



**“IP8 (A26) – LIGAÇÃO ENTRE SINES E A A2
- LANÇO IP8 ENTRE RONCÃO E GRÂNDOLA-
AUMENTO DA CAPACIDADE”**

TRECHO 2 – ENTRE O PK 26+850 E O PK 48+304

PROJETO DE EXECUÇÃO

P01 – TERRAPLENAGENS

P1.1 - TRAÇADO

**P1.1.3 – RESTABELECIMENTOS, SERVENTIAS E CAMINHOS PARALELOS
(TIPO I)**

REVISÃO 01

MEMÓRIA DESCRITIVA E JUSTIFICATIVA



abril 2024

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RVGR-PE-T2-P113-MD-R01					
Versão	Data	Elaborou	Verificou	Aprovou	Descrição de Alterações
00	2023.11.17	CC	PR	PR	Primeira Entrega
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RESTABELECIMENTOS, SERVIENTIAS E CAMINHOS
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1 INTRODUÇÃO

O presente documento constitui a memória descritiva e justificativa do projeto de execução relativa ao traçado geral do Aumento da Capacidade do **IP8 (A26) Ligação entre Sines e a A2, Lanço IP8 entre Relva Verdes e Roncão**, Trecho 2 – entre o pk 26+850 e o pk 48+304, desenvolvido de acordo com o definido no Programa de Concurso e respetivo Caderno de Encargos e dando cumprimento aos objetivos pretendidos, pela Infraestruturas de Portugal, S.A.

Assim, este estudo tem por objetivo a descrição e justificação das soluções de traçado adotadas, sendo o seu objetivo a definição planimétrica e altimétrica dos elementos que os constituem.

Para a elaboração deste estudo fez-se uso da cartografia à escala 1:1000, no sistema de coordenadas ETRS89-RM06, obtida a partir de cobertura varrimento a laser realizado para o efeito.

2 ÂMBITO E OBJETIVO DO PROJETO

O estudo rodoviário "IP8 (A26) Ligação entre Sines e a A2, Aumento de Capacidade", tem por objetivo melhorar as condições de circulação e segurança no IP8 entre o Nó de Relvas Verdes e o Nó com o IC1 em Grândola (Norte), através da duplicação do existente para um perfil de 2x2, melhorando assim as acessibilidades ao Porto de Sines.

Para o desenvolvimento, do estudo rodoviário "**IP8 (A26) Ligação entre Sines e a A2, aumento da Capacidade**", em fase de projeto base e projeto de execução, foi-nos solicitado a divisão do projeto em dois lanços:

- Lanço IP8 entre Relvas Verdes e Roncão – Trecho 1 entre o pk 13+820 e o pk 28+002
- Lanço IP8 entre Roncão e Grândola – Trecho 2 entre o pk 26+850 e o pk 48+304

O estudo preconiza a duplicação do IP8 dotando esta via com um perfil de 2x2, restabelecimentos desnivelados e interligação com a rede existente através de nós igualmente desnivelados, no que concerne ao lanço entre o Nó do Roncão e o Nó com o IC1, trecho agora em estudo.

O projeto de duplicação, para o perfil transversal de 2x2 vias, terá como velocidade de projeto 100km/h.

Os trabalhos a considerar em resultado dos estudos a empreender deverão ser compatíveis com as condicionantes e infraestruturas existentes, nomeadamente a orografia, as linhas de água, a travessia de povoações e/ou lugares, a geometria do traçado, o sistema de drenagem, o estado de conservação, a capacidade de suporte residual do pavimento e as características geométricas e estruturais das obras de arte.

3 ENQUADRAMENTO

Em termos de enquadramento, o desenvolvimento do projeto insere-se nas intervenções definidas no âmbito do Plano Nacional de Investimentos 2030 (PNI2030), plano esse, anunciado a 22 de outubro de 2020 pelo governo português, que estabelece um quadro de orientações para o setor dos transportes e um conjunto de intervenções prioritárias, assente em critérios de sustentabilidade, com vista à criação de valor para as empresas e para a economia portuguesa.

Do ponto de vista da divisão territorial, os concelhos de Grândola e Santiago do Cacém, interessados pelo estudo, pertencem à NUT III – Alentejo, Litoral, integrante da NUT II – Alentejo.

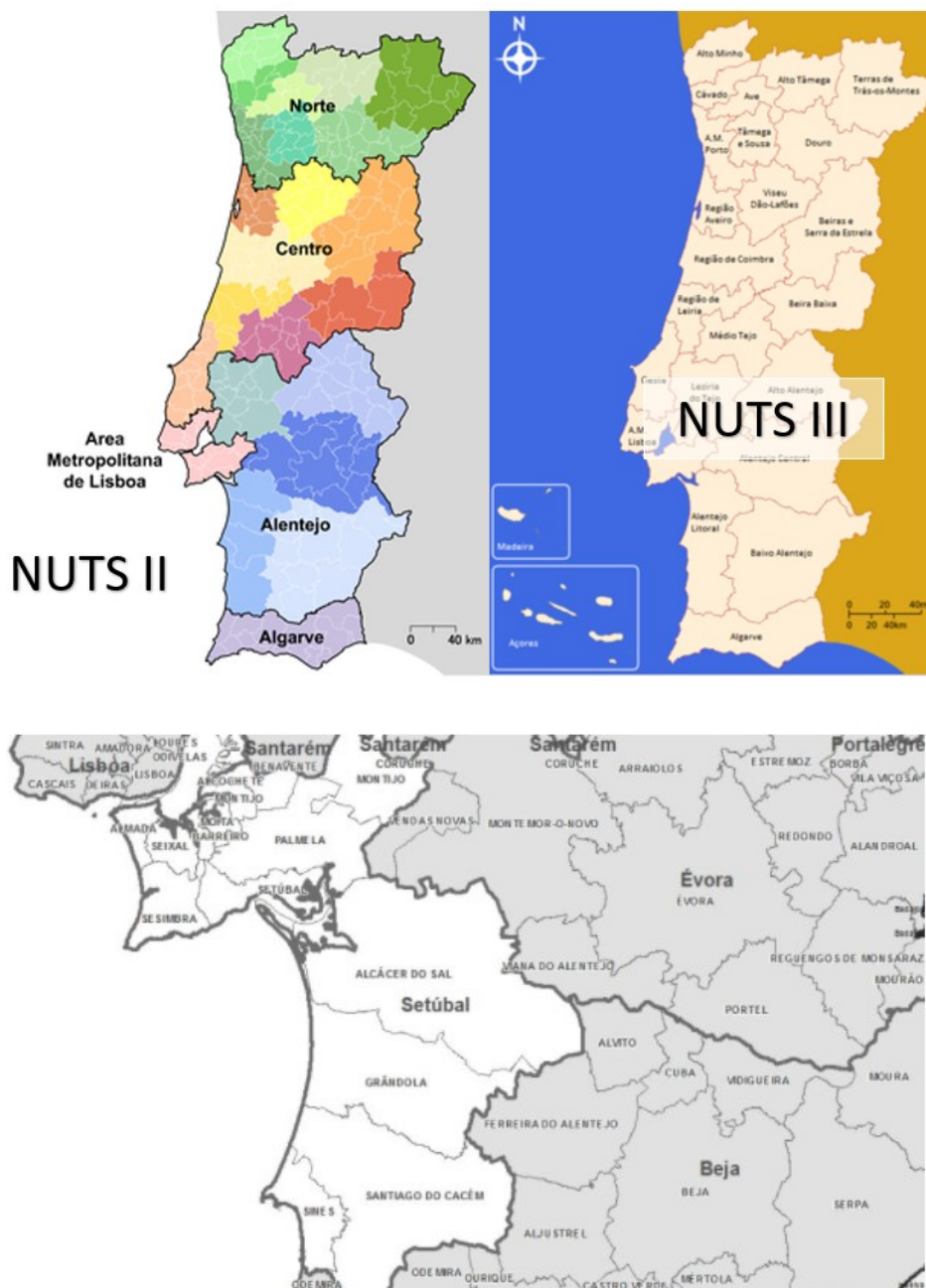


FIGURA 1 – ENQUADRAMENTO REGIONAL E ADMINISTRATIVO DO TROÇO EM ESTUDO

Na figura seguinte apresenta-se a localização do lanço em estudo, sobre a carta militar.

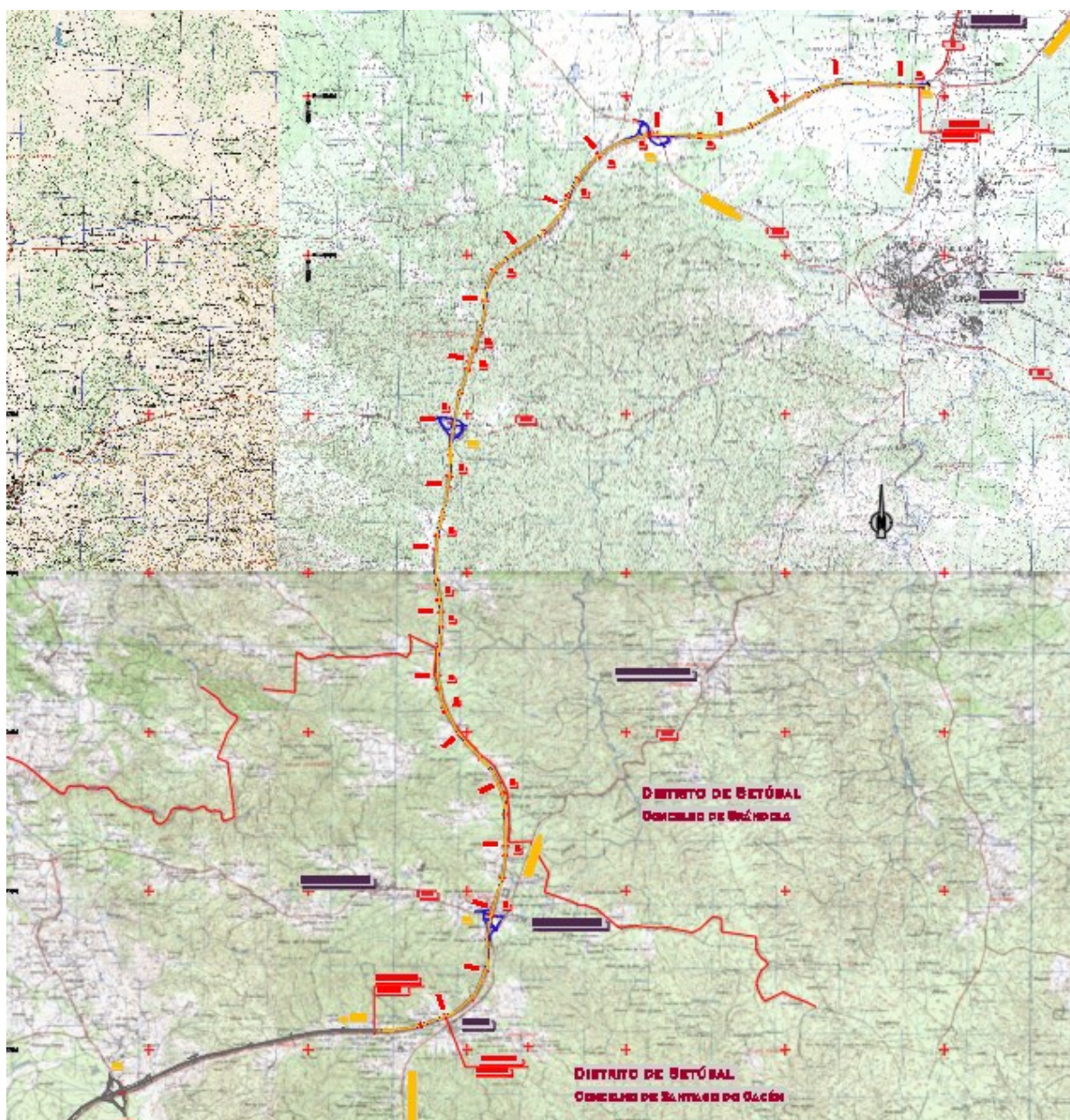


FIGURA 2 – LANÇO EM ESTUDO SOBRE CARTA MILITAR

4 METODOLOGIA

Com base no Relatório de Caracterização da Situação Existente e Propostas de Intervenção entregue em fevereiro de 2022, que mereceu a aprovação por parte da Infraestruturas de Portugal e na apresentação de duas soluções em junho de 2022, em que a solução 1 previa o alargamento do IP8 para ambos os lados e a solução 2 a duplicação do IP8 só para um dos lados, que neste caso foi escolhido o lado direito não só pela questão da ocupação marginal, mas também por forma a dar continuidade ao definido no trecho anterior. Após aprovação por parte da Infraestruturas de Portugal da solução 2, desenvolveu-se o projeto base para o trecho 2 que mereceu a sua aprovação em março de 2023. Estando agora em desenvolvimento o projeto de execução que contempla todos os elementos necessários para a presente fase para a sua boa execução.

Os trabalhos iniciaram-se pela análise dos elementos dos estudos anteriores, que foram desenvolvidos em propostas de intervenção, nos trabalhos topográficos de campo efetuados para o efeito e com todos os pressupostos que acima já foram mencionados, desenvolveu-se a solução objeto do presente projeto base, onde se procurou o melhor compromisso nas vertentes funcional, socio-económica e ambiental, por forma a assegurar um nível técnico adequado aos níveis de exigência que importa observar num empreendimento desta natureza.

Para o desenvolvimento, em fase de projeto base e projeto de execução, foi-nos solicitado a divisão do projeto em dois lanços:

- Lanço IP8 entre Relvas Verdes e Roncão – Trecho 1 entre o pk 13+820 e o pk 28+002
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Sendo neste documento desenvolvido todos os elementos necessários para a boa execução do segundo trecho.

As principais alterações efetuadas relativamente ao projeto base, e por forma a dar resposta às recomendações dadas no relatório de auditoria de segurança, foram as seguir mencionadas:

- Para se poder aproveitar a obra de arte existente no atual IP8/IC33, teve-se a necessidade de se corrigir os alinhamentos em planta de alguns restabelecimentos e consequentemente os perfis longitudinais;
- Nesta fase do estudo reformularam-se os caminhos paralelos, havendo a necessidade de se acrescentar mais em relação ao estipulado na fase anterior;
- Forma definidos a implantação dos acessos aos espaços técnicos de apoio à telemática;
- Estão preconizados neste capítulo, e por indicação do Dono de Obra, IP, a repavimentação de alguns caminhos paralelos existentes estando em planta devidamente identificados.

As alterações efetuadas relativamente ao projeto execução, revisão 00, entregue em novembro de 2023, foram as seguir mencionadas:

- No Nó do Roncão alterou-se a geometria em planta do Caminho Paralelo 1, por forma a não interferir com a zona de proteção indicada pelo Ambiente;
- Reformulação integral do Nó com EN261-1, por forma a desviar da lixeira selada existente.
- Na secção corrente foram ajustadas as vias de aceleração e abrandamento, por forma a encaixar o novo nó com a EN261-1.

O traçado é apresentado em planta e perfil longitudinal na escala 1:1 000 e 1:100, para os comprimentos e alturas, respetivamente (ver desenhos RVGR-PE-T2-P113-01 a 19.R01).

5 TRAÇADO

5.1 Considerações Gerais

O presente documento constitui a memória descritiva e justificativa do projeto de execução relativa ao traçado dos restabelecimentos do lanço entre o Roncão e Grândola, do IP8 (A26) Ligação entre Sines e a A2.

Tratando-se o presente de um projeto em que se aproveita do traçado de uma estrada existente que possui características compatíveis com um IP, as vias secundárias existentes na dependência do traçado encontram-se já restabelecidas através de passagens inferiores e agrícolas. De entre elas, as mais importantes articulam-se com o IP8 através de nós desnivelados.

Neste trecho em estudo, existem 15 passagens agrícolas muito semelhantes, em quadro, com secção transversal de $L \times H = 5,0 \times 4,0$ m que permitem a passagem desnivelada de caminhos rurais, que serão prolongadas, garantindo assim a permeabilidade da estrada existente e as acessibilidades às parcelas limítrofes.

Para além das passagens agrícolas, neste trecho existem ainda duas passagens superiores e uma passagem inferior que garantem as intersecções das vias (mais importantes) em que se apoiam os nós de ligação, desenvolvidos no P1.1.2 – Nós de Ligação.

Nestas condições e por não ter sido detetada a necessidade de considerar novas passagens desniveladas para além das existentes, foram projetados restabelecimentos dos caminhos intersectados através do prolongamento das passagens agrícolas existentes no IP8, com a mesma pendente longitudinal e com a mesma secção transversal. Os caminhos que correspondem a esta situação são os seguintes: 30.01, 31.01, 33.01, 33.02, 34.01, 35.01, 36.01, 37.01, 38.02, 39.01, 40.01, 42.01, 42.02, 44.02 e 48.01.

Estão previstos neste trecho a reabilitação de 15 caminhos paralelos, devido à interferência do traçado com os caminhos existentes, bem como a repavimentação de alguns dos caminhos já existentes por indicação do dono de obra, IP, em planta estão identificados com a trama respetiva.

Está ainda contemplado nesta especialidade 4 (quatro) acessos, que se designou por acessos à telemática, para facilitar a acessibilidade dos carros da manutenção destes serviços à plataforma sem ter interferência no IP8. Estes caminhos são pavimentados com uma largura de 5 m, nas zonas de inversão da marcha têm uma largura de 10 m.

5.2 Normas e Elementos Base de Projeto

Na elaboração do presente estudo recorreu-se à experiência acumulada na elaboração de projetos anteriores, tendo sempre em atenção o cumprimento de normas, recomendações e legislação nacional ou estrangeira em vigor. No caso em estudo, o principal suporte normativo e bibliográfico foi o seguinte:

- Norma de Traçado
- Norma de Nós de Ligação
- Norma de Intersecções (P5/90)

5.3 Traçado em Planta

As características geométricas dos vários elementos que constituem esta ligação, foram estabelecidas de acordo com as normas de traçado e dos nós de ligação, para uma velocidade base igual ou superior a 40 km/hora.

Enquadradas pelas características do tipo de intervenção pretendida, as diretrizes referenciadas neste volume foram concebidas de forma a estarem integradas com os eixos existentes. O quadro seguinte apresenta o resumo das características dos alinhamentos.

QUADRO 1 – RESTABELECIMENTOS - QUADRO RESUMO DAS CARATERÍSTICAS

RESTAB.	IP8		Restabelecimento		Designação	CLASSIFICAÇÃO	PERFIL TRANSVERSAL TIPO (m)	EXTENSÃO (m)
	Pk Intersecção	Cota	Pk Intersecção	Cota				
30.01	30+857.112	277.04	0+175.163	271.221	PA30.01	CR	0,5+4,0+0,5	256.118
30.01A	-	-	-	-	-	CR	0,5+4,0+0,5	34.656
31.01	31+837.348	272.880	0+045.209	266.362	PA31.01	CR	0,5+4,0+0,5	133.551
31.01A	-	-	-	-	-	CR	0,5+4,0+0,5	70.509
31.01B	-	-	-	-	-	CR	0,5+4,0+0,5	21.270
33.01	33+424.022	276.957	0+049.776	270.751	PA33.01	CR	0,5+4,0+0,5	166.559
33.01A	-	-	-	-	-	CR	0,5+4,0+0,5	20.540
33.02	33+790.848	275.122	0+084.381	269.373	PA33.02	CR	0,5+4,0+0,5	190.545
34.01	34+767.168	277.386	0+042.640	271.290	PA34.01	CR	0,5+4,0+0,5	95.941
35.01	35+198.590	282.158	0+057.054	276.254	PA35.01	CR	0,5+4,0+0,5	158.456
35.01A	-	-	-	-	-	CR	0,5+4,0+0,5	356.570
36.01	36+206.328	277.241	0+045.693	271.256	PA36.01	CR	0,5+4,0+0,5	77.263
36.01A	-	-	-	-	-	CR	0,5+4,0+0,5	296.856
36.01B	-	-	-	-	-	CR	0,5+4,0+0,5	306.147
37.01	37+163.752	279.683	0+053.711	273.550	PA37.01	CR	0,5+4,0+0,5	90.633
38.02	38+894.505	296.529	0+055.909	290.446	PA38.02	CR	0,5+4,0+0,5	249.407
39.01	39+216.425	305.166	0+045.206	299.581	PA39.01	CR	0,5+4,0+0,5	158.651
40.01	40+503.293	265.212	0+055.138	258.410	PA40.01	CR	0,5+4,0+0,5	191.441
42.01	42+185.393	191.195	0+052.819	184.971	PA42.01	CR	0,5+4,0+0,5	134.910
42.01A	-	-	-	-	-	CR	0,5+4,0+0,5	161.082

RESTAB.	IP8		Restabelecimento		Designação	CLASSIFICAÇÃO	PERFIL TRANSVERSAL TIPO (m)	EXTENSÃO (m)
	Pk Intersecção	Cota	Pk Intersecção	Cota				
42.02	42+989.393	163.934	0+063.857	158.548	PA42.02	CR	0,5+4,0+0,5	150.000
44.02	44+660.619	119.743	0+044.173	114.215	PA44.01	CR	0,5+4,0+0,5	90.655
48.01	48+172.363	89.609	0+025.384	84.415	PA48.01	CR	0,5+4,0+0,5	49.908

5.4 Traçado em Perfil Longitudinal

Considerando mais uma vez o tipo de intervenção pretendida, os perfis longitudinais elaborados a partir do levantamento topográfico executado para o efeito, apresentam rasantes com características geométricas de modo a garantir a melhor concordância entre as vias existentes.

As rasantes são constituídas por trainéis retos concordados por curvas parabólicas, côncavas ou convexas, sendo o seu cálculo efetuado para seções equidistantes de 25 metros.

No quadro seguinte encontram-se indicados os parâmetros máximos e mínimos para os diferentes perfis longitudinais previstos no projeto.

QUADRO 2 – QUADRO RESUMO DAS CARATERÍSTICAS DA RASANTE DE CADA ALINHAMENTO

Alinhamento	Inclinação absoluta dos trainéis [%]		Raios das Concordâncias Verticais [m]			
			Côncava		Convexa	
	Mín.	Máx.	Mín.	Máx.	Mín.	Máx.
Restabelecimento 30.01	0.78	13.00	150.00	300.00	300.00	500.00
Restabelecimento 30.01A	3.23	8.00	200.00		300.00	
Restabelecimento 31.01	0.90	14.00	200.00	1500.00	300.00	
Restabelecimento 31.01A	0.53	2.75	1500.00		-	
Restabelecimento 31.01B	3.48		-		-	
Restabelecimento 33.01	2.00	12.00	125.00	150.00	100.00	350.00
Restabelecimento 33.01A	2.50	8.50	100.00		-	
Restabelecimento 33.02	2.31	12.50	200.00		250.00	
Restabelecimento 34.01	1.37	8.10	130.00	250.00	150.00	
Restabelecimento 35.01	0.86	13.50	100.00	150.00	50.00	150.00
Restabelecimento 35.01A	0.72	13.00	200.00	800.00	400.00	
Restabelecimento 36.01	3.32	7.87	450.00		-	
Restabelecimento 36.01A	1.50	15.00	250.00	300.00	300.00	400.00
Restabelecimento 36.01B	1.50	12.00	400.00	700.00	300.00	500.00
Restabelecimento 37.01	0.50	12.00	200.00	500.00	400.00	
Restabelecimento 38.02	4.20	12.00	200.00	800.00	200.00	

Alinhamento	Inclinação absoluta dos trainéis [%]		Raios das Concordâncias Verticais [m]			
			Côncava		Convexa	
	Mín.	Máx.	Mín.	Máx.	Mín.	Máx.
Restabelecimento 39.01	0.50	6.00	600.00		500.00	5000.00
Restabelecimento 40.01	4.61	13.00	200.00	400.00	300.00	
Restabelecimento 42.01	1.60	12.00	150.00	300.00	100.00	500
Restabelecimento 42.01A	2.50	8.00	400.00		1200.00	
Restabelecimento 42.02	1.09	14.00	200.00	300.00	200.00	300.00
Restabelecimento 44.02	0.66	15.00	100.00		70.00	200.00
Restabelecimento 48.01	1.50	3.50	700.00		150.00	

5.5 Caminhos Paralelos

No que respeita aos caminhos paralelos, para este trecho, serão divididos em 3 (três) grupos. Os caminhos paralelos do tipo I, do tipo II e o que serão alvo de repavimentação conforme indicação do dono de obra, estando representados em planta com a respetiva simbologia para melhor perceção.

Neste trecho estão previstos 15 (quinze) caminhos paralelos na totalidade, sendo 4 (quatro) do tipo I e 11 (onze) do tipo II, sendo necessário a adaptação da largura com os caminhos existentes no início e final de cada um. Em planta apresentam-se as respetivas localizações.

Uma vez que na generalidade dos caminhos paralelos serão utilizados essencialmente por veículos de apoio à agricultura e exploração florestal, adotou-se as inclinações do terreno natural.

- **Caminho Paralelo 1 (tipo I)** – do lado esquerdo da secção corrente e Ramo D do Nó 4 (Nó do Roncão), entre o pk 29+360 e 29+700 e extensão do Ramo D, aproximadamente, com uma extensão total de 640.229 m
- **Caminho Paralelo 2 (tipo II)** – do lado esquerdo da secção corrente, entre o pk 29+950 e 30+330, aproximadamente, com uma extensão total de 375.874 m
- **Caminho Paralelo 3 (tipo II)** – do lado direito da secção corrente, entre o pk 30+540 e 30+855, aproximadamente, com uma extensão total de 337.989 m
- **Caminho Paralelo 4 (tipo I)** – do lado direito da secção corrente, entre o pk 30+860 e 30+948, aproximadamente, com uma extensão total de 94.180 m
- **Caminho Paralelo 5 (tipo II)** – do lado direito da secção corrente, entre o pk 31+025 e 31+225, aproximadamente, com uma extensão total de 187.607 m
- **Caminho Paralelo 6 (tipo II)** – do lado esquerdo da secção corrente, entre o pk 31+560 e 31+735, aproximadamente, com uma extensão total de 170.897 m
- **Caminho Paralelo 7 (tipo II)** – do lado esquerdo da secção corrente, entre o pk 32+195 e 32+305, aproximadamente, com uma extensão total de 123.113 m

- **Caminho Paralelo 8 (tipo II)** – do lado direito da secção corrente, entre o pk 32+420 e 33+325, aproximadamente, com uma extensão total de 890.012 m
- **Caminho Paralelo 9 (tipo I)** – do lado esquerdo da secção corrente, entre o pk 33+850 e 34+725, aproximadamente, com uma extensão total de 870.283 m
- **Caminho Paralelo 10 (tipo II)** – do lado direito da secção corrente, entre o pk 35+270 e 35+500, aproximadamente, com uma extensão total de 223.182 m
- **Caminho Paralelo 11 (tipo II)** – do lado esquerdo da secção corrente, entre o pk 35+650 e 35+825, aproximadamente, com uma extensão total de 183.000 m
- **Caminho Paralelo 12 (tipo I)** – do lado esquerdo da secção corrente, entre o pk 37+150 e 37+485, aproximadamente, com uma extensão total de 334.217 m
- **Caminho Paralelo 13 (tipo II)** – do lado direito da secção corrente e Ramo A do Nó 5 (Nó de Melides), entre o pk 37+580 e 37+875, aproximadamente, com uma extensão total de 324.524 m
- **Caminho Paralelo 14 (tipo II)** – do lado direito da secção corrente, entre o pk 41+775 e 42+030, aproximadamente, com uma extensão total de 247.301 m
- **Caminho Paralelo 15 (tipo II)** – do lado direito da secção corrente, entre o pk 42+270 e 42+605, aproximadamente, com uma extensão total de 332.398 m

5.6 Acessos Telemática

Ao longo do traçado estão ainda previstos espaços técnicos de apoio à telemática, para se permitir a sua acessibilidade sem ser a partir da secção corrente do IP8, por forma a não se criar mais um ponto de conflito, criaram-se ao todo 4 (quatro) acessos, que no projeto se designam por Acessos à Telemática, com entrada e saída em mão a partir de restabelecimentos ou de caminhos paralelos existentes. Em anexo à presente memória são apresentados os cálculos em planta e perfil longitudinal.

- **SC-Acesso Telemática 1** – com uma extensão total de 63.083 m, entrada e saída em mão a partir do restabelecimento 27.01.
- **SC-Acesso Telemática 2** – com uma extensão total de 131.610 m, entrada e saída a partir do caminho existente.
- **SC-Acesso Telemática 3** – com uma extensão total de 37.572 m, entrada e saída em mão a partir do restabelecimento 38.02.
- **SC-Acesso Telemática 4** – com uma extensão total de 198.661 m, entrada e saída a partir do caminho existente.

5.7 Perfis Transversais Tipo Adotados

Os perfis transversais tipo adotados encontram-se representados nas peças desenhadas e caracterizam-se fundamentalmente por:

Restabelecimentos

- Faixa de rodagem com 4,00 m de largura;
- Bermas exteriores com 0,50 m de largura;

Nesta fase de projeto execução adotou-se, quer para os taludes de aterro quer para os taludes de escavação, uma geometria com relação $V/H=1/1,5$.

