ROGGIO

BENITO ROGGIO E HIJOS S.A.

PLANILLA COMPARATIVA DE CANTIDADES Y PRE

Ítem	Descripción	Unidad de medida	Cantidad Contractual	Cantidad Convenio Modificatorio N°2	Cantidad Convenio Modificatorio N°3	Cantidad Convenio Modificatorio N°4
1.	**PREPARACION DEL AREA DE TRABAJO**					
1.1	Despeje y limpieza de la franja	Ha	185.63	185.63	186.06	186.06
1.2	Remoción de estructuras existentes	Gb	1.00	1.00	1.00	1.00
1.3	Traslado de columnas de líneas eléctricas	Un	125.00	125.00	0.00	0.00
1.4	Reposición de cañerías de agua	m	2,500.00	2,500.00	15,620.00	24,437.50
2.	**MOVIMIENTO DE SUELOS**					
2.1	Excavación no Clasificada	m3	500.00	500.00	115,763.03	140,763.03
2.2	Excavación de bolsones	m3	5,000.00	5,000.00	5,000.00	2,205.10
2.3	Excavaciones de zanjas de drenajes	m3	37,585.00	37,585.00	38,575.00	5,000.00
2.5	Terraplén	m3	712,258.54	712,258.54	764,315.36	827,315.36
2.6	Terraplén para ensanche de plataforma	m3	110,787.34	110,787.34	110,787.34	80,504.81
2.7	Camada Drenante	m3	2,474.40	2,474.40	2,474.40	6,501.13
2.8	Pedraplén	m3	7,708.00	7,708.00	7,708.00	7,058.64
3.	**ESTRUCTURA DE PAVIMENTO**					
3.1	Sub Base de Suelo Agregado	m3	110,817.48	110,817.48	118,766.27	134,909.82
3.2	Base de Piedra Triturada	m3	155,060.02	155,060.02	157,056.82	162,014.51
3.3	Imprimación asfáltica	L	861,120.60	861,120.60	867,912.60	888,596.72
3.4	Riego de liga	L	414,390.80	414,390.80	418,630.80	395,749.00
3.5	Carpeta de concreto asfáltico	m3	33,018.69	33,018.69	33,301.69	35,293.46
3.6	Base de concreto asfáltico	m3	28,107.70	28,107.70	28,503.90	28,561.31
3.7	Geomembrana o Geogrilla	m2	67,232.00	67,232.00	67,232.00	23,352.00
3.8	Pavimento tipo empedrado	m2	47,987.00	47,987.00	61,086.62	25,243.05
3.9	Remoción y reposición de pavimento tipo empedrado existente	m2	2,233.75	2,233.75	2,233.75	5,000.00
3.10	Regularización con mezcla asfáltica	Ton	1,508.91	1,508.91	1,508.91	2,825.19
4	**DRENAJE Y PROTECCIÓN DE LA PLATAFORMA**					
4.1	**Alcantarilla tubular de H° A°**					
4.1.3	Alcantarilla tubular de H° A° 1xø0,80m	m	236.00	236.00	236.00	2,002.83
4.1.5	Alcantarilla tubular de H° A° 1x ø1,00m	m	547.00	547.00	639.30	409.07
4.1.6	Alcantarilla tubular de H° A° 2x ø1,00m	m	65.00	65.00	87.00	64.80
4.1.7	Alcantarilla tubular de H° A° 3x ø1,00m	m	87.00	87.00	87.00	73.80
4.1.8	Alcantarilla tubular de H° A° 1x ø1,20m	m	6.00	6.00	6.00	0.00
4.1.9	Alcantarilla tubular de H° A° 2x ø1,20m	m	35.00	35.00	29.00	29.10
4.1.10	Alcantarilla tubular de H° A° 3x ø1,20m	m	16.00	16.00	21.50	21.00
4.2	**Alcantarilla celular de H° A°**					
