amendments to any of the Invitation to Tender Documents during the Tender preparation period and subsequent negotiations.
- 1.8 The membership of any Tenderer, and the principal relationships between the members, may be changed only with the prior consent of the Department. The Department reserves the right to determine whether or not to continue with the evaluation of a Tender, and whether or not to enter into a DBFO Contract with a Tenderer, where there has been a change in the ownership of the Tenderer (direct or indirect) or a change in the principal relationships between the members.
- 1.9 The point of contact for Tenderers will be:

[insert name of contact]
- 1.10 The Department's advisers for the competition are:

Financial: [insert name]

Legal: [insert name]

Technical: [insert name]

Design: [insert name]

2 The Invitation to Tender Documents

2.1 The Invitation to Tender Documents include:

- these Instructions and Guidance to Tenderers;
- [the proposed Trans Java DBFO Contract]; and
- the following schedules to the proposed Trans Java DBFO Contract (each a "Schedule"):
[These to be completed by Financial, Technical and Legal Advisors]
 - Financial Matters
 - Programme
 - Land
 - Construction and Handback Requirements
 - Quality Management
 - Operation and Maintenance
 - Representatives
 - Third Parties
 - Payments
 - Insurance
 - Force Majeure
 - Change
 - Records and Reports
 - Disputes Resolution Procedure
 - Liaison Procedures
 - Communications and Toll Collection Requirements
 - Penalty Points
 - Statutory Undertakers
 - Pre-Commencement Works
 - Security of the Site
 - Re-Financing

2.2 Information related to this Project is issued to Tenderers on CD-ROM. One copy of each CD-ROM will be issued to each Tenderer.

2.3 Further information relating to this Project may be made available for inspection by Tenderers or may be issued either by e-mail or by CD-ROM.

3 The Trans Java DBFO Contract

3.1 [Legal Advisor to complete]

4 Terminology

Words printed in bold are defined in the Model Contract, which should be referred to for precise definitions. Unless the context indicates otherwise, a reference in this Document to a Part is a reference to a Part of this Invitation to Tender.

5. The Model Contract

5.1 Introduction

5.1.1 The Invitation to Tender Documents include a Model Contract between the Department and the DBFO Co. The principal terms of the Model Contract are outlined below. The Department reserves the right to make amendments to the text of the Model Contract during the Tender preparation period and subsequent negotiations.

5.1.2 The Model Contract is based upon certain assumptions as to the nature of the DBFO Co and its contracting arrangements. These include assumptions that the DBFO Co is a Special Purpose Vehicle established for the Project, that there is a single contractor engaged by the DBFO Co which will be responsible for the construction of the Road and that there is a separate company responsible for operation and maintenance of the Project Road. If these assumptions prove to be incorrect consequential changes will need to be made to the Model Contract.

5.2 Contract Period

The Contract Period will be [xx] years from the Commencement Date.

5.3 The Project

5.3.1 The Model Contract requires the DBFO Co to design, construct and finance the Road and the Facilities and to operate and maintain the Project Facilities.

5.3.2 The DBFO Co must design and construct the Road and the Facilities in accordance with the Construction Requirements and Communication and Toll Collection Requirements.

Detailed development of the design shall be carried out in accordance with the Design and Certification procedure referred to in the Model Contract. In addition, the Model Contract includes procedures for changes to the Construction Requirements and Communication Requirements to be initiated either by the DBFO Co or by Department.

5.3.3 The operation and maintenance of the Road, after the issue of the Permit to Use, shall be carried out in accordance with the O&M Requirements and in such manner as to procure the satisfaction of the O&M Requirements. The DBFO Co may propose changes to the O&M Requirements following execution of the DBFO Contract, but any changes must be at least as effective in procuring the satisfaction of the O&M Requirements as the O&M Requirements before the change.

5.4 Land

5.4.1 Where Rights in respect of land are to be acquired to enable the DBFO Co to carry out its obligations under the DBFO Contract, the Department will have conduct of and be responsible for:

5.4.1.1 the acquisition of such Rights in respect of land; and

5.4.1.2 the negotiation and settlement of claims for severance and injurious affection in connection with such acquisitions.

5.4.2 Where no Rights in respect of land are to be acquired, the DBFO Co will have conduct of and be responsible for the negotiation and settlement of all claims for injurious affection and any other statutory compensation issues caused as a result of the Project Road.

5.4.3 The Department will own the land and rights acquired, but will grant rights of access to the DBFO Co via a [potentially a sub-lease at nominal value].

5.5 Risk

The Model Contract defines certain types of risk which the Department is willing to retain or share. These are summarised in Schedule [xx]. All other risks will be borne by the DBFO Co.

5.6 Representatives and Liaison

5.6.1 The Department's Agent will act as the Government's agent in relation to the design, construction, operation and maintenance of the Road and Facilities. The functions of the Department's Agent are summarised in Schedule [x] to the DBFO Contract.

5.6.2 The DBFO Co will be responsible for liaison with other highway authorities, police and other emergency services, other Relevant Authorities and third parties. Liaison procedures must be developed and agreed with relevant parties prior to commencing Operations.

5.7 Quality Assurance and Monitoring

5.7.1 The DBFO Co, the Designer, the Contractor, the Operator and other contractors and sub-contractors as appropriate will be required to have in place and operate quality systems in accordance with Quality Plans complying with [ISO 9000 series]. The content of the Quality Plans and the timetable for their adoption is set out in Part 3, Sub-Part B of this ITT. In addition, the DBFO Co will be required to appoint a Project Quality Director to exercise overall responsibility for quality assurance.

5.7.2 It is intended that the supervision of the DBFO Contract by the Department's Agent will be conducted largely through audits of the DBFO Co's quality systems. Defaults in performance may lead to the award of points under the Penalty Points system or, in the case of material breaches, Warning Notices, which may trigger increased levels of

monitoring at the DBFO Co's cost, certain other sanctions and ultimately termination.

5.8 Delay and Force Majeure

5.8.1 Where an event of Force Majeure has delayed the completion of the Road or has otherwise affected traffic congestion and safety levels on the Project Road, the DBFO Co may be entitled to an extension to the Contract Period. Where an event of Force Majeure has damaged the Project Facilities, [need Legal Advisor input]. Where the event of Force Majeure has a material effect on the performance of the DBFO Contract for a period longer than [need Legal Advisor input].

5.9 Change

For a detailed explanation of how the change procedure operates, see Part 3, Sub-Part C of this ITT.

5.10 Termination

The Department may terminate the DBFO Contract only on the occurrence of defined events of default by the DBFO Co. The DBFO Co may also terminate the DBFO Contract in limited circumstances, including [requires Legal Advisor input]. Either the Department or the DBFO Co may terminate the Contract in the event that an event of Force Majeure [requires Legal Advisor input].

5.11 Handback

5.11.1 On the expiry of the Contract Period, the Project Facilities must satisfy the Handback Requirements, which are set out in Schedule [xx] of the Model Contract. The Handback Requirements are largely defined by reference to the Residual Life of the various elements of the Project Facilities.

5.11.2 A joint inspection of the pavement and structures will be carried out approximately [five] years prior to the end of the Contract Period. A second inspection of all elements of the Project Facilities will be conducted approximately [xx] months prior to the expiry of the Contract Period. The works required to return the Project Facilities to the required handback standard and the programme for, and estimated cost of, those works will be agreed or determined by the Disputes Resolution Procedure. A proportion of DBFO Payments will be retained during the last five years of the Contract Period as security for the performance of those works.

5.12 Disputes Resolution Procedure

Schedule [xx] to the Model Contract sets out a two stage Disputes Resolution Procedure. Any Dispute may be referred by either party to an expert appointed on an ad hoc basis to deal with a particular dispute. The expert's decision will be final in a limited category of cases. However,

all other disputes may ultimately be referred to the courts for determination.

PART TWO INSTRUCTIONS TO TENDERERS

1 General

- 1.1 These Instructions inform Tenderers of the form and content of Tenders which are invited and the timetable and other administrative arrangements for the Tender process. These Instructions will not form part of any subsequent contract.
- 1.2 Each Tenderer is required to submit a Standard Bid as defined in Sub-Part D of Part Three. [Tenderers are also encouraged to submit Variant Bids. Variant Bids will not be considered unless the Tenderer also submits a Standard Bid. Need discussion with Department and Legal and Financial Advisor]
- 1.3 All Tenders and supporting documents must be in [English and Bahasa].
- 1.4 A summary of the submissions which are required during the Tender preparation period is provided in Section 8 of this Part Two.
- 1.5 A checklist of the information/documents which are to be submitted with the Tender is provided in Section 9 of this Part Two.

2 Information Issued to Tenderers

The attention of Tenderers is drawn to the information which is issued to Tenderers by e-mail or on CD-ROM.

3 Arrangements for Liaison, Site Inspections and Surveys

3.1 Liaison

Tenderers must communicate only with the person identified in Section 7 of Part Four regarding liaison with Interested Parties, site surveys, inspections, and investigations during the Tender preparation period.

3.2 Surveys, Inspections and Investigations

- 3.2.1 Tenderers are invited to notify the Department of any requirements for surveys, inspections and/or investigations which they would like executed as part of a joint survey/inspection/investigation during the Tender preparation period. Such notice should be submitted no later than 4 weeks after the issue of this Invitation to Tender. If there is any request for such joint survey/inspection/investigation, it will be organised by the Department.
- 3.2.2 The extent of these surveys/inspections/investigations and any associated tests to be carried out shall be agreed in advance with the Department, the survey/inspection/investigation contractor and each Tenderer. The total cost(s) of the joint survey/inspection/investigation shall be met by the Tenderers on a basis to be agreed.
- 3.2.3 Tenderers may carry out independent surveys, inspections and investigations at their own cost but will be required to co-ordinate their field work via the Department to ensure that inconvenience to landowners, tenants and road users is kept to a minimum.

- 3.2.4 Tenderers must make their own interpretation of any factual report and will be held to have satisfied themselves as to the nature of the matter surveyed, inspected or investigated and the sufficiency of their Tender.

4 Amendments to Invitation to Tender Documents

- 4.1 As necessary, during the Tender preparation period the Department will issue an ITT Circular.
- 4.2 The Circular will contain details of any amendments to the Invitation to Tender Documents together with any further information which may assist the Tenderers in the preparation of their Tenders. If for any week there are no amendments to be made or further information to be imparted, then no Circular will be issued.

5 Tender Enquiries and Communications

- 5.1 Tenderers should note the following procedure for obtaining further information, approval of proposals or clarification on all matters arising during the Tender preparation period.
- 5.2 All communications by the Tenderers other than those specified in paragraph 3.1 above must be in writing and addressed to the person identified in paragraph 1.11 of Part One. Each communication should clearly state that it relates to the [Trans Java PPP Project].
- 5.3 During the Tender preparation period Tenderers may submit queries through a formal query procedure. Tenderers may view some of these queries as confidential, particularly if they believe that the release of the query to other Tenderers may reveal an innovative approach. The following procedure will be adopted:
- 5.3.1 If a Tenderer believes that a query is of a confidential nature then it must be marked as confidential.
- 5.3.2 If the Department considers, in its absolute discretion, that it is able to answer the query on a confidential basis, then it will do so.
- 5.3.3 If the Department considers, in its absolute discretion, that it is unable to answer the query on a confidential basis, then it will notify the Tenderer of its decision and the Tenderer will have the opportunity to withdraw the query.
- 5.3.4 If the Tenderer does not withdraw the query then the query and its answer will, where appropriate, be released to all Tenderers in an ITT Circular.
- 5.4 The Department will organise a seminar for Tenderers during the Tender preparation period to explain the Payment Mechanism and elements of the contract. It is presently expected that the seminar will be held during [xxxx 200x].
- 5.5 Tenderers may also request bilateral meetings with the Department during the Tender preparation period to clarify project specific points within the Invitation to Tender Documents.
- 5.6 If requests for further information or clarification are received within [xx] weeks after the issue of this ITT, the Department undertakes to respond no later than [xx] weeks after the date of such issue. All requests for further information or clarification must be made by Tenderers no later than two weeks before the latest date for submitting Tenders.

6 Submission of Tenders

6.1 Tenderers are responsible for ensuring delivery of Tenders.

6.2 Tenders should be submitted in three parts, namely:

6.2.1 Commercial;

6.2.2 Technical; and

6.2.3 Financial.

Only the financial part should contain pricing information. A checklist of Tender documents showing which documents should be in which part is included in Section 9 of this Part Two.

6.3 Each part of the Tender should be packaged separately and its cover marked with the following details:

6.3.1 Project Title;

6.3.2 Tenderer's Name;

6.3.3 Standard or Variant Bid; and

6.3.4 Commercial, Technical or Financial Part.

6.4 The required number of copies of all documents within each part of the Tender is identified on the checklist in Section 9 to this Part Two. Each document should be marked "Copy No 1" etc and all documents with the same copy number should be collated in an envelope within each part.

