D.V. N° 447 / 2022

Asunción, 14 de marzo de 2022

Señor
**CHANG SIK BYUN**, Representante legal
ILSUNG CONSTRUCTION CO. LTD.

Ref.: Prórroga de Plazo por Lluvias. Contrato SG Ministro N° 11/2018. Obras de Mejoramiento del Corredor de Exportación de la Región Oriental – Tramo 3: Río Ñacunday – Los Cedrales

Tengo el agrado de dirigirme a usted, con referencia a su nota Nota IlsungT3 036/2022 de fecha 10/03/2022, a través de la cual solicita la aprobación de una prórroga de plazo por lluvias en la ejecución de las obras de *"Mejoramiento del Corredor de Exportación de la Región Oriental – Tramo 3: Río Ñacunday – Los Cedrales"*, en el marco del Contrato SG Ministro N° 11/2018, considerando que la obra continua en ejecución y que el plazo vigente en virtud del Convenio Modificatorio N° 3 se cumple en fecha 19/03/2022.

Al respecto, considerando que el Consorcio CENTRAL YACHIYO, responsable de la Fiscalización de la Obra, manifiesta en su Nota OC-PG-P17 N° 2.191/2022 de fecha 11/03/2022, que ha verificado que el pedido está fundamentado contractualmente, y que amerita su aprobación y que la Unidad Ejecutora del Proyecto, vía Memorándum UEP JICA PG-P17 Nº 64/2022, también informa su parecer favorable, se comunica la aprobación de la Prórroga de Plazo por Lluvias y la Curva de Avance Físico-Financiero correspondientes.

Por consiguiente, en concordancia con lo establecido en la subcláusula 8.2 de las Condiciones Generales y Particulares del Contrato SG Ministro N° 11/2018, con la corrección por las lluvias atípicas y sus consecuencias registradas en 102 días contabilizados en el periodo posterior al considerado en el Convenio Modificatorio N° 3 actualmente vigente, la fecha límite de terminación de la obra queda marcada para el día 29 de junio de 2022.

Hago propicia la oportunidad para saludarlo muy atentamente.

Recibido.
14/03/2022

g. PABLO L. SILVA S
Jefe UEP JICA PG-P17
D.V. - M.O.P.C.

Ing. VÍCTOR HUGO OLMEDO LÓPEZ
Director de Vialidad

Recibí
14-03-22

14:15 hs

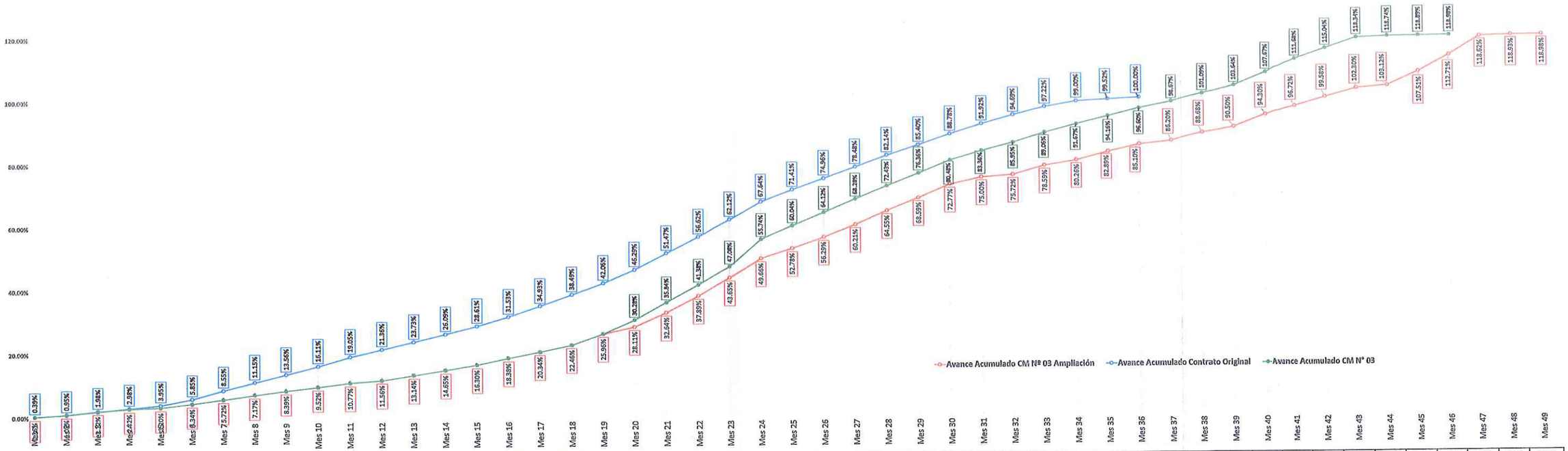
C.C.: CONSORCIO CENTRAL YACHIYO

01(Uno)



CONVENIO MODIFICATORIO N° 03
ANEXO 02 - CURVA DE AVANCE ILSUNG CONSTRUCTION CO.LTD.
LLAMADO MOPC N° 138/2016 LICITACION PÚBLICA INTERNACIONAL PARA LA CONTRATACION DE LAS OBRAS DE MEJORAMIENTO DEL CORREDOR DE EXPOTACION DE LA REGION ORIENTAL. OBRAS: TRAMO 3: RIO ÑACUNDAY - LOS CEDRALES.

CURVA DE AVANCE - CONVENIO MODIFICATORIO Nº 03 - AMPLIACION




| | Mes 1 | Mes 2 | Mes 3 | Mes 4 | Mes 5 | Mes 6 | Mes 7 | Mes 8 | Mes 9 | Mes 10 | Mes 11 | Mes 12 | Mes 13 | Mes 14 | Mes 15 | Mes 16 | Mes 17 | Mes 18 | Mes 19 | Mes 20 | Mes 21 | Mes 22 | Mes 23 | Mes 24 | Mes 25 | Mes 26 | Mes 27 | Mes 28 | Mes 29 | Mes 30 | Mes 31 | Mes 32 | Mes 33 | Mes 34 | Mes 35 | Mes 36 | Mes 37 | Mes 38 | Mes 39 | Mes 40 | Mes 41 | Mes 42 | Mes 43 | Mes 44 | Mes 45 | Mes 46 | Mes 47 | Mes 48 | Mes 49 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Avance Mensual CM N° 03 Ampliación | 0.36% | 0.72% | 1.04% | 0.70% | 0.37% | 1.14% | 1.38% | 1.45% | 1.22% | 1.13% | 1.25% | 0.79% | 1.58% | 1.52% | 1.65% | 2.08% | 1.96% | 2.12% | 3.50% | 2.14% | 4.53% | 5.26% | 5.75% | 6.01% | 3.13% | 3.51% | 3.92% | 4.34% | 4.05% | 4.18% | 2.22% | 0.72% | 2.87% | 1.67% | 2.63% | 2.21% | 1.09% | 2.49% | 1.82% | 3.80% | 2.42% | 2.87% | 2.72% | 0.82% | 4.39% | 5.20% | 5.91% | 0.32% | 0.04% |
| Avance Acumulado CM N° 03 Ampliación | 0.36% | 1.08% | 2.12% | 2.82% | 3.20% | 4.34% | 5.72% | 7.17% | 8.39% | 9.52% | 10.77% | 11.56% | 13.14% | 14.65% | 16.30% | 18.38% | 20.34% | 22.46% | 25.96% | 28.11% | 32.64% | 37.89% | 43.65% | 49.66% | 52.78% | 56.29% | 60.21% | 64.55% | 68.59% | 72.77% | 75.00% | 75.72% | 78.59% | 80.26% | 82.89% | 85.10% | 86.20% | 88.68% | 90.50% | 94.30% | 96.72% | 99.58% | 102.30% | 103.12% | 107.51% | 112.71% | 118.62% | 118.93% | 118.98% |
| Avance Mensual CM N° 03 | 0.36% | 0.72% | 1.04% | 0.70% | 0.37% | 1.14% | 1.38% | 1.45% | 1.22% | 1.13% | 1.25% | 0.79% | 1.58% | 1.52% | 1.65% | 2.08% | 1.96% | 2.12% | 3.50% | 4.32% | 5.56% | 5.53% | 5.70% | 8.65% | 4.30% | 4.09% | 4.15% | 4.15% | 3.94% | 4.12% | 2.87% | 2.60% | 3.11% | 2.61% | 2.49% | 2.43% | 2.07% | 2.42% | 2.56% | 4.03% | 4.02% | 3.35% | 3.30% | 0.41% | 0.15% | 0.09% | | | |
| Avance Acumulado CM N° 03 | 0.36% | 1.08% | 2.12% | 2.82% | 3.20% | 4.34% | 5.72% | 7.17% | 8.39% | 9.52% | 10.77% | 11.56% | 13.14% | 14.65% | 16.30% | 18.38% | 20.34% | 22.46% | 25.96% | 30.28% | 35.84% | 41.38% | 47.08% | 55.74% | 60.04% | 64.12% | 68.28% | 72.43% | 76.36% | 80.48% | 83.36% | 85.95% | 89.06% | 91.67% | 94.16% | 96.60% | 98.67% | 101.09% | 103.64% | 107.61% | 111.68% | 115.04% | 118.34% | 118.74% | 118.89% | 118.98% | | | |
| Avance Mensual Contrato Original | 0.39% | 0.56% | 1.03% | 1.00% | 0.97% | 1.90% | 2.70% | 2.60% | 2.41% | 2.55% | 2.95% | 2.31% | 2.37% | 2.36% | 2.52% | 2.92% | 3.40% | 3.56% | 3.56% | 4.23% | 5.16% | 5.15% | 5.50% | 5.52% | 3.77% | 3.54% | 3.52% | 3.66% | 3.26% | 3.38% | 3.14% | 2.77% | 2.53% | 1.78% | 0.52% | 0.48% | | | | | | | | | | | | | |
| Avance Acumulado Contrato Original | 0.39% | 0.95% | 1.98% | 2.98% | 3.95% | 5.85% | 8.55% | 11.15% | 13.56% | 16.11% | 19.05% | 21.36% | 23.73% | 26.09% | 28.61% | 31.53% | 34.93% | 38.49% | 42.06% | 46.29% | 51.47% | 56.62% | 62.12% | 67.64% | 71.41% | 74.96% | 78.48% | 82.14% | 85.40% | 88.78% | 91.92% | 94.69% | 97.22% | 99.00% | 99.52% | 100.00% | | | | | | | | | | | | | |
| | 19-jun.-18 | jul.-18 | ago.-18 | sep.-18 | oct.-18 | nov.-18 | dic.-18 | ene.-19 | feb.-19 | mar.-19 | abr.-19 | may.-19 | jun.-19 | jul.-19 | ago.-19 | sep.-19 | oct.-19 | nov.-19 | dic.-19 | ene.-20 | feb.-20 | mar.-20 | abr.-20 | may.-20 | jun.-20 | jul.-20 | ago.-20 | sep.-20 | oct.-20 | nov.-20 | dic.-20 | ene.-21 | feb.-21 | mar.-21 | abr.-21 | may.-21 | jun.-21 | jul.-21 | ago.-21 | sep.-21 | oct.-21 | nov.-21 | dic.-21 | ene.-22 | feb.-22 | mar.-22 | abr.-22 | may.-22 | 19-jun.-22 |

Ing. PABLO L. SILVA S.
Jefe UEP JICA PG-P17
D.V. - M.O.P.C.