4.2.1	Alcantarilla celular de H° A° 1x1,00 x 1,00m	m	124.00	124.00	264.00	149.60
4.2.2	Alcantarilla celular de H° A° 1x1,50 x 1,50m	m	22.00	22.00	26.40	27.90
4.2.6	Alcantarilla celular de H° A° 1x3,0x4,00m	m	15.00	15.00	15.00	0.00
4.2.7	Alcantarilla celular de H° A° 2x 1,00 x 1,00m	m	53.00	53.00	109.00	155.50
4.2.8	Alcantarilla celular de H° A° 2x 1,50 x 1,50m	m	58.00	58.00	61.00	60.73
4.2.9	Alcantarilla celular de H° A° 2x 2,00 x 2,00m	m	45.00	45.00	52.30	52.30
4.2.13	Alcantarilla celular de H° A° 2x 4,50 x 4,50m	m	9.00	9.00	1.50	1.50
4.2.14	Alcantarilla celular de H° A° 3x 1,00 x 1,00m	m	20.00	20.00	28.00	43.77
4.2.15	Alcantarilla celular de H° A° 3x 1,50 x 1,50m	m	25.00	25.00	31.00	30.70
4.2.19	Alcantarilla celular de H° A° 3x 3,50 x 3,50m	m	85.00	85.00	60.00	60.00
4.2.20	Alcantarilla celular de H° A° 3x 3,50 x 4,00m	m	30.00	30.00	30.00	29.00
4.4	Dren profundo con tubo perforado de ø0,15m	m	17,140.00	17,140.00	5,000.00	5,000.00
4.5	Cuneta revestida de hormigón	m3	6,576.60	6,576.60	6,576.60	7,775.39
4.6	Cordón cuneta de hormigón	m	16,602.00	16,602.00	20,427.00	14,494.49
4.7	Caja colectora	Un	20.00	20.00	20.00	44.15
4.8	Cabecera para alcantarilla tubular	m3	549.30	549.30	549.30	865.28
4.9	Cabecera para alcantarilla celular	m3	608.92	608.92	608.92	357.35
4.10	Disipador de energía	Un	40.00	40.00	40.00	40.00
4.11	Relleno granular	m3	500.00	500.00	500.00	1,500.00
4.12	Bajada de agua de terraplén	m	250.00	250.00	250.00	350.16
4.14	Hormigón Estructural	m3	126.00	126.00	2,694.39	4,008.62
4.15	Acero para Refuerzo	Kg	11,988.00	11,988.00	231,179.35	360,954.26
5.	**PUENTES DE HORMIGON ARMADO**					
5.1	**PUENTE NUEVO**					
	PUENTE N° 1 - PUENTE SOBRE EL RIO TEMBEY (Prog. 12+654 - 12+723)					
5.1.1	**MOVIMIENTO DE SUELO**					
5.1.1.1	Excavación estructural en suelo	m3	175.18	175.18	175.18	148.87
5.1.1.2	Excavación estructural en roca	m3	250.18	250.18	250.18	954.36
5.1.2	**FUNDACIONES**					
5.1.2.1	Zapatas	m3	128.99	128.99	128.99	65.20
5.1.3	**HOMIGON ESTRUCTURAL**					
5.1.3.3	Estribo de H° A° (Fck 25 MPa)	m3	145.99	145.99	579.04	571.94
5.1.3.4	Pilas de H° A°. (Fck 25 MPa)	m3	73.71	73.71	285.51	105.07
5.1.3.5	Vigas longitudinales prefabricadas pretensadas (Fck 30 MPa)	m3	248.38	248.38	248.38	195.00
5.1.3.6	Losa de H° A° (Fck 25 MPa)Incluye losa de aprox. y de continuidad	m3	211.51	211.51	211.51	233.01
5.1.3.7	Vigas transversales de H° A° (Fck 25 MPa)	m3	28.22	28.22	28.22	28.56
5.1.3.8	Viga dintel de H° A° (Fck 25 MPa)	m3	41.61	41.61	41.61	41.61
5.1.3.9	Hormigón de regularización Fck 15 MPa)	m3	30.63	30.63	30.63	426.64