6.5 The envelope containing each copy within a part of the Tender should be marked as follows:

6.5.1 Project Title;

6.5.2 Tenderer's Name;

6.5.3 Standard or Variant Bid;

6.5.4 Commercial, Technical or Financial Part; and

6.5.5 Copy Number.

6.6 The Standard Bid and any Variant Bids should be packaged separately. Variant Bids should be designated Variant Bid A, B, C etc as appropriate.

6.7 All documents should be bound, either singly or with several documents bound together. The Tender should not include any loose papers.

6.8 Tenders should be addressed to:

[xxxxx]
[xxxxx]
[xxxxx]
Jakarta, Indonesia

For the attention of: [xxxxxxxx]
Tel: [xxxx]
Fax: [xxxx]

6.9 Tenders must arrive no later than [5 pm] on the date stated in Section 8 of Part Four.

7 Evaluation of Tenders

7.1 The DBFO Contract will be awarded under [quote any applicable legislation/policy/etc]. It will be awarded on the basis of the most economically advantageous offer.

7.2 The Tenders will be checked initially for compliance with this ITT and for completeness. Clarification may be sought from Tenderers in order to determine if a Tender is complete and compliant. Tenders which are not substantially complete and/or compliant with these Instructions to Tenderers may be rejected.

7.3 An indicative timetable from issue of ITT to Tender submission and an indicative timetable from Tender submission to contract execution are set out below. These timetables and any revisions thereto or further timetables notified prior to contract execution are for the benefit of the Department and may be changed without prior notice by the Department.

Indicative timetable from issue of these Instructions and Guidance to Tenderers to Tender submission:

Period within which described action should be completed from date of issue of this ITT	Description
[x] weeks	Submission of Tenderers' requests for joint surveys, inspections and investigations
[x] weeks	Deadline for Tenderers' requests for further information or clarification
[x] weeks	Submission of any substantial variations from the Department's illustrative Construction Requirements
[x] Weeks	Response to Tenderers' clarification requests
[xx]	Submission of Tenders

Indicative timetable from Tender submission to contract execution:

Tenderers	Period within which described action is expected to be completed from date of Tender submission	Description
All	[x] weeks	Clarifications/ Negotiations
-	[xx] weeks	Provisional Preferred Tenderer selected
Provisional Preferred Tenderer	[xx] weeks	Preferred Tenderer confirmed
Preferred Tenderer	[xx] weeks	Contract award

- 7.4 Details of the Tender evaluation criteria are provided in Sub-Part E to Part Three of these Instructions and Guidance to Tenderers.
- 7.5 The Department does not bind itself to accept the Tender with the lowest projected DBFO Payments or any Tender.

8 Summary of the Submissions Required During the Tender Preparation Period

Part	Description	Submission required within the period stated below from date of issue of this ITT	No. of copies to be submitted
Two	Joint surveys, inspections and investigations	[x] weeks	x
Two	Request for further information or clarification	[x] weeks. Late requests up to [x] weeks before the Tender return date will be accepted but response may not be issued before Tender submission date.	x

9 Checklist for Tenders [this requires significant input from Technical, Financial and Legal Advisors]

Item	Technical (eight copies)
	Description
T1	Proposals for Construction Requirements - General
T1.1	Proposals for Construction Requirements
T1.2	Specification Appendices
T2	Proposals for Construction Requirements - Structures
T2.1	Outline General Arrangement Drawings
T2.2	[Other]
T3	Proposals for Construction Requirements – Environmental
T3.1	Treatment of Existing Vegetation
T3.2	Landscaping proposals
T3.3	Ecology proposals
T3.4	Archaeology proposals
T4	Proposals for Operation and Maintenance
T4.1	Proposals for O & M Requirements
T4.2	Landscaping and ecology proposals
T5	Operations Plans
T5.1	Proposed Annual Performance Targets and DBFO Co's 5 Year Management Plan
T6	Quality Management
T6.1	Draft Quality Manual
T6.2	Third Party Registration [ISO?]
T6.3	Description of procedures to be adopted
T6.4	Other DBFO Co Quality Documentation
T6.5	Outline Contractor Quality Documentation
T6.6	Outline Designer Quality Documentation
T6.9	Proposed Specialists together with details of qualifications and

Item	Technical (eight copies)
	Description
	experience:
T6.9.1	Name and terms of appointment of Designer
T6.9.2	Name and terms of appointment of Checker
T6.9.3	Archaeologist
T6.9.4	Landscape Architect
T6.9.5	Landscape Manager
T6.9.6	Ecologist
T6.9.7	Name and terms of appointment of Testing Contractors and specialists
T6.9.8	Monitoring System Contractor
T6.9.10	Traffic Control, Toll Collection and Communications Testing Contractor
T6.9.11	[requirements]

Item	Technical (eight copies)
	Description
T7	Communications Proposals
T7.1	Traffic control and communications proposals
T7.2	Toll System Technology proposal
T7.2	Details of proposed payment mechanism Monitoring Equipment
T8	Traffic Forecasts
T8.1	Traffic Forecasts
T8.2	Description of procedures adopted for forecasts
T8.3	Statement of key inputs and outputs
T8.4	Statement of main additional data used in forecasts

Item	Commercial (eight copies)
	Description
C1	Anti-Collusion Statement
C2	Profile of DBFO Co <ul style="list-style-type: none"> • Name • Corporate structure • Certificate of Incorporation (if available) • Memorandum and Articles of Association (if available) • Capital structure, inc. rights & obligations of each class of capital • Shareholders' Agreement • Breakdown of equity ownership at time of Tender and any changes envisaged • Names and addresses of shareholders • Organisation chart • Latest audited accounts or date when first audited accounts should be available • Latest audited accounts of shareholders' parent and ultimate parent companies • Names and addresses of advisers • Certified copies of board minutes approving contents of Tender • Report or reports specifying any and all changes to material supplied in response to Prequalification Document
C3	Principal Contractual Arrangements
C3.1	Description of key contracts and organisation charts
C3.2	Details of each contractor and principal subcontractor
C3.3	Details of major projects undertaken in last 5 years
C3.4	Details of key design and/or construction contractors and subcontractors
C3.5	Details of design and construction contracts and subcontracts
C3.6	Programme
C3.7	Details of Operator and subcontractors
C3.8	Details of O & M contracts and subcontracts

Item	Commercial (eight copies)
	Description
C3.9	Liaison Procedure proposals
C3.10	List of other potential subcontractors and details of contractual arrangements
C4	Financial Structure
C4.1	Detailed financing plan
C4.2	Details of sources of finance
C4.3	Details of extent of support from each counterparty
C4.4	Principal terms and conditions for each source of finance
C4.5	Details of equity components
C4.6	Details of each loan facility or debt instrument together with a detailed timetable
C4.7	Level of contingency finance and parties providing it
C4.8	Details of working capital requirements and how they will be met
C4.9	Description of flexibility of funding arrangements
C4.10	Terms and conditions of any expected refinancing
C4.11	Board minutes in respect of equity
C4.12	Letter in respect of third party equity (if applicable)
C4.13	Letters in respect of degree of confidence that debt funding can be arranged
C4.14	Letter re debt funding achievable and financing proposals sufficient
C4.15	Proposals regarding insurance (on Insurance Form)
C5	Variant Bids
C5.1	Details of each change to the terms of the Standard Bid outlining the effect of each variation

Item	Commercial (eight copies)
	Description
C5.2	Details of any proposed variations to the Model Contract
C6	Partnering
C6.1	Details of proposed partnering arrangements

Item	Financial (five copies)
	Description
F1	Form of Standard Bid
F1.1	Key dates
F1.2	Interest rate assumptions (including reference interest rates)
F1.3	Proposed adjustment for different interest rates
F1.4	Proposed mechanism to adjust for different inflation rates at Contract execution
F2	[Other]
F3	Financial Model
F3.1	Financial projections on annual basis from the Commencement Date until two years after the end of the Contract Period: CD-ROM (two copies) and a hard copy printout for each bid and alternative under the Standard Bid and for each Variant Bid
F3.2	Full description of assumptions
F3.3	Summary of key financial information
F3.4	Financial Statements
F4	General Requirements
F4.1	Structure and timing of payments
F4.2	On-cost multiplier for acting as managing agent
F4.3	Cost estimates of design and construction desegregated under the sub-headings provided for capital expenditure
F4.4	Cost estimates of operation and maintenance of the Road disaggregated under the sub-headings provided for O & M expenditure.
F4.5	Proposed methodology or procedure for measuring quantum of change in the Congestion Management Payments.

PART THREE GUIDANCE TO TENDERERS

INTRODUCTION

This Part Three sets out the information which Tenderers need in order to compile the technical and commercial aspects of the Tender.

Sub-Part A describes the Department's approach to Contract Management.

Sub-Part B explains the technical proposals to be submitted. It also outlines the procedures for quality management and the Department's requirements for traffic control and communications, operation, maintenance, landscaping, archaeology and ecology, and handback at the end of the Contract Period.

Sub-Part C describes the principal commercial terms. These include payment mechanisms, risk transfer, risk sharing in the event of changed circumstances or changed technical requirements, tax, insurance and the requirements for guarantees.

Sub-Part D contains an explanation of the Standard Bid which each Tenderer is required to submit [and of the scope for Variant Bids]. It also includes the detailed requirements for the Financial Model. This model will be used to present the Tenderer's financial projections and financing proposals and will eventually become the Financial Model for the purposes of the DBFO Contract.

Sub-Part E describes the methodology which will be used for the evaluation of Tenders.

PART THREE GUIDANCE TO TENDERERS**SUB-PART A: EXPLANATION OF CONTRACT MANAGEMENT REQUIREMENTS****1. Introduction**

1.1 The Department attaches significant importance to achieving and demonstrating the provision of a good, safe, reliable and responsive service to those travelling on and affected by the Road, at a cost that represents value for money. The Department recognises that to achieve this throughout the DBFO Contract Period, close and real co-operation between the Department and the DBFO Co is essential. The Department therefore intends to promote and encourage a partnering style of working that will lead both parties towards achieving continuous improvements in the value of service delivered. The Department invites the DBFO Co to jointly adopt and develop the following two principles:

- Partnering
- Management Plan

1.2 The two principles are designed to be complementary and aimed to draw upon the strengths of each party to identify and achieve mutual goals.

2. Partnering

2.1 It is a requirement of the Model Contract that the Department and the DBFO Co shall deal fairly, in good faith and in mutual cooperation with one another and with Interested Parties.

2.2 It is recognised that this will require partnering. Successful partnering will require considerable efforts by the parties, especially in the initial stages when it may be necessary to employ facilitators at various levels to assist in developing the right relationship.

2.3 Tenderers are required to submit proposals on how partnering with the Department and Interested Parties could be successfully introduced and the extent to which other interested third parties such as the Contractor, Designer, Operator, specialist advisers and Relevant Authorities should be involved.

2.4 Such proposals should also:

2.4.1 demonstrate the Tenderer's understanding of the benefits that such partnering will bring to the contract;

2.4.2 demonstrate the extent of its commitment to such partnering;

2.4.3 identify the steps needed to implement such partnering; and

2.4.4 detail any previous partnering experience.

2.5 The adoption of this partnering approach will not change the legal relationship of the parties to the contract nor relieve any party from its obligations under the DBFO Contract.

3. 5 Year Management Plan

- 3.1 The Department consider it necessary not only to achieve continuous improvement but to demonstrate and be accountable for these achievements to the public. In accordance with the DBFO Contract, the DBFO Co is therefore required, at the beginning of each Contract Year, to prepare a 5 Year Management Plan for the management and operation of the Project Facilities.
- 3.2 The Management Plan shall include, without limitation the following:
 - 3.2.1 5 Year Performance Indicators to cover, without limitation, the areas identified in [the DBFO Contract].
 - 3.2.2 each 5 year Performance Indicator shall be assigned a 5 Year Performance Target, a Minimum Performance Level and an Annual Performance Target;
 - 3.2.3 an implementation plan setting out the resources (including management resources) and activities necessary to achieve the DBFO Co's 5 Year Performance Targets;
 - 3.2.4 details of existing or proposed arrangements for measuring and monitoring the DBFO Co's performance in relation to the DBFO Co's 5 Year Performance Indicators.
- 3.3 The 5 Year Management Plan should take into account the Department's currently published operational objectives, relevant interested third party views and Good Industry Practice.
- 3.4 [The DBFO Contract] requires that the DBFO Co shall publish an Annual Performance Report which shall report on:
 - 3.4.1 the DBFO Co's performance during the Contract Year against the targets set out in the DBFO Co's 5 Year Management Plan;
 - 3.4.2 details of Annual Performance Targets and how they shall be met;
 - 3.4.3 statistics of personal injury accidents, including accident severities; and
 - 3.4.4 information on planned lane closures during the current Contract Year.
- 3.5 This Annual Performance Report shall be provided to the Department free of charge.
- 3.6 The Department expects that the DBFO Co shall take an active role in developing new ideas for improving the level of service to Users and for implementing new initiatives that are consistent with Government transport policies. In order to achieve this, the Department expects the DBFO Co to hold regular (as a minimum, annual) consultations with interested parties, such as local authorities, community groups and businesses, and local transport bodies.
- 3.7 The DBFO Co's 5 Year Performance Indicators shall be selected to cover the full range of service delivery including areas covered by express contractual requirements (for example 'Response to Incidents'). Where the DBFO Co's 5 Year Performance Indicators cover items that have an express standard of performance level, the Minimum Performance Level and the

DBFO Co's 5 Year Performance Target levels shall not be lower than such standard.