Ilsung Construction Co.Ltd.
Representante
Chang Sik Byun

02(Dos)

**CONVENIO MODIFICATORIO Nº 03 - AMPLIACIÓN**

**ANEXO 02 - CRONOGRAMA FISICO - FINANCIERO ILSUNG CONSTRUCTION CO.LTD.**

**LLAMADO MOPC Nº 138/2016 LICITACION PÚBLICA INTERNACIONAL PARA LA CONTRATACION DE LAS OBRAS DE MEJORAMIENTO DEL CORREDOR DE EXPOTACION DE LA REGION ORIENTAL, OBRAS: TRAMO 3: RIO ÑACUNDAY - LOS CEDRALES.**

| Nº | Items | Un | Cantidad Contractual | Cantidad CMNº 03 | DURACIÓN Mes | 18-jun.-18 Mes 1 | jul.-18 Mes 2 | ago.-18 Mes 3 | sep.-18 Mes 4 | oct.-18 Mes 5 | nov.-18 Mes 6 | dic.-18 Mes 7 | ene.-19 Mes 8 | feb.-19 Mes 9 | mar.-19 Mes 10 | abr.-19 Mes 11 | may.-19 Mes 12 | jun.-19 Mes 13 | jul.-19 Mes 14 | ago.-19 Mes 15 | sep.-19 Mes 16 | oct.-19 Mes 17 | nov.-19 Mes 18 | dic.-19 Mes 19 | ene.-20 Mes 20 | feb.-20 Mes 21 | mar.-20 Mes 22 | abr.-20 Mes 23 | may.-20 Mes 24 | jun.-20 Mes 25 | jul.-20 Mes 26 | ago.-20 Mes 27 | sep.-20 Mes 28 | oct.-20 Mes 29 | nov.-20 Mes 30 | dic.-20 Mes 31 | ene.-21 Mes 32 | feb.-21 Mes 33 | mar.-21 Mes 34 | abr.-21 Mes 35 | may.-21 Mes 36 | jun.-21 Mes 37 | jul.-21 Mes 38 | ago.-21 Mes 39 | sep.-21 Mes 40 | oct.-21 Mes 41 | nov.-21 Mes 42 | dic.-21 Mes 43 | ene.-22 Mes 44 | feb.-22 Mes 45 | mar.-22 Mes 46 | abr.-22 Mes 47 | may.-22 Mes 48 | 30-jun.-22 Mes 49 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5.1.3 | HORMIGON ESTRUCTURAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.1 | Cabezales de H°A° (Fck 25 Mpa) | m3 | 230.88 | 230.88 | 14 | | | | | | | | | | | 7.33% | 5.00% | 10.00% | 9.00% | 2.89% | 2.89% | 2.89% | 10.00% | 10.00% | 5.00% | 8.18% | 9.55% | 10.00% | 7.27% | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.3 | Estribo de H°A° (Fck 25 Mpa) | m3 | 242.88 | 242.88 | 14 | | | | | | | | | | | 7.33% | 5.00% | 10.00% | 9.00% | 2.89% | 2.89% | 2.89% | 10.00% | 10.00% | 5.00% | 8.18% | 9.55% | 10.00% | 7.27% | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.4 | Pilas de Ho. Ao. (Fck 25 Mpa) | m3 | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.5 | Vigas longitudinales prefabricadas pretensadas (Fck 25 Mpa) | m3 | 64.89 | 64.89 | 13 | | | | | | | | | | | | 5.14% | 10.27% | 11.51% | 2.14% | 2.14% | 2.14% | 11.11% | 11.11% | 5.56% | 9.09% | 10.61% | 11.11% | 8.08% | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.6 | Losa de H°A° (Fck 25 Mpa) Incluye losa de aproximación y de con | m3 | 105.58 | 105.58 | 13 | | | | | | | | | | | | 5.56% | 11.11% | 10.00% | 2.22% | 2.22% | 2.22% | 11.11% | 11.11% | 5.56% | 9.09% | 10.61% | 11.11% | 8.08% | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.7 | Vigas transversales de H°A° (Fck 25 Mpa) | m3 | 8.75 | 8.75 | 13 | | | | | | | | | | | | | 11.11% | 10.00% | 11.11% | 0.37% | 0.37% | 0.37% | 11.11% | 5.56% | 9.09% | 10.61% | 11.11% | 7.58% | 11.62% | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.8 | Viga dintel de Ho. Ao. (Fck 25 Mpa) | m3 | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.9 | Hormigon de regularización Fck 15 Mpa | m3 | 19.24 | 36.18 | 13 | | | | | | | | | | | | | 11.11% | 10.00% | 11.11% | 0.37% | 0.37% | 0.37% | 11.11% | 5.56% | 9.09% | 10.61% | 11.11% | 7.58% | 11.62% | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.4 | ACCESORIOS PREFABRICADOS DE HORMIGON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.4.1 | Base de baranda prefabricada | m | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.4.2 | Baranda prefabricada de Ho. Ao. | m | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.4.3 | Separador New Jersey lateral | m | 71.60 | 71.60 | 13 | | | | | | | | | | | | | | | 11.25% | 9.17% | 1.53% | 1.53% | 1.53% | 6.33% | 10.23% | 11.93% | 12.50% | 8.52% | 7.95% | 8.81% | 8.81% | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.5 | APARATO DE APOYO ELASTOMERICOS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.5.1 | Aparato de apoyo | un | 12.00 | 12.00 | 13 | | | | | | | | | | | | | | | 11.25% | 9.17% | 1.53% | 1.53% | 1.53% | 6.33% | 10.23% | 11.93% | 12.50% | 8.52% | 7.95% | 8.81% | 8.81% | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.6 | OBRAS COMPLEMENTARIAS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.6.1 | Drenaje de estribo | m3 | 93.48 | 93.48 | 14 | | | | | | | | | | | | | | | | 11.11% | 8.15% | 7.73% | 2.10% | 1.09% | 1.72% | 10.61% | 11.11% | 7.58% | 7.07% | 8.59% | 9.60% | 6.78% | 6.78% | | | | | | | | | | | | | | | | | | | | | |
| 5.1.6.2 | Drenaje de tablero con caño galvanizado de Ø 100 mm | m | 6.30 | 6.30 | 12 | | | | | | | | | | | | | | | | | | 10.00% | 1.43% | 0.71% | 1.17% | 13.64% | 14.29% | 9.74% | 9.09% | 11.04% | 12.34% | 8.28% | 8.28% | | | | | | | | | | | | | | | | | | | | | |
| 5.1.6.3 | Colchones reno | m3 | 40.19 | 40.19 | 14 | | | | | | | | | | | | | | | | | | 7.73% | 11.11% | 5.56% | 0.91% | 1.09% | 1.11% | 7.58% | 7.07% | 8.59% | 9.60% | 11.11% | 10.61% | 8.96% | 8.96% | | | | | | | | | | | | | | | | | | | |
| 5.1.6.4 | Gaviones | m3 | 197.82 | 197.82 | 14 | | | | | | | | | | | | | | | | | | 7.73% | 11.11% | 5.56% | 0.91% | 1.09% | 1.11% | 7.58% | 7.07% | 8.59% | 9.60% | 11.11% | 10.61% | 8.96% | 8.96% | | | | | | | | | | | | | | | | | | | |
| 5.1.6.5 | Juntas de dilatación | m | 26.00 | 26.00 | 13 | | | | | | | | | | | | | | | | | | | 12.50% | 8.33% | 6.82% | 7.95% | 8.33% | 8.68% | 8.30% | 6.44% | 7.20% | 8.33% | 7.95% | 8.62% | 8.62% | | | | | | | | | | | | | | | | | | | |
| PUENTE Nº5 - PUENTE SOBRE EL ARROYO ITA COTY (Prog. 134+597,475 - 134+617,525) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.1 | MOVIMIENTO DE SUELOS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.1.1 | Excavación estructural en suelo | m3 | | 317.12 | 3 | | | | | | | | | | | | | | | | | | | | 25.00% | 40.91% | 34.09% | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.1.2 | Excavación estructural en roca | m3 | | 298.19 | 3 | | | | | | | | | | | | | | | | | | | | 25.00% | 40.91% | 34.09% | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.2 | FUNDACIONES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.2.1 | Zapata | m3 | | 160.16 | 4 | | | | | | | | | | | | | | | | | | | | | | 31.82% | 33.33% | 22.73% | 12.12% | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3 | HORMIGON ESTRUCTURAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.3 | Estribo de H°A° (Fck 25 Mpa) | m3 | | 323.28 | 5 | | | | | | | | | | | | | | | | | | | | | | | 25.00% | 17.05% | 15.91% | 19.32% | 22.73% | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.5 | Vigas longitudinales prefabricadas pretensadas (Fck 25 Mpa) | m3 | | 65.47 | 4 | | | | | | | | | | | | | | | | | | | | | | | | 21.01% | 19.61% | 29.64% | 29.73% | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.6 | Losa de H°A° (Fck 25 Mpa) Incluye losa de aproximación y de con | m3 | | 105.63 | 4 | | | | | | | | | | | | | | | | | | | | | | | | 22.73% | 21.21% | 25.76% | 30.30% | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.7 | Vigas transversales de H°A° (Fck 25 Mpa) | m3 | | 6.14 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | 21.21% | 25.76% | 28.79% | 24.24% | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.9 | Hormigon de regularización Fck 15 Mpa | m3 | | 20.31 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | 21.21% | 25.76% | 28.79% | 24.24% | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.4 | ACCESORIOS PREFABRICADOS DE HORMIGON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.4.3 | Separador New Jersey lateral | m | | 75.36 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | 33.64% | 43.18% | 18.18% | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.5 | APARATO DE APOYO ELASTOMERICOS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.5.1 | Aparato de apoyo | un | | 12.00 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | 38.64% | 43.18% | 18.18% | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.6 | OBRAS COMPLEMENTARIAS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.6.1... | Drenaje de estribo | m3 | | 105.23 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | 28.79% | 33.33% | 31.82% | 6.06% | | | | | | | | | | | | | | | | | | | | |
| 5.1.6.2... | Drenaje de tablero con caño galvanizado de Ø 100 mm | m | | 6.30 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 95.45% | 4.55% | | | | | | | | | | | | | | | | | | | | |
| 5.1.6.3... | Colchones reno | m3 | | 39.76 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 31.82% | 33.33% | 25.76% | 9.09% | | | | | | | | | | | | | | | | | | |
| 5.1.6.4... | Gaviones | m3 | | 357.83 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 31.82% | 33.33% | 25.76% | 9.09% | | | | | | | | | | | | | | | | | | |
| 5.1.6.5... | Juntas de dilatación | m | | 26.00 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50.00% | 38.64% | 11.36% | | | | | | | | | | | | | | | | | | |
| 6 | OBRAS COMPLEMENTARIAS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6.1 | Construccion de alambrados | m | 9,334.00 | 9,334.00 | 31 | | | | | | | | 4.07% | 3.66% | 2.99% | 2.99% | 2.04% | 4.07% | 3.66% | 4.07% | 4.07% | 2.99% | 2.65% | 4.07% | 2.04% | 3.33% | 3.89% | 4.07% | 2.78% | 2.59% | 2.10% | 2.11% | 2.44% | 2.33% | 4.00% | 3.09% | 0.91% | 3.64% | 2.36% | 4.00% | 4.27% | 4.27% | 4.27% | | | | | | | | | | | | | | | | | | | |
| 6.2 | Cordón común de hormigon | m | 1,072.70 | 1,072.70 | 23 | | | | | | | | | | | | | | | | | | | | | | 5.97% | 6.25% | 4.29% | 3.98% | 4.83% | 5.40% | 6.25% | 5.97% | 6.25% | 4.83% | 0.93% | 3.79% | 2.46% | 4.17% | 3.98% | 2.08% | 4.17% | 2.08% | 3.41% | 6.31% | 0.10% | 6.31% | 6.21% | | | | | | | | | | | | | | | | | |
| 6.3 | Señalización Vertical | m2 | 211.52 | 211.52 | 14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 13.34% | 11.23% | 3.78% | 7.50% | 3.75% | 8.14% | 3.41% | 8.39% | 7.50% | 7.50% | 7.50% | 7.50% | 14.50% | 0.10% | | | | | | | | | | | | | | | |
| 6.4 | Señalización horizontal | m2 | 18,398.82 | 18,398.82 | 17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1.68% | 8.96% | 5.84% | 10.87% | 7.07% | 2.72% | 5.45% | 2.73% | 4.46% | 2.48% | 8.97% | 5.45% | 5.45% | 5.45% | 5.45% | 16.81% | 0.10% | | | | | | | | | | | | | |
| 6.5 | Portico para Señalización | un | 1.00 | 1.00 | 13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 13.64% | 4.29% | 8.57% | 4.29% | 7.01% | 3.90% | 8.77% | 8.57% | 8.57% | 8.57% | 8.57% | 15.15% | 0.10% | | | | | | | | | | | | | |