SHINICHI KASHIMA
Representante Legal
CONSORCIO CENTRAL YACHIYO

Ing. OSCAR A. FRANCO V.
Representante Legal

SUPUESTO - CONVENIO MODIFICATORIO N° 4

Diferencia de Cantidad de CMO N°4 - CMO N° 3	Precio Unitario s/IVA	Precio Total Contractual (Gs.)	Precio Total Convenio Modificatorio N°2 (Gs.)	Precio Total Convenio Modificatorio N°3 (Gs.)	Precio Total Convenio Modificatorio N°4 (Gs.)	Diferencia de Monto CMO N°4- CM 03	Incidencia sobre el monto contractual (%)
0.00	21,200,422	3,935,434,336	3,935,434,336	3,944,550,517	3,944,550,517	0	0.00%
0.00	162,843,867	162,843,867	162,843,867	162,843,867	162,843,867	0	0.00%
0.00	3,202,257	400,282,125	400,282,125	0	0	0	0.00%
8,817.50	48,845	122,112,500	122,112,500	762,958,900	1,193,649,688	430,690,788	0.16%
25,000.00	27,742	13,871,000	13,871,000	3,211,497,978	3,905,047,978	693,550,000	0.26%
-2,794.90	25,440	127,200,000	127,200,000	127,200,000	56,097,744	-71,102,256	-0.03%
-33,575.00	17,650	663,375,250	663,375,250	680,848,750	88,250,000	-592,598,750	-0.22%
63,000.00	37,486	26,699,723,630	26,699,723,630	28,651,125,585	31,012,743,585	2,361,618,000	0.87%
-30,282.53	54,574	6,046,108,293	6,046,108,293	6,046,108,293	4,393,469,501	-1,652,638,792	-0.61%
4,026.73	141,370	349,805,928	349,805,928	349,805,928	919,064,748	569,258,820	0.21%
-649.36	140,386	1,082,095,288	1,082,095,288	1,082,095,288	990,934,235	-91,161,053	-0.03%
16,143.55	223,130	24,726,704,312	24,726,704,312	26,500,317,825	30,102,428,137	3,602,110,312	1.33%
4,957.69	263,440	40,849,011,669	40,849,011,669	41,375,048,661	42,681,102,514	1,306,053,853	0.48%
20,684.12	7,592	6,537,627,595	6,537,627,595	6,589,192,459	6,746,226,299	157,033,840	0.06%
-22,881.80	1,134	469,919,167	469,919,167	474,727,327	448,779,366	-25,947,961	-0.01%
1,991.77	1,102,720	36,410,369,837	36,410,369,837	36,722,439,597	38,918,804,211	2,196,364,614	0.81%
57.41	994,022	27,939,672,169	27,939,672,169	28,333,503,686	28,390,570,489	57,066,803	0.02%
-43,880.00	20,605	1,385,315,360	1,385,315,360	1,385,315,360	481,167,960	-904,147,400	-0.33%
-35,843.57	79,483	3,814,150,721	3,814,150,721	4,855,347,817	2,006,393,343	-2,848,954,474	-1.05%
2,766.25	71,154	158,940,248	158,940,248	158,940,248	355,770,000	196,829,753	0.07%
1,316.28	509,237	768,392,802	768,392,802	768,392,802	1,438,693,317	670,300,515	0.25%
1,766.83	1,404,707	331,510,852	331,510,852	331,510,852	2,813,389,321	2,481,878,469	0.91%
-230.23	1,759,220	962,293,340	962,293,340	1,124,669,346	719,644,125	-405,025,221	-0.15%
-22.20	2,999,796	194,986,740	194,986,740	260,982,252	194,386,781	-66,595,471	-0.02%
-13.20	5,536,654	481,688,898	481,688,898	481,688,898	408,605,065	-73,083,833	-0.03%
-6.00	2,363,974	14,183,844	14,183,844	14,183,844	0	-14,183,844	-0.01%
0.10	4,039,203	141,372,105	141,372,105	117,136,887	117,540,807	403,920	0.00%
-0.50	6,199,032	99,184,512	99,184,512	133,279,188	130,179,672	-3,099,516	0.00%
-114.40	2,591,862	321,390,888	321,390,888	684,251,568	387,742,555	-296,509,013	-0.11%
1.50	3,313,723	72,901,906	72,901,906	87,482,287	92,452,872	4,970,585	0.00%
-15.00	9,778,948	146,684,220	146,684,220	146,684,220	0	-146,684,220	-0.05%
46.50	4,945,558	262,114,574	262,114,574	539,065,822	769,034,269	229,968,447	0.08%
-0.27	6,405,867	371,540,286	371,540,286	390,757,887	389,028,303	-1,729,584	0.00%
0.00	10,892,259	490,151,655	490,151,655	569,665,146	569,665,146	0	0.00%
0.00	35,179,585	316,616,265	316,616,265	52,769,378	52,769,378	1	0.00%
15.77	7,067,294	141,345,880	141,345,880	197,884,232	309,335,458	111,451,226	0.04%
-0.30	9,109,791	227,744,775	227,744,775	282,403,521	279,670,584	-2,732,937	0.00%
0.00	25,794,656	2,192,545,760	2,192,545,760	1,547,679,360	1,547,679,360	0	0.00%
-1.00	28,907,413	867,222,390	867,222,390	867,222,390	838,314,977	-28,907,413	-0.01%
0.00	84,152	1,442,365,280	1,442,365,280	420,760,000	420,760,000	0	0.00%
1,198.79	1,224,996	8,056,308,694	8,056,308,694	8,056,308,694	9,524,821,648	1,468,512,954	0.54%
-5,932.51	151,596	2,516,796,792	2,516,796,792	3,096,651,492	2,197,306,706	-899,344,786	-0.33%
24.15	59,942,093	1,198,841,860	1,198,841,860	1,198,841,860	2,646,312,295	1,447,470,435	0.53%
315.98	2,033,334	1,116,910,366	1,116,910,366	1,116,910,366	1,759,403,244	642,492,878	0.24%
-251.57	2,678,274	1,630,854,604	1,630,854,604	1,630,854,604	957,081,214	-673,773,390	-0.25%
0.00	1,587,047	63,481,880	63,481,880	63,481,880	63,481,880	0	0.00%
1,000.00	124,483	62,241,500	62,241,500	62,241,500	186,724,500	124,483,000	0.05%
100.16	456,438	114,109,500	114,109,500	114,109,500	159,826,330	45,716,830	0.02%
1,314.23	1,100,516	138,665,016	138,665,016	2,965,219,305	4,411,550,503	1,446,331,198	0.53%
129,774.91	7,549	90,497,412	90,497,412	1,745,172,913	2,724,843,720	979,670,807	0.36%
-26.31	18,348	3,214,203	3,214,203	3,214,203	2,731,415	-482,788	0.00%
704.18	86,802	21,716,124	21,716,124	21,716,124	82,840,357	61,124,233	0.02%
-63.79	2,033,088	262,248,021	262,248,021	262,248,021	132,557,744	-129,690,277	-0.05%
-7.10	2,956,176	431,572,134	431,572,134	1,711,738,239	1,690,755,301	-20,982,938	-0.01%
-180.44	2,158,338	159,091,094	159,091,094	616,227,082	226,772,257	-389,454,825	-0.14%
-53.38	3,531,463	877,144,780	877,144,780	877,144,780	688,635,285	-188,509,495	-0.07%
21.50	3,737,750	790,571,503	790,571,503	790,571,503	870,933,128	80,361,626	0.03%
0.34	3,384,705	95,516,375	95,516,375	95,516,375	96,667,175	1,150,800	0.00%
0.00	2,141,841	89,122,004	89,122,004	89,122,004	89,122,004	0	0.00%
396.01	996,106	30,510,727	30,510,727	30,510,727	424,978,664	394,467,937	0.15%

