

REHABILITACION Y MEJORAMIENTO DE LA CARRETERA QUINUA - SAN FRANCISCO
TRAMO: KM 26+000 - KM 78+500

METRADOS DE MUROS DE CONCRETO CICLOPEO

| N° | PROGRESIVAS | LONGITUD | EXCAVACION | 801.C | RELLENO PARA ESTRUCTURAS | | 605.A | GEOMETRIA | | 610.H | ENCOFRADO Y DESENCOFRADO | | | 612.A | TUBERIA PVC 3" | 625.E | TUBERIA HDPE | | 623.F | 655.A | GEOTEXTIL | 650.A | |
|------------|-------------|----------|------------|-------|--------------------------|--------------------|-------|--------------------------|--------------|-------|--------------------------|--|-----------------------------|-------|----------------|-------|-------------------|-----------------------------|-------|-------|-----------|-------|-------------------|
| | | | | | Area de Relleno1 | Volumen de Relleno | | RELLENO PARA ESTRUCTURAS | AREA DE MURO | | ALTURA | CONCRETO CLASE H (F'c=175 KG/CM2 + 30% Pg) | Longitud a encofrar externa | | | | Encofrado externo | Longitud a encofrar interna | | | | | Encofrado Interno |
| KM | | m | m2 | m3 | m | m3 | m3 | m | m | m3 | m | m | m2 | m | m | m | m | m | m | m2 | m | m2 | m2 |
| 35+925.000 | | 4.10 | | | 1.85 | | | 2.50 | 2.00 | | 2.06 | 2.47 | | 0.60 | | | 1.70 | | | | | 1.38 | |
| 35+930.000 | | 5.00 | 4.01 | 20.29 | 1.85 | 9.25 | | 2.50 | 2.00 | 10.01 | 2.06 | 2.47 | 12.35 | 0.60 | | | 1.70 | 5.00 | | | | 1.38 | |
| 35+930.000 | | | 6.92 | | 3.03 | | | 3.00 | 2.66 | | 2.56 | 2.80 | | 0.60 | | | 1.95 | | | | | 1.88 | |
| 35+932.000 | | 2.20 | 6.23 | 14.46 | 3.03 | 6.66 | | 3.00 | 2.66 | 5.84 | 2.56 | 2.80 | 6.16 | 0.60 | | | 1.95 | 2.20 | | | | 1.88 | |
| 35+933.000 | | 0.80 | 3.92 | 4.06 | 0.16 | 1.28 | | 3.00 | 2.66 | 2.12 | 2.56 | 2.80 | 2.24 | 0.60 | | | 1.95 | 0.80 | | | | 1.88 | |
| 35+933.000 | | 0.80 | 6.15 | 4.03 | 3.03 | 1.28 | | 3.00 | 2.66 | 2.12 | 2.56 | 2.80 | 2.24 | 0.60 | | | 1.95 | 0.80 | | | | 1.88 | |
| 35+935.000 | | 1.20 | 6.09 | 7.34 | 3.03 | 3.64 | | 3.00 | 2.66 | 3.19 | 2.56 | 3.07 | 3.96 | 0.60 | | | 1.95 | 1.20 | | | | 1.88 | |
| 35+935.000 | | | 0.85 | | 0.16 | | | 1.50 | 1.06 | | 1.06 | | | | | | 1.00 | | | | | 0.38 | |
| 35+940.000 | | 5.00 | 0.79 | 17.20 | 0.13 | 0.73 | | 1.50 | 1.06 | 5.30 | 1.06 | 5.30 | 9.75 | | | | 1.00 | 5.00 | | | | 0.38 | |
| 35+945.000 | | 5.00 | 0.88 | 12.45 | 0.15 | 0.70 | | 1.50 | 1.06 | 5.30 | 1.06 | 5.30 | 11.29 | | | 0.90 | 1.00 | 5.00 | 9.05 | | | 0.38 | 4.40 |
| 35+950.000 | | 5.00 | 0.93 | 4.51 | 0.15 | 0.75 | | 1.50 | 1.06 | 5.30 | 1.06 | 5.30 | 5.50 | | | | 1.00 | 5.00 | 8.00 | | | 0.38 | 1.90 |
| 35+955.000 | | 5.00 | 0.95 | 4.68 | 0.15 | 0.75 | | 1.50 | 1.06 | 5.30 | 1.06 | 5.30 | 12.92 | | | | 1.00 | 5.00 | 8.00 | | | 0.38 | 1.90 |