| 6.6 | Semi pórtico para Señalización | Un | 1.00 | 1.00 | 13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 13.64% | 4.29% | 8.57% | 4.29% | 7.01% | 3.90% | 8.77% | 8.57% | 8.57% | 8.57% | 8.57% | 15.15% | 0.10% | | | | | | | | | | | | | |
| 6.7 | Tachas retroflectivas pequeñas | un | 12,530.00 | 12,530.00 | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4.72% | 10.64% | 14.04% | 3.33% | 6.67% | 3.33% | 5.45% | 3.03% | 6.67% | 6.67% | 6.67% | 6.67% | 6.67% | 15.15% | 0.10% | | | | | | | | | | | | |
| 6.8 | Tachas retroflectivas grandes | un | 937.00 | 937.00 | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4.20% | 10.67% | 14.64% | 3.33% | 6.67% | 3.33% | 5.45% | 3.03% | 6.65% | 6.67% | 6.67% | 6.67% | 6.67% | 15.04% | 0.10% | | | | | | | | | | | | |
| 6.9.1 | Revestimiento vegetal en taludes | m2 | 343,966.52 | 348,381.37 | 36 | | | | | | | | | | | | | | | 2.06% | 3.43% | 3.43% | 2.51% | 2.40% | 3.43% | 1.71% | 2.80% | 3.27% | 3.43% | 2.34% | 2.16% | 2.65% | 2.96% | 3.43% | 3.27% | 3.43% | 2.65% | 1.04% | 4.15% | 2.70% | 4.34% | 0.69% | 0.38% | 0.72% | 1.79% | 2.92% | 1.62% | 0.10% | 3.57% | 3.57% | 5.87% | 3.80% | 3.80% | 3.80% | 3.80% | | | | | | | | | | | |
| 6.9.2 | Revestimiento vegetal en contraltaludes | m2 | 208,598.13 | 208,598.13 | 36 | | | | | | | | | | | | | | | 3.39% | 3.77% | 3.77% | 2.76% | 2.64% | 3.77% | 1.88% | 3.08% | 3.60% | 3.77% | 2.57% | 2.40% | 2.91% | 3.25% | 3.77% | 3.60% | 3.77% | 2.91% | 0.86% | 1.71% | 1.11% | 3.24% | 0.80% | 0.42% | 0.84% | 1.79% | 2.92% | 1.62% | 0.10% | 3.57% | 3.57% | 5.47% | 3.60% | 3.60% | 3.60% | 3.60% | | | | | | | | | | | |
| 6.11 | Dársenas para parada de buses | un | 12.00 | 12.00 | 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 8.33% | 6.44% | 1.89% | 7.58% | 4.92% | 8.33% | 5.30% | 2.78% | 5.56% | 3.78% | 4.85% | 2.53% | 0.10% | 5.56% | 5.56% | 7.45% | 7.45% | 12.91% | | | | | | | | | | | |
| 6.12 | Mojon de kilometraje | un | 45.00 | 45.00 | 13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 13.64% | 4.76% | 9.52% | 4.76% | 7.79% | 4.33% | 0.10% | 9.52% | 9.52% | 9.52% | 5.70% | 15.70% | 5.12% | | | | | | | | | | | | |
| 6.13 | Muro de hormigón Ciclópeo | m3 | 160.00 | 160.00 | 25 | | | | | | | | | | | | | | | | | | | | | | | | 4.38% | 2.92% | 2.72% | 3.30% | 3.69% | 4.28% | 4.08% | 6.41% | 4.86% | 1.46% | 5.83% | 3.79% | 6.41% | 3.35% | 1.75% | 3.51% | 1.75% | 2.87% | 1.59% | 0.10% | 3.51% | 6.92% | 6.84% | 6.84% | 6.84% | | | | | | | | | | | |
| 6.14 | Baranda para defensa metálica | m | 16,181.00 | 16,181.00 | 25 | | | | | | | | | | | | | | | | | | | | | | | | 0.93% | 2.69% | 3.27% | 3.65% | 4.33% | 4.04% | 6.34% | 4.90% | 1.44% | 4.71% | 3.06% | 5.18% | 10.82% | 1.75% | 3.51% | 1.75% | 2.87% | 1.59% | 3.51% | 0.10% | 3.51% | 6.92% | 6.40% | 6.40% | 6.40% | | | | | | | | | | | |
| 6.15 | Gaviones | m3 | 788.00 | 788.00 | 14 | | | | | | | | | | | | | | | | | | | | 10.16% | 13.24% | 7.95% | 8.33% | 6.44% | 1.89% | 7.58% | 4.92% | 8.33% | 7.95% | 4.17% | 6.34% | 6.34% | 6.34% | | | | | | | | | | | | | | | | | | | |
| 6.16 | Colchones Reno | m3 | 108.26 | 108.26 | 14 | | | | | | | | | | | | | | | | | | | | 10.16% | 13.24% | 7.95% | 8.33% | 6.44% | 1.89% | 7.58% | 4.92% | 8.33% | 7.95% | 4.17% | 6.34% | 6.34% | 6.34% | | | | | | | | | | | | | | | | | | | |
| 7 | MOVILIZACIÓN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7.1 | Movilización e instalacion del campamento | Global | 1.00 | 1.00 | 11 | 12.13% | 9.00% | 19.20% | 9.32% | 4.38% | 10.23% | 10.96% | 10.96% | 4.61% | 4.61% | 4.61% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7.2 | Instalaciones y servicios especializados | Global | 1.00 | 1.25 | 48 | 2.17% | 2.17% | 2.17% | 2.17% | 2.17% | 2.17% | 2.17% | 2.17% | 2.17% | 2.17% | 2.17% | 2.17% | 2.17% | 2.17% | 2.17% | 2.17% | 2.17% | 2.17% | 2.17% | 1.89% | 1.89% | 1.89% | 1.89% | 1.89% | 1.89% | 1.89% | 1.89% | 1.89% | 1.89% | 1.89% | 1.89% | 1.89% | 1.89% | 1.89% | 1.89% | 1.89% | 1.89% | 1.89% | 1.89% | 1.89% | 1.89% | 1.89% | 1.89% | 1.89% | 3.16% | 3.16% | 3.16% | | | | | | | | | | | |
| 8 | PLAN DE GESTIÓN AMBIENTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8.1 | Implementación de PGA | Global | 1.00 | 1.00 | 47 | 0.47% | 0.54% | 0.54% | 0.72% | 0.43% | 2.03% | 2.17% | 1.08% | 0.49% | 0.80% | 0.40% | 1.63% | 3.25% | 3.42% | 4.34% | 3.25% | 3.18% | 2.66% | 2.71% | 0.81% | 1.78% | 2.07% | 2.71% | 1.85% | 1.38% | 1.26% | 0.94% | 0.54% | 3.62% | 4.86% | 2.93% | 0.74% | 2.96% | 1.92% | 3.25% | 3.11% | 1.00% | 2.01% | 1.30% | 1.95% | 1.08% | 2.38% | 2.38% | 2.38% | 6.56% | 4.18% | 4.18% | | | | | | | | | | | |
| 9 | SUMAS PROVISORIA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 9.09% | 0.20% | 10.00% | 9.55% | 5.00% | 18.61% | 15.11% | 15.61% | | | | | | | | | | | | | | | | |
| 9.1 | Trabajo por día | Global | 1.00 | 1.00 | 11 | | | | | | | | | | | | | | | 9.00% | 0.33% | 10.00% | | | | | | | | | | | | | | | | 22.73% | 7.58% | 7.58% | 7.58% | | | | | | | | | | | | | | | | | | |
| 9.2 | Solución de controversias | Global | 1.00 | 1.00 | 7 | | | | | | | | | | | | | | | 25.00% | | | | | | 12.50% | | | | 17.05% | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | ESTACIONES DE PESAJE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15.1 | Obras Viales | Global | - | 1.00 | 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | 8.64% | 10.00% | 9.55% | 10.00% | 7.73% | 2.27% | 9.09% | 5.91% | 9.00% | 8.59% | | | | | | | | | 9.61% | 9.61% | | | | | | | | | | |
| 15.2 | Obras Civiles-Puesto de Control | Global | - | 1.00 | 14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.01% | 1.55% | 0.46% | 1.83% | 1.19% | 2.01% | 1.92% | 1.01% | | | 17.17% | 9.54% | 2.98% | 20.98% | | | 18.66% | 18.66% | | | | | | | | | | |
| 15.3 | Obras Civiles-Puesto de Policía Caminera | Global | - | 1.00 | 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 12.50% | 9.66% | 2.84% | 11.36% | 7.39% | 12.50% | 11.93% | 6.25% | | | | | | | | | 8.52% | 8.52% | 8.52% | | | | | | | | | |
| 15.4 | Amoblamiento y Equipamiento | Global | - | 1.00 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50.00% | 25.00% | | | | | | | | | | 25.00% | | | | | | | | |
| 10 | LIBERACIÓN DE LA FRANJA DE DOMINIO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0.56% | | | | | | |
| 10.1 | Indemnización por mejoras existentes | Global | 1.00 | 1.02 | 5 | | 61.84% | 18.52% | 16.59% | | | | | | | | | | | | | | | | | 2.49% | | | | | | | | | | | | | | | | | | | | | | | | | | | 13.18% | | | | | | |
| 10.2 | Indemnización por terrenos | Global | 1.00 | 1.21 | 11 | | | | | | | | | | | | | | | | | | | | | 8.18% | 9.55% | 10.00% | 6.82% | 6.36% | 7.73% | 8.64% | 10.00% | 9.55% | 10.00% | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Avance Mensual CM Nº 03 Ampliación | | | | | 0.36% | 0.72% | 1.04% | 0.70% | 0.37% | 1.14% | 1.36% | 1.45% | 1.22% | 1.13% | 1.25% | 0.79% | 1.58% | 1.52% | 1.65% | 2.08% | 1.96% | 2.12% | 3.50% | 2.14% | 4.53% | 5.26% | 5.75% | 6.01% | 3.13% | 3.51% | 3.92% | 4.34% | 4.05% | 4.18% | 2.22% | 0.72% | 2.87% | 1.67% | 2.63% | 2.21% | 1.09% | 2.45% | 1.82% | 3.80% | 2.42% | 2.87% | 2.72% | 0.82% | 4.39% | 5.20% | 5.91% | 0.32% | 0.04% |
| | Avance Acumulado CM Nº 03 Ampliación | | | | | 0.36% | 1.08% | 2.12% | 2.82% | 3.20% | 4.34% | 5.72% | 7.17% | 8.39% | 9.52% | 10.77% | 11.56% | 13.14% | 14.65% | 16.30% | 18.38% | 20.34% | 22.46% | 25.96% | 28.11% | 32.64% | 37.89% | 43.65% | 49.66% | 52.78% | 56.29% | 60.21% | 64.55% | 68.59% | 72.77% | 75.00% | 75.72% | 78.59% | 80.26% | 82.89% | 85.10% | 86.20% | 88.65% | 90.47% | 94.30% | 96.72% | 99.58% | 102.30% | 103.12% | 107.51% | 112.71% | 118.62% | 118.93% | 118.98% |
| | Avance Mensual CM Nº 03 | | | | | 0.36% | 0.72% | 1.04% | 0.70% | 0.37% | 1.14% | 1.36% | 1.45% | 1.22% | 1.13% | 1.25% | 0.79% | 1.58% | 1.52% | 1.65% | 2.08% | 1.96% | 2.12% | 3.50% | 4.32% | 5.56% | 5.53% | 5.70% | 8.65% | 4.30% | 4.09% | 4.15% | 4.15% | 3.94% | 4.12% | 2.87% | 2.60% | 3.11% | 2.61% | 2.49% | 2.43% | 2.07% | 2.42% | 2.56% | 4.03% | 4.02% | 3.35% | 3.30% | 0.41% | 0.15% | 0.09% | | | | | | | | | | | |
| | Avance Acumulado CM Nº 03 | | | | | 0.36% | 1.08% | 2.12% | 2.82% | 3.20% | 4.34% | 5.72% | 7.17% | 8.39% | 9.52% | 10.77% | 11.56% | 13.14% | 14.65% | 16.30% | 18.38% | 20.34% | 22.46% | 25.96% | 30.28% | 35.84% | 41.38% | 47.08% | 55.74% | 60.04% | 64.12% | 68.28% | 72.43% | 76.36% | 80.48% | 83.36% | 85.95% | 89.06% | 91.67% | 94.16% | 96.60% | 98.67% | 101.09% | 103.65% | 107.67% | 111.68% | 115.04% | 118.34% | 118.74% | 118.89% | 118.98% | | | | | | | | | | | |
| | Avance Mensual Contrato Original | | | | | 0.39% | 0.56% | 1.03% | 1.00% | 0.97% | 1.90% | 2.70% | 2.60% | 2.41% | 2.55% | 2.95% | 2.31% | 2.37% | 2.36% | 2.52% | 2.92% | 3.40% | 3.56% | 3.56% | 4.23% | 5.18% | 5.15% | 5.50% | 5.52% | 3.77% | 3.54% | 3.52% | 3.66% | 3.26% | 3.38% | 3.14% | 2.77% | 2.53% | 1.78% | 0.52% | 0.48% | | | | | | | | | | | | | | | | | | | | | |
| | Avance Acumulado Contrato Original | | | | | 0.39% | 0.95% | 1.98% | 2.98% | 3.95% | 5.85% | 8.55% | 11.15% | 13.56% | 16.11% | 19.05% | 21.36% | 23.73% | 26.09% | 28.61% | 31.53% | 34.93% | 38.49% | 42.06% | 46.29% | 51.47% | 56.62% | 62.12% | 67.64% | 71.41% | 74.96% | 78.46% | 82.14% | 85.40% | 88.76% | 91.92% | 94.69% | 97.22% | 99.00% | 99.52% | 100.00% | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Mes 1 | Mes 2 | Mes 3 | Mes 4 | Mes 5 | Mes 6 | Mes 7 | Mes 8 | Mes 9 | Mes 10 | Mes 11 | Mes 12 | Mes 13 | Mes 14 | Mes 15 | Mes 16 | Mes 17 | Mes 18 | Mes 19 | Mes 20 | Mes 21 | Mes 22 | Mes 23 | Mes 24 | Mes 25 | Mes 26 | Mes 27 | Mes 28 | Mes 29 | Mes 30 | Mes 31 | Mes 32 | Mes 33 | Mes 34 | Mes 35 | Mes 36 | Mes 37 | Mes 38 | Mes 39 | Mes 40 | Mes 41 | Mes 42 | Mes 43 | Mes 44 | Mes 45 | Mes 46 | Mes 47 | Mes 48 | Mes 49 |
| | | | | | | 18-jun.-18 | jul.-18 | ago.-18 | sep.-18 | oct.-18 | nov.-18 | dic.-18 | ene.-19 | feb.-19 | mar.-19 | abr.-19 | may.-19 | jun.-19 | jul.-19 | ago.-19 | sep.-19 | oct.-19 | nov.-19 | dic.-19 | ene.-20 | feb.-20 | mar.-20 | abr.-20 | may.-20 | jun.-20 | jul.-20 | ago.-20 | sep.-20 | oct.-20 | nov.-20 | dic.-20 | ene.-21 | feb.-21 | mar.-21 | abr.-21 | may.-21 | jun.-21 | jul.-21 | ago.-21 | sep.-21 | oct.-21 | nov.-21 | dic.-21 | ene.-22 | feb.-22 | mar.-22 | abr.-22 | may.-22 | 30-jun.-22 |