PLANILLA COMPARATIVA DE CANTIDADES Y PR						
Ítem	Descripción	Unidad de medida	Cantidad Contractual	Cantidad Convenio Modificatorio N°2	Cantidad Convenio Modificatorio N°3	Cantidad Convenio Modificatorio N°4
5.1.4	**ACCESORIOS PREFABRICADOS DE HORMIGON**					
5.1.4.1	Base de baranda prefabricada	m	83.50	83.50	83.50	89.25
5.1.4.2	Baranda prefabricada de H°A°	m	83.50	83.50	83.50	89.25
5.1.4.3	Separador New Jersey lateral	m	167.00	167.00	167.00	178,50
5.1.5	**APARATO DE APOYO ELASTOMERICO**					
5.1.5.1	Aparato de apoyo	Un	30.00	30.00	30.00	30.00
5.1.6	**OBRAS COMPLEMENTARIAS**					
5.1.6.1	Drenaje de estribo	m3	59.72	59.72	59.72	70.35
5.1.6.2	Drenaje de tablero con caño galvanizado de ø 100mm	m	24.30	24.30	24.30	42.00
5.1.6.3	Colchones Reno	m3	39.10	39.10	39.10	144.00
5.1.6.4	Gaviones	m3	169.74	169.74	169.74	1,610.00
5.1.6.5	Juntas de Dilatación	m	22.80	22.80	22.80	23.84
5.2	**REFUERZO Y AMPLIACION DE PUENTES**					
	PUENTE N° 2 - PUENTE SOBRE EL ARROYO GUARAPAY (Prog.36+428 - 36+475)					
5.2.1.A	**MOVIMIENTO DE SUELOS**					
5.2.1.1.A	Excavación estructural en suelo	m3	152.00	152.00	152.00	150.00
5.2.1.2.A	Excavación estructural en roca	m3	12.77	12.77	12.77	0.00
5.2.2.A	**FUNDACIONES**					
5.2.2.1.A	Zapatas	m3	3.75	3.75	3.75	5.00
5.2.2.2.A	Tubulones	m3	33.47	33.47	33.47	46.19
5.2.3.A	**HORMIGÓN ESTRUCTURAL**					
5.2.3.1.A	Cabezales de H° A° (Fck 25 MPa)	m3	18.50	18.50	18.50	32.56
5.2.3.2.A	Demolición de H° Estructural	m3	13.08	13.08	13.08	47.32
5.2.3.3.A	Estribos de H° A° (Fck 25 MPa)	m3	15.82	15.82	15.82	24.00
5.2.3.4.A	Pilas de H° A° (Fck 25 MPa)	m3	4.67	4.67	4.67	4.66
5.2.3.5.A	Vigas longitudinales prefabricadas pretensadas (Fck 30 MPa)	m3	68.69	68.69	68.69	53.56
5.2.3.6.A	Losa de H° A° (Fck 25 MPa) Incluye losa de aproxim y de continuidad	m3	70.18	70.18	70.18	70.15
5.2.3.7.A	Vigas transversales de H° A° (Fck 25 MPa)	m3	3.97	3.97	3.97	3.80
5.2.3.8.A	Viga dintel de H° A° (Fck 25 MPa)	m3	6.44	6.44	6.44	7.41
5.2.3.9.A	Hormigón de regularización (Fck 15 MPa)	m3	3.56	3.56	3.56	6.55
5.2.4.A	**ACCESORIOS PREFABRICADOS DE HORMIGON**					
5.2.4.1.A	Base de barandas prefabricadas	m	58.13	58.13	58.13	58.22
5.2.4.2.A	Barandas prefabricadas de H° A°	m	58.13	58.13	58.13	58.22
5.2.4.3.A	Separador New Jersey lateral	m	116.26	116.26	116.26	116.44
5.2.5.A	**APARATO DE APOYO ELASTOMERICOS**					
5.2.5.1.A	Aparatos de apoyo	Un	12.00	12.00	12.00	8.00
5.2.6.A	**OBRAS COMPLEMENTARIAS**					
5.2.6.1.A	Drenaje de estribo	m3	7.82	7.82	7.82	7.82