Acessos Telemática

- Faixa de rodagem com 5,00 m de largura;

Nesta fase de projeto execução adotou-se, quer para os taludes de aterro quer para os taludes de escavação, uma geometria com relação $V/H=1/1,5$.

Caminhos Paralelos

- Faixa de rodagem com 3,00 m de largura;

Para além da faixa de rodagem propomos uma largura de 0.50 m, para a colocação do órgão de drenagem ou a transição para o talude, consoante se esteja em escavação ou em aterro respetivamente.

Nesta fase de projeto execução adotou-se, quer para os taludes de aterro quer para os taludes de escavação, uma geometria com relação $V/H=1/1,5$.

6 CADERNO DE ENCARGOS

O caderno de encargos aplicável é o Caderno Tipo de Obra da IP-INFRAESTRUTURAS de Portugal S.A. nas rúbricas que lhe são aplicáveis.

<https://servicos.infraestruturasdeportugal.pt/pt-pt/parceiros/fornecedores/gestao-de-contratos-de-empregada/fornecedores-documentacao-ips>



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Engimind – Consultores de Engenharia e Planeamento Lda

ANEXO 1 – CÁLCULOS DE TRAÇADO

TRAÇADO EM PLANTA

DIRETRIZ – RESTABELECIMENTO 30.01

Curve Point Data

Description	Station	Northing	Easting
PC:	0+000.000	-174299.532	-44421.403
RP:		-174328.012	-44517.262
PT:	0+078.680	-174375.779	-44429.408

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	45° 04' 49.9975"	Type:	RIGHT
Radius:	100.000		
Length:	78.680	Tangent:	41.504
Mid-Ord:	7.639	External:	8.271
Chord:	76.667	Course:	S 05° 59' 34.7419" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+078.680	-174375.779	-44429.408
End:	0+098.711	-174393.377	-44438.976

Tangent Data

Parameter	Value	Parameter	Value
Length:	20.030	Course:	S 28° 31' 59.7406" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+098.711	-174393.377	-44438.976
RP:		-174407.229	-44413.498
PT:	0+155.577	-174436.061	-44416.620

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	112° 21' 09.5117"	Type:	LEFT
Radius:	29.000		
Length:	56.867	Tangent:	43.281
Mid-Ord:	12.857	External:	23.098
Chord:	48.184	Course:	S 27° 38' 35.0153" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+155.577	-174436.061	-44416.620
End:	0+228.120	-174443.871	-44344.499

Tangent Data

Parameter	Value	Parameter	Value
Length:	72.542	Course:	S 83° 49' 09.7711" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+228.120	-174443.871	-44344.499
RP:		-174592.999	-44360.649
PT:	0+249.435	-174447.661	-44323.542

Circular Curve Data

Parameter	Value	Parameter	Value
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Delta:	08° 08' 30.5048"	Type:	RIGHT
Radius:	150.000		
Length:	21.315	Tangent:	10.676
Mid-Ord:	0.378	External:	0.379
Chord:	21.297	Course:	S 79° 44' 54.5187" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+249.435	-174447.661	-44323.542
End:	0+256.118	-174449.314	-44317.067

Tangent Data

Parameter	Value	Parameter	Value
Length:	6.682	Course:	S 75° 40' 39.2663" E

DIRETRIZ – RESTABELECIMENTO 30-01A

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+000.000	-174428.232	-44436.299
End:	0+001.673	-174429.366	-44437.529

Tangent Data

Parameter	Value	Parameter	Value
Length:	1.673	Course:	S 47° 20' 59.8813" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+001.673	-174429.366	-44437.529
RP:		-174438.192	-44429.399
PT:	0+011.366	-174437.968	-44441.397

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	46° 16' 50.8377"	Type:	LEFT
Radius:	12.000		
Length:	9.693	Tangent:	5.128
Mid-Ord:	0.965	External:	1.050
Chord:	9.432	Course:	S 24° 12' 34.4625" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+011.366	-174437.968	-44441.397
End:	0+034.656	-174461.254	-44441.831

Tangent Data

Parameter	Value	Parameter	Value
Length:	23.290	Course:	S 01° 04' 09.0436" W

DIRETRIZ – RESTABELECIMENTO 31-01

Tangent Data			
Description	PT Station	Northing	Easting
Start:	0+000.000	-173476.916	-44482.981
End:	0+021.750	-173468.616	-44462.877
Tangent Data			
Parameter	Value	Parameter	Value
Length:	21.750	Course:	N 67° 33' 58.7823" E
Curve Point Data			
Description	Station	Northing	Easting
PC:	0+021.750	-173468.616	-44462.877
RP:		-173542.562	-44432.348
PT:	0+029.690	-173465.955	-44455.400
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	05° 41' 11.1220"	Type:	RIGHT
Radius:	80.000		
Length:	7.940	Tangent:	3.973
Mid-Ord:	0.098	External:	0.099
Chord:	7.936	Course:	N 70° 24' 34.3432" E
Tangent Data			
Description	PT Station	Northing	Easting
Start:	0+029.690	-173465.955	-44455.400
End:	0+070.833	-173454.100	-44416.002
Tangent Data			
Parameter	Value	Parameter	Value
Length:	41.143	Course:	N 73° 15' 09.9042" E
Curve Point Data			
Description	Station	Northing	Easting
PC:	0+070.833	-173454.100	-44416.002
RP:		-173468.463	-44411.680
PT:	0+096.421	-173466.115	-44396.865
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	97° 44' 20.4349"	Type:	RIGHT
Radius:	15.000		
Length:	25.588	Tangent:	17.176
Mid-Ord:	5.133	External:	7.804
Chord:	22.596	Course:	S 57° 52' 39.8783" E
Tangent Data			
Description	PT Station	Northing	Easting
Start:	0+096.421	-173466.115	-44396.865
End:	0+133.551	-173502.787	-44391.051
Tangent Data			
Parameter	Value	Parameter	Value
Length:	37.130	Course:	S 09° 00' 29.6609" E

DIRETRIZ – RESTABELECIMENTO 31-01A

Tangent Data			
Description	PT Station	Northing	Easting
Start:	0+000.000	-173411.848	-44411.152
End:	0+013.188	-173423.564	-44405.098
Tangent Data			
Parameter	Value	Parameter	Value
Length:	13.188	Course:	S 27° 19' 39.6109" E
Curve Point Data			
Description	Station	Northing	Easting
PC:	0+013.188	-173423.564	-44405.098
RP:		-173363.884	-44289.606
PT:	0+070.509	-173467.145	-44368.581
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	25° 15' 48.1224"	Type:	LEFT
Radius:	130.000		
Length:	57.321	Tangent:	29.134
Mid-Ord:	3.147	External:	3.225
Chord:	56.858	Course:	S 39° 57' 33.6721" E

DIRETRIZ – RESTABELECIMENTO 31-01B

Tangent Data			
Description	PT Station	Northing	Easting
Start:	0+000.000	-173476.690	-44393.163
End:	0+021.270	-173459.593	-44380.512
Tangent Data			
Parameter	Value	Parameter	Value
Length:	21.270	Course:	N 36° 30' 00.1247" E

DIRETRIZ – RESTABELECIMENTO 33-01

Tangent Data			
Description	PT Station	Northing	Easting
Start:	0+000.000	-172205.859	-45358.338
End:	0+012.426	-172193.800	-45361.340
Tangent Data			
Parameter	Value	Parameter	Value
Length:	12.426	Course:	N 13° 58' 52.1517" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+012.426	-172193.800	-45361.340
RP:		-172190.176	-45346.785
PT:	0+033.828	-172176.291	-45352.461

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	81° 44' 51.7720"	Type:	RIGHT
Radius:	15.000		
Length:	21.402	Tangent:	12.981
Mid-Ord:	3.658	External:	4.837
Chord:	19.632	Course:	N 26° 53' 33.7343" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+033.828	-172176.291	-45352.461
End:	0+078.455	-172159.405	-45311.151

Tangent Data

Parameter	Value	Parameter	Value
Length:	44.627	Course:	N 67° 45' 59.6203" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+078.455	-172159.405	-45311.151
RP:		-172140.892	-45318.719
PT:	0+109.903	-172133.295	-45300.218

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	90° 05' 27.4738"	Type:	LEFT
Radius:	20.000		
Length:	31.448	Tangent:	20.032
Mid-Ord:	5.869	External:	8.307
Chord:	28.307	Course:	N 22° 43' 15.8834" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+109.903	-172133.295	-45300.218
End:	0+140.888	-172104.633	-45311.987

Tangent Data

Parameter	Value	Parameter	Value
Length:	30.985	Course:	N 22° 19' 27.8535" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+140.888	-172104.633	-45311.987
RP:		-172127.424	-45367.490
PT:	0+155.586	-172091.853	-45319.172

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	14° 02' 06.8539"	Type:	LEFT
Radius:	60.000		
Length:	14.698	Tangent:	7.386

Mid-Ord:	0.449	External:	0.453
Chord:	14.661	Course:	N 29° 20' 31.2805" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+155.586	-172091.853	-45319.172
End:	0+166.559	-172083.015	-45325.677

Tangent Data

Parameter	Value	Parameter	Value
Length:	10.974	Course:	N 36° 21' 34.7074" W

DIRETRIZ – RESTABELECIMENTO 33-01A

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+000.000	-172180.382	-45358.146
End:	0+000.345	-172180.157	-45358.407

Tangent Data

Parameter	Value	Parameter	Value
Length:	0.345	Course:	N 49° 14' 05.7660" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+000.345	-172180.157	-45358.407
RP:		-172183.944	-45361.672
PT:	0+004.180	-172178.951	-45361.950

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	43° 57' 08.8676"	Type:	LEFT
Radius:	5.000		
Length:	3.836	Tangent:	2.018
Mid-Ord:	0.363	External:	0.392
Chord:	3.742	Course:	N 71° 12' 40.1998" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+004.180	-172178.951	-45361.950
End:	0+005.760	-172179.039	-45363.527

Tangent Data

Parameter	Value	Parameter	Value
Length:	1.580	Course:	S 86° 48' 45.3663" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+005.760	-172179.039	-45363.527
RP:		-172228.962	-45360.747
PT:	0+015.047	-172180.411	-45372.699

Circular Curve Data

Parameter	Value	Parameter	Value
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Delta:	10° 38' 32.3343"	Type:	LEFT
Radius:	50.000		
Length:	9.287	Tangent:	4.657
Mid-Ord:	0.215	External:	0.216
Chord:	9.274	Course:	S 81° 29' 29.1992" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+015.047	-172180.411	-45372.699
End:	0+020.540	-172181.724	-45378.032

Tangent Data

Parameter	Value	Parameter	Value
Length:	5.493	Course:	S 76° 10' 13.0320" W

DIRETRIZ – RESTABELECIMENTO 33-02

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+000.000	-171797.678	-45501.322
End:	0+013.238	-171810.826	-45502.870

Tangent Data

Parameter	Value	Parameter	Value
Length:	13.238	Course:	S 06° 42' 47.5327" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+013.238	-171810.826	-45502.870
RP:		-171812.696	-45486.979
PT:	0+044.192	-171828.212	-45483.073

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	110° 50' 36.0578"	Type:	LEFT
Radius:	16.000		
Length:	30.953	Tangent:	23.212
Mid-Ord:	6.919	External:	12.192
Chord:	26.347	Course:	S 48° 42' 30.4962" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+044.192	-171828.212	-45483.073
End:	0+058.809	-171824.644	-45468.898

Tangent Data

Parameter	Value	Parameter	Value
Length:	14.617	Course:	N 75° 52' 11.4749" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+058.809	-171824.644	-45468.898
RP:		-171941.013	-45439.603
PT:	0+067.624	-171822.807	-45460.279

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	04° 12' 31.9908"	Type:	RIGHT
Radius:	120.000		
Length:	8.815	Tangent:	4.410
Mid-Ord:	0.081	External:	0.081
Chord:	8.813	Course:	N 77° 58' 27.4703" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+067.624	-171822.807	-45460.279
End:	0+114.122	-171814.796	-45414.476

Tangent Data

Parameter	Value	Parameter	Value
Length:	46.498	Course:	N 80° 04' 43.4657" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+114.122	-171814.796	-45414.476
RP:		-171800.020	-45417.061
PT:	0+140.564	-171794.664	-45403.050

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	101° 00' 02.9207"	Type:	LEFT
Radius:	15.000		
Length:	26.442	Tangent:	18.197
Mid-Ord:	5.459	External:	8.582
Chord:	23.149	Course:	N 29° 34' 42.0053" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+140.564	-171794.664	-45403.050
End:	0+149.764	-171786.071	-45406.335

Tangent Data

Parameter	Value	Parameter	Value
Length:	9.200	Course:	N 20° 55' 19.4550" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+149.764	-171786.071	-45406.335
RP:		-171821.780	-45499.742
PT:	0+157.717	-171778.763	-45409.467

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	04° 33' 24.0676"	Type:	LEFT
Radius:	100.000		
Length:	7.953	Tangent:	3.979
Mid-Ord:	0.079	External:	0.079
Chord:	7.951	Course:	N 23° 12' 01.4888" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+157.717	-171778.763	-45409.467

End: 0+190.545 -171749.127 -45423.589

Tangent Data

Parameter	Value	Parameter	Value
Length:	32.829	Course:	N 25° 28' 43.5226" W

DIRETRIZ – RESTABELECIMENTO 34-01

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+000.000	-170834.687	-45449.809
End:	0+014.375	-170842.825	-45437.960

Tangent Data

Parameter	Value	Parameter	Value
Length:	14.375	Course:	S 55° 31' 00.9927" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+014.375	-170842.825	-45437.960
RP:		-170822.218	-45423.806
PT:	0+027.809	-170847.166	-45425.417

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	30° 47' 20.1994"	Type:	LEFT
Radius:	25.000		
Length:	13.434	Tangent:	6.884
Mid-Ord:	0.897	External:	0.930
Chord:	13.273	Course:	S 70° 54' 41.0924" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+027.809	-170847.166	-45425.417
End:	0+056.689	-170849.026	-45396.596

Tangent Data

Parameter	Value	Parameter	Value
Length:	28.880	Course:	S 86° 18' 21.1921" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+056.689	-170849.026	-45396.596
RP:		-170814.099	-45394.341
PT:	0+081.925	-170841.823	-45372.978

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	41° 18' 42.0428"	Type:	LEFT
Radius:	35.000		
Length:	25.236	Tangent:	13.195
Mid-Ord:	2.250	External:	2.405
Chord:	24.693	Course:	N 73° 02' 17.7865" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+081.925	-170841.823	-45372.978
End:	0+095.941	-170833.268	-45361.876
Tangent Data			
Parameter	Value	Parameter	Value
Length:	14.016	Course:	N 52° 22' 56.7651" E

DIRETRIZ – RESTABELECIMENTO 35-01

Tangent Data			
Description	PT Station	Northing	Easting
Start:	0+000.000	-170428.156	-45488.029
End:	0+011.281	-170426.407	-45476.885
Tangent Data			
Parameter	Value	Parameter	Value
Length:	11.281	Course:	N 81° 04' 44.7286" E

Curve Point Data			
Description	Station	Northing	Easting
PC:	0+011.281	-170426.407	-45476.885
RP:		-170228.826	-45507.899
PT:	0+025.456	-170423.715	-45462.972
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	04° 03' 38.7900"	Type:	LEFT
Radius:	200.000		
Length:	14.175	Tangent:	7.090
Mid-Ord:	0.126	External:	0.126
Chord:	14.172	Course:	N 79° 02' 55.3336" E

Tangent Data			
Description	PT Station	Northing	Easting
Start:	0+025.456	-170423.715	-45462.972
End:	0+034.654	-170421.648	-45454.008
Tangent Data			
Parameter	Value	Parameter	Value
Length:	9.199	Course:	N 77° 01' 05.9386" E

Curve Point Data			
Description	Station	Northing	Easting
PC:	0+034.654	-170421.648	-45454.008
RP:		-170470.370	-45442.776
PT:	0+039.050	-170420.850	-45449.686
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	05° 02' 14.5789"	Type:	RIGHT
Radius:	50.000		
Length:	4.396	Tangent:	2.199

Mid-Ord:	0.048	External:	0.048
Chord:	4.395	Course:	N 79° 32' 13.2280" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+039.050	-170420.850	-45449.686
End:	0+074.388	-170415.966	-45414.688

Tangent Data

Parameter	Value	Parameter	Value
Length:	35.337	Course:	N 82° 03' 20.5175" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+074.388	-170415.966	-45414.688
RP:		-170401.110	-45416.761
PT:	0+103.182	-170394.084	-45403.509

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	109° 59' 09.6976"	Type:	LEFT
Radius:	15.000		
Length:	28.794	Tangent:	21.417
Mid-Ord:	6.395	External:	11.147
Chord:	24.572	Course:	N 27° 03' 45.6687" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+103.182	-170394.084	-45403.509
End:	0+116.220	-170382.565	-45409.615

Tangent Data

Parameter	Value	Parameter	Value
Length:	13.038	Course:	N 27° 55' 49.1801" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+116.220	-170382.565	-45409.615
RP:		-170347.435	-45343.352
PT:	0+136.023	-170364.053	-45416.487

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	15° 07' 43.4205"	Type:	RIGHT
Radius:	75.000		
Length:	19.803	Tangent:	9.960
Mid-Ord:	0.653	External:	0.658
Chord:	19.746	Course:	N 20° 21' 57.4698" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+136.023	-170364.053	-45416.487
End:	0+158.456	-170342.178	-45421.458

Tangent Data

Parameter	Value	Parameter	Value
Length:	22.433	Course:	N 12° 48' 05.7596" W

DIRETRIZ – RESTABELECIMENTO 35-01A

Tangent Data			
Description	PT Station	Northing	Easting
Start:	0+000.000	-170745.955	-45366.211
End:	0+001.780	-170744.511	-45367.252
Tangent Data			
Parameter	Value	Parameter	Value
Length:	1.780	Course:	N 35° 49' 05.9129" W
Curve Point Data			
Description	Station	Northing	Easting
PC:	0+001.780	-170744.511	-45367.252
RP:		-170729.881	-45346.980
PT:	0+016.501	-170730.788	-45371.964
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	33° 44' 17.5512"	Type:	RIGHT
Radius:	25.000		
Length:	14.721	Tangent:	7.581
Mid-Ord:	1.076	External:	1.124
Chord:	14.509	Course:	N 18° 56' 57.1372" W
Tangent Data			
Description	PT Station	Northing	Easting
Start:	0+016.501	-170730.788	-45371.964
End:	0+082.191	-170665.142	-45374.348
Tangent Data			
Parameter	Value	Parameter	Value
Length:	65.690	Course:	N 02° 04' 48.3616" W
Curve Point Data			
Description	Station	Northing	Easting
PC:	0+082.191	-170665.142	-45374.348
RP:		-170672.401	-45574.216
PT:	0+101.697	-170645.714	-45376.005
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	05° 35' 17.1169"	Type:	LEFT
Radius:	200.000		
Length:	19.506	Tangent:	9.761
Mid-Ord:	0.238	External:	0.238
Chord:	19.498	Course:	N 04° 52' 26.9201" W
Tangent Data			
Description	PT Station	Northing	Easting
Start:	0+101.697	-170645.714	-45376.005
End:	0+146.964	-170600.851	-45382.045
Tangent Data			
Parameter	Value	Parameter	Value

Length: 45.267 Course: N 07° 40' 05.4785" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+146.964	-170600.851	-45382.045
RP:		-170590.176	-45302.761
PT:	0+168.487	-170579.393	-45382.030

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	15° 24' 52.2325"	Type:	RIGHT
Radius:	80.000		
Length:	21.523	Tangent:	10.827
Mid-Ord:	0.723	External:	0.729
Chord:	21.458	Course:	N 00° 02' 20.6377" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+168.487	-170579.393	-45382.030
End:	0+170.561	-170577.338	-45381.751

Tangent Data

Parameter	Value	Parameter	Value
Length:	2.074	Course:	N 07° 44' 46.7540" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+170.561	-170577.338	-45381.751
RP:		-170557.120	-45530.382
PT:	0+206.125	-170541.863	-45381.160

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	13° 35' 03.1492"	Type:	LEFT
Radius:	150.000		
Length:	35.563	Tangent:	17.865
Mid-Ord:	1.053	External:	1.060
Chord:	35.480	Course:	N 00° 57' 15.1794" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+206.125	-170541.863	-45381.160
End:	0+237.064	-170511.084	-45384.307

Tangent Data

Parameter	Value	Parameter	Value
Length:	30.939	Course:	N 05° 50' 16.3952" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+237.064	-170511.084	-45384.307
RP:		-170531.427	-45583.270
PT:	0+258.482	-170489.934	-45387.621

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	06° 08' 09.0566"	Type:	LEFT
Radius:	200.000		

Length:	21.418	Tangent:	10.719
Mid-Ord:	0.287	External:	0.287
Chord:	21.408	Course:	N 08° 54' 20.9235" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+258.482	-170489.934	-45387.621
End:	0+316.042	-170433.627	-45399.563

Tangent Data

Parameter	Value	Parameter	Value
Length:	57.560	Course:	N 11° 58' 25.4518" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+316.042	-170433.627	-45399.563
RP:		-170423.254	-45350.651
PT:	0+335.257	-170414.533	-45399.884

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	22° 01' 07.2618"	Type:	RIGHT
Radius:	50.000		
Length:	19.215	Tangent:	9.727
Mid-Ord:	0.920	External:	0.937
Chord:	19.097	Course:	N 00° 57' 51.8209" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+335.257	-170414.533	-45399.884
End:	0+336.964	-170412.851	-45399.586

Tangent Data

Parameter	Value	Parameter	Value
Length:	1.708	Course:	N 10° 02' 41.8099" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+336.964	-170412.851	-45399.586
RP:		-170408.491	-45424.203
PT:	0+353.473	-170396.835	-45402.087

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	37° 50' 05.3487"	Type:	LEFT
Radius:	25.000		
Length:	16.509	Tangent:	8.568
Mid-Ord:	1.350	External:	1.427
Chord:	16.210	Course:	N 08° 52' 20.8644" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+353.473	-170396.835	-45402.087
End:	0+356.570	-170394.084	-45403.509

Tangent Data

Parameter	Value	Parameter	Value
Length:	3.097	Course:	N 27° 20' 02.5286" W

DIRETRIZ – RESTABELECIMENTO 36-01

Tangent Data			
Description	PT Station	Northing	Easting
Start:	0+000.000	-169412.337	-45516.627
End:	0+002.823	-169412.278	-45513.805
Tangent Data			
Parameter	Value	Parameter	Value
Length:	2.823	Course:	N 88° 48' 11.5058" E
Curve Point Data			
Description	Station	Northing	Easting
PC:	0+002.823	-169412.278	-45513.805
RP:		-169462.268	-45512.761
PT:	0+011.851	-169412.904	-45504.810
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	10° 20' 45.8188"	Type:	RIGHT
Radius:	50.000		
Length:	9.029	Tangent:	4.527
Mid-Ord:	0.204	External:	0.204
Chord:	9.016	Course:	S 86° 01' 25.5848" E
Tangent Data			
Description	PT Station	Northing	Easting
Start:	0+011.851	-169412.904	-45504.810
End:	0+077.263	-169423.305	-45440.231
Tangent Data			
Parameter	Value	Parameter	Value
Length:	65.411	Course:	S 80° 51' 02.6754" E

DIRETRIZ – RESTABELECIMENTO 36-01A

Tangent Data			
Description	PT Station	Northing	Easting
Start:	0+000.000	-169715.429	-45472.064
End:	0+003.865	-169711.844	-45473.508
Tangent Data			
Parameter	Value	Parameter	Value
Length:	3.865	Course:	N 21° 56' 13.2375" W
Curve Point Data			
Description	Station	Northing	Easting
PC:	0+003.865	-169711.844	-45473.508
RP:		-169693.164	-45427.128
PT:	0+029.663	-169686.530	-45476.686

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	29° 33' 43.2480"	Type:	RIGHT
Radius:	50.000		
Length:	25.798	Tangent:	13.193
Mid-Ord:	1.655	External:	1.711
Chord:	25.513	Course:	N 07° 09' 21.6135" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+029.663	-169686.530	-45476.686
End:	0+114.309	-169602.632	-45465.454

Tangent Data

Parameter	Value	Parameter	Value
Length:	84.646	Course:	N 07° 37' 30.0105" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+114.309	-169602.632	-45465.454
RP:		-169589.364	-45564.570
PT:	0+129.165	-169587.816	-45464.582

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	08° 30' 42.2627"	Type:	LEFT
Radius:	100.000		
Length:	14.856	Tangent:	7.442
Mid-Ord:	0.276	External:	0.277
Chord:	14.842	Course:	N 03° 22' 08.8792" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+129.165	-169587.816	-45464.582
End:	0+184.902	-169532.085	-45465.445

Tangent Data

Parameter	Value	Parameter	Value
Length:	55.737	Course:	N 00° 53' 12.2522" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+184.902	-169532.085	-45465.445
RP:		-169530.538	-45365.457
PT:	0+212.653	-169504.633	-45462.043

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	15° 54' 00.1073"	Type:	RIGHT
Radius:	100.000		
Length:	27.751	Tangent:	13.965
Mid-Ord:	0.961	External:	0.970
Chord:	27.662	Course:	N 07° 03' 47.8015" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+212.653	-169504.633	-45462.043

End: 0+296.856 -169423.305 -45440.231

Tangent Data

Parameter	Value	Parameter	Value
Length:	84.203	Course:	N 15° 00' 47.8552" E

DIRETRIZ – RESTABELECIMENTO 36-01B

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+000.000	-169423.305	-45440.231
End:	0+033.318	-169391.124	-45431.600

Tangent Data

Parameter	Value	Parameter	Value
Length:	33.318	Course:	N 15° 00' 47.8552" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+033.318	-169391.124	-45431.600
RP:		-169352.268	-45576.480
PT:	0+057.529	-169367.336	-45427.239

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	09° 14' 52.6463"	Type:	LEFT
Radius:	150.000		
Length:	24.211	Tangent:	12.132
Mid-Ord:	0.488	External:	0.490
Chord:	24.185	Course:	N 10° 23' 21.5320" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+057.529	-169367.336	-45427.239
End:	0+117.114	-169308.052	-45421.253

Tangent Data

Parameter	Value	Parameter	Value
Length:	59.585	Course:	N 05° 45' 55.2088" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+117.114	-169308.052	-45421.253
RP:		-169320.107	-45301.860
PT:	0+150.375	-169275.841	-45413.398

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	15° 52' 51.3434"	Type:	RIGHT
Radius:	120.000		
Length:	33.261	Tangent:	16.738
Mid-Ord:	1.151	External:	1.162
Chord:	33.155	Course:	N 13° 42' 20.8805" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+150.375	-169275.841	-45413.398
End:	0+181.828	-169246.607	-45401.796

Tangent Data

Parameter	Value	Parameter	Value
Length:	31.453	Course:	N 21° 38' 46.5522" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+181.828	-169246.607	-45401.796
RP:		-169276.073	-45327.420
PCC:	0+201.413	-169229.458	-45392.436

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	14° 01' 36.5368"	Type:	RIGHT
Radius:	80.000		
Length:	19.585	Tangent:	9.842
Mid-Ord:	0.599	External:	0.603
Chord:	19.536	Course:	N 28° 37' 35.2504" E

Curve Point Data

Description	Station	Northing	Easting
PCC:	0+201.413	-169229.458	-45392.436
RP:		-169200.324	-45433.071
PT:	0+218.076	-169214.563	-45385.141

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	19° 05' 38.7874"	Type:	LEFT
Radius:	50.000		
Length:	16.663	Tangent:	8.409
Mid-Ord:	0.693	External:	0.702
Chord:	16.586	Course:	N 26° 05' 34.1251" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+218.076	-169214.563	-45385.141
End:	0+263.403	-169171.113	-45372.233

Tangent Data

Parameter	Value	Parameter	Value
Length:	45.327	Course:	N 16° 32' 44.7314" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+263.403	-169171.113	-45372.233
RP:		-169156.874	-45420.162
PCC:	0+282.955	-169151.770	-45370.424

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	22° 24' 18.3637"	Type:	LEFT
Radius:	50.000		
Length:	19.552	Tangent:	9.903
Mid-Ord:	0.953	External:	0.971
Chord:	19.428	Course:	N 05° 20' 35.5496" E

Curve Point Data

Description	Station	Northing	Easting
PCC:	0+282.955	-169151.770	-45370.424
RP:		-169149.217	-45345.554
PT:	0+303.567	-169132.691	-45364.313

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	47° 14' 24.6292"	Type:	RIGHT
Radius:	25.000		
Length:	20.612	Tangent:	10.933
Mid-Ord:	2.094	External:	2.286
Chord:	20.034	Course:	N 17° 45' 38.6823" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+303.567	-169132.691	-45364.313
End:	0+306.147	-169130.755	-45362.607