**REFERENCIAS**

- Contractual
- Convenio Modificatorio Nº 02 - Nuevo
- Convenio Modificatorio Nº 03 - Nuevo
- Item Eliminado

Ing. PABLO L. SILVA S.
Jefe UEP UCA PG-P17
D.V. - M.O.P.C.

Ilsung Construction Co.Ltd.
Representante
Chang Sik Byun

03(Tres)

**CONVENIO MODIFICATORIO Nº 03 - AMPLIACIÓN**
**ANEXO 02 - CRONOGRAMA FISICO - FINANCIERO ILSUNG CONSTRUCTION CO.LTD.**
**LLAMADO MOPC Nº 138/2016 LICITACION PÚBLICA INTERNACIONAL PARA LA CONTRATACION DE LAS OBRAS DE MEJORAMIENTO DEL CORREDOR DE EXPOTACION DE LA REGION ORIENTAL, OBRAS: TRAMO 3: RIO ÑACUNDAY - LOS CEDRALES.**

| Nº | Items | Un | Cantidad Contractual | Cantidad CMN° 03 | DURACIÓN Mes | 18-jun.-18 Mes 1 | jul.-18 Mes 2 | ago.-18 Mes 3 | sep.-18 Mes 4 | oct.-18 Mes 5 | nov.-18 Mes 6 | dic.-18 Mes 7 | ene.-19 Mes 8 | feb.-19 Mes 9 | mar.-19 Mes 10 | abr.-19 Mes 11 | may.-19 Mes 12 | jun.-19 Mes 13 | jul.-19 Mes 14 | ago.-19 Mes 15 | sep.-19 Mes 16 | oct.-19 Mes 17 | nov.-19 Mes 18 | dic.-19 Mes 19 | ene.-20 Mes 20 | feb.-20 Mes 21 | mar.-20 Mes 22 | abr.-20 Mes 23 | may.-20 Mes 24 | jun.-20 Mes 25 | jul.-20 Mes 26 | ago.-20 Mes 27 | sep.-20 Mes 28 | oct.-20 Mes 29 | nov.-20 Mes 30 | dic.-20 Mes 31 | ene.-21 Mes 32 | feb.-21 Mes 33 | mar.-21 Mes 34 | abr.-21 Mes 35 | may.-21 Mes 36 | jun.-21 Mes 37 | jul.-21 Mes 38 | ago.-21 Mes 39 | sep.-21 Mes 40 | oct.-21 Mes 41 | nov.-21 Mes 42 | dic.-21 Mes 43 | ene.-22 Mes 44 | feb.-22 Mes 45 | mar.-22 Mes 46 | abr.-22 Mes 47 | may.-22 Mes 48 | 30-jun.-22 Mes 49 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5.1.3.1 | Cabezales de Ho. Ao. (Fck 25 Mpa) | m3 | 205.92 | 205.92 | 16 | | | | | | 3.73% | 8.33% | 13.33% | 0.20% | 8.33% | | | | 3.00% | 8.33% | 12.67% | 0.20% | 0.20% | 8.33% | 4.17% | 6.82% | 7.95% | 8.33% | 6.06% | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.3 | Estribo de Ho. Ao. (Fck 25 Mpa) | m3 | 236.38 | 236.38 | 16 | | | | | | 3.73% | 8.33% | 13.33% | 0.20% | 8.33% | | | | 3.00% | 8.33% | 12.67% | 0.20% | 0.20% | 8.33% | 4.17% | 6.82% | 7.95% | 8.33% | 6.06% | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.4 | Pilas de Ho. Ao. (Fck 25 Mpa) | m3 | 122.85 | 122.85 | 16 | | | | | | | 3.33% | 8.33% | 12.00% | 1.63% | 8.33% | | | | 3.33% | 8.33% | 9.76% | 1.63% | 1.63% | 4.17% | 6.82% | 7.95% | 8.33% | 5.68% | 8.71% | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.5 | Vigas longitudinales prefabricadas pretensadas (Fck 25 Mpa) | m3 | 356.88 | 356.88 | 16 | | | | | | | 3.33% | 8.33% | 12.00% | 1.63% | 8.33% | | | | 3.33% | 8.33% | 9.76% | 1.63% | 1.63% | 4.17% | 6.82% | 7.95% | 8.33% | 5.68% | 8.71% | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.6 | Losa de Ho. Ao. (Fck 25 Mpa) Incluye losa de aproximac. y de continuidad | m3 | 202.43 | 202.43 | 14 | | | | | | | | | 3.60% | 11.73% | 3.51% | 10.00% | | | | | 2.93% | 11.30% | 3.51% | 1.76% | 8.18% | 9.55% | 10.00% | 6.82% | 6.36% | 10.55% | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.7 | Vigas transversales de Ho. Ao. (Fck 25 Mpa) | m3 | 37.63 | 37.63 | 14 | | | | | | | | | 3.60% | 11.73% | 3.51% | 10.00% | | | | | 2.93% | 11.30% | 3.51% | 1.76% | 8.18% | 9.55% | 10.00% | 6.82% | 6.36% | 10.55% | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.8 | Viga dintel de Ho. Ao. (Fck 25 Mpa) | m3 | 62.45 | 62.45 | 14 | | | | | | | | | | 2.93% | 11.73% | 2.18% | 10.00% | | | | | 2.60% | 16.00% | 1.09% | 1.79% | 9.55% | 10.00% | 6.82% | 6.36% | 7.73% | 11.03% | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.9 | Hormigon de regularización Fck 15 Mpa | m3 | 43.55 | 43.55 | 14 | | | | | | | | | | 2.93% | 11.73% | 2.18% | 10.00% | | | | | 2.60% | 16.00% | 1.09% | 1.79% | 9.55% | 10.00% | 6.82% | 6.36% | 7.73% | 11.03% | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.4 | ACCESORIOS PREFABRICADOS DE HORMIGÓN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.4.1 | Base de baranda prefabricada | m | 116.00 | 116.00 | 15 | | | | | | | | | | | 7.33% | 5.00% | 2.56% | 10.00% | | | | | 10.00% | 5.00% | 2.09% | 2.44% | 10.00% | 6.82% | 6.36% | 7.73% | 8.64% | 8.03% | 8.03% | | | | | | | | | | | | | | | | | | | | | |
| 5.1.4.2 | Baranda prefabricada de Ho. Ao. | m | 116.00 | 116.00 | 15 | | | | | | | | | | | 7.33% | 5.00% | 2.56% | 10.00% | | | | | 10.00% | 5.00% | 2.09% | 2.44% | 10.00% | 6.82% | 6.36% | 7.73% | 8.64% | 8.03% | 8.03% | | | | | | | | | | | | | | | | | | | | | |
| 5.1.4.3 | Separador New Jersey lateral | m | 232.00 | 232.00 | 15 | | | | | | | | | | | | 5.00% | 10.00% | 1.67% | 10.00% | | | | | 5.00% | 8.18% | 1.59% | 1.67% | 6.82% | 6.36% | 7.73% | 8.64% | 10.00% | 8.67% | 8.67% | | | | | | | | | | | | | | | | | | | | |
| 5.1.5 | APARATO DE APOYO ELASTOMERICOS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.5.1 | Aparato de apoyo | un | 40.00 | 40.00 | 15 | | | | | | | | | | | | 5.00% | 10.00% | 1.67% | 10.00% | | | | | 5.00% | 8.18% | 1.59% | 1.67% | 6.82% | 6.36% | 7.73% | 8.64% | 10.00% | 8.67% | 8.67% | | | | | | | | | | | | | | | | | | | | |
| 5.1.6 | OBRAS COMPLEMENTARIAS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.6.1 | Drenaje de estribo | m3 | 61.33 | 61.33 | 15 | | | | | | | | | | | | 5.00% | 10.00% | 1.67% | 10.00% | | | | | 5.00% | 8.18% | 1.59% | 1.67% | 6.82% | 6.36% | 7.73% | 8.64% | 10.00% | 8.67% | 8.67% | | | | | | | | | | | | | | | | | | | | |
| 5.1.6.2 | Drenaje de tablero con caño galvanizado de Ø100mm | m | 32.40 | 32.40 | 15 | | | | | | | | | | | | 5.00% | 10.00% | 1.67% | 10.00% | | | | | 5.00% | 8.18% | 1.59% | 1.67% | 6.82% | 6.36% | 7.73% | 8.64% | 10.00% | 8.67% | 8.67% | | | | | | | | | | | | | | | | | | | | |
| 5.1.6.3 | Colchones reno | m3 | 50.38 | 50.38 | 15 | | | | | | | | | | | | 5.00% | 10.00% | 1.67% | 10.00% | | | | | 5.00% | 8.18% | 1.59% | 1.67% | 6.82% | 6.36% | 7.73% | 8.64% | 10.00% | 8.67% | 8.67% | | | | | | | | | | | | | | | | | | | | |
| 5.1.6.4 | Gaviones | m3 | 296.80 | 296.80 | 13 | | | | | | | | | | | | | 12.50% | 6.25% | 6.25% | | | | | | 10.33% | 8.52% | 8.93% | 6.09% | 5.68% | 6.90% | 7.71% | 8.93% | 6.01% | 6.01% | | | | | | | | | | | | | | | | | | | | |
| 5.1.6.5 | Juntas de dilatacion | m | 34.20 | 34.20 | 13 | | | | | | | | | | | | | 12.50% | 6.25% | 6.25% | | | | | | 10.33% | 8.52% | 8.93% | 6.09% | 5.68% | 6.90% | 7.71% | 8.93% | 6.01% | 6.01% | | | | | | | | | | | | | | | | | | | | |
| **PUENTE N°2 - PUENTE SOBRE EL ARROYO PIRA PYTA (Prog. 114+880 - 114+900)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.1 | MOVIMIENTO DE SUELOS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.1.1 | Excavación estructural en suelo | m3 | 712.34 | 712.34 | 11 | | | | | | | | 12.50% | 11.39% | 0.42% | 0.42% | 0.42% | 12.50% | 12.50% | 12.50% | 12.50% | 12.50% | 12.50% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.1.2 | Excavación estructural en roca | m3 | 49.21 | 657.01 | 11 | | | | | | | | 12.50% | 11.39% | 0.42% | 0.42% | 0.42% | 12.50% | 12.50% | 12.50% | 12.50% | 12.50% | 12.50% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.2 | FUNDACIONES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.2.1 | Zapata | m3 | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.2.2 | Tubulones | m3 | 133.73 | 133.73 | 13 | | | | | | | | | | 8.15% | 8.15% | 5.56% | 3.83% | 3.83% | 3.83% | 11.11% | 11.11% | 11.11% | 11.11% | 5.56% | 9.09% | 7.58% | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3 | HORMIGON ESTRUCTURAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.1 | Cabezales de Ho. Ao. (Fck 25 Mpa) | m3 | 230.88 | 230.88 | 14 | | | | | | | | | | | 7.33% | 5.00% | 10.00% | 9.00% | 2.69% | 2.69% | 2.69% | 10.00% | 10.00% | 5.00% | 8.18% | 9.55% | 10.00% | 7.27% | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.3 | Estribo de Ho. Ao. (Fck 25 Mpa) | m3 | 246.18 | 246.18 | 14 | | | | | | | | | | | 7.39% | 5.64% | 9.91% | 8.46% | 2.91% | 2.91% | 2.91% | 10.00% | 10.00% | 5.00% | 8.18% | 9.55% | 10.00% | 7.27% | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.4 | Pilas de Ho. Ao. (Fck 25 Mpa) | m3 | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.5 | Vigas longitudinales prefabricadas pretensadas (Fck 25 Mpa) | m3 | 64.89 | 64.89 | 13 | | | | | | | | | | | | 5.14% | 10.27% | 11.51% | 2.14% | 2.14% | 2.14% | 11.11% | 11.11% | 5.56% | 9.09% | 10.61% | 11.11% | 8.08% | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.6 | Losa de Ho. Ao. (Fck 25 Mpa) Incluye