5.2.6.2.A	Drenaje de tablero de caño galvanizado ø 100mm	m	24.30	24.30	24.30	24.30
5.2.6.3.A	Juntas de Dilatación	m	54.45	54.45	54.45	54.80
5.2.6.4.A	Protección de talud con muro de piedra bruta	m3	138.72	138.72	138.72	138.72
5.2.7.A	**REFUERZO DE PUENTE**					
5.2.7.1.A	Demolición de hormigón estructural	m3	8.00	8.00	8.00	8.00
5.2.7.2.A	Hormigón de anclaje extremos	m3	10.00	10.00	10.00	10.00
5.2.7.3.A	Placas de desvío inferior	Kg	3,300.00	3,300.00	3,300.00	3,300.00
5.2.7.4.A	Placa superior externa en pila	Kg	285.00	285.00	285.00	285.00
5.2.7.5.A	Placa superior interior en pila	Kg	315.00	315.00	315.00	315.00
5.2.7.6.A	Tesado	Kg	1,305.00	1,305.00	1,305.00	1,305.00
	PUENTE N°3 - PUENTE SOBRE EL ARROYO YHACA GUAZÚ (Prog 48+148 - 48+195)					
5.2.1.B	**MOVIMIENTO DE SUELOS**					
5.2.1.1.B	Excavación estructural en suelo	m3	152.00	152.00	152.00	150.00
5.2.1.2.B	Excavación estructural en roca	m3	12.78	12.78	12.78	0.00
5.2.2.B	**FUNDACIONES**					
5.2.2.1.B	Zapatas	m3	3.75	3.75	3.75	5.00
5.2.2.2.B	Tubulones	m3	37.53	37.53	37.53	46.11
5.2.3.B	**HORMIGÓN ESTRUCTURAL**					
5.2.3.1.B	Cabezales de H° A° (Fck 25 MPa)	m3	18.50	18.50	18.50	25.02
5.2.3.2.B	Demolición de H° Estructural	m3	13.08	13.08	13.08	47.32
5.2.3.3.B	Estribos de H° A° (Fck 25 MPa)	m3	15.82	15.82	15.82	18.04
5.2.3.4.B	Pilas de H° A° (Fck 25 MPa)	m3	4.67	4.67	4.67	4.02
5.2.3.5.B	Vigas longitudinales prefabricadas pretensadas (Fck 30 MPa)	m3	68.69	68.69	68.69	53.57
5.2.3.6.B	Losa de H° A° (Fck 25 MPa) Incluye losa de aproxim y de continuidad	m3	70.18	70.18	70.18	70.15
5.2.3.7.B	Vigas transversales de H° A° (Fck 25 MPa)	m3	3.97	3.97	3.97	3.80
5.2.3.8.B	Viga dintel de H° A° (Fck 25 MPa)	m3	6.44	6.44	6.44	7.59
5.2.3.9.B	Hormigón de regularización (Fck 15 MPa)	m3	3.56	3.56	3.56	6.30
5.2.4.B	**ACCESORIOS PREFABRICADOS**					
5.2.4.1.B	Base de barandas prefabricadas	m	54.50	54.50	54.50	58.22
5.2.4.2.B	Barandas prefabricadas de H° A°	m	54.50	54.50	54.50	58.22
5.2.4.3.B	Separador New Jersey lateral	m	109.00	109.00	109.00	109.00
5.2.5.B	**APARATO DE APOYO ELASTOMERICOS**					
5.2.5.1.B	Aparatos de apoyo	Un	12.00	12.00	12.00	8.00
5.2.6.B	**OBRAS COMPLEMENTARIAS**					
5.2.6.1.B	Drenaje de estribo	m3	7.82	7.82	7.82	7.82
5.2.6.2.B	Drenaje de tablero de caño galvanizado ø100mm	m	24.30	24.30	24.30	24.30
5.2.6.3.B	Juntas de Dilatación	m	54.45	54.45	54.45	54.80
5.2.6.4.B	Protección de talud con muro de piedra bruta	m3	138.72	138.72	138.72	138.72