Tangent Data

Parameter	Value	Parameter	Value
Length:	2.580	Course:	N 41° 22' 50.9969" E

DIRETRIZ – RESTABELECIMENTO 37-01

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+000.000	-168455.674	-45317.958
End:	0+011.097	-168466.040	-45313.998

Tangent Data

Parameter	Value	Parameter	Value
Length:	11.097	Course:	S 20° 54' 37.3882" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+011.097	-168466.040	-45313.998
RP:		-168458.009	-45292.979
PT:	0+036.063	-168480.405	-45295.141

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	63° 34' 33.4709"	Type:	LEFT
Radius:	22.500		
Length:	24.966	Tangent:	13.944
Mid-Ord:	3.375	External:	3.970
Chord:	23.705	Course:	S 52° 41' 54.1237" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+036.063	-168480.405	-45295.141
End:	0+069.779	-168483.645	-45261.581

Tangent Data

Parameter	Value	Parameter	Value
Length:	33.716	Course:	S 84° 29' 10.8592" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+069.779	-168483.645	-45261.581
RP:		-168466.226	-45259.900
PT:	0+083.529	-168479.728	-45248.767

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	45° 01' 02.8687"	Type:	LEFT
Radius:	17.500		
Length:	13.750	Tangent:	7.252
Mid-Ord:	1.333	External:	1.443
Chord:	13.399	Course:	N 73° 00' 17.7065" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+083.529	-168479.728	-45248.767
End:	0+090.633	-168475.209	-45243.286

Tangent Data

Parameter	Value	Parameter	Value
Length:	7.104	Course:	N 50° 29' 46.2721" E

DIRETRIZ – RESTABELECIMENTO 38-02

Curve Point Data

Description	Station	Northing	Easting
PC:	0+000.000	-166765.051	-45041.951
RP:		-166719.218	-45003.231
PT:	0+027.842	-166777.534	-45017.343

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	26° 35' 13.8262"	Type:	LEFT
Radius:	60.000		
Length:	27.842	Tangent:	14.176
Mid-Ord:	1.608	External:	1.652
Chord:	27.593	Course:	S 63° 06' 08.6477" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+027.842	-166777.534	-45017.343
End:	0+036.162	-166779.491	-45009.257

Tangent Data

Parameter	Value	Parameter	Value
Length:	8.320	Course:	S 76° 23' 45.5608" E

Curve Point Data

Description	Station	Northing	Easting
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PC:	0+036.162	-166779.491	-45009.257
RP:		-166828.088	-45021.017
PT:	0+040.601	-166780.725	-45004.994

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	05° 05' 11.7074"	Type:	RIGHT
Radius:	50.000		
Length:	4.439	Tangent:	2.221
Mid-Ord:	0.049	External:	0.049
Chord:	4.437	Course:	S 73° 51' 09.7071" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+040.601	-166780.725	-45004.994
End:	0+072.895	-166791.074	-44974.403

Tangent Data

Parameter	Value	Parameter	Value
Length:	32.295	Course:	S 71° 18' 33.8534" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+072.895	-166791.074	-44974.403
RP:		-166805.283	-44979.210
PT:	0+096.752	-166810.368	-44965.098

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	91° 07' 27.5241"	Type:	RIGHT
Radius:	15.000		
Length:	23.856	Tangent:	15.297
Mid-Ord:	4.498	External:	6.424
Chord:	21.420	Course:	S 25° 44' 50.0913" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+096.752	-166810.368	-44965.098
End:	0+220.820	-166927.091	-45007.155

Tangent Data

Parameter	Value	Parameter	Value
Length:	124.069	Course:	S 19° 48' 53.6708" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+220.820	-166927.091	-45007.155
RP:		-166931.328	-44995.395
PT:	0+243.882	-166943.796	-44996.291

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	105° 42' 26.4462"	Type:	LEFT
Radius:	12.500		
Length:	23.062	Tangent:	16.500
Mid-Ord:	4.952	External:	8.200
Chord:	19.927	Course:	S 33° 02' 19.5523" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+243.882	-166943.796	-44996.291
End:	0+249.407	-166944.192	-44990.780

Tangent Data

Parameter	Value	Parameter	Value
Length:	5.525	Course:	S 85° 53' 32.7754" E

DIRETRIZ – RESTABELECIMENTO 39-01

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+000.000	-166460.066	-44934.124
End:	0+000.642	-166460.518	-44933.668

Tangent Data

Parameter	Value	Parameter	Value
Length:	0.642	Course:	S 45° 19' 06.2193" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+000.642	-166460.518	-44933.668
RP:		-166424.966	-44898.509
PT:	0+025.064	-166472.859	-44912.874

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	27° 59' 09.4589"	Type:	LEFT
Radius:	50.000		
Length:	24.422	Tangent:	12.460
Mid-Ord:	1.484	External:	1.529
Chord:	24.180	Course:	S 59° 18' 40.9488" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+025.064	-166472.859	-44912.874
End:	0+059.214	-166482.669	-44880.163

Tangent Data

Parameter	Value	Parameter	Value
Length:	34.150	Course:	S 73° 18' 15.6783" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+059.214	-166482.669	-44880.163
RP:		-166468.302	-44875.854
PT:	0+079.753	-166475.400	-44862.640

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	78° 27' 07.7276"	Type:	LEFT
Radius:	15.000		
Length:	20.539	Tangent:	12.245
Mid-Ord:	3.380	External:	4.363

Chord: 18.971 Course: N 67° 28' 10.4579" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+079.753	-166475.400	-44862.640
End:	0+116.667	-166442.881	-44845.171

Tangent Data

Parameter	Value	Parameter	Value
Length:	36.914	Course:	N 28° 14' 36.5941" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+116.667	-166442.881	-44845.171
RP:		-166419.220	-44889.218
PT:	0+147.658	-166412.893	-44839.620

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	35° 30' 47.3685"	Type:	LEFT
Radius:	50.000		
Length:	30.991	Tangent:	16.011
Mid-Ord:	2.382	External:	2.501
Chord:	30.497	Course:	N 10° 29' 12.9099" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+147.658	-166412.893	-44839.620
End:	0+158.651	-166401.989	-44841.011

Tangent Data

Parameter	Value	Parameter	Value
Length:	10.993	Course:	N 07° 16' 10.7744" W

DIRETRIZ – RESTABELECIMENTO 40-01

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+000.000	-165229.096	-44630.625
End:	0+009.376	-165227.592	-44621.370

Tangent Data

Parameter	Value	Parameter	Value
Length:	9.376	Course:	N 80° 45' 57.5072" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+009.376	-165227.592	-44621.370
RP:		-165267.073	-44614.952
PT:	0+038.957	-165233.579	-44593.085

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	42° 22' 20.5953"	Type:	RIGHT

Radius:	40.000	Tangent:	15.504
Length:	29.582	External:	2.900
Mid-Ord:	2.704	Course:	S 78° 02' 52.1951" E
Chord:	28.912		

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+038.957	-165233.579	-44593.085
End:	0+078.527	-165255.210	-44559.951

Tangent Data

Parameter	Value	Parameter	Value
Length:	39.570	Course:	S 56° 51' 41.8975" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+078.527	-165255.210	-44559.951
RP:		-165238.463	-44549.018
PT:	0+106.720	-165251.942	-44534.242

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	80° 46' 03.2389"	Type:	LEFT
Radius:	20.000		
Length:	28.193	Tangent:	17.012
Mid-Ord:	4.766	External:	6.256
Chord:	25.916	Course:	N 82° 45' 16.4830" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+106.720	-165251.942	-44534.242
End:	0+143.560	-165224.725	-44509.415

Tangent Data

Parameter	Value	Parameter	Value
Length:	36.840	Course:	N 42° 22' 14.8636" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+143.560	-165224.725	-44509.415
RP:		-165265.160	-44465.087
PCC:	0+185.944	-165205.628	-44472.561

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	40° 28' 26.3520"	Type:	RIGHT
Radius:	60.000		
Length:	42.384	Tangent:	22.120
Mid-Ord:	3.704	External:	3.947
Chord:	41.508	Course:	N 62° 36' 28.0396" E

Curve Point Data

Description	Station	Northing	Easting
PCC:	0+185.944	-165205.628	-44472.561
RP:		-165395.058	-44448.780
PT:	0+191.441	-165205.022	-44467.097

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	01° 38' 58.7827"	Type:	RIGHT
Radius:	190.917		
Length:	5.497	Tangent:	2.749
Mid-Ord:	0.020	External:	0.020
Chord:	5.497	Course:	N 83° 40' 10.6070" E

DIRETRIZ – RESTABELECIMENTO 42-01

Tangent Data			
Description	PT Station	Northing	Easting
Start:	0+000.000	-164074.279	-43464.190
End:	0+018.602	-164069.929	-43446.104

Parameter	Value	Parameter	Value
Length:	18.602	Course:	N 76° 28' 34.2534" E

Curve Point Data			
Description	Station	Northing	Easting
PC:	0+018.602	-164069.929	-43446.104
RP:		-164097.153	-43439.556
PT:	0+036.702	-164071.478	-43428.385

Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	37° 02' 15.6283"	Type:	RIGHT
Radius:	28.000		
Length:	18.100	Tangent:	9.379
Mid-Ord:	1.450	External:	1.529
Chord:	17.787	Course:	S 85° 00' 17.9325" E

Tangent Data			
Description	PT Station	Northing	Easting
Start:	0+036.702	-164071.478	-43428.385
End:	0+069.662	-164084.628	-43398.162

Parameter	Value	Parameter	Value
Length:	32.960	Course:	S 66° 29' 10.1184" E

Curve Point Data			
Description	Station	Northing	Easting
PC:	0+069.662	-164084.628	-43398.162
RP:		-164066.288	-43390.183
PT:	0+090.814	-164082.244	-43378.124

Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	60° 35' 47.4769"	Type:	LEFT
Radius:	20.000		
Length:	21.152	Tangent:	11.686

Mid-Ord:	2.732	External:	3.164
Chord:	20.180	Course:	N 83° 12' 56.1432" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+090.814	-164082.244	-43378.124
End:	0+099.141	-164077.223	-43371.481

Tangent Data

Parameter	Value	Parameter	Value
Length:	8.327	Course:	N 52° 55' 02.4047" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+099.141	-164077.223	-43371.481
RP:		-164037.334	-43401.629
PT:	0+128.963	-164053.402	-43354.281

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	34° 10' 22.7019"	Type:	LEFT
Radius:	50.000		
Length:	29.822	Tangent:	15.369
Mid-Ord:	2.207	External:	2.309
Chord:	29.381	Course:	N 35° 49' 51.0538" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+128.963	-164053.402	-43354.281
End:	0+134.910	-164047.770	-43352.370

Tangent Data

Parameter	Value	Parameter	Value
Length:	5.947	Course:	N 18° 44' 39.7028" E

DIRETRIZ – RESTABELECIMENTO 42-01A

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+000.000	-164229.788	-43459.542
End:	0+004.308	-164225.835	-43457.828

Tangent Data

Parameter	Value	Parameter	Value
Length:	4.308	Course:	N 23° 25' 56.9088" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+004.308	-164225.835	-43457.828
RP:		-164305.369	-43274.323
PT:	0+035.876	-164197.980	-43443.046

Circular Curve Data

Parameter	Value	Parameter	Value
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Delta:	09° 02' 36.0436"	Type:	RIGHT
Radius:	200.000		
Length:	31.567	Tangent:	15.816
Mid-Ord:	0.622	External:	0.624
Chord:	31.534	Course:	N 27° 57' 14.9306" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+035.876	-164197.980	-43443.046
End:	0+126.788	-164121.285	-43394.231

Tangent Data

Parameter	Value	Parameter	Value
Length:	90.913	Course:	N 32° 28' 32.9524" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+126.788	-164121.285	-43394.231
RP:		-164099.807	-43427.976
PT:	0+148.405	-164100.862	-43387.990

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	30° 57' 49.4329"	Type:	LEFT
Radius:	40.000		
Length:	21.617	Tangent:	11.079
Mid-Ord:	1.451	External:	1.506
Chord:	21.355	Course:	N 16° 59' 38.2359" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+148.405	-164100.862	-43387.990
End:	0+161.082	-164088.190	-43387.655

Tangent Data

Parameter	Value	Parameter	Value
Length:	12.677	Course:	N 01° 30' 43.5194" E

DIRETRIZ – RESTABELECIMENTO 42-02

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+000.000	-163381.411	-42945.477
End:	0+009.341	-163387.923	-42952.174

Tangent Data

Parameter	Value	Parameter	Value
Length:	9.341	Course:	S 45° 48' 08.0376" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+009.341	-163387.923	-42952.174
RP:		-163405.847	-42934.746

PT: 0+046.164 -163421.440 -42954.287

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	84° 23' 27.3437"	Type:	LEFT
Radius:	25.000		
Length:	36.822	Tangent:	22.665
Mid-Ord:	6.479	External:	8.745
Chord:	33.583	Course:	S 03° 36' 24.3658" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+046.164	-163421.440	-42954.287
End:	0+079.025	-163447.126	-42933.790

Tangent Data

Parameter	Value	Parameter	Value
Length:	32.861	Course:	S 38° 35' 19.3060" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+079.025	-163447.126	-42933.790
RP:		-163459.600	-42949.423
PT:	0+106.217	-163472.271	-42933.949

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	77° 54' 01.4237"	Type:	RIGHT
Radius:	20.000		
Length:	27.192	Tangent:	16.167
Mid-Ord:	4.446	External:	5.717
Chord:	25.146	Course:	S 00° 21' 41.4058" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+106.217	-163472.271	-42933.949
End:	0+124.194	-163486.179	-42945.338

Tangent Data

Parameter	Value	Parameter	Value
Length:	17.976	Course:	S 39° 18' 42.1176" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+124.194	-163486.179	-42945.338
RP:		-163568.539	-42844.755
PT:	0+148.486	-163506.300	-42958.888

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	10° 42' 24.1502"	Type:	LEFT
Radius:	130.000		
Length:	24.293	Tangent:	12.182
Mid-Ord:	0.567	External:	0.570
Chord:	24.257	Course:	S 33° 57' 30.0425" W

Tangent Data

Description	PT Station	Northing	Easting
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Start:	0+148.486	-163506.300	-42958.888
End:	0+150.000	-163507.628	-42959.612

Tangent Data

Parameter	Value	Parameter	Value
Length:	1.514	Course:	S 28° 36' 17.9674" W

DIRETRIZ – RESTABELECIMENTO 44-02

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+000.000	-163081.230	-41337.355
End:	0+012.470	-163092.570	-41342.542

Tangent Data

Parameter	Value	Parameter	Value
Length:	12.470	Course:	S 24° 34' 46.3529" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+012.470	-163092.570	-41342.542
RP:		-163109.209	-41306.167
PT:	0+028.764	-163108.343	-41346.158

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	23° 20' 21.4471"	Type:	LEFT
Radius:	40.000		
Length:	16.294	Tangent:	8.262
Mid-Ord:	0.827	External:	0.844
Chord:	16.181	Course:	S 12° 54' 35.6294" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+028.764	-163108.343	-41346.158
End:	0+068.261	-163147.830	-41347.012

Tangent Data

Parameter	Value	Parameter	Value
Length:	39.497	Course:	S 01° 14' 24.9059" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+068.261	-163147.830	-41347.012
RP:		-163146.748	-41397.001
PT:	0+085.111	-163164.298	-41350.182

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	19° 18' 29.4104"	Type:	RIGHT
Radius:	50.000		
Length:	16.850	Tangent:	8.505
Mid-Ord:	0.708	External:	0.718
Chord:	16.770	Course:	S 10° 53' 39.6111" W

Tangent Data			
Description	PT Station	Northing	Easting
Start:	0+085.111	-163164.298	-41350.182
End:	0+090.655	-163169.490	-41352.128
Tangent Data			
Parameter	Value	Parameter	Value
Length:	5.545	Course:	S 20° 32' 54.3163" W

DIRETRIZ – RESTABELECIMENTO 48-01

Tangent Data			
Description	PT Station	Northing	Easting
Start:	0+000.000	-162307.069	-38024.102
End:	0+049.908	-162356.971	-38024.828
Tangent Data			
Parameter	Value	Parameter	Value
Length:	49.908	Course:	S 00° 49' 58.9865" W

DIRETRIZ – CP1

Tangent Data			
Description	PT Station	Northing	Easting
Start:	0+000.000	-175323.162	-44842.194
End:	0+005.299	-175328.034	-44840.111
Tangent Data			
Parameter	Value	Parameter	Value
Length:	5.299	Course:	S 23° 09' 19.4263" E
Curve Point Data			
Description	Station	Northing	Easting
PC:	0+005.299	-175328.034	-44840.111
RP:		-175316.237	-44812.527
PT:	0+028.578	-175343.976	-44823.952
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	44° 27' 34.0142"	Type:	LEFT
Radius:	30.000		
Length:	23.279	Tangent:	12.261
Mid-Ord:	2.230	External:	2.409
Chord:	22.699	Course:	S 45° 23' 06.4334" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+028.578	-175343.976	-44823.952
End:	0+073.380	-175361.039	-44782.526

Tangent Data

Parameter	Value	Parameter	Value
Length:	44.802	Course:	S 67° 36' 53.4405" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+073.380	-175361.039	-44782.526
RP:		-175388.778	-44793.951
PT:	0+108.150	-175388.144	-44763.958

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	66° 24' 16.5853"	Type:	RIGHT
Radius:	30.000		
Length:	34.769	Tangent:	19.633
Mid-Ord:	4.898	External:	5.853
Chord:	32.856	Course:	S 34° 24' 45.1478" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+108.150	-175388.144	-44763.958
End:	0+141.850	-175421.837	-44763.246

Tangent Data

Parameter	Value	Parameter	Value
Length:	33.700	Course:	S 01° 12' 36.8552" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+141.850	-175421.837	-44763.246
RP:		-175419.861	-44669.737
PT:	0+205.828	-175480.484	-44740.960

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	39° 11' 34.5875"	Type:	LEFT
Radius:	93.530		
Length:	63.979	Tangent:	33.298
Mid-Ord:	5.417	External:	5.751
Chord:	62.739	Course:	S 20° 48' 24.1489" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+205.828	-175480.484	-44740.960
End:	0+233.715	-175501.719	-44722.885

Tangent Data

Parameter	Value	Parameter	Value
Length:	27.886	Course:	S 40° 24' 11.4427" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+233.715	-175501.719	-44722.885
RP:		-175553.572	-44783.805

PT: 0+295.857 -175559.296 -44704.010

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	44° 30' 21.9652"	Type:	RIGHT
Radius:	80.000		
Length:	62.142	Tangent:	32.734
Mid-Ord:	5.958	External:	6.438
Chord:	60.592	Course:	S 18° 09' 00.4601" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+295.857	-175559.296	-44704.010
End:	0+349.402	-175612.704	-44707.842

Tangent Data

Parameter	Value	Parameter	Value
Length:	53.545	Course:	S 04° 06' 10.5225" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+349.402	-175612.704	-44707.842
RP:		-175648.478	-44209.123
PT:	0+392.923	-175656.194	-44709.063

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	04° 59' 13.7817"	Type:	LEFT
Radius:	500.000		
Length:	43.521	Tangent:	21.774
Mid-Ord:	0.473	External:	0.474
Chord:	43.507	Course:	S 01° 36' 33.6317" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+392.923	-175656.194	-44709.063
End:	0+538.253	-175801.506	-44706.821

Tangent Data

Parameter	Value	Parameter	Value
Length:	145.329	Course:	S 00° 53' 03.2591" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+538.253	-175801.506	-44706.821
RP:		-175803.821	-44856.803
PCC:	0+594.084	-175856.210	-44716.249

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	21° 19' 34.1751"	Type:	RIGHT
Radius:	150.000		
Length:	55.832	Tangent:	28.243
Mid-Ord:	2.590	External:	2.636
Chord:	55.510	Course:	S 09° 46' 43.8284" W

Curve Point Data

Description	Station	Northing	Easting
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PCC:	0+594.084	-175856.210	-44716.249
RP:		-175908.599	-44575.695
PT:	0+640.229	-175901.229	-44725.514

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	17° 37' 33.6554"	Type:	LEFT
Radius:	150.000		
Length:	46.145	Tangent:	23.256
Mid-Ord:	1.771	External:	1.792
Chord:	45.963	Course:	S 11° 37' 44.0883" W

DIRETRIZ – CP2

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+000.000	-175294.513	-44639.599
End:	0+003.294	-175294.181	-44636.322

Tangent Data

Parameter	Value	Parameter	Value
Length:	3.294	Course:	N 84° 12' 58.8824" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+003.294	-175294.181	-44636.322
RP:		-175274.283	-44638.337
PT:	0+026.221	-175280.640	-44619.375

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	65° 40' 53.6951"	Type:	LEFT
Radius:	20.000		
Length:	22.927	Tangent:	12.909
Mid-Ord:	3.196	External:	3.804
Chord:	21.692	Course:	N 51° 22' 32.0348" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+026.221	-175280.640	-44619.375
End:	0+054.875	-175253.473	-44610.266

Tangent Data

Parameter	Value	Parameter	Value
Length:	28.654	Course:	N 18° 32' 05.1873" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+054.875	-175253.473	-44610.266
RP:		-175285.261	-44515.453
PCC:	0+072.217	-175237.590	-44603.359

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	09° 56' 10.9215"	Type:	RIGHT
Radius:	100.000		
Length:	17.342	Tangent:	8.693
Mid-Ord:	0.376	External:	0.377
Chord:	17.321	Course:	N 23° 30' 10.6480" E

Curve Point Data

Description	Station	Northing	Easting
PCC:	0+072.217	-175237.590	-44603.359
RP:		-175189.918	-44691.265
PT:	0+089.559	-175221.706	-44596.452

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	09° 56' 10.9215"	Type:	LEFT
Radius:	100.000		
Length:	17.342	Tangent:	8.693
Mid-Ord:	0.376	External:	0.377
Chord:	17.321	Course:	N 23° 30' 10.6480" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+089.559	-175221.706	-44596.452
End:	0+103.031	-175208.933	-44592.169

Tangent Data

Parameter	Value	Parameter	Value
Length:	13.472	Course:	N 18° 32' 05.1873" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+103.031	-175208.933	-44592.169
RP:		-175177.145	-44686.982
PT:	0+107.515	-175204.651	-44590.840

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	02° 34' 08.6287"	Type:	LEFT
Radius:	100.000		
Length:	4.484	Tangent:	2.242
Mid-Ord:	0.025	External:	0.025
Chord:	4.483	Course:	N 17° 15' 00.8729" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+107.515	-175204.651	-44590.840
End:	0+331.439	-174989.364	-44529.247

Tangent Data

Parameter	Value	Parameter	Value
Length:	223.925	Course:	N 15° 57' 56.5586" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+331.439	-174989.364	-44529.247
RP:		-174961.858	-44625.389

PT: 0+364.499 -174956.666 -44525.524

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	18° 56' 29.7564"	Type:	LEFT
Radius:	100.000		
Length:	33.059	Tangent:	16.682
Mid-Ord:	1.363	External:	1.382
Chord:	32.909	Course:	N 06° 29' 41.6804" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+364.499	-174956.666	-44525.524
End:	0+375.874	-174945.306	-44526.115

Tangent Data

Parameter	Value	Parameter	Value
Length:	11.375	Course:	N 02° 58' 33.1978" W

DIRETRIZ – CP3

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+000.000	-174444.380	-44358.371
End:	0+019.191	-174460.336	-44369.036

Tangent Data

Parameter	Value	Parameter	Value
Length:	19.191	Course:	S 33° 45' 33.9609" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+019.191	-174460.336	-44369.036
RP:		-174488.121	-44327.467
PT:	0+043.441	-174482.919	-44377.196

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	27° 47' 16.7099"	Type:	LEFT
Radius:	50.000		
Length:	24.250	Tangent:	12.368
Mid-Ord:	1.463	External:	1.507
Chord:	24.013	Course:	S 19° 51' 55.6059" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+043.441	-174482.919	-44377.196
End:	0+084.750	-174524.004	-44381.494

Tangent Data

Parameter	Value	Parameter	Value
Length:	41.309	Course:	S 05° 58' 17.2510" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+084.750	-174524.004	-44381.494
RP:		-174532.326	-44301.928
PCC:	0+105.116	-174544.310	-44381.025

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	14° 35' 11.9110"	Type:	LEFT
Radius:	80.000		
Length:	20.367	Tangent:	10.239
Mid-Ord:	0.647	External:	0.653
Chord:	20.312	Course:	S 01° 19' 18.7046" E

Curve Point Data

Description	Station	Northing	Easting
PCC:	0+105.116	-174544.310	-44381.025
RP:		-174559.290	-44479.897
PT:	0+142.196	-174581.155	-44382.316

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	21° 14' 42.2148"	Type:	RIGHT
Radius:	100.000		
Length:	37.080	Tangent:	18.755
Mid-Ord:	1.714	External:	1.744
Chord:	36.868	Course:	S 02° 00' 26.4473" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+142.196	-174581.155	-44382.316
End:	0+172.721	-174610.942	-44388.991

Tangent Data

Parameter	Value	Parameter	Value
Length:	30.525	Course:	S 12° 37' 47.5547" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+172.721	-174610.942	-44388.991
RP:		-174593.449	-44467.055
PT:	0+178.982	-174616.991	-44390.597

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	04° 29' 02.1604"	Type:	RIGHT
Radius:	80.000		
Length:	6.261	Tangent:	3.132
Mid-Ord:	0.061	External:	0.061
Chord:	6.259	Course:	S 14° 52' 18.6349" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+178.982	-174616.991	-44390.597
End:	0+196.886	-174634.102	-44395.866

Tangent Data

Parameter	Value	Parameter	Value
Length:	17.904	Course:	S 17° 06' 49.7151" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+196.886	-174634.102	-44395.866
RP:		-174663.530	-44300.294
PT:	0+221.061	-174657.838	-44400.132

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	13° 51' 03.6108"	Type:	LEFT
Radius:	100.000		
Length:	24.175	Tangent:	12.146
Mid-Ord:	0.730	External:	0.735
Chord:	24.116	Course:	S 10° 11' 17.9097" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+221.061	-174657.838	-44400.132
End:	0+254.434	-174691.157	-44402.031

Tangent Data

Parameter	Value	Parameter	Value
Length:	33.374	Course:	S 03° 15' 46.1043" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+254.434	-174691.157	-44402.031
RP:		-174685.466	-44501.869
PT:	0+292.933	-174728.235	-44411.476

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	22° 03' 29.2177"	Type:	RIGHT
Radius:	100.000		
Length:	38.499	Tangent:	19.491
Mid-Ord:	1.847	External:	1.882
Chord:	38.261	Course:	S 14° 17' 30.7132" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+292.933	-174728.235	-44411.476
End:	0+301.316	-174735.813	-44415.062

Tangent Data

Parameter	Value	Parameter	Value
Length:	8.383	Course:	S 25° 19' 15.3220" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+301.316	-174735.813	-44415.062
RP:		-174743.511	-44398.791
PT:	0+337.331	-174761.510	-44399.005

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	114° 38' 21.6003"	Type:	LEFT
Radius:	18.000		
Length:	36.015	Tangent:	28.059

Mid-Ord: 8.281
Chord: 30.301

External: 15.336
Course: S 31° 59' 55.4781" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+337.331	-174761.510	-44399.005
End:	0+337.989	-174761.518	-44398.348

Tangent Data

Parameter	Value	Parameter	Value
Length:	0.657	Course:	S 89° 19' 06.2783" E

DIRETRIZ – CP4

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+000.000	-174440.225	-44359.591
End:	0+007.706	-174432.563	-44358.761

Tangent Data

Parameter	Value	Parameter	Value
Length:	7.706	Course:	N 06° 10' 50.2289" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+007.706	-174432.563	-44358.761
RP:		-174421.797	-44458.180
PT:	0+032.018	-174408.314	-44359.093

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	13° 55' 45.8410"	Type:	LEFT
Radius:	100.000		
Length:	24.311	Tangent:	12.216
Mid-Ord:	0.738	External:	0.743
Chord:	24.252	Course:	N 00° 47' 02.6916" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+032.018	-174408.314	-44359.093
End:	0+055.288	-174385.257	-44362.231

Tangent Data

Parameter	Value	Parameter	Value
Length:	23.270	Course:	N 07° 44' 55.6121" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+055.288	-174385.257	-44362.231
RP:		-174378.515	-44312.687
PT:	0+090.218	-174351.813	-44354.960

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	40° 01' 37.9216"	Type:	RIGHT
Radius:	50.000		
Length:	34.930	Tangent:	18.212
Mid-Ord:	3.019	External:	3.213
Chord:	34.224	Course:	N 12° 15' 53.3487" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+090.218	-174351.813	-44354.960
End:	0+094.180	-174348.463	-44352.844

Tangent Data

Parameter	Value	Parameter	Value
Length:	3.962	Course:	N 32° 16' 42.3095" E

DIRETRIZ – CP5

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+000.000	-174264.154	-44357.977
End:	0+043.839	-174220.919	-44365.227

