

LOCATION PLAN
NOT TO SCALE

DRAWING INDEX	
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102	PLAN-PROFILE - STA 137+060 - 138+360
103	PLAN-PROFILE - STA 138+360 - 139+660
104	PLAN-PROFILE - STA 139+660 - 140+960
105	PLAN-PROFILE - STA 140+960 - 142+260
106	PLAN-PROFILE - STA 142+260 - 143+560
107	PLAN-PROFILE - STA 143+560 - 144+860
108	PLAN-PROFILE - STA 144+860 - 146+160
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110	PLAN-PROFILE - STA 147+460 - 148+760
111	PLAN-PROFILE - STA 148+760 - 150+060
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121	PLAN-PROFILE - STA 161+760 - 163+060
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125	PLAN-PROFILE - STA 166+960 - 168+260
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201	CULVERT - CROSS SECTIONS
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301	DITCHING CROSS SECTIONS
302	DITCHING CROSS SECTIONS
303	DITCHING CROSS SECTIONS
304	DITCHING CROSS SECTIONS
305	DITCHING CROSS SECTIONS
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INFORMATION SHOWN ON THESE DRAWINGS REGARDING EXISTING UTILITIES IS COMPILED FROM SOME RECORD DRAWINGS AND SOME SURVEYS, AND MAY NOT BE COMPLETE OR FULLY ACCURATE. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND ADVISE THE DEPARTMENTAL REPRESENTATIVE OF ANY POTENTIAL CONFLICTS.

No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé
1	17-01-20	ISSUED FOR TENDER	CH	HW
0	17-01-12	ISSUED FOR REVIEW	CH	HW

Revision / Revision	

Consultant's Name Nom de l'expert-conseil 	Eng. Stamp Scéau de l'ingénieur
--	------------------------------------

Public Works and Government Services Canada Travaux publics et Services gouvernementaux Canada	Client Services Team Southern Alberta Operations Branch Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations
---	--

Client/client Parks Canada Agency L'Agence Parcs Canada	Western and Northern Region Ouest et Nord du Canada
---	--

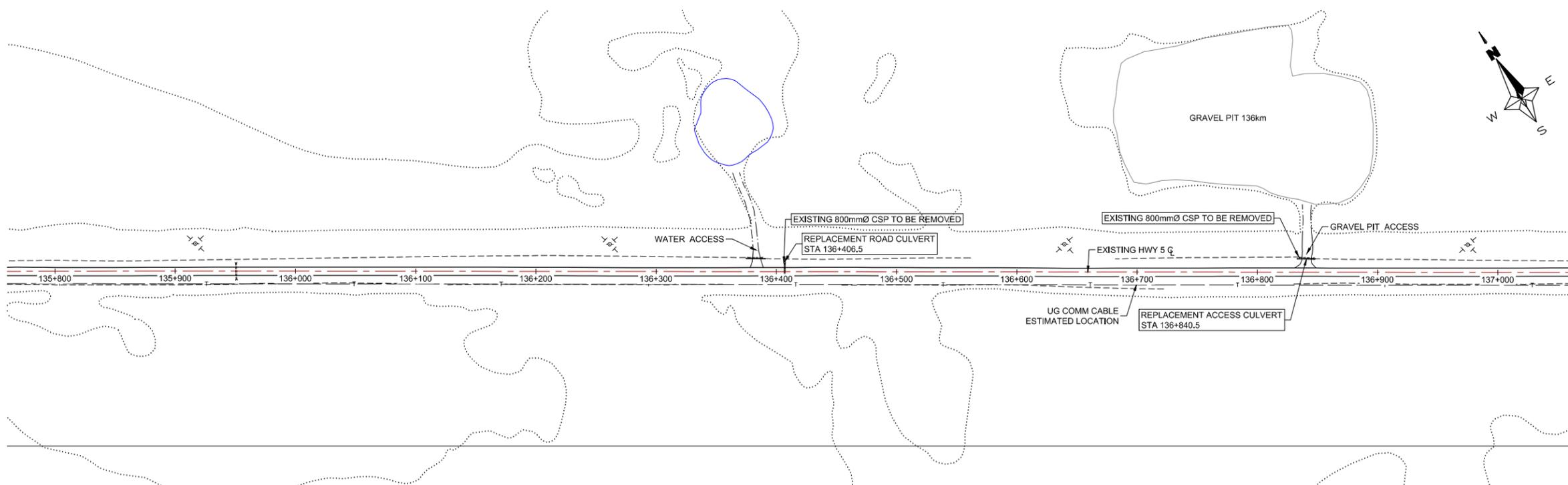
Project title/Titre du projet
HIGHWAY 5 ROAD REHABILITATION PHASE 2 – SEGMENT 2
WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin
LOCATION PLAN & DRAWING INDEX

Surveyed by/Arpenté par WSP CANADA INC.	Drawn by/Dessiné par WSP CANADA INC.	Date/Date 2017-01-20
Designed by/Concept par WSP CANADA INC.	Reviewed by/Revisé par NTS	Scale/Echelle NTS

PWGSC Project Manager/Administrateur de Projets TPSGC	
Client Acceptance/Acceptation du client	Approved by/Approuvé par
Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC

Project No./No. du projet 161-11147-01	Asset No./No. du bien	Sheet No./No. de la feuille 001
Drawing Reference No./No. de référence du dessin		

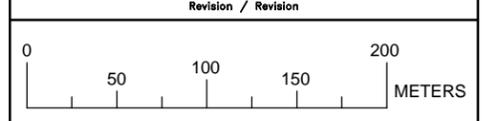


LEGEND

---	SHOULDER OF HIGHWAY
- - - -	SHOULDER OF GRAVEL ROAD
---	DITCH LINE
---	TREE LINE
---	WATER
- - - -	ROAD CULVERT
---	ACCESS CULVERT INLET/OUTLET
○	TOWER LOCATION
+	ANCHOR LOCATION
▨	DITCHING REQUIRED

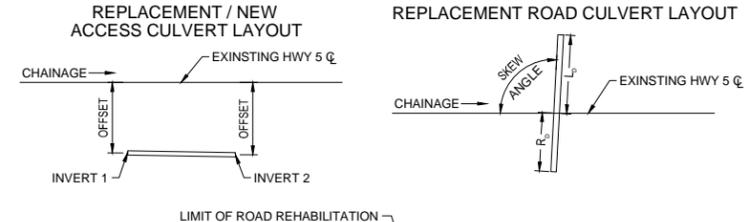
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0	17-01-12	ISSUED FOR REVIEW	CH	HW
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SURVEY CONTROL POINTS (UTM12)

POINT NUMBER	NORTHING	EASTING	ELEVATION
586	6683196.157	337465.116	274.652

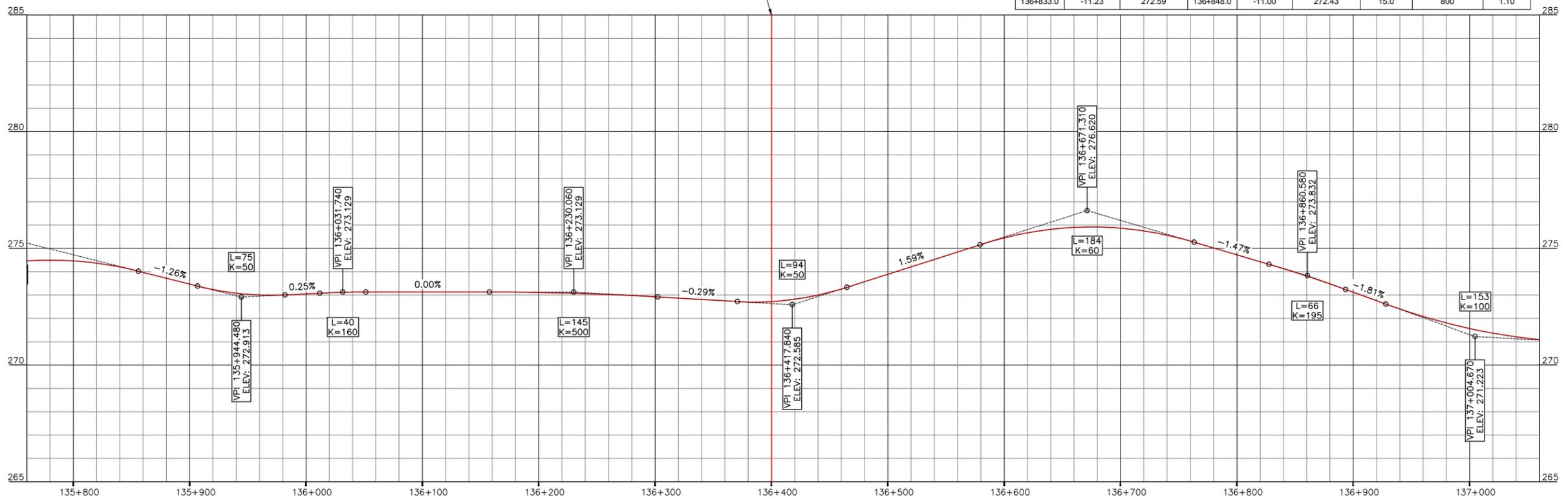


REPLACEMENT ROAD CULVERT TABLE

STATION @ ζ	SKEW ANGLE	L _o (m)	R _o (m)	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	LEFT INVERT (m)	RIGHT INVERT (m)
136+406.5	90.7°	7.93	8.07	16.0	800	-0.31	271.20	271.15

REPLACEMENT / NEW ACCESS CULVERT TABLE

INVERT 1		INVERT 2		LENGTH (m)	DIAMETER (mm)	SLOPE (%)		
STATION	OFFSET (m)	STATION	OFFSET (m)					
136+833.0	-11.23	272.59	136+848.0	-11.00	272.43	15.0	800	1.10



Consultant's Name
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Scéau de l'ingénieur

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Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch
Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

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Project title/Titre du projet
HIGHWAY 5 ROAD REHABILITATION PHASE 2 - SEGMENT 2

WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin
PLAN-PROFILE

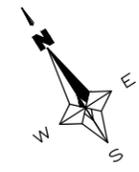
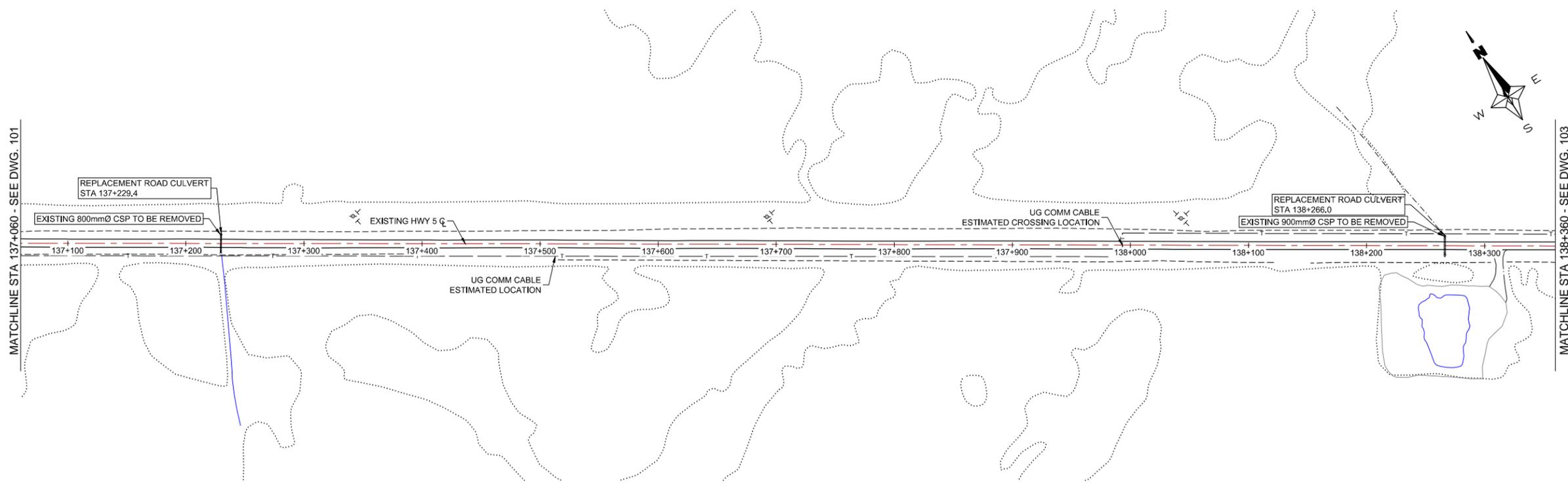
Surveyed by/Arpenté par	Drawn by/Dessiné par	Date/Date
WSP CANADA INC.	WSP CANADA INC.	2017-01-20
Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle
WSP CANADA INC.		1:2000

Client Acceptance/Acceptation du client	Approved by/Approuvé par

Project No./No. du projet	Asset No./No. du bien	Sheet No./No. de la feuille
161-11147-01		101
Drawing Reference No./No. de référence du dessin		

MATCHLINE STA 137+060 - SEE DWG. 101

MATCHLINE STA 138+360 - SEE DWG. 103

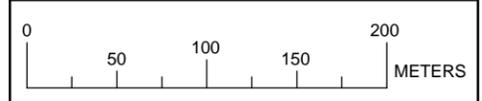


LEGEND

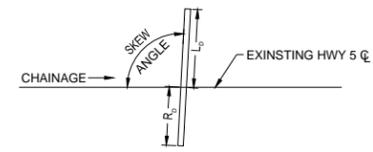
---	SHOULDER OF HIGHWAY
- - - -	SHOULDER OF GRAVEL ROAD
---	DITCH LINE
---	TREE LINE
---	WATER
- - - -	ROAD CULVERT
⌋	ACCESS CULVERT INLET/OUTLET
⊕	TOWER LOCATION
⊕	ANCHOR LOCATION
▨	DITCHING REQUIRED

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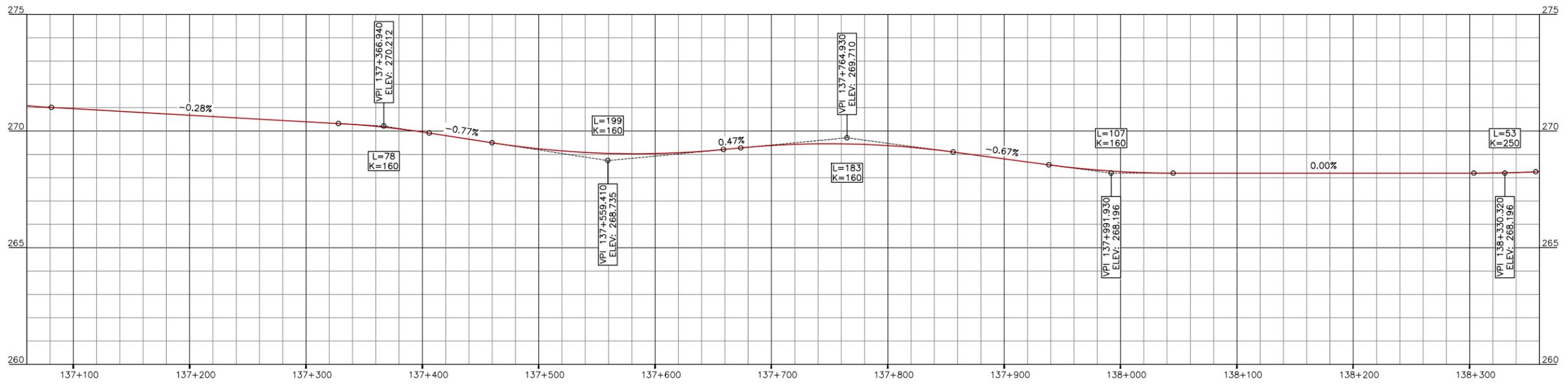


REPLACEMENT ROAD CULVERT LAYOUT



REPLACEMENT ROAD CULVERT TABLE

STATION @ C	SKEW ANGLE	L _s (m)	R _s (m)	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	LEFT INVERT (m)	RIGHT INVERT (m)
137+229.4	91.1°	7.85	8.14	16.0	800	-0.55	269.14	269.05
138+266.0	89.7°	9.19	8.81	18.0	900	0.83	266.20	266.35



Consultant's Name
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Sceau de l'ingénieur

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch
Le Client Entretien l'Équipe Alberta Méridional Branche d'Opérations

Canada

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WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin
PLAN-PROFILE

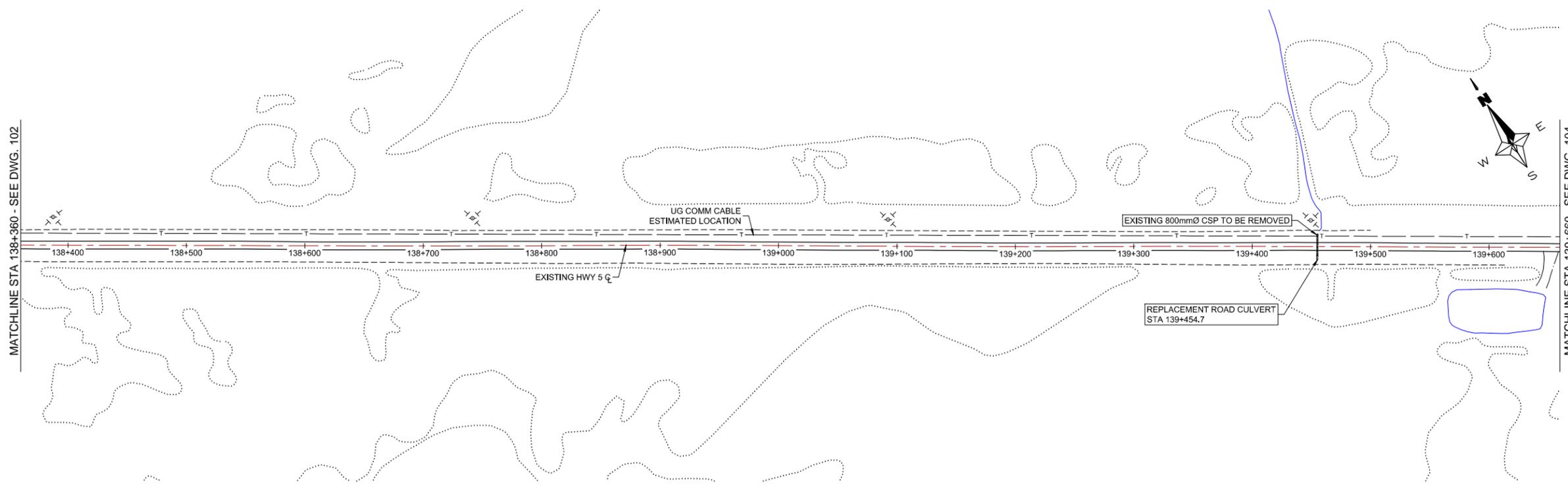
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PWGS Project Manager/Administrateur de Projets TPSGC

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Park Responsible Officer/Agent Responsable	PWGS Project Manager/Administrateur de Projets TPSGC
Project No./No. du projet 161-11147-01	Asset No./No. du bien
Drawing Reference No./No. de référence du dessin	Sheet No./No. de la feuille 102

MATCHLINE STA 138+360 - SEE DWG. 102

MATCHLINE STA 139+660 - SEE DWG. 104

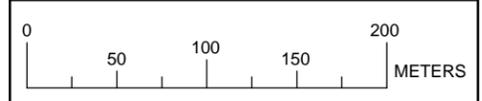


LEGEND

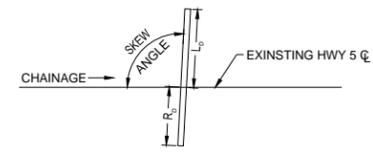
---	SHOULDER OF HIGHWAY
- - - -	SHOULDER OF GRAVEL ROAD
---	DITCH LINE
---	TREE LINE
---	WATER
- - - -	ROAD CULVERT
⌋	ACCESS CULVERT INLET/OUTLET
⊕	TOWER LOCATION
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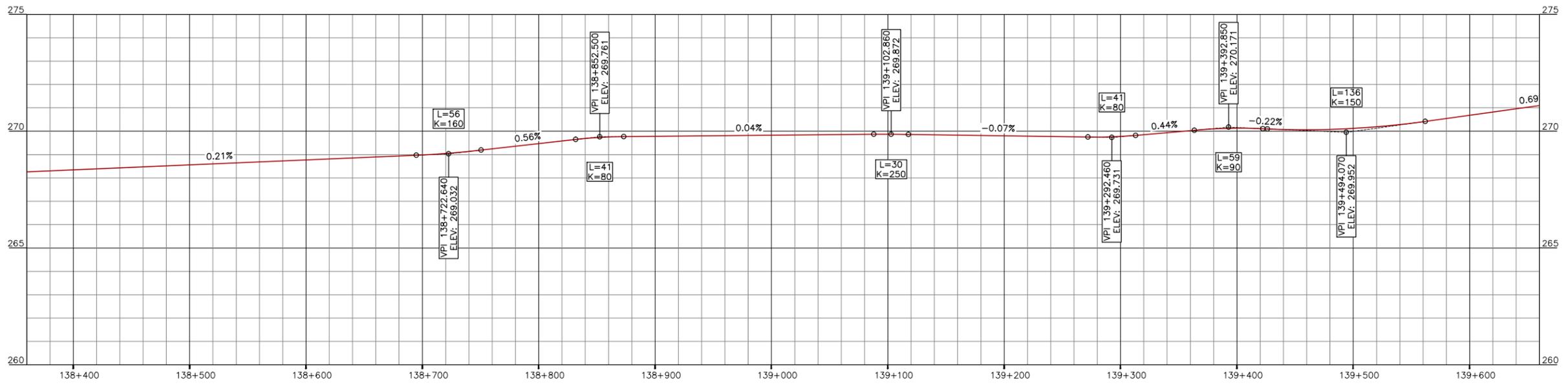