losa de aproximac. y de continuidad | m3 | 105.69 | 105.69 | 13 | | | | | | | | | | | | 5.56% | 11.11% | 10.00% | 2.22% | 2.22% | 2.22% | 11.11% | 11.11% | 5.56% | 9.09% | 10.61% | 11.11% | 8.08% | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.7 | Vigas transversales de Ho. Ao. (Fck 25 Mpa) | m3 | 8.32 | 8.32 | 13 | | | | | | | | | | | | 5.56% | 11.11% | 10.00% | 2.22% | 2.22% | 2.22% | 11.11% | 11.11% | 5.56% | 9.09% | 10.61% | 11.11% | 8.08% | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.8 | Viga dintel de Ho. Ao. (Fck 25 Mpa) | m3 | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.9 | Hormigon de regularización Fck 15 Mpa | m3 | 19.24 | 19.24 | 12 | | | | | | | | | | | | | 11.11% | 10.00% | 11.11% | 0.37% | 0.37% | 0.37% | 11.11% | 5.56% | 9.09% | 10.61% | 11.11% | 19.19% | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.4 | ACCESORIOS PREFABRICADOS DE HORMIGÓN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.4.1 | Base de baranda prefabricada | m | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.4.2 | Baranda prefabricada de Ho. Ao. | m | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.4.3 | Separador New Jersey lateral | m | 71.60 | 71.60 | 11 | | | | | | | | | | | | | | | 14.29% | 9.52% | 9.52% | 9.52% | 9.52% | 4.76% | 7.79% | 9.09% | 9.52% | 6.49% | 9.96% | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.5 | APARATO DE APOYO ELASTOMERICOS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.5.1 | Aparato de apoyo | un | 12.00 | 12.00 | 11 | | | | | | | | | | | | | | | 14.29% | 9.52% | 9.52% | 9.52% | 9.52% | 4.76% | 7.79% | 9.09% | 9.52% | 6.49% | 9.96% | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.6 | OBRAS COMPLEMENTARIAS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.6.1 | Drenaje de estribo | m3 | 67.65 | 67.65 | 13 | | | | | | | | | | | | | | | 12.50% | 12.50% | 8.33% | 8.33% | 8.33% | 4.17% | 6.82% | 7.95% | 8.33% | 5.68% | 5.30% | 5.87% | 5.87% | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.6.2 | Drenaje de tablero con caño galvanizado de Ø100mm | m | 6.30 | 6.30 | 13 | | | | | | | | | | | | | | | 12.50% | 12.50% | 8.33% | 8.33% | 8.33% | 4.17% | 6.82% | 7.95% | 8.33% | 5.68% | 5.30% | 5.87% | 5.87% | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.6.3 | Colchones reno | m3 | 49.28 | 49.28 | 13 | | | | | | | | | | | | | | | | 12.50% | 9.17% | 1.11% | 1.11% | 0.56% | 10.33% | 11.93% | 12.50% | 8.52% | 7.95% | 9.66% | 7.38% | 7.38% | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.6.4 | Gaviones | m3 | 198.00 | 198.00 | 13 | | | | | | | | | | | | | | | | 12.50% | 9.17% | 1.11% | 1.11% | 0.56% | 10.33% | 11.93% | 12.50% | 8.52% | 7.95% | 9.66% | 7.38% | 7.38% | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.6.5 | Juntas de dilatacion | m | 26.00 | 26.00 | 13 | | | | | | | | | | | | | | | | 12.50% | 9.17% | 1.11% | 1.11% | 0.56% | 10.33% | 11.93% | 12.50% | 8.52% | 7.95% | 9.66% | 7.38% | 7.38% | | | | | | | | | | | | | | | | | | | | | | |
| **PUENTE N°3 - PUENTE SOBRE EL ARROYO PIRA PYTA (AFLUENTE 3)(Prog. 117+714,5 - 117+729,5)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.1 | MOVIMIENTO DE SUELOS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.1.1 | Excavación estructural en suelo | m3 | 503.46 | 294.37 | 11 | | | | | | | | 12.50% | 11.25% | 0.42% | 0.42% | 0.42% | 12.50% | 12.50% | 12.50% | 12.50% | 12.50% | 12.50% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.1.2 | Excavación estructural en roca | m3 | 111.54 | 139.32 | 11 | | | | | | | | 12.50% | 11.25% | 0.42% | 0.42% | 0.42% | 12.50% | 12.50% | 12.50% | 12.50% | 12.50% | 12.50% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.2 | FUNDACIONES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.2.1 | Zapatas | m3 | 137.28 | 137.28 | 13 | | | | | | | | | 10.00% | 8.15% | 8.15% | 2.35% | 2.35% | 2.35% | 11.11% | 11.11% | 11.11% | 11.11% | 11.11% | 5.56% | 8.56% | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3 | HORMIGON ESTRUCTURAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.3 | Estribo de H°A° (Fck 25 Mpa) | m3 | 248.88 | 248.88 | 13 | | | | | | | | | | 8.15% | 8.15% | 5.56% | 3.83% | 3.83% | 3.83% | 11.11% | 11.11% | 11.11% | 11.11% | 5.56% | 9.09% | 7.58% | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.5 | Vigas longitudinales prefabricadas pretensadas (Fck 25 Mpa) | m3 | 41.93 | 41.93 | 13 | | | | | | | | | | 5.83% | 6.95% | 7.95% | 4.20% | 4.20% | 4.20% | 11.11% | 11.11% | 11.11% | 11.11% | 5.56% | 9.09% | 7.58% | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.6 | Losa de H°A° (Fck 25 Mpa) Incluye losa de aproximación y de con | m3 | 87.98 | 87.98 | 13 | | | | | | | | | | | 8.15% | 5.56% | 11.11% | 2.84% | 2.84% | 2.84% | 11.11% | 11.11% | 11.11% | 5.56% | 9.09% | 10.61% | 8.08% | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.7 | Vigas transversales de H°A° (Fck 25 Mpa) | m3 | 8.53 | 8.53 | 11 | | | | | | | | | | | | 7.14% | 2.38% | 2.38% | 2.38% | 14.29% | 14.29% | 14.29% | 14.29% | 7.14% | 11.69% | 9.74% | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3.9 | Hormigon de regularización Fck 15 Mpa | m3 | 17.16 | 17.16 | 12 | | | | | | | | | | | | 6.25% | 12.50% | 2.08% | 2.08% | 2.08% | 12.50% | 12.50% | 12.50% | 6.25% | 10.33% | 11.93% | 9.09% | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.4 | ACCESORIOS PREFABRICADOS DE HORMIGON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.4.3 | Separador New Jersey lateral | m | 61.60 | 61.60 | 12 | | | | | | | | | | | | 6.25% | 12.50% | 2.08% | 2.08% | 2.08% | 12.50% | 12.50% | 12.50% | 6.25% | 10.33% | 11.93% | 9.09% | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.5 | APARATO DE APOYO ELASTOMERICOS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.5.1 | Aparato de apoyo | un | 12.00 | 12.00 | 11 | | | | | | | | | | | | | | 14.29% | 9.52% | 9.52% | 9.52% | 9.52% | 9.52% | 4.76% | 7.79% | 9.09% | 8.93% | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.6 | OBRAS COMPLEMENTARIAS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.6.1 | Drenaje de estribo | m3 | 99.20 | 99.20 | 12 | | | | | | | | | | | | | 12.50% | 11.25% | 0.42% | 0.42% | 0.42% | 12.50% | 12.50% | 6.25% | 10.33% | 11.93% | 12.50% | 9.09% | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.6.2 | Drenaje de tablero con caño galvanizado de Ø 100 mm | m | 4.50 | 4.50 | 11 | | | | | | | | | | | | | | 12.86% | 0.48% | 0.48% | 0.48% | 14.29% | 14.29% | 7.14% | 11.69% | 13.64% | 14.29% | 10.39% | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.6.3 | Colchones reno | m3 | 30.08 | 30.08 | 14 | | | | | | | | | | | | | | 9.00% | 10.00% | 10.00% | 7.33% | 1.22% | 1.22% | 0.61% | 8.18% | 9.55% | 10.00% | 6.82% | 6.36% | 7.73% | 11.97% | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.6.4 | Gaviones | m3 | 305.20 | 305.20 | 14 | | | | | | | | | | | | | | 9.00% | 10.00% | 10.00% | 7.33% | 1.22% | 1.22% | 0.61% | 8.18% | 9.55% | 10.00% | 6.82% | 6.36% | 7.73% | 11.97% | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.6.5 | Juntas de dilatación | m | 26.00 | 26.00 | 11 | | | | | | | | | | | | | | | | 14.29% | 9.52% | 9.52% | 9.52% | 4.76% | 7.79% | 9.09% | 9.52% | 6.49% | 6.06% | 13.42% | | | | | | | | | | | | | | | | | | | | | | | |
| **PUENTE N°4 - PUENTE SOBRE EL ARROYO YTUTI(Prog. 126+059,5 - 126+079,5)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.1 | MOVIMIENTO DE SUELOS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.1.1 | Excavación estructural en suelo | m3 | 266.58 | 1,601.08 | 11 | | | | | | | | | 11.25% | 9.17% | 1.53% | 1.53% | 1.53% | 12.50% | 12.50% | 12.50% | 12.50% | 12.50% | 12.50% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.1.2 | Excavación estructural en roca | m3 | 46.52 | 1,000.92 | 11 | | | | | | | | | 11.25% | 9.17% | 1.53% | 1.53% | 1.53% | 12.50% | 12.50% | 12.50% | 12.50% | 12.50% | 12.50% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.2 | FUNDACIONES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.2.1 | Zapata | m3 | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.2.2 | Tubulones | m3 | 190.07 | 207.11 | 13 | | | | | | | | | | | 8.15% | 5.56% | 11.11% | 2.84% | 2.84% | 2.84% | 11.11% | 11.11% | 11.11% | 5.56% | 9.09% | 10.61% | 8.08% | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Ing. PABLO L. SILVA S
Jefe UEP JICA PG-P17
D.V. - M.O.P.C.