Tangent Data

Parameter	Value	Parameter	Value
Length:	43.839	Course:	N 09° 31' 06.5392" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+043.839	-174220.919	-44365.227
RP:		-174207.690	-44286.328
PT:	0+063.792	-174201.035	-44366.051

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	14° 17' 24.8104"	Type:	RIGHT
Radius:	80.000		
Length:	19.953	Tangent:	10.028
Mid-Ord:	0.621	External:	0.626
Chord:	19.901	Course:	N 02° 22' 24.1340" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+063.792	-174201.035	-44366.051
End:	0+093.731	-174171.199	-44363.560

Tangent Data

Parameter	Value	Parameter	Value
Length:	29.939	Course:	N 04° 46' 18.2712" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+093.731	-174171.199	-44363.560
RP:		-174146.244	-44662.520

PT: 0+109.195 -174155.762 -44362.671

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	02° 57' 12.6196"	Type:	LEFT
Radius:	300.000		
Length:	15.465	Tangent:	7.734
Mid-Ord:	0.100	External:	0.100
Chord:	15.463	Course:	N 03° 17' 41.9614" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+109.195	-174155.762	-44362.671
End:	0+159.093	-174105.889	-44361.088

Tangent Data

Parameter	Value	Parameter	Value
Length:	49.898	Course:	N 01° 49' 05.6516" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+159.093	-174105.889	-44361.088
RP:		-174108.428	-44281.128
PT:	0+180.787	-174084.564	-44357.487

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	15° 32' 11.7043"	Type:	RIGHT
Radius:	80.000		
Length:	21.693	Tangent:	10.914
Mid-Ord:	0.734	External:	0.741
Chord:	21.627	Course:	N 09° 35' 11.5037" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+180.787	-174084.564	-44357.487
End:	0+187.607	-174078.054	-44355.452

Tangent Data

Parameter	Value	Parameter	Value
Length:	6.821	Course:	N 17° 21' 17.3559" E

DIRETRIZ – CP6

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+000.000	-173733.430	-44427.444
End:	0+072.055	-173661.380	-44428.326

Tangent Data

Parameter	Value	Parameter	Value
Length:	72.055	Course:	N 00° 42' 06.2348" W

Curve Point Data

Description	Station	Northing	Easting
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PC:	0+072.055	-173661.380	-44428.326
RP:		-173663.217	-44578.315
PT:	0+124.434	-173610.173	-44438.007

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	20° 00' 26.5456"	Type:	LEFT
Radius:	150.000		
Length:	52.379	Tangent:	26.459
Mid-Ord:	2.281	External:	2.316
Chord:	52.113	Course:	N 10° 42' 19.5076" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+124.434	-173610.173	-44438.007
End:	0+170.897	-173566.713	-44454.437

Tangent Data

Parameter	Value	Parameter	Value
Length:	46.463	Course:	N 20° 42' 32.7804" W

DIRETRIZ – CP7

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+000.000	-173154.712	-44604.060
End:	0+008.396	-173147.807	-44608.837

Tangent Data

Parameter	Value	Parameter	Value
Length:	8.396	Course:	N 34° 40' 26.1461" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+008.396	-173147.807	-44608.837
RP:		-173216.075	-44707.525
PT:	0+030.382	-173130.969	-44622.927

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	10° 29' 51.3900"	Type:	LEFT
Radius:	120.000		
Length:	21.986	Tangent:	11.024
Mid-Ord:	0.503	External:	0.505
Chord:	21.955	Course:	N 39° 55' 21.8411" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+030.382	-173130.969	-44622.927
End:	0+065.813	-173105.991	-44648.055

Tangent Data

Parameter	Value	Parameter	Value
Length:	35.430	Course:	N 45° 10' 17.5361" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+065.813	-173105.991	-44648.055
RP:		-173020.884	-44563.456
PT:	0+107.481	-173072.123	-44671.967

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	19° 53' 41.8968"	Type:	RIGHT
Radius:	120.000		
Length:	41.668	Tangent:	21.046
Mid-Ord:	1.804	External:	1.832
Chord:	41.459	Course:	N 35° 13' 26.5877" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+107.481	-173072.123	-44671.967
End:	0+123.113	-173057.988	-44678.642

Tangent Data

Parameter	Value	Parameter	Value
Length:	15.632	Course:	N 25° 16' 35.6393" W

DIRETRIZ – CP8

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+000.000	-172945.094	-44714.238
End:	0+014.819	-172935.830	-44725.804

Tangent Data

Parameter	Value	Parameter	Value
Length:	14.819	Course:	N 51° 18' 16.0634" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+014.819	-172935.830	-44725.804
RP:		-172842.172	-44650.782
PT:	0+033.225	-172923.268	-44739.233

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	08° 47' 17.9478"	Type:	RIGHT
Radius:	120.000		
Length:	18.406	Tangent:	9.221
Mid-Ord:	0.353	External:	0.354
Chord:	18.388	Course:	N 46° 54' 37.0895" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+033.225	-172923.268	-44739.233
End:	0+499.010	-172579.944	-45054.009

Tangent Data

Parameter	Value	Parameter	Value
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Length: 465.785 Course: N 42° 30' 58.1156" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+499.010	-172579.944	-45054.009
RP:		-172410.994	-44869.737
PT:	0+517.472	-172565.887	-45065.972

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	04° 13' 52.5846"	Type:	RIGHT
Radius:	250.000		
Length:	18.462	Tangent:	9.235
Mid-Ord:	0.170	External:	0.171
Chord:	18.458	Course:	N 40° 24' 01.8233" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+517.472	-172565.887	-45065.972
End:	0+609.061	-172493.996	-45122.718

Tangent Data

Parameter	Value	Parameter	Value
Length:	91.588	Course:	N 38° 17' 05.5310" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+609.061	-172493.996	-45122.718
RP:		-172401.060	-45004.977
PT:	0+628.091	-172478.351	-45133.531

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	07° 16' 08.8449"	Type:	RIGHT
Radius:	150.000		
Length:	19.031	Tangent:	9.528
Mid-Ord:	0.302	External:	0.302
Chord:	19.018	Course:	N 34° 39' 01.1085" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+628.091	-172478.351	-45133.531
End:	0+634.637	-172472.742	-45136.903

Tangent Data

Parameter	Value	Parameter	Value
Length:	6.545	Course:	N 31° 00' 56.6860" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+634.637	-172472.742	-45136.903
RP:		-172534.575	-45239.747
PT:	0+652.195	-172458.408	-45147.017

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	08° 23' 00.1989"	Type:	LEFT
Radius:	120.000		

Length:	17.558	Tangent:	8.795
Mid-Ord:	0.321	External:	0.322
Chord:	17.542	Course:	N 35° 12' 26.7855" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+652.195	-172458.408	-45147.017
End:	0+662.839	-172450.183	-45153.774

Tangent Data

Parameter	Value	Parameter	Value
Length:	10.645	Course:	N 39° 23' 56.8849" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+662.839	-172450.183	-45153.774
RP:		-172374.017	-45061.045
PT:	0+688.068	-172429.154	-45167.627

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	12° 02' 44.4919"	Type:	RIGHT
Radius:	120.000		
Length:	25.228	Tangent:	12.661
Mid-Ord:	0.662	External:	0.666
Chord:	25.182	Course:	N 33° 22' 34.6390" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+688.068	-172429.154	-45167.627
End:	0+694.931	-172423.058	-45170.781

Tangent Data

Parameter	Value	Parameter	Value
Length:	6.864	Course:	N 27° 21' 12.3930" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+694.931	-172423.058	-45170.781
RP:		-172469.005	-45259.600
PT:	0+711.032	-172409.414	-45179.295

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	09° 13' 28.7256"	Type:	LEFT
Radius:	100.000		
Length:	16.100	Tangent:	8.067
Mid-Ord:	0.324	External:	0.325
Chord:	16.083	Course:	N 31° 57' 56.7558" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+711.032	-172409.414	-45179.295
End:	0+731.771	-172392.759	-45191.654

Tangent Data

Parameter	Value	Parameter	Value
Length:	20.739	Course:	N 36° 34' 41.1186" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+731.771	-172392.759	-45191.654
RP:		-172303.372	-45071.197
PT:	0+747.359	-172379.782	-45200.277

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	05° 57' 15.1642"	Type:	RIGHT
Radius:	150.000		
Length:	15.588	Tangent:	7.801
Mid-Ord:	0.202	External:	0.203
Chord:	15.581	Course:	N 33° 36' 03.5365" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+747.359	-172379.782	-45200.277
End:	0+851.545	-172290.126	-45253.349

Tangent Data

Parameter	Value	Parameter	Value
Length:	104.187	Course:	N 30° 37' 25.9544" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+851.545	-172290.126	-45253.349
RP:		-172249.374	-45184.507
PT:	0+881.018	-172262.599	-45263.406

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	21° 06' 29.3438"	Type:	RIGHT
Radius:	80.000		
Length:	29.473	Tangent:	14.905
Mid-Ord:	1.353	External:	1.377
Chord:	29.306	Course:	N 20° 04' 11.2824" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+881.018	-172262.599	-45263.406
End:	0+890.012	-172253.729	-45264.893

Tangent Data

Parameter	Value	Parameter	Value
Length:	8.994	Course:	N 09° 30' 56.6105" W

DIRETRIZ – CP9

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+000.000	-171749.127	-45423.589
End:	0+005.972	-171743.735	-45426.158

Tangent Data

Parameter	Value	Parameter	Value
Length:	5.972	Course:	N 25° 28' 43.5226" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+005.972	-171743.735	-45426.158
RP:		-171720.076	-45376.507
PT:	0+027.946	-171722.559	-45431.451

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	22° 53' 27.6861"	Type:	RIGHT
Radius:	55.000		
Length:	21.974	Tangent:	11.135
Mid-Ord:	1.094	External:	1.116
Chord:	21.828	Course:	N 14° 01' 59.6796" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+027.946	-171722.559	-45431.451
End:	0+076.127	-171674.427	-45433.627

Tangent Data

Parameter	Value	Parameter	Value
Length:	48.181	Course:	N 02° 35' 15.8366" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+076.127	-171674.427	-45433.627
RP:		-171677.361	-45498.560
PT:	0+085.157	-171665.463	-45434.659

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	07° 57' 34.9043"	Type:	LEFT
Radius:	65.000		
Length:	9.030	Tangent:	4.522
Mid-Ord:	0.157	External:	0.157
Chord:	9.023	Course:	N 06° 34' 03.2887" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+085.157	-171665.463	-45434.659
End:	0+143.850	-171607.762	-45445.402

Tangent Data

Parameter	Value	Parameter	Value
Length:	58.693	Course:	N 10° 32' 50.7408" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+143.850	-171607.762	-45445.402
RP:		-171597.694	-45391.332
PT:	0+158.006	-171593.667	-45446.184

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	14° 44' 45.7807"	Type:	RIGHT

Radius:	55.000	Tangent:	7.117
Length:	14.155	External:	0.459
Mid-Ord:	0.455	Course:	N 03° 10' 27.8504" W
Chord:	14.116		

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+158.006	-171593.667	-45446.184
End:	0+185.768	-171565.979	-45444.151

Tangent Data

Parameter	Value	Parameter	Value
Length:	27.762	Course:	N 04° 11' 55.0399" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+185.768	-171565.979	-45444.151
RP:		-171561.220	-45508.977
PT:	0+197.013	-171554.749	-45444.300

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	09° 54' 44.3467"	Type:	LEFT
Radius:	65.000		
Length:	11.245	Tangent:	5.637
Mid-Ord:	0.243	External:	0.244
Chord:	11.231	Course:	N 00° 45' 27.1334" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+197.013	-171554.749	-45444.300
End:	0+232.535	-171519.404	-45447.836

Tangent Data

Parameter	Value	Parameter	Value
Length:	35.522	Course:	N 05° 42' 49.3067" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+232.535	-171519.404	-45447.836
RP:		-171512.933	-45383.159
PT:	0+245.929	-171506.034	-45447.792

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	11° 48' 23.0658"	Type:	RIGHT
Radius:	65.000		
Length:	13.394	Tangent:	6.721
Mid-Ord:	0.345	External:	0.347
Chord:	13.370	Course:	N 00° 11' 22.2262" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+245.929	-171506.034	-45447.792
End:	0+287.937	-171464.263	-45443.334

Tangent Data

Parameter	Value	Parameter	Value
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Length: 42.008 Course: N 06° 05' 33.7591" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+287.937	-171464.263	-45443.334
RP:		-171485.490	-45244.463
PT:	0+287.964	-171464.236	-45443.331

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	00° 00' 28.3893"	Type:	RIGHT
Radius:	200.000		
Length:	0.028	Tangent:	0.014
Mid-Ord:	0.000	External:	0.000
Chord:	0.028	Course:	N 06° 05' 47.9537" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+287.964	-171464.236	-45443.331
End:	0+349.127	-171403.419	-45436.831

Tangent Data

Parameter	Value	Parameter	Value
Length:	61.163	Course:	N 06° 06' 02.1483" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+349.127	-171403.419	-45436.831
RP:		-171349.166	-45944.440
PT:	0+374.983	-171377.652	-45434.735

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	02° 54' 06.8177"	Type:	LEFT
Radius:	510.500		
Length:	25.856	Tangent:	12.931
Mid-Ord:	0.164	External:	0.164
Chord:	25.853	Course:	N 04° 38' 58.7395" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+374.983	-171377.652	-45434.735
End:	0+426.226	-171326.580	-45430.537

Tangent Data

Parameter	Value	Parameter	Value
Length:	51.244	Course:	N 04° 41' 58.1414" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+426.226	-171326.580	-45430.537
RP:		-171313.881	-45585.015
PT:	0+435.940	-171316.881	-45430.045

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	03° 35' 26.6301"	Type:	LEFT
Radius:	155.000		

Length:	9.714	Tangent:	4.859
Mid-Ord:	0.076	External:	0.076
Chord:	9.712	Course:	N 02° 54' 14.8264" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+435.940	-171316.881	-45430.045
End:	0+460.298	-171292.527	-45429.573

Tangent Data

Parameter	Value	Parameter	Value
Length:	24.358	Course:	N 01° 06' 31.5113" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+460.298	-171292.527	-45429.573
RP:		-171288.657	-45629.536
PT:	0+468.240	-171284.586	-45429.577

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	02° 16' 30.4614"	Type:	LEFT
Radius:	200.000		
Length:	7.942	Tangent:	3.971
Mid-Ord:	0.039	External:	0.039
Chord:	7.941	Course:	N 00° 01' 43.7193" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+468.240	-171284.586	-45429.577
End:	0+484.139	-171268.690	-45429.901

Tangent Data

Parameter	Value	Parameter	Value
Length:	15.899	Course:	N 01° 09' 58.9500" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+484.139	-171268.690	-45429.901
RP:		-171268.181	-45404.906
PT:	0+494.004	-171259.042	-45428.176

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	22° 36' 27.4836"	Type:	RIGHT
Radius:	25.000		
Length:	9.864	Tangent:	4.997
Mid-Ord:	0.485	External:	0.495
Chord:	9.801	Course:	N 10° 08' 14.7918" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+494.004	-171259.042	-45428.176
End:	0+502.406	-171251.205	-45425.144

Tangent Data

Parameter	Value	Parameter	Value
Length:	8.403	Course:	N 21° 08' 59.5933" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+502.406	-171251.205	-45425.144
RP:		-171231.361	-45476.439
PT:	0+535.229	-171218.948	-45422.858

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	34° 11' 35.0378"	Type:	LEFT
Radius:	55.000		
Length:	32.823	Tangent:	16.917
Mid-Ord:	2.430	External:	2.543
Chord:	32.338	Course:	N 04° 03' 12.0744" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+535.229	-171218.948	-45422.858
End:	0+536.704	-171217.511	-45423.191

Tangent Data

Parameter	Value	Parameter	Value
Length:	1.475	Course:	N 13° 02' 35.4445" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+536.704	-171217.511	-45423.191
RP:		-171236.641	-45505.765
PT:	0+538.670	-171215.601	-45423.657

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	01° 19' 44.8046"	Type:	LEFT
Radius:	84.761		
Length:	1.966	Tangent:	0.983
Mid-Ord:	0.006	External:	0.006
Chord:	1.966	Course:	N 13° 42' 27.8468" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+538.670	-171215.601	-45423.657
End:	0+545.327	-171209.153	-45425.309

Tangent Data

Parameter	Value	Parameter	Value
Length:	6.656	Course:	N 14° 22' 20.2491" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+545.327	-171209.153	-45425.309
RP:		-171202.948	-45401.092
PT:	0+558.785	-171195.859	-45425.065

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	30° 50' 42.6098"	Type:	RIGHT
Radius:	25.000		
Length:	13.459	Tangent:	6.897

Mid-Ord:	0.900	External:	0.934
Chord:	13.297	Course:	N 01° 03' 01.0558" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+558.785	-171195.859	-45425.065
End:	0+575.217	-171180.599	-45418.972

Tangent Data

Parameter	Value	Parameter	Value
Length:	16.432	Course:	N 21° 46' 06.7256" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+575.217	-171180.599	-45418.972
RP:		-171167.619	-45451.476
PT:	0+588.506	-171167.628	-45416.476

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	21° 45' 12.2043"	Type:	LEFT
Radius:	35.000		
Length:	13.288	Tangent:	6.725
Mid-Ord:	0.629	External:	0.640
Chord:	13.209	Course:	N 10° 53' 30.6234" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+588.506	-171167.628	-45416.476
End:	0+624.484	-171131.650	-45416.466

Tangent Data

Parameter	Value	Parameter	Value
Length:	35.978	Course:	N 00° 00' 54.5212" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+624.484	-171131.650	-45416.466
RP:		-171133.059	-45321.477
PT:	0+642.903	-171113.375	-45414.415

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	11° 06' 30.5020"	Type:	RIGHT
Radius:	95.000		
Length:	18.419	Tangent:	9.238
Mid-Ord:	0.446	External:	0.448
Chord:	18.390	Course:	N 06° 24' 14.5896" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+642.903	-171113.375	-45414.415
End:	0+683.277	-171073.877	-45406.050

Tangent Data

Parameter	Value	Parameter	Value
Length:	40.374	Course:	N 11° 57' 29.8406" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+683.277	-171073.877	-45406.050
RP:		-171052.121	-45508.771
PT:	0+693.621	-171063.668	-45404.408

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	05° 38' 41.2006"	Type:	LEFT
Radius:	105.000		
Length:	10.345	Tangent:	5.176
Mid-Ord:	0.127	External:	0.128
Chord:	10.340	Course:	N 09° 08' 09.2403" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+693.621	-171063.668	-45404.408
End:	0+740.991	-171016.585	-45399.199

Tangent Data

Parameter	Value	Parameter	Value
Length:	47.370	Course:	N 06° 18' 48.6400" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+740.991	-171016.585	-45399.199
RP:		-170988.543	-45652.652
PT:	0+755.406	-171002.221	-45398.019

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	03° 14' 19.4397"	Type:	LEFT
Radius:	255.000		
Length:	14.414	Tangent:	7.209
Mid-Ord:	0.102	External:	0.102
Chord:	14.412	Course:	N 04° 41' 38.9201" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+755.406	-171002.221	-45398.019
End:	0+839.261	-170918.529	-45392.780

Tangent Data

Parameter	Value	Parameter	Value
Length:	83.855	Course:	N 03° 34' 55.2698" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+839.261	-170918.529	-45392.780
RP:		-170920.091	-45367.829
PT:	0+859.945	-170900.666	-45383.566

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	47° 24' 20.5510"	Type:	RIGHT
Radius:	25.000		
Length:	20.685	Tangent:	10.976
Mid-Ord:	2.109	External:	2.303
Chord:	20.100	Course:	N 27° 17' 05.5453" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+859.945	-170900.666	-45383.566
End:	0+870.283	-170894.159	-45375.533

Tangent Data

Parameter	Value	Parameter	Value
Length:	10.338	Course:	N 50° 59' 15.8209" E

DIRETRIZ – CP10

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+000.000	-170342.178	-45421.458
End:	0+016.226	-170326.355	-45425.053

Tangent Data

Parameter	Value	Parameter	Value
Length:	16.226	Course:	N 12° 48' 05.7596" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+016.226	-170326.355	-45425.053
RP:		-170293.119	-45278.782
PT:	0+041.789	-170301.067	-45428.571

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	09° 45' 51.0101"	Type:	RIGHT
Radius:	150.000		
Length:	25.563	Tangent:	12.812
Mid-Ord:	0.544	External:	0.546
Chord:	25.532	Course:	N 07° 55' 10.2545" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+041.789	-170301.067	-45428.571
End:	0+088.013	-170254.908	-45431.020

Tangent Data

Parameter	Value	Parameter	Value
Length:	46.224	Course:	N 03° 02' 14.7495" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+088.013	-170254.908	-45431.020
RP:		-170262.856	-45580.810
PT:	0+097.555	-170245.402	-45431.829

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	03° 38' 41.6122"	Type:	LEFT
Radius:	150.000		
Length:	9.542	Tangent:	4.773

Mid-Ord:	0.076	External:	0.076
Chord:	9.541	Course:	N 04° 51' 35.5556" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+097.555	-170245.402	-45431.829
End:	0+140.050	-170203.195	-45436.773

Tangent Data

Parameter	Value	Parameter	Value
Length:	42.495	Course:	N 06° 40' 56.3617" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+140.050	-170203.195	-45436.773
RP:		-170220.650	-45585.754
PT:	0+155.867	-170187.612	-45439.438

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	06° 02' 29.8546"	Type:	LEFT
Radius:	150.000		
Length:	15.817	Tangent:	7.916
Mid-Ord:	0.208	External:	0.209
Chord:	15.810	Course:	N 09° 42' 11.2890" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+155.867	-170187.612	-45439.438
End:	0+200.018	-170144.545	-45449.162

Tangent Data

Parameter	Value	Parameter	Value
Length:	44.151	Course:	N 12° 43' 26.2163" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+200.018	-170144.545	-45449.162
RP:		-170133.532	-45400.390
PT:	0+216.004	-170128.658	-45450.152

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	18° 19' 06.2336"	Type:	RIGHT
Radius:	50.000		
Length:	15.986	Tangent:	8.062
Mid-Ord:	0.638	External:	0.646
Chord:	15.918	Course:	N 03° 33' 53.0995" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+216.004	-170128.658	-45450.152
End:	0+223.182	-170121.514	-45449.452

Tangent Data

Parameter	Value	Parameter	Value
Length:	7.178	Course:	N 05° 35' 40.0174" E

DIRETRIZ – CP11

<u>Tangent Data</u>			
Description	PT Station	Northing	Easting
Start:	0+000.000	-169976.997	-45523.307
End:	0+147.301	-169829.942	-45531.812
<u>Tangent Data</u>			
Parameter	Value	Parameter	Value
Length:	147.301	Course:	N 03° 18' 36.0159" W
<u>Curve Point Data</u>			
Description	Station	Northing	Easting
PC:	0+147.301	-169829.942	-45531.812
RP:		-169831.674	-45561.762
PT:	0+176.141	-169806.125	-45546.038
<u>Circular Curve Data</u>			
Parameter	Value	Parameter	Value
Delta:	55° 04' 48.4861"	Type:	LEFT
Radius:	30.000		
Length:	28.840	Tangent:	15.644
Mid-Ord:	3.399	External:	3.834
Chord:	27.742	Course:	N 30° 51' 00.2589" W
<u>Tangent Data</u>			
Description	PT Station	Northing	Easting
Start:	0+176.141	-169806.125	-45546.038
End:	0+183.000	-169802.529	-45551.880
<u>Tangent Data</u>			
Parameter	Value	Parameter	Value
Length:	6.859	Course:	N 58° 23' 24.5019" W

DIRETRIZ – CP12

<u>Tangent Data</u>			
Description	PT Station	Northing	Easting
Start:	0+000.000	-168484.942	-45231.348
End:	0+001.430	-168484.395	-45232.670
<u>Tangent Data</u>			
Parameter	Value	Parameter	Value
Length:	1.430	Course:	N 67° 32' 57.6736" W
<u>Curve Point Data</u>			
Description	Station	Northing	Easting
PC:	0+001.430	-168484.395	-45232.670
RP:		-168470.532	-45226.942
PCC:	0+028.548	-168461.708	-45239.072
<u>Circular Curve Data</u>			
Parameter	Value	Parameter	Value

Delta:	103° 35' 00.2631"	Type:	RIGHT
Radius:	15.000		
Length:	27.118	Tangent:	19.056
Mid-Ord:	5.722	External:	9.251
Chord:	23.573	Course:	N 15° 45' 27.5421" W

Curve Point Data

Description	Station	Northing	Easting
PCC:	0+028.548	-168461.708	-45239.072
RP:		-168438.178	-45271.419
PCC:	0+057.441	-168434.447	-45231.593

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	41° 23' 06.5218"	Type:	LEFT
Radius:	40.000		
Length:	28.892	Tangent:	15.109
Mid-Ord:	2.580	External:	2.758
Chord:	28.268	Course:	N 15° 20' 29.3286" E

Curve Point Data

Description	Station	Northing	Easting
PCC:	0+057.441	-168434.447	-45231.593
RP:		-168429.784	-45181.811
PCC:	0+090.728	-168402.704	-45223.842

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	38° 08' 40.0925"	Type:	RIGHT
Radius:	50.000		
Length:	33.287	Tangent:	17.287
Mid-Ord:	2.745	External:	2.904
Chord:	32.676	Course:	N 13° 43' 16.1140" E

Curve Point Data

Description	Station	Northing	Easting
PCC:	0+090.728	-168402.704	-45223.842
RP:		-168389.164	-45244.858
PCC:	0+117.230	-168377.448	-45222.773

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	60° 44' 19.5546"	Type:	LEFT
Radius:	25.000		
Length:	26.502	Tangent:	14.649
Mid-Ord:	3.430	External:	3.976
Chord:	25.279	Course:	N 02° 25' 26.3829" E

Curve Point Data

Description	Station	Northing	Easting
PCC:	0+117.230	-168377.448	-45222.773
RP:		-168368.075	-45205.105
PCC:	0+134.961	-168360.309	-45223.536

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	50° 47' 37.0244"	Type:	RIGHT

Radius:	20.000	Tangent:	9.495
Length:	17.730	External:	2.140
Mid-Ord:	1.933	Course:	N 02° 32' 54.8822" W
Chord:	17.155		

Curve Point Data

Description	Station	Northing	Easting
PCC:	0+134.961	-168360.309	-45223.536
RP:		-168350.602	-45246.574
PT:	0+150.366	-168345.209	-45222.163

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	35° 18' 22.4103"	Type:	LEFT
Radius:	25.000		
Length:	15.405	Tangent:	7.956
Mid-Ord:	1.177	External:	1.235
Chord:	15.163	Course:	N 05° 11' 42.4248" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+150.366	-168345.209	-45222.163
End:	0+174.545	-168321.599	-45227.379

Tangent Data

Parameter	Value	Parameter	Value
Length:	24.179	Course:	N 12° 27' 28.7803" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+174.545	-168321.599	-45227.379
RP:		-168300.027	-45129.734
PT:	0+188.143	-168308.163	-45229.402

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	07° 47' 28.0453"	Type:	RIGHT
Radius:	100.000		
Length:	13.598	Tangent:	6.810
Mid-Ord:	0.231	External:	0.232
Chord:	13.588	Course:	N 08° 33' 44.7577" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+188.143	-168308.163	-45229.402
End:	0+285.806	-168210.824	-45237.348

Tangent Data

Parameter	Value	Parameter	Value
Length:	97.663	Course:	N 04° 40' 00.7350" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+285.806	-168210.824	-45237.348
RP:		-168205.942	-45177.547
PT:	0+303.757	-168192.982	-45236.131

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	17° 08' 30.3530"	Type:	RIGHT
Radius:	60.000		
Length:	17.951	Tangent:	9.043
Mid-Ord:	0.670	External:	0.678
Chord:	17.884	Course:	N 03° 54' 14.4415" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+303.757	-168192.982	-45236.131
End:	0+334.217	-168163.241	-45229.551

Tangent Data

Parameter	Value	Parameter	Value
Length:	30.460	Course:	N 12° 28' 29.6180" E

DIRETRIZ – CP13

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+000.000	-168065.677	-45233.003
End:	0+021.982	-168044.560	-45226.894

Tangent Data

Parameter	Value	Parameter	Value
Length:	21.982	Course:	N 16° 08' 00.2065" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+021.982	-168044.560	-45226.894
RP:		-168030.666	-45274.925
PT:	0+044.400	-168022.367	-45225.619

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	25° 41' 18.4635"	Type:	LEFT
Radius:	50.000		
Length:	22.417	Tangent:	11.400
Mid-Ord:	1.251	External:	1.283
Chord:	22.230	Course:	N 03° 17' 20.9747" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+044.400	-168022.367	-45225.619
End:	0+053.571	-168013.323	-45227.141

Tangent Data

Parameter	Value	Parameter	Value
Length:	9.171	Course:	N 09° 33' 18.2571" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+053.571	-168013.323	-45227.141
RP:		-168003.363	-45167.974