REPLACEMENT ROAD CULVERT LAYOUT



REPLACEMENT ROAD CULVERT TABLE

STATION @ CL	SKEW ANGLE	L _s (m)	R _s (m)	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	LEFT INVERT (m)	RIGHT INVERT (m)
139+454.7	90.2°	11.27	10.73	22.0	800	0.68	267.40	267.55



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Sceau de l'ingénieur

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Project title/Titre du projet
**HIGHWAY 5
ROAD REHABILITATION
PHASE 2 - SEGMENT 2**
WOOD BUFFALO NATIONAL PARK

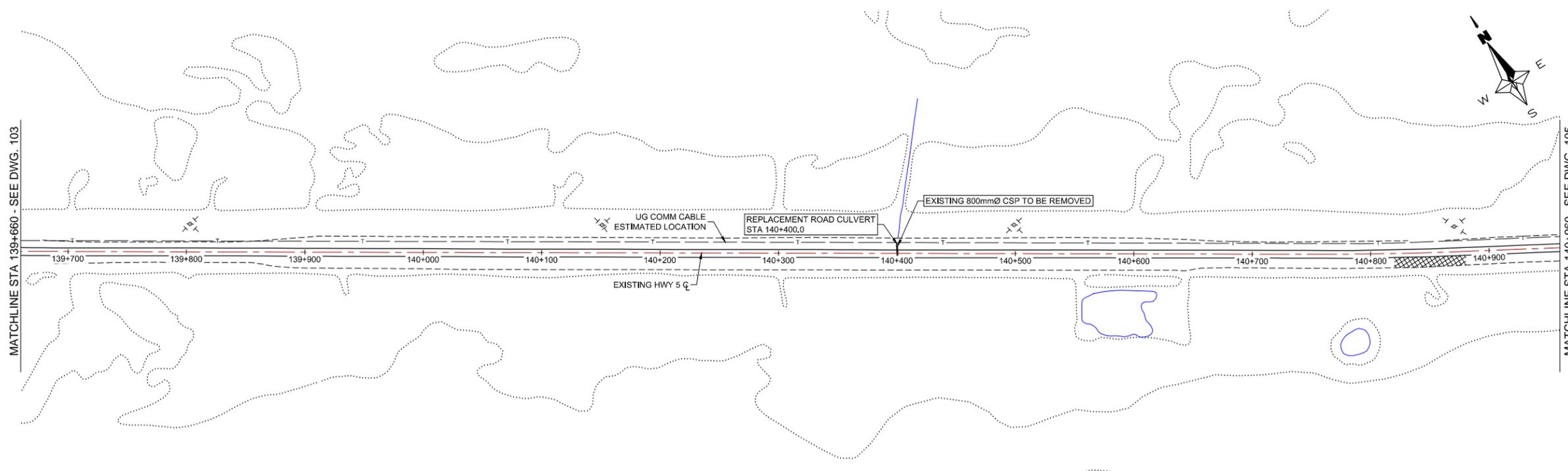
Drawing title/Titre du dessin
PLAN-PROFILE

Surveyed by/Arpenté par	Drawn by/Dessiné par WSP CANADA INC.	Date/Date 2017-01-20
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PWGSC Project Manager/Administrateur de Projets TPSGC

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Project No./No. du projet 161-11147-01	Asset No./No. du bien	Sheet No./No. de la feuille 103
Drawing Reference No./No. de référence du dessin		

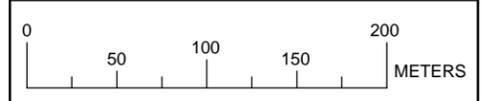


LEGEND

---	SHOULDER OF HIGHWAY
- - - -	SHOULDER OF GRAVEL ROAD
---	DITCH LINE
---	TREE LINE
---	WATER
- - - -	ROAD CULVERT
⌋	ACCESS CULVERT INLET/OUTLET
⊕	TOWER LOCATION
⊕	ANCHOR LOCATION
▨	DITCHING REQUIRED

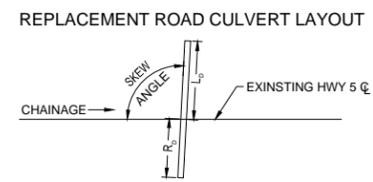
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Revision / Revision				



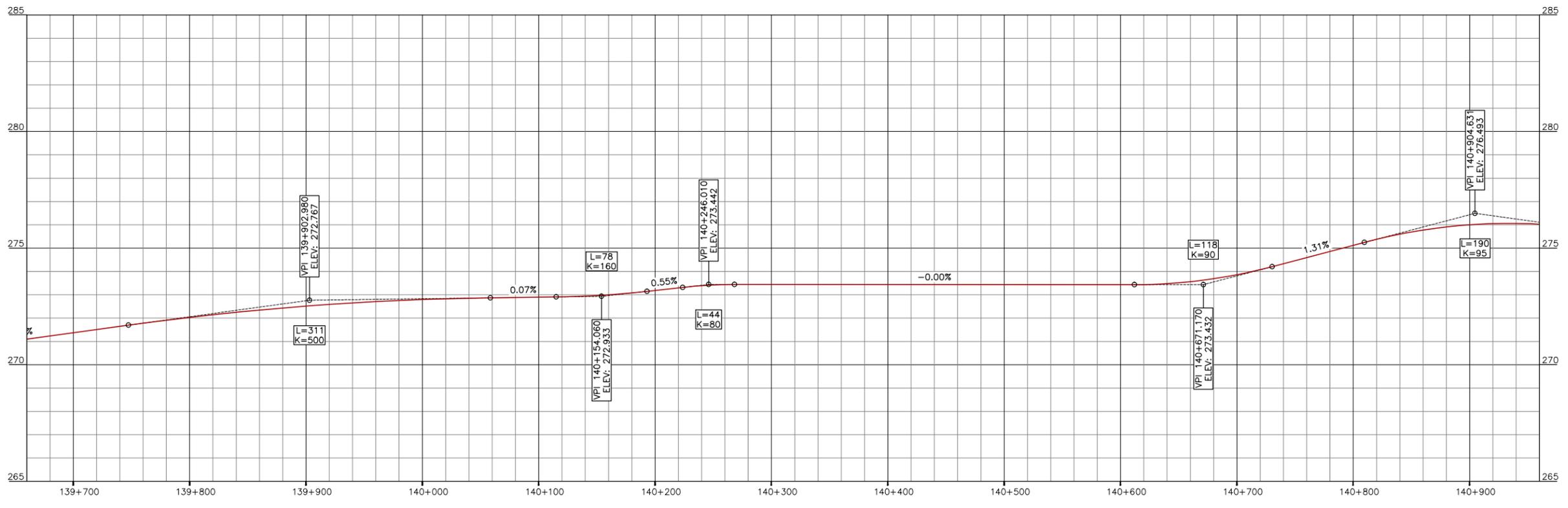
SURVEY CONTROL POINTS (UTM12)

POINT NUMBER	NORTHING	EASTING	ELEVATION
584	6680473.346	341816.663	275.505



REPLACEMENT ROAD CULVERT TABLE

STATION @ C	SKEW ANGLE	L _s (m)	R _s (m)	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	LEFT INVERT (m)	RIGHT INVERT (m)
140+400.0	87.5°	8.34	7.64	16.0	800	1.38	271.78	272.00



Consultant's Name
Nom de l'expert-conseil

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Scéau de l'ingénieur

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

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Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

Canada

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L'Agence Parcs Canada

Western and Northern Region
Ouest et Nord du Canada

Project title/Titre du projet
HIGHWAY 5 ROAD REHABILITATION PHASE 2 - SEGMENT 2

WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin
PLAN-PROFILE

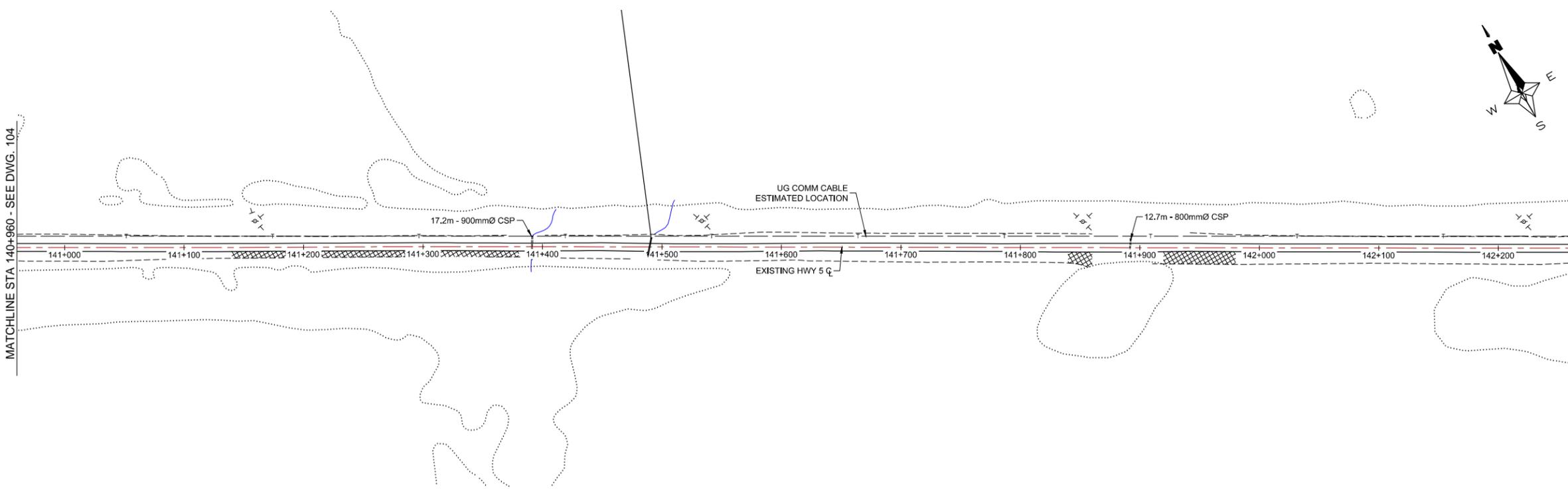
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PWGSC Project Manager/Administrateur de Projets TPSGC		

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Project No./No. du projet 161-11147-01	Asset No./No. du bien	Sheet No./No. de la feuille 104
Drawing Reference No./No. de référence du dessin		

MATCHLINE STA 140+960 - SEE DWG. 104

MATCHLINE STA 142+260 - SEE DWG. 106

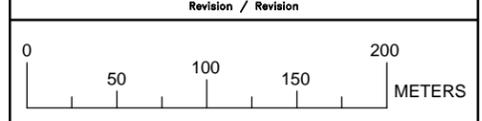


LEGEND

---	SHOULDER OF HIGHWAY
- - - -	SHOULDER OF GRAVEL ROAD
---	DITCH LINE
---	TREE LINE
---	WATER
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⊕	TOWER LOCATION
⊥	ANCHOR LOCATION
▨	DITCHING REQUIRED

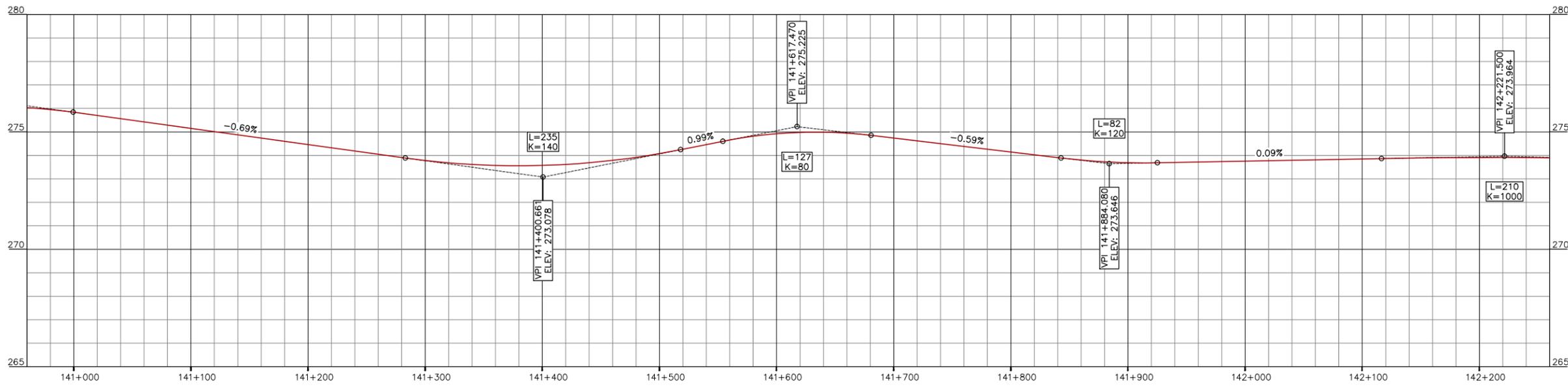
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ROAD CULVERT EXTENSION TABLE

STATION @ C	SIDE TO EXTEND	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	INVERT (m)
141+390.8	RIGHT	3.0	900	0.01	271.21



Consultant's Name
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Scéau de l'ingénieur

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Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

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Project title/Titre du projet

**HIGHWAY 5
ROAD REHABILITATION
PHASE 2 - SEGMENT 2**

WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin

PLAN-PROFILE

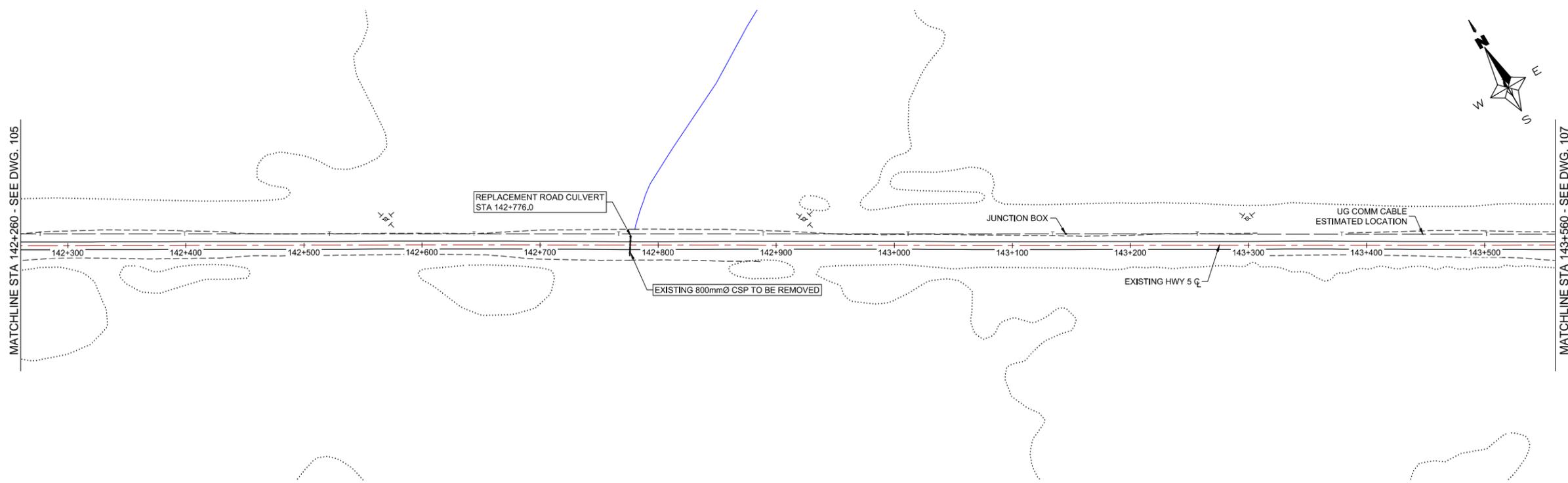
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PWGSC Project Manager/Administrateur de Projets TPSGC

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Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC
Project No./No. du projet 161-11147-01	Asset No./No. du bien
Drawing Reference No./No. de référence du dessin	Sheet No./No. de la feuille 105

MATCHLINE STA 142+260 - SEE DWG. 105

MATCHLINE STA 143+560 - SEE DWG. 107

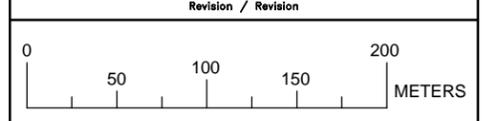


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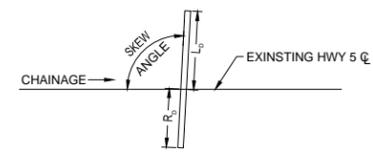
---	SHOULDER OF HIGHWAY
- - - -	SHOULDER OF GRAVEL ROAD
.....	DITCH LINE
.....	TREE LINE
.....	WATER
- - - -	ROAD CULVERT
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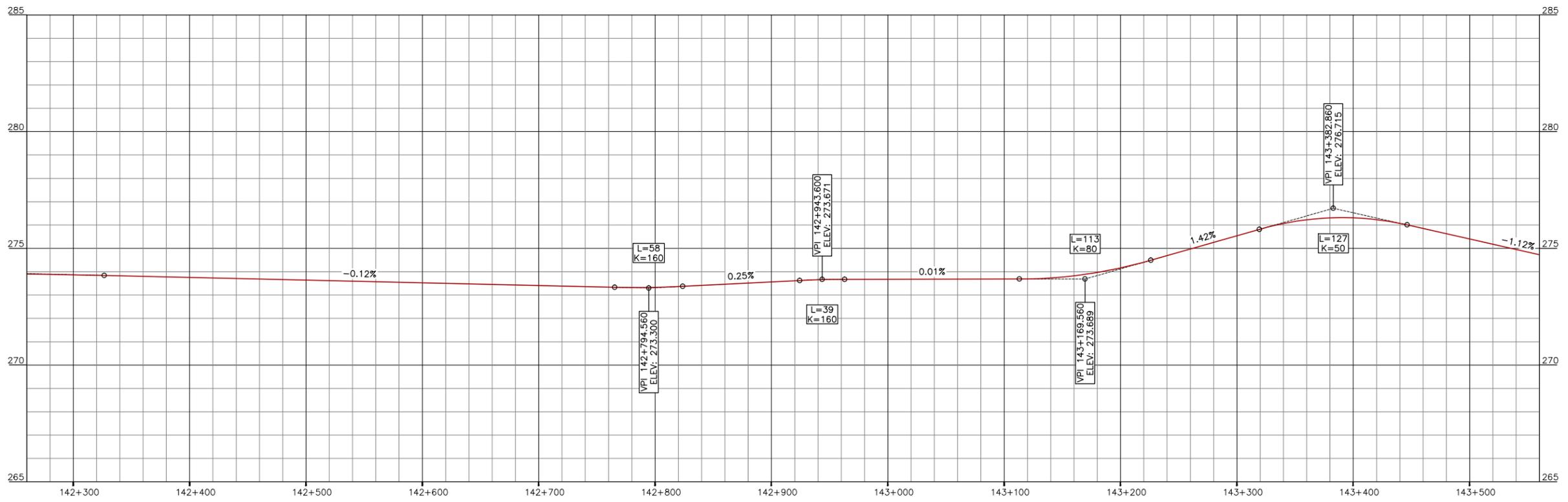


REPLACEMENT ROAD CULVERT LAYOUT



REPLACEMENT ROAD CULVERT TABLE

STATION @ CL	SKEW ANGLE	L _s (m)	R _s (m)	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	LEFT INVERT (m)	RIGHT INVERT (m)
142+776.0	92.2°	8.62	8.37	17.0	800	0.29	271.65	271.70



Consultant's Name
Nom de l'expert-conseil

Eng. Stamp
Scéau de l'ingénieur

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Canada

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Western and Northern Region / Ouest et Nord du Canada

Project title/Titre du projet

HIGHWAY 5 ROAD REHABILITATION PHASE 2 - SEGMENT 2

WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin

PLAN-PROFILE

Surveyed by/Arpenté par	Drawn by/Dessiné par	Date/Date
	WSP CANADA INC.	2017-01-20
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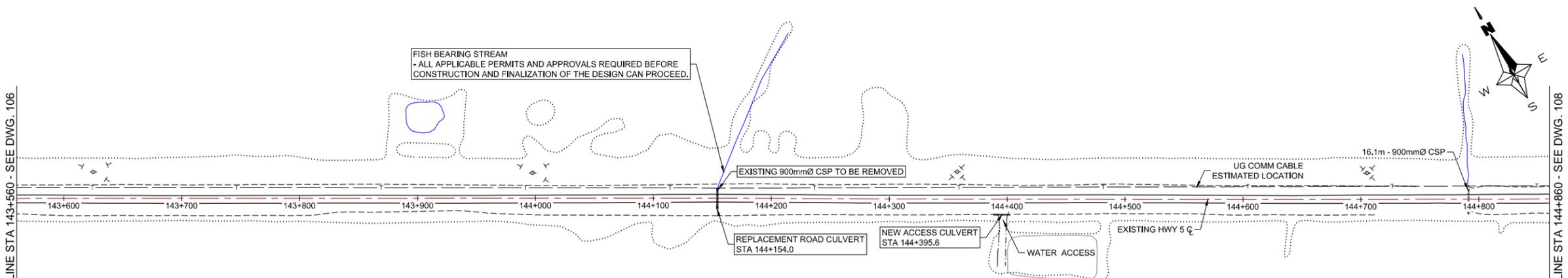
PWGSC Project Manager/Administrateur de Projets TPSGC

Client Acceptance/Acceptation du client	Approved by/Approuvé par	
Parc Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC	
Project No./No. du projet	Asset No./No. du bien	Sheet No./No. de la feuille
161-11147-01		106
Drawing Reference No./No. de référence du dessin		

MATCHLINE STA 143+560 - SEE DWG. 106

MATCHLINE STA 144+860 - SEE DWG. 108

FISH BEARING STREAM
- ALL APPLICABLE PERMITS AND APPROVALS REQUIRED BEFORE CONSTRUCTION AND FINALIZATION OF THE DESIGN CAN PROCEED.

