

OBRA: "ESTUDIO Y DISEÑO DEFINITIVO DE LA VIA SAN ANTONIO-SAN MIGUEL DE LOS CANTONES GUAYAQUIL Y PLAYAS DE LA PROVINCIA DEL GUAYAS" CONTRATO No. S-CON-61-2022-X-0

CONTENIDO: ALCANTARILLAS Y CUNETAS

PROFETA: MSC. SUSANA GONZALEZ ADMINISTRACION 2019 - 2023

ELABORADO: REVISADO: APROBADO:

ING. JOSÉ BARREIRA P. TERCERO EN MECÁNICA E HIDRÁULICA

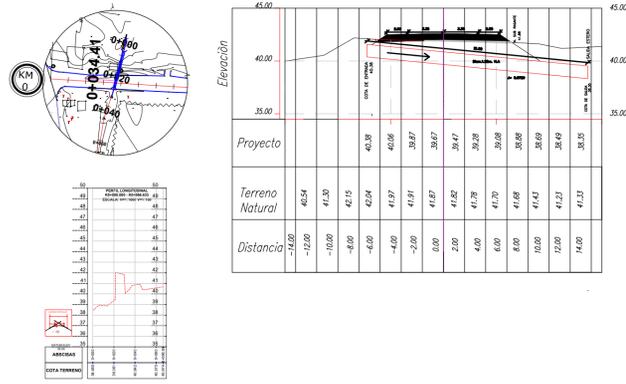
ING. ANA TORRES BERRUO SUPERVISORA DEL CONTRATO