- 3.8 The Department requires a Minimum Performance Level to be set against each DBFO Co's 5 Year Performance Indicator. The DBFO Co must ensure that these levels are met. Failure to meet the Minimum Performance Levels may lead to the award of Penalty Points.
- 3.9 Except under exceptional circumstances, the DBFO Co's 5 Year Performance Targets and the Minimum Performance Levels must not reduce from one year to the next.
- 3.10 At the beginning of each Contract Year, the DBFO Co's proposed 5 Year Management Plan shall be submitted by the DBFO Co for review by the Department. The 5 Year Management Plan will be reviewed against the criteria set out [in Schedule xx]. Should the plan fail to meet any of the criteria then it may be rejected and returned to the DBFO Co, with reasons for the rejection.
- 3.11 Where a 5 Year Management Plan is returned to the DBFO Co, as 'rejected', the DBFO Co shall address the areas that are deemed to be unacceptable and re-submit a compliant Plan within the timescales set out in [Schdule xx]. Failure to submit a compliant 5 Year Management Plan may lead to the award of Penalty Points.

SUB PART B EXPLANATION OF TECHNICAL REQUIREMENTS**1 Proposals for Construction Requirements**

- 1.1 The Department encourages innovation by Tenderers in the formulation of their proposals for design and construction within the constraints described in the Invitation to Tender Documents.
- 1.2 Clause [x] of the DBFO Contract will contain the Construction Requirements.
- 1.3 The Core Construction Requirements contain certain important general principles such as [compliance with the requirements of the Government of Indonesia, Environmental Requirements, etc. etc., together with certain key design aspects for the Road].
- 1.4 It will be for Tenderers to submit with their Tenders their proposals for the Construction Requirements, including without limitation their proposals for design and specifications. The successful Tenderer's proposals, when agreed following negotiation, will form the Construction Requirements for the DBFO Contract and will be set out in [Schedule xx].
- 1.5 The Construction Requirements in the DBFO Contract will contain the full standards, specifications and requirements for design and construction agreed between the Department and the successful Tenderer. The Construction Requirements must comply with, and ensure achievement of, the Department's Construction Requirements.
- 1.6 Tenderers are provided, as part of the Invitation to Tender Documents, illustrative Construction Requirements which contain design and construction standards, specifications and (in some cases) key design information which the Department considers may satisfy the Department's Construction Requirements. Tenderers may make use of and/or adopt the whole or any part of the illustrative Construction Requirements, but are not obliged to do so. They are free to propose alternatives.
- 1.7 Where Tenderers propose alternative standards, specifications or designs to those contained in the illustrative Construction Requirements, the Department will review and determine the acceptability of these using as a benchmark the corresponding standards, specifications and (if any) designs in the illustrative Construction Requirements. The Department requires the Construction Requirements proposed by Tenderers to be no less effective at delivering the Construction Requirements than the illustrative Construction Requirements would be.

- 1.8 The illustrative Construction Requirements are found in [Schedule xx] . They include:
- the Department’s [Design Manual for Roads and Bridges]; and
 - [other Department requirements and specifications, etc].
- 1.11 Tenderers adopting the illustrative Construction Requirements [and/or Existing Design] or any part of them must accept full responsibility for them. The Department shall not have any responsibility or liability in respect of them, and gives no representation or warranty in respect of them. Tenderers are referred to the Important Notice at the beginning of this document and to the exclusions of liability and the indemnities in the Model Contract.
- 1.12 The Department appreciates the need to avoid the expense and wasted time caused by Tenderers developing alternatives to the illustrative Construction Requirements which are not technically acceptable to the Department. Accordingly the Department requires Tenderers to submit significant alternatives to the illustrative Construction Requirements for review and comment by the Department during the Tender preparation period. It will be for Tenderers to demonstrate that alternatives proposed satisfy the Department requirements as explained above.

2 Review During the Tender Preparation Period of Tenderers' Proposals for the Construction Requirements

2.1 General

- 2.1.1 There will be situations where features of the site, innovation of design, construction methods or materials might make it advantageous to depart from a Department’s standard or specification in a way which will secure value for money, and environmental and/or operational benefits, without compromising safety, design life or the Department’s undertakings and commitments.

2.2 Departures from Standards

- 2.2.1 "Departure from Standards" means one of, or a combination of, the following:
- Type (i) the use of technical design directives other than those in the Department’s Specifications;
 - Type (ii) the use of technical specifications for materials or workmanship other than those in Department’s Specifications;
 - Type (iii) the use of a set of requirements (additional criteria) for any aspect of the Works for which requirements are not given in the Department’s Specifications currently in force;
 - Type (iv) the use of a technical design directive or technical specification in a manner or circumstance which is not permitted or provided for in such directive or specification.
- 2.2.2 Tenderers may seek opportunities for Departures from Standards where it can be

shown that the safety of the road user, operational effectiveness and design life are not compromised and that the Construction Requirements would still be satisfied.

2.3 Submission of Departure Reports

- 2.3.1 Departures from Standards should be submitted via "Departure Reports". With each Departure Report, (Either A – Design, B – Specification or C - Structures) the Tenderer shall complete and return a Departures from Standards form. The Tenderer shall identify each Departure with a unique reference number. In all subsequent correspondence/meetings the Departure shall be referred to by such reference number. Where the same Departure is utilised at different locations/situations the Tenderers should note that the uniquely referenced Departure is to be provided for each different location or situation.
- 2.3.2 A Tenderer who proposes a Departure from Standards of type (i) or (ii) in paragraph 2.2.1 above must advise the Department as soon as possible and submit a Departure Report no later than [xx] weeks after the issue of this Document.
- 2.3.3 A Tenderer who proposes a Departure from Standards of type (iii) or (iv) as described in paragraph 2.2.1 above should submit a Departure Report no later than [xx] weeks after issue of this Document.
- 2.3.4 A decision on an application for a Departure from Standards will be reached after a full assessment of the evidence provided by the Tenderer in the Departure Report. Tenderers must note that a comprehensive submission is essential.
- 2.3.5 The benefits and disbenefits of the proposals in a submission will be evaluated. Due account will be taken of the inter-relationship between design and materials and workmanship and the need to demonstrate an integrated approach (in the use of tolerances and factors of safety, for example).
- 2.3.6 A decision will be given within the shortest possible timescale depending on the nature and scale of the submission. Provided that a Tenderer submits the Departure Report within the timescales stated in paragraphs 2.3.2 and 2.3.3 above, the Department intends to notify the Tenderer of the acceptability in principle of Departures from Standards within [xx] weeks.
- 2.3.7 With the Tender, Tenderers must submit a copy of each Departure Report which was submitted during the Tender preparation period and accepted by the Department. Where applicable, such Departure Reports shall take into account any relevant comments made by the Department during the Tender preparation period.

2.4 Technical Appraisal of Highway Structures

- 2.4.1 All proposals for the design and construction of highway structures are subject to technical appraisal by the Department's Technical Advisor (TA). Technical appraisal during the Tender Period entails an assessment of the Tenderers' proposals for the Construction Requirements.

2.4.4 The Department will arrange for all necessary consultations, including with [insert relevant planning and approval Authorities] as appropriate, in matters relating to structures.

3 Design and Certification Procedure - Review Procedure

- 3.1 Further important aspects of the DBFO Co's obligations relating to design and construction are contained in the Design and Certification Procedure set out at [Schedule xx] and the Review Procedure set out at [Schedule xx]. They are important in relation to preparation, checking, review and certification of the detailed design developed for the DBFO Co after the DBFO Contract is entered into, and for ensuring that construction is in accordance with the certified design. Certification of other aspects of compliance with the DBFO Contract is also required.
- 3.2 Certain aspects of the detailed design, notably structures, must be submitted to an independent Checker for a full independent review and audit of the design. The Checker must have no function in the Project other than as Checker, must have no shareholding in the DBFO Co and must be employed directly by the DBFO Co. The terms of appointment of the Checker must be submitted to the Department with the Tender and must not be varied without the approval of the Department. The Checker shall issue appropriate certificates to the DBFO Co and to the Department.
- 3.3 The Department requires the DBFO Co to appoint independent testing contractors to carry out all tests which it is required to perform under the DBFO Contract. The terms of appointment of the testing contractors must be submitted to the Department with the Tender and must not be varied without the approval of the Department.
- 3.4 The Design and Certification Procedure and the Review Procedure will, after completion of the Road, continue to apply to construction carried out in connection with maintenance and improvement works during the Contract Period.

4 Operation and Maintenance

- 4.1 Schedule [x] of the DBFO Contract will contain the Core O&M Requirements.
- 4.2 The Core O&M Requirements contain certain important general principles. The paramount principles are to secure the safety of users of the Road and to preserve the ability of the Department to exercise its statutory functions in relation to the Road. Further principles include quick response to emergencies and safeguarding the environment.
- 4.3 It will be for Tenderers to submit with their Tenders their proposals for the O & M Requirements. The successful Tenderer's proposals will form the O & M Requirements for the DBFO Contract and will be set out in [Schedule x].
- 4.4 The O&M Requirements in the DBFO Contract will comprise the standards, specifications and procedures for operation and maintenance agreed between the Department and the successful Tenderer following negotiations. The DBFO Co will be obliged to comply with these. The O&M Requirements must comply with, and ensure achievement of, the Core O&M Requirements.

- 4.5 In order to assist Tenderers, illustrative O&M Requirements are included as [Schedule x] and contain operation and maintenance standards, specifications and procedures which the Department considers could satisfy the Core O&M Requirements. Tenderers may make use of and/or adopt the whole or any part of the illustrative O&M Requirements, but are not obliged to do so. They are free to propose any alternatives which they consider would enable them to submit a more attractive Tender, subject to compliance with the Core O&M Requirements.
- 4.6 Where Tenderers propose alternative standards, specifications or procedures to those contained in the illustrative O&M Requirements, the Department will review and determine the acceptability of these using as a benchmark the corresponding standards, specifications and procedures in the illustrative O&M Requirements. The Department requires O&M Requirements proposed by Tenderers to be no less effective at delivering the Core O&M Requirements than the illustrative O&M Requirements would be. Any alternatives must be developed to at least the same degree of detail as the illustrative O&M Requirements.
- 4.7 In view of the length of the Contract Period, it will be necessary to make provision for changes to the O&M Requirements to reflect improvements from time to time in operation and maintenance methods and standards. After Completion, the DBFO Co will use standards current at the time of the operations taking place, the procedures for implementing these standards will be issue an early stage during the tender period.
- 4.8 Tenderers shall submit with the Tender their proposals in respect of:
- routine maintenance (excluding structures);
 - routine maintenance (structures);
 - pavement (structural) maintenance;
 - other assessment, maintenance, strengthening and upgrading of structures;
 - Monitoring System;
 - Toll Collection System; and
 - response to emergencies.
- 4.9 Tenderers must also include in their Tenders proposed Annual Performance Targets for the first Contract Year and a proposed DBFO Co's 5 Year Management Plan for the first 5 years of the Contract Period. For purposes of the Tender, the proposed DBFO Co's 5 Year Management Plan should take into account Good Industry Practice and the Department's currently published operational objectives, including without limitation as reflected in the following:
- [insert any Department or Government directives, guidance, etc].

5 Quality Management

- 5.1 The provisions in respect of quality management are contained in [Schedule xx] of the Model Contract (the "Quality Management Provisions").

5.2 The Quality Management Provisions require the DBFO Co to establish and maintain a Quality Management System complying as a minimum with [quality standard] and to submit Quality Documentation describing this Quality Management System under the Review Procedure.

5.3 The Quality Management Provisions also require the DBFO Co to procure that:

- the Contractor;
- the Designer;
- the Operator; and
- the other parties carrying out the Operations

establish and maintain Quality Management Systems which as a minimum comply with the relevant part of the [quality standard] series.