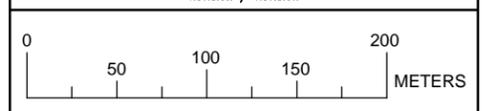


LEGEND

---	SHOULDER OF HIGHWAY
- - - -	SHOULDER OF GRAVEL ROAD
---	DITCH LINE
---	TREE LINE
---	WATER
- - - -	ROAD CULVERT
---	ACCESS CULVERT INLET/OUTLET
---	TOWER LOCATION
---	ANCHOR LOCATION
---	DITCHING REQUIRED

INFORMATION SHOWN ON THESE DRAWINGS REGARDING EXISTING UTILITIES IS COMPILED FROM SOME RECORD DRAWINGS AND SOME SURVEYS, AND MAY NOT BE COMPLETE OR FULLY ACCURATE. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND ADVISE THE DEPARTMENTAL REPRESENTATIVE OF ANY POTENTIAL CONFLICTS.

No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé
1	17-01-20	ISSUED FOR TENDER	CH	HW
0	17-01-12	ISSUED FOR REVIEW	CH	HW



Consultant's Name
Nom de l'expert-conseil

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Scéau de l'ingénieur

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch
Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

Canada

Client/client
Parks Canada Agency
L'Agence Parcs Canada

Western and Northern Region
Ouest et Nord du Canada

Project title/Titre du projet
HIGHWAY 5 ROAD REHABILITATION PHASE 2 - SEGMENT 2

WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin
PLAN-PROFILE

Surveyed by/Arpenté par	Drawn by/Dessiné par WSP CANADA INC.	Date/Date 2017-01-20
Designed by/Concept par WSP CANADA INC.	Reviewed by/Revisé par	Scale/Echelle 1:2000

PWGSC Project Manager/Administrateur de Projets TPSGC

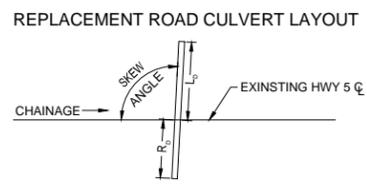
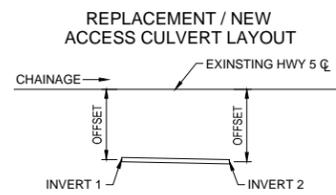
Client Acceptance/Acceptation du client	Approved by/Approuvé par
Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC
Project No./No. du projet 161-11147-01	Sheet No./No. de la feuille 107

ROAD CULVERT EXTENSION TABLE

STATION @ C	SIDE TO EXTEND	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	INVERT (m)
144+790.9	RIGHT	5.0	900	-0.59	273.35

SURVEY CONTROL POINTS (UTM12)

POINT NUMBER	NORTHING	EASTING	ELEVATION
84	6679122.963	344104.711	273.767

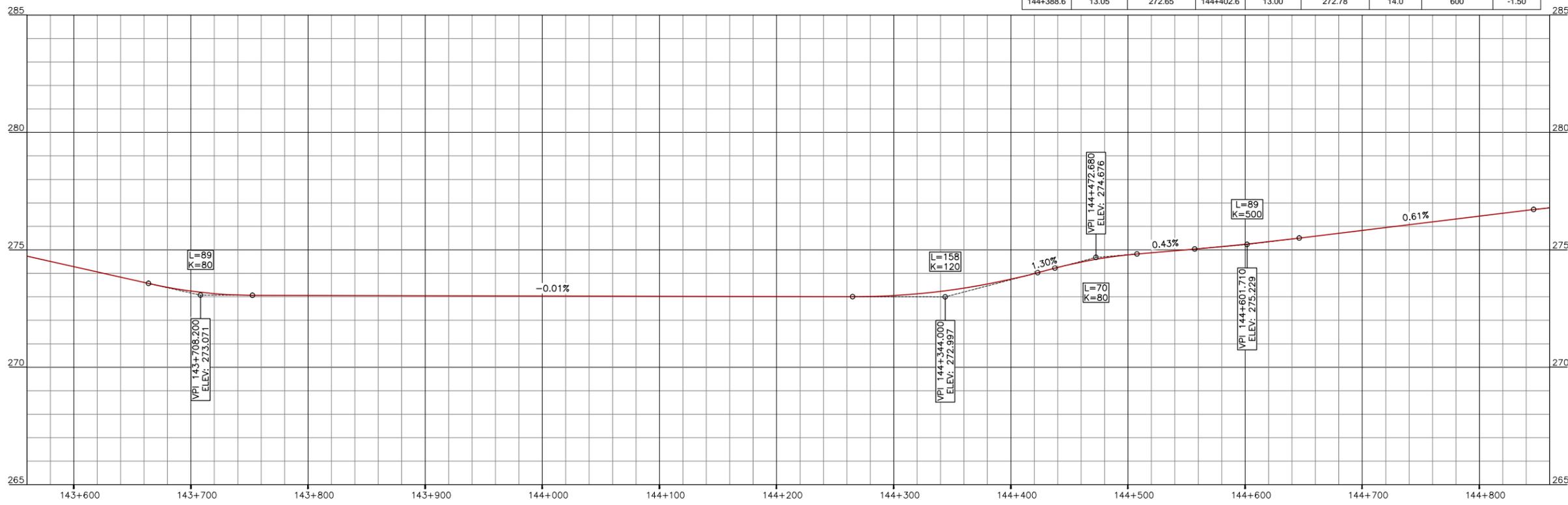


REPLACEMENT ROAD CULVERT TABLE

STATION @ C	SKEW ANGLE	L _s (m)	R _s (m)	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	LEFT INVERT (m)	RIGHT INVERT (m)
144+154.0	90.3°	9.15	8.85	18.0	900	0.65	270.97	271.09

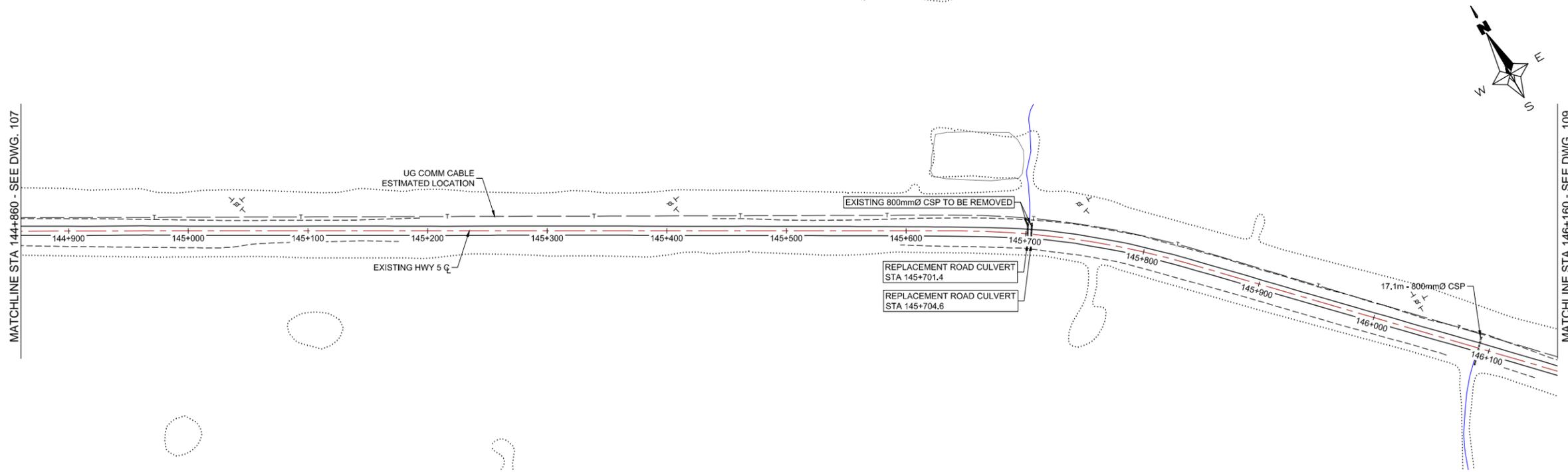
REPLACEMENT / NEW ACCESS CULVERT TABLE

STATION	INVERT 1		INVERT 2		LENGTH (m)	DIAMETER (mm)	SLOPE (%)	
	OFFSET (m)	ELEVATION (m)	OFFSET (m)	ELEVATION (m)				
144+388.6	13.05	272.65	144+402.6	13.00	272.78	14.0	600	-1.50



MATCHLINE STA 144+860 - SEE DWG. 107

MATCHLINE STA 146+160 - SEE DWG. 109

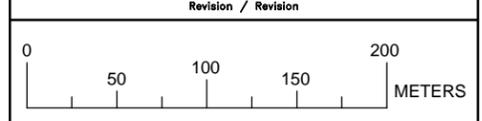


LEGEND

	SHOULDER OF HIGHWAY
	SHOULDER OF GRAVEL ROAD
	DITCH LINE
	TREE LINE
	WATER
	ROAD CULVERT
	ACCESS CULVERT INLET/OUTLET
	TOWER LOCATION
	ANCHOR LOCATION
	DITCHING REQUIRED

INFORMATION SHOWN ON THESE DRAWINGS REGARDING EXISTING UTILITIES IS COMPILED FROM SOME RECORD DRAWINGS AND SOME SURVEYS, AND MAY NOT BE COMPLETE OR FULLY ACCURATE. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND ADVISE THE DEPARTMENTAL REPRESENTATIVE OF ANY POTENTIAL CONFLICTS.

1	17-01-20	ISSUED FOR TENDER	CH	HW
0	17-01-12	ISSUED FOR REVIEW	CH	HW
No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé



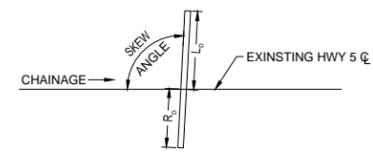
ROAD CULVERT EXTENSION TABLE

STATION @ C	SIDE TO EXTEND	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	INVERT (m)
146+091.2	RIGHT	7.0	800	1.78	270.78

SURVEY CONTROL POINTS (UTM12)

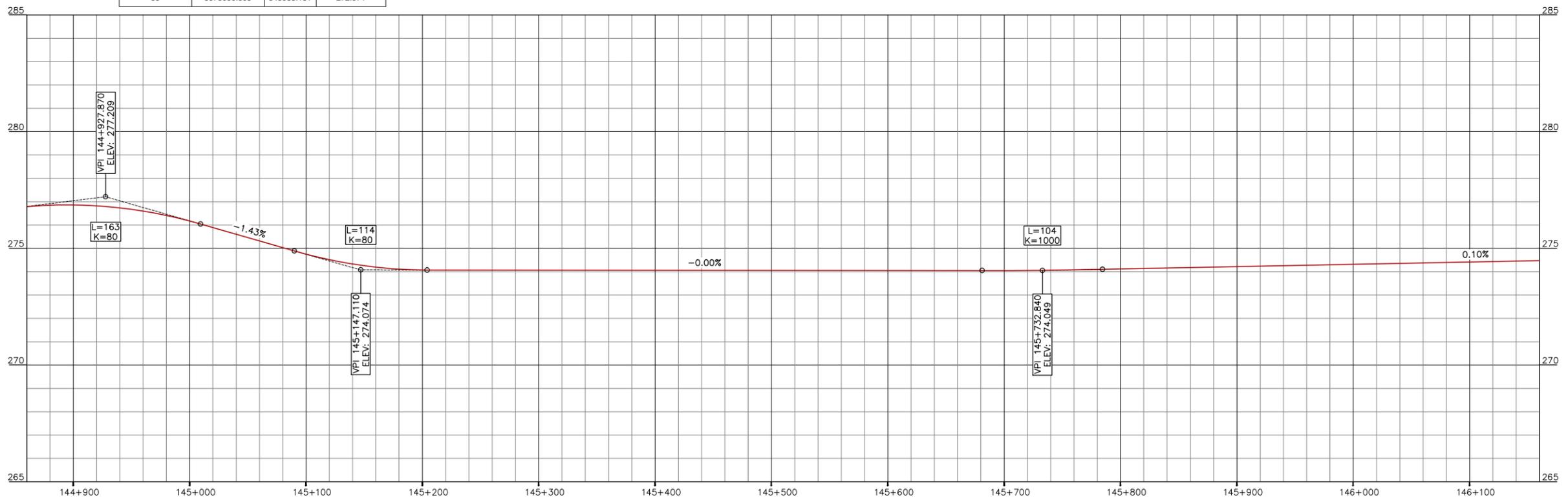
POINT NUMBER	NORTHING	EASTING	ELEVATION
85	6678030.806	345965.151	272.971

REPLACEMENT ROAD CULVERT LAYOUT



REPLACEMENT ROAD CULVERT TABLE

STATION @ C	SKEW ANGLE	L _s (m)	R _s (m)	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	LEFT INVERT (m)	RIGHT INVERT (m)
145+701.4	86.5°	9.81	8.15	18.0	800	0.00	272.20	272.20
145+704.6	86.8°	9.81	8.15	18.0	800	0.00	272.20	272.20



Consultant's Name
Nom de l'expert-conseil

WSP

Eng. Stamp
Sceau de l'ingénieur

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch
Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

Canada

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Parks Canada Agency
L'Agence Parcs Canada

Western and Northern Region
Ouest et Nord du Canada

Project title/Titre du projet
HIGHWAY 5 ROAD REHABILITATION PHASE 2 - SEGMENT 2
WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin
PLAN-PROFILE

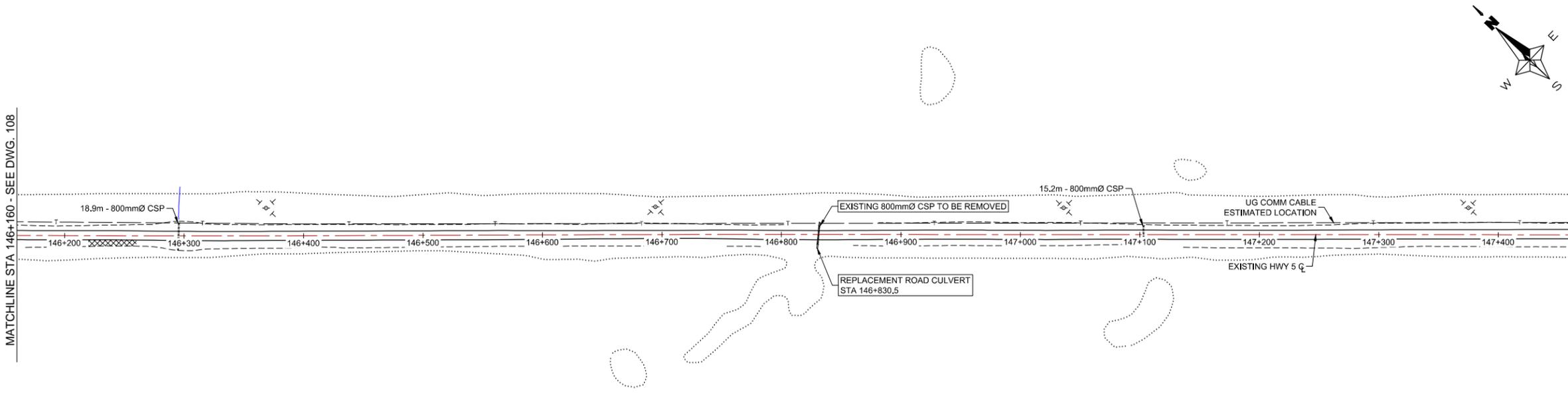
Surveyed by/Arpenté par	Drawn by/Dessiné par WSP CANADA INC.	Date/Date 2017-01-20
Designed by/Concept par WSP CANADA INC.	Reviewed by/Revisé par	Scale/Echelle 1:2000

PWGSC Project Manager/Administrateur de Projets TPSGC

Client Acceptance/Acceptation du client	Approved by/Approuvé par
Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC
Project No./No. du projet 161-11147-01	Asset No./No. du bien
Drawing Reference No./No. de référence du dessin	
Sheet No./No. de la feuille 108	

MATCHLINE STA 146+160 - SEE DWG. 108

MATCHLINE STA 147+460 - SEE DWG. 110

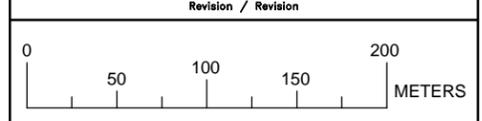


LEGEND

---	SHOULDER OF HIGHWAY
- - - -	SHOULDER OF GRAVEL ROAD
.....	DITCH LINE
.....	TREE LINE
---	WATER
- - - -	ROAD CULVERT
⌋	ACCESS CULVERT INLET/OUTLET
⊕	TOWER LOCATION
⊥	ANCHOR LOCATION
▨	DITCHING REQUIRED

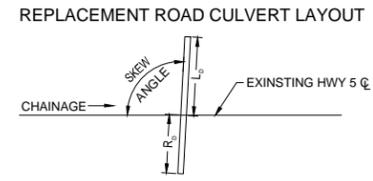
INFORMATION SHOWN ON THESE DRAWINGS REGARDING EXISTING UTILITIES IS COMPILED FROM SOME RECORD DRAWINGS AND SOME SURVEYS, AND MAY NOT BE COMPLETE OR FULLY ACCURATE. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND ADVISE THE DEPARTMENTAL REPRESENTATIVE OF ANY POTENTIAL CONFLICTS.