SHINICHI KASHIMA
Representante Legal
CONSORCIO CENTRAL YACHIYO

Ing. OSCAR A. FRANCO V.
Representante Legal

SUPUESTO - CONVENIO MODIFICATORIO N° 4

(trescientos noventa y nueve) - 399

Diferencia de Cantidad de CMO N°4 - CMO N° 3	Precio Unitario s/IVA	Precio Total Contractual (Gs.)	Precio Total Convenio Modificatorio N°2 (Gs.)	Precio Total Convenio Modificatorio N°3 (Gs.)	Precio Total Convenio Modificatorio N°4 (Gs.)	Diferencia de Monto CMO N°4- CM 03	Incidencia sobre el monto contractual (%)
5.75	710,988	59,367,498	59,367,498	59,367,498	63,455,679	4,088,181	0.00%
5.75	331,511	27,681,169	27,681,169	27,681,169	29,587,357	1,906,189	0.00%
11.50	1,338,445	223,520,315	223,520,315	223,520,315	238,912,433	15,392,118	0.01%
0.00	1,902,575	57,077,250	57,077,250	57,077,250	57,077,250	0	0.00%
10.63	188,251	11,242,350	11,242,350	11,242,350	13,243,458	2,001,108	0.00%
17.70	203,009	4,933,119	4,933,119	4,933,119	8,526,378	3,593,259	0.00%
104.90	715,336	27,969,638	27,969,638	27,969,638	103,008,384	75,038,746	0.03%
1,440.26	1,170,078	198,609,040	198,609,040	198,609,040	1,883,825,580	1,685,216,540	0.62%
1.04	526,353	12,000,848	12,000,848	12,000,848	12,548,256	547,408	0.00%
-2.00	18,348	2,788,896	2,788,896	2,788,896	2,752,200	-36,696	0.00%
-12.77	86,802	1,108,462	1,108,462	1,108,462	0	-1,108,462	0.00%
1.25	2,179,415	8,172,806	8,172,806	8,172,806	10,897,075	2,724,269	0.00%
12.72	3,120,718	104,450,431	104,450,431	104,450,431	144,152,859	39,702,428	0.01%
14.06	1,739,379	32,178,512	32,178,512	32,178,512	56,634,180	24,455,669	0.01%
34.24	308,510	4,035,311	4,035,311	4,035,311	14,597,737	10,562,426	0.00%
8.18	2,847,097	45,041,075	45,041,075	45,041,075	68,330,328	23,289,253	0.01%
-0.01	2,793,583	13,046,033	13,046,033	13,046,033	13,018,097	-27,936	0.00%
-15.13	3,757,438	258,098,416	258,098,416	258,098,416	201,248,379	-56,850,037	-0.02%
-0.03	2,150,689	150,935,354	150,935,354	150,935,354	150,875,992	-59,362	0.00%
-0.17	3,305,991	13,124,784	13,124,784	13,124,784	12,554,501	-570,283	0.00%
0.97	2,891,658	18,622,278	18,622,278	18,622,278	21,415,041	2,792,763	0.00%
2.99	1,068,998	3,805,633	3,805,633	3,805,633	6,998,195	3,192,562	0.00%
0.09	265,446	15,430,376	15,430,376	15,430,376	15,454,266	23,890	0.00%
0.09	188,022	10,929,719	10,929,719	10,929,719	10,946,641	16,922	0.00%
0.18	1,547,490	179,911,187	179,911,187	179,911,187	180,189,736	278,549	0.00%
-4.00	1,902,575	22,830,900	22,830,900	22,830,900	15,220,600	-7,610,300	0.00%
0.00	190,413	1,489,030	1,489,030	1,489,030	1,489,030	0	0.00%
0.00	203,745	4,951,004	4,951,004	4,951,004	4,951,004	1	0.00%
0.35	526,353	28,659,921	28,659,921	28,659,921	28,844,144	184,223	0.00%
0.00	169,801	23,554,795	23,554,795	23,554,795	23,554,795	0	0.00%
0.00	1,403,151	11,225,208	11,225,208	11,225,208	11,225,208	0	0.00%
0.00	11,083,062	110,830,620	110,830,620	110,830,620	110,830,620	0	0.00%
0.00	140,450	463,485,000	463,485,000	463,485,000	463,485,000	0	0.00%
0.00	144,870	41,287,950	41,287,950	41,287,950	41,287,950	0	0.00%
0.00	143,260	45,126,900	45,126,900	45,126,900	45,126,900	0	0.00%
0.00	197,099	257,214,195	257,214,195	257,214,195	257,214,195	0	0.00%
-2.00	18,348	2,788,896	2,788,896	2,788,896	2,752,200	-36,696	0.00%
-12.78	86,802	1,109,330	1,109,330	1,109,330	0	-1,109,330	0.00%
1.25	2,211,659	8,293,721	8,293,721	8,293,721	11,058,295	2,764,574	0.00%
8.58	2,664,627	100,003,451	100,003,451	100,003,451	122,856,569	22,853,118	0.01%
6.52	1,774,278	32,824,143	32,824,143	32,824,143	44,399,533	11,575,390	0.00%
34.24	308,510	4,035,311	4,035,311	4,035,311	14,597,737	10,562,426	0.00%
2.22	2,845,634	45,017,930	45,017,930	45,017,930	51,335,237	6,317,307	0.00%
-0.65	2,825,828	13,196,617	13,196,617	13,196,617	11,359,829	-1,836,788	0.00%
-15.12	3,771,068	259,034,661	259,034,661	259,034,661	202,008,571	-57,026,090	-0.02%
-0.03	2,210,785	155,152,891	155,152,891	155,152,891	155,088,867	-64,024	0.00%
-0.17	3,305,991	13,124,784	13,124,784	13,124,784	12,554,501	-570,283	0.00%
1.15	2,923,903	18,829,935	18,829,935	18,829,935	22,187,161	3,357,226	0.00%
2.74	1,075,698	3,829,485	3,829,485	3,829,485	6,776,897	2,947,412	0.00%
3.72	271,758	14,810,811	14,810,811	14,810,811	15,821,751	1,010,940	0.00%
3.72	196,128	10,688,976	10,688,976	10,688,976	11,418,572	729,596	0.00%
0.00	1,563,394	170,409,946	170,409,946	170,409,946	170,409,946	0	0.00%
-4.00	1,902,575	22,830,900	22,830,900	22,830,900	15,220,600	-7,610,300	0.00%
0.00	190,413	1,489,030	1,489,030	1,489,030	1,489,030	0	0.00%
0.00	203,745	4,951,004	4,951,004	4,951,004	4,951,004	1	0.00%
0.35	526,353	28,659,921	28,659,921	28,659,921	28,844,144	184,223	0.00%
0.00	169,801	23,554,795	23,554,795	23,554,795	23,554,795	0	0.00%