5.4 With their Tender, Tenderers are required to submit outline Quality Documentation which describes the Quality Management Systems to be implemented or invoked by the DBFO Co to undertake the activities included in the Model Contract. This outline Quality Documentation for the DBFO Co shall as a minimum include (or reference the location in their Tender of) the following information:

- a draft quality manual covering the requirements of [quality standard];
- a description of each of the written procedures which will be followed to ensure the effective management of the DBFO Co's activities for the design, building, financing and operation of the Project;
- other Quality Documentation (which shall include a quality plan or plans which follow [quality standard]) describing in outline how the requirements of the Department will be met, which shall include:
 - a figure showing proposed main contractual arrangements;
 - a matrix or other means of identifying responsibilities of the DBFO Co and its contractors in relation to the Model Contract;
 - details of the organisational structure to cover the activities described in the Model Contract and lines of communication with other parties;
 - details of the DBFO Co Quality Director with defined authority for establishing, maintaining and reporting on the Quality Management Systems of the DBFO Co and its contractors;
 - details of the DBFO Co Quality Director's supporting staff and the particular arrangements for auditing and management review;
 - job descriptions for the key DBFO Co staff and the specific experience required for these positions (identifying which, if any, staff will be part time) (CVs should also be submitted to illustrate the capability of key staff);
 - a description of the DBFO Co's proposed liaison and document control arrangements;

- a description of the DBFO Co's proposed quality control arrangements including hold points and testing arrangements;
 - details of the measures for monitoring the performance targets contained in the Annual Performance Report and the DBFO Co's 5 Year Management Plan;
 - a draft audit schedule to outline the extent and frequency of auditing of their own and other's Quality Management Systems;
 - a description of the arrangements for the procurement of products, materials and services and control of subcontractors;
 - details of any measures for direct reporting to the DBFO Co by parties not directly contracted to the DBFO Co; and
 - any other information to demonstrate the overall management, coordination, communication and accountability to be applied by the DBFO Co and in particular how the DBFO Co imposes its requirements on contractors and subcontractors.
- 5.5 Tenderers must also submit outline Quality Documentation which describes the Quality Management Systems to be implemented or invoked by the Contractor, the Designer, the Operator and any party to be contracted to the DBFO Co to undertake activities included in the DBFO Contract. These Quality Management Systems must cover all activities covered by the contract between the relevant party and the DBFO Co. The outline Quality Documentation shall as a minimum include the following information:

5.5.1 For the Contractor:

Outline Quality Documentation (which shall include a quality plan or plans which follow [quality standard]) describing how the requirements of the DBFO Co will be met by the Contractor, which shall include:

- brief details of the scope of its proposed contract with the DBFO Co;
- a description of the Quality Management System to be operated (including details of any third party certification);
- a list of the written procedures and method statements which will be followed to ensure the effective management of the activities covered by its contract with the DBFO Co (indicating whether these procedures exist or are yet to be written);
- a figure showing its proposed main contractual arrangements;
- details of the proposed organisational structure and lines of communication;
- job descriptions for the key staff of the Contractor and the specific experience required for these positions (CVs should also be submitted to illustrate the capability of key staff);
- details of the person with defined authority for establishing, maintaining and reporting on the Quality Management System of the Contractor;
- the proposed arrangements for quality control including testing arrangements and hold points;
- a description of the proposed liaison and document control arrangements;

- a description of the arrangements for the procurement of products, materials and services and control of subcontractors;
- the proposed arrangements for auditing and management review in respect of its contract with the DBFO Co;
- details and scope of any relevant current third party certifications of operating Quality Management Systems; and
- any other information to demonstrate how the Contractor will meet the requirements of its contract with the DBFO Co

5.5.2 For the Designer:

Outline Quality Documentation (which shall include a quality plan or plans which follow [quality standard]) which describes how the requirements of its contract for the design and the examination of the Works will be met by the Designer, which shall include:

- brief details of the scope of its proposed contract(s);
- reference to the document which describes how its Quality Management System meets the requirements of [quality standard];
- a list of the written procedures which will be followed in the design office and on site to ensure the effective management of the activities covered by its contract;
- a figure showing its proposed main contractual arrangements;
- details of the proposed organisational structures in the design office and on site and lines of communication;
- job descriptions for the key design and site office staff and the specific experience required for these positions (CVs should also be submitted to illustrate the capability of key staff);
- details of the person with defined authority for establishing, maintaining and reporting on its Quality Management System;
- the proposed arrangements for quality control of its own work including testing arrangements and hold points;
- details of staffing arrangements on site;
- the proposed arrangements for monitoring the work and testing undertaken by others;
- a description of the proposed liaison and document control arrangements;
- a description of the interface arrangements with the Contractor;
- details and scope of current third party certification of operating a Quality Management System which complies with [quality standard];
- the proposed arrangements for auditing of the Designer's activities; and
- any other information to demonstrate how the Designer will meet the requirements imposed by its contract.

5.5.3 For the Operator:

Outline Quality Documentation covering the requirements of the relevant part of the [quality standard] series describing how the requirements of its contract with the DBFO Co will be met by the Operator, which shall include:

- brief details of the scope of its proposed contract with the DBFO Co;
- a list and a description of the written procedures which will be followed by the Operator to ensure the effective management of the activities covered by its contract with the DBFO Co;
- a figure showing its proposed main contractual arrangements;
- details of the proposed organisational structure of the Operator and lines of communication;
- job descriptions for the key staff of the Operator and the specific experience required for these positions (CVs should also be submitted to show the capability of key staff);
- details of the person with defined authority for establishing, maintaining and reporting on its Quality Management System;
- the proposed arrangements for quality control including testing arrangements and hold points;
- a description of the proposed liaison and document control arrangements;
- details and scope of any relevant current third party certification of operating a Quality Management System;
- a description of the proposed arrangements for procurement of products, materials and services and control of subcontractors;
- the proposed arrangements for auditing and management review in respect of its contract with the DBFO Co; and
- any other information to demonstrate how the Operator will meet the requirements of its contract with the DBFO Co

5.5.4 For any other party contracted by the DBFO Co to undertake activities covered by the DBFO Contract:

Outline Quality Documentation covering the requirements of the relevant part of the [quality standard] and describing how the requirements of its contract with the DBFO Co will be met by the party, which shall include:

- brief details of the scope of its proposed contract;
- a list of the written procedures to be followed to ensure the effective management of the activities covered by its contract with the DBFO Co;
- details of the proposed organisation structures and lines of communication;

- the proposed arrangements for quality control including testing arrangements and hold points;
- a figure showing its proposed main contractual relationships;
- job descriptions of the key staff and the specific experience required for these positions (CVs should also be submitted to illustrate the capability of key staff);
- details and scope of any relevant current third party certification of operating a Quality Management System;
- a description of the proposed arrangements for procurement of products, materials and services and control of sub-contractors;
- a description of the proposed liaison and document control arrangements; and
- any other information to demonstrate how the party will meet the requirements imposed by its contract with the DBFO Co.

5.6 Prior to the execution of the DBFO Contract the successful Tenderer will as a minimum be required to submit to the Department the full Quality Documentation for the DBFO Co. The successful Tenderer will also be required to submit the full Quality Documentation for the Contractor, the Operator, the Designer or any other contractor or subcontractor in respect of those activities of the relevant party commencing at the date of execution of the Contract.

5.7 The Quality Documentation shall thereafter be revised in accordance with the Model Contract.

5.8 Tenderers shall submit with their Tenders details of the specialists listed below, who shall have (or in the case of a firm shall have at least one principal who has) the qualifications set out in respect of such specialist below:

- the Designer, who shall be a chartered civil or structural engineer;
- the Checker, who shall be a chartered civil or structural engineer;
- [the Archaeologist, who shall be a member of [professional association] or its equivalent with a minimum of [xx] years relevant post qualification experience;]
- the Landscape Architect, who shall be a full member of the [institute/etc] or its equivalent with a minimum of [xx] years relevant post qualification experience;
- the Landscape Manager, who shall be a full corporate member of the [institute/etc] or its equivalent with a minimum of [xx] years relevant post qualification experience;
- [the Ecologist, who shall be a full corporate member of the [institute/etc] or their equivalent with a minimum of [xx] years relevant post qualification experience;]
- the Testing Contractor, who shall have [xxxx] accreditation in respect of its calibration/testing capability associated with highway works;
- The Monitoring System Contractor, who shall be able to demonstrate considerable experience in the development and implementation of robust, secure, integrated systems similar to that required for this project which involves the measurement, collection, validation, transmission and processing of electronic traffic data.

- Traffic Control and Communications Testing Contractor who shall have at least [xx] years experience of operation and maintenance of computer based traffic control and communications systems; and
- Communications Certification Engineer who shall have at least five years experience of operation and maintenance of computer based traffic central and communications systems.

Details provided shall include names, addresses, relevant qualifications and experience.

6 Communications and Toll Collection Requirements

6.1 The DBFO Contract will contain the Communications and Toll Collection Requirements in three parts, namely:

- Core Motorway Communications Requirements;
- Core Monitoring System Requirements; and
- Toll Collection System Requirements.

6.2 The Communications and Toll Collection System Requirements in Schedule [xx] include the following:

In respect of traffic measurement:

- the DBFO Co will be responsible for the design, supply, installation and testing, commissioning, and operation of an integrated Monitoring System that will continuously measure the traffic on the Road. The system is required to provide the average speed and the flow of all traffic for each Road Section over each hour. The exact method by which this is to be achieved is left to Tenderers to propose subject to meeting Measurement Limits of Accuracy given in Schedule [xx].

In respect of Traffic Control and Communications:

- the DBFO Co will be responsible for the design, supply, installation testing and commissioning of a Traffic Control and Communications System for the Road;
- the DBFO Co will be responsible for operation and maintenance of the Traffic Control and Communications Systems on the Road. The DBFO Co will operate and maintain the roadside equipment (telephones, signs and signals) until such time as it is handed back to the Department.

In respect of Toll Collection Systems:

- the DBFO Co will be responsible for the design, supply, installation, testing, commissioning, and operation and maintenance of the Toll Collection System on the Road. The DBFO Co will operate and maintain the roadside equipment until such time as it is handed back to the Department.
- The Toll Collection System must meet the requirements in Schedule [x]

6.3 Tenderers' traffic monitoring, traffic control, toll collection and communications proposals must be submitted with their Tenders and shall include where applicable and without limitation the following:

- details of Tenderer's monitoring, testing, toll collection and verification systems;
- list of all major equipment and software including its manufacturer and supplier;
- list of all toll collection hardware and software;

- ownership of relevant intellectual property rights in hardware and software which should be consistent with the requirements of the Contract;
- operation, in respect of the MS, Tenderer's monitoring, toll collection and verification systems;
- maintenance, in respect of the MS, Tenderer's monitoring, toll collection and verification systems; and
- procedure for remedying faults.

7 Archaeology, Landscaping and Ecology

7.1 Archaeology

As part of their Tenders, Tenderers are required to submit their outline strategy for the implementation of their activities in respect of archaeology for inclusion in Schedule [x]. Such strategy must be capable of (i) achieving the Core Construction Requirements and (ii) complying with the Construction Requirements (insofar as they relate to archaeology). The outline strategy shall include, without limitation, the following information:

- an outline programme in respect of archaeology for the survey, design and construction stages; and
- the quality management procedures to ensure compliance with the Construction Requirements in respect of archaeology.

7.2 Landscaping and Ecology

7.2.1 As part of their Tenders, Tenderers are required to submit their outline strategy for the implementation of their activities in respect of each of the following:

- treatment of existing vegetation;
- landscaping; and
- ecology;

7.2.2 Such strategy shall be capable of:

- achieving the Core Construction Requirements and the Core O&M Requirements (as relevant); and
- complying with the Construction Requirements and the O&M Requirements (as relevant) (insofar as they relate to landscape, ecology and water quality).

7.2.3 The outline strategy shall include, without limitation, the following information:

- an outline programme in respect of landscaping and ecology for the survey, design and construction stages;
- an outline programme for the phasing of works;
- the proposed method, frequency and format of recording and reporting of the development of the Landscape Areas; and
- the quality management and monitoring procedures to ensure compliance with the O&M Requirements in respect of landscaping, ecology and water.

7.3 Subject to any agreed amendments, the Tenderer's proposals submitted in accordance with paragraphs 7.1 and 7.2 above will form part of the Construction Requirements or the O&M Requirements, as the case may be.

8 Handback

8.1 The Handback Requirements are set out in Part 4 of Schedule 4, and set out the standard to be satisfied by the Project Facilities on the expiry of the Contract Period. Broadly, the Handback Requirements are framed by reference to the residual life of elements of the Project Facilities.

8.2 The procedure for evaluating compliance with the Handback Requirements is set out in Clause [x] of the Model Contract. It requires joint inspections of the pavement and structures of the Project Facilities approximately [five] years before the expiry of the Contract Period; a further joint inspection of all elements of the Project Facilities approximately [usually 18 months to two years] before the expiry of the Contract Period; determination (by agreement or through the Disputes Resolution Procedure) in each case of works required to be carried out to bring the Project Facilities up to the standard set out in the Handback Requirements; and provision for a retention of a proportion of payments to the DBFO Co as security for performance of the DBFO Co's obligations to carry out the necessary works and to meet the Handback Requirements.