No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé
1	17-01-20	ISSUED FOR TENDER	CH	HW
0	17-01-12	ISSUED FOR REVIEW	CH	HW



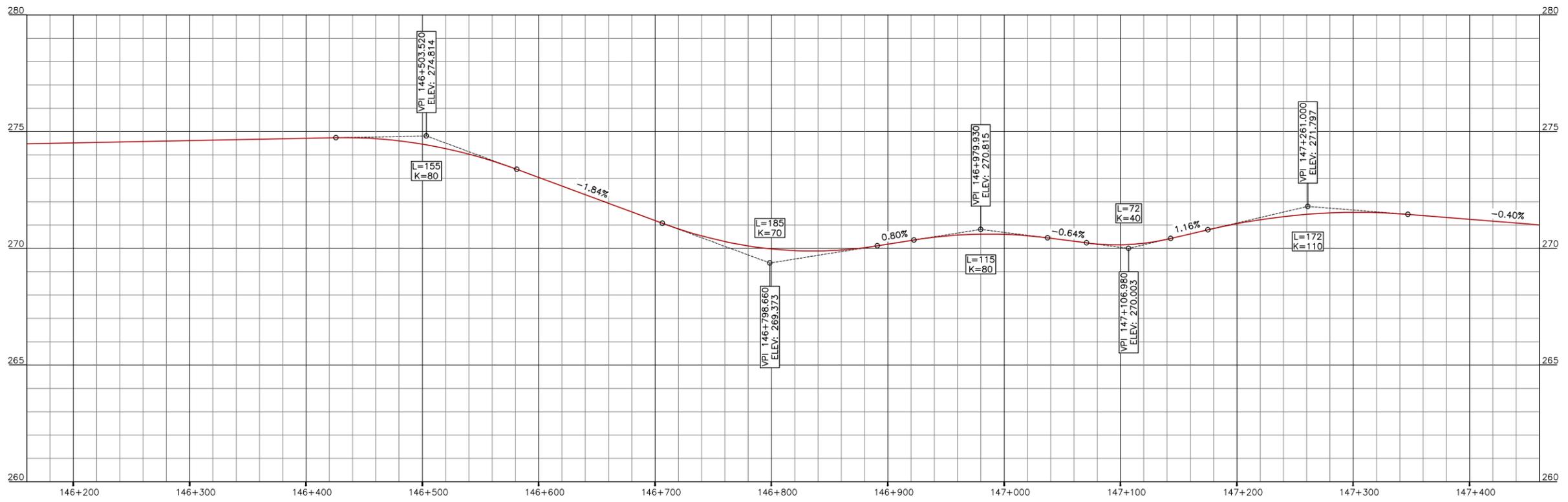
ROAD CULVERT EXTENSION TABLE

STATION @ CL	SIDE TO EXTEND	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	INVERT (m)
146+294.5	RIGHT	4.0	800	-1.09	271.98
147+102.8	RIGHT	2.0	800	-0.46	268.28



REPLACEMENT ROAD CULVERT TABLE

STATION @ CL	SKEW ANGLE	L _o (m)	R _o (m)	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	LEFT INVERT (m)	RIGHT INVERT (m)
146+830.5	95.0°	11.12	10.79	22.0	800	0.68	267.35	267.50



Consultant's Name
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Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch
Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

Canada

Client/client
Parks Canada Agency
L'Agence Parcs Canada

Western and Northern Region
Ouest et Nord du Canada

Project title/Titre du projet

**HIGHWAY 5
ROAD REHABILITATION
PHASE 2 - SEGMENT 2**

WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin

PLAN-PROFILE

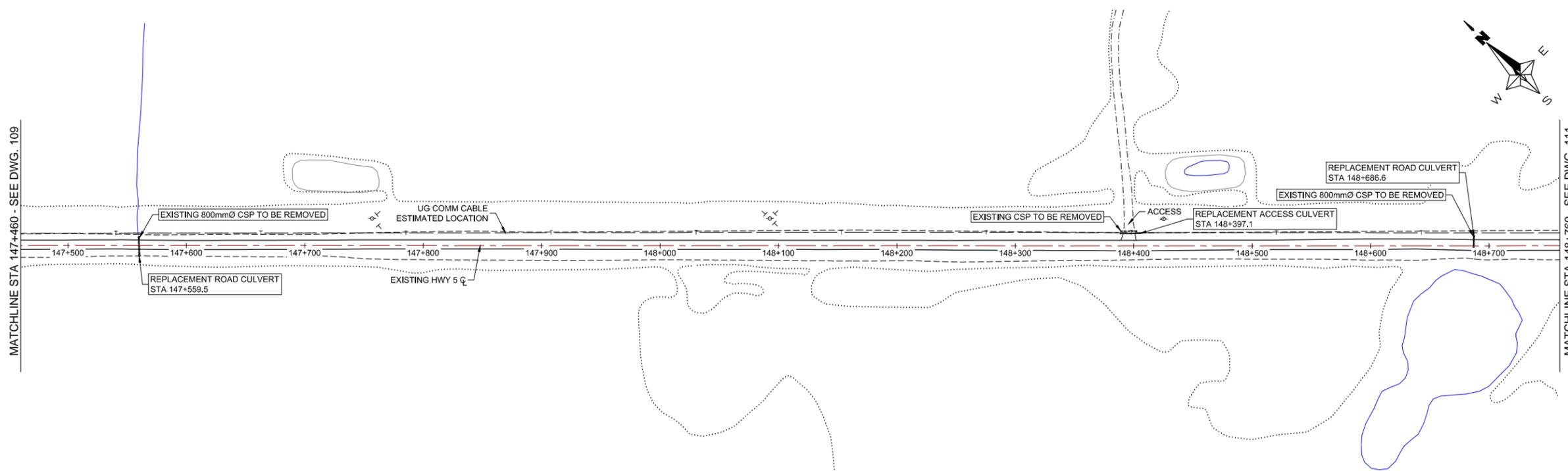
Surveyed by/Arpenté par	Drawn by/Dessiné par WSP CANADA INC.	Date/Date 2017-01-20
Designed by/Concept par WSP CANADA INC.	Reviewed by/Revisé par	Scale/Echelle 1:2000

PWGSC Project Manager/Administrateur de Projets TPSGC

Client Acceptance/Acceptation du client	Approved by/Approuvé par
Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC
Project No./No. du projet 161-11147-01	Asset No./No. du bien
Drawing Reference No./No. de référence du dessin	
Sheet No./No. de la feuille 109	

MATCHLINE STA 147+460 - SEE DWG. 109

MATCHLINE STA 148+760 - SEE DWG. 111

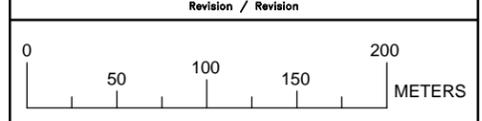


LEGEND

	SHOULDER OF HIGHWAY
	SHOULDER OF GRAVEL ROAD
	DITCH LINE
	TREE LINE
	WATER
	ROAD CULVERT
	ACCESS CULVERT INLET/OUTLET
	TOWER LOCATION
	ANCHOR LOCATION
	DITCHING REQUIRED

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1	17-01-20	ISSUED FOR TENDER	CH	HW
0	17-01-12	ISSUED FOR REVIEW	CH	HW
No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé

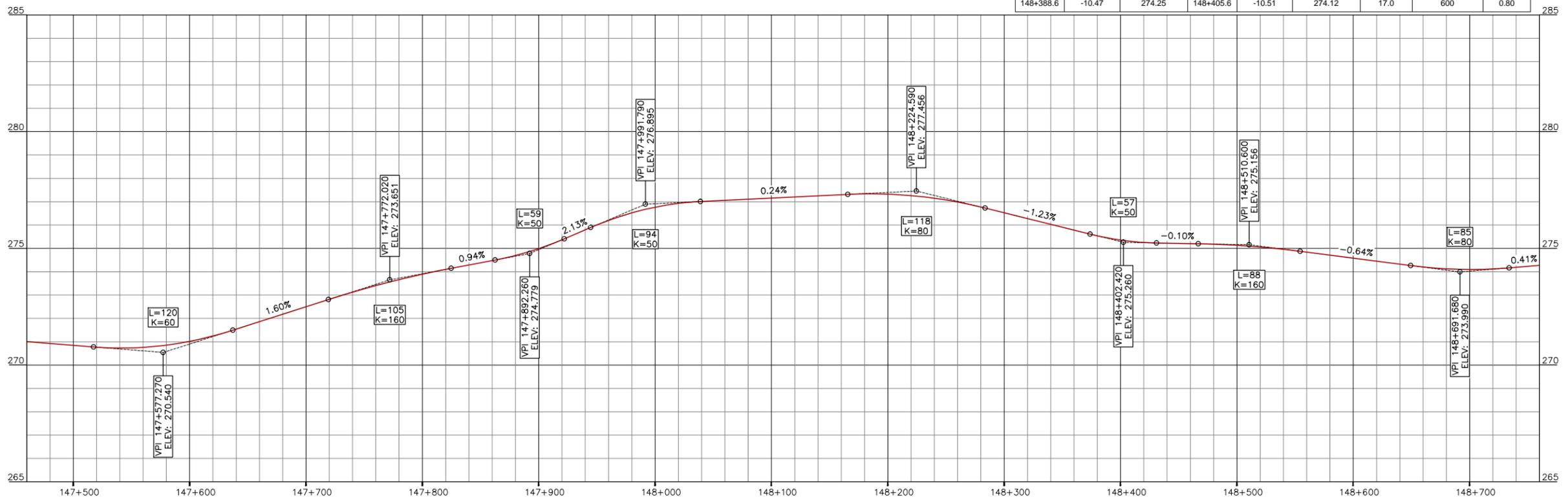


REPLACEMENT ROAD CULVERT TABLE

STATION @ CL	SKEW ANGLE	L _o (m)	R _o (m)	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	LEFT INVERT (m)	RIGHT INVERT (m)
147+559.5	88.7°	8.63	8.37	17.0	800	0.59	269.05	269.15
148+686.6	91.3°	8.85	9.15	18.0	800	-0.83	272.35	272.20

REPLACEMENT / NEW ACCESS CULVERT TABLE

INVERT 1			INVERT 2			LENGTH (m)	DIAMETER (mm)	SLOPE (%)
STATION	OFFSET (m)	ELEVATION (m)	STATION	OFFSET (m)	ELEVATION (m)			
148+388.6	-10.47	274.25	148+405.6	-10.51	274.12	17.0	600	0.80



Consultant's Name
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Public Works and Government Services Canada
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Client Services Team Southern Alberta Operations Branch
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Canada

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Western and Northern Region
Ouest et Nord du Canada

Project title/Titre du projet

**HIGHWAY 5
ROAD REHABILITATION
PHASE 2 - SEGMENT 2**

WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin

PLAN-PROFILE

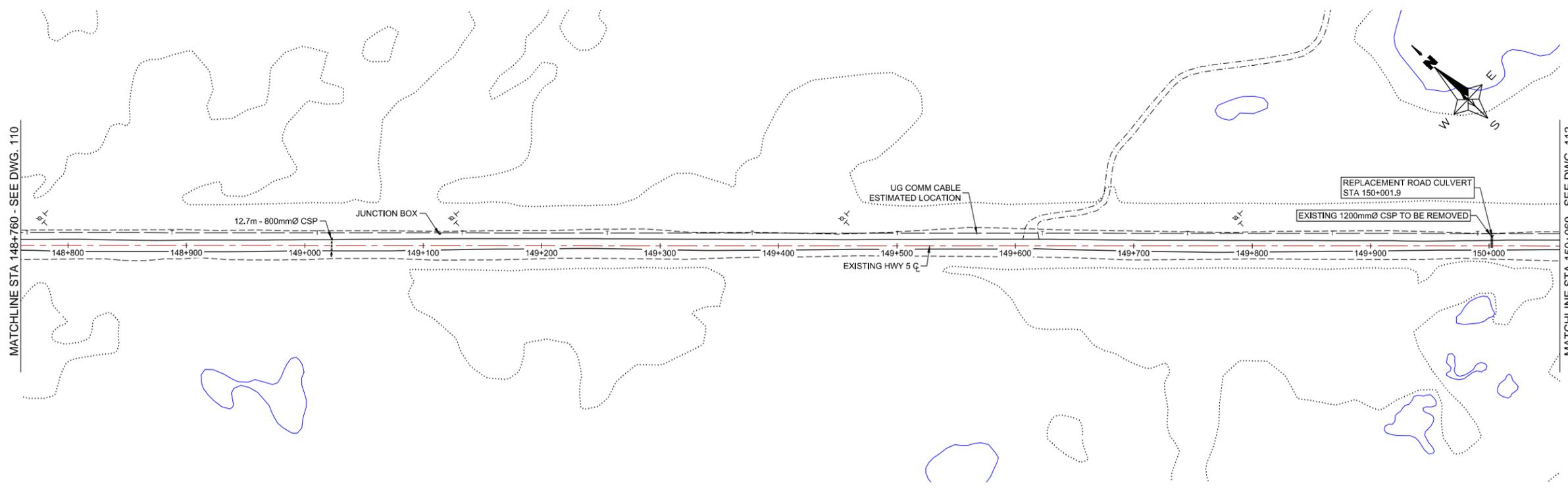
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	WSP CANADA INC.	2017-01-20
Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle
WSP CANADA INC.		1:2000

PWGSC Project Manager/Administrateur de Projets TPSGC

Client Acceptance/Acceptation du client	Approved by/Approuvé par	
Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC	
Project No./No. du projet	Asset No./No. du bien	Sheet No./No. de la feuille
161-11147-01		110
Drawing Reference No./No. de référence du dessin		

MATCHLINE STA 148+760 - SEE DWG. 110

MATCHLINE STA 150+060 - SEE DWG. 112

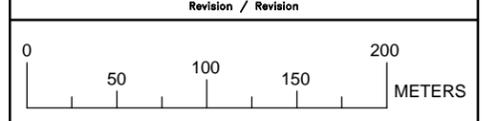


LEGEND

---	SHOULDER OF HIGHWAY
- - - -	SHOULDER OF GRAVEL ROAD
---	DITCH LINE
---	TREE LINE
---	WATER
- - - -	ROAD CULVERT
---	ACCESS CULVERT INLET/OUTLET
+	TOWER LOCATION
+	ANCHOR LOCATION
---	DITCHING REQUIRED

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0	17-01-12	ISSUED FOR REVIEW	CH	HW



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L'Agence Parcs Canada

Western and Northern Region
Ouest et Nord du Canada

Project title/Titre du projet
**HIGHWAY 5
ROAD REHABILITATION
PHASE 2 - SEGMENT 2**

WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin
PLAN-PROFILE

Surveyed by/Arpenté par	Drawn by/Dessiné par WSP CANADA INC.	Date/Date 2017-01-20
Designed by/Concept par WSP CANADA INC.	Reviewed by/Revisé par	Scale/Echelle 1:2000

PWGS Project Manager/Administrateur de Projets TPSGC

Client Acceptance/Acceptation du client	Approved by/Approuvé par
Project No./No. du projet 161-11147-01	Asset No./No. du bien
Drawing Reference No./No. de référence du dessin	Sheet No./No. de la feuille 111

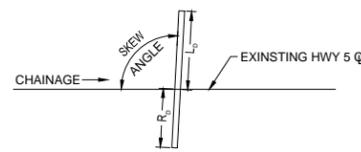
ROAD CULVERT EXTENSION TABLE

STATION @ C	SIDE TO EXTEND	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	INVERT (m)
149+022.0	RIGHT	3.0	800	0.50	272.04

SURVEY CONTROL POINTS (UTM12)

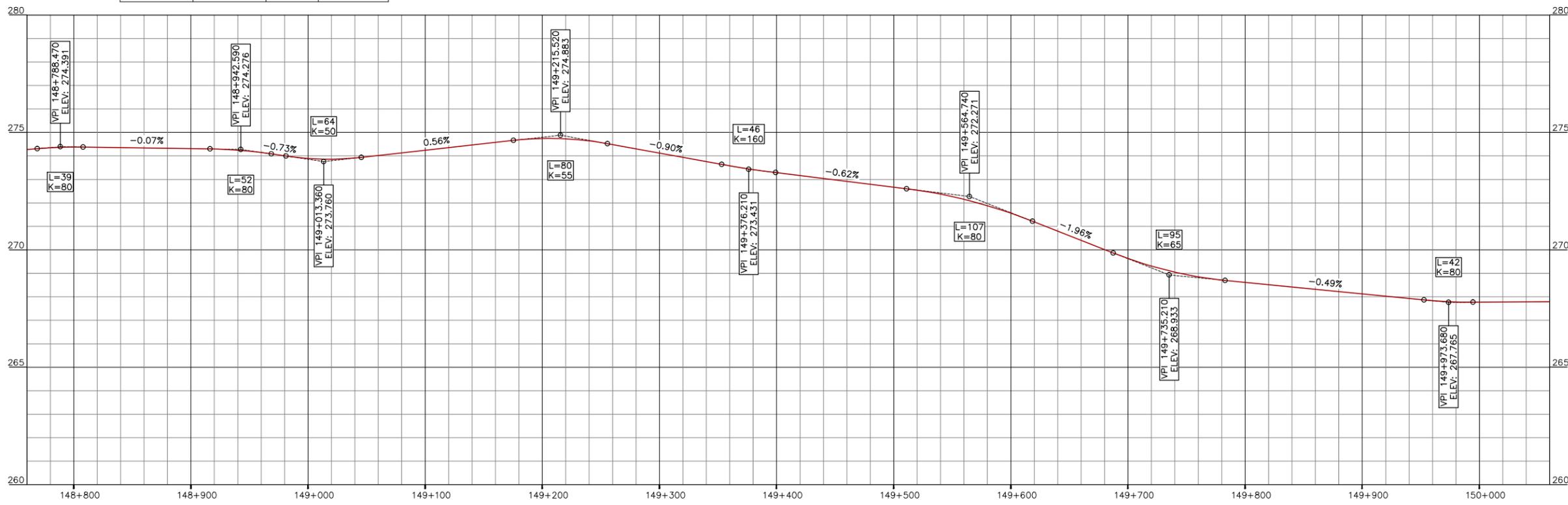
POINT NUMBER	NORTHING	EASTING	ELEVATION
581	6675353.349	348463.659	272.246

REPLACEMENT ROAD CULVERT LAYOUT



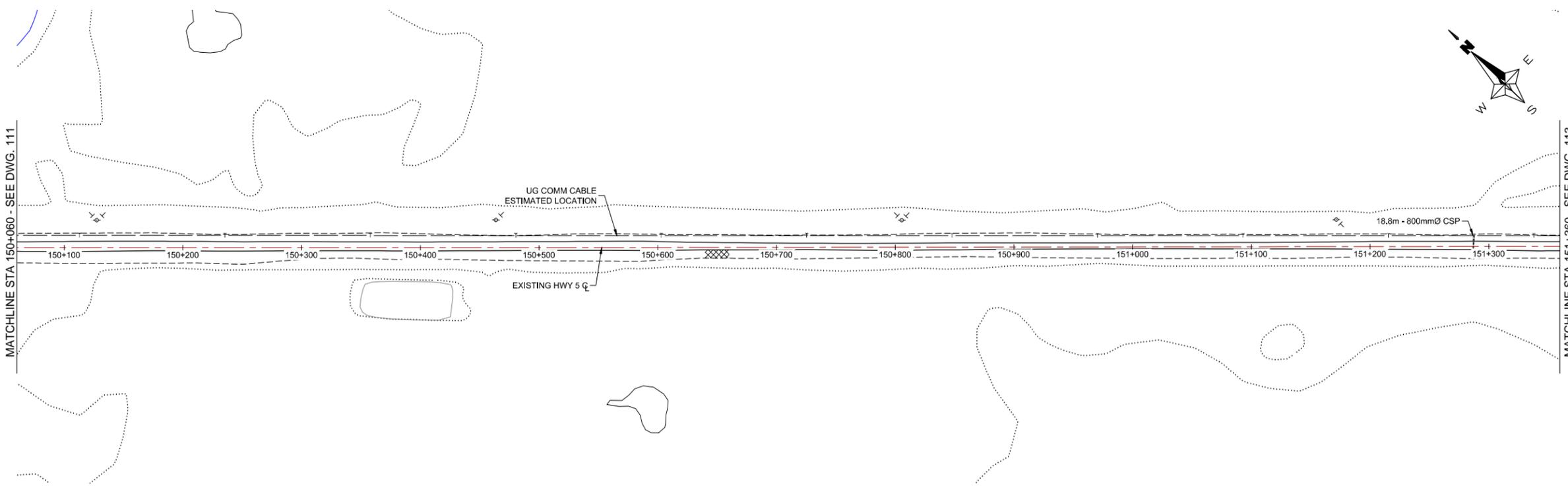
REPLACEMENT ROAD CULVERT TABLE

STATION @ C	SKEW ANGLE	L _s (m)	R _c (m)	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	LEFT INVERT (m)	RIGHT INVERT (m)
150+001.9	90.8°	9.13	8.87	18.0	1200	0.00	265.78	265.78



MATCHLINE STA 150+060 - SEE DWG. 111

MATCHLINE STA 151+360 - SEE DWG. 113

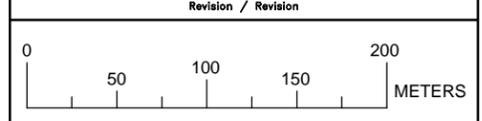


LEGEND

---	SHOULDER OF HIGHWAY
- - - -	SHOULDER OF GRAVEL ROAD
---	DITCH LINE
---	TREE LINE
---	WATER
- - - -	ROAD CULVERT
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⊕	TOWER LOCATION
⊥	ANCHOR LOCATION
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0	17-01-12	ISSUED FOR REVIEW	CH	HW
No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé



ROAD CULVERT EXTENSION TABLE

STATION @ C	SIDE TO EXTEND	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	INVERT (m)
151+286.2	RIGHT	2.0	800	-0.35	264.07



Consultant's Name
Nom de l'expert-conseil

Eng. Stamp
Scéau de l'ingénieur

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

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Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