ING. JORGE CARRILLO ADMINISTRADOR DEL CONTRATO

ESCALA: 1:20 FECHA: DICIEMBRE/2022 LAMINA: 1/1

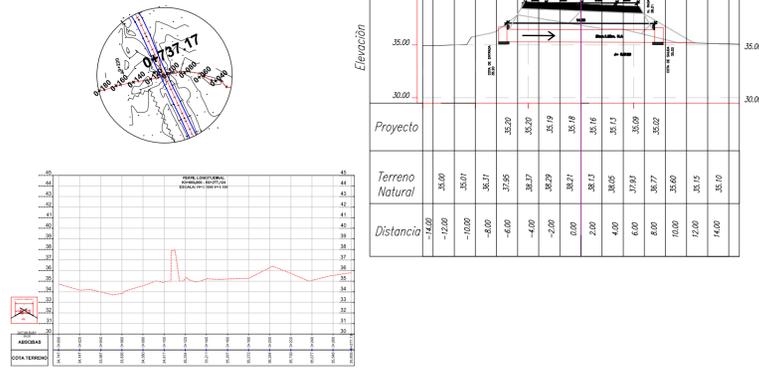
Alcantarilla ABCS. 0+034.10

Planta-Corte Escala Indicado



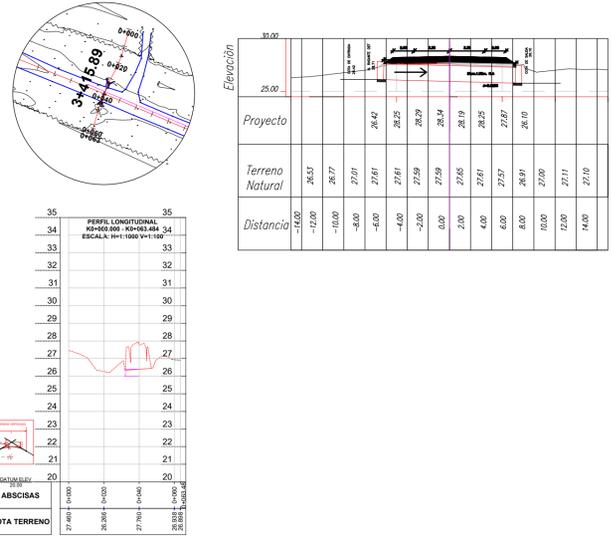
Alcantarilla ABCS. 0+737.170

Planta-Corte Escala Indicado



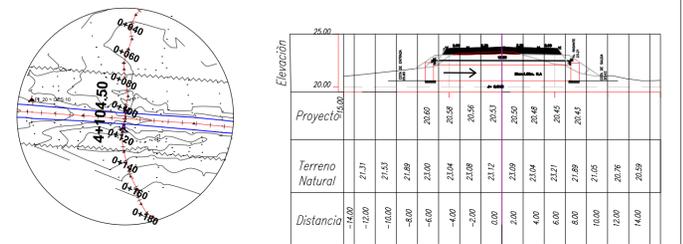
Alcantarilla ABCS. 3+415.890

Planta-Corte Escala Indicado



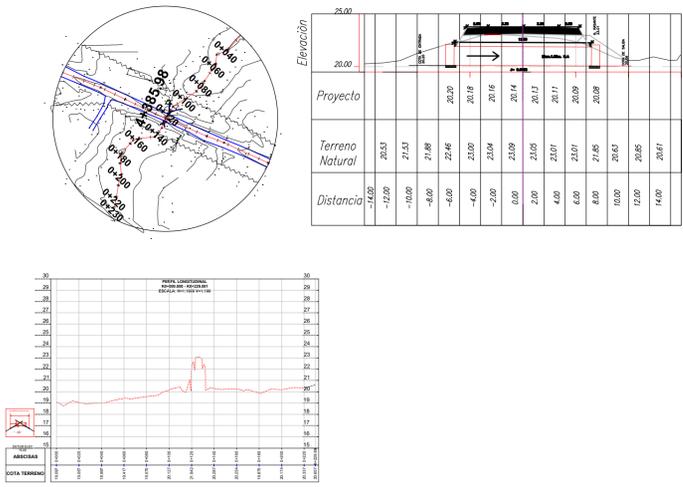
Alcantarilla ABCS. 4+104.500

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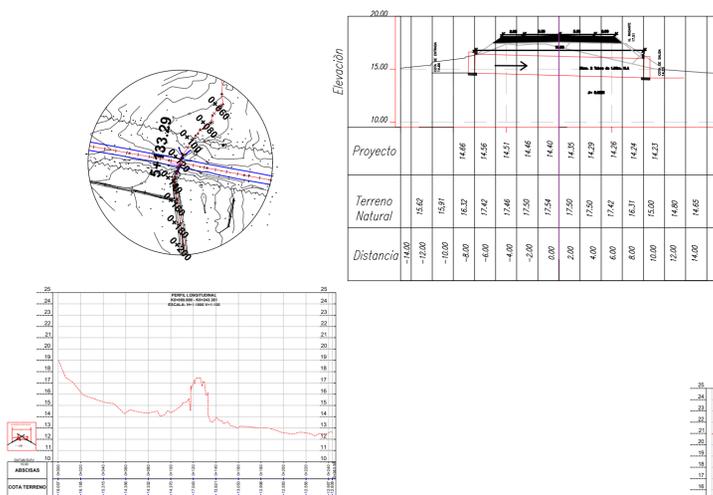
Alcantarilla ABCS. 4+385.980