| 35+960.000 | | 5.00 | 0.74 | 4.22 | 0.13 | 0.70 | | 1.50 | 1.06 | 5.30 | 1.06 | 5.30 | 5.50 | | | | 1.00 | 5.00 | 8.00 | | | 0.38 | 1.90 |
| 35+960.000 | | | 3.72 | | 1.75 | | | 2.50 | 2.00 | | 2.06 | 2.47 | | | | 0.30 | 1.70 | | 3.15 | | | 1.38 | |
| 35+965.000 | | 5.00 | 3.29 | 17.53 | 1.66 | 8.59 | | 2.50 | 2.00 | 10.01 | 2.06 | 10.30 | 12.35 | | | 0.60 | 1.70 | 5.00 | 10.10 | | | 1.38 | 6.90 |
| 35+970.000 | | 5.00 | 2.78 | 15.19 | 1.44 | 7.76 | | 2.50 | 2.00 | 10.01 | 2.06 | 10.30 | 12.35 | | | 1.80 | 1.70 | 5.00 | 10.10 | | | 1.38 | 6.90 |
| 35+975.000 | | 5.00 | 2.45 | 13.07 | 1.76 | 7.99 | | 2.50 | 2.00 | 10.01 | 2.06 | 10.30 | 12.35 | | | 1.80 | 1.70 | 5.00 | 10.10 | | | 1.38 | 6.90 |
| 35+980.000 | | 5.00 | 2.15 | 11.50 | 1.75 | 8.77 | | 2.50 | 2.00 | 10.01 | 2.06 | 10.30 | 12.35 | | | 1.80 | 1.70 | 5.00 | 10.10 | | | 1.38 | 6.90 |
| 35+985.000 | | 5.00 | 1.65 | 9.52 | 1.76 | 8.77 | | 2.50 | 2.00 | 10.01 | 2.06 | 10.30 | 12.35 | | | 1.80 | 1.70 | 5.00 | 10.10 | | | 1.38 | 6.90 |
| 35+990.000 | | 5.00 | 2.72 | 10.94 | 1.76 | 8.78 | | 2.50 | 2.00 | 10.01 | 2.06 | 10.30 | 12.35 | | | 1.80 | 1.70 | 5.00 | 10.10 | | | 1.38 | 6.90 |
| 35+995.000 | | 5.00 | 2.64 | 13.40 | 1.76 | 8.78 | | 2.50 | 2.00 | 10.01 | 2.06 | 10.30 | 12.35 | | | 1.80 | 1.70 | 5.00 | 10.10 | | | 1.38 | 6.90 |
| 35+995.000 | | | 4.72 | | 2.91 | | | 3.00 | 2.66 | | 2.56 | 2.80 | | | | 0.60 | 1.95 | | 1.83 | | | 1.88 | |
| 35+999.350 | | 4.35 | 5.26 | 21.71 | 3.31 | 16.35 | | 3.00 | 2.66 | 13.97 | 2.56 | 13.46 | 14.73 | | | 0.60 | 1.95 | 5.26 | 11.11 | | | 1.88 | 9.89 |
| 36+000.000 | | 0.65 | 1.11 | 2.07 | 0.04 | 1.86 | | 3.00 | 2.66 | 2.96 | 2.56 | 2.85 | 3.12 | | | 0.60 | 1.95 | 3.06 | | | | 1.88 | 2.09 |
| 36+000.650 | | 0.65 | 6.18 | 2.37 | 2.91 | 9.12 | | 3.00 | 2.66 | 16.41 | 2.56 | 15.82 | 17.30 | | | 0.60 | 1.95 | 6.18 | 12.03 | | | 1.88 | 11.61 |
| 36+005.000 | | 4.35 | 6.23 | 26.99 | 2.91 | 18.14 | | 3.00 | 2.66 | 16.55 | 2.56 | 15.95 | 17.44 | | | 0.60 | 1.95 | 6.23 | 12.08 | | | 1.88 | 11.71 |
| 36+160.000 | | | 0.97 | | 0.14 | | | 1.50 | 1.06 | | 1.06 | | | | | | 1.00 | | | | | 0.38 | |
| 36+165.000 | | 5.00 | 0.84 | 4.52 | 0.13 | 0.67 | | 1.50 | 1.06 | 5.30 | 1.06 | 5.30 | 11.10 | | | | 1.00 | 5.00 | 8.00 | | | 0.38 | 1.90 |
| 36+170.000 | | 5.00 | 0.57 | 3.51 | 0.02 | 0.38 | | 1.50 | 1.06 | 5.30 | 1.06 | 5.30 | 11.10 | | | | 1.00 | 5.00 | 8.00 | | | 0.38 | 1.90 |
| 36+175.000 | | 5.00 | 0.26 | 2.06 | | 0.05 | | 1.50 | 1.06 | 5.30 | 1.06 | 5.30 | 11.10 | | | | 1.00 | 5.00 | 8.00 | | | 0.38 | 1.90 |
| 37+340.000 | | | 0.92 | | 0.14 | | | 1.50 | 1.06 | | 1.06 | | | | | | 1.00 | | | | | 0.38 | |
| 37+345.000 | | 5.00 | 1.00 | 4.80 | 0.16 | 0.73 | | 1.50 | 1.06 | 5.30 | 1.06 | 5.30 | 11.10 | | | | 1.00 | 5.00 | 8.00 | | | 0.38 | 1.90 |