Client/client

Parks Canada Agency
L'Agence Parcs Canada

Western and Northern Region
Ouest et Nord du Canada

Project title/Titre du projet

**HIGHWAY 5
ROAD REHABILITATION
PHASE 2 - SEGMENT 2**

WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin

PLAN-PROFILE

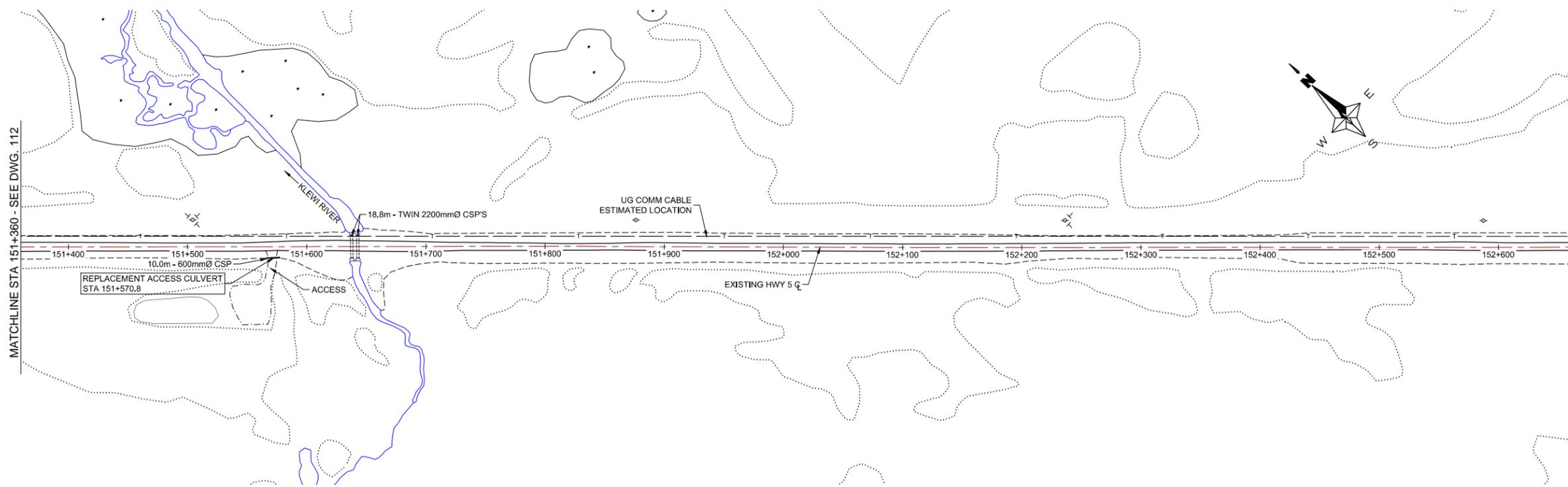
Surveyed by/Arpenté par	Drawn by/Dessiné par WSP CANADA INC.	Date/Date 2017-01-20
Designed by/Concept par WSP CANADA INC.	Reviewed by/Revisé par	Scale/Echelle 1:2000

PWGSC Project Manager/Administrateur de Projets TPSGC

Client Acceptance/Acceptation du client	Approved by/Approuvé par
Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC
Project No./No. du projet 161-11147-01	Asset No./No. du bien
Sheet No./No. de la feuille 112	

MATCHLINE STA 151+360 - SEE DWG. 112

MATCHLINE STA 152+660 - SEE DWG. 114

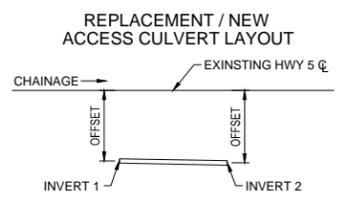
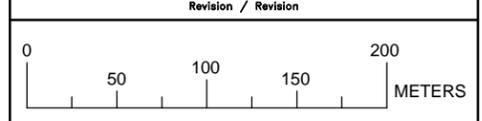


LEGEND

	SHOULDER OF HIGHWAY
	SHOULDER OF GRAVEL ROAD
	DITCH LINE
	TREE LINE
	WATER
	ROAD CULVERT
	ACCESS CULVERT INLET/OUTLET
	TOWER LOCATION
	ANCHOR LOCATION
	DITCHING REQUIRED

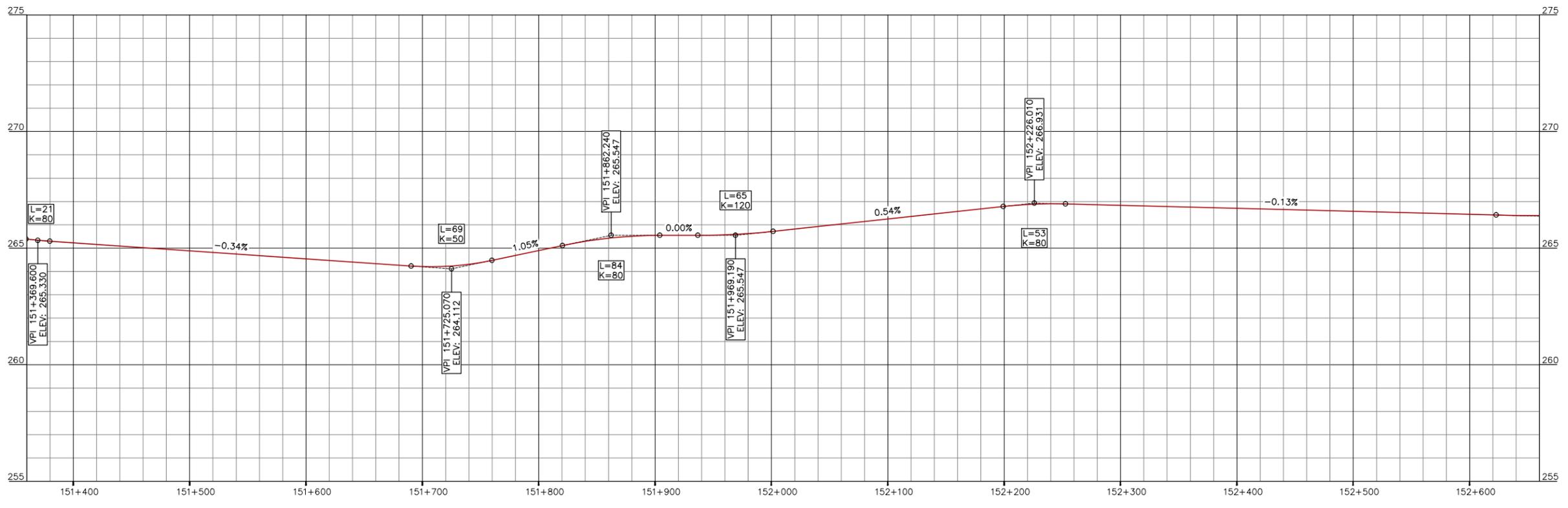
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1	17-01-20	ISSUED FOR TENDER	CH	HW
0	17-01-12	ISSUED FOR REVIEW	CH	HW
No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé



REPLACEMENT / NEW ACCESS CULVERT TABLE

INVERT 1			INVERT 2			LENGTH (m)	DIAMETER (mm)	SLOPE (%)
STATION	OFFSET (m)	ELEVATION (m)	STATION	OFFSET (m)	ELEVATION (m)			
151+565.9	10.18	263.14	151+575.7	11.94	263.06	10.0	600	0.70



Consultant's Name / Nom de l'expert-conseil: **WSP**

Eng. Stamp / Scéau de l'ingénieur

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch / Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

Canada

Client/client: Parks Canada Agency / L'Agence Parcs Canada

Western and Northern Region / Ouest et Nord du Canada

Project title/Titre du projet: **HIGHWAY 5 ROAD REHABILITATION PHASE 2 - SEGMENT 2**

WOOD BUFFALO NATIONAL PARK

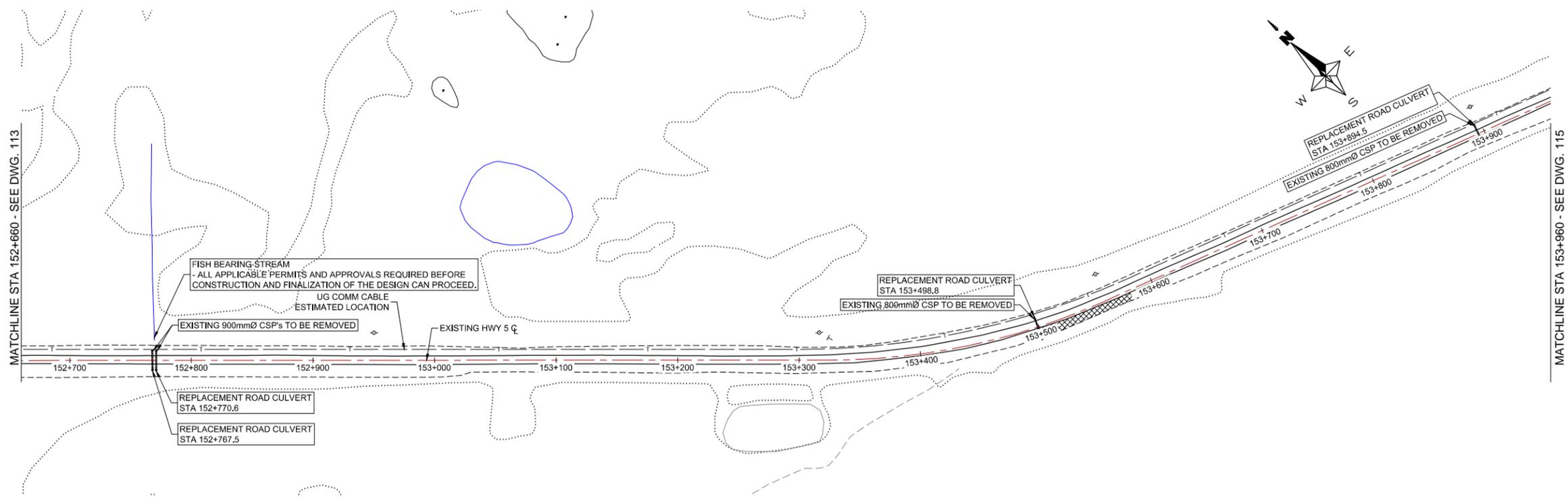
Drawing title/Titre du dessin: **PLAN-PROFILE**

Surveyed by/Arpenté par	Drawn by/Dessiné par	Date/Date
	WSP CANADA INC.	2017-01-20
Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle
WSP CANADA INC.		1:2000

PWGS Project Manager/Administrateur de Projets TPSGC

Client Acceptance/Acceptation du client	Approved by/Approuvé par
Park Responsible Officer/Agent Responsable	PWGS Project Manager/Administrateur de Projets TPSGC

Project No./No. du projet	Asset No./No. du-bien	Sheet No./No. de la feuille
161-11147-01		113
Drawing Reference No./No. de référence du dessin		

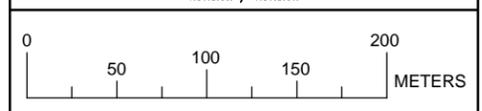


LEGEND

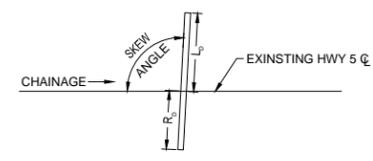
---	SHOULDER OF HIGHWAY
- - - -	SHOULDER OF GRAVEL ROAD
---	DITCH LINE
---	TREE LINE
---	WATER
- - - -	ROAD CULVERT
⌋	ACCESS CULVERT INLET/OUTLET
⊕	TOWER LOCATION
⊕	ANCHOR LOCATION
⊗	DITCHING REQUIRED

INFORMATION SHOWN ON THESE DRAWINGS REGARDING EXISTING UTILITIES IS COMPILED FROM SOME RECORD DRAWINGS AND SOME SURVEYS, AND MAY NOT BE COMPLETE OR FULLY ACCURATE. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND ADVISE THE DEPARTMENTAL REPRESENTATIVE OF ANY POTENTIAL CONFLICTS.

No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé
1	17-01-20	ISSUED FOR TENDER	CH	HW
0	17-01-12	ISSUED FOR REVIEW	CH	HW

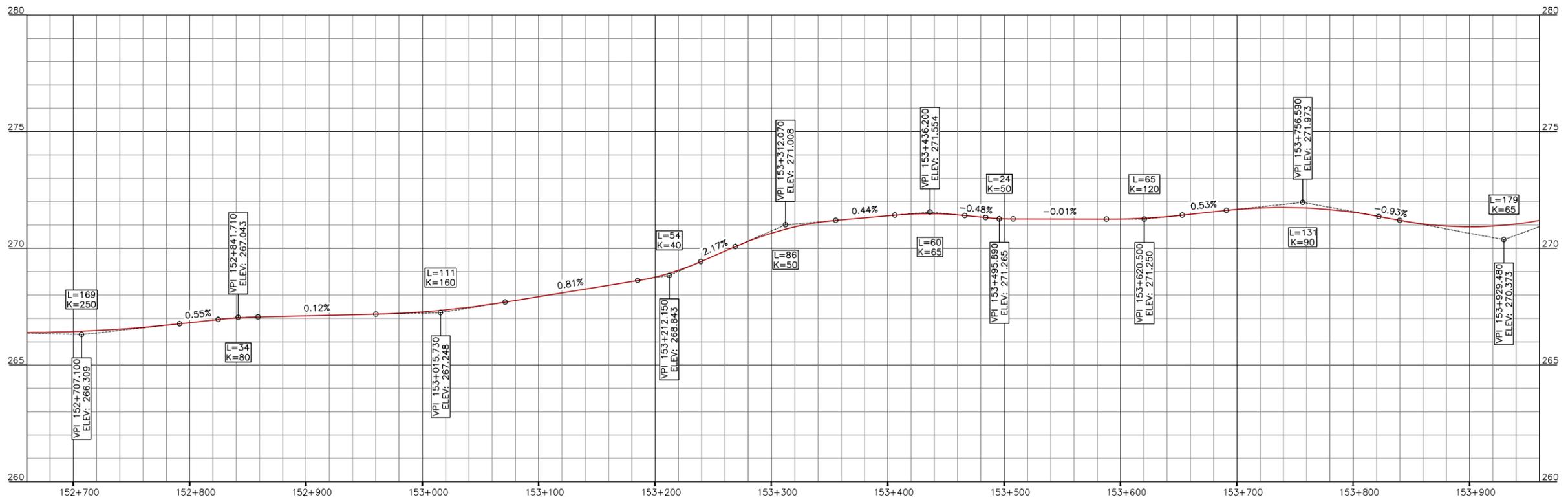


REPLACEMENT ROAD CULVERT LAYOUT



REPLACEMENT ROAD CULVERT TABLE

STATION @ C	SKEW ANGLE	L _s (m)	R _s (m)	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	LEFT INVERT (m)	RIGHT INVERT (m)
152+767.5	89.5°	8.90	8.10	17.0	900	1.47	264.75	265.00
152+770.6	89.9°	8.90	8.10	17.0	900	1.47	264.75	265.00
153+498.8	88.5°	9.46	10.56	20.0	800	0.75	269.15	269.30
153+894.5	87.7°	8.75	8.24	17.0	800	0.88	269.10	269.25



Consultant's Name
Nom de l'expert-conseil

Eng. Stamp
Scéau de l'ingénieur

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch
Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

Client/client
Parks Canada Agency
L'Agence Parcs Canada

Western and Northern Region
Ouest et Nord du Canada

Project title/Titre du projet
HIGHWAY 5 ROAD REHABILITATION PHASE 2 - SEGMENT 2

WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin
PLAN-PROFILE

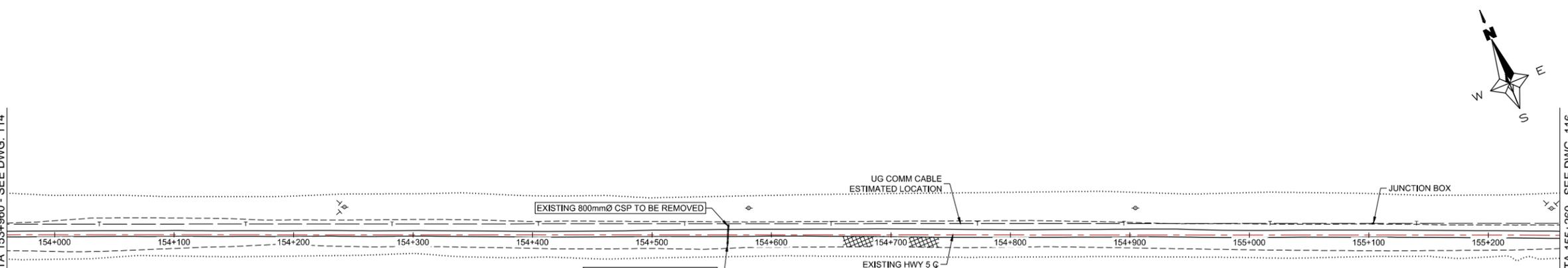
Surveyed by/Arpenté par WSP CANADA INC.	Drawn by/Dessiné par WSP CANADA INC.	Date/Date 2017-01-20
Designed by/Concept par WSP CANADA INC.	Reviewed by/Revisé par	Scale/Echelle 1:2000

PWGS Project Manager/Administrateur de Projets TPSGC

Client Acceptance/Acceptation du client	Approved by/Approuvé par
Park Responsible Officer/Agent Responsable	PWGS Project Manager/Administrateur de Projets TPSGC
Project No./No. du projet 161-11147-01	Asset No./No. du bien
Drawing Reference No./No. de référence du dessin	Sheet No./No. de la feuille 114

MATCHLINE STA 153+960 - SEE DWG. 114

MATCHLINE STA 155+260 - SEE DWG. 116

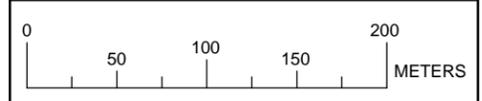


LEGEND

	SHOULDER OF HIGHWAY
	SHOULDER OF GRAVEL ROAD
	DITCH LINE
	TREE LINE
	WATER
	ROAD CULVERT
	ACCESS CULVERT INLET/OUTLET
	TOWER LOCATION
	ANCHOR LOCATION
	DITCHING REQUIRED

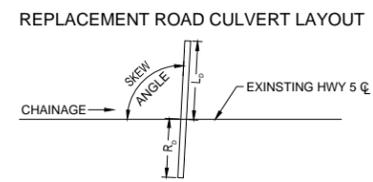
INFORMATION SHOWN ON THESE DRAWINGS REGARDING EXISTING UTILITIES IS COMPILED FROM SOME RECORD DRAWINGS AND SOME SURVEYS, AND MAY NOT BE COMPLETE OR FULLY ACCURATE. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND ADVISE THE DEPARTMENTAL REPRESENTATIVE OF ANY POTENTIAL CONFLICTS.