Planta-Corte Escala Indicado



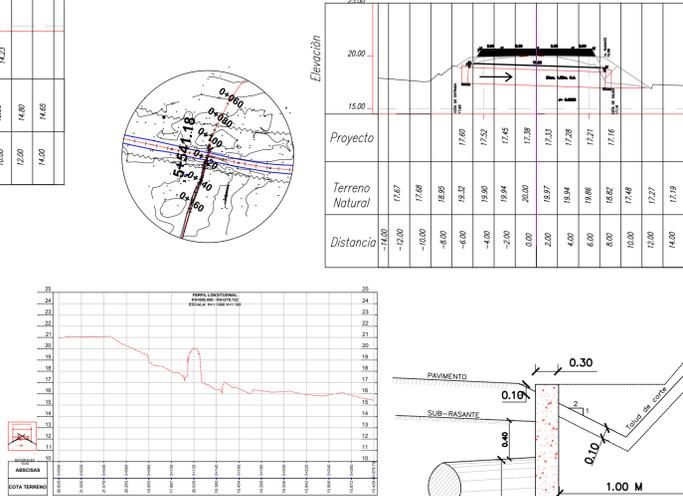
Alcantarilla ABCS. 5+133.290

Planta-Corte Escala Indicado



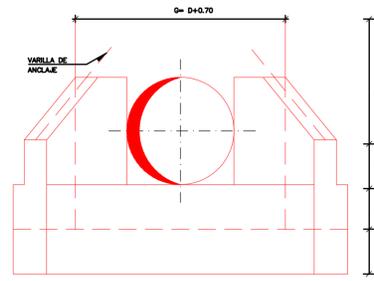
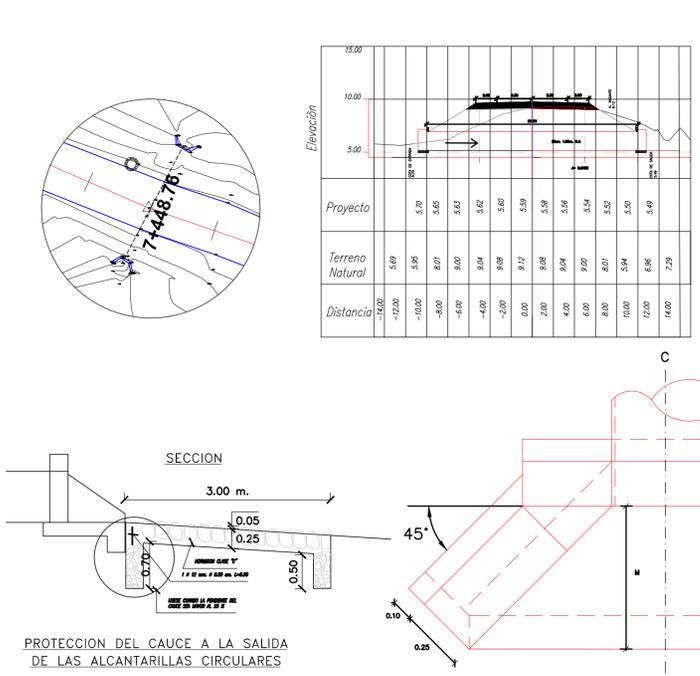
Alcantarilla ABCS. 5+541.180