PART THREE GUIDANCE TO TENDERERS**SUB-PART C: EXPLANATION OF COMMERCIAL REQUIREMENTS****1. Risk Transfer****1.1 Introduction**

1.1.1 The Department is seeking to achieve the optimal transfer of risk and responsibility to the private sector, but recognises that certain risks are best retained by the Department or shared between the Department and the DBFO Co. This Section identifies the risks which the Department would retain or share under the Standard Bid.

1.1.2 Paragraph 1.2 and 1.3 below summarise the risks which would be retained or shared by the Department under the Standard Bid.

1.1.3 The Invitation to Tender Documents does not assume that the suggested allocation of risk set out below is necessarily optimal. It would therefore welcome innovative proposals as part of Variant Bids which Tenderers believe would deliver better value for money.

1.2 Risks Retained by the Department

[Need to insert risk matrix outlining the key risks that are retained by the Department under the Standard Bid, eg. Risk of archaeological finds, risk of overweight vehicles damaging road, etc. This requires Legal, Technical, Financial Advisor input as well as input from the Department.]

1.3 Risks to be Shared [these are purely indicative and are based on an Availability-type PPP mechanism. There are additional major risks that would need to be added to this.]**1.3.1 Traffic demand**

The payment mechanism is structured so that the DBFO Co does not carry the full risk of reduced average speeds due to sheer weight of traffic. At flows above [xx]% of Deemed Capacity the DBFO Co will carry a reducing risk. If traffic grows to such an extent that it exceeds Deemed Capacity, but the road is nevertheless managed in such a way that traffic is kept flowing, the DBFO Co will receive full payments irrespective of the average speed of that traffic. However, to maintain an incentive to have that traffic flowing at reasonable speeds, a bonus payment will be made if the Section Average Speed is within a certain range.

1.3.2 Force Majeure

[this is often a shared risk].

2. Payment Mechanism**2.1 Introduction**

2.1.1 Payments to the DBFO Co ("DBFO Payments") will be made pursuant to Schedule [x] of the DBFO Contract.

2.1.2 The DBFO Payment is designed to provide an incentive to the DBFO Co to:

- provide a safe, reliable, high quality, responsive service on behalf of the Department to those who rely on or are affected by the network;
- propose, develop and implement congestion reducing measures;
- design, build and operate the road with a view to reducing the number of Personal Injury Accidents and accidents generally;
- manage the planning and execution of maintenance effectively; and
- respond quickly and effectively to accidents, emergencies and other incidents.

2.1.3 The DBFO Payments over the Contract Period will comprise the following elements:

- Congestion Management Payment;
- Safety Performance Adjustment; and
- Construction Period Payment.

2.2 Congestion Management Payments

2.2.1 Introduction to Congestion Management Payments

Payments to the DBFO Co will be linked primarily to congestion management. This section 2.2 gives details of:

- how gross payments are calculated prior to deductions and excluding any bonus payments;
- when deductions will occur;
- when bonus payments will occur;
- how the payments will be calculated: and
- how the Project Road will be monitored for the purposes of determining the Congestion Management Payments.

2.2.2 Calculation of Gross Congestion Management Payments

- 2.2.2.1 Tenderers will bid a Base Annual Gross Congestion Management Payment which will be subject to annual indexation to determine the Gross Congestion Management Payment for a Contract Year. The Congestion Management Payment is then divided into individual hour amounts on each Road Section is determined (this amount being the Gross Hourly Congestion Management Payment (GHCP) for that Road Section).
- 2.2.2.2 It is envisaged that there will be [xx] Road Sections, each being about [x]km in length.
- 2.2.2.3 [the Payment Mechanism will need to be structured such that it recognises the different length of cars versus trucks.]

2.2.3 When Deductions will occur

- 2.2.3.1 No Hourly Congestion Management Payment will be made for a particular Road Section if for any part of the hour the Road Section fails to meet any of the Condition Criteria set out in Schedule [x]. These criteria relate to condition of the Road, failure to provide a through route on the Road and unauthorised closure or restriction of the slip roads.
- 2.2.3.2 Reduced payments will occur for a particular Road Section if during an hour the Target Speed is not achieved and the vehicle flow for that hour is less than the Deemed Capacity for that Road Section.
- 2.2.3.3 No Payment will be made for a particular Road Section if the Section Average Speed achieved for that Road Section drops below [x] of the Target Speed, unless the vehicle flow during the hour is greater than [xx]% of the Deemed Capacity.
- 2.2.3.4 The Target Speed for every Road Section will be [xx] kph. The Deemed Capacities for each Road Section are shown in Schedule [x].

2.2.4 When Bonus will be Made

- 2.2.4.1 A bonus will be added to the GCHP for a Road Section if its vehicle flow for the hour exceeds [number greater than 100%] of its Deemed Capacity, and Section Average Speed for that hour exceeds [xx%] of the Target Speed.
- 2.2.4.2 The bonus would be capped to x% of the GCHP for that Road Section. This cap is reached when the vehicle flow exceeds [greater than 100%] of the Deemed Capacity for the Road Section and Section Average Speed exceeds the Target Speed.

- 2.2.4.3 Between these two extremes, the amount of the bonus will vary linearly with both flow and speed.

2.2.5 How Payments Will be Calculated

- 2.2.5.1 Payment will depend upon speed and traffic flows.

- 2.2.5.3 Thus, provided the Condition Criteria are met, the principal features of the Congestion Management Payment can be summarised as follows:

- At all levels of vehicle flow full GCHP will be made if the Section Average Speed is above the Target Speed;
- No deductions will be made if vehicle flow is at or exceeds the Deemed Capacity of the Carriageway Section;
- There will be a graduation of the level of deduction for Section Average Speeds between the Target Speed and x% of the Target Speed and for vehicle flows between x% and 100% of the Deemed Capacity; and
- The bonus will be made when the vehicle flow exceeds [number greater than 100%] of the Deemed Capacity and the Section Average Speed exceeds x% of the Target Speed. The full bonus will be made when vehicle flow exceeds [number greater than 100%] of the Deemed Capacity and the Section Average Speed exceeds the Target Speed.

2.2.6 Monitoring

- 2.2.6.1 Traffic speed and vehicle flows along the entire length of the Project Road shall be monitored by a Monitoring System, which will be provided, installed, operated and maintained by the DBFO Co. This system must meet the requirements specified in Schedule [x].

- 2.2.6.2 In order to derive the information required to calculate payments, the DBFO Co will need to supply:

- traffic counts for each Road Section for each hour, split between vehicles [likely split between trucks and cars];
- Road Section Average Speed achieved by all vehicles on each Road Section for each hour [will need to determine how vehicles in excess of limit are treated]; and
- A list of locations and times for any part of the Road that fail to meet the Condition Criteria.

- 2.2.6.3 The exact determination of Road Sections will depend on the specific design submitted by the Tenderer. It should be noted that Target Speeds assume Road Sections of approximately [x]km in length.

- 2.2.6.4 If the permanent Monitoring Equipment selected by the DBFO Co is affected by special circumstances such as roadworks or poor weather, it is the DBFO Co responsibility to produce the required data from an equivalent temporary system.
- 2.2.6.5 In the event of missing data which leads to the required specifications not being met, whether through equipment failure or any other reason, the DBFO Co will not receive any payment for any sections where appropriate data, to the required specification, has not been produced.
- 2.2.6.6 It will be a requirement for the DBFO Co to provide a method to confirm the validity of the data collected compatible with their permanent system

2.2.7 Slip Roads

[will need to determine how to treat slip roads. Potentially, could state that if an unauthorised closure to a slip road is made, the DBFO Co will lose payments for all of the sections downstream of that point until the next open road compliant with the condition criteria.]

2.3. Safety Performance Adjustments

2.3.1 Introduction

- 2.3.1.1 The purpose of the Safety Performance Adjustment ("SPA") is to encourage the DBFO Co to design, build, maintain and operate the Road to a high standard in respect of safety, to monitor its safety performance and, where cost effective, to invest in improving the safety of the Road.
- 2.3.1.2 An SPA will be made at the end of each Contract Year. The amount of the SPA will be determined by comparing the actual safety performance of the Road (see paragraph 2.3.3 below) to a Safety Benchmark (see paragraph 2.3.4 below). If the actual performance of the Road exceeds this Safety Benchmark by an amount greater than a threshold level, a positive SPA will be made for the Contract Year. Conversely, if the performance of the Project Road falls short of this Safety Benchmark by more than a threshold level, a negative SPA will be made to the DBFO Payments for the Contract Year.

2.3.2 Accident data

2.3.2.1 For the purpose of calculating SPAs, safety performance will be measured in terms of [Personal Injury Accident ("PIA") numbers – need to synchronise with Indonesian terms and type of measurement]. PIAs are registered by the [police] and should provide precise information on the location and circumstances of a PIA, and on casualties. Accidents are classified as involving either "fatal", "serious" or "slight" injuries. For the purpose of the SPA, the different classifications of personal injury accidents will be treated equally.

2.3.2.2 [Will need to provide any historical data on existing road sections in the Data Room].

2.3.2.3 The DBFO Co will be responsible for obtaining the monthly data required to calculate the SPA and for validating this data [government may want to take the risk of providing this data – require Legal Advisor input].

2.3.3 Measuring the actual safety performance of the Project Road

Each Contract Year, the DBFO Co will calculate the total number of PIAs occurring on the Road over the preceding [x] years. This will provide a year-on-year rolling [x]-year average.

2.3.4 Calculating the Safety Benchmark

2.3.4.1 [The calculation of the initial Safety Benchmark will require significant discussion between the Department and the Technical, Legal and Financial Advisor. Data on existing comparator roads could be considered, as well as any data on existing sections of the road.] In subsequent years, the Safety Benchmark will be adjusted annually to take account of:

- the general safety trend as measured by selected equivalent comparator roads;
- safety gains due to bringing into use of the new schemes required by the DBFO Contract;
- any safety gain arising from the introduction of any Additional Works, instigated and paid for by the Agency; and
- [other changes].

2.3.4.2 A rolling average of the equivalent Comparator Road performance will then be calculated. The change in the rolling average will be used to adjust the Safety Benchmark.

2.3.5 Calculation of the SPA

2.3.5.1 The amount of the SPA will be determined annually as set out in Schedule [x] based on the number of PIAs by which the safety performance of the

Road is better or worse than the Safety Benchmark. The SPA will be indexed in line with the [Indonesia Consumer Price Index].

2.3.5.2 Two mechanisms are built into the SPA which are designed to shield both the Department and the DBFO Co from the effect of large random variations in safety performance:

- as noted above, the safety performance of the Project Road and the Safety Benchmark will be determined on the basis of a year-on-year rolling average;
- the amount of the SPA in any year will be subject to a cap of [x] (payable by the Department to the DBFO Co) and a floor of – [x] (payable by the DBFO Co to the Department), subject to indexation.

2.4 Construction Period

2.4.1 The Congestion Management Payments will only commence in the exact form detailed in paragraph 2.2 above after the Completion Certificate is issued.

2.4.2 Prior to this, the mechanism through which the DBFO Co will earn payments will vary with construction milestones. The Department will only provide payment to the DBFO Co. on a milestone basis following confirmation by the Checker that the required work has been done. Department payment to DBFO Co. will occur pro-rata with payment by the DBFO Co to the Construction contractor. [Precise details will need to be provided in the DBFO Contract and Schedules].

2.5 Indexation

2.5.1 All DBFO Payments will be indexed annually.

2.5.3 The Gross Congestion Management Payment bid by the DBFO Co shall not vary from year to year, except for indexation of the soft services portion. The portion of the charge relating to payment for debt and equity should not be indexed.

2.6 Other Payment Issues

2.6.1 Reporting Requirements

The DBFO Co will be required, at all times, to comply with the reporting requirements described below and in Schedule [x]:

- Reports on the basis of condition surveys for each of the Minimum Performance Criteria (carried out in the previous [time periods require input of Technical Advisor]), shall be submitted to the Department's Nominee by the last day of [x time period]. (The Minimum Performance Criteria form part of the Condition Criteria and are set out in Schedule [x].)

- Where the above mentioned reports are not submitted by the appropriate deadlines, the relevant Road Sections shall be treated as having failed the Minimum Performance Criteria (and hence the Condition Criteria) until such time as a valid report is submitted which indicates that the Minimum Performance Criteria are satisfied. Accordingly, no Congestion Management Payments will be made in respect of such Road Sections during such period.

2.6.2 Co-ordination of Activities

The payment mechanism provides an incentive to the DBFO Co to co-ordinate the activities of [relevant Agencies, Govt. department, etc.] on the Project Road as effectively as possible, to minimise disruption to road users. To assist the DBFO Co in achieving this objective, it is expected that certain functions of the Department will be carried out by the DBFO Co in accordance with the DBFO Contract.

2.6.3 Payment Dates

[Will need to determine dates of payment.]

2.6.4 Maintenance of Records

The DBFO Co will keep and maintain records [for x years].