1	17-01-20	ISSUED FOR TENDER	CH	HW
0	17-01-12	ISSUED FOR REVIEW	CH	HW
No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé
Revision / Revision				



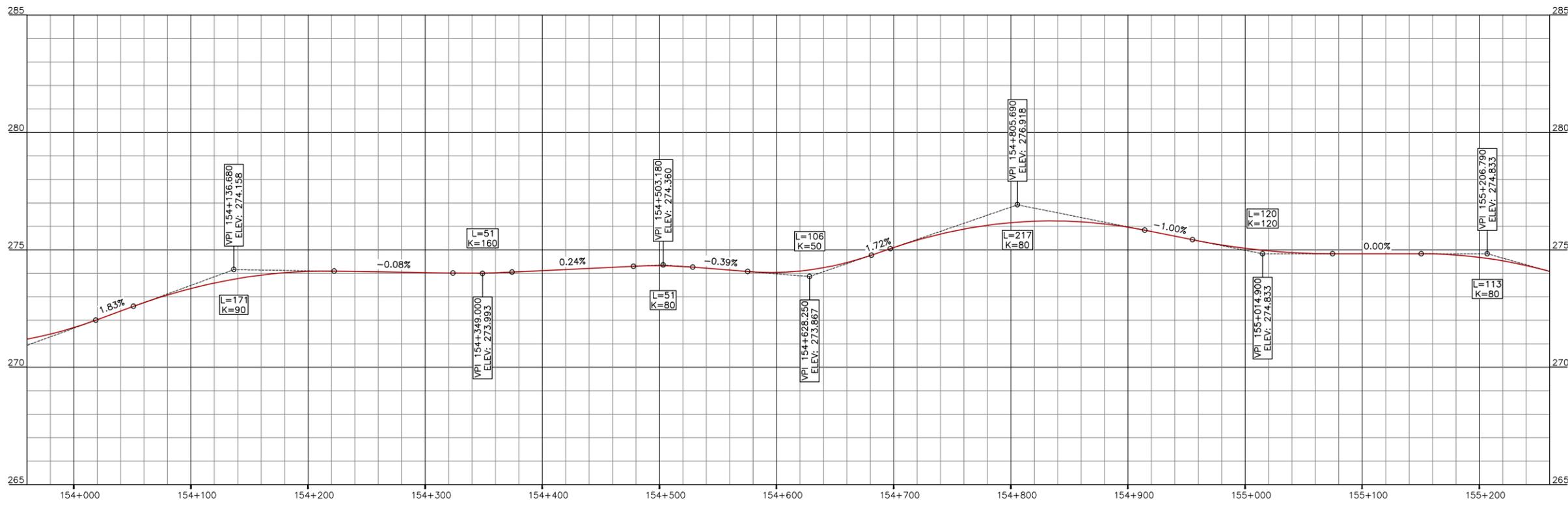
SURVEY CONTROL POINTS (UTM12)

POINT NUMBER	NORTHING	EASTING	ELEVATION
583	6671878.689	352698.996	274.486



REPLACEMENT ROAD CULVERT TABLE

STATION @ C	SKEW ANGLE	L _s (m)	R _s (m)	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	LEFT INVERT (m)	RIGHT INVERT (m)
154+563.4	92.7°	8.94	8.05	17.0	800	1.76	272.15	272.45



Consultant's Name
Nom de l'expert-conseil

WSP

Eng. Stamp
Scéau de l'ingénieur

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch / Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

Canada

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Western and Northern Region / Ouest et Nord du Canada

Project title/Titre du projet

HIGHWAY 5 ROAD REHABILITATION PHASE 2 - SEGMENT 2

WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin

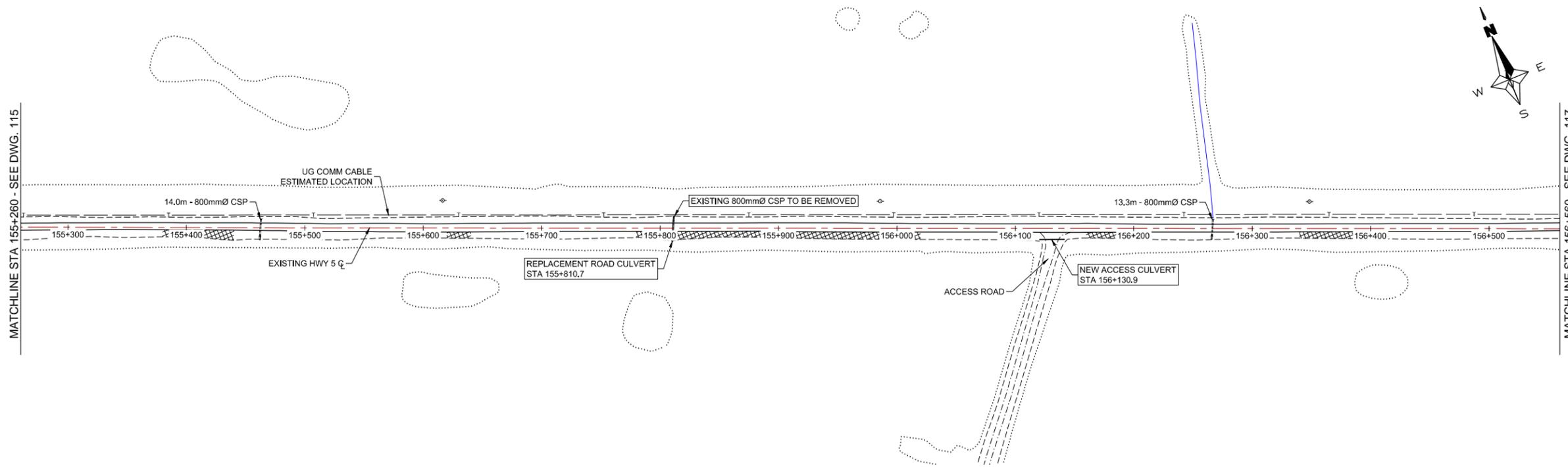
PLAN-PROFILE

Surveyed by/Arpenté par	Drawn by/Dessiné par	Date/Date
	WSP CANADA INC.	2017-01-20
Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle
WSP CANADA INC.		1:2000
PWGSC Project Manager/Administrateur de Projets TPSGC		

Client Acceptance/Acceptation du client	Approved by/Approuvé par	
Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC	
Project No./No. du projet	Asset No./No. du bien	Sheet No./No. de la feuille
161-11147-01		115
Drawing Reference No./No. de référence du dessin		

MATCHLINE STA 155+260 - SEE DWG. 115

MATCHLINE STA 156+560 - SEE DWG. 117

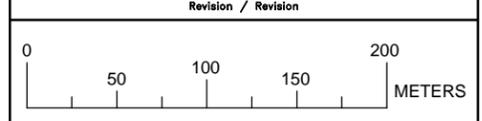


LEGEND

---	SHOULDER OF HIGHWAY
- - - -	SHOULDER OF GRAVEL ROAD
---	DITCH LINE
---	TREE LINE
---	WATER
- - - -	ROAD CULVERT
---	ACCESS CULVERT INLET/OUTLET
○	TOWER LOCATION
+	ANCHOR LOCATION
▨	DITCHING REQUIRED

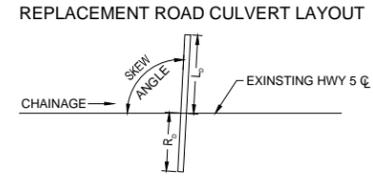
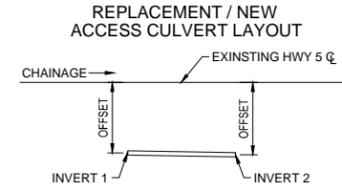
INFORMATION SHOWN ON THESE DRAWINGS REGARDING EXISTING UTILITIES IS COMPILED FROM SOME RECORD DRAWINGS AND SOME SURVEYS, AND MAY NOT BE COMPLETE OR FULLY ACCURATE. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND ADVISE THE DEPARTMENTAL REPRESENTATIVE OF ANY POTENTIAL CONFLICTS.

No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé
1	17-01-20	ISSUED FOR TENDER	CH	HW
0	17-01-12	ISSUED FOR REVIEW	CH	HW



ROAD CULVERT EXTENSION TABLE

STATION @ C	SIDE TO EXTEND	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	INVERT (m)
155+461.9	RIGHT	4.0	800	0.22	268.90
156+265.7	RIGHT	4.0	800	-1.88	268.06

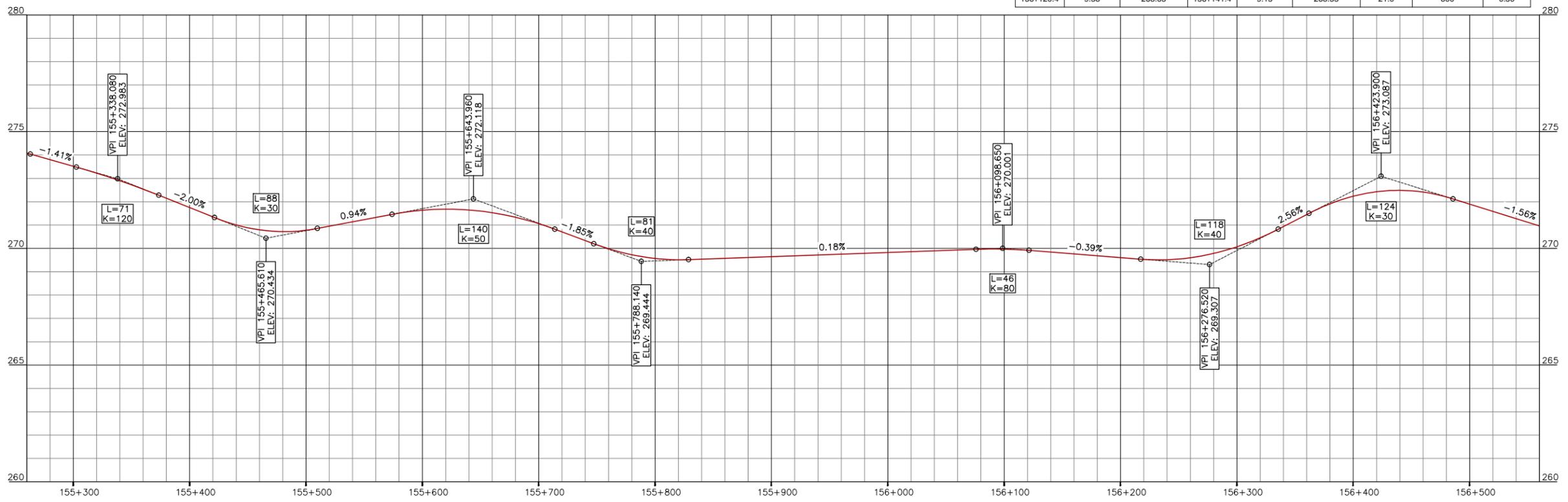


REPLACEMENT ROAD CULVERT TABLE

STATION @ C	SKIEW ANGLE	L _s (m)	R _s (m)	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	LEFT INVERT (m)	RIGHT INVERT (m)
155+810.7	91.2°	10.47	10.49	21.0	800	0.00	267.12	267.12

REPLACEMENT / NEW ACCESS CULVERT TABLE

STATION	INVERT 1		INVERT 2		LENGTH (m)	DIAMETER (mm)	SLOPE (%)	
	OFFSET (m)	ELEVATION (m)	OFFSET (m)	ELEVATION (m)				
156+120.4	9.38	268.65	156+141.4	9.15	268.53	21.0	600	0.50



Consultant's Name
Nom de l'expert-conseil

Eng. Stamp
Scéau de l'ingénieur

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch
Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

Canada

Client/client
Parks Canada Agency
L'Agence Parcs Canada

Western and Northern Region
Ouest et Nord du Canada

Project title/Titre du projet

HIGHWAY 5 ROAD REHABILITATION PHASE 2 - SEGMENT 2

WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin

PLAN-PROFILE

Surveyed by/Arpenté par	Drawn by/Dessiné par	Date/Date
	WSP CANADA INC.	2017-01-20
Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle
WSP CANADA INC.		1:2000

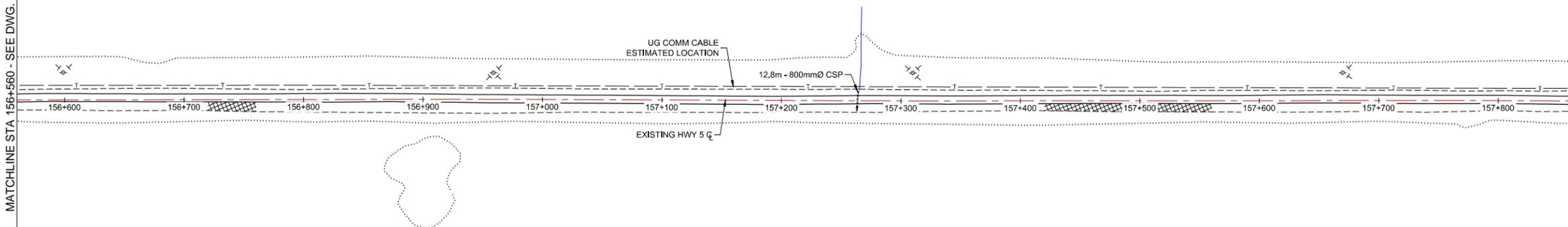
PWGSC Project Manager/Administrateur de Projets TPSGC

Client Acceptance/Acceptation du client	Approved by/Approuvé par	
Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC	
Project No./No. du projet	Asset No./No. du bien	Sheet No./No. de la feuille
161-11147-01		116
Drawing Reference No./No. de référence du dessin		

MATCHLINE STA 156+560 - SEE DWG. 116



MATCHLINE STA 157+860 - SEE DWG. 118

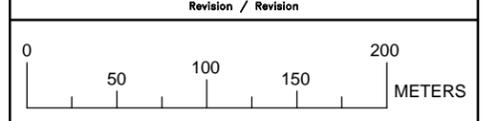


LEGEND

---	SHOULDER OF HIGHWAY
- - - -	SHOULDER OF GRAVEL ROAD
.....	DITCH LINE
.....	TREE LINE
.....	WATER
- - - -	ROAD CULVERT
.....	ACCESS CULVERT INLET/OUTLET
.....	TOWER LOCATION
.....	ANCHOR LOCATION
.....	DITCHING REQUIRED

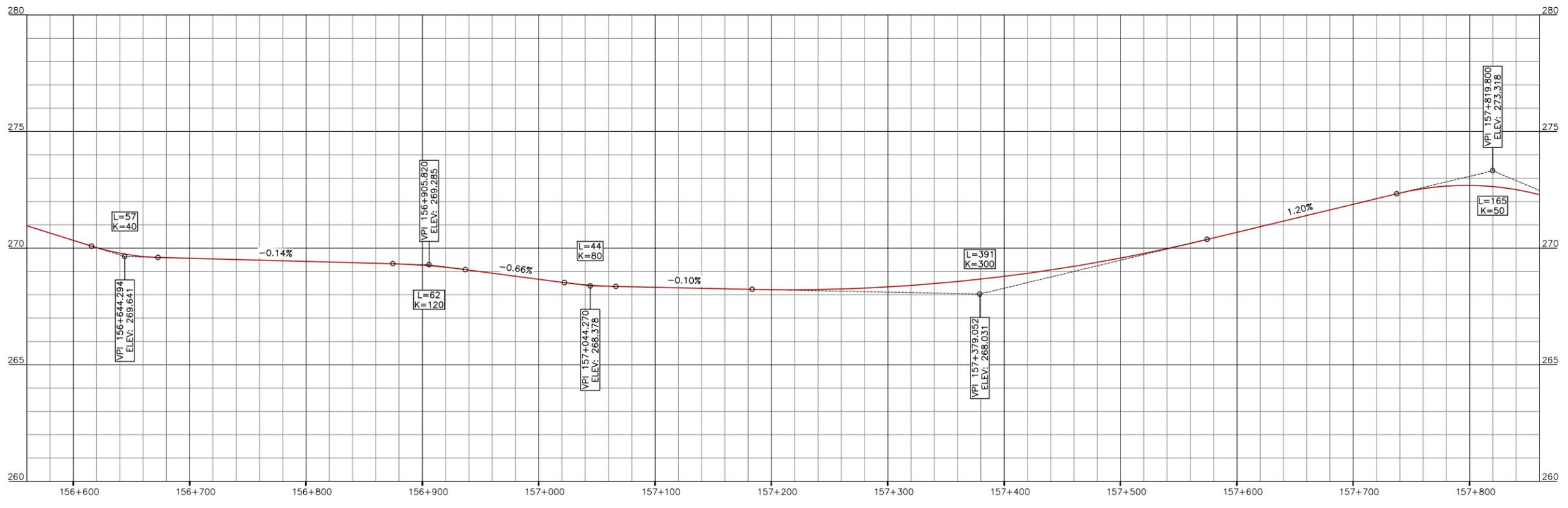
INFORMATION SHOWN ON THESE DRAWINGS REGARDING EXISTING UTILITIES IS COMPILED FROM SOME RECORD DRAWINGS AND SOME SURVEYS, AND MAY NOT BE COMPLETE OR FULLY ACCURATE. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND ADVISE THE DEPARTMENTAL REPRESENTATIVE OF ANY POTENTIAL CONFLICTS.

No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé
1	17-01-20	ISSUED FOR TENDER	CH	HW
0	17-01-12	ISSUED FOR REVIEW	CH	HW



ROAD CULVERT EXTENSION TABLE

STATION @ C/L	SIDE TO EXTEND	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	INVERT (m)
157+263.0	RIGHT	4.0	800	-0.31	266.61



Consultant's Name
Nom de l'expert-conseil

Eng. Stamp
Scéau de l'ingénieur

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch
Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

Canada

Client/client
Parks Canada Agency
L'Agence Parcs Canada

Western and Northern Region
Ouest et Nord du Canada

Project title/Titre du projet

**HIGHWAY 5
ROAD REHABILITATION
PHASE 2 - SEGMENT 2**

WOOD BUFFALO NATIONAL PARK

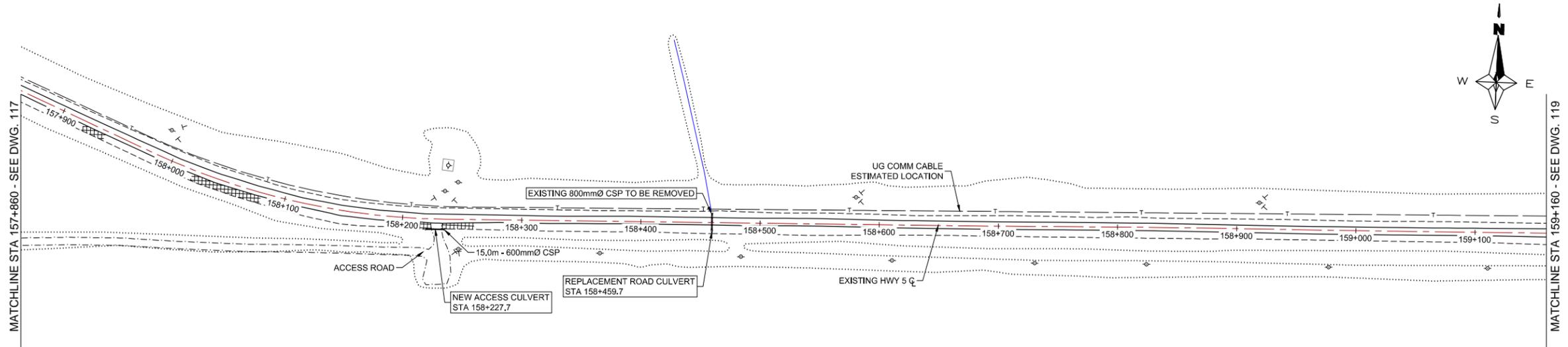
Drawing title/Titre du dessin

PLAN-PROFILE

Surveyed by/Arpenté par	Drawn by/Dessiné par WSP CANADA INC.	Date/Date 2017-01-20
Designed by/Concept par WSP CANADA INC.	Reviewed by/Revisé par	Scale/Echelle 1:2000

PWGS Project Manager/Administrateur de Projets TPSGC

Client Acceptance/Acceptation du client	Approved by/Approuvé par
Park Responsible Officer/Agent Responsable	PWGS Project Manager/Administrateur de Projets TPSGC
Project No./No. du projet 161-11147-01	Asset No./No. du-bien
Drawing Reference No./No. de référence du dessin	Sheet No./No. de la feuille 117

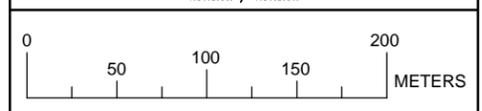


LEGEND

---	SHOULDER OF HIGHWAY
- - - -	SHOULDER OF GRAVEL ROAD
.....	DITCH LINE
.....	TREE LINE
---	WATER
- - - -	ROAD CULVERT
--->	ACCESS CULVERT INLET/OUTLET
○	TOWER LOCATION
+	ANCHOR LOCATION
▨	DITCHING REQUIRED

INFORMATION SHOWN ON THESE DRAWINGS REGARDING EXISTING UTILITIES IS COMPILED FROM SOME RECORD DRAWINGS AND SOME SURVEYS, AND MAY NOT BE COMPLETE OR FULLY ACCURATE. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND ADVISE THE DEPARTMENTAL REPRESENTATIVE OF ANY POTENTIAL CONFLICTS.