PT: 0+105.605 -167964.688 -45213.846

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	49° 41' 21.8617"	Type:	RIGHT
Radius:	60.000		
Length:	52.035	Tangent:	27.781
Mid-Ord:	5.553	External:	6.119
Chord:	50.419	Course:	N 15° 17' 22.6738" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+105.605	-167964.688	-45213.846
End:	0+228.914	-167870.414	-45134.363

Tangent Data

Parameter	Value	Parameter	Value
Length:	123.309	Course:	N 40° 08' 03.6047" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+228.914	-167870.414	-45134.363
RP:		-167934.872	-45057.910
PT:	0+239.166	-167862.928	-45127.365

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	05° 52' 26.3316"	Type:	RIGHT
Radius:	100.000		
Length:	10.252	Tangent:	5.131
Mid-Ord:	0.131	External:	0.132
Chord:	10.248	Course:	N 43° 04' 16.7705" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+239.166	-167862.928	-45127.365
End:	0+292.609	-167825.809	-45088.916

Tangent Data

Parameter	Value	Parameter	Value
Length:	53.443	Course:	N 46° 00' 29.9362" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+292.609	-167825.809	-45088.916
RP:		-167797.032	-45116.698
PT:	0+318.807	-167802.932	-45077.136

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	37° 31' 34.8117"	Type:	LEFT
Radius:	40.000		
Length:	26.198	Tangent:	13.588
Mid-Ord:	2.126	External:	2.245
Chord:	25.733	Course:	N 27° 14' 42.5304" E

Tangent Data

Description	PT Station	Northing	Easting
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Start: 0+318.807 -167802.932 -45077.136
End: 0+324.524 -167797.277 -45076.293

Tangent Data

Parameter	Value	Parameter	Value
Length:	5.717	Course:	N 08° 28' 55.1245" E

DIRETRIZ – CP14

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+000.000	-164454.291	-43552.415
End:	0+007.478	-164447.125	-43554.553

Tangent Data

Parameter	Value	Parameter	Value
Length:	7.478	Course:	N 16° 36' 49.3626" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+007.478	-164447.125	-43554.553
RP:		-164439.857	-43530.196
PT:	0+029.613	-164425.909	-43551.445

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	49° 53' 44.5603"	Type:	RIGHT
Radius:	25.418		
Length:	22.135	Tangent:	11.824
Mid-Ord:	2.372	External:	2.616
Chord:	21.442	Course:	N 08° 20' 02.9176" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+029.613	-164425.909	-43551.445
End:	0+085.047	-164379.567	-43521.025

Tangent Data

Parameter	Value	Parameter	Value
Length:	55.434	Course:	N 33° 16' 55.1977" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+085.047	-164379.567	-43521.025
RP:		-164297.253	-43646.422
PT:	0+110.672	-164357.051	-43508.857

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	09° 47' 16.4614"	Type:	LEFT
Radius:	150.000		
Length:	25.625	Tangent:	12.844
Mid-Ord:	0.547	External:	0.549
Chord:	25.594	Course:	N 28° 23' 16.9670" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+110.672	-164357.051	-43508.857
End:	0+171.593	-164301.180	-43484.570

Tangent Data

Parameter	Value	Parameter	Value
Length:	60.921	Course:	N 23° 29' 38.7363" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+171.593	-164301.180	-43484.570
RP:		-164253.342	-43594.622
PT:	0+183.798	-164289.759	-43480.282

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	05° 49' 38.7721"	Type:	LEFT
Radius:	120.000		
Length:	12.205	Tangent:	6.108
Mid-Ord:	0.155	External:	0.155
Chord:	12.200	Course:	N 20° 34' 49.3502" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+183.798	-164289.759	-43480.282
End:	0+224.211	-164251.253	-43468.018

Tangent Data

Parameter	Value	Parameter	Value
Length:	40.412	Course:	N 17° 39' 59.9642" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+224.211	-164251.253	-43468.018
RP:		-164296.775	-43325.092
PT:	0+239.306	-164237.124	-43462.721

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	05° 45' 56.9446"	Type:	RIGHT
Radius:	150.000		
Length:	15.095	Tangent:	7.554
Mid-Ord:	0.190	External:	0.190
Chord:	15.089	Course:	N 20° 32' 58.4365" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+239.306	-164237.124	-43462.721
End:	0+247.301	-164229.788	-43459.542

Tangent Data

Parameter	Value	Parameter	Value
Length:	7.995	Course:	N 23° 25' 56.9088" E

DIRETRIZ – CP15

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+000.000	-164008.806	-43343.780
End:	0+006.520	-164002.298	-43344.173

Tangent Data

Parameter	Value	Parameter	Value
Length:	6.520	Course:	N 03° 27' 35.9166" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+006.520	-164002.298	-43344.173
RP:		-164000.488	-43314.228
PT:	0+021.496	-163987.742	-43341.386

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	28° 36' 06.0420"	Type:	RIGHT
Radius:	30.000		
Length:	14.976	Tangent:	7.647
Mid-Ord:	0.930	External:	0.959
Chord:	14.821	Course:	N 10° 50' 27.1044" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+021.496	-163987.742	-43341.386
End:	0+058.845	-163953.931	-43325.517

Tangent Data

Parameter	Value	Parameter	Value
Length:	37.350	Course:	N 25° 08' 30.1254" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+058.845	-163953.931	-43325.517
RP:		-163975.174	-43280.254
PT:	0+075.630	-163940.206	-43315.993

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	19° 14' 02.0836"	Type:	RIGHT
Radius:	50.000		
Length:	16.785	Tangent:	8.472
Mid-Ord:	0.703	External:	0.713
Chord:	16.706	Course:	N 34° 45' 31.1672" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+075.630	-163940.206	-43315.993
End:	0+096.164	-163925.529	-43301.632

Tangent Data

Parameter	Value	Parameter	Value
Length:	20.534	Course:	N 44° 22' 32.2089" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+096.164	-163925.529	-43301.632

RP: -163904.548 -43323.076
PT: 0+111.908 -163911.961 -43294.006

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	30° 04' 07.3645"	Type:	LEFT
Radius:	30.000		
Length:	15.744	Tangent:	8.058
Mid-Ord:	1.027	External:	1.063
Chord:	15.564	Course:	N 29° 20' 28.5267" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+111.908	-163911.961	-43294.006
End:	0+129.271	-163895.137	-43289.715

Tangent Data

Parameter	Value	Parameter	Value
Length:	17.363	Course:	N 14° 18' 24.8445" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+129.271	-163895.137	-43289.715
RP:		-163902.550	-43260.646
PT:	0+141.570	-163884.165	-43284.351

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	23° 29' 22.0046"	Type:	RIGHT
Radius:	30.000		
Length:	12.299	Tangent:	6.237
Mid-Ord:	0.628	External:	0.642
Chord:	12.213	Course:	N 26° 03' 05.8468" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+141.570	-163884.165	-43284.351
End:	0+173.186	-163859.182	-43264.975

Tangent Data

Parameter	Value	Parameter	Value
Length:	31.616	Course:	N 37° 47' 46.8490" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+173.186	-163859.182	-43264.975
RP:		-163840.796	-43288.681
PT:	0+181.488	-163852.006	-43260.854

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	15° 51' 18.9734"	Type:	LEFT
Radius:	30.000		
Length:	8.302	Tangent:	4.178
Mid-Ord:	0.287	External:	0.289
Chord:	8.275	Course:	N 29° 52' 07.3623" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+181.488	-163852.006	-43260.854
End:	0+190.956	-163843.223	-43257.316

Tangent Data

Parameter	Value	Parameter	Value
Length:	9.468	Course:	N 21° 56' 27.8756" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+190.956	-163843.223	-43257.316
RP:		-163854.433	-43229.489
PT:	0+197.489	-163837.476	-43254.238

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	12° 28' 33.0124"	Type:	RIGHT
Radius:	30.000		
Length:	6.532	Tangent:	3.279
Mid-Ord:	0.178	External:	0.179
Chord:	6.519	Course:	N 28° 10' 44.3818" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+197.489	-163837.476	-43254.238
End:	0+259.420	-163786.386	-43219.233

Tangent Data

Parameter	Value	Parameter	Value
Length:	61.931	Course:	N 34° 25' 00.8880" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+259.420	-163786.386	-43219.233
RP:		-163814.647	-43177.986
PT:	0+264.268	-163782.526	-43216.304

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	05° 33' 18.7322"	Type:	RIGHT
Radius:	50.000		
Length:	4.848	Tangent:	2.426
Mid-Ord:	0.059	External:	0.059
Chord:	4.846	Course:	N 37° 11' 40.2541" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+264.268	-163782.526	-43216.304
End:	0+271.792	-163776.760	-43211.470

Tangent Data

Parameter	Value	Parameter	Value
Length:	7.524	Course:	N 39° 58' 19.6202" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+271.792	-163776.760	-43211.470
RP:		-163744.639	-43249.788

PT: 0+280.373 -163769.744 -43206.548

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	09° 49' 58.9451"	Type:	LEFT
Radius:	50.000		
Length:	8.581	Tangent:	4.301
Mid-Ord:	0.184	External:	0.185
Chord:	8.570	Course:	N 35° 03' 20.1477" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+280.373	-163769.744	-43206.548
End:	0+299.421	-163753.271	-43196.984

Tangent Data

Parameter	Value	Parameter	Value
Length:	19.048	Course:	N 30° 08' 20.6752" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+299.421	-163753.271	-43196.984
RP:		-163768.334	-43171.039
PT:	0+326.640	-163738.617	-43175.150

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	51° 59' 08.5019"	Type:	RIGHT
Radius:	30.000		
Length:	27.220	Tangent:	14.627
Mid-Ord:	3.035	External:	3.376
Chord:	26.296	Course:	N 56° 07' 54.9261" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+326.640	-163738.617	-43175.150
End:	0+332.398	-163737.828	-43169.446

Tangent Data

Parameter	Value	Parameter	Value
Length:	5.758	Course:	N 82° 07' 29.1770" E

DIRETRIZ – SC-Acesso Telemática 1

Curve Point Data

Description	Station	Northing	Easting
PC:	0+000.000	-177144.799	-45719.888
RP:		-177144.527	-45715.897
PT:	0+005.261	-177140.735	-45717.169

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	75° 21' 20.1954"	Type:	RIGHT

Radius:	4.000		
Length:	5.261	Tangent:	3.089
Mid-Ord:	0.834	External:	1.054
Chord:	4.890	Course:	N 33° 47' 15.1568" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+005.261	-177140.735	-45717.169
End:	0+011.160	-177138.860	-45711.576

Tangent Data

Parameter	Value	Parameter	Value
Length:	5.899	Course:	N 71° 27' 55.2545" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+011.160	-177138.860	-45711.576
RP:		-177096.194	-45725.880
PT:	0+022.987	-177133.678	-45700.981

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	15° 03' 34.9935"	Type:	LEFT
Radius:	45.000		
Length:	11.828	Tangent:	5.948
Mid-Ord:	0.388	External:	0.391
Chord:	11.794	Course:	N 63° 56' 07.7577" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+022.987	-177133.678	-45700.981
End:	0+030.517	-177129.512	-45694.710

Tangent Data

Parameter	Value	Parameter	Value
Length:	7.529	Course:	N 56° 24' 20.2610" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+030.517	-177129.512	-45694.710
RP:		-177150.336	-45680.877
PT:	0+037.088	-177126.633	-45688.824

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	15° 03' 34.9935"	Type:	RIGHT
Radius:	25.000		
Length:	6.571	Tangent:	3.305
Mid-Ord:	0.216	External:	0.217
Chord:	6.552	Course:	N 63° 56' 07.7577" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+037.088	-177126.633	-45688.824
End:	0+050.063	-177122.508	-45676.522

Tangent Data

Parameter	Value	Parameter	Value
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Length: 12.975 Course: N 71° 27' 55.2545" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+050.063	-177122.508	-45676.522
RP:		-177122.508	-45676.522
PT:	0+050.063	-177122.508	-45676.522

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	90° 00' 31.7026"	Type:	LEFT
Radius:	0.000		
Length:	0.000	Tangent:	0.000
Mid-Ord:	0.000	External:	0.000
Chord:	0.000	Course:	N 26° 27' 39.4797" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+050.063	-177122.508	-45676.522
End:	0+063.083	-177110.165	-45680.662

Tangent Data

Parameter	Value	Parameter	Value
Length:	13.019	Course:	N 18° 32' 36.1687" W

DIRETRIZ – SC-Acesso Telemática 2

Curve Point Data

Description	Station	Northing	Easting
PC:	0+0000.000	-175120.549	-44498.835
RP:		-175094.908	-44498.886
PCC:	0+004.226	-175120.210	-44503.043

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	09° 26' 35.0879"	Type:	RIGHT
Radius:	25.640		
Length:	4.226	Tangent:	2.118
Mid-Ord:	0.087	External:	0.087
Chord:	4.221	Course:	N 85° 23' 28.7256" W

Curve Point Data

Description	Station	Northing	Easting
PCC:	0+004.226	-175120.210	-44503.043
RP:		-175114.289	-44502.070
PCC:	0+013.981	-175112.992	-44507.928

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	93° 09' 17.1069"	Type:	RIGHT
Radius:	6.000		
Length:	9.755	Tangent:	6.340
Mid-Ord:	1.876	External:	2.729
Chord:	8.716	Course:	N 34° 05' 32.6282" W

Curve Point Data

Description	Station	Northing	Easting
PCC:	0+013.981	-175112.992	-44507.928
RP:		-175101.750	-44558.698
PT:	0+026.217	-175100.845	-44506.706

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	13° 28' 57.1007"	Type:	LEFT
Radius:	52.000		
Length:	12.236	Tangent:	6.147
Mid-Ord:	0.360	External:	0.362
Chord:	12.208	Course:	N 05° 44' 37.3749" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+026.217	-175100.845	-44506.706
End:	0+036.262	-175090.802	-44506.881

Tangent Data

Parameter	Value	Parameter	Value
Length:	10.045	Course:	N 00° 59' 51.1755" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+036.262	-175090.802	-44506.881
RP:		-175089.966	-44458.888
PT:	0+048.893	-175078.290	-44505.447

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	15° 04' 36.1546"	Type:	RIGHT
Radius:	48.000		
Length:	12.631	Tangent:	6.352
Mid-Ord:	0.415	External:	0.418
Chord:	12.594	Course:	N 06° 32' 26.9018" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+048.893	-175078.290	-44505.447
End:	0+051.329	-175075.927	-44504.854

Tangent Data

Parameter	Value	Parameter	Value
Length:	2.436	Course:	N 14° 04' 44.9791" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+051.329	-175075.927	-44504.854
RP:		-175090.036	-44448.596
PT:	0+061.033	-175066.755	-44501.719

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	09° 35' 11.5024"	Type:	RIGHT
Radius:	58.000		
Length:	9.704	Tangent:	4.864

Mid-Ord:	0.203	External:	0.204
Chord:	9.693	Course:	N 18° 52' 20.7303" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+061.033	-175066.755	-44501.719
End:	0+070.062	-175058.485	-44498.095

Tangent Data

Parameter	Value	Parameter	Value
Length:	9.029	Course:	N 23° 39' 56.4815" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+070.062	-175058.485	-44498.095
RP:		-175033.599	-44554.881
PT:	0+086.304	-175042.930	-44493.587

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	15° 00' 34.0965"	Type:	LEFT
Radius:	62.000		
Length:	16.242	Tangent:	8.168
Mid-Ord:	0.531	External:	0.536
Chord:	16.195	Course:	N 16° 09' 39.4332" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+086.304	-175042.930	-44493.587
End:	0+121.609	-175008.027	-44488.273

Tangent Data

Parameter	Value	Parameter	Value
Length:	35.305	Course:	N 08° 39' 22.3850" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+121.609	-175008.027	-44488.273
RP:		-175008.027	-44488.273
PT:	0+121.609	-175008.027	-44488.273

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	81° 36' 39.3322"	Type:	LEFT
Radius:	0.000		
Length:	0.000	Tangent:	0.000
Mid-Ord:	0.000	External:	0.000
Chord:	0.000	Course:	N 32° 08' 57.5520" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+121.609	-175008.027	-44488.273
End:	0+131.610	-175005.096	-44497.835

Tangent Data

Parameter	Value	Parameter	Value
Length:	10.001	Course:	N 72° 57' 17.1190" W

DIRETRIZ – SC-Acesso Telemática 3

<u>Curve Point Data</u>			
Description	Station	Northing	Easting
PC:	0+000.000	-166772.963	-45025.036
RP:		-166767.723	-45022.910
PT:	0+017.313	-166762.331	-45021.208
<u>Circular Curve Data</u>			
Parameter	Value	Parameter	Value
Delta:	175° 26' 14.1647"	Type:	RIGHT
Radius:	5.654		
Length:	17.313	Tangent:	141.929
Mid-Ord:	5.429	External:	136.387
Chord:	11.299	Course:	N 19° 48' 07.0126" E
<u>Tangent Data</u>			
Description	PT Station	Northing	Easting
Start:	0+017.313	-166762.331	-45021.208
End:	0+037.572	-166768.430	-45001.889
<u>Tangent Data</u>			
Parameter	Value	Parameter	Value
Length:	20.259	Course:	S 72° 28' 45.9051" E

DIRETRIZ – SC-Acesso Telemática 4

<u>Tangent Data</u>			
Description	PT Station	Northing	Easting
Start:	0+000.000	-166224.160	-44848.600
End:	0+188.661	-166045.042	-44789.356
<u>Tangent Data</u>			
Parameter	Value	Parameter	Value
Length:	188.661	Course:	N 18° 18' 06.6860" E
<u>Curve Point Data</u>			
Description	Station	Northing	Easting
PC:	0+188.661	-166045.042	-44789.356
RP:		-166045.042	-44789.356
PT:	0+188.661	-166045.042	-44789.356
<u>Circular Curve Data</u>			
Parameter	Value	Parameter	Value
Delta:	90° 00' 00.3792"	Type:	LEFT
Radius:	0.000		
Length:	0.000	Tangent:	0.000
Mid-Ord:	0.000	External:	0.000
Chord:	0.000	Course:	N 26° 41' 53.1366" W
<u>Tangent Data</u>			

Description	PT Station	Northing	Easting
Start:	0+188.661	-166045.042	-44789.356
End:	0+198.661	-166041.902	-44798.850
<u>Tangent Data</u>			
Parameter	Value	Parameter	Value
Length:	10.000	Course:	N 71° 41' 53.3140" W

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RASANTE – RESTABELECIMENTO 30-01

PVI	Station	Grade Out	Curve Length
0.00	0+003.523	-0.780%	5.992m
Vertical Curve Information:(sag curve)			
PVC Station: 0+000.527 Elevation: 278.673m			
PVI Station: 0+003.523 Elevation: 278.530m			
PVT Station: 0+006.520 Elevation: 278.507m			
Low Point: 0+006.520 Elevation: 278.507m			
Grade in: -4.775% Grade out: -0.780%			
Change: 3.995% K: 1.50000000000065			
Curve Length: 5.992m			
Headlight Distance: 94.235m			
1.00	0+042.392	-5.000%	21.102m
Vertical Curve Information:(crest curve)			
PVC Station: 0+031.841 Elevation: 278.309m			
PVI Station: 0+042.392 Elevation: 278.227m			
PVT Station: 0+052.942 Elevation: 277.700m			
High Point: 0+031.841 Elevation: 278.309m			
Grade in: -0.780% Grade out: -5.000%			
Change: 4.220% K: 5.00000000000001			
Curve Length: 21.102m			
Passing Distance: 376.958m Stopping Distance: 168.021m			
2.00	0+123.088	-13.000%	24.000m
Vertical Curve Information:(crest curve)			
PVC Station: 0+111.088 Elevation: 274.792m			
PVI Station: 0+123.088 Elevation: 274.192m			
PVT Station: 0+135.088 Elevation: 272.632m			
High Point: 0+111.088 Elevation: 274.792m			
Grade in: -5.000% Grade out: -13.000%			
Change: 8.000% K: 2.999999999999592			
Curve Length: 24.000m			
Passing Distance: 205.295m Stopping Distance: 95.072m			
3.00	0+149.601	1.860%	22.290m
Vertical Curve Information:(sag curve)			
PVC Station: 0+138.456 Elevation: 272.195m			
PVI Station: 0+149.601 Elevation: 270.746m			
PVT Station: 0+160.746 Elevation: 270.953m			
Low Point: 0+157.956 Elevation: 270.927m			
Grade in: -13.000% Grade out: 1.860%			
Change: 14.860% K: 1.49999999999994			
Curve Length: 22.290m			

	Headlight Distance: 27.879m		
4.00	0+204.475	12.000%	30.420m
	Vertical Curve Information:(sag curve)		
	PVC Station:	0+189.265	Elevation: 271.483m
	PVI Station:	0+204.475	Elevation: 271.766m
	PVT Station:	0+219.685	Elevation: 273.592m
	Low Point:	0+189.265	Elevation: 271.483m
	Grade in:	1.860%	Grade out: 12.000%
	Change:	10.140%	K: 3.000000000000016
	Curve Length:	30.420m	
	Headlight Distance:	42.198m	
5.00	0+234.932	4.360%	22.920m
	Vertical Curve Information:(crest curve)		
	PVC Station:	0+223.473	Elevation: 274.046m
	PVI Station:	0+234.932	Elevation: 275.421m
	PVT Station:	0+246.392	Elevation: 275.921m
	High Point:	0+246.392	Elevation: 275.921m
	Grade in:	12.000%	Grade out: 4.360%
	Change:	7.640%	K: 2.99999999839764
	Curve Length:	22.920m	
	Passing Distance:	213.866m	Stopping Distance: 98.447m
6.00	0+256.118		

RASANTE – RESTABELECIMENTO 30-01A

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	100,000,000,000,000,000,000,000,000,000.000%	
1.00	0+006.000	8.000%	12.000m
	Vertical Curve Information:(sag curve)		
	PVC Station:	-0+000.000	Elevation: 272.630m
	PVI Station:	0+006.000	Elevation: 272.750m
	PVT Station:	0+012.000	Elevation: 273.230m
	Low Point:	-0+000.000	Elevation: 272.630m
	Grade in:	2.000%	Grade out: 8.000%
	Change:	6.000%	K: 1.99999999999481
	Curve Length:	12.000m	
	Headlight Distance:	55.471m	
2.00	0+025.957	3.231%	14.308m
	Vertical Curve Information:(crest curve)		
	PVC Station:	0+018.803	Elevation: 273.774m
	PVI Station:	0+025.957	Elevation: 274.347m
	PVT Station:	0+033.111	Elevation: 274.578m
	High Point:	0+033.111	Elevation: 274.578m

	Grade in: 8.000% Grade out: 3.231%		
	Change: 4.769% K: 2.99999999999976		
	Curve Length: 14.308m		
	Passing Distance: 331.382m Stopping Distance: 146.496m		
3.00	0+034.656		

RASANTE – RESTABELECIMENTO 31-01

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	0.900%	
1.00	0+015.661	1.680%	11.700m
Vertical Curve Information:(sag curve)			
PVC Station: 0+009.811 Elevation: 265.810m			
PVI Station: 0+015.661 Elevation: 265.863m			
PVT Station: 0+021.511 Elevation: 265.961m			
Low Point: 0+009.811 Elevation: 265.810m			
Grade in: 0.900% Grade out: 1.680%			
Change: 0.780% K: 15.0000000001252			
Curve Length: 11.700m			
Headlight Distance:			
2.00	0+077.941	14.000%	24.640m
Vertical Curve Information:(sag curve)			
PVC Station: 0+065.621 Elevation: 266.702m			
PVI Station: 0+077.941 Elevation: 266.909m			
PVT Station: 0+090.261 Elevation: 268.634m			
Low Point: 0+065.621 Elevation: 266.702m			
Grade in: 1.680% Grade out: 14.000%			
Change: 12.320% K: 2			
Curve Length: 24.640m			
Headlight Distance: 33.267m			
3.00	0+116.172	8.420%	16.740m
Vertical Curve Information:(crest curve)			
PVC Station: 0+107.802 Elevation: 271.089m			
PVI Station: 0+116.172 Elevation: 272.261m			
PVT Station: 0+124.541 Elevation: 272.966m			
High Point: 0+124.541 Elevation: 272.966m			
Grade in: 14.000% Grade out: 8.420%			
Change: 5.580% K: 2.99999999999902			
Curve Length: 16.740m			
Passing Distance: 285.501m Stopping Distance: 127.472m			

RASANTE – RESTABELECIMENTO 31-01A

PVI	Station	Grade Out	Curve Length																																
0.00	0+000.000	-2.750%																																	
1.00	0+030.585	-0.527%	33.349m																																
Vertical Curve Information:(sag curve) <table> <tr> <td>PVC Station:</td><td>0+013.910</td><td>Elevation:</td><td>272.379m</td></tr> <tr> <td>PVI Station:</td><td>0+030.585</td><td>Elevation:</td><td>271.921m</td></tr> <tr> <td>PVT Station:</td><td>0+047.259</td><td>Elevation:</td><td>271.833m</td></tr> <tr> <td>Low Point:</td><td>0+047.259</td><td>Elevation:</td><td>271.833m</td></tr> <tr> <td>Grade in:</td><td>-2.750%</td><td>Grade out:</td><td>-0.527%</td></tr> <tr> <td>Change:</td><td>2.223%</td><td>K:</td><td>14.9999999999978</td></tr> <tr> <td>Curve Length:</td><td>33.349m</td><td></td><td></td></tr> <tr> <td>Headlight Distance:</td><td>496.237m</td><td></td><td></td></tr> </table>				PVC Station:	0+013.910	Elevation:	272.379m	PVI Station:	0+030.585	Elevation:	271.921m	PVT Station:	0+047.259	Elevation:	271.833m	Low Point:	0+047.259	Elevation:	271.833m	Grade in:	-2.750%	Grade out:	-0.527%	Change:	2.223%	K:	14.9999999999978	Curve Length:	33.349m			Headlight Distance:	496.237m		
PVC Station:	0+013.910	Elevation:	272.379m																																
PVI Station:	0+030.585	Elevation:	271.921m																																
PVT Station:	0+047.259	Elevation:	271.833m																																
Low Point:	0+047.259	Elevation:	271.833m																																
Grade in:	-2.750%	Grade out:	-0.527%																																
Change:	2.223%	K:	14.9999999999978																																
Curve Length:	33.349m																																		
Headlight Distance:	496.237m																																		
2.00	0+070.509																																		

RASANTE – RESTABELECIMENTO 31-01B

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	3.479%	
1.00	0+021.270		

RASANTE – RESTABELECIMENTO 33-01

PVI	Station	Grade Out	Curve Length																																
0.00	0+000.000	-2.000%																																	
1.00	0+009.121	-9.000%	7.000m																																
Vertical Curve Information:(crest curve) <table> <tr> <td>PVC Station:</td><td>0+005.621</td><td>Elevation:</td><td>272.234m</td></tr> <tr> <td>PVI Station:</td><td>0+009.121</td><td>Elevation:</td><td>272.164m</td></tr> <tr> <td>PVT Station:</td><td>0+012.621</td><td>Elevation:</td><td>271.849m</td></tr> <tr> <td>High Point:</td><td>0+005.621</td><td>Elevation:</td><td>272.234m</td></tr> <tr> <td>Grade in:</td><td>-2.000%</td><td>Grade out:</td><td>-9.000%</td></tr> <tr> <td>Change:</td><td>7.000%</td><td>K:</td><td>1.00000000000266</td></tr> <tr> <td>Curve Length:</td><td>7.000m</td><td></td><td></td></tr> <tr> <td>Passing Distance:</td><td>224.409m</td><td>Stopping Distance:</td><td>98.439m</td></tr> </table>				PVC Station:	0+005.621	Elevation:	272.234m	PVI Station:	0+009.121	Elevation:	272.164m	PVT Station:	0+012.621	Elevation:	271.849m	High Point:	0+005.621	Elevation:	272.234m	Grade in:	-2.000%	Grade out:	-9.000%	Change:	7.000%	K:	1.00000000000266	Curve Length:	7.000m			Passing Distance:	224.409m	Stopping Distance:	98.439m
PVC Station:	0+005.621	Elevation:	272.234m																																
PVI Station:	0+009.121	Elevation:	272.164m																																
PVT Station:	0+012.621	Elevation:	271.849m																																
High Point:	0+005.621	Elevation:	272.234m																																
Grade in:	-2.000%	Grade out:	-9.000%																																
Change:	7.000%	K:	1.00000000000266																																
Curve Length:	7.000m																																		
Passing Distance:	224.409m	Stopping Distance:	98.439m																																
2.00	0+029.882	2.290%	14.112m																																
Vertical Curve Information:(sag curve) <table> <tr> <td>PVC Station:</td><td>0+022.826</td><td>Elevation:</td><td>270.931m</td></tr> </table>				PVC Station:	0+022.826	Elevation:	270.931m																												
PVC Station:	0+022.826	Elevation:	270.931m																																