2.6.5 Audit Rights

The DBFO Co's records relevant to the payment mechanism will be subject to audit by the Department or its agents. Payments will be adjusted if discrepancies in the records are identified.

3. Change Procedure

3.1 Introduction

Over the Contract Period it is possible that the Department will want to change the Technical Requirements in respect of this Project or that circumstances will change, for example as a result of a requirement for new connecting roads. In certain specified circumstances ("Eligible Changes") the DBFO Payments will be recalculated in order to ensure that the DBFO Co is no better and no worse off as a result of the change. This Section 3 describes:

- which events constitute Eligible Changes; and
- the procedure for handling Eligible Changes.

3.2 Eligible Changes

3.2.1 The following changes in circumstances will constitute Eligible Changes:

- Department's Changes;
- Additional Works initiated by the Government of Indonesia
- Compensation Events; and
- Introduction of Electronic User Paid Tolls on the Project Road.

These are explained in more detail below.

3.2.2 Subsequent Schemes or Improvements proposed by the DBFO Co are not themselves Eligible Changes. However they may give rise to changes in the level of DBFO Payments.

3.3 General Change Procedure

The procedure for handling Eligible Changes will be as follows:

- the party who believes an Eligible Change has occurred will issue a notice to that effect to the other party. This notice will provide detailed estimates of the impact of the change on the costs of the DBFO Co and on DBFO Payments;
- if the DBFO Co and the Department's Nominee disagree on the eligibility of the change or the quantum of costs or impact on DBFO Payments, then the Disputes Resolution Procedure will be invoked;
- an adjustment will be made to the relevant element of the DBFO Payments to reflect the effect on costs, capacity and/or traffic speeds and personal injury accidents of all Eligible Changes during the preceding year on the basis set out in section 3.4 below; and
- if the aggregate change in Eligible Capital Costs resulting from Eligible Changes exceeds a specified amount [this amount will need to be determined and set out in the DBFO Contract] and the DBFO Co is unable to finance such excess, then instead of adjusting the DBFO Payments in respect of such excess the Department will make payments over the period during which such costs would be incurred.

3.4 Changing the DBFO payment levels

3.4.1 As part of the Tender requirements detailed in Section 9 of Sub-Part D of this Part Three, Tenderers must submit a Financial Model. This model will be used to calculate the Net Present Value of the Net Cash Flow of the DBFO Co when applying the General Change Procedure.

3.4.2 Steps

The following steps will be taken:

- i) As part of the negotiations an agreed Financial Model will be established. This will contain the DBFO Co's assumptions on financing, vehicle flows, traffic speeds and revenue and show the return on equity, the cost of debt and the cost/return of any other type of finance and the overall cost of funding for

the project (Project IRR) of all of these. It will also show the agreed Net Cash Flow for the DBFO Co over the Contract Period.

- ii) [steps need to developed in discussion with the Department and the Financial and Legal Advisor.]

3.4.3 Safety Benchmark

The impact of an Eligible Change on Personal Injury Accidents will not be entered into the Financial Model. Instead, the effect of the Eligible Change on the Safety Benchmark will be determined and the Safety Benchmark adjusted accordingly from the start of the next Contract Year.

3.5 Details of Eligible Change

Each type of Eligible Change will be dealt with under a General Change Procedure.

3.6 Department's Changes

The impact on the cost of construction and operation and maintenance (as relevant), and on DBFO Payments will be assessed under the procedure, and adjustments made to the level of DBFO Payments within the framework described. This will take into account the impact, if any, of such change on the construction programme, including, but not limited to, the date for completion of the Works and the start of Congestion Management Payments.

3.7 Additional Works proposed by the Government of Indonesia

There may be circumstances when the Department would want to initiate a new scheme on the Road. [steps need to developed in discussion with the Department and the Financial and Legal Advisor]

3.8 Compensation Events

The effects on the costs of the DBFO Co and DBFO Payments of certain breaches by the Department of its obligations under the DBFO Contract will be dealt with under the General Change Procedure. These Compensation Events include the failure of the Department to issue a Commencement Certificate, Permit to Use [this will be critical given the land arrangement issues] or Completion Certificate when required or to give access to land when required. [The General Change Procedure will also be applied if there is a change in law which discriminates against DBFO companies or DBFO roads – this requires input of Legal Advisor and the Department].

3.8.1 Subsequent Schemes or Improvements proposed by the DBFO Co

3.8.1.1 The Department recognises that the congestion charging payment mechanism may require the DBFO Co to promote new schemes over the course of the Contract Period. These schemes will be aimed at improving the performance of the road.

3.8.1.2 In order to encourage the DBFO Co to bring forward potential schemes [will need significant discussion with Department and Legal and Financial Advisor to determine how this will be structured].

3.8.2 Introduction of Electronic User Paid Tolls on the Project Road

[Changes due to electronic user paid tolls on the Project Road will need to be considered].

4. Guarantees4.1 Performance Guarantee/Bond

[Requirement will need to be discussed with Department and Legal and Financial Advisor].

4.2 Handback

4.3.1 On the expiry of the Contract Period, the condition of the Project Facilities will be required to satisfy the Handback Requirements as set out in Part 4 of Schedule 4.

4.3.2 The procedure for ensuring that the Handback Requirements have been satisfied is set out in Clause [x] of the DBFO Contract.

4.3.3 A programme for, and the estimated cost of, performing remedial works will be agreed between the DBFO Co and the Department. Commencing 5 years prior to the end of the Contract Period, [x]% of DBFO Payments will be withheld until such time as [x]% of the total agreed estimated costs has been retained. These amounts will be deposited in an interest bearing escrow account. Amounts will be released from this escrow account upon issuance of the Handback Certificate evidencing that all remedial work has been completed to the satisfaction of the Department.

5. Refinancing

5.1 The DBFO Contract will include provisions to enable the Department to share in the benefits of any refinancing that the DBFO Co might undertake at any time during the Contract Period.

5.2 The benefit will be measured by [requires significant discussion between Department and Financial and Legal Advisor].

5.3 The Department will be entitled to [one half] of the benefit. [The Department is prepared for that to be funded either as a capital sum or as a reduction in the Congestion Management Payments or a combination of the two.]

6. Taxation6.1 Introduction

[This section requires significant input from the Department and a Tax Advisor, working in conjunction with the Financial Advisor.]

7. Insurance7.1 General

The DBFO Co will be expected to arrange insurance appropriate for a project of this type. In particular, the DBFO Co will be required under Schedule [x] of the DBFO Contract to take out and maintain insurances on terms and with insurers acceptable to the Department

throughout the relevant period under the Contract. Please refer to Schedule [x] for a full description of the insurances required; a summary is set out below.

7.2 Design and Construction

Until issue of the Completion Certificate, the DBFO Co must ensure that all necessary insurances as required by Schedule [x] are in place, including but not necessarily limited to the following [requires input of Financial Advisor and Insurance Advisor]:

- contractor's all risks insurance including terrorism cover;
- business interruption insurance;
- third party legal liability insurance;
- employer's liability;
- professional indemnity insurance for the design and construction period plus [x] years beyond the Completion Certificate; and
- such other insurances as are required by law.

7.3 Operation

At all times in respect of the Road operations, the DBFO Co must maintain the necessary insurances as required by Schedule [x] [requires input of Financial Advisor and Insurance Advisor]:

- property damage insurance on an all risks basis, including terrorism cover;
- business interruption insurance;
- third party legal liability insurance;
- employer's liability insurance; and
- such other insurances as are required by law.

7.4 Details of Insurance

With its Tender, the Tenderer shall submit details of its proposed insurances. Such details shall include [requires input of Financial Advisor and Insurance Advisor]:

- lead underwriters;
- limits of indemnity/sums insured; and
- excesses, deductibles and self insured retentions.

The above details should be submitted on the Insurance Form which may be found at the end of this Section, to which should be attached copies of the proposed draft policies.

INSURANCE FORM [requires input of Financial Advisor and Insurance Advisor]**Summary of Details of Proposed Insurances****Part 1: Design and Construction**

Insurance	Limit/Sum Insured	Main Insurer	Excess	Aggregate Excess
Contractor's All Risks				
Business Interruption				
Third Party Legal Liability				
Employer's Liability				
Professional Indemnity				
Other Insurances				

Part 2: Operation and Maintenance

Insurance	Limit/Sum Insured	Main Insurer	Excess	Aggregate Excess
Property Damage				
Business Interruption				
Third Party Legal Liability				
Employer's Liability				
Other Insurances				

PART THREE GUIDANCE TO TENDERERS

SUB-PART D: EXPLANATION OF TENDERS REQUIRED

1 Introduction

- 1.1 This Sub-Part D outlines the format and content of the Tenders required.
- 1.2 All Tenderers must submit a Standard Bid in accordance with Section 3 below.
- 1.3 [In addition, Tenderers are encouraged to submit Variant Bids which propose different risk alternatives and payment arrangements.]
- 1.4 The requirements in Section 2 below apply to both Standard and Variant Bids. [No Variant Bid which departs from these requirements will be accepted.]

2 General Requirements

- 2.1 All bids must stipulate the structure and timing of the DBFO Payments which the Tenderer requires. Bids must also provide an estimated cost for the design, construction, operation and maintenance of the Road disaggregated under a number of headings as specified in Section 9 below.
- 2.2 All bids must take account of the information provided in the Invitation to Tender Documents (including all information provided during the Tender preparation period).
- 2.3 Tenderers are required to check and undertake responsibility for all aspects of the Invitation to Tender Documents which they choose to incorporate into their own proposals. The Important Notice at the beginning of this document and the DBFO Contract, contain comprehensive exclusions of liability on the part of the Department.

3 Standard Bid

- 3.1 The Standard Bid must:
 - comply with the Core Requirements;
 - set out proposed DBFO Payments;
 - be based upon a Contract Period of [x] years from the Commencement Date [this may be subject to extension under certain mitigating factors];
 - be consistent with the Model Contract; and
 - be accompanied by an Anti-Collusion Certificate as attached at Annex 1 of this Sub-Part D.

3.2 Congestion Management Payments

The Standard Bid must set out the Base Annual Gross Congestion Management Payment (GCP) and the rate of indexation that will apply to the GCP in the years following Year 1 of the Contract (see Section 2.5 of Sub Part C of this Part Three).

3.3 Other Bid Requirements

3.3.1 Tenderers should include their forecasts in respect of SPA.

3.3.2 Any proposed indexation formula should refer to [Indonesia Consumer Price Index] and will take effect from the Base Price Date.

3.3.3 [As set out in section 4 below, Tenderers may use the facility of submitting Variant Bids to make alternative proposals.]

3.3.4 If Tenderers believe that they can only submit a sustainable Standard Bid with certain qualifications,[the Department will accept as a Standard Bid one which is qualified to the minimum extent necessary. Tenderers should note, however, that the Department's strong preference is for unqualified bids and that accordingly any such qualifications will be taken into account in the evaluation of Tenders and in the selection of Tenderers with whom to negotiate.]

3.4 Specific Assumptions for the Standard Bid

For the purposes of each Standard Bid, Tenderers should price on the basis of the assumptions listed in paragraphs 3.5 to 3.7 below. [Alternative assumptions may be proposed for Variant Bids.]

3.5 Key Dates

Tenderers should assume that the DBFO Contract is executed on [xx date].

3.6 Interest Rates

3.6.1 The Department will take the risk of changes in interest rates between Tender submission and Contract execution. The DBFO Co will take the risk of changes in interest rates thereafter.

3.6.2 Tenders must:

3.6.2.1 reflect interest rates that apply at [xx weeks prior to] the Tender submission date [Financial Advisor to confirm applicable rates and timing];

3.6.2.2 specify the reference interest rates that are relevant to the Tender; and

3.6.2.3 explain how the bids will be adjusted if interest rates are different from these assumptions when the DBFO Contract is executed.

3.7 Inflation

Tenderers must assume the Base Price Date indicated in Section 3 of Part Four.

4 Variant Bids [Department will need to confirm they want/allow Variant Bids]

4.1 Tenderers are encouraged to submit Variant Bids in which they may offer proposals for DBFO Payments on the basis of different allocations of risk or alternative commercial terms to those contained in the Standard Bid. No Variant Bids will be considered, however, unless a Standard Bid has also been submitted.

4.2 Each Variant Bid must contain:

4.2.1 the Tenderer's proposed DBFO Payments;

4.2.2 the items specified in the checklist in Section 9 of Part Two to the extent they differ from the Standard Bid;

4.2.3 a document identifying specifically each change to the terms of the Standard Bid and outlining the effect of such variation to the extent practical;

4.2.4 sufficient detail for the substance of any proposed amendment to the Model Contract to be understood, but detailed drafts of amendments are not required; and

4.2.5 an Anti-Collusion Certificate as attached at the end of this Sub-Part D.