Ilsung Construction Co.Ltd.
Representante
Chang Sik Byun

 04(Cuatro)

CONVENIO MODIFICATORIO N° 03 - AMPLIACIÓN

ANEXO 02 - CRONOGRAMA FISICO - FINANCIERO ILSUNG CONSTRUCTION CO.LTD.

LLAMADO MOPC N° 138/2016 LICITACION PÚBLICA INTERNACIONAL PARA LA CONTRATACION DE LAS OBRAS DE MEJORAMIENTO DEL CORREDOR DE EXPOTACION DE LA REGION ORIENTAL, OBRAS: TRAMO 3: RIO ÑACUNDAY - LOS CEDRALES.

| N° | Items | Ud. | Cantidad Contractual | Cantidad CMN° 03 | DURACIÓN Mes | 19-jun.-18 Mes 1 | jul.-18 Mes 2 | ago.-18 Mes 3 | sep.-18 Mes 4 | oct.-18 Mes 5 | nov.-18 Mes 6 | dic.-18 Mes 7 | ene.-19 Mes 8 | feb.-19 Mes 9 | mar.-19 Mes 10 | abr.-19 Mes 11 | may.-19 Mes 12 | jun.-19 Mes 13 | jul.-19 Mes 14 | ago.-19 Mes 15 | sep.-19 Mes 16 | oct.-19 Mes 17 | nov.-19 Mes 18 | dic.-19 Mes 19 | ene.-20 Mes 20 | feb.-20 Mes 21 | mar.-20 Mes 22 | abr.-20 Mes 23 | may.-20 Mes 24 | jun.-20 Mes 25 | jul.-20 Mes 26 | ago.-20 Mes 27 | sep.-20 Mes 28 | oct.-20 Mes 29 | nov.-20 Mes 30 | dic.-20 Mes 31 | ene.-21 Mes 32 | feb.-21 Mes 33 | mar.-21 Mes 34 | abr.-21 Mes 35 | may.-21 Mes 36 | jun.-21 Mes 37 | jul.-21 Mes 38 | ago.-21 Mes 39 | sep.-21 Mes 40 | oct.-21 Mes 41 | nov.-21 Mes 42 | dic.-21 Mes 43 | ene.-22 Mes 44 | feb.-22 Mes 45 | mar.-22 Mes 46 | abr.-22 Mes 47 | may.-22 Mes 48 | 30-jun.-22 Mes 49 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | PREPARACION DEL AREA DE TRABAJO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.1 | Despeje y limpieza de la franja | Hs | 220,88 | 220,88 | 24 | | | 2.19% | 1.87% | 1.40% | 6.33% | 4.90% | 6.30% | 5.04% | 4.62% | 4.62% | 3.15% | 7.00% | 5.04% | 5.60% | 0.70% | 3.71% | 3.71% | 3.71% | 2.50% | 4.09% | 4.77% | 3.00% | 3.41% | 3.18% | 7.05% | | | | | | | | | | | | | | | | | | | | | | | |
| 1.2 | Remoción de estructuras existentes | gl | 1.00 | 1.00 | 23 | | | 1.37% | 2.28% | 2.28% | 8.38% | 5.70% | 5.70% | 5.13% | 4.18% | 4.18% | 2.85% | 5.70% | 5.13% | 5.47% | 4.02% | 4.02% | 4.02% | 5.36% | 2.63% | 4.31% | 5.02% | 3.26% | 3.59% | | 5.50% | | | | | | | | | | | | | | | | | | | | | | | |
| 1.3 | Traslado de columnas de líneas eléctricas | un | 68.00 | 150.00 | 19 | | | | | | | | 6.67% | 6.00% | 4.89% | 4.89% | 3.33% | 6.67% | 6.00% | 6.67% | 6.67% | 2.74% | 2.74% | 2.74% | 3.33% | 5.45% | 6.36% | 6.67% | 4.55% | 4.24% | 9.39% | | | | | | | | | | | | | | | | | | | | | | | |
| 1.4 | Reposición de cañerías de agua | m | 2,500.00 | 2,500.00 | 19 | | | | | | | | 6.67% | 6.00% | 4.89% | 4.89% | 3.33% | 6.67% | 6.00% | 6.67% | 6.67% | 2.74% | 2.74% | 2.74% | 3.33% | 5.45% | 6.36% | 6.67% | 4.55% | 4.24% | 9.39% | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | MOVIMIENTO DE SUELOS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.1 | Excavación No Clasificada | m3 | 21,837.07 | 171,852.60 | 39 | | | 1.64% | 1.80% | 1.15% | 3.08% | 3.15% | 3.15% | 2.83% | 2.31% | 2.31% | 1.57% | 3.15% | 2.83% | 3.15% | 3.15% | 2.31% | 2.30% | 3.15% | 1.57% | 2.57% | 3.00% | 3.15% | 2.15% | 2.00% | 2.43% | 2.72% | 3.15% | 2.02% | 2.83% | 2.19% | 0.64% | 2.75% | 1.79% | 3.03% | 2.89% | 1.52% | 3.03% | 3.89% | 3.89% | 3.89% | | | | | | | | | | |
| 2.2 | Excavación de Bolsones | m3 | 12,000.00 | 60,000.00 | 35 | | | 1.64% | 1.64% | 0.98% | 3.08% | 3.15% | 3.15% | 2.83% | 2.31% | 2.31% | 1.57% | 3.15% | 2.83% | 3.15% | 3.15% | 2.31% | 2.30% | 3.15% | 1.57% | 2.57% | 3.00% | 3.15% | 2.15% | 2.00% | 2.43% | 2.72% | 3.15% | 2.64% | 2.72% | 2.11% | 0.62% | 2.75% | 1.79% | 3.03% | 2.89% | 1.52% | 3.03% | 3.80% | 5.80% | | | | | | | | | | |
| 2.3 | Excavaciones de zanjas de drenaje | m3 | 47,018.00 | 30,000.00 | 41 | | | | | | | 3.13% | 3.13% | 2.81% | 2.29% | 2.29% | 1.56% | 3.13% | 2.81% | 3.13% | 3.13% | 2.29% | 2.19% | 3.13% | 1.56% | 2.56% | 2.98% | 3.13% | 2.13% | 1.99% | 2.41% | 2.70% | 3.13% | 2.98% | 3.13% | 2.41% | 0.71% | 1.70% | 1.11% | 1.88% | 2.98% | 1.86% | 3.13% | 1.56% | 2.56% | 1.42% | 3.68% | 3.68% | 3.68% | 3.68% | 0.29% | 0.29% | | | | |
| 2.5 | Terraplén | m3 | 1,996,383.27 | 1,853,814.06 | 41 | | | 1.35% | 1.00% | 0.77% | 2.72% | 3.33% | 3.33% | 3.00% | 2.76% | 2.87% | 1.68% | 4.17% | 3.75% | 4.17% | 4.17% | 3.06% | 3.50% | 5.00% | 2.08% | 3.41% | 3.98% | 4.17% | 2.84% | 0.53% | 0.32% | 0.86% | 0.42% | 0.24% | 0.17% | 0.06% | 0.02% | 2.77% | 1.80% | 3.04% | 2.65% | 1.39% | 2.78% | 1.38% | 2.27% | 1.26% | 8.40% | 2.95% | | | | | | | | |
| 2.6 | Terraplen para ensanche de plataforma | m3 | 1,282.50 | 1,282.50 | 17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 9.69% | 2.44% | 7.58% | 4.92% | 8.33% | 7.98% | 4.17% | 8.33% | 4.17% | 6.82% | 3.79% | 5.34% | 5.34% | 5.34% | 5.34% | 5.34% | 5.34% | | | |
| 2.7 | Camada Drenante | m3 | 2,528.40 | 2,528.40 | 15 | | | | | | | | | | | | | | | | | | | | | | 9.44% | 18.11% | 3.66% | 8.30% | 6.44% | 7.30% | 8.33% | 7.98% | 8.33% | 6.44% | 1.89% | | | | | | | 4.17% | 4.47% | 4.47% | 4.47% | | | | | | | | | |
| 2.8 | Pedraplén | m3 | 10,000.00 | 193,222.54 | 16 | | | | | | | | | | | | | | | | | | | 10.00% | 5.83% | 9.55% | 7.07% | 7.41% | 5.08% | 4.71% | 5.72% | 6.40% | 7.41% | 7.07% | 7.41% | | | | | | | | | 4.19% | 4.09% | 4.09% | 4.09% | | | | | | | | |
| 3. | ESTRUCTURA DE PAVIMENTO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.1 | Sub Base de suelo agregado | m3 | 109,958.75 | 109,958.75 | 32 | | | | | | | | | | | | | | | | 4.15% | 3.04% | 2.90% | 4.15% | 2.07% | 3.39% | 4.62% | 3.33% | 3.77% | 3.52% | 3.20% | 3.58% | 4.15% | 3.95% | 3.46% | 2.40% | 0.71% | 2.30% | 0.80% | 0.78% | 0.73% | 0.39% | 4.00% | 2.80% | 3.37% | 1.83% | 0.10% | 0.10% | 0.10% | 8.43% | 8.43% | 8.43% | | | | |
| 3.2 | Base de piedra triturada | m3 | 132,837.82 | 132,837.82 | 31 | | | | | | | | | | | | | | | | | 3.00% | 2.86% | 4.09% | 2.03% | 3.35% | 4.56% | 3.46% | 3.72% | 3.47% | 3.16% | 3.53% | 4.09% | 3.91% | 3.41% | 2.37% | 0.70% | 2.17% | 3.01% | 0.77% | 0.74% | 0.39% | 4.17% | 2.28% | 3.41% | 1.89% | 0.10% | 0.10% | 0.10% | 9.11% | 9.11% | 9.11% | | | | |
| 3.3 | Imprimacion asfaltica | lt | 795,686.28 | 795,686.28 | 31 | | | | | | | | | | | | | | | | | 3.00% | 2.86% | 4.09% | 2.03% | 3.35% | 4.56% | 3.46% | 3.72% | 3.47% | 3.16% | 3.53% | 4.09% | 3.91% | 3.41% | 2.37% | 0.70% | 2.17% | 3.01% | 0.77% | 0.74% | 0.39% | 4.17% | 2.28% | 3.41% | 1.89% | 0.10% | 0.10% | 0.10% | 9.11% | 9.11% | 9.11% | | | | |
| 3.4 | Riego de liga | lt | 374,690.36 | 374,690.36 | 28 | | | | | | | | | | | | | | | | | | | | 1.16% | 4.77% | 6.12% | 7.22% | 5.56% | 4.23% | 4.46% | 3.74% | 4.33% | 4.41% | 4.33% | 3.35% | 0.79% | 2.36% | 0.64% | 3.17% | 3.03% | 1.59% | 3.17% | 1.39% | 2.60% | 1.44% | 0.10% | 0.10% | 0.10% | 8.36% | 8.36% | 8.36% | | | | |
| 3.5 | Carpeta de concreto asfáltico | m3 | 36,582.49 | 36,582.49 | 27 | | | | | | | | | | | | | | | | | | | | | 4.58% | 3.35% | 8.30% | 4.30% | 2.67% | 3.25% | 4.33% | 5.60% | 4.66% | 6.30% | 4.87% | 0.95% | 3.18% | 1.34% | 3.33% | 3.18% | 1.67% | 3.33% | 1.87% | 2.73% | 1.52% | 0.10% | 0.10% | 0.10% | 8.56% | 8.56% | 8.56% | | | | |
| 3.6 | Base de concreto asfáltico | m3 | 24,740.74 | 24,740.74 | 28 | | | | | | | | | | | | | | | | | | | | 2.89% | 5.56% | 8.82% | 7.22% | 4.92% | 3.67% | 4.46% | 3.74% | 4.33% | 4.41% | 4.33% | 2.51% | 0.66% | 2.36% | 0.07% | 3.17% | 3.03% | 1.59% | 3.17% | 1.39% | 2.60% | 1.44% | 0.10% | 0.10% | 0.10% | 8.54% | 8.54% | 8.54% | | | | |