Planta-Corte Escala Indicado



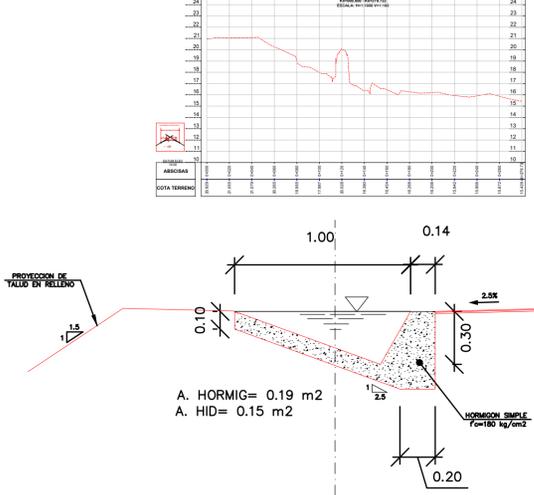
Alcantarilla ABCS. 7+448.760

Planta-Corte Escala Indicado



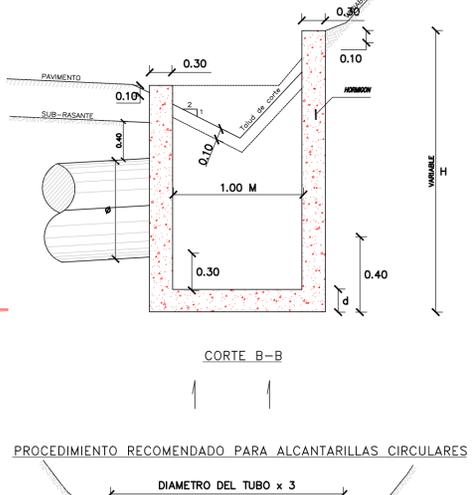
ELEVACION

DETALLE DE ENTRADA TIPO

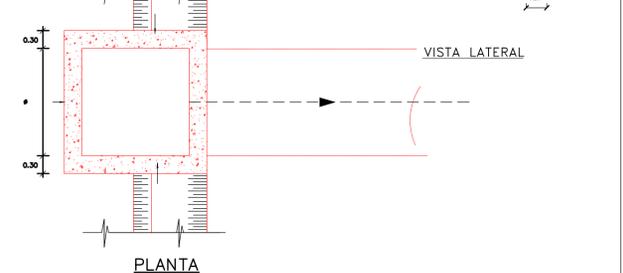
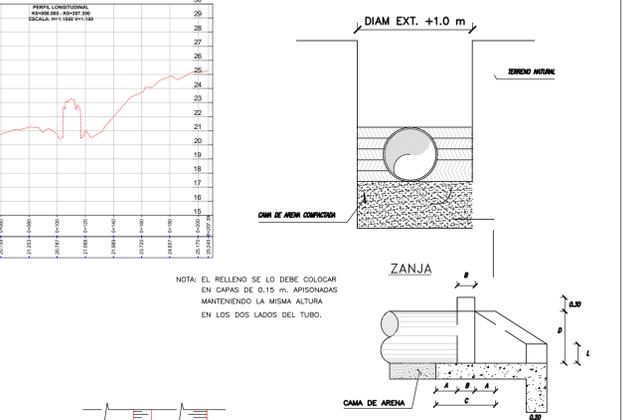


SECCION TIPICA DE CUNETA LATERAL

ESC: 1:10



PROCEDIMIENTO RECOMENDADO PARA ALCANTARILLAS CIRCULARES



PLANTA ESTRUCTURA DE ENTRADA TIPO

ESC: 1:25

| CUADRO CUNETAS Y BORDILLOS | | | |
|----------------------------|----------|--------------|-----------------------------------------------------------------------|
| DE ABCISA | A ABCISA | LONGITUD (m) | OBSERVACIONES |
| 0+037 | 0+280 | 243.00 | CUNETAS Y BORDILLOS EN LOS DOS MARGENES CON DIRECCION A SAN ANTONIO - |
| 6+380 | 6+650 | 280.00 | CUNETAS Y BORDILLOS EN LOS DOS MARGENES EN POBLADO SAN MIGUEL |
| 7+120 | 7+245 | 125.00 | CUNETAS Y BORDILLOS EN LOS DOS MARGENES CON DIRECCION AL PUENTE |
| TOTAL | | 648.00 | |