	PVI Station: 0+029.882	Elevation: 270.296m	
	PVT Station: 0+036.938	Elevation: 270.457m	
	Low Point: 0+034.076	Elevation: 270.425m	
	Grade in: -9.000%	Grade out: 2.290%	
	Change: 11.290%	K: 1.24999999999769	
	Curve Length: 14.112m		
	Headlight Distance: 29.301m		
3.00	0+083.144	12.000%	14.565m
	Vertical Curve Information:(sag curve)		
	PVC Station: 0+075.862	Elevation: 271.349m	
	PVI Station: 0+083.144	Elevation: 271.515m	
	PVT Station: 0+090.427	Elevation: 272.389m	
	Low Point: 0+075.862	Elevation: 271.349m	
	Grade in: 2.290%	Grade out: 12.000%	
	Change: 9.710%	K: 1.49999999999725	
	Curve Length: 14.565m		
	Headlight Distance: 33.990m		
4.00	0+121.987	-3.000%	52.500m
	Vertical Curve Information:(crest curve)		
	PVC Station: 0+095.737	Elevation: 273.027m	
	PVI Station: 0+121.987	Elevation: 276.177m	
	PVT Station: 0+148.237	Elevation: 275.389m	
	High Point: 0+137.737	Elevation: 275.547m	
	Grade in: 12.000%	Grade out: -3.000%	
	Change: 15.000%	K: 3.50000000000047	
	Curve Length: 52.500m		
	Passing Distance: 129.341m	Stopping Distance: 70.555m	

RASANTE – RESTABELECIMENTO 33-1A

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	-2.500%	
1.00	0+007.945	8.500%	11.000m
	Vertical Curve Information:(sag curve)		
	PVC Station: 0+002.445	Elevation: 270.747m	
	PVI Station: 0+007.945	Elevation: 270.610m	
	PVT Station: 0+013.445	Elevation: 271.077m	
	Low Point: 0+004.945	Elevation: 270.716m	
	Grade in: -2.500%	Grade out: 8.500%	
	Change: 11.000%	K: 1.00000000000003	

	Curve Length: 11.000m Headlight Distance: 28.148m		
2.00	0+020.540		

RASANTE – RESTABELECIMENTO 33-02

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	-12.500%	
1.00	0+056.410	2.310%	29.620m
Vertical Curve Information:(sag curve)			
PVC Station: 0+041.600 Elevation: 270.578m			
PVI Station: 0+056.410 Elevation: 268.727m			
PVT Station: 0+071.220 Elevation: 269.069m			
Low Point: 0+066.600 Elevation: 269.015m			
Grade in: -12.500% Grade out: 2.310%			
Change: 14.810% K: 2.00000000000002			
Curve Length: 29.620m			
Headlight Distance: 32.097m			
2.00	0+118.421	12.000%	19.380m
Vertical Curve Information:(sag curve)			
PVC Station: 0+108.731 Elevation: 269.935m			
PVI Station: 0+118.421 Elevation: 270.159m			
PVT Station: 0+128.111 Elevation: 271.322m			
Low Point: 0+108.731 Elevation: 269.935m			
Grade in: 2.310% Grade out: 12.000%			
Change: 9.690% K: 2.000000000000398			
Curve Length: 19.380m			
Headlight Distance: 36.994m			
3.00	0+164.419	5.350%	16.625m
Vertical Curve Information:(crest curve)			
PVC Station: 0+156.106 Elevation: 274.681m			
PVI Station: 0+164.419 Elevation: 275.679m			
PVT Station: 0+172.732 Elevation: 276.124m			
High Point: 0+172.732 Elevation: 276.124m			
Grade in: 12.000% Grade out: 5.350%			
Change: 6.650% K: 2.500000000000151			
Curve Length: 16.625m			
Passing Distance: 240.844m Stopping Distance: 108.247m			

RASANTE – RESTABELECIMENTO 34-01

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	-8.100%	
1.00	0+023.581	1.370%	12.311m
Vertical Curve Information:(sag curve)----- PVC Station: 0+017.426 Elevation: 271.528m PVI Station: 0+023.581 Elevation: 271.029m PVT Station: 0+029.737 Elevation: 271.114m Low Point: 0+027.956 Elevation: 271.101m Grade in: -8.100% Grade out: 1.370% Change: 9.470% K: 1.29999999999995 Curve Length: 12.311m Headlight Distance: 33.438m			
2.00	0+069.294	5.500%	10.325m
Vertical Curve Information:(sag curve)----- PVC Station: 0+064.132 Elevation: 271.585m PVI Station: 0+069.294 Elevation: 271.656m PVT Station: 0+074.457 Elevation: 271.940m Low Point: 0+064.132 Elevation: 271.585m Grade in: 1.370% Grade out: 5.500% Change: 4.130% K: 2.500000000000972 Curve Length: 10.325m Headlight Distance: 92.817m			
3.00	0+085.976	-5.000%	15.750m
Vertical Curve Information:(crest curve)----- PVC Station: 0+078.101 Elevation: 272.140m PVI Station: 0+085.976 Elevation: 272.573m PVT Station: 0+093.851 Elevation: 272.179m High Point: 0+086.351 Elevation: 272.367m Grade in: 5.500% Grade out: -5.000% Change: 10.500% K: 1.499999999999621 Curve Length: 15.750m Passing Distance: 155.148m Stopping Distance: 71.168m			
4.00	0+095.941		

RASANTE – RESTABELECIMENTO 35-01

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	-2.500%	
1.00	0+004.888	-13.500%	5.500m
Vertical Curve Information:(crest curve)----- PVC Station: 0+002.138 Elevation: 280.341m			

	PVI Station: 0+004.888 Elevation: 280.273m PVT Station: 0+007.638 Elevation: 279.901m High Point: 0+002.138 Elevation: 280.341m Grade in: -2.500% Grade out: -13.500% Change: 11.000% K: 0.499999999999615 Curve Length: 5.500m Passing Distance: 143.328m Stopping Distance: 63.166m
2.00	0+033.135 -0.860% 12.640m Vertical Curve Information:(sag curve) PVC Station: 0+026.815 Elevation: 277.312m PVI Station: 0+033.135 Elevation: 276.459m PVT Station: 0+039.455 Elevation: 276.405m Low Point: 0+039.455 Elevation: 276.405m Grade in: -13.500% Grade out: -0.860% Change: 12.640% K: 1.000000000000076 Curve Length: 12.640m Headlight Distance: 25.691m
3.00	0+092.490 13.000% 20.790m Vertical Curve Information:(sag curve) PVC Station: 0+082.095 Elevation: 276.038m PVI Station: 0+092.490 Elevation: 275.949m PVT Station: 0+102.885 Elevation: 277.300m Low Point: 0+083.385 Elevation: 276.033m Grade in: -0.860% Grade out: 13.000% Change: 13.860% K: 1.49999999999981 Curve Length: 20.790m Headlight Distance: 28.402m
4.00	0+121.688 1.000% 18.000m Vertical Curve Information:(crest curve) PVC Station: 0+112.688 Elevation: 278.574m PVI Station: 0+121.688 Elevation: 279.744m PVT Station: 0+130.688 Elevation: 279.834m High Point: 0+130.688 Elevation: 279.834m Grade in: 13.000% Grade out: 1.000% Change: 12.000% K: 1.500000000000055 Curve Length: 18.000m Passing Distance: 137.864m Stopping Distance: 64.381m
5.00	0+158.456

RASANTE – RESTABELECIMENTO 35-01A

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	0.720%	
1.00	0+012.119	4.300%	17.900m

	Vertical Curve Information:(sag curve)		
	PVC Station:	0+003.169	Elevation: 271.857m
	PVI Station:	0+012.119	Elevation: 271.921m
	PVT Station:	0+021.069	Elevation: 272.306m
	Low Point:	0+003.169	Elevation: 271.857m
	Grade in:	0.720%	Grade out: 4.300%
	Change:	3.580%	K: 5.00000000000288
	Curve Length:	17.900m	
	Headlight Distance:	126.487m	
2.00	0+151.127	-6.500%	43.200m
	Vertical Curve Information:(crest curve)		
	PVC Station:	0+129.527	Elevation: 276.970m
	PVI Station:	0+151.127	Elevation: 277.899m
	PVT Station:	0+172.727	Elevation: 276.495m
	High Point:	0+146.727	Elevation: 277.340m
	Grade in:	4.300%	Grade out: -6.500%
	Change:	10.800%	K: 3.99999999999846
	Curve Length:	43.200m	
	Passing Distance:	164.782m	Stopping Distance: 83.135m
3.00	0+221.422	2.000%	68.000m
	Vertical Curve Information:(sag curve)		
	PVC Station:	0+187.422	Elevation: 275.540m
	PVI Station:	0+221.422	Elevation: 273.330m
	PVT Station:	0+255.422	Elevation: 274.010m
	Low Point:	0+239.422	Elevation: 273.850m
	Grade in:	-6.500%	Grade out: 2.000%
	Change:	8.500%	K: 8.00000000000038
	Curve Length:	68.000m	
	Headlight Distance:	72.396m	
4.00	0+344.699	13.000%	22.000m
	Vertical Curve Information:(sag curve)		
	PVC Station:	0+333.699	Elevation: 275.575m
	PVI Station:	0+344.699	Elevation: 275.795m
	PVT Station:	0+355.699	Elevation: 277.225m
	Low Point:	0+333.699	Elevation: 275.575m
	Grade in:	2.000%	Grade out: 13.000%
	Change:	11.000%	K: 1.99999999999904
	Curve Length:	22.000m	
	Headlight Distance:	34.686m	
5.00	0+356.570		

RASANTE – RESTABELECIMENTO 36-01

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	-7.867%	
1.00	0+016.956	-3.320%	20.460m
Vertical Curve Information:(sag curve)			
PVC Station: 0+006.726 Elevation: 273.018m			
PVI Station: 0+016.956 Elevation: 272.213m			
PVT Station: 0+027.186 Elevation: 271.873m			
Low Point: 0+027.186 Elevation: 271.873m			
Grade in: -7.867% Grade out: -3.320%			
Change: 4.547% K: 4.49999999999549			
Curve Length: 20.460m			
Headlight Distance: 88.004m			
2.00	0+077.263		

RASANTE – RESTABELECIMENTO 36-01A

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	4.569%	
1.00	0+025.869	8.767%	12.593m
Vertical Curve Information:(sag curve)			
PVC Station: 0+019.573 Elevation: 283.872m			
PVI Station: 0+025.869 Elevation: 284.160m			
PVT Station: 0+032.166 Elevation: 284.712m			
Low Point: 0+019.573 Elevation: 283.872m			
Grade in: 4.569% Grade out: 8.767%			
Change: 4.198% K: 3.00000000000008			
Curve Length: 12.593m			
Headlight Distance: 92.336m			
2.00	0+051.102	1.350%	29.668m
Vertical Curve Information:(crest curve)			
PVC Station: 0+036.268 Elevation: 285.072m			
PVI Station: 0+051.102 Elevation: 286.372m			
PVT Station: 0+065.936 Elevation: 286.572m			
High Point: 0+065.936 Elevation: 286.572m			
Grade in: 8.767% Grade out: 1.350%			
Change: 7.417% K: 3.99999999999997			
Curve Length: 29.668m			
Passing Distance: 223.322m Stopping Distance: 104.435m			
3.00	0+114.522	-14.000%	46.050m
Vertical Curve Information:(crest curve)			
PVC Station: 0+091.497 Elevation: 286.917m			

	PVI Station: 0+114.522 Elevation: 287.228m PVT Station: 0+137.547 Elevation: 284.005m High Point: 0+095.547 Elevation: 286.945m Grade in: 1.350% Grade out: -14.000% Change: 15.350% K: 2.99999999999983 Curve Length: 46.050m Passing Distance: 123.765m Stopping Distance: 66.320m		
4.00	0+161.605	-3.400%	31.800m
	Vertical Curve Information:(sag curve)		
	PVC Station: 0+145.705 Elevation: 282.863m PVI Station: 0+161.605 Elevation: 280.637m PVT Station: 0+177.505 Elevation: 280.096m Low Point: 0+177.505 Elevation: 280.096m Grade in: -14.000% Grade out: -3.400% Change: 10.600% K: 2.99999999999999 Curve Length: 31.800m Headlight Distance: 41.622m		
5.00	0+223.738	-15.000%	34.800m
	Vertical Curve Information:(crest curve)		
	PVC Station: 0+206.338 Elevation: 279.116m PVI Station: 0+223.738 Elevation: 278.524m PVT Station: 0+241.138 Elevation: 275.914m High Point: 0+206.338 Elevation: 279.116m Grade in: -3.400% Grade out: -15.000% Change: 11.600% K: 3.00000000000005 Curve Length: 34.800m Passing Distance: 150.707m Stopping Distance: 74.691m		
6.00	0+277.192	-1.500%	33.750m
	Vertical Curve Information:(sag curve)		
	PVC Station: 0+260.317 Elevation: 273.037m PVI Station: 0+277.192 Elevation: 270.506m PVT Station: 0+294.067 Elevation: 270.253m Low Point: 0+294.067 Elevation: 270.253m Grade in: -15.000% Grade out: -1.500% Change: 13.500% K: 2.49999999999982 Curve Length: 33.750m Headlight Distance: 36.396m		
7.00	0+296.856		

RASANTE – RESTABELECIMENTO 36-01B

PVI	Station	Grade Out	Curve Length
0.00	0+046.924	11.000%	50.000m
Vertical Curve Information:(sag curve)			

PVC Station:	0+021.924	Elevation:	269.882m
PVI Station:	0+046.924	Elevation:	269.507m
PVT Station:	0+071.924	Elevation:	272.257m
Low Point:	0+027.924	Elevation:	269.837m
Grade in:	-1.500%	Grade out:	11.000%
Change:	12.500%	K:	4.00000000000001
Curve Length:	50.000m		
Headlight Distance:	47.587m		
1.00	0+101.215	6.000%	25.000m
Vertical Curve Information:(crest curve)			

PVC Station:	0+088.715	Elevation:	274.104m
PVI Station:	0+101.215	Elevation:	275.479m
PVT Station:	0+113.715	Elevation:	276.229m
High Point:	0+113.715	Elevation:	276.229m
Grade in:	11.000%	Grade out:	6.000%
Change:	5.000%	K:	5.000000000000061
Curve Length:	25.000m		
Passing Distance:	321.772m	Stopping Distance:	145.415m
2.00	0+176.094	12.000%	30.000m
Vertical Curve Information:(sag curve)			

PVC Station:	0+161.094	Elevation:	279.072m
PVI Station:	0+176.094	Elevation:	279.972m
PVT Station:	0+191.094	Elevation:	281.772m
Low Point:	0+161.094	Elevation:	279.072m
Grade in:	6.000%	Grade out:	12.000%
Change:	6.000%	K:	4.99999999999958
Curve Length:	30.000m		
Headlight Distance:	68.163m		
3.00	0+244.123	-10.000%	66.000m
Vertical Curve Information:(crest curve)			

PVC Station:	0+211.123	Elevation:	284.175m
PVI Station:	0+244.123	Elevation:	288.135m
PVT Station:	0+277.123	Elevation:	284.835m
High Point:	0+247.123	Elevation:	286.335m
Grade in:	12.000%	Grade out:	-10.000%
Change:	22.000%	K:	3.00000000000001
Curve Length:	66.000m		
Passing Distance:	103.289m	Stopping Distance:	63.146m
4.00	0+292.036	-7.845%	15.086m
Vertical Curve Information:(sag curve)			

	PVC Station:	0+284.493	Elevation:	284.098m
	PVI Station:	0+292.036	Elevation:	283.344m
	PVT Station:	0+299.579	Elevation:	282.752m
	Low Point:	0+299.579	Elevation:	282.752m
	Grade in:	-10.000%	Grade out:	-7.845%
	Change:	2.155%	K:	7.00000000000216
	Curve Length:	15.086m		
	Headlight Distance:	527.938m		
5.00	0+306.147			

RASANTE - RESTABELECIMENTO 37-01

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	-7.558%	
1.00	0+012.288	-12.000%	17.767m
Vertical Curve Information:(crest curve)			
	PVC Station:	0+003.405	Elevation: 277.243m
	PVI Station:	0+012.288	Elevation: 276.571m
	PVT Station:	0+021.172	Elevation: 275.505m
	High Point:	0+003.405	Elevation: 277.243m
	Grade in:	-7.558%	Grade out: -12.000%
	Change:	4.442%	K: 4.000000000000862
	Curve Length:	17.767m	
	Passing Distance:	357.032m	Stopping Distance: 158.506m
2.00	0+030.879	-3.460%	17.079m
Vertical Curve Information:(sag curve)			
	PVC Station:	0+022.340	Elevation: 275.365m
	PVI Station:	0+030.879	Elevation: 274.340m
	PVT Station:	0+039.419	Elevation: 274.045m
	Low Point:	0+039.419	Elevation: 274.045m
	Grade in:	-12.000%	Grade out: -3.460%
	Change:	8.540%	K: 2.000000000000085
	Curve Length:	17.079m	
	Headlight Distance:	40.171m	
3.00	0+071.310	-0.500%	14.800m
Vertical Curve Information:(sag curve)			
	PVC Station:	0+063.910	Elevation: 273.198m
	PVI Station:	0+071.310	Elevation: 272.942m
	PVT Station:	0+078.710	Elevation: 272.905m
	Low Point:	0+078.710	Elevation: 272.905m
	Grade in:	-3.460%	Grade out: -0.500%
	Change:	2.960%	K: 5.000000000000436
	Curve Length:	14.800m	
	Headlight Distance:	182.713m	
4.00	0+090.639		

RASANTE - RESTABELECIMENTO 38-02

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	-7.044%	
1.00	0+007.404	-12.000%	9.913m
Vertical Curve Information:(crest curve)			
PVC Station: 0+002.448 Elevation: 294.828m			
PVI Station: 0+007.404 Elevation: 294.478m			
PVT Station: 0+012.360 Elevation: 293.884m			
High Point: 0+002.448 Elevation: 294.828m			
Grade in: -7.044% Grade out: -12.000%			
Change: 4.956% K: 1.99999999999056			
Curve Length: 9.913m			
Passing Distance: 316.959m Stopping Distance: 139.045m			
2.00	0+032.986	-4.200%	15.600m
Vertical Curve Information:(sag curve)			
PVC Station: 0+025.186 Elevation: 292.345m			
PVI Station: 0+032.986 Elevation: 291.409m			
PVT Station: 0+040.786 Elevation: 291.081m			
Low Point: 0+040.786 Elevation: 291.081m			
Grade in: -12.000% Grade out: -4.200%			
Change: 7.800% K: 2.00000000000037			
Curve Length: 15.600m			
Headlight Distance: 43.082m			
3.00	0+179.466	6.209%	83.270m
Vertical Curve Information:(sag curve)			
PVC Station: 0+137.831 Elevation: 287.005m			
PVI Station: 0+179.466 Elevation: 285.256m			
PVT Station: 0+221.101 Elevation: 287.841m			
Low Point: 0+171.431 Elevation: 286.300m			
Grade in: -4.200% Grade out: 6.209%			
Change: 10.409% K: 8.00000000000043			
Curve Length: 83.270m			
Headlight Distance: 72.231m			

RASANTE - RESTABELECIMENTO 39-01

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	-0.500%	
1.00	0+017.355	-0.933%	21.650m
Vertical Curve Information:(crest curve)			
PVC Station: 0+006.530 Elevation: 299.895m			
PVI Station: 0+017.355 Elevation: 299.841m			

	PVT Station: 0+028.180	Elevation: 299.740m	
	High Point: 0+006.530	Elevation: 299.895m	
	Grade in: -0.500%	Grade out: -0.933%	
	Change: 0.433%	K: 49.999999999404	
	Curve Length: 21.650m		
	Passing Distance: 3,582.101m	Stopping Distance: 1,545.641m	
2.00	0+083.428	6.000%	41.598m
	Vertical Curve Information:(sag curve)		
	PVC Station: 0+062.629	Elevation: 299.418m	
	PVI Station: 0+083.428	Elevation: 299.224m	
	PVT Station: 0+104.227	Elevation: 300.472m	
	Low Point: 0+068.227	Elevation: 299.392m	
	Grade in: -0.933%	Grade out: 6.000%	
	Change: 6.933%	K: 6.00000000000553	
	Curve Length: 41.598m		
	Headlight Distance: 66.352m		
3.00	0+131.861	3.000%	15.000m
	Vertical Curve Information:(crest curve)		
	PVC Station: 0+124.361	Elevation: 301.680m	
	PVI Station: 0+131.861	Elevation: 302.130m	
	PVT Station: 0+139.361	Elevation: 302.355m	
	High Point: 0+139.361	Elevation: 302.355m	
	Grade in: 6.000%	Grade out: 3.000%	
	Change: 3.000%	K: 5.00000000000043	
	Curve Length: 15.000m		
	Passing Distance: 522.954m	Stopping Distance: 229.025m	
4.00	0+144.683	4.688%	10.130m
	Vertical Curve Information:(sag curve)		
	PVC Station: 0+139.618	Elevation: 302.363m	
	PVI Station: 0+144.683	Elevation: 302.515m	
	PVT Station: 0+149.748	Elevation: 302.752m	
	Low Point: 0+139.618	Elevation: 302.363m	
	Grade in: 3.000%	Grade out: 4.688%	
	Change: 1.688%	K: 5.9999999999774	
	Curve Length: 10.130m		
	Headlight Distance:		
5.00	0+158.651		

RASANTE - RESTABELECIMENTO 40-01

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	-13.000%	
1.00	0+025.747	-4.610%	16.780m
	Vertical Curve Information:(sag curve)		

	PVC Station: 0+017.357 Elevation: 260.856m PVI Station: 0+025.747 Elevation: 259.765m PVT Station: 0+034.137 Elevation: 259.378m Low Point: 0+034.137 Elevation: 259.378m Grade in: -13.000% Grade out: -4.610% Change: 8.390% K: 1.99999999999959 Curve Length: 16.780m Headlight Distance: 40.694m		
2.00	0+076.767	-12.800%	24.570m
	Vertical Curve Information:(crest curve)		
	PVC Station: 0+064.482 Elevation: 257.979m PVI Station: 0+076.767 Elevation: 257.413m PVT Station: 0+089.052 Elevation: 255.840m High Point: 0+064.482 Elevation: 257.979m Grade in: -4.610% Grade out: -12.800% Change: 8.190% K: 3.00000000000037 Curve Length: 24.570m Passing Distance: 201.096m Stopping Distance: 93.430m		
3.00	0+172.099	-6.403%	25.588m
	Vertical Curve Information:(sag curve)		
	PVC Station: 0+159.305 Elevation: 246.848m PVI Station: 0+172.099 Elevation: 245.210m PVT Station: 0+184.893 Elevation: 244.391m Low Point: 0+184.893 Elevation: 244.391m Grade in: -12.800% Grade out: -6.403% Change: 6.397% K: 3.99999999999977 Curve Length: 25.588m Headlight Distance: 60.591m		
4.00	0+191.441		

RASANTE - RESTABELECIMENTO 42-01

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	1.600%	
1.00	0+013.840	-12.000%	13.600m
	Vertical Curve Information:(crest curve)		
	PVC Station: 0+007.040 Elevation: 187.530m PVI Station: 0+013.840 Elevation: 187.639m PVT Station: 0+020.640 Elevation: 186.823m High Point: 0+008.640 Elevation: 187.543m Grade in: 1.600% Grade out: -12.000% Change: 13.600% K: 0.999999999999798 Curve Length: 13.600m Passing Distance: 120.503m Stopping Distance: 55.666m		

2.00	0+030.146	-3.128%	13.308m
Vertical Curve Information:(sag curve)			
PVC Station: 0+023.492 Elevation: 186.481m			
PVI Station: 0+030.146 Elevation: 185.683m			
PVT Station: 0+036.800 Elevation: 185.474m			
Low Point: 0+036.800 Elevation: 185.474m			
Grade in: -12.000% Grade out: -3.128%			
Change: 8.872% K: 1.499999999999999			
Curve Length: 13.308m			
Headlight Distance: 36.348m			
3.00	0+081.433	6.019%	27.440m
Vertical Curve Information:(sag curve)			
PVC Station: 0+067.713 Elevation: 184.507m			
PVI Station: 0+081.433 Elevation: 184.078m			
PVT Station: 0+095.153 Elevation: 184.904m			
Low Point: 0+077.097 Elevation: 184.361m			
Grade in: -3.128% Grade out: 6.019%			
Change: 9.147% K: 3.000000000000006			
Curve Length: 27.440m			
Headlight Distance: 43.978m			
4.00	0+110.358	0.219%	28.999m
Vertical Curve Information:(crest curve)			
PVC Station: 0+095.858 Elevation: 184.947m			
PVI Station: 0+110.358 Elevation: 185.819m			
PVT Station: 0+124.857 Elevation: 185.851m			
High Point: 0+124.857 Elevation: 185.851m			
Grade in: 6.019% Grade out: 0.219%			
Change: 5.800% K: 5.000000000000013			
Curve Length: 28.999m			
Passing Distance: 281.126m Stopping Distance: 129.087m			
5.00	0+134.910		

RASANTE - RESTABELECIMENTO 42-01A

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	-5.000%	
1.00	0+033.504	-9.000%	36.000m
Vertical Curve Information:(crest curve)			
PVC Station: 0+015.504 Elevation: 193.514m			
PVI Station: 0+033.504 Elevation: 192.614m			
PVT Station: 0+051.504 Elevation: 190.994m			
High Point: 0+015.504 Elevation: 193.514m			
Grade in: -5.000% Grade out: -9.000%			

	Change: 4.000%	K: 9.000000000000556
	Curve Length: 36.000m	
	Passing Distance: 404.591m	Stopping Distance: 184.144m
2.00	0+130.720	1.500%
		42.000m
	Vertical Curve Information:(sag curve)	
	PVC Station: 0+109.720	Elevation: 185.755m
	PVI Station: 0+130.720	Elevation: 183.865m
	PVT Station: 0+151.720	Elevation: 184.180m
	Low Point: 0+145.720	Elevation: 184.135m
	Grade in: -9.000%	Grade out: 1.500%
	Change: 10.500%	K: 4.000000000000158
	Curve Length: 42.000m	
	Headlight Distance: 48.032m	

RASANTE - RESTABELECIMENTO 42-02

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	-1.620%	
1.00	0+016.969	-4.500%	8.640m
	Vertical Curve Information:(crest curve)		
	PVC Station: 0+012.648	Elevation: 159.472m	
	PVI Station: 0+016.969	Elevation: 159.402m	
	PVT Station: 0+021.289	Elevation: 159.207m	
	High Point: 0+012.648	Elevation: 159.472m	
	Grade in: -1.620%	Grade out: -4.500%	
	Change: 2.880%	K: 2.999999999999695	
	Curve Length: 8.640m		
	Passing Distance: 541.238m	Stopping Distance: 235.070m	
2.00	0+041.366	1.087%	16.760m
	Vertical Curve Information:(sag curve)		
	PVC Station: 0+032.986	Elevation: 158.681m	
	PVI Station: 0+041.366	Elevation: 158.304m	
	PVT Station: 0+049.746	Elevation: 158.395m	
	Low Point: 0+046.486	Elevation: 158.377m	
	Grade in: -4.500%	Grade out: 1.087%	
	Change: 5.587%	K: 3.000000000000019	
	Curve Length: 16.760m		
	Headlight Distance: 64.255m		
3.00	0+090.310	14.000%	25.827m
	Vertical Curve Information:(sag curve)		

	PVC Station: 0+077.397 Elevation: 158.696m PVI Station: 0+090.310 Elevation: 158.836m PVT Station: 0+103.224 Elevation: 160.644m Low Point: 0+077.397 Elevation: 158.696m Grade in: 1.087% Grade out: 14.000% Change: 12.913% K: 2.00000000000009 Curve Length: 25.827m Headlight Distance: 32.840m		
4.00	0+132.536	6.249%	15.501m
	Vertical Curve Information:(crest curve) PVC Station: 0+124.785 Elevation: 163.662m PVI Station: 0+132.536 Elevation: 164.747m PVT Station: 0+140.286 Elevation: 165.232m High Point: 0+140.286 Elevation: 165.232m Grade in: 14.000% Grade out: 6.249% Change: 7.751% K: 1.99999999999902 Curve Length: 15.501m Passing Distance: 207.262m Stopping Distance: 93.494m		
5.00	0+150.000		

RASANTE - RESTABELECIMENTO 44-02

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	-11.500%	
1.00	0+006.953	-14.000%	5.000m
	Vertical Curve Information:(crest curve) PVC Station: 0+004.453 Elevation: 116.488m PVI Station: 0+006.953 Elevation: 116.200m PVT Station: 0+009.453 Elevation: 115.850m High Point: 0+004.453 Elevation: 116.488m Grade in: -11.500% Grade out: -14.000% Change: 2.500% K: 2.000000000000075 Curve Length: 5.000m Passing Distance: 621.045m Stopping Distance: 268.330m		
2.00	0+022.171	0.660%	14.660m
	Vertical Curve Information:(sag curve) PVC Station: 0+014.841 Elevation: 115.096m PVI Station: 0+022.171 Elevation: 114.070m PVT Station: 0+029.501 Elevation: 114.118m Low Point: 0+028.841 Elevation: 114.116m Grade in: -14.000% Grade out: 0.660% Change: 14.660% K: 0.99999999999975		