PLANILLA COMPARATIVA DE CANTIDADES Y PRES						
Ítem	Descripción	Unidad de medida	Cantidad Contractual	Cantidad Convenio Modificatorio N°2	Cantidad Convenio Modificatorio N°3	Cantidad Convenio Modificatorio N°4
5.2.7.B	**REFUERZO DE PUENTE**					
5.2.7.1.B	Demolición de hormigón estructural	m3	8.00	8.00	8.00	8.00
5.2.7.2.B	Hormigón de anclaje extremos	m3	10.00	10.00	10.00	10.00
5.2.7.3.B	Placas de desvío inferior	Kg	3,300.00	3,300.00	3,300.00	3,300.00
5.2.7.4.B	Placa superior externa en pila	Kg	285.00	285.00	285.00	285.00
5.2.7.5.B	Placa superior interior en pila	Kg	315.00	315.00	315.00	315.00
5.2.7.6.B	Tesado	Kg	1,305.00	1,305.00	1,305.00	1,305.00
5.3	**REPARACIÓN DE PUENTES**					
	PUENTE N° 2 - REPARACIÓN DEL PUENTE SOBRE EL ARROYO GUARAPAY (Prog 36+428 - 36+475					
5.3.1.A	Limpieza de armaduras expuestas	m	18.40	18.40	18.40	18.40
5.3.2.A	Escarificación mecánica	m2	4.60	4.60	4.60	4.60
5.3.3.A	Puente de adherencia	m2	4.60	4.60	4.60	4.60
5.3.4.A	Reparación con mortero (e=4 cm)	m3	0.23	0.23	0.23	0.23
5.3.5.A	Andamiaje	m3xdía	70.00	70.00	70.00	70.00
5.3.6.A	Sellado de Fisuras en Losas e=0,3mm	m	30.72	30.72	30.72	30.72
5.3.7.A	Inyección de Fisuras en Losas e>0,4mm	m	491.52	491.52	491.52	488.72
5.3.8.A	Andamiaje	m3xdía	250.00	250.00	250.00	250.00
5.3.9.A	Limpieza final	Gb	1.00	1.00	1.00	1.00
	PUENTE N°3 - REPARACIÓN DEL PUENTE SOBRE EL ARROYO YHACA GUAZU (Prog 48+148 - 48+195)					
5.3.1.B	Limpieza de armaduras expuestas	m	2.02	2.02	2.02	0.96
5.3.2.B	Escarificación mecánica	m2	0.51	0.51	0.51	0.48
5.3.3.B	Puente de adherencia	m2	0.51	0.51	0.51	0.48
5.3.4.B	Reparación con mortero (e=4 cm)	m3	0.03	0.03	0.03	0.03
5.3.5.B	Andamiaje	m3xdía	70.00	70.00	70.00	70.00
5.3.6.B	Sellado de Fisuras en Losas e=0,3mm	m	43.18	43.18	43.18	43.18
5.3.7.B	Inyección de Fisuras en Losas e>0,4mm	m	690.88	690.88	690.88	562.37
5.3.8.B	Andamiaje	m3xdía	250.00	250.00	250.00	250.00
5.3.9.B	Limpieza final	Gb	1.00	1.00	1.00	1.00
6	**OBRAS COMPLEMENTARIAS**					
6.1	Construcción de alambrados	m	10,014.00	10,014.00	10,014.00	5,514.00
6.2	Cordón común de hormigón	m	11,362.00	11,362.00	11,362.00	7,386.00
6.3	Señalización Vertical	m2	405.57	405.57	476.10	644.05
6.4	Señalización Horizontal	m2	19,869.00	19,869.00	20,303.96	20,303.96
6.5	Pórtico para señalización	Un	3.00	3.00	3.00	5.00
6.6	Semi pórtico para señalización	Un	4.00	4.00	4.00	4.00
6.7	Tachas retroreflectivas pequeñas	Un	12,492.00	12,492.00	12,492.00	12,492.00
6.8	Tachas retroreflectivas grandes	Un	1,000.00	1,000.00	1,000.00	1,000.00
6.9.1	Revestimiento vegetal en taludes	m2	199,257.33	199,257.33	209,769.33	287,269.33
6.9.2	Revestimiento vegetal en contrataludes	m2	224,694.43	224,694.43	225,657.63	0.00
6.11	Dársenas para parada de buses	Un	24.00	24.00	24.00	28.00
6.12	Mojones de kilometraje	Un	50.00	50.00	50.00	0.00
6.13	Muro de hormigón ciclópeo	m3	1,524.00	1,524.00	1,524.00	3,640.19
6.14	Baranda de Defensa metálica	m	22,767.00	22,767.00	25,447.00	25,447.00
6.15	Gaviones	m3	261.00	261.00	261.00	255.30
7	**MOVILIZACIÓN**					
7.1	Movilización e instalación del campamento	Gb	1.00	1.00	1.00	1.00
7.2	Instalación y servicios especializados	Gb	1.00	1.00	1.17	1.26
8	**PLAN DE GESTIÓN AMBIENTAL**					
8.1	Implementación de PGA	Gb	1.00	1.00	1.00	0.82
9	**SUMAS PROVISIONALES**					
9.1	Trabajos por día	Gb	1.00	1.00	1.00	1.00
9.2	Solución de controversias	Gb	1.00	1.00	1.00	0.00
	ITEMS NUEVOS CMO N° 3					
1.5	Traslado de líneas del tendido eléctrico	Gb	0.00	0.00	1.00	1.00
1.6.A	Reposición de cañerías de agua ϕ = 85mm (pvc - 6 kg/cm2) con cambio completo de material	ml	0.00	0.00	2,100.00	2,100.00
1.6.B	Reposición de cañerías de agua, ϕ = 160mm (pvc- 10 kg/cm2) con cambio completo de material	ml	0.00	0.00	4,000.00	4,000.00
2.4	Excavación en Roca	m3	0.00	0.00	35,522.67	76,886.06
2.9	Pedraplén con material recuperado de empedrado existente	m3	0.00	0.00	7,700.00	2,834.37
6.16	Dársena para báscula Móvil	Un	0.00	0.00	2.00	2.00
	ITEMS NUEVOS CMO N° 4					
2.10	Macadam	m3	0.00	0.00	0.00	9,818.01
				Precio obra s/ IVA		
				Precio obra IVA incluido		
10	**LIBERACIÓN DE FRANJA DE DOMINIO**					
10.1	Indemnización por mejoras existentes	Gb	1.00	1.07	1.07	1.18
10.2	Indemnización por terrenos	Gb	1.00	1.15	1.15	1.22
				Precio total indemnización s/ IVA		
				Precio total indemnización IVA Incluido		
				Precio Total de la Obra IVA Incluido		