4.3 Each Variant Bid must have a finite Contract Period and comply with the Core Requirements.

4 Profile of the DBFO Co

5.1 The Tender must provide the following information, or its nearest equivalent, about the entity that will become the DBFO Co:

- name;
- corporate structure;
- Certificate of Incorporation (if available);
- Memorandum of Articles of Association (if available);
- capital structure, including rights and obligations of each class of capital;
- Shareholders' Agreement;
- breakdown of equity ownership at time of Tender and any changes envisaged prior to the Commencement Date or during the Contract Period;
- names and addresses of shareholders;
- Organisation chart detailing, inter alia, key members of management, directors, proposed staffing levels and reporting lines/chain of command;
- latest audited accounts or date when first audited accounts should be available;

- latest audited accounts of the parent company and ultimate parent company of each shareholder;
- names and addresses of advisers;
- certified copies of board minutes approving the contents of the Tender; and
- a report or reports specifying any and all changes to the material supplied in response to the Prequalification Document.

6 Details of Principal Contractual Arrangements

6.1 Introduction

6.1.1 The Tender should contain a description of the key contracts to be entered into by the DBFO Co and an organisation chart defining the relationship between the various parties. Any contracts proposed in respect of design, construction and operation and maintenance shall be entered into by the DBFO Co prior to, or at the time of execution of the DBFO Contract.

6.1.2 In addition to any information specifically requested in paragraphs 6.2 and 6.3 below, Tenderers must provide the following details in respect of each contractor and principal sub-contractor:

- levels and nature of experience;
- identification of the controls in place for overseeing the contract or sub-contract;
- quality control monitoring procedures;
- compliance testing and inspection arrangements; and
- work acceptance procedures and practices.

6.1.3 If not previously provided, the Tenderer and the members (and, if different, principal contracting parties) within each tendering consortium are required to provide details of major projects undertaken over the past five years, including but not limited to major road building and maintenance projects, DBFO-type projects, and limited recourse and concession projects both in Indonesia and overseas.

Details should include:

- the scope of these contracts in terms of the size and type of work previously undertaken;
- the amount of each contract;
- the approximate annual value of each contract (in respect of operation and maintenance);
- performance and achievement measures (i.e. whether the contracts were completed to cost, on time and to required specifications); and
- written references in respect of work undertaken.

6.2 Design and Construction

Together with its proposal for design and construction, the Tenderer must provide the following:

- the names and addresses of the key contractors and sub-contractors;
- details of the contracts and sub-contracts to be let in respect of the DBFO Contract and the relevant expenditure profile; and
- a programme, as described in Annex 2 of this Part Three Sub Part D.

6.3 Operation and Maintenance

Together with its proposals for Operation and Maintenance, the Tenderer must provide the following:

- the name and address of the Operator and any subcontractors;
- details of the contracts and any sub-contracts (where relevant) to be entered into in respect of operation and maintenance of the Project Facilities;
- proposals in respect of the Liaison Procedures to be entered into with the emergency services, statutory undertakers and other third parties; and
- a programme identifying when Major Maintenance works will be undertaken.

6.4 Other Sub-Contracting Arrangements

The Tenderer must provide a list of other potential sub-contractors and details of the contractual arrangements.

7 **Financial Structure of the DBFO Co**

7.1 Introduction

7.1.1 The commercial proposals shall:

- not depend on Government guarantees, commitments or support other than as specifically described in the Invitation to Tender Documents or the Model Contract; and
- be sufficiently developed and robust, and have attracted sufficient support and commitment from lenders and investors, to satisfy the Department that there is no material risk on financial grounds of a failure:

- to enter into the DBFO Contract on the terms included in the Tender; or

- to complete the Road on time and to specification or to operate and maintain the Road in accordance with the requirements set out in the Invitation to Tender Documents.

7.1.2 Tenderers are also required to provide the information set out under paragraphs 7.2 to 7.6 below.

7.2 Sources of Finance

7.2.1 Tenderers must submit a detailed financing plan setting out how the Project will be financed at each stage including:

7.2.1.1 each source of finance, including (but not limited to) equity, commercial bank debt (including without limitation any standby facilities), subordinated debt, institutional debt, multilateral finance, Department payments, and internally generated funds. Tenderers should also set out clearly all assumptions concerning any refinancing during the Contract Period;

7.2.1.2 details (including, where applicable, copies of all relevant agreements) of the extent of support (including performance guarantees) to be provided in respect of the obligations and liabilities of the DBFO Co by each of the following:

- the DBFO Co's shareholders;
- the parent company of each shareholder;
- the ultimate parent company of each shareholder;
- third parties, and

7.2.1.3 the principal terms and conditions for each source of finance to be raised as set out in paragraph 7.3 below.

7.3 Terms and Conditions of Finance

7.3.1 Equity and Quasi-Equity

The following details about any equity component must be provided:

- the amount of funds that each shareholder is prepared to commit, the timing of such subscription and the consequent capital structure of the DBFO Co;
- the terms and conditions of any further planned equity subscription, including the expected timing and amount and whether this will be provided by the existing shareholders or by third party investors. The likelihood of this further equity subscription being achieved should be commented upon in writing by the financial adviser;

- the level and nature of any support that the shareholder and/or parent companies or ultimate parent companies of any of the shareholders are prepared to provide to the Project over the Contract Period and the terms and conditions of that support;
- the terms and conditions of any subordinated debt, including the source and the amount;
- the source of guarantees or collateral used to secure the issue of performance guarantees; and
- if Tenderers propose that any equity contribution to the DBFO Co be made after the Commencement Date, the Department may require parent company guarantees of that amount or other security acceptable to the Department.

7.3.2 Debt Facilities

Tenderers are required to provide the following information for each separate loan facility or other debt instrument, together with a detailed timetable setting out the expected negotiation and signing of the facilities:

- identity of lead arrangers and/or underwriting banks that have given indications and/or commitments and the amounts indicated/committed;
- type of facility;
- purpose of the facility;
- currency;
- availability period;
- drawdown schedule;
- grace period;
- repayment schedule and final maturity date;
- interest rates (whether fixed or floating) and margin;
- any proposed hedging arrangements in respect of interest rates;
- treatment of interest during construction (i.e. whether or not capitalised);
- arrangement and other fees;
- conditions precedent to drawdown;
- principal financial and information covenants (including details of cover ratios);
- events of default;
- security required (including any guarantees);
- any contingent financial support and the parties providing it; and

- any control or reserve accounts.

Tenderers must also indicate the level of any contingency finance that will be available and the parties providing it. In addition, they must specify their working capital requirements and demonstrate how those requirements will be met.

7.4 Flexibility of Funding Arrangements

The Tenderer should describe how its funding arrangements could accommodate any delays in construction of the Road and cost overruns.

7.5 Refinancing

If the Tenderer expects to refinance during the Contract Period then the terms and conditions of such refinancing should be indicated in as much detail as possible, including, for any debt refinancing, assumptions on interest rates, repayment schedules and final maturity.

7.6 Strength of Commitment

7.6.1 The stronger the level of commitment by debt and equity providers, the more favourably the Tender will be assessed. The Department may, in order to assess the strength of this commitment, require meetings with these debt and equity providers. Fully underwritten offers are not required at the Tender stage but will be required prior to execution of the DBFO Contract. The level of commitment at Tender submission should be demonstrated by providing the following documents:

- Board minutes in respect of all sources of equity;
- letters from financial advisers or proposed underwriters or stockbrokers in respect of third party equity (if applicable);
- letters from underwriting banks and financial institutions indicating a high degree of confidence that debt funding can be arranged and meeting the requirements of paragraph 7.6.2 below; and
- a letter from the financial adviser stating that debt funding is achievable and that the financing proposals are sufficient to enable the DBFO Co to meet its obligations under the DBFO Contract.

7.6.2 The letter of support from underwriting banks and financial institutions must:

- state that the funders are willing in principle to fund the Tender and that they will provide a committed offer accepting the contract terms (except for stated qualifications) within [xx weeks] of the confirmation of the Tenderer as Provisional Preferred Tenderer;
- specify all the relevant conditions which need to be satisfied for the funding to be committed, which shall be limited to:
 - any amendments to the Model Contract or Direct Agreement;

- any conditions placed on the sponsors; and
- any conditions involving actions by third-parties;
- confirm the terms of the financing plan covering the items set out in paragraphs 7.2 and 7.3 above.

8 Forecasts

8.1 Traffic Forecasts

8.1.1 With the Tender, Tenderers must submit a copy of the traffic forecasts and congestion predictions which underlie its Standard Bid.

8.1.2 The Tenderers' traffic forecasts shall show the following as a minimum:

- the split between [cars and trucks];
- a forecast for each Road Section for each year of the contract; and
- hourly and seasonal variations.

8.1.3 The traffic forecasts referred to in paragraph 8.1.1 above shall be accompanied by the following for each such forecast, where applicable:

- a description of the traffic forecasting procedures and the basis on which the traffic forecasts were calculated;
- a brief statement on each of the following key inputs and outputs:
 - base inputs to model, e.g. route choice parameters, matrices assigned, if assignment model used;
 - validation of base traffic assignment model, if used;
 - forecasting assumptions, including economic growth, employment, car ownership, land use, road network, road capacities, suppressed and generated traffic, and modal shifts;
 - traffic growth by vehicle type [by x time period, to be specified by Technical Advisor];
 - means for estimating proportion of [cars versus truck]; and
 - uncertainty of traffic forecasts including a summary of risk analyses undertaken.

8.1.4 The congestion predictions referred to in paragraph 8.1.1 above shall be accompanied by the following:

- a description of the congestion predicting procedures and the basis on which the congestion predictions were calculated;
- a brief statement on congestion due to:

- accidents and incidents;
- roadworks; and
- volume of traffic.

9 Financial Model

9.1 Introduction

The Financial Model represents an important part of each bidder's presentation, as well as being an important ongoing document for DBFO Co. Accordingly, the form of the Financial Model provided by each Tenderer is required to comply with certain guidelines.

9.2 Format of the Financial Model

The guidelines for the Financial Model fall into two categories:

- Layout of schedules for evaluation; and
- Size and type of model

9.3 General

Tenderers are required to submit financial projections for each Contract Year from the Commencement Date until two years after the end of the Contract Period for the Standard Bid and any Variant Bids.

All projections are to be expressed in [Rupiah – Financial Advisor to comment] and should be presented in nominal terms.

9.4 Assumptions

A full description of the assumptions underlying the financial projections must be submitted with the Financial Model. Cost data must be presented in Base Price Date prices.

To allow evaluation and comparison between Tenders, the Financial Model must provide the following:

9.4.1 Project Timing and Milestone Dates

The following dates should be provided:

- Commencement Date;
- the dates of issue of the Permits To Use; and
- the date of issue of the Completion Certificate.

9.4.2 Macroeconomic Assumptions

These should include assumptions relating to general inflation and, where different, specific inflation relating to each component of expenditure and revenue for each Contract Year.

9.4.3 Capital Expenditure

Forecast capital expenditure in respect of each Scheme in prices at Base Price Data and broken down between the various sections of works as set out in paragraph 9.5.4 below should be provided on a semi-annual basis.

Depreciation assumptions must be shown and should be split between the various categories of fixed assets.

9.4.4 Operation and Maintenance Costs

Operation and maintenance costs, presented in prices at the Base Price Date, should be provided on a semi-annual basis and analysed in the categories shown in paragraph 9.5.5 below. Distinctions should be made, where applicable, between fixed and variable costs within these categories.

9.4.5 Congestion Management Assumptions

The Tenderer should provide, on an annual basis, congestion assumption including:

- the number of hours that each Road Section will be congested;
- the Congestion Management Payment that will be foregone as a result; and
- any key assumptions in respect of the timing or frequency of this congestion.

9.4.6 Traffic Assumptions

The Tender should also contain a statement identifying any differences between the traffic forecasts and the capacity assumption used in the Financial Model and give the reasons for such differences.

9.4.7 Safety Assumptions

The Tenderer should set out the assumptions underlying its calculation of the Safety Performance Adjustment, for each year of the Contract Period.

9.4.8 Financing Assumptions

9.4.8.1 All financing assumptions, including but not limited to drawdowns [of equity, debt and Department payments), grace periods, repayment schedules and maturity, interest rates and margin, and arrangement and other fees should be stated.

9.4.8.2 All sources of finance as described under paragraph 7.2 above should be separately identified and a schedule of drawdowns provided.

9.4.9 Taxation and Capital Allowances

All assumptions in respect of taxation and capital allowances should be clearly set out, with assets categorised as appropriate between the various types of allowance.

9.5 Financial Projections

The Financial Model should produce the following outputs:

9.5.1 Summary of Key Financial Information:

- Project IRR before financing and tax in both real and nominal terms;
- return on equity in both real and nominal terms;
- return on quasi equity in both real and nominal terms;
- debt to equity ratio at the time of project completion, defined as total financial debt divided by total shareholders funds;
- weighted average cost of capital;
- any financial ratios referred to under paragraph 7.3.2; and
- any other ratios which are considered relevant to the proposed financial structure.