	Curve Length: 14.660m Headlight Distance: 23.807m		
3.00	0+066.026	15.000%	14.340m
	Vertical Curve Information:(sag curve)		
	PVC Station:	0+058.856	Elevation: 114.312m
	PVI Station:	0+066.026	Elevation: 114.359m
	PVT Station:	0+073.196	Elevation: 115.435m
	Low Point:	0+058.856	Elevation: 114.312m
	Grade in:	0.660%	Grade out: 15.000%
	Change:	14.340%	K: 0.999999999999915
	Curve Length:	14.340m	
	Headlight Distance:	24.044m	
4.00	0+084.956	1.074%	9.748m
	Vertical Curve Information:(crest curve)		
	PVC Station:	0+080.082	Elevation: 116.468m
	PVI Station:	0+084.956	Elevation: 117.199m
	PVT Station:	0+089.830	Elevation: 117.251m
	High Point:	0+089.830	Elevation: 117.251m
	Grade in:	15.000%	Grade out: 1.074%
	Change:	13.926%	K: 0.700000000000037
	Curve Length:	9.748m	
	Passing Distance:	115.919m	Stopping Distance: 52.597m

RASANTE - RESTABELECIMENTO 48-01

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	3.501%	
1.00	0+005.510	-3.201%	10.053m
	Vertical Curve Information:(crest curve)		
	PVC Station:	0+000.483	Elevation: 84.875m
	PVI Station:	0+005.510	Elevation: 85.051m
	PVT Station:	0+010.536	Elevation: 84.890m
	High Point:	0+005.734	Elevation: 84.967m
	Grade in:	3.501%	Grade out: -3.201%
	Change:	6.702%	K: 1.49999999999862
	Curve Length:	10.053m	
	Passing Distance:	235.754m	Stopping Distance: 104.186m
2.00	0+040.824	-1.500%	11.911m
	Vertical Curve Information:(sag curve)		
	PVC Station:	0+034.869	Elevation: 84.111m
	PVI Station:	0+040.824	Elevation: 83.920m
	PVT Station:	0+046.780	Elevation: 83.831m
	Low Point:	0+046.780	Elevation: 83.831m

Grade in:	-3.201%	Grade out:	-1.500%
Change:	1.702%	K:	7.00000000005625
Curve Length:	11.911m		
Headlight Distance:			

RASANTE - CP1

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	-0.500%	
1.00	0+019.404	3.200%	11.100m
Vertical Curve Information:(sag curve)			
PVC Station: 0+013.854 Elevation: 280.631m			
PVI Station: 0+019.404 Elevation: 280.603m			
PVT Station: 0+024.954 Elevation: 280.781m			
Low Point: 0+015.354 Elevation: 280.627m			
Grade in: -0.500% Grade out: 3.200%			
Change: 3.700% K: 2.99999999999957			
Curve Length: 11.100m			
Headlight Distance: 112.835m			
2.00	0+065.058	-5.500%	26.100m
Vertical Curve Information:(crest curve)			
PVC Station: 0+052.008 Elevation: 281.646m			
PVI Station: 0+065.058 Elevation: 282.064m			
PVT Station: 0+078.108 Elevation: 281.346m			
High Point: 0+061.608 Elevation: 281.800m			
Grade in: 3.200% Grade out: -5.500%			
Change: 8.700% K: 3.00000000000028			
Curve Length: 26.100m			
Passing Distance: 190.793m Stopping Distance: 89.438m			
3.00	0+213.102	10.500%	56.000m
Vertical Curve Information:(sag curve)			
PVC Station: 0+185.102 Elevation: 275.461m			
PVI Station: 0+213.102 Elevation: 273.921m			
PVT Station: 0+241.102 Elevation: 276.861m			
Low Point: 0+204.352 Elevation: 274.932m			
Grade in: -5.500% Grade out: 10.500%			
Change: 16.000% K: 3.49999999999994			
Curve Length: 56.000m			
Headlight Distance: 44.021m			
4.00	0+298.891	-4.700%	45.600m
Vertical Curve Information:(crest curve)			
PVC Station: 0+276.091 Elevation: 280.535m			
PVI Station: 0+298.891 Elevation: 282.929m			
PVT Station: 0+321.691 Elevation: 281.858m			

	High Point: 0+307.591 Elevation: 282.189m Grade in: 10.500% Grade out: -4.700% Change: 15.200% K: 3.00000000000011 Curve Length: 45.600m Passing Distance: 124.534m Stopping Distance: 66.522m		
5.00	0+349.573	-1.300%	20.400m
	Vertical Curve Information:(sag curve) PVC Station: 0+339.373 Elevation: 281.027m PVI Station: 0+349.573 Elevation: 280.547m PVT Station: 0+359.773 Elevation: 280.415m Low Point: 0+359.773 Elevation: 280.415m Grade in: -4.700% Grade out: -1.300% Change: 3.400% K: 5.9999999999742 Curve Length: 20.400m Headlight Distance: 141.844m		
6.00	0+378.083	-10.700%	18.800m
	Vertical Curve Information:(crest curve) PVC Station: 0+368.683 Elevation: 280.299m PVI Station: 0+378.083 Elevation: 280.177m PVT Station: 0+387.483 Elevation: 279.171m High Point: 0+368.683 Elevation: 280.299m Grade in: -1.300% Grade out: -10.700% Change: 9.400% K: 1.99999999999999 Curve Length: 18.800m Passing Distance: 173.907m Stopping Distance: 80.099m		
7.00	0+418.889	-0.800%	29.700m
	Vertical Curve Information:(sag curve) PVC Station: 0+404.039 Elevation: 277.399m PVI Station: 0+418.889 Elevation: 275.810m PVT Station: 0+433.739 Elevation: 275.692m Low Point: 0+433.739 Elevation: 275.692m Grade in: -10.700% Grade out: -0.800% Change: 9.900% K: 3.00000000000015 Curve Length: 29.700m Headlight Distance: 42.555m		
8.00	0+459.394	-12.000%	33.600m
	Vertical Curve Information:(crest curve) PVC Station: 0+442.594 Elevation: 275.621m PVI Station: 0+459.394 Elevation: 275.486m PVT Station: 0+476.194 Elevation: 273.470m High Point: 0+442.594 Elevation: 275.621m Grade in: -0.800% Grade out: -12.000% Change: 11.200% K: 3.00000000000001 Curve Length: 33.600m		

	Passing Distance: 154.868m Stopping Distance: 76.137m		
9.00	0+556.079	-5.000%	56.000m
	Vertical Curve Information:(sag curve)		
	PVC Station:	0+528.079	Elevation: 267.244m
	PVI Station:	0+556.079	Elevation: 263.884m
	PVT Station:	0+584.079	Elevation: 262.484m
	Low Point:	0+584.079	Elevation: 262.484m
	Grade in:	-12.000%	Grade out: -5.000%
	Change:	7.000%	K: 7.99999999998452
	Curve Length:	56.000m	
	Headlight Distance:	75.364m	
10.00	0+620.146	-9.200%	29.400m
	Vertical Curve Information:(crest curve)		
	PVC Station:	0+605.446	Elevation: 261.416m
	PVI Station:	0+620.146	Elevation: 260.681m
	PVT Station:	0+634.846	Elevation: 259.328m
	High Point:	0+605.446	Elevation: 261.416m
	Grade in:	-5.000%	Grade out: -9.200%
	Change:	4.200%	K: 6.999999999999999
	Curve Length:	29.400m	
	Passing Distance:	382.882m	Stopping Distance: 172.932m

RASANTE – CP2

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	3.031%	
1.00	0+033.115	5.100%	20.692m
	Vertical Curve Information:(sag curve)		
	PVC Station:	0+022.769	Elevation: 282.596m
	PVI Station:	0+033.115	Elevation: 282.910m
	PVT Station:	0+043.461	Elevation: 283.437m
	Low Point:	0+022.769	Elevation: 282.596m
	Grade in:	3.031%	Grade out: 5.100%
	Change:	2.069%	K: 9.99999999999421
	Curve Length:	20.692m	
	Headlight Distance:	684.067m	
2.00	0+099.076	-6.100%	44.800m
	Vertical Curve Information:(crest curve)		
	PVC Station:	0+076.676	Elevation: 285.131m
	PVI Station:	0+099.076	Elevation: 286.274m
	PVT Station:	0+121.476	Elevation: 284.907m
	High Point:	0+097.076	Elevation: 285.652m
	Grade in:	5.100%	Grade out: -6.100%
	Change:	11.200%	K: 4.00000000000019

	Curve Length: 44.800m Passing Distance: 160.468m Stopping Distance: 81.737m		
3.00	0+152.339	6.900%	39.000m
	Vertical Curve Information:(sag curve) PVC Station: 0+132.839 Elevation: 284.214m PVI Station: 0+152.339 Elevation: 283.025m PVT Station: 0+171.839 Elevation: 284.370m Low Point: 0+151.139 Elevation: 283.656m Grade in: -6.100% Grade out: 6.900% Change: 13.000% K: 2.99999999999993 Curve Length: 39.000m Headlight Distance: 40.295m		
4.00	0+221.868	-11.200%	72.400m
	Vertical Curve Information:(crest curve) PVC Station: 0+185.668 Elevation: 285.324m PVI Station: 0+221.868 Elevation: 287.822m PVT Station: 0+258.068 Elevation: 283.768m High Point: 0+213.268 Elevation: 286.277m Grade in: 6.900% Grade out: -11.200% Change: 18.100% K: 4 Curve Length: 72.400m Passing Distance: 121.634m Stopping Distance: 72.917m		
5.00	0+290.246	4.100%	30.600m
	Vertical Curve Information:(sag curve) PVC Station: 0+274.946 Elevation: 281.877m PVI Station: 0+290.246 Elevation: 280.164m PVT Station: 0+305.546 Elevation: 280.791m Low Point: 0+297.346 Elevation: 280.623m Grade in: -11.200% Grade out: 4.100% Change: 15.300% K: 2.000000000000048 Curve Length: 30.600m Headlight Distance: 32.026m		
6.00	0+320.994	-8.600%	25.400m
	Vertical Curve Information:(crest curve) PVC Station: 0+308.294 Elevation: 280.904m PVI Station: 0+320.994 Elevation: 281.425m PVT Station: 0+333.694 Elevation: 280.332m High Point: 0+316.494 Elevation: 281.072m Grade in: 4.100% Grade out: -8.600% Change: 12.700% K: 1.999999999999986 Curve Length: 25.400m Passing Distance: 134.461m Stopping Distance: 65.029m		
7.00	0+369.641	-1.584%	10.524m

Vertical Curve Information:(sag curve)			
PVC Station:	0+364.379	Elevation:	277.693m
PVI Station:	0+369.641	Elevation:	277.241m
PVT Station:	0+374.903	Elevation:	277.157m
Low Point:	0+374.903	Elevation:	277.157m
Grade in:	-8.600%	Grade out:	-1.584%
Change:	7.016%	K:	1.50000000000202
Curve Length:	10.524m		
Headlight Distance:	44.953m		

RASANTE – CP3

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	100,000,000,000,000,000,000,000,000,000.000%	
1.00	0+018.750	12.500%	37.500m
	Vertical Curve Information:(sag curve)		
	PVC Station:	-0+000.000	Elevation: 272.978m
	PVI Station:	0+018.750	Elevation: 272.978m
	PVT Station:	0+037.500	Elevation: 275.322m
	Low Point:	-0+000.000	Elevation: 272.978m
	Grade in:	-0.000%	Grade out: 12.500%
	Change:	12.500%	K: 2.999999999999999
	Curve Length:	37.500m	
	Headlight Distance:	40.390m	
2.00	0+056.500	-6.500%	38.000m
	Vertical Curve Information:(crest curve)		
	PVC Station:	0+037.500	Elevation: 275.322m
	PVI Station:	0+056.500	Elevation: 277.697m
	PVT Station:	0+075.500	Elevation: 276.462m
	High Point:	0+062.500	Elevation: 276.884m
	Grade in:	12.500%	Grade out: -6.500%
	Change:	19.000%	K: 2.000000000000002
	Curve Length:	38.000m	
	Passing Distance:	100.387m	Stopping Distance: 53.978m
3.00	0+133.346	9.500%	64.000m
	Vertical Curve Information:(sag curve)		
	PVC Station:	0+101.346	Elevation: 274.782m
	PVI Station:	0+133.346	Elevation: 272.702m
	PVT Station:	0+165.346	Elevation: 275.742m
	Low Point:	0+127.346	Elevation: 273.937m
	Grade in:	-6.500%	Grade out: 9.500%
	Change:	16.000%	K: 3.999999999999999
	Curve Length:	64.000m	
Headlight Distance:	47.587m		

4.00	0+208.157	-8.600%	54.300m
Vertical Curve Information:(crest curve)			
PVC Station: 0+181.007 Elevation: 277.230m			
PVI Station: 0+208.157 Elevation: 279.809m			
PVT Station: 0+235.307 Elevation: 277.474m			
High Point: 0+209.507 Elevation: 278.583m			
Grade in: 9.500% Grade out: -8.600%			
Change: 18.100% K: 2.99999999999996			
Curve Length: 54.300m			
Passing Distance: 112.584m Stopping Distance: 63.867m			
5.00	0+267.529	12.100%	41.400m
Vertical Curve Information:(sag curve)			
PVC Station: 0+246.829 Elevation: 276.483m			
PVI Station: 0+267.529 Elevation: 274.703m			
PVT Station: 0+288.229 Elevation: 277.207m			
Low Point: 0+264.029 Elevation: 275.743m			
Grade in: -8.600% Grade out: 12.100%			
Change: 20.700% K: 2.000000000000033			
Curve Length: 41.400m			
Headlight Distance: 31.990m			
6.00	0+309.984	-5.648%	35.497m
Vertical Curve Information:(crest curve)			
PVC Station: 0+292.236 Elevation: 277.692m			
PVI Station: 0+309.984 Elevation: 279.840m			
PVT Station: 0+327.732 Elevation: 278.837m			
High Point: 0+316.436 Elevation: 279.156m			
Grade in: 12.100% Grade out: -5.648%			
Change: 17.748% K: 1.999999999999943			
Curve Length: 35.497m			
Passing Distance: 104.876m Stopping Distance: 55.193m			
7.00	0+337.989		

RASANTE – CP4

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	0.500%	
1.00	0+016.000	10.000%	28.500m
Vertical Curve Information:(sag curve)			
PVC Station: 0+001.750 Elevation: 272.809m			
PVI Station: 0+016.000 Elevation: 272.880m			
PVT Station: 0+030.250 Elevation: 274.305m			
Low Point: 0+001.750 Elevation: 272.809m			

	Grade in: 0.500%	Grade out: 10.000%	
	Change: 9.500%	K: 2.99999999999995	
	Curve Length: 28.500m		
	Headlight Distance: 43.249m		
2.00	0+055.771	1.000%	36.000m
	Vertical Curve Information:(crest curve)		
	PVC Station: 0+037.771	Elevation: 275.057m	
	PVI Station: 0+055.771	Elevation: 276.857m	
	PVT Station: 0+073.771	Elevation: 277.037m	
	High Point: 0+073.771	Elevation: 277.037m	
	Grade in: 10.000%	Grade out: 1.000%	
	Change: 9.000%	K: 4.00000000000009	
	Curve Length: 36.000m		
	Passing Distance: 189.818m	Stopping Distance: 91.842m	
3.00	0+090.544	2.689%	6.757m
	Vertical Curve Information:(sag curve)		
	PVC Station: 0+087.166	Elevation: 277.171m	
	PVI Station: 0+090.544	Elevation: 277.205m	
	PVT Station: 0+093.923	Elevation: 277.296m	
	Low Point: 0+087.166	Elevation: 277.171m	
	Grade in: 1.000%	Grade out: 2.689%	
	Change: 1.689%	K: 4.00000000000058	
	Curve Length: 6.757m		
	Headlight Distance:		

RASANTE – CP5

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	-3.715%	
1.00	0+015.685	1.500%	31.289m
	Vertical Curve Information:(sag curve)		
	PVC Station: 0+000.041	Elevation: 277.998m	
	PVI Station: 0+015.685	Elevation: 277.417m	
	PVT Station: 0+031.330	Elevation: 277.652m	
	Low Point: 0+022.330	Elevation: 277.584m	
	Grade in: -3.715%	Grade out: 1.500%	
	Change: 5.215%	K: 6.00000000000026	
	Curve Length: 31.289m		
	Headlight Distance: 81.164m		
2.00	0+092.553	3.954%	24.541m
	Vertical Curve Information:(sag curve)		
	PVC Station: 0+080.282	Elevation: 278.386m	
	PVI Station: 0+092.553	Elevation: 278.570m	
	PVT Station: 0+104.823	Elevation: 279.056m	

Low Point:	0+080.282	Elevation:	278.386m
Grade in:	1.500%	Grade out:	3.954%
Change:	2.454%	K:	9.99999999999758
Curve Length:	24.541m		
Headlight Distance:	324.736m		

RASANTE – CP6

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	-1.169%	
1.00	0+025.000	1.400%	25.693m
Vertical Curve Information:(sag curve)			
PVC Station:	0+012.153	Elevation:	272.975m
PVI Station:	0+025.000	Elevation:	272.825m
PVT Station:	0+037.847	Elevation:	273.005m
Low Point:	0+023.847	Elevation:	272.907m
Grade in:	-1.169%	Grade out:	1.400%
Change:	2.569%	K:	9.99999999999821
Curve Length:	25.693m		
Headlight Distance:	282.832m		
2.00	0+071.879	-5.400%	34.000m
Vertical Curve Information:(crest curve)			
PVC Station:	0+054.879	Elevation:	273.243m
PVI Station:	0+071.879	Elevation:	273.481m
PVT Station:	0+088.879	Elevation:	272.563m
High Point:	0+061.879	Elevation:	273.292m
Grade in:	1.400%	Grade out:	-5.400%
Change:	6.800%	K:	4.99999999999977
Curve Length:	34.000m		
Passing Distance:	244.406m	Stopping Distance:	114.732m
3.00	0+100.349	-1.100%	21.500m
Vertical Curve Information:(sag curve)			
PVC Station:	0+089.599	Elevation:	272.524m
PVI Station:	0+100.349	Elevation:	271.944m
PVT Station:	0+111.099	Elevation:	271.825m
Low Point:	0+111.099	Elevation:	271.825m
Grade in:	-5.400%	Grade out:	-1.100%
Change:	4.300%	K:	5.00000000000016
Curve Length:	21.500m		
Headlight Distance:	96.389m		
4.00	0+126.240	-6.500%	27.000m
Vertical Curve Information:(crest curve)			
PVC Station:	0+112.740	Elevation:	271.807m
PVI Station:	0+126.240	Elevation:	271.659m

	PVT Station: 0+139.740	Elevation: 270.781m	
	High Point: 0+112.740	Elevation: 271.807m	
	Grade in: -1.100%	Grade out: -6.500%	
	Change: 5.400%	K: 4.9999999999784	
	Curve Length: 27.000m		
	Passing Distance: 299.863m	Stopping Distance: 136.569m	
5.00	0+158.547	-1.479%	20.083m
	Vertical Curve Information:(sag curve)		
	PVC Station: 0+148.506	Elevation: 270.212m	
	PVI Station: 0+158.547	Elevation: 269.559m	
	PVT Station: 0+168.589	Elevation: 269.410m	
	Low Point: 0+168.589	Elevation: 269.410m	
	Grade in: -6.500%	Grade out: -1.479%	
	Change: 5.021%	K: 3.9999999999999	
	Curve Length: 20.083m		
	Headlight Distance: 76.458m		
6.00	0+170.897		

RASANTE – CP7

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	-2.340%	
1.00	0+010.693	3.500%	17.521m
	Vertical Curve Information:(sag curve)		
	PVC Station: 0+001.933	Elevation: 275.488m	
	PVI Station: 0+010.693	Elevation: 275.283m	
	PVT Station: 0+019.454	Elevation: 275.590m	
	Low Point: 0+008.954	Elevation: 275.406m	
	Grade in: -2.340%	Grade out: 3.500%	
	Change: 5.840%	K: 3.00000000000224	
	Curve Length: 17.521m		
	Headlight Distance: 61.337m		
2.00	0+040.189	1.750%	13.999m
	Vertical Curve Information:(crest curve)		
	PVC Station: 0+033.190	Elevation: 276.071m	
	PVI Station: 0+040.189	Elevation: 276.316m	
	PVT Station: 0+047.188	Elevation: 276.438m	
	High Point: 0+047.188	Elevation: 276.438m	
	Grade in: 3.500%	Grade out: 1.750%	
	Change: 1.750%	K: 8.0000000000127	
	Curve Length: 13.999m		
	Passing Distance: 890.727m	Stopping Distance: 386.796m	
3.00	0+093.901	-6.300%	16.100m
	Vertical Curve Information:(crest curve)		

	PVC Station: 0+085.851 Elevation: 277.115m PVI Station: 0+093.901 Elevation: 277.256m PVT Station: 0+101.952 Elevation: 276.749m High Point: 0+089.352 Elevation: 277.146m Grade in: 1.750% Grade out: -6.300% Change: 8.050% K: 1.9999999999997 Curve Length: 16.100m Passing Distance: 200.141m Stopping Distance: 90.604m		
4.00	0+113.767	1.611%	15.822m
	Vertical Curve Information:(sag curve)		
	PVC Station: 0+105.856 Elevation: 276.503m PVI Station: 0+113.767 Elevation: 276.004m PVT Station: 0+121.678 Elevation: 276.132m Low Point: 0+118.456 Elevation: 276.106m Grade in: -6.300% Grade out: 1.611% Change: 7.911% K: 2.0000000000004 Curve Length: 15.822m Headlight Distance: 42.589m		
5.00	0+123.113		

RASANTE – CP8

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	-0.747%	
1.00	0+047.285	0.600%	33.681m
	Vertical Curve Information:(sag curve)		
	PVC Station: 0+030.444 Elevation: 276.676m PVI Station: 0+047.285 Elevation: 276.550m PVT Station: 0+064.125 Elevation: 276.652m Low Point: 0+049.125 Elevation: 276.607m Grade in: -0.747% Grade out: 0.600% Change: 1.347% K: 25.0000000000031 Curve Length: 33.681m Headlight Distance:		
2.00	0+120.904	-1.400%	40.000m
	Vertical Curve Information:(crest curve)		
	PVC Station: 0+100.904 Elevation: 276.872m PVI Station: 0+120.904 Elevation: 276.992m PVT Station: 0+140.904 Elevation: 276.712m High Point: 0+112.904 Elevation: 276.908m Grade in: 0.600% Grade out: -1.400% Change: 2.000% K: 19.9999999999974 Curve Length: 40.000m Passing Distance: 793.181m Stopping Distance: 352.288m		

3.00	0+185.553	1.200%	52.000m
Vertical Curve Information:(sag curve)			
PVC Station: 0+159.553 Elevation: 276.451m			
PVI Station: 0+185.553 Elevation: 276.087m			
PVT Station: 0+211.553 Elevation: 276.399m			
Low Point: 0+187.553 Elevation: 276.255m			
Grade in: -1.400% Grade out: 1.200%			
Change: 2.600% K: 20.0000000000068			
Curve Length: 52.000m			
Headlight Distance: 313.168m			
4.00	0+298.390	3.200%	30.000m
Vertical Curve Information:(sag curve)			
PVC Station: 0+283.390 Elevation: 277.261m			
PVI Station: 0+298.390 Elevation: 277.441m			
PVT Station: 0+313.390 Elevation: 277.921m			
Low Point: 0+283.390 Elevation: 277.261m			
Grade in: 1.200% Grade out: 3.200%			
Change: 2.000% K: 14.9999999999961			
Curve Length: 30.000m			
Headlight Distance: 903.756m			
5.00	0+383.855	-1.100%	43.000m
Vertical Curve Information:(crest curve)			
PVC Station: 0+362.355 Elevation: 279.488m			
PVI Station: 0+383.855 Elevation: 280.176m			
PVT Station: 0+405.355 Elevation: 279.940m			
High Point: 0+394.355 Elevation: 280.000m			
Grade in: 3.200% Grade out: -1.100%			
Change: 4.300% K: 10.0000000000061			
Curve Length: 43.000m			
Passing Distance: 381.119m Stopping Distance: 176.052m			
6.00	0+605.899	-3.500%	12.000m
Vertical Curve Information:(crest curve)			
PVC Station: 0+599.899 Elevation: 277.800m			
PVI Station: 0+605.899 Elevation: 277.734m			
PVT Station: 0+611.899 Elevation: 277.524m			
High Point: 0+599.899 Elevation: 277.800m			
Grade in: -1.100% Grade out: -3.500%			
Change: 2.400% K: 4.99999999999744			
Curve Length: 12.000m			
Passing Distance: 650.318m Stopping Distance: 282.906m			
7.00	0+651.981	7.000%	42.000m
Vertical Curve Information:(sag curve)			
PVC Station: 0+630.981 Elevation: 276.856m			
PVI Station: 0+651.981 Elevation: 276.121m			

	PVT Station: 0+672.981	Elevation: 277.591m	
	Low Point: 0+644.981	Elevation: 276.611m	
	Grade in: -3.500%	Grade out: 7.000%	
	Change: 10.500%	K: 3.99999999999929	
	Curve Length: 42.000m		
	Headlight Distance: 48.032m		
8.00	0+701.365	-3.000%	40.000m
	Vertical Curve Information:(crest curve)		
	PVC Station: 0+681.365	Elevation: 278.178m	
	PVI Station: 0+701.365	Elevation: 279.578m	
	PVT Station: 0+721.365	Elevation: 278.978m	
	High Point: 0+709.365	Elevation: 279.158m	
	Grade in: 7.000%	Grade out: -3.000%	
	Change: 10.000%	K: 4.00000000000007	
	Curve Length: 40.000m		
	Passing Distance: 174.636m	Stopping Distance: 86.458m	
9.00	0+749.763	-0.500%	22.500m
	Vertical Curve Information:(sag curve)		
	PVC Station: 0+738.513	Elevation: 278.463m	
	PVI Station: 0+749.763	Elevation: 278.126m	
	PVT Station: 0+761.013	Elevation: 278.069m	
	Low Point: 0+761.013	Elevation: 278.069m	
	Grade in: -3.000%	Grade out: -0.500%	
	Change: 2.500%	K: 9.000000000000127	
	Curve Length: 22.500m		
	Headlight Distance: 302.355m		
10.00	0+821.261	-4.800%	21.500m
	Vertical Curve Information:(crest curve)		
	PVC Station: 0+810.511	Elevation: 277.822m	
	PVI Station: 0+821.261	Elevation: 277.768m	
	PVT Station: 0+832.011	Elevation: 277.252m	
	High Point: 0+810.511	Elevation: 277.822m	
	Grade in: -0.500%	Grade out: -4.800%	
	Change: 4.300%	K: 5.000000000000479	
	Curve Length: 21.500m		
	Passing Distance: 370.369m	Stopping Distance: 165.302m	
11.00	0+875.387	-3.547%	18.798m
	Vertical Curve Information:(sag curve)		
	PVC Station: 0+865.989	Elevation: 275.621m	
	PVI Station: 0+875.387	Elevation: 275.170m	
	PVT Station: 0+884.786	Elevation: 274.837m	
	Low Point: 0+884.786	Elevation: 274.837m	
	Grade in: -4.800%	Grade out: -3.547%	
	Change: 1.253%	K: 15.000000000000192	

	Curve Length: 18.798m		
	Headlight Distance:		
12.00	0+890.012		

RASANTE – CP9

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	5.350%	
1.00	0+018.472	-4.000%	18.700m
Vertical Curve Information:(crest curve)			
PVC Station: 0+009.122 Elevation: 277.565m			
PVI Station: 0+018.472 Elevation: 278.065m			
PVT Station: 0+027.822 Elevation: 277.691m			
High Point: 0+019.821 Elevation: 277.851m			
Grade in: 5.350% Grade out: -4.000%			
Change: 9.350% K: 1.99999999999976			
Curve Length: 18.700m			
Passing Distance: 174.737m Stopping Distance: 80.428m			
2.00	0+051.874	5.000%	18.000m
Vertical Curve Information:(sag curve)			
PVC Station: 0+042.874 Elevation: 277.089m			
PVI Station: 0+051.874 Elevation: 276.729m			
PVT Station: 0+060.874 Elevation: 277.179m			
Low Point: 0+050.874 Elevation: 276.929m			
Grade in: -4.000% Grade out: 5.000%			
Change: 9.000% K: 1.99999999999984			
Curve Length: 18.000m			
Headlight Distance: 38.734m			
3.00	0+077.334	-7.500%	25.000m
Vertical Curve Information:(crest curve)			
PVC Station: 0+064.834 Elevation: 277.377m			
PVI Station: 0+077.334 Elevation: 278.002m			
PVT Station: 0+089.834 Elevation: 277.064m			
High Point: 0+074.834 Elevation: 277.627m			
Grade in: 5.000% Grade out: -7.500%			
Change: 12.500% K: 2.00000000000006			
Curve Length: 25.000m			
Passing Distance: 136.209m Stopping Distance: 65.666m			
4.00	0+173.245	3.100%	106.000m
Vertical Curve Information:(sag curve)			
PVC Station: 0+120.245 Elevation: 274.783m			
PVI Station: 0+173.245 Elevation: 270.808m			
PVT Station: 0+226.245 Elevation: 272.451m			
Low Point: 0+195.245 Elevation: 271.971m			