| 3.7 | Geomembrana o Geogrilla | m2 | 2,280.00 | 2,280.00 | 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.84% | 11.36% | 4.92% | 8.33% | 7.95% | 4.17% | 8.33% | 4.17% | 6.82% | 3.79% | 0.10% | 0.10% | 0.10% | 6.28% | 6.28% | 6.28% | | | | |
| 3.8 | Pavimento tipo empedrado | m2 | 17,712.00 | 17,712.00 | 23 | | | | | | | | | | | | | | | | | | | | | | 3.97% | 6.25% | 4.29% | 3.98% | 4.83% | 5.40% | 6.25% | 5.97% | 6.25% | 4.63% | 0.55% | 3.79% | 2.46% | 4.17% | 3.98% | 3.08% | 4.17% | 2.28% | 3.41% | | | | 0.10% | 9.59% | 9.59% | 9.59% | | | | |
| 3.10 | Regularización con Mezcla Asfáltica | tn | 199.50 | 199.50 | 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.84% | 11.36% | 4.92% | 8.33% | 7.95% | 4.17% | 8.33% | 4.17% | 6.82% | 3.79% | 8.33% | 0.10% | 0.10% | 9.59% | 9.59% | 9.59% | | | | |
| 3.11 | Enripiado en Calzada | m3 | 7,150.50 | 7,150.50 | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 8.66% | 9.09% | 7.92% | 2.07% | 8.26% | 3.54% | 6.06% | 5.79% | 3.03% | 6.06% | 3.33% | 9.33% | 9.33% | 9.33% | 9.33% | | | | | | | |
| 4. | DRENAJE Y PROTECCIÓN DE LA PLATAFORMA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.1 | Alcantarilla tubular de Ho. Ao. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.1.2 | Alcantarilla tubular de Ho. Ao. 1 x Ø0,60m | m | 172.00 | 159.00 | 24 | | | | 0.47% | 0.84% | 1.90% | 6.10% | 4.07% | 7.33% | 5.97% | 5.97% | 3.05% | 4.07% | 5.49% | 6.10% | 6.10% | 1.48% | 3.66% | 3.66% | 1.83% | 4.09% | 4.77% | 5.00% | 3.41% | 3.18% | 3.86% | 7.51% | | | | | | | | | | | | | | | | | | | | | | | |
| 4.1.3 | Alcantarilla tubular de Ho. Ao. 1 x Ø0,80m | m | 427.00 | 489.00 | 30 | | | | | 0.36% | 0.84% | 1.80% | 0.90% | 3.24% | 2.64% | 1.98% | 1.80% | 2.70% | 3.24% | 3.60% | 5.40% | 3.96% | 3.78% | 4.50% | 2.18% | 3.68% | 5.16% | 7.21% | 4.54% | 1.67% | 2.03% | 2.26% | 3.85% | 3.67% | 3.85% | 2.97% | 0.87% | 3.50% | 11.71% | | | | | | | | | | | | | | | | | |
| 4.1.4 | Alcantarilla tubular de Ho. Ao. 2x Ø0,80m | m | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.1.5 | Alcantarilla tubular de H*A* 1 x Ø 1,00 m | m | 16.00 | 17.00 | 10 | | | | | | | | | | 10.48% | 1.27% | 1.27% | 1.27% | 14.29% | 14.29% | 14.29% | 14.29% | 14.29% | 14.29% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.1.6 | Alcantarilla tubular de H*A* 2 x Ø 1,00 m | m | 65.00 | 44.70 | 18 | | | | | | | | | | 3.64% | 5.64% | 3.85% | 7.69% | 6.92% | 11.54% | 2.91% | 2.91% | 2.91% | 8.33% | 4.17% | 6.82% | 7.95% | 8.33% | 5.68% | 2.90% | 2.90% | 2.90% | | | | | | | | | | | | | | | | | | | | | | | |
| 4.1.8 | Alcantarilla tubular de Ho. Ao. 1 x Ø 1,20m | m | 120.00 | 66.00 | 24 | | | | | | 5.19% | 5.56% | 2.78% | 5.00% | 6.11% | 4.07% | 2.78% | 5.56% | 5.00% | 5.56% | 5.56% | 4.07% | 3.15% | 3.15% | 1.57% | 4.55% | 5.30% | 5.56% | 3.79% | 3.54% | 4.29% | 2.63% | 2.63% | 2.63% | | | | | | | | | | | | | | | | | | | | | |
| 4.1.10 | Alcantarilla tubular de Ho. Ao. 3 x Ø1,20m | m | 255.50 | 165.63 | 30 | | | | | | 2.74% | 2.94% | 1.47% | 2.64% | 3.23% | 2.15% | 1.47% | 2.94% | 2.64% | 2.94% | 5.87% | 4.31% | 4.11% | 5.87% | 2.94% | 4.80% | 5.60% | 4.58% | 1.71% | 1.60% | 1.94% | 3.60% | 4.17% | 3.98% | 4.17% | 3.22% | 0.95% | 2.83% | 2.83% | 3.83% | | | | | | | | | | | | | | | | | |
| 4.2 | Alcantarilla celular de Ho. Ao. | | | | | | | | | | | | | | | | | | | 14.29% | | | | 14.29% | 7.14% | 11.69% | 12.64% | 14.29% | 9.74% | 2.99% | 2.99% | 2.99% | 2.99% | 2.99% | | | | | | | | | | | | | | | | | | | | | |
| 4.2.1 | Alcantarilla celular de Ho. Ao. 1 x 1,00 x 1,00m | m | 17.50 | 17.00 | 12 | | | | | | | | | | | | | | | | | | | | 1.63% | 2.67% | 3.12% | 3.27% | 0.56% | 1.91% | 2.32% | 2.59% | 4.00% | 3.82% | 4.00% | 3.09% | 0.91% | 2.61% | 4.68% | 4.68% | | | | | | | | | | | | | | | | | | |
| 4.2.2 | Alcantarilla celular de Ho. Ao. 1 x 1,50 x 1,50m | m | 232.50 | 17.20 | 30 | | | | | | 3.05% | 3.97% | 3.27% | 4.41% | 4.79% | 4.79% | 2.45% | 4.90% | 4.41% | 4.90% | 4.90% | 2.40% | 2.29% | 3.27% | 2.50% | 4.09% | 4.77% | 5.00% | 54.55% | 5.82% | 5.82% | 5.82% | 5.82% | 5.82% | | | | | | | | | | | | | | | | | | | | | |
| 4.2.2.1 | Alcantarilla celular de Ho. Ao. 1 x 1,50 x 1,50m Reforzada Tipo 1 | m | - | 146.59 | 10 | | | | | | | | | | | | | | | | | | | | 2.50% | 4.09% | 4.77% | 5.00% | 54.55% | 5.82% | 5.82% | 5.82% | 5.82% | 5.82% | | | | | | | | | | | | | | | | | | | | | |
| 4.2.2.2 | Alcantarilla celular de Ho. Ao. 1 x 1,50 x 1,50m Reforzada Tipo 2 | m | - | 59.59 | 10 | | | | | | | | | | | | | | | | | | | | 2.50% | 4.09% | 4.77% | 5.00% | 54.55% | 5.82% | 5.82% | 5.82% | 5.82% | 5.82% | | | | | | | | | | | | | | | | | | | | | |
| 4.2.2.3 | Alcantarilla celular de Ho. Ao. 1 x 1,50 x 1,50m Reforzada Tipo 3 | m | - | 28.89 | 10 | | | | | | | | | | | | | | | | | | | | 2.50% | 4.09% | 4.77% | 5.00% | 54.55% | 5.82% | 5.82% | 5.82% | 5.82% | 5.82% | | | | | | | | | | | | | | | | | | | | | |
| 4.2.2.4 | Alcantarilla celular de Ho. Ao. 1 x 1,50 x 1,50m Reforzada Tipo 4 | m | - | 24.73 | 10 | | | | | | | | | | | | | | | | | | | | 2.50% | 4.09% | 4.77% | 5.00% | 54.55% | 5.82% | 5.82% | 5.82% | 5.82% | 5.82% | | | | | | | | | | | | | | | | | | | | | |
| 4.2.2.5 | Alcantarilla celular de Ho. Ao. 1 x 2,00 x 2,00m Paso de Ganado | m | - | 22.47 | 10 | | | | | | | | | | | | | | | | | | | | 2.50% | 4.09% | 4.77% | 5.00% | 54.55% | 5.82% | 5.82% | 5.82% | 5.82% | 5.82% | | | | | | | | | | | | | | | | | | | | | |
| 4.2.5 | Alcantarilla celular de Ho. Ao. 1 x 3,00 x 3,00m | m | 190.00 | 13.50 | 29 | | | | | | | 3.95% | 3.95% | 3.55% | 2.89% | 2.89% | 1.97% | 3.95% | 3.55% | 3.95% | 3.95% | 2.60% | 2.76% | 3.95% | 1.97% | 3.33% | 3.77% | 3.92% | 4.04% | 1.51% | 1.83% | 2.05% | 4.17% | 3.98% | 4.17% | 3.22% | 0.95% | 3.79% | 5.61% | 5.61% | | | | | | | | | | | | | | | | | |
| 4.2.5.1 | Alcantarilla celular de Ho. Ao. 1 x 3,00 x 3,00m Reforzada Tipo 1 | m | - | 56.34 | 10 | | | | | | | | | | | | | | | | | | | | 2.50% | 4.09% | 4.77% | 5.00% | 54.55% | 5.82% | 5.82% | 5.82% | 5.82% | 5.82% | | | | | | | | | | | | | | | | | | | | | |
| 4.2.5.2 | Alcantarilla celular de Ho. Ao. 1 x 3,00 x 3,00m Reforzada Tipo 2 | m | - | 87.46 | 10 | | | | | | | | | | | | | | | | | | | | 2.50% | 4.09% | 4.77% | 5.00% | 54.55% | 5.82% | 5.82% | 5.82% | 5.82% | 5.82% | | | | | | | | | | | | | | | | | | | | | |
| 4.2.5.3 | Alcantarilla celular de Ho. Ao. 1 x 3,00 x 3,00m Reforzada Tipo 3 | m | - | 42.65 | 10 | | | | | | | | | | | | | | | | | | | | 2.50% | 4.09% | 4.77% | 5.00% | 54.55% | 5.82% | 5.82% | 5.82% | 5.82% | 5.82% | | | | | | | | | | | | | | | | | | | | | |
| 4.2.7 | Alcantarilla Celular de H*A* 2 x 1,00 x 1,00 m | m | 47.00 | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.2.7.1 | Alcantarilla celular de Ho. Ao. 2 x 1,00 x 1,00m Reforzada Tipo 1 | m | - | 22.19 | 10 | | | | | | | | | | | | | | | | | | | | 2.50% | 4.09% | 4.77% | 5.00% | 54.55% | 5.82% | 5.82% | 5.82% | 5.82% | 5.82% | | | | | | | | | | | | | | | | | | | | | |
| 4.2.8 | Alcantarilla celular de Ho. Ao. 2 x 1,50 x 1,50m | m | 148.50 | 21.78 | 26 | | | | | | | | | 4.33% | 3.53% | 3.53% | 2.41% | 4.81% | 4.33% | 4.81% | 4.81% | 3.53% | 3.37% | 4.81% | 2.41% | 3.94% | 4.59% | 4.09% | 1.97% | 1.84% | 2.23% | 4.11% | 4.76% | 4.55% | 4.76% | 3.66% | 1.08% | 5.87% | 5.87% | | | | | | | | | | | | | | | | | |
| 4.2.8.1 | Alcantarilla celular de Ho. Ao. 2 x 1,50 x 1,50m Reforzada Tipo 1 | m | - | 167.27 | 10 | | | | | | | | | | | | | | | | | | | | 2.50% | 4.09% | 4.77% | 5.00% | 54.55% | 5.82% | 5.82% | 5.82% | 5.82% | 5.82% | | | | | | | | | | | | | | | | | | | | | |