9.5.2 Financial Statements: Cashflow, Balance Sheet and Profit & Loss

Tenderers are required to provide summary financial statements in nominal terms for each Contract Year and each of the two years following the end of the Contract Period in accordance with [Indonesia – Financial Advisor to comment] Generally Accepted Accounting Practice.

9.5.3 Revenue

Revenues should be analysed under the following headings:

- Construction Period Payments;
- Congestion Management Payments; and
- Safety Performance Adjustments.

9.5.4 Design and Construction Cost (for each Scheme, and the communications and Toll Collection System).

- Detailed design costs (as a percentage of total works cost);
- Preliminaries;
- Site clearance;
- Fencing and noise barriers;
- Safety fencing;
- Drainage;
- Landscape works;
- Archaeological works;
- Ecological works;
- Earthworks;
- Pavements;
- Kerbing, footways and paved areas;
- Traffic signs and road markings;
- Lighting;
- Communications equipment;
- Toll Collection equipment;
- Structures;
- Accommodation works;
- Statutory Undertakers;
- Work by other Authorities; and
- Monitoring Equipment.

9.5.5 O&M Expenditure

- Routine maintenance (excluding structures);
- Routine maintenance (structures);
- Pavement (structural) maintenance;
- Other assessment, maintenance, strengthening and upgrading of structures;
- Winter maintenance;
- General operating costs;
- Toll Collection System operating costs; and
- Monitoring Equipment.

9.6 Copies of Financial Model

Two CD-Rom copies of the Financial Model and a print out for the Standard Bid, and for each Variant Bid, must be submitted with the Tender. This computer model will ultimately become the Financial Model referred to in the Model Contract and will be independently verified prior to award of the DBFO Contract. The format of the Financial Model is at the discretion of Tenderers, but it must be compatible with latest version of Microsoft Excel available at time of Tender submission.

10 Further information to be provided after submission of Tenders

10.1 In addition to the clarification of their proposals, shortlisted Tenderers may be required to provide further information during the Tender period such as [xxxx].

10.2 The following shall be provided prior to Contract execution:

- full quality documentation for Quality Management Systems required at the Commencement Date;
- Certificate of Incorporation (if not previously provided);
- Memorandum and Articles of Association (if not previously provided);
- CVs of proposed testing personnel of the Testing Contractor;
- if required, a presentation to the Department describing the Quality Management Systems and the design, construction, testing, maintenance and operation proposals given by the following:
 - -[Technical Advisor to provide information]
- if required, a presentation to the Department describing the partnering proposals, covering:
 - implementation, taking account of the DBFO Co's organisation;
 - involvement of subcontractors;
 - the Construction Contract;
 - the Design Contract;
 - the Operating and Maintenance Contract;
 - the agreement relating to the financing arrangements for the DBFO Co; and
 - the terms and conditions of engagement of the specialists listed in paragraph 5.9 of Sub-Part B of this Part Three.

ANNEX 1

ANTI-COLLUSION CERTIFICATE

1 [An Anti-Collusion statement has been required in some previous deals. The Department, Legal and Financial Advisors should discuss]

ANNEX 2Programme1 The Programme

1.1 The Tenderer shall provide the Programme in computer model and bar chart form. It shall show all of the main design and construction activities in respect of each stage of the Works and restraints, each of which should be given a short title. All events shall be numbered and annotated with the earliest and latest start and finish event dates.

1.2 The Programme shall:

1.2.1 indicate when design material will be submitted to the Department;

1.2.2 allow for:

1.2.2.1 the time periods and procedures provided for in the Design and Certification Procedure and the Review Procedure;

1.2.2.2 the design to be completed prior to commencement of construction work; and

1.2.2.3 the establishment and certification of any testing facilities;

1.2.3 identify the critical path from the Commencement Date to the date of issue of the Completion Certificate;

1.2.4 show the inter-relationship of all significant activities including Relevant Authorities' activities.

1.3 The Programme shall include a level of detail of not less than the following:

1.3.1 works in respect of each bridge or structure;

1.3.2 earthworks;

1.3.3 roadworks in lengths not exceeding one kilometre;

1.3.4 works of accommodation (including, without limitation fencing, means of access and screening);

1.3.5 works in respect of major privately and publicly owned services;

1.3.6 traffic management measures;

- 1.3.7 works in respect of lighting, signing, soiling and seeding, cabling and communications equipment;
- 1.3.8 works in respect of Toll Collection equipment;
- 1.3.9 Archaeological Works and ecological and landscaping works;
- 1.3.10 works in respect of noise insulation; and
- 1.3.11 any pre-commencement activities.

PART THREE GUIDANCE TO TENDERERS**SUB-PART E: TENDER EVALUATION****1 Introduction**

- 1.1 This Sub-Part E provides guidance on the methodology that will be used to evaluate Tenders.
- 1.2 The DBFO Contract will be awarded to the Tenderer which, at the conclusion of negotiations, offers to enter into a DBFO Contract on the most economically advantageous terms. This may not be the Tender which offers the lowest DBFO Payments. Risk transfer will also be taken into account as a significant factor.

2 Technical Evaluation

- 2.1 Each Tender will be evaluated by examining the Tenderer's proposals in respect of:
- Construction Requirements;
 - Communications and Toll Collection Requirements;
 - O&M Requirements;
 - Quality Management Systems; and
 - Health and Safety compliance.
- 2.2 The Tender will be considered acceptable technically if:
- the proposed Construction Requirements satisfy the Core Construction Requirements;
 - the proposed Communications Requirements satisfy the Core Communications Requirements;
 - the proposed O&M Requirements satisfy the Core O&M Requirements;
 - the proposed Quality Documentation describes Quality Management Systems which provide an effective means by which the DBFO Co and its contractors and sub-contractors will undertake the Operations in a manner which consistently achieves the intended quality and satisfies the requirements of the DBFO Contract; and
 - the proposed Health and Safety documentation demonstrates that the DBFO Co and its contractors and sub-contractors comply fully and robustly with all relevant Health and Safety requirements.
- 2.3 As part of this process, the Department will assess the reasonableness of Tenderers' revenue forecasts, and the assumptions underlying those forecasts.
- 2.4 The procedures described in Sections 2 and 3 of Sub-Part B of this Part Three ensure that before submission of Tenders any significant proposed Departures from Standards for structures will have been submitted, reviewed and their acceptability commented upon by the Department.

3 Financial and Commercial Evaluation

3.1 Net Present Value (NPV) Calculation

Tenderers' bids on levels of Gross Congestion Management Payments will be used to calculate the expected DBFO Payments. The NPV of the expected DBFO Payments will be calculated using a real discount rate of [Financial Advisor and the Department to specify].

3.2 Congestion Management

Financial Evaluation will be carried out on the basis of zero congestion (i.e. on the basis of 100% of the Base Annual Gross Congestion Management Payment).

3.3 Safety

Financial Evaluation will be carried out on the basis that the NPV of the SPA is zero.

3.4 Programme Dates

3.4.1 When evaluating Tenders the Department will consider the implications of Tenderers' proposed programme for the granting of Permits to Use and the Completion Certificate.

3.4.2 However, the Department will also evaluate Tenders against its own and other Tenderers' expectations for the programme.

3.4.3 In addition, if different Tenderers propose significantly different timings for the completion of the Road, the Tender evaluation may take into account the differences in timing of the delivery of the benefits that the Road is expected to produce

3.5 Risk Transfer

3.5.1 The principal factors determining which Tender is economically most advantageous will be the NPV of the expected DBFO Payments and the expected present value of the risks being retained by the Department.

3.5.2 The Department will value the risk it is bearing under the bids submitted by Tenderers on the basis of judgements about the likely out turn cost for the Department. This will take account of the likely out turn cost of risks in each category.

3.6 Financial Evaluation

The Department will use the following methodology for tender evaluation:

- only bids which involve the acceptance by the DBFO Co of a degree of risk acceptable to the Department will be considered;
- providing this criterion is satisfied, four measures will then be considered based on the simulation and modelling described above:

- i the Expected Net Present Value of Payments to the DBFO Co [this would include both Department subsidy payments in the Construction Period AND ongoing payments from the Department in the Operating Period];
 - ii the Expected Net Present Value of costs and risks retained by the Department;
 - iii the range of the Expected Net Present Value of Payments to the DBFO Co;
 - iv the range of the Expected Net Present Value of costs and risks retained by the Department; and
- of these measures most weight will be given to (i) and (ii), for which lower values will be preferred.

3.7 Inflation Assumptions

The Invitation to Tender Documents will use certain inflation assumptions for the simulations [these will need to be specified by the Financial Advisor].

3.8 Environmental, Quality and Other Non-user Benefits

[Department needs to determine if it wished to value environmental, quality and other benefits that are provided that exceed the Core Requirements.]

3.9 Post Contract Benefits

[The Department needs to determine if it will attach value to any benefits resulting from the condition of the Project Facilities exceeding the Handback Requirements.]

3.10 Financial Robustness

The Department reserves the right to disqualify any Tenders which he does not consider to be financially robust or for which he considers the financing assumptions to be unrealistic.

3.11 General Financial Structure of the Bid

The following factors will also be taken into account in the assessment of Tenders:

- the overall feasibility of the proposed financing plan;
- the terms and conditions of the financing (debt, subordinated debt, quasi equity and equity) and the degree of conditionality attached;
- guarantees and other security required to realise financing;
- types and levels of insurance cover;
- the level of commitment of the shareholders; and
- in advance of requiring underwritten offers, the level of commitment demonstrated to the proposed financing by potential funds providers.

3.12 Variant Bids

- 3.12.1 Assessment of Variant Bids will follow the same methodology as the assessment of the Standard Bid and the initial financial and commercial evaluation will cover all Standard and Variant Bids submitted. The Department will look carefully at risk allocation under any Variant Bid. Tenderers will be required to indicate how the Department's position, in particular the NPV of the DBFO payments, will change under any Variant Bid. This must demonstrate that the incentives to manage and mitigate the risks throughout the Contract Period have not been materially reduced by their proposals to vary the risk allocation proposed for the Standard Bid.
- 3.12.2 Where Tenderers propose a Contract Period of other than [period specified] years this will be evaluated as follows:
- [treatment will need to be determined by Department and Financial Advisor].
- 3.12.3 Tenderers are also required to indicate any additional risks being borne by the Department or by the DBFO Co. All Variant Bids should include an assessment of the value of those risks, based on the likelihood of the risk occurring and the range of the potential impacts on the Project. Tenderers should identify clearly the assumptions behind their valuation of each risk or group of risks.

PART FOUR PROJECT SPECIFIC INFORMATION**1. Project Description**

[overview of project to be developed by the Department and the Advisors]

2. The Tenderers

[insert name of Bidders shortlisted from the PQ process]

3. Financial Information

- Base Price Date: [insert]
- [other]

4. The Department's Design Agents

4.1 The Department's design agents for the Road are as follows:

[insert name of design agent if required]

5. The Road

5.1 [insert description of the road to be developed]

5.3.2 An Overview of the Statutory Process

[need to provide details to bidders of the process for approvals].

5.3.3 The Department's and DBFO Co's Roles in the Statutory Process.

The Department will be responsible for taking the Road through the Statutory Process and for land acquisition and entry.

6. Payment from the Department

[will need to provide an overview of the type/timing/and process for the Department making payments to the DBFO]

7. Contact Person

7.1 Communication by Tenderers in respect of liaison with Interested Parties, Site Surveys, inspections and investigations must be addressed to:-

[insert Department contact]

8. Submission of Tenders

8.1 The latest day for the submission of Tenders is [insert date].

9. Data

9.1 Information available on CD-ROM and the Data Room.

Information available is listed in Annex 2 to this part 4 of the Invitation to Tender.

9.2 Data Management

[Insert contact for Data Room]

10. Advance Works

10.1 [if any advance works are to be done or allowed, should be noted here.].

11. Land Acquisition Arrangements

The Department has acquired or will acquire the land or Rights in respect of land required for the Road. [have to provide details of land acquisition so to comfort bidders that the land required for the Road is in fact available.]

12. Significant Hazards

12.1 [list any significant hazards].

13. Noise Mitigation

13.1 [identify any noise issues relevant to the Road.]

14. Traffic Sensitive Streets

[identify any particular streets which must be considered in the design, eg. Residential streets which should not be accessed from the Road.]

15. Traffic Control, Toll Collection and Communications Systems

15.1 [insert overview, to be developed by the Department and the Technical Advisor.]

16. Railtrack

[identify any special considerations related to railways and particularly rail crossings.]

17. Waterways

17.1 [Identify any significant waterways which might be affected by the Road.]

18. Other Project Specific Issues

18.1 [insert]

INSTRUCTIONS AND GUIDANCE TO TENDERERS

PART 4

Annex 1

1. The Department's Assumed Programme is as follows:-

[insert programme]

DATA ROOM SCHEDULE OF INFORMATION