| 37+350.000 | | 5.00 | 0.94 | 4.86 | 0.14 | 0.74 | | 1.50 | 1.06 | 5.30 | 1.06 | 5.30 | 11.10 | | | | 1.00 | 5.00 | 8.00 | | | 0.38 | 1.90 |
| 37+355.000 | | 5.00 | 0.92 | 4.66 | 0.16 | 0.74 | | 1.50 | 1.06 | 5.30 | 1.06 | 5.30 | 11.10 | | | | 1.00 | 5.00 | 8.00 | | | 0.38 | 1.90 |
| 37+355.000 | | | 4.39 | | 1.80 | | | 2.50 | 2.00 | | 2.06 | 2.47 | | | | 0.60 | 1.70 | | | | | 1.38 | |
| 37+359.350 | | 4.35 | 4.39 | 19.10 | 1.80 | 7.83 | | 2.50 | 2.00 | 8.71 | 2.06 | 8.96 | 10.74 | | | 0.60 | 1.80 | 4.35 | 9.45 | | | 1.38 | 6.00 |
| 37+540.000 | | 0.65 | 4.40 | 2.86 | 0.86 | 0.86 | | 2.50 | 2.00 | 1.30 | 2.06 | 1.34 | 1.61 | | | 0.60 | 1.70 | 0.65 | 2.35 | | | 1.38 | 0.90 |
| 37+540.650 | | 0.65 | 4.40 | 2.86 | 1.80 | 0.86 | | 2.50 | 2.00 | | | | 0.80 | | | 0.30 | | 0.65 | 1.50 | | | | 0.45 |
| 37+545.000 | | 4.35 | 4.40 | 19.13 | 1.80 | 7.83 | | 2.50 | 2.00 | 8.71 | 2.06 | 8.96 | 10.74 | | | 0.60 | 1.80 | 4.35 | 6.90 | | | 1.38 | 3.00 |
| 37+600.000 | | | 0.89 | | 0.14 | | | 1.50 | 1.06 | | 1.06 | | | | | | 1.00 | | | | | 0.38 | |
| 37+605.000 | | 5.00 | 0.85 | 4.33 | 0.14 | 0.69 | | 1.50 | 1.06 | 5.30 | 1.06 | 5.30 | 11.10 | | | | 1.00 | 5.00 | 8.00 | | | 0.38 | 1.90 |
| 38+595.000 | | | 6.67 | | 2.91 | | | 3.00 | 2.66 | | 2.56 | 2.80 | | | | 0.60 | 1.95 | | | | | 1.88 | |
| 38+600.000 | | 5.00 | 3.23 | 24.75 | 0.51 | 8.56 | | 3.00 | 2.66 | 13.28 | 2.56 | 12.80 | 14.00 | | | 0.60 | 1.95 | 5.00 | | | | 1.88 | |
| 38+605.000 | | 5.00 | 0.97 | 10.51 | 0.12 | 1.58 | | 3.00 | 2.66 | 13.28 | 2.56 | 12.80 | 14.00 | | | 0.60 | 1.95 | 5.00 | | | 5.31 | 1.88 | |
| 38+700.000 | | | 0.95 | | 0.15 | | | 1.50 | 1.06 | | 1.06 | | | | | | 1.00 | | | | | 0.38 | |
| 38+705.000 | | 5.00 | 1.02 | 4.92 | 0.15 | 0.75 | | 1.50 | 1.06 | 5.30 | 1.06 | 5.30 | 11.10 | | | | 1.00 | 5.00 | 8.00 | | | 0.38 | 1.90 |
| 39+725.000 | | | 4.05 | | 1.77 | | | 2.50 | 2.00 | | 2.06 | 2.47 | | | | 0.60 | 1.70 | | | | | 1.38 | |
| 39+729.350 | | 4.35 | 4.05 | 17.60 | 1.77 | 7.68 | | 2.50 | 2.00 | 8.71 | 2.06 | 8.96 | 10.74 | | | 0.60 | 1.80 | 4.35 | 9.45 | | | 1.38 | 6.00 |
| 39+730.000 | | 0.65 | 0.89 | 1.60 | 0.01 | 0.58 | | 2.50 | 2.00 | 1.30 | 2.06 | 1.34 | 1.61 | | | 0.60 | 1.70 | 0.65 | 2.35 | | | 1.38 | 0.90 |
| 39+730.650 | | 0.65 | 4.43 | 1.73 | 1.80 | 0.59 | | 2.50 | 2.00 | 1.30 | 2.06 | 1.34 | 1.61 | | | 0.60 | 1.70 | 0.65 | 2.35 | | | 1.38 | 0.90 |
| 39+735.000 | | 4.35 | 4.43 | 19.27 | 1.80 | 7.85 | | 2.50 | 2.00 | 8.71 | 2.06 | 8.96 | 10.74 | | | 0.60 | 1.80 | 4.35 | 9.45 | | | 1.38 | 6.00 |



CONSORCIO WARI
Ing. Ricardo González Cangalaya
Jefe del Estudio
CIP N° 2284

CONSORCIO WARI
ROGELIO QUIROZ CHAVEZ
REPRESENTANTE LEGAL

CONSORCIO WARI
Ing. Aurora Antizana Gamaro
Esp. Metrados Costos y Presupuestos
CIP N° 51513