| 4.2.10 | Alcantarilla celular de Ho. Ao. 2 x 2,50 x 2,50m | m | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.2.11 | Alcantarilla celular de Ho. Ao. 2 x 3,00 x 3,00m | m | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.2.12 | Alcantarilla celular de Ho. Ao. 2 x 4,00 x 4,00m | m | 60.00 | 32.32 | 16 | | | | | | | | | | | | | | | | 8.33% | 6.11% | 5.83% | 8.33% | 4.17% | 6.82% | 1.50% | 1.57% | 1.07% | 5.30% | 6.44% | 7.20% | 8.33% | 7.95% | 8.33% | 4.23% | 4.23% | 4.23% | | | | | | | | | | | | | | | | | | |
| 4.2.15 | Alcantarilla celular de Ho. Ao. 3 x 1,50 x 1,50m | m | 173.00 | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.2.15.1 | Alcantarilla celular de Ho. Ao. 3 x 1,50 x 1,50m Reforzada Tipo 1 | m | - | 136.59 | 10 | | | | | | | | | | | | | | | | | | | | 2.50% | 4.09% | 4.77% | 5.00% | 54.55% | 5.82% | 5.82% | 5.82% | 5.82% | 5.82% | | | | | | | | | | | | | | | | | | | | | |
| 4.2.15.2 | Alcantarilla celular de Ho. Ao. 3 x 1,50 x 1,50m Reforzada Tipo 2 | m | - | 27.79 | 10 | | | | | | | | | | | | | | | | | | | | 2.50% | 4.09% | 4.77% | 5.00% | 54.55% | 5.82% | 5.82% | 5.82% | 5.82% | 5.82% | | | | | | | | | | | | | | | | | | | | | |
| 4.2.16 | Alcantarilla Celular de H*A* 3 x 2,00 x 2,00 m | m | 47.00 | - | 0 | | | | | | | | | | | | | | | | | | | | | | 9.55% | 10.00% | 23.86% | 8.36% | 7.73% | 8.64% | 10.00% | 4.77% | 4.77% | 4.77% | 4.77% | 4.77% | | | | | | | | | | | | | | | | | | | |
| 4.2.16.1 | Alcantarilla celular de Ho. Ao. 3 x 2,00 x 2,00m Reforzada Tipo 1 | m | - | 116.58 | 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.3 | Alcantarilla celular en Arco (Arroyo Ita Coty) | m | 57.00 | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.4 | Dren profundo con tubo perforado de Ø0,15m | m | 9,783.00 | 2,500.00 | 29 | | | | | | | | | | | | | | | 4.17% | 4.17% | 3.06% | 2.92% | 4.17% | 2.08% | 3.41% | 3.98% | 4.17% | 2.84% | 2.65% | 3.22% | 3.60% | 4.17% | 3.98% | 4.17% | 3.22% | 0.93% | 0.72% | 0.47% | 0.79% | 3.94% | 2.06% | 4.17% | 3.18% | 3.41% | 1.89% | 9.76% | 9.76% | | | | | | | | |
| 4.5 | Cuneta revestida de hormigon | m3 | 13,760.44 | 13,760.44 | 33 | | | | | | | | | | | | | | | | 2.80% | 2.08% | 1.96% | 2.80% | 1.40% | 2.29% | 2.67% | 2.80% | 1.91% | 1.78% | 4.32% | 4.83% | 5.59% | 5.34% | 5.59% | 4.92% | 1.27% | 5.08% | 1.65% | 1.46% | 0.50% | 0.96% | 0.53% | 1.92% | 3.15% | 4.75% | 3.85% | 3.85% | 3.86% | 3.86% | 3.86% | 3.86% | 3.86% | | | |
| 4.5.1 | Cuneta con revestimiento vegetal Tipo 1 | ml | - | 325.00 | 8 | | | | | | | | | | | | | | | | | | | | | | | | 17.06% | 15.91% | 19.32% | 21.59% | 6.53% | 6.53% | 6.53% | 6.53% | | | | | | | | | | | | | | | | | | | | |
| 4.5.2 | Cuneta con revestimiento vegetal Tipo 2 | ml | - | 390.00 | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | 19.32% | 21.59% | 25.00% | 23.86% | 2.56% | 2.56% | 2.56% | 2.56% | | | | | | | | | | | | | | | | | | |
| 4.6 | Cordón cuneta de hormigón | m | 11,590.00 | 11,590.00 | 29 | | | | | | | | | | | | | | | | | | | 3.18% | 4.55% | 2.27% | 3.72% | 4.34% | 4.55% | 3.10% | 2.89% | 3.51% | 3.93% | 4.55% | 4.34% | 4.56% | 3.51% | 1.03% | 4.13% | 0.27% | 0.45% | 0.43% | 2.27% | 4.55% | 1.17% | 3.72% | 2.07% | 4.55% | 5.32% | 5.32% | 5.32% | 5.32% | | | | |
| 4.8 | Cabecera para alcantarilla tubular | m3 | 467.15 | 467.15 | 23 | | | | | | | | | | 4.91% | 4.91% | 2.08% | 6.25% | 6.02% | 6.69% | 2.08% | 6.25% | 4.66% | 6.69% | 3.13% | | 6.39% | 6.69% | 4.26% | 4.26% | 1.77% | 1.80% | 6.25% | 5.97% | | | | | | 2.23% | 2.23% | 2.23% | 2.23% | | | | | | | | | | | | | | | |
| 4.9 | Cabecera para alcantarilla celular | m3 | 537.96 | 537.96 | 23 | | | | | | | | | | 4.26% | 4.26% | 1.81% | 6.25% | 5.23% | 5.81% | 1.81% | 6.25% | 4.07% | 5.81% | 3.13% | | 5.54% | 5.81% | 4.26% | 3.70% | 7.90% | 1.56% | 6.25% | 5.97% | | | | | | 2.59% | 2.59% | 2.59% | 2.59% | | | | | | | | | | | | | | | |
| 4.10 | Disipador de energía | un | 35.00 | 35.00 | 32 | | | | | | | | | | | | | | | | 3.85% | 2.82% | 2.69% | 3.85% | 1.92% | 3.15% | 3.67% | 3.85% | 2.62% | 2.45% | 2.97% | 3.32% | 3.85% | 3.67% | 3.85% | 2.97% | 0.87% | 3.50% | 2.27% | 3.85% | 0.69% | 0.36% | 0.73% | 1.92% | 3.15% | 1.75% | 3.85% | 3.85% | 8.32% | 4.47% | 4.47% | 4.47% | | | | |
| 4.11 | Relleno granular | m3 | 500.00 | 500.00 | 30 | | | | | 0.30% | 2.13% | 2.98% | 3.04% | 3.42% | 3.34% | 3.34% | 2.28% | 3.80% | 2.74% | 3.80% | 4.56% | 2.34% | | 3.19% | 5.32% | 2.66% | 4.35% | 3.08% | 4.56% | 1.95% | 1.82% | 2.21% | 3.45% | 4.00% | 3.82% | 4.00% | 3.09% | 0.91% | | | | | | | | 5.60% | 5.60% | | | | | | | | |
| 4.12 | Bajada de agua de terraplén | m | 224.00 | 224.00 | 27 | | | | | | | | | | | | | | | | | | | 3.18% | 4.55% | 2.27% | 3.72% | 4.34% | 4.55% | 3.10% | 2.89% | 3.51% | 3.93% | 4.55% | 4.34% | 4.55% | 3.51% | 1.03% | 4.13% | 0.27% | 0.45% | 0.43% | 2.27% | 4.55% | 1.17% | 3.72% | 2.07% | 4.55% | | 10.64% | 10.64% | | | | |
| 4.13 | Cuneta de pie de terraplén | m3 | 5,250.00 | 5,250.00 | 22 | | | | | | | | | | | | | | | | | | | | | | | | | | 4.01% | 3.74% | 4.55% | 5.08% | 5.68% | 5.61% | 5.68% | 4.55% | 1.84% | 5.35% | 3.48% | 3.92% | 3.74% | 1.96% | 3.92% | 1.96% | 3.21% | 1.74% | 3.92% | 3.92% | | 11.10% | 11.10% | | | | |
| 4.14 | Hormigón estructural | m3 | 79.20 | 79.20 | 24 | | | | | | | | | | | | | | | | | | | | | | | | 4.28% | 2.92% | 2.72% | 3.30% | 3.69% | 4.28% | 4.08% | 6.41% | 4.96% | 1.46% | 5.83% | 3.79% | 6.41% | 3.35% | 1.75% | 3.51% | 1.75% | 2.87% | 1.59% | 3.51% | 3.51% | 3.51% | 10.25% | 10.25% | | | | |
| 4.15 | Acero para refuerzo | kg | 7,392.00 | 7,392.00 | 24 | | | | | | | | | | | | | | | | | | | | | | | | 4.28% | 2.92% | 2.72% | 3.30% | 3.69% | 4.28% | 4.08% | 6.41% | 4.96% | 1.46% | 5.83% | 3.79% | 6.41% | 3.35% | 1.75% | 3.51% | 1.75% | 2.87% | 1.59% | 3.51% | 3.51% | 3.51% | 10.25% | 10.25% | | | | |
| 5 | PUENTES DE HORMIGÓN ARMADO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1 | PUENTE NUEVO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PUENTE N°1 - PUENTE SOBRE EL RIO ÑACUNDAY (Prog. 97+000,5 - 97+100,5) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.1 | MOVIMIENTO DE SUELOS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.1.1 | Excavación estructural en suelo | m3 | 679.91 | 2,579.80 | 12 | | | | | | 11.67% | 0.69% | 12.50% | | | | | | 11.25% | 0.69% | 0.69% | 12.50% | 12.50% | 12.50% | 6.25% | 10.23% | 8.52% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.1.2 | Excavación estructural en roca | m3 | 155.42 | 712.08 | 12 | | | | | | 11.67% | 0.69% | 12.50% | | | | | | 11.25% | 0.69% | 0.69% | 12.50% | 12.50% | 12.50% | 6.25% | 10.23% | 8.52% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.2 | FUNDACIONES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.2.1 | Zapatas | m3 | 76.99 | 76.99 | 14 | | | | | | 3.73% | 16.00% | 0.22% | 10.00% | | | | | 3.60% | 16.00% | 0.22% | 0.22% | 10.00% | 10.00% | 5.00% | 8.18% | 9.55% | 7.27% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.2.2 | Tubulones | m3 | 144.46 | 144.46 | 14 | | | | | | 3.73% | 16.00% | 0.22% | 10.00% | | | | | 3.60% | 16.00% | 0.22% | 0.22% | 10.00% | 10.00% | 5.00% | 8.18% | 9.55% | 7.27% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1.3 | HORMIGON ESTRUCTURAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Ing. PABLO L. SILVA S.
Jefe UEP JICA PG-P17
D.V. - M.O.P.C.

Ilsung Construction Co.Ltd.
Representante
Chang Sik Byun