1	17-01-20	ISSUED FOR TENDER	CH	HW
0	17-01-12	ISSUED FOR REVIEW	CH	HW
No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé



Consultant's Name
Nom de l'expert-conseil

Eng. Stamp
Scéau de l'ingénieur

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch
Le Client Entretien l'Équipe Alberta Méridional Branche d'Opérations

Client/client
Parks Canada Agency
L'Agence Parcs Canada

Western and Northern Region
Ouest et Nord du Canada

Project title/Titre du projet
HIGHWAY 5 ROAD REHABILITATION PHASE 2 - SEGMENT 2
WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin
PLAN-PROFILE

Surveyed by/Arpenté par	Drawn by/Dessiné par	Date/Date
WSP CANADA INC.	WSP CANADA INC.	2017-01-20
Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle
WSP CANADA INC.		1:2000

Client Acceptance/Acceptation du client	Approved by/Approuvé par
Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC

Project No./No. du projet	Asset No./No. du bien	Sheet No./No. de la feuille
161-11147-01		118
Drawing Reference No./No. de référence du dessin		

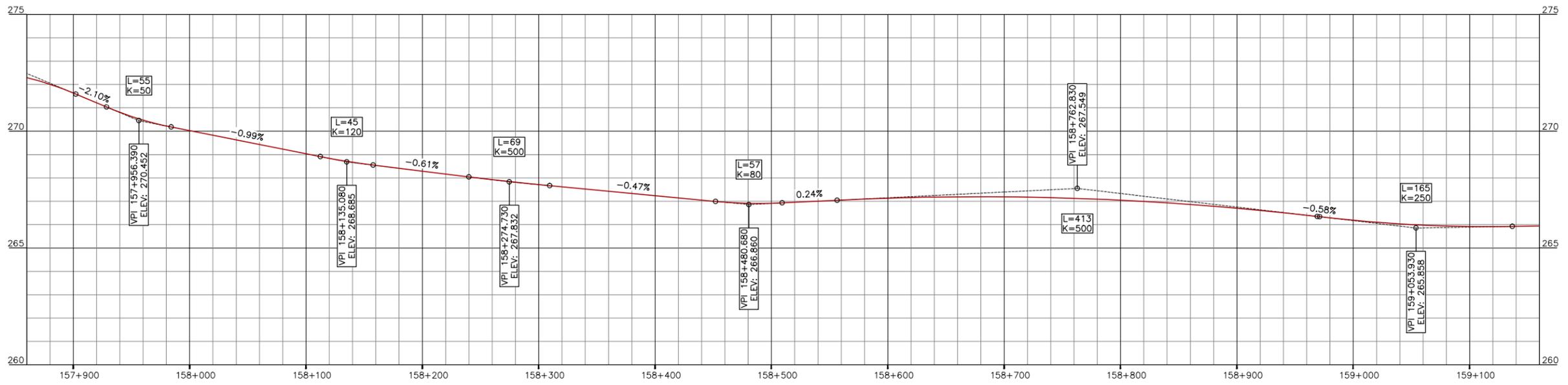


REPLACEMENT ROAD CULVERT TABLE

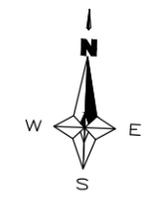
STATION @ C	SKEW ANGLE	L _s (m)	R _s (m)	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	LEFT INVERT (m)	RIGHT INVERT (m)
158+459.7	90.1°	7.64	7.36	15.0	800	0.67	265.40	265.50

REPLACEMENT / NEW ACCESS CULVERT TABLE

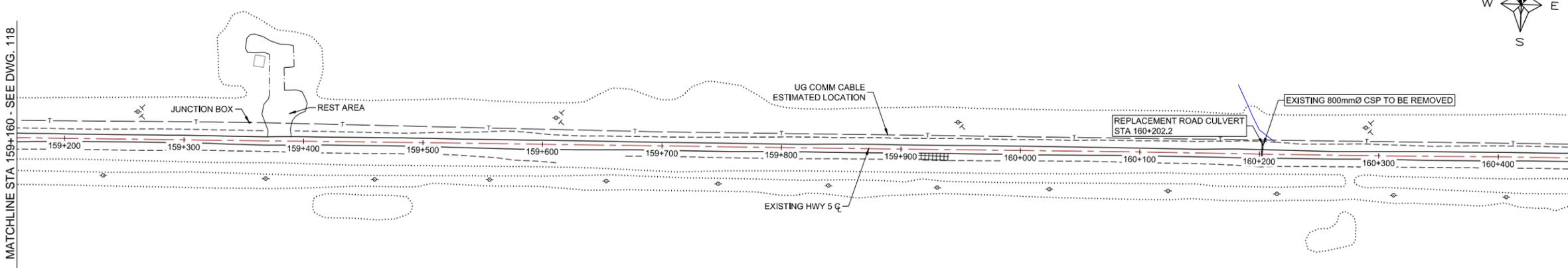
INVERT 1			INVERT 2			LENGTH (m)	DIAMETER (mm)	SLOPE (%)
STATION	OFFSET (m)	ELEVATION (m)	STATION	OFFSET (m)	ELEVATION (m)			
158+220.3	8.68	266.85	158+235.1	8.46	266.78	15.0	600	0.50



MATCHLINE STA 159+160 - SEE DWG. 118



MATCHLINE STA 160+460 - SEE DWG. 120

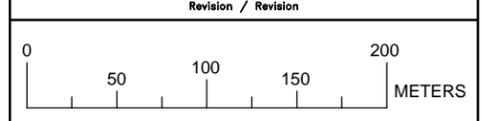


LEGEND

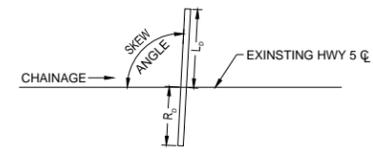
---	SHOULDER OF HIGHWAY
- - - -	SHOULDER OF GRAVEL ROAD
---	DITCH LINE
---	TREE LINE
---	WATER
- - - -	ROAD CULVERT
>	ACCESS CULVERT INLET/OUTLET
⊕	TOWER LOCATION
⊥	ANCHOR LOCATION
▨	DITCHING REQUIRED

INFORMATION SHOWN ON THESE DRAWINGS REGARDING EXISTING UTILITIES IS COMPILED FROM SOME RECORD DRAWINGS AND SOME SURVEYS, AND MAY NOT BE COMPLETE OR FULLY ACCURATE. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND ADVISE THE DEPARTMENTAL REPRESENTATIVE OF ANY POTENTIAL CONFLICTS.

No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé
1	17-01-20	ISSUED FOR TENDER	CH	HW
0	17-01-12	ISSUED FOR REVIEW	CH	HW

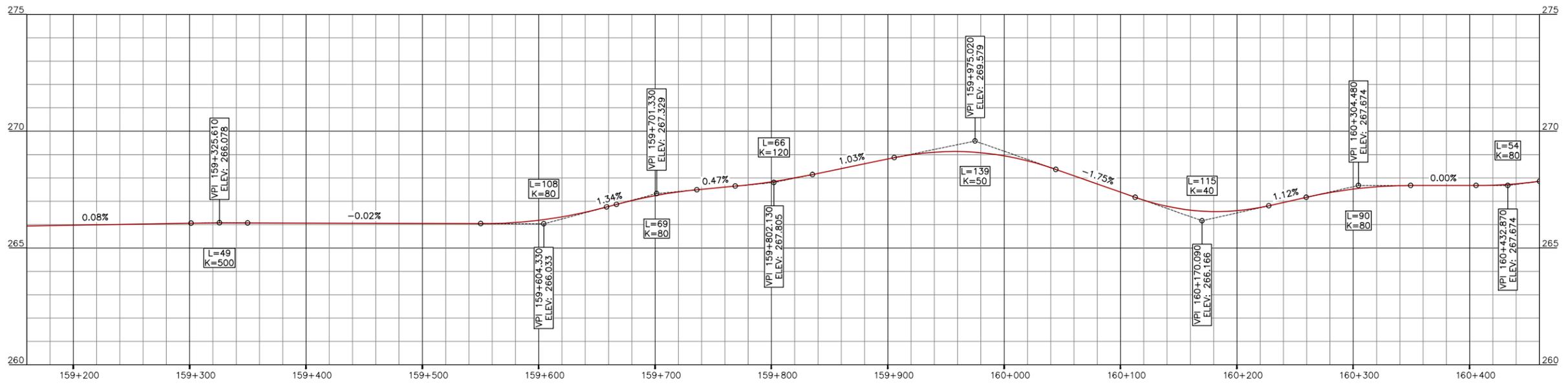


REPLACEMENT ROAD CULVERT LAYOUT



REPLACEMENT ROAD CULVERT TABLE

STATION @ C	SKEW ANGLE	L _o (m)	R _o (m)	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	LEFT INVERT (m)	RIGHT INVERT (m)
160+202.2	93.8°	8.85	8.11	17.0	800	1.18	264.75	264.95



Consultant's Name
Nom de l'expert-conseil

Eng. Stamp
Scéau de l'ingénieur

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch
Le Client Entretien l'Équipe Alberta Méridional Branche d'Opérations

Client/client
Parks Canada Agency
L'Agence Parcs Canada

Western and Northern Region
Ouest et Nord du Canada

Project title/Titre du projet
HIGHWAY 5 ROAD REHABILITATION PHASE 2 - SEGMENT 2
WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin
PLAN-PROFILE

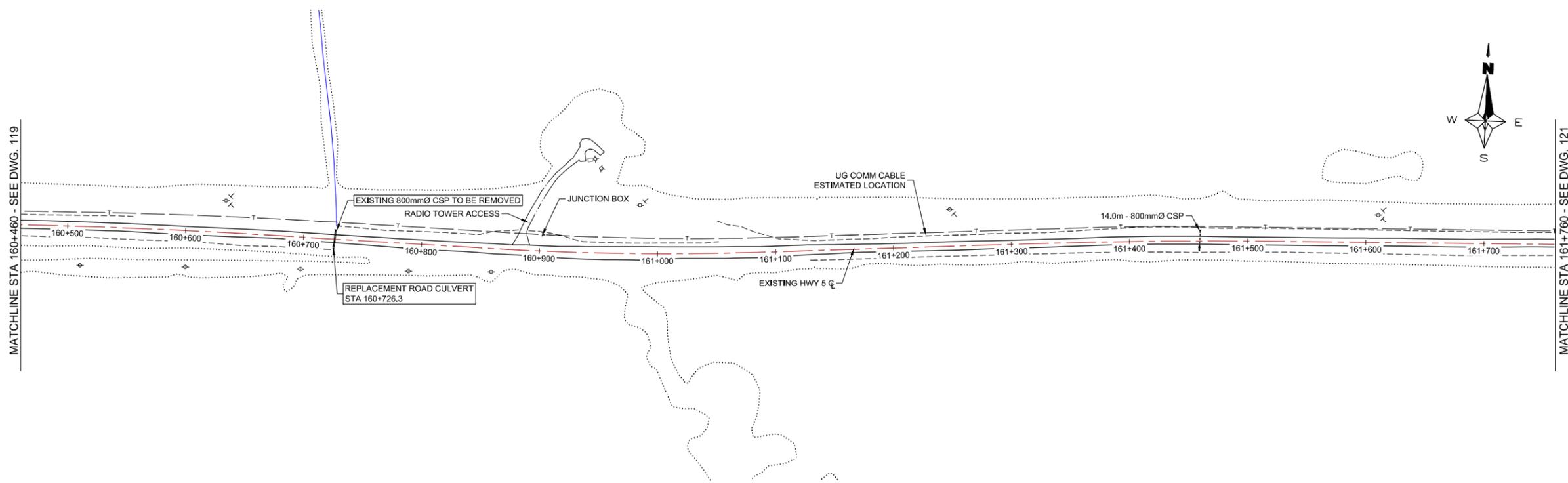
Surveyed by/Arpenté par	Drawn by/Dessiné par	Date/Date
	WSP CANADA INC.	2017-01-20
Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle
WSP CANADA INC.		1:2000

Client Acceptance/Acceptation du client	Approved by/Approuvé par

Project No./No. du projet	Asset No./No. du bien	Sheet No./No. de la feuille
161-11147-01		119
Drawing Reference No./No. de référence du dessin		

MATCHLINE STA 160+460 - SEE DWG. 119

MATCHLINE STA 161+760 - SEE DWG. 121

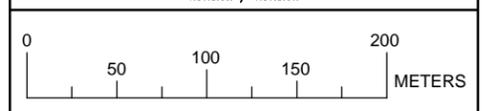


LEGEND

---	SHOULDER OF HIGHWAY
- - - -	SHOULDER OF GRAVEL ROAD
---	DITCH LINE
---	TREE LINE
---	WATER
- - - -	ROAD CULVERT
---	ACCESS CULVERT INLET/OUTLET
○	TOWER LOCATION
+	ANCHOR LOCATION
▨	DITCHING REQUIRED

INFORMATION SHOWN ON THESE DRAWINGS REGARDING EXISTING UTILITIES IS COMPILED FROM SOME RECORD DRAWINGS AND SOME SURVEYS, AND MAY NOT BE COMPLETE OR FULLY ACCURATE. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND ADVISE THE DEPARTMENTAL REPRESENTATIVE OF ANY POTENTIAL CONFLICTS.

1	17-01-20	ISSUED FOR TENDER	CH	HW
0	17-01-12	ISSUED FOR REVIEW	CH	HW
No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé

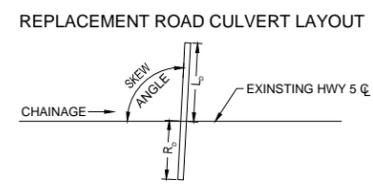


ROAD CULVERT EXTENSION TABLE

STATION @ CL	SIDE TO EXTEND	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	INVERT (m)
161+459.2	RIGHT	4.0	800	0.94	265.65

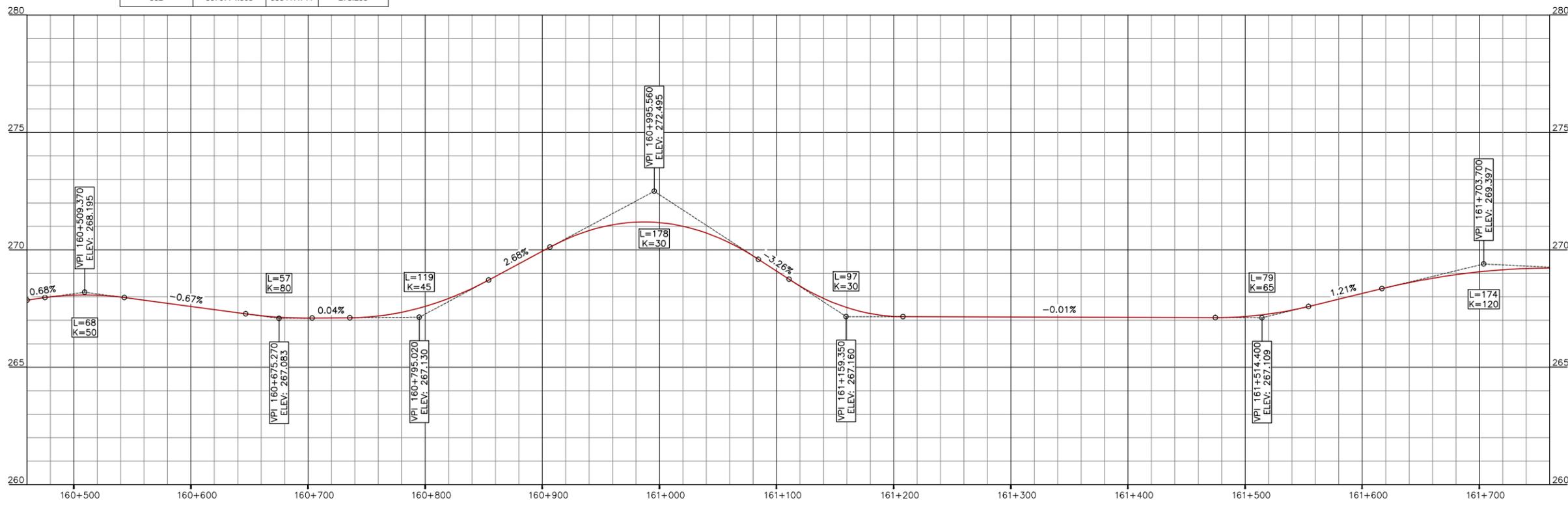
SURVEY CONTROL POINTS (UTM12)

POINT NUMBER	NORTHING	EASTING	ELEVATION
582	6670774.508	358417.711	278.295



REPLACEMENT ROAD CULVERT TABLE

STATION @ CL	SKEW ANGLE	L _s (m)	R _s (m)	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	LEFT INVERT (m)	RIGHT INVERT (m)
160+726.3	93.8°	8.23	7.74	16.0	800	0.94	265.50	265.65



Consultant's Name
Nom de l'expert-conseil

Eng. Stamp
Scéau de l'ingénieur

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch / Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

Canada

Client/client: Parks Canada Agency / L'Agence Parcs Canada

Western and Northern Region / Ouest et Nord du Canada

Project title/Titre du projet: **HIGHWAY 5 ROAD REHABILITATION PHASE 2 - SEGMENT 2**

WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin: **PLAN-PROFILE**

Surveyed by/Arpenté par	Drawn by/Dessiné par	Date/Date
	WSP CANADA INC.	2017-01-20
Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle
WSP CANADA INC.		1:2000

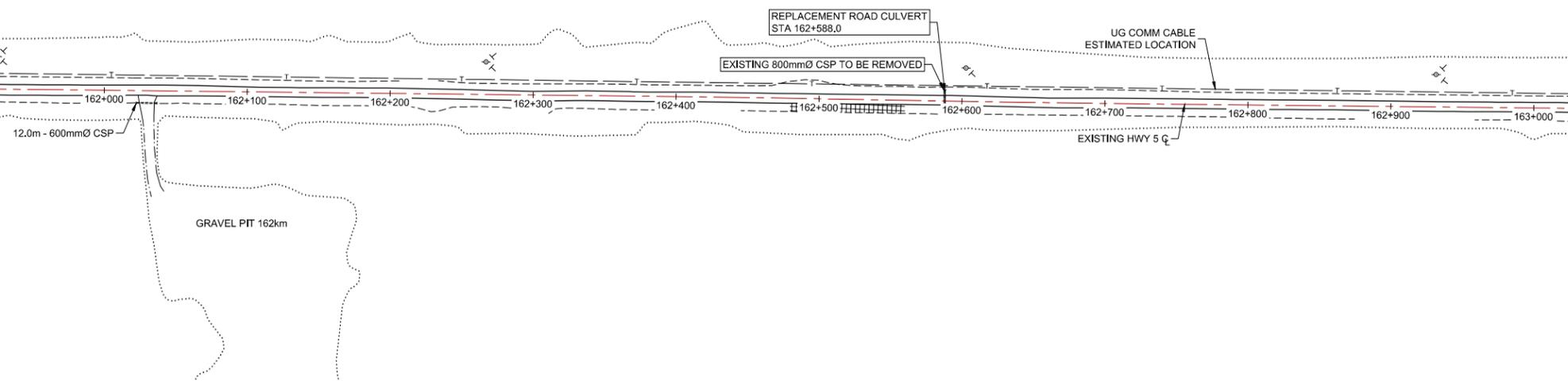
PWGS Project Manager/Administrateur de Projets TPSGC

Client Acceptance/Acceptation du client	Approved by/Approuvé par	
Park Responsible Officer/Agent Responsable	PWGS Project Manager/Administrateur de Projets TPSGC	
Project No./No. du projet	Asset No./No. du bien	Sheet No./No. de la feuille
161-11147-01		120
Drawing Reference No./No. de référence du dessin		

MATCHLINE STA 161+760 - SEE DWG. 120



MATCHLINE STA 163+060 - SEE DWG. 122

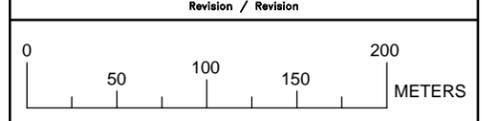


LEGEND

---	SHOULDER OF HIGHWAY
- - - -	SHOULDER OF GRAVEL ROAD
.....	DITCH LINE
.....	TREE LINE
---	WATER
- - - -	ROAD CULVERT
~ ~ ~ ~	ACCESS CULVERT INLET/OUTLET
○	TOWER LOCATION
+	ANCHOR LOCATION
▨	DITCHING REQUIRED

INFORMATION SHOWN ON THESE DRAWINGS REGARDING EXISTING UTILITIES IS COMPILED FROM SOME RECORD DRAWINGS AND SOME SURVEYS, AND MAY NOT BE COMPLETE OR FULLY ACCURATE. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND ADVISE THE DEPARTMENTAL REPRESENTATIVE OF ANY POTENTIAL CONFLICTS.