Ing. OSCAR A. FRANCO V.
Representante Legal

SHINICHI KASHIMA
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CONSORCIO CENTRAL YACHIYO

UPUESTO - CONVENIO MODIFICATORIO N° 4

Diferencia de Cantidad de CMO N°4 - CMO N° 3	Precio Unitario s/IVA	Precio Total Contractual (Gs.)	Precio Total Convenio Modificatorio N°2 (Gs.)	Precio Total Convenio Modificatorio N°3 (Gs.)	Precio Total Convenio Modificatorio N°4 (Gs.)	Diferencia de Monto CMO N°4- CM 03	Incidencia sobre el monto contractual (%)
0.00	1,403,151	11,225,208	11,225,208	11,225,208	11,225,208	0	0.00%
0.00	11,083,062	110,830,620	110,830,620	110,830,620	110,830,620	0	0.00%
0.00	140,450	463,485,000	463,485,000	463,485,000	463,485,000	0	0.00%
0.00	144,870	41,287,950	41,287,950	41,287,950	41,287,950	0	0.00%
0.00	143,260	45,126,900	45,126,900	45,126,900	45,126,900	0	0.00%
0.00	197,099	257,214,195	257,214,195	257,214,195	257,214,195	0	0.00%
0.00	61,337	1,128,601	1,128,601	1,128,601	1,128,601	0	0.00%
0.00	1,012,687	4,658,360	4,658,360	4,658,360	4,658,360	0	0.00%
0.00	822,415	3,783,109	3,783,109	3,783,109	3,783,109	0	0.00%
0.00	34,081,757	7,838,804	7,838,804	7,838,804	7,838,804	0	0.00%
0.00	50,863	3,560,410	3,560,410	3,560,410	3,560,410	0	0.00%
0.00	184,378	5,664,092	5,664,092	5,664,092	5,664,092	0	0.00%
-2.80	1,207,993	593,752,719	593,752,719	593,752,719	590,370,339	-3,382,380	0.00%
0.00	50,863	12,715,750	12,715,750	12,715,750	12,715,750	0	0.00%
0.00	31,811,056	31,811,056	31,811,056	31,811,056	31,811,056	0	0.00%
-1.06	61,337	123,901	123,901	123,901	58,884	-65,017	0.00%
-0.03	1,012,687	516,470	516,470	516,470	486,090	-30,380	0.00%
-0.03	822,415	419,432	419,432	419,432	394,759	-24,673	0.00%
0.00	34,081,757	1,022,453	1,022,453	1,022,453	1,022,453	0	0.00%
0.00	50,863	3,560,410	3,560,410	3,560,410	3,560,410	0	0.00%
0.00	184,378	7,961,442	7,961,442	7,961,442	7,961,442	0	0.00%
-128.51	1,207,993	834,578,204	834,578,204	834,578,204	679,339,023	-155,239,181	-0.06%
0.00	50,863	12,715,750	12,715,750	12,715,750	12,715,750	0	0.00%
0.00	31,811,056	31,811,056	31,811,056	31,811,056	31,811,056	0	0.00%
-4,500.00	66,633	667,262,862	667,262,862	667,262,862	367,414,362	-299,848,500	-0.11%
-3,976.00	89,137	1,012,774,594	1,012,774,594	1,012,774,594	658,365,882	-354,408,712	-0.13%
167.95	1,138,635	461,796,197	461,796,197	542,104,124	733,337,872	191,233,749	0.07%
0.00	40,589	806,462,841	806,462,841	824,117,432	824,117,432	0	0.00%
2.00	54,586,988	163,760,964	163,760,964	163,760,964	272,934,940	109,173,976	0.04%
0.00	35,832,410	143,329,640	143,329,640	143,329,640	143,329,640	0	0.00%
0.00	27,339	341,518,788	341,518,788	341,518,788	341,518,788	0	0.00%
0.00	121,909	121,909,000	121,909,000	121,909,000	121,909,000	0	0.00%
77,500.00	9,751	1,942,958,225	1,942,958,225	2,045,460,737	2,801,163,237	755,702,500	0.28%
-225,657.63	8,683	1,951,021,736	1,951,021,736	1,959,385,201	0	-1,959,385,201	-0.72%
4.00	50,480,429	1,211,530,296	1,211,530,296	1,211,530,296	1,413,452,012	201,921,716	0.07%
-50.00	824,896	41,244,800	41,244,800	41,244,800	0	-41,244,800	-0.02%
2,116.19	702,060	1,069,939,440	1,069,939,440	1,069,939,440	2,555,633,476	1,485,694,036	0.55%
0.00	227,164	5,171,842,788	5,171,842,788	5,780,642,308	5,780,642,308	0	0.00%
-5.70	1,176,629	307,100,169	307,100,169	307,100,169	300,393,384	-6,706,785	0.00%
0.00	7,020,661,599	7,020,661,599	7,020,661,599	7,020,661,599	7,020,661,599	0	0.00%
0.09	1,762,835,578	1,762,835,578	1,762,835,578	2,062,517,626	2,221,172,828	158,655,202	0.06%
-0.18	311,280,609	311,280,609	311,280,609	311,280,609	255,250,099	-56,030,510	-0.02%
0.00	1,200,000,000	1,200,000,000	1,200,000,000	1,200,000,000	1,200,000,000	0	0.00%
-1.00	600,000,000	600,000,000	600,000,000	600,000,000	0	-600,000,000	-0.22%
0.00	3,023,399,781	0	0	3,023,399,781	3,023,399,781	0	0.00%
0.00	132,468	0	0	278,182,800	278,182,800	0	0.00%
0.00	211,599	0	0	846,396,000	846,396,000	0	0.00%
41,363.39	116,212	0	0	4,128,160,526	8,935,083,077	4,806,922,551	1.77%
-4,865.63	73,576	0	0	566,535,200	208,541,607	-357,993,593	-0.13%
0.00	1,443,341,511	0	0	2,886,683,022	2,886,683,022	0	0.00%
9,818.01	149,702	0	0	0	1,469,775,217	1,469,775,217	0.54%
		241,715,609,435	241,715,609,435	270,052,201,109	289,453,704,853	19,401,503,744	
IVA		24,171,560,944	24,171,560,944	27,005,220,111	28,945,370,485	1,940,150,374	0.71%
		265,887,170,379	265,887,170,379	297,057,421,220	318,399,075,338	21,341,654,118	
0.11	2,294,799,418	2,294,799,418	2,446,517,261	2,446,517,261	2,704,496,817	257,979,556	0.10%
0.07	3,261,654,626	3,261,654,626	3,758,708,682	3,758,708,682	3,976,590,715	217,882,033	0.08%
		5,556,454,044	6,205,225,943	6,205,225,943	6,681,087,532	475,861,589	
IVA		72,475,488	620,522,594	620,522,594	668,108,753	47,586,159	0.02%
		5,628,929,532	6,825,748,537	6,825,748,537	7,349,196,285	523,447,748	
		271,516,099,911	272,712,918,916	303,883,169,757	325,748,271,624	21,865,101,866	119.97%
	Variación	54,232,171,713					
	Porc.	19.97%					