| CUADRO ALCANTARILLAS VÍA SAN ANTONIO- SAN MIGUEL | | | | | | | | | | | |
|--------------------------------------------------|------------------------------------------------------------------------|-----------------|----------------|------------------|-------------------|-------------------------|---------------------------|-----------|----------------------------|-----------------------|-----------------------------------|
| ABSCISA | CAUDAL MAX- Tr = 100 años | COTA DE ENTRADA | COTA DE SALIDA | LONGITUD ALC (m) | COTA RASANTE msnm | GRADIENTE TERRENO (m/m) | VELOCIDAD DE SALIDA (m/s) | AFIRMADO | ALCANTARILLA CIRCULAR (mm) | MATERIAL ALCANTARILLA | HORMIGON TIPO B MUROS DE ALA (m3) |
| 0.034.41 | 1.66 | 40.38 | 38.85 | 21.00 | 41.88 | 0.0729 | 2.38 | PAVIMENTO | 1,200 | HORMIGON | 2.19 |
| 0+737.17 | 2.93 | 35.20 | 35.02 | 14.00 | 37.99 | 0.0129 | 1.49 | PAVIMENTO | 1,200 | HORMIGON | 2.19 |
| 3+415.89 | 3.13 | 26.42 | 26.10 | 12.50 | 27.9 | 0.0256 | 1.25 | PAVIMENTO | 1,200 | HORMIGON | 4.20 |
| 4+104.50 | 6.07 | 20.60 | 20.43 | 13.00 | 22.97 | 0.0131 | 2.80 | PAVIMENTO | 1,800 | HORMIGON | 4.20 |
| 4+385.98 | 5.12 | 20.20 | 20.06 | 13.00 | 23.08 | 0.0108 | 1.62 | PAVIMENTO | 1,800 | HORMIGON | 5.65 |
| 5+133.29 | 16.11 | 14.66 | 14.23 | 13.30 | 17.58 | 0.0281 | 3.47 | PAVIMENTO | 2 x 1800 | HORMIGON | 6.10 |
| 5+541.18 | 8.39 | 17.60 | 17.16 | 13.00 | 20.18 | 0.0398 | 2.41 | PAVIMENTO | 1,500 | HORMIGON | 4.20 |
| 6+485 | ALCANTARILLA DE ALIVIO DE AGUAS LUVIAS EN CENTRO POBLADO DE SAN MIGUEL | | | | | | | | | | |
| 7+448.76 | 4.66 | 5.70 | 5.49 | 20.00 | 9.45 | 0.0105 | 1.32 | PAVIMENTO | 1,800 | HORMIGON | 5.65 |

| CUADRO DE DIMENSIONES Y CANTIDADES ESTIMADAS | | | | | | | | | | | |
|-----------------------------------------------------------|------|-----------|------|------|------|------|-------------|------|------|----------------|----------------------|
| MUROS DE CABEZA CON ALAS A 45° PARA ALCANTARILLAS DE TUBO | | | | | | | | | | | |
| MUROS DE ALA TIPO II | | | | | | | | | | | |
| DIMENSIONES | | | | | | | | | | | |
| CANTIDADES PARA UN MURO | | | | | | | | | | | |
| DIAMETRO | | GEOMETRIA | | | | | MOR. CLASEB | | | | VARELLAS DE ANCLAJE |
| D | φ | A | B | C | H | G | L | M | F | VOLUMEN TOTAL | ANCLAJE |
| m | mm | | | | | | | | | m ³ | Kg |
| 0.80 | 800 | 0.10 | 0.25 | 0.45 | 1.10 | 1.50 | 0.55 | 0.80 | 0.45 | 1.20 | 4 x 16 x 0.80m 3.80 |
| 0.90 | 900 | 0.10 | 0.25 | 0.45 | 1.20 | 1.60 | 0.60 | 0.90 | 0.50 | 1.44 | 4 x 16 x 0.90m 3.80 |
| 1.00 | 1000 | 0.10 | 0.25 | 0.45 | 1.30 | 1.70 | 0.65 | 1.00 | 0.60 | 1.78 | 4 x 16 x 0.90m 5.65 |
| 1.20 | 1200 | 0.10 | 0.25 | 0.45 | 1.50 | 1.90 | 0.70 | 1.20 | 0.60 | 2.19 | 4 x 16 x 0.90m 5.65 |
| 1.50 | 1500 | 0.20 | 0.30 | 0.70 | 1.80 | 2.20 | 0.80 | 1.50 | 0.70 | 4.20 | 4 x 16 x 1.20m 11.36 |
| 1.80 | 1800 | 0.20 | 0.30 | 0.70 | 2.10 | 2.80 | 0.90 | 1.80 | 0.80 | 5.65 | 4 x 16 x 1.20m 11.36 |

PROTECCION DEL CAUCE A LA SALIDA DE LAS ALCANTARILLAS CIRCULARES

PLANTA CABEZALES DE ENTRADA/SALIDA DE ALCANTARILLAS ESC: 1:25

| DIMENSIONES | |
|-------------|-------|
| φ (m) | Y (m) |
| 0.90 | 3.00 |
| 1.20 | 3.50 |
| 1.50 | 4.00 |
| 1.80 | 4.50 |
| 2.10 | 5.00 |