	Grade in: -7.500% Grade out: 3.100% Change: 10.600% K: 9.9999999999981 Curve Length: 106.000m Headlight Distance: 83.065m		
5.00	0+375.000	-2.500%	44.800m
	Vertical Curve Information:(crest curve) PVC Station: 0+352.600 Elevation: 276.368m PVI Station: 0+375.000 Elevation: 277.063m PVT Station: 0+397.400 Elevation: 276.503m High Point: 0+377.400 Elevation: 276.753m Grade in: 3.100% Grade out: -2.500% Change: 5.600% K: 8.00000000000171 Curve Length: 44.800m Passing Distance: 298.536m Stopping Distance: 141.074m		
6.00	0+467.795	-12.000%	38.000m
	Vertical Curve Information:(crest curve) PVC Station: 0+448.795 Elevation: 275.218m PVI Station: 0+467.795 Elevation: 274.743m PVT Station: 0+486.795 Elevation: 272.463m High Point: 0+448.795 Elevation: 275.218m Grade in: -2.500% Grade out: -12.000% Change: 9.500% K: 4.00000000000004 Curve Length: 38.000m Passing Distance: 181.775m Stopping Distance: 88.955m		
7.00	0+518.023	2.800%	59.200m
	Vertical Curve Information:(sag curve) PVC Station: 0+488.423 Elevation: 272.267m PVI Station: 0+518.023 Elevation: 268.715m PVT Station: 0+547.623 Elevation: 269.544m Low Point: 0+536.423 Elevation: 269.387m Grade in: -12.000% Grade out: 2.800% Change: 14.800% K: 3.99999999999999 Curve Length: 59.200m Headlight Distance: 47.587m		
8.00	0+600.118	12.000%	46.000m
	Vertical Curve Information:(sag curve) PVC Station: 0+577.118 Elevation: 270.370m PVI Station: 0+600.118 Elevation: 271.014m PVT Station: 0+623.118 Elevation: 273.774m Low Point: 0+577.118 Elevation: 270.370m Grade in: 2.800% Grade out: 12.000% Change: 9.200% K: 4.99999999999984 Curve Length: 46.000m Headlight Distance: 55.215m		

9.00	0+678.243	-4.000%	80.000m
Vertical Curve Information:(crest curve)			
PVC Station:	0+638.243	Elevation:	275.589m
PVI Station:	0+678.243	Elevation:	280.389m
PVT Station:	0+718.243	Elevation:	278.789m
High Point:	0+698.243	Elevation:	279.189m
Grade in:	12.000%	Grade out:	-4.000%
Change:	16.000%	K:	4.99999999999997
Curve Length:	80.000m		
Passing Distance:	136.648m	Stopping Distance:	81.536m
10.00	0+787.710	6.000%	40.000m
Vertical Curve Information:(sag curve)			
PVC Station:	0+767.710	Elevation:	276.811m
PVI Station:	0+787.710	Elevation:	276.011m
PVT Station:	0+807.710	Elevation:	277.211m
Low Point:	0+783.710	Elevation:	276.491m
Grade in:	-4.000%	Grade out:	6.000%
Change:	10.000%	K:	3.999999999999927
Curve Length:	40.000m		
Headlight Distance:	48.458m		
11.00	0+832.157	-4.757%	43.028m
Vertical Curve Information:(crest curve)			
PVC Station:	0+810.643	Elevation:	277.387m
PVI Station:	0+832.157	Elevation:	278.677m
PVT Station:	0+853.671	Elevation:	277.654m
High Point:	0+834.643	Elevation:	278.107m
Grade in:	6.000%	Grade out:	-4.757%
Change:	10.757%	K:	3.99999999999992
Curve Length:	43.028m		
Passing Distance:	165.268m	Stopping Distance:	83.295m

RASANTE - CP10

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	1.000%	
1.00	0+024.994	6.500%	44.000m
Vertical Curve Information:(sag curve)			
PVC Station:	0+002.994	Elevation:	280.142m
PVI Station:	0+024.994	Elevation:	280.362m
PVT Station:	0+046.995	Elevation:	281.792m
Low Point:	0+002.994	Elevation:	280.142m
Grade in:	1.000%	Grade out:	6.500%
Change:	5.500%	K:	8.000000000000251
Curve Length:	44.000m		

	Headlight Distance: 85.497m		
2.00	0+143.357	-2.480%	107.756m
	Vertical Curve Information:(crest curve)		
	PVC Station:	0+089.479	Elevation: 284.554m
	PVI Station:	0+143.357	Elevation: 288.056m
	PVT Station:	0+197.235	Elevation: 286.719m
	High Point:	0+167.476	Elevation: 287.088m
	Grade in:	6.500%	Grade out: -2.480%
	Change:	8.980%	K: 11.999999999998
	Curve Length:	107.756m	
	Passing Distance:	226.085m	Stopping Distance: 127.887m
3.00	0+223.182		

RASANTE - CP11

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	4.708%	
1.00	0+088.999	-2.700%	44.450m
	Vertical Curve Information:(crest curve)		
	PVC Station:	0+066.774	Elevation: 281.797m
	PVI Station:	0+088.999	Elevation: 282.844m
	PVT Station:	0+111.224	Elevation: 282.244m
	High Point:	0+095.024	Elevation: 282.462m
	Grade in:	4.708%	Grade out: -2.700%
	Change:	7.408%	K: 5.999999999999
	Curve Length:	44.450m	
	Passing Distance:	230.958m	Stopping Distance: 111.932m
2.00	0+141.885	8.000%	21.400m
	Vertical Curve Information:(sag curve)		
	PVC Station:	0+131.185	Elevation: 281.705m
	PVI Station:	0+141.885	Elevation: 281.416m
	PVT Station:	0+152.585	Elevation: 282.272m
	Low Point:	0+136.585	Elevation: 281.632m
	Grade in:	-2.700%	Grade out: 8.000%
	Change:	10.700%	K: 2.00000000000036
	Curve Length:	21.400m	
	Headlight Distance:	35.121m	
3.00	0+167.764	-1.195%	27.586m
	Vertical Curve Information:(crest curve)		
	PVC Station:	0+153.971	Elevation: 282.383m
	PVI Station:	0+167.764	Elevation: 283.486m
	PVT Station:	0+181.557	Elevation: 283.321m
	High Point:	0+177.971	Elevation: 283.343m
	Grade in:	8.000%	Grade out: -1.195%

Change:	9.195%	K:	3.000000000000156
Curve Length:	27.586m		
Passing Distance:	181.963m	Stopping Distance:	86.067m

RASANTE - CP12

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	1.186%	
1.00	0+026.906	-11.500%	50.744m
Vertical Curve Information:(crest curve)			
PVC Station:	0+001.534	Elevation:	272.836m
PVI Station:	0+026.906	Elevation:	273.137m
PVT Station:	0+052.278	Elevation:	270.219m
High Point:	0+006.278	Elevation:	272.864m
Grade in:	1.186%	Grade out:	-11.500%
Change:	12.686%	K:	4.000000000000023
Curve Length:	50.744m		
Passing Distance:	147.267m	Stopping Distance:	77.758m
2.00	0+110.327	14.000%	76.500m
Vertical Curve Information:(sag curve)			
PVC Station:	0+072.077	Elevation:	267.943m
PVI Station:	0+110.327	Elevation:	263.544m
PVT Station:	0+148.577	Elevation:	268.899m
Low Point:	0+106.577	Elevation:	265.959m
Grade in:	-11.500%	Grade out:	14.000%
Change:	25.500%	K:	2.999999999999999
Curve Length:	76.500m		
Headlight Distance:	40.271m		
3.00	0+204.545	4.600%	37.600m
Vertical Curve Information:(crest curve)			
PVC Station:	0+185.745	Elevation:	274.102m
PVI Station:	0+204.545	Elevation:	276.734m
PVT Station:	0+223.345	Elevation:	277.599m
High Point:	0+223.345	Elevation:	277.599m
Grade in:	14.000%	Grade out:	4.600%
Change:	9.400%	K:	4
Curve Length:	37.600m		
Passing Distance:	183.307m	Stopping Distance:	89.499m
4.00	0+267.352	-1.700%	31.500m
Vertical Curve Information:(crest curve)			
PVC Station:	0+251.602	Elevation:	278.899m
PVI Station:	0+267.352	Elevation:	279.623m
PVT Station:	0+283.102	Elevation:	279.356m
High Point:	0+274.602	Elevation:	279.428m

Grade in: 4.600% Grade out: -1.700% Change: 6.300% K: 4.9999999999993 Curve Length: 31.500m Passing Distance: 261.204m Stopping Distance: 121.238m			
5.00	0+313.023	0.722%	
6.00	0+334.217		

RASANTE - CP13

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	-1.060%	
1.00	0+014.723	-8.600%	22.621m
Vertical Curve Information:(crest curve)			
PVC Station: 0+003.412 Elevation: 277.947m PVI Station: 0+014.723 Elevation: 277.827m PVT Station: 0+026.033 Elevation: 276.855m High Point: 0+003.412 Elevation: 277.947m Grade in: -1.060% Grade out: -8.600% Change: 7.540% K: 3.00000000000026 Curve Length: 22.621m Passing Distance: 216.391m Stopping Distance: 99.447m			
2.00	0+050.583	4.900%	27.000m
Vertical Curve Information:(sag curve)			
PVC Station: 0+037.083 Elevation: 275.904m PVI Station: 0+050.583 Elevation: 274.743m PVT Station: 0+064.083 Elevation: 275.405m Low Point: 0+054.283 Elevation: 275.165m Grade in: -8.600% Grade out: 4.900% Change: 13.500% K: 2 Curve Length: 27.000m Headlight Distance: 32.519m			
3.00	0+108.491	2.300%	31.200m
Vertical Curve Information:(crest curve)			
PVC Station: 0+092.891 Elevation: 276.817m PVI Station: 0+108.491 Elevation: 277.581m PVT Station: 0+124.091 Elevation: 277.940m High Point: 0+124.091 Elevation: 277.940m Grade in: 4.900% Grade out: 2.300% Change: 2.600% K: 12.00000000000088 Curve Length: 31.200m Passing Distance: 610.355m Stopping Distance: 271.206m			
4.00	0+224.236	14.600%	49.200m
Vertical Curve Information:(sag curve)			

	PVC Station:	0+199.636	Elevation:	279.677m
	PVI Station:	0+224.236	Elevation:	280.243m
	PVT Station:	0+248.836	Elevation:	283.835m
	Low Point:	0+199.636	Elevation:	279.677m
	Grade in:	2.300%	Grade out:	14.600%
	Change:	12.300%	K:	4.00000000000037
	Curve Length:	49.200m		
	Headlight Distance:	47.587m		
5.00	0+279.174	-6.209%	41.618m	
	Vertical Curve Information:(crest curve)			
	PVC Station:	0+258.364	Elevation:	285.226m
	PVI Station:	0+279.174	Elevation:	288.264m
	PVT Station:	0+299.983	Elevation:	286.972m
	High Point:	0+287.564	Elevation:	287.357m
	Grade in:	14.600%	Grade out:	-6.209%
	Change:	20.809%	K:	1.99999999999987
	Curve Length:	41.618m		
	Passing Distance:	95.121m	Stopping Distance:	52.746m

RASANTE - CP14

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	-9.197%	
1.00	0+021.422	-10.500%	26.069m
	Vertical Curve Information:(crest curve)		
	PVC Station:	0+008.387	Elevation: 200.308m
	PVI Station:	0+021.422	Elevation: 199.109m
	PVT Station:	0+034.456	Elevation: 197.740m
	High Point:	0+008.387	Elevation: 200.308m
	Grade in:	-9.197%	Grade out: -10.500%
	Change:	1.303%	K: 20.0000000000003
	Curve Length:	26.069m	
	Passing Distance:	1,199.386m	Stopping Distance: 522.889m
2.00	0+073.033	-4.100%	12.800m
	Vertical Curve Information:(sag curve)		
	PVC Station:	0+066.633	Elevation: 194.362m
	PVI Station:	0+073.033	Elevation: 193.690m
	PVT Station:	0+079.433	Elevation: 193.428m
	Low Point:	0+079.433	Elevation: 193.428m
	Grade in:	-10.500%	Grade out: -4.100%
	Change:	6.400%	K: 1.99999999999869
	Curve Length:	12.800m	
	Headlight Distance:	51.769m	
3.00	0+114.787	8.500%	31.496m

	Vertical Curve Information:(sag curve)		
	PVC Station:	0+099.039	Elevation: 192.624m
	PVI Station:	0+114.787	Elevation: 191.978m
	PVT Station:	0+130.535	Elevation: 193.317m
	Low Point:	0+109.287	Elevation: 192.414m
	Grade in:	-4.100%	Grade out: 8.500%
	Change:	12.600%	K: 2.49968693739814
	Curve Length:	31.496m	
	Headlight Distance:	36.706m	
4.00	0+146.310	-5.500%	28.000m
	Vertical Curve Information:(crest curve)		
	PVC Station:	0+132.310	Elevation: 193.468m
	PVI Station:	0+146.310	Elevation: 194.658m
	PVT Station:	0+160.310	Elevation: 193.888m
	High Point:	0+149.310	Elevation: 194.190m
	Grade in:	8.500%	Grade out: -5.500%
	Change:	14.000%	K: 2.00000000000001
	Curve Length:	28.000m	
	Passing Distance:	124.454m	Stopping Distance: 61.470m
5.00	0+178.742	8.000%	27.000m
	Vertical Curve Information:(sag curve)		
	PVC Station:	0+165.242	Elevation: 193.616m
	PVI Station:	0+178.742	Elevation: 192.874m
	PVT Station:	0+192.242	Elevation: 193.954m
	Low Point:	0+176.242	Elevation: 193.314m
	Grade in:	-5.500%	Grade out: 8.000%
	Change:	13.500%	K: 2.00000000000001
	Curve Length:	27.000m	
	Headlight Distance:	32.519m	
6.00	0+215.999	-5.000%	26.000m
	Vertical Curve Information:(crest curve)		
	PVC Station:	0+202.999	Elevation: 194.814m
	PVI Station:	0+215.999	Elevation: 195.854m
	PVT Station:	0+228.999	Elevation: 195.204m
	High Point:	0+218.999	Elevation: 195.454m
	Grade in:	8.000%	Grade out: -5.000%
	Change:	13.000%	K: 2.00000000000011
	Curve Length:	26.000m	
	Passing Distance:	131.951m	Stopping Distance: 64.121m
7.00	0+247.301		

RASANTE - CP15

PVI	Station	Grade Out	Curve Length
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0.00	0+000.000	-6.795%																																	
1.00	0+047.109	14.500%	42.590m																																
Vertical Curve Information:(sag curve) <table> <tr> <td>PVC Station:</td><td>0+025.814</td><td>Elevation:</td><td>184.028m</td></tr> <tr> <td>PVI Station:</td><td>0+047.109</td><td>Elevation:</td><td>182.581m</td></tr> <tr> <td>PVT Station:</td><td>0+068.404</td><td>Elevation:</td><td>185.669m</td></tr> <tr> <td>Low Point:</td><td>0+039.404</td><td>Elevation:</td><td>183.566m</td></tr> <tr> <td>Grade in:</td><td>-6.795%</td><td>Grade out:</td><td>14.500%</td></tr> <tr> <td>Change:</td><td>21.295%</td><td>K:</td><td>1.99999999999999</td></tr> <tr> <td>Curve Length:</td><td>42.590m</td><td></td><td></td></tr> <tr> <td>Headlight Distance:</td><td>31.990m</td><td></td><td></td></tr> </table>				PVC Station:	0+025.814	Elevation:	184.028m	PVI Station:	0+047.109	Elevation:	182.581m	PVT Station:	0+068.404	Elevation:	185.669m	Low Point:	0+039.404	Elevation:	183.566m	Grade in:	-6.795%	Grade out:	14.500%	Change:	21.295%	K:	1.99999999999999	Curve Length:	42.590m			Headlight Distance:	31.990m		
PVC Station:	0+025.814	Elevation:	184.028m																																
PVI Station:	0+047.109	Elevation:	182.581m																																
PVT Station:	0+068.404	Elevation:	185.669m																																
Low Point:	0+039.404	Elevation:	183.566m																																
Grade in:	-6.795%	Grade out:	14.500%																																
Change:	21.295%	K:	1.99999999999999																																
Curve Length:	42.590m																																		
Headlight Distance:	31.990m																																		
2.00	0+102.363	-14.500%	43.500m																																
Vertical Curve Information:(crest curve) <table> <tr> <td>PVC Station:</td><td>0+080.613</td><td>Elevation:</td><td>187.439m</td></tr> <tr> <td>PVI Station:</td><td>0+102.363</td><td>Elevation:</td><td>190.593m</td></tr> <tr> <td>PVT Station:</td><td>0+124.113</td><td>Elevation:</td><td>187.439m</td></tr> <tr> <td>High Point:</td><td>0+102.363</td><td>Elevation:</td><td>189.016m</td></tr> <tr> <td>Grade in:</td><td>14.500%</td><td>Grade out:</td><td>-14.500%</td></tr> <tr> <td>Change:</td><td>29.000%</td><td>K:</td><td>1.50000000000001</td></tr> <tr> <td>Curve Length:</td><td>43.500m</td><td></td><td></td></tr> <tr> <td>Passing Distance:</td><td>75.073m</td><td>Stopping Distance:</td><td>44.666m</td></tr> </table>				PVC Station:	0+080.613	Elevation:	187.439m	PVI Station:	0+102.363	Elevation:	190.593m	PVT Station:	0+124.113	Elevation:	187.439m	High Point:	0+102.363	Elevation:	189.016m	Grade in:	14.500%	Grade out:	-14.500%	Change:	29.000%	K:	1.50000000000001	Curve Length:	43.500m			Passing Distance:	75.073m	Stopping Distance:	44.666m
PVC Station:	0+080.613	Elevation:	187.439m																																
PVI Station:	0+102.363	Elevation:	190.593m																																
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Curve Length:	43.500m																																		
Passing Distance:	75.073m	Stopping Distance:	44.666m																																
3.00	0+139.528	5.700%	30.300m																																
Vertical Curve Information:(sag curve) <table> <tr> <td>PVC Station:</td><td>0+124.378</td><td>Elevation:</td><td>187.401m</td></tr> <tr> <td>PVI Station:</td><td>0+139.528</td><td>Elevation:</td><td>185.204m</td></tr> <tr> <td>PVT Station:</td><td>0+154.678</td><td>Elevation:</td><td>186.067m</td></tr> <tr> <td>Low Point:</td><td>0+146.128</td><td>Elevation:</td><td>185.824m</td></tr> <tr> <td>Grade in:</td><td>-14.500%</td><td>Grade out:</td><td>5.700%</td></tr> <tr> <td>Change:</td><td>20.200%</td><td>K:</td><td>1.49999999999999</td></tr> <tr> <td>Curve Length:</td><td>30.300m</td><td></td><td></td></tr> <tr> <td>Headlight Distance:</td><td>27.253m</td><td></td><td></td></tr> </table>				PVC Station:	0+124.378	Elevation:	187.401m	PVI Station:	0+139.528	Elevation:	185.204m	PVT Station:	0+154.678	Elevation:	186.067m	Low Point:	0+146.128	Elevation:	185.824m	Grade in:	-14.500%	Grade out:	5.700%	Change:	20.200%	K:	1.49999999999999	Curve Length:	30.300m			Headlight Distance:	27.253m		
PVC Station:	0+124.378	Elevation:	187.401m																																
PVI Station:	0+139.528	Elevation:	185.204m																																
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Grade in:	-14.500%	Grade out:	5.700%																																
Change:	20.200%	K:	1.49999999999999																																
Curve Length:	30.300m																																		
Headlight Distance:	27.253m																																		
4.00	0+176.543	-14.500%	40.400m																																
Vertical Curve Information:(crest curve) <table> <tr> <td>PVC Station:</td><td>0+156.343</td><td>Elevation:</td><td>186.162m</td></tr> <tr> <td>PVI Station:</td><td>0+176.543</td><td>Elevation:</td><td>187.314m</td></tr> <tr> <td>PVT Station:</td><td>0+196.743</td><td>Elevation:</td><td>184.385m</td></tr> <tr> <td>High Point:</td><td>0+167.743</td><td>Elevation:</td><td>186.487m</td></tr> <tr> <td>Grade in:</td><td>5.700%</td><td>Grade out:</td><td>-14.500%</td></tr> <tr> <td>Change:</td><td>20.200%</td><td>K:</td><td>2</td></tr> <tr> <td>Curve Length:</td><td>40.400m</td><td></td><td></td></tr> <tr> <td>Passing Distance:</td><td>96.753m</td><td>Stopping Distance:</td><td>53.100m</td></tr> </table>				PVC Station:	0+156.343	Elevation:	186.162m	PVI Station:	0+176.543	Elevation:	187.314m	PVT Station:	0+196.743	Elevation:	184.385m	High Point:	0+167.743	Elevation:	186.487m	Grade in:	5.700%	Grade out:	-14.500%	Change:	20.200%	K:	2	Curve Length:	40.400m			Passing Distance:	96.753m	Stopping Distance:	53.100m
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5.00	0+221.225	7.500%	44.000m																																
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	PVI Station:	0+221.225	Elevation:	180.835m
	PVT Station:	0+243.225	Elevation:	182.485m
	Low Point:	0+228.225	Elevation:	181.922m
	Grade in:	-14.500%	Grade out:	7.500%
	Change:	22.000%	K:	2.00000000000001
	Curve Length:	44.000m		
	Headlight Distance:	31.990m		
6.00	0+272.953	-9.200%	33.400m	
	Vertical Curve Information:(crest curve)			
	PVC Station:	0+256.253	Elevation:	183.462m
	PVI Station:	0+272.953	Elevation:	184.715m
	PVT Station:	0+289.653	Elevation:	183.178m
	High Point:	0+271.253	Elevation:	184.025m
	Grade in:	7.500%	Grade out:	-9.200%
	Change:	16.700%	K:	2
	Curve Length:	33.400m		
	Passing Distance:	109.297m	Stopping Distance:	56.495m
7.00	0+312.758	-4.481%	23.595m	
	Vertical Curve Information:(sag curve)			
	PVC Station:	0+300.960	Elevation:	182.138m
	PVI Station:	0+312.758	Elevation:	181.052m
	PVT Station:	0+324.555	Elevation:	180.524m
	Low Point:	0+324.555	Elevation:	180.524m
	Grade in:	-9.200%	Grade out:	-4.481%
	Change:	4.719%	K:	5.00000000000007
	Curve Length:	23.595m		
	Headlight Distance:	85.984m		

RASANTE – SC-Acesso Telemática 1

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	3.155%	
1.00	0+015.471	14.500%	22.690m
	Vertical Curve Information:(sag curve)		
	PVC Station:	0+004.126	Elevation: 263.517m
	PVI Station:	0+015.471	Elevation: 263.875m
	PVT Station:	0+026.816	Elevation: 265.520m
	Low Point:	0+004.126	Elevation: 263.517m
	Grade in:	3.155%	Grade out: 14.500%
	Change:	11.345%	K: 2.00000000000018
	Curve Length:	22.690m	
	Headlight Distance:	34.242m	
2.00	0+052.517	5.000%	19.000m
	Vertical Curve Information:(crest curve)		

	PVC Station:	0+043.017	Elevation:	267.869m
	PVI Station:	0+052.517	Elevation:	269.247m
	PVT Station:	0+062.017	Elevation:	269.722m
	High Point:	0+062.017	Elevation:	269.722m
	Grade in:	14.500%	Grade out:	5.000%
	Change:	9.500%	K:	2.000000000000074
	Curve Length:	19.000m		
	Passing Distance:	172.275m	Stopping Distance:	79.455m
3.00	0+063.083			

RASANTE – SC-Acesso Telemática 2

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	11.300%	
1.00	0+012.259	-10.500%	21.800m
Vertical Curve Information:(crest curve)			
	PVC Station:	0+001.359	Elevation: 285.720m
	PVI Station:	0+012.259	Elevation: 286.952m
	PVT Station:	0+023.159	Elevation: 285.807m
	High Point:	0+012.659	Elevation: 286.358m
	Grade in:	11.300%	Grade out: -10.500%
	Change:	21.800%	K: 1.000000000000002
	Curve Length:	21.800m	
	Passing Distance:	81.834m	Stopping Distance: 41.385m
2.00	0+067.279	1.500%	36.000m
Vertical Curve Information:(sag curve)			
	PVC Station:	0+049.279	Elevation: 283.065m
	PVI Station:	0+067.279	Elevation: 281.175m
	PVT Station:	0+085.279	Elevation: 281.445m
	Low Point:	0+080.779	Elevation: 281.411m
	Grade in:	-10.500%	Grade out: 1.500%
	Change:	12.000%	K: 2.999999999999994
	Curve Length:	36.000m	
	Headlight Distance:	40.568m	
3.00	0+119.123	-2.292%	18.961m
Vertical Curve Information:(crest curve)			
	PVC Station:	0+109.642	Elevation: 281.810m
	PVI Station:	0+119.123	Elevation: 281.952m
	PVT Station:	0+128.603	Elevation: 281.735m
	High Point:	0+117.142	Elevation: 281.866m
	Grade in:	1.500%	Grade out: -2.292%
	Change:	3.792%	K: 4.999999999999864
	Curve Length:	18.961m	

	Passing Distance: 417.258m	Stopping Distance: 184.730m	
4.00	0+131.610		

RASANTE – SC-Acesso Telemática 3

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	13.500%	
1.00	0+023.663	2.700%	27.000m
Vertical Curve Information:(crest curve)			
PVC Station: 0+010.163 Elevation: 294.412m			
PVI Station: 0+023.663 Elevation: 296.234m			
PVT Station: 0+037.163 Elevation: 296.599m			
High Point: 0+037.163 Elevation: 296.599m			
Grade in: 13.500% Grade out: 2.700%			
Change: 10.800% K: 2.49999999999985			
Curve Length: 27.000m			
Passing Distance: 156.682m Stopping Distance: 75.035m			

RASANTE – SC-Acesso Telemática 4

PVI	Station	Grade Out	Curve Length
0.00	0+000.000	-2.000%	
1.00	0+010.540	-14.000%	18.000m
Vertical Curve Information:(crest curve)			
PVC Station: 0+001.540 Elevation: 312.017m			
PVI Station: 0+010.540 Elevation: 311.837m			
PVT Station: 0+019.540 Elevation: 310.577m			
High Point: 0+001.540 Elevation: 312.017m			
Grade in: -2.000% Grade out: -14.000%			
Change: 12.000% K: 1.49999999999997			
Curve Length: 18.000m			
Passing Distance: 137.864m Stopping Distance: 64.381m			
2.00	0+030.804	-1.800%	18.300m
Vertical Curve Information:(sag curve)			
PVC Station: 0+021.654 Elevation: 310.281m			
PVI Station: 0+030.804 Elevation: 309.000m			
PVT Station: 0+039.954 Elevation: 308.835m			
Low Point: 0+039.954 Elevation: 308.835m			
Grade in: -14.000% Grade out: -1.800%			
Change: 12.200% K: 1.50000000000002			
Curve Length: 18.300m			
Headlight Distance: 29.808m			
3.00	0+078.628	2.100%	39.000m

Vertical Curve Information:(sag curve)			
PVC Station:	0+059.128	Elevation:	308.490m
PVI Station:	0+078.628	Elevation:	308.139m
PVT Station:	0+098.128	Elevation:	308.549m
Low Point:	0+077.128	Elevation:	308.328m
Grade in:	-1.800%	Grade out:	2.100%
Change:	3.900%	K:	10.0000000000002
Curve Length:	39.000m		
Headlight Distance:	128.128m		
4.00	0+152.775	7.200%	25.500m
Vertical Curve Information:(sag curve)			
PVC Station:	0+140.025	Elevation:	309.428m
PVI Station:	0+152.775	Elevation:	309.696m
PVT Station:	0+165.525	Elevation:	310.614m
Low Point:	0+140.025	Elevation:	309.428m
Grade in:	2.100%	Grade out:	7.200%
Change:	5.100%	K:	5.000000000000322
Curve Length:	25.500m		
Headlight Distance:	79.006m		
5.00	0+180.615	-1.500%	26.100m
Vertical Curve Information:(crest curve)			
PVC Station:	0+167.565	Elevation:	310.761m
PVI Station:	0+180.615	Elevation:	311.701m
PVT Station:	0+193.665	Elevation:	311.505m
High Point:	0+189.165	Elevation:	311.539m
Grade in:	7.200%	Grade out:	-1.500%
Change:	8.700%	K:	3.000000000000018
Curve Length:	26.100m		
Passing Distance:	190.793m	Stopping Distance:	89.438m
6.00	0+198.661		