No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé
1	17-01-20	ISSUED FOR TENDER	CH	HW
0	17-01-12	ISSUED FOR REVIEW	CH	HW

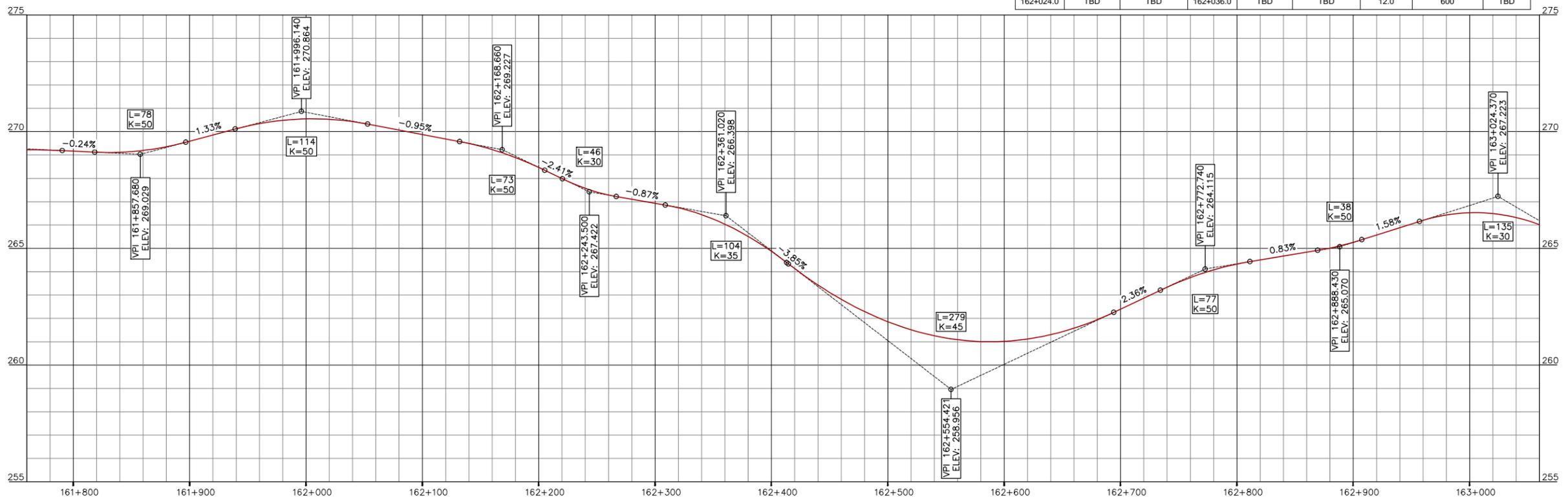


REPLACEMENT ROAD CULVERT TABLE

STATION @ Q	SKIEW ANGLE	L _o (m)	R _o (m)	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	LEFT INVERT (m)	RIGHT INVERT (m)
162+588.0	89.2°	7.87	8.13	16.0	800	-0.31	259.45	259.40

REPLACEMENT / NEW ACCESS CULVERT TABLE

STATION	INVERT 1		INVERT 2		LENGTH (m)	DIAMETER (mm)	SLOPE (%)
	OFFSET (m)	ELEVATION (m)	OFFSET (m)	ELEVATION (m)			
162+024.0	TBD	TBD	TBD	TBD	12.0	600	TBD



Consultant's Name
Nom de l'expert-conseil

Eng. Stamp
Scéau de l'ingénieur

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch
Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

Canada

Client/client
Parks Canada Agency
L'Agence Parcs Canada

Western and Northern Region
Ouest et Nord du Canada

Project title/Titre du projet
HIGHWAY 5 ROAD REHABILITATION PHASE 2 - SEGMENT 2

WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin
PLAN-PROFILE

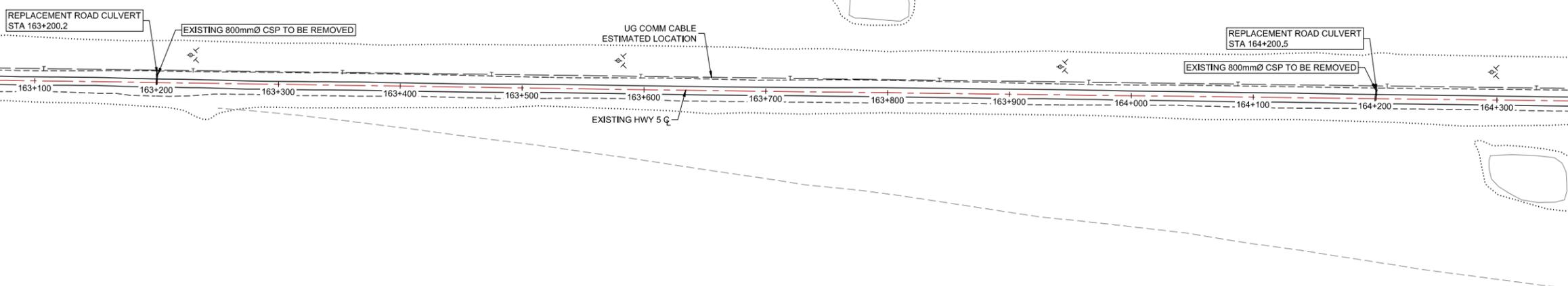
Surveyed by/Arpenté par	Drawn by/Dessiné par WSP CANADA INC.	Date/Date 2017-01-20
Designed by/Concept par WSP CANADA INC.	Reviewed by/Revisé par	Scale/Echelle 1:2000

PWGC Project Manager/Administrateur de Projets TPSGC

Client Acceptance/Acceptation du client	Approved by/Approuvé par
Park Responsible Officer/Agent Responsable	PWGC Project Manager/Administrateur de Projets TPSGC

Project No./No. du projet 161-11147-01	Asset No./No. du-bien	Sheet No./No. de la feuille 121
Drawing Reference No./No. de référence du dessin		

MATCHLINE STA 163+060 - SEE DWG. 121

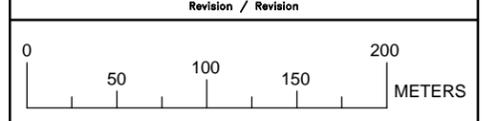


LEGEND

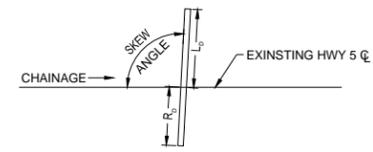
---	SHOULDER OF HIGHWAY
- - - -	SHOULDER OF GRAVEL ROAD
.....	DITCH LINE
.....	TREE LINE
---	WATER
- - - -	ROAD CULVERT
- - - -	ACCESS CULVERT INLET/OUTLET
○	TOWER LOCATION
+	ANCHOR LOCATION
▨	DITCHING REQUIRED

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No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé
1	17-01-20	ISSUED FOR TENDER	CH	HW
0	17-01-12	ISSUED FOR REVIEW	CH	HW

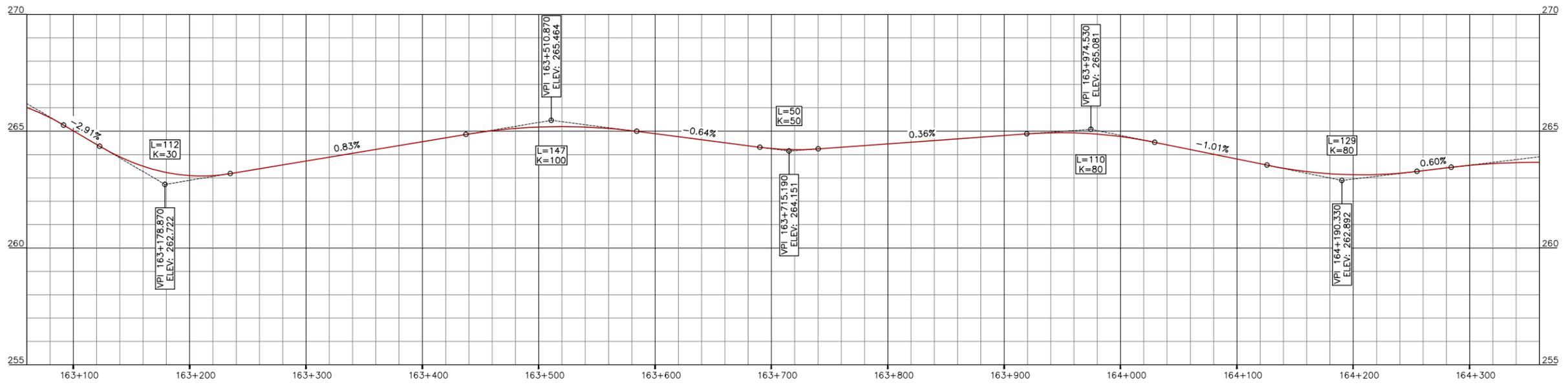


REPLACEMENT ROAD CULVERT LAYOUT



REPLACEMENT ROAD CULVERT TABLE

STATION @ C	SKEW ANGLE	L _s (m)	R _s (m)	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	LEFT INVERT (m)	RIGHT INVERT (m)
163+200.2	91.1°	8.01	7.99	16.0	800	0.00	261.55	261.55
164+200.5	94.8°	7.47	8.47	16.0	800	-1.57	261.65	261.40



Consultant's Name
Nom de l'expert-conseil

Eng. Stamp
Scéau de l'ingénieur

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch
Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

Client/client
Parks Canada Agency
L'Agence Parcs Canada

Western and Northern Region
Ouest et Nord du Canada

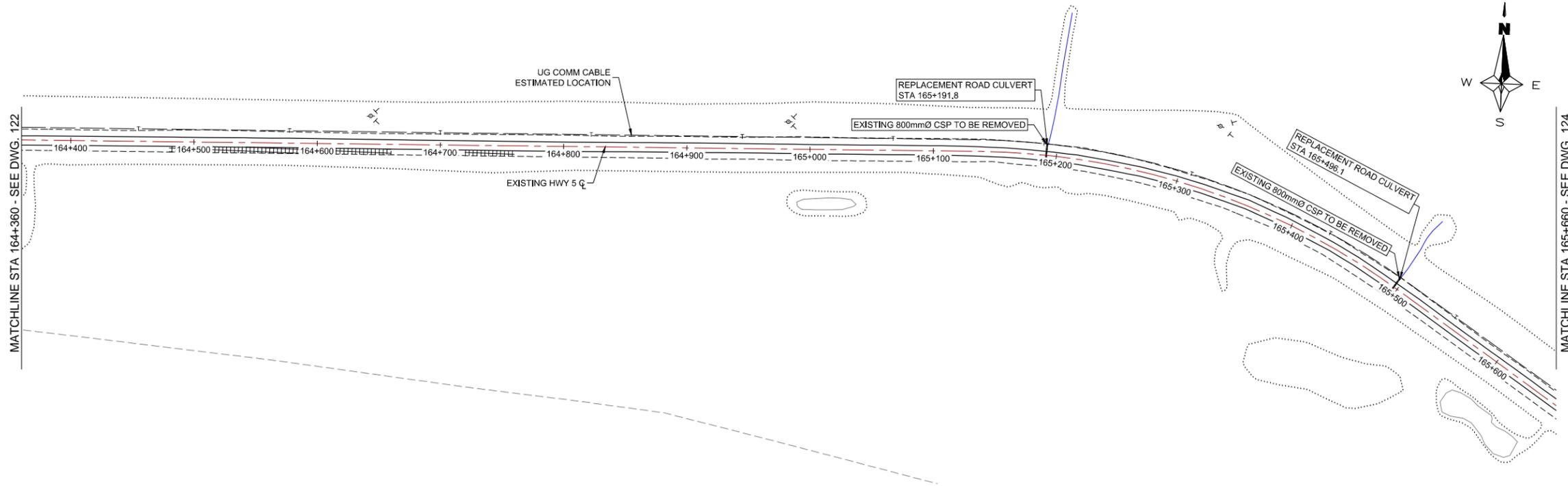
Project title/Titre du projet
HIGHWAY 5 ROAD REHABILITATION PHASE 2 - SEGMENT 2
WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin
PLAN-PROFILE

Surveyed by/Arpenté par	Drawn by/Dessiné par	Date/Date
	WSP CANADA INC.	2017-01-20
Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle
WSP CANADA INC.		1:2000

PWGSC Project Manager/Administrateur de Projets TPSGC

Client Acceptance/Acceptation du client	Approved by/Approuvé par	
Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC	
Project No./No. du projet	Asset No./No. du bien	Sheet No./No. de la feuille
161-11147-01		122
Drawing Reference No./No. de référence du dessin		

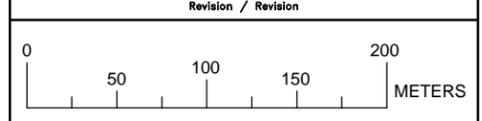


LEGEND

---	SHOULDER OF HIGHWAY
- - - -	SHOULDER OF GRAVEL ROAD
---	DITCH LINE
---	TREE LINE
---	WATER
- - - -	ROAD CULVERT
⌋	ACCESS CULVERT INLET/OUTLET
⊕	TOWER LOCATION
⊕	ANCHOR LOCATION
⊕	DITCHING REQUIRED

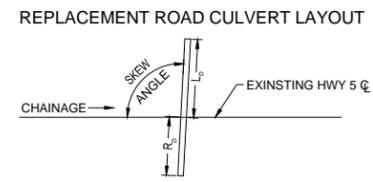
INFORMATION SHOWN ON THESE DRAWINGS REGARDING EXISTING UTILITIES IS COMPILED FROM SOME RECORD DRAWINGS AND SOME SURVEYS, AND MAY NOT BE COMPLETE OR FULLY ACCURATE. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND ADVISE THE DEPARTMENTAL REPRESENTATIVE OF ANY POTENTIAL CONFLICTS.

1	17-01-20	ISSUED FOR TENDER	CH	HW
0	17-01-12	ISSUED FOR REVIEW	CH	HW
No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé



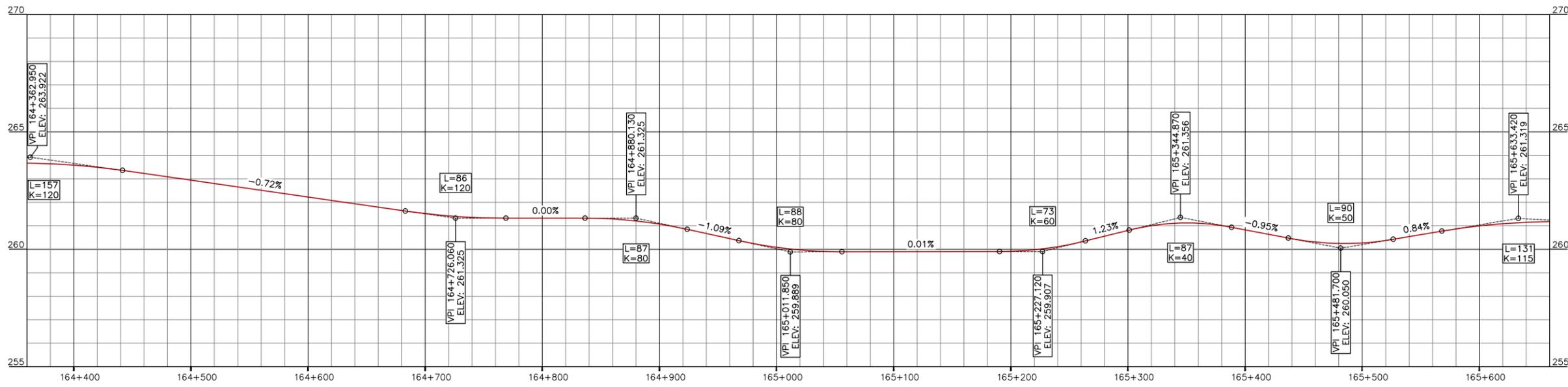
SURVEY CONTROL POINTS (UTM12)

POINT NUMBER	NORTHING	EASTING	ELEVATION
541	6670879.404	362798.287	260.299



REPLACEMENT ROAD CULVERT TABLE

STATION @ C	SKEW ANGLE	L _s (m)	R _s (m)	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	LEFT INVERT (m)	RIGHT INVERT (m)
165+191.8	89.4°	9.40	7.60	17.0	800	0.29	258.25	258.30
165+496.1	90.9°	9.42	7.58	17.0	800	0.88	258.55	258.70



Consultant's Name
Nom de l'expert-conseil

WSP

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Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch / Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

Canada

Client/client
Parks Canada Agency / L'Agence Parcs Canada

Western and Northern Region / Ouest et Nord du Canada

Project title/Titre du projet

**HIGHWAY 5
ROAD REHABILITATION
PHASE 2 – SEGMENT 2**

WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin

PLAN-PROFILE

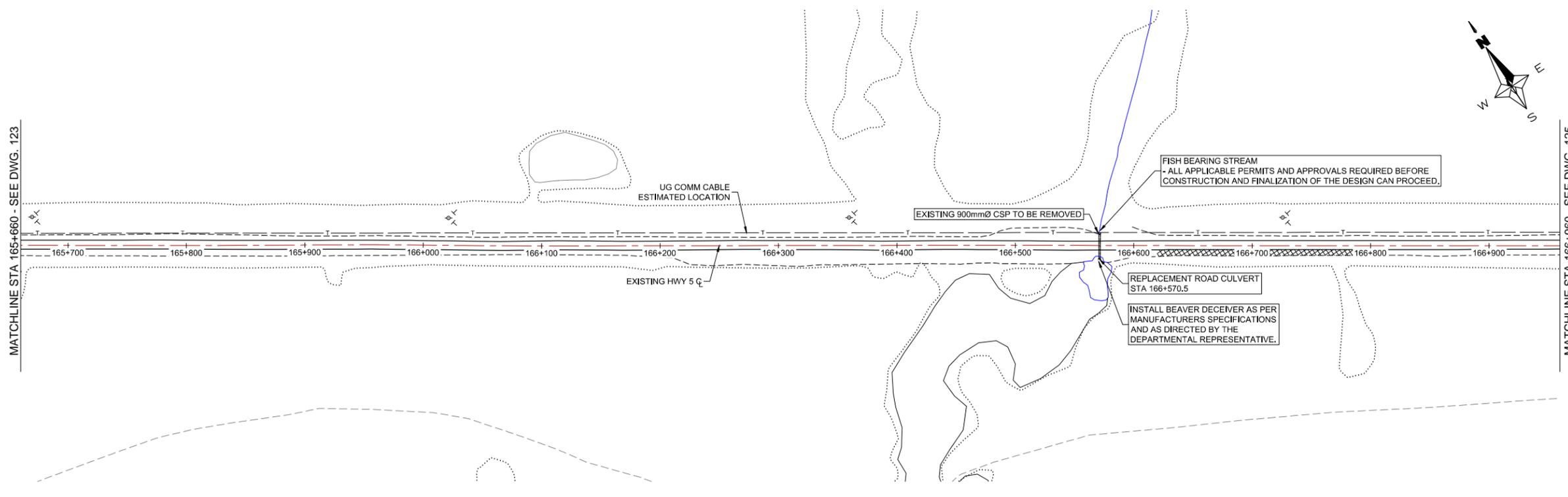
Surveyed by/Arpenté par	Drawn by/Dessiné par	Date/Date
	WSP CANADA INC.	2017-01-20
Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle
WSP CANADA INC.		1:2000

PWGSC Project Manager/Administrateur de Projets TPSGC

Client Acceptance/Acceptation du client	Approved by/Approuvé par	
Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC	
Project No./No. du projet	Asset No./No. du bien	Sheet No./No. de la feuille
161-11147-01		123
Drawing Reference No./No. de référence du dessin		

MATCHLINE STA 165+660 - SEE DWG. 123

MATCHLINE STA 166+960 - SEE DWG. 125

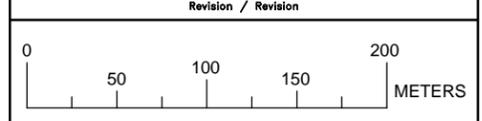


LEGEND

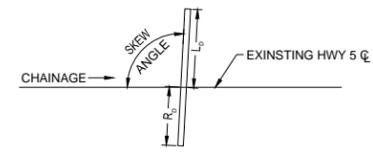
---	SHOULDER OF HIGHWAY
- - - - -	SHOULDER OF GRAVEL ROAD
.....	DITCH LINE
.....	TREE LINE
---	WATER
- - - - -	ROAD CULVERT
~ ~ ~ ~ ~	ACCESS CULVERT INLET/OUTLET
⊕	TOWER LOCATION
⊕	ANCHOR LOCATION
▨	DITCHING REQUIRED

INFORMATION SHOWN ON THESE DRAWINGS REGARDING EXISTING UTILITIES IS COMPILED FROM SOME RECORD DRAWINGS AND SOME SURVEYS, AND MAY NOT BE COMPLETE OR FULLY ACCURATE. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND ADVISE THE DEPARTMENTAL REPRESENTATIVE OF ANY POTENTIAL CONFLICTS.

No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé
1	17-01-20	ISSUED FOR TENDER	CH	HW
0	17-01-12	ISSUED FOR REVIEW	CH	HW

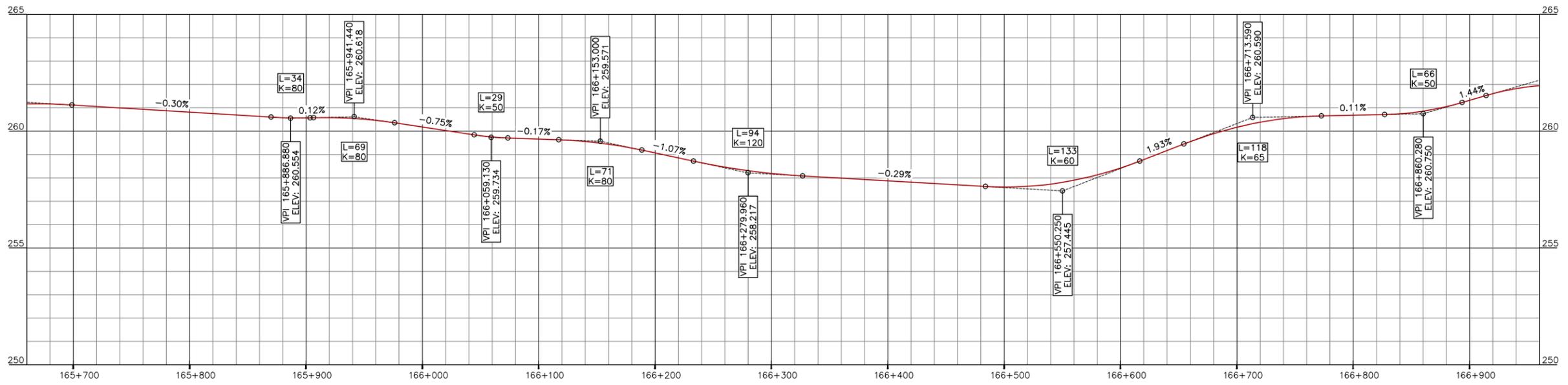


REPLACEMENT ROAD CULVERT LAYOUT



REPLACEMENT ROAD CULVERT TABLE

STATION @ C	SKEW ANGLE	L _s (m)	R _s (m)	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	LEFT INVERT (m)	RIGHT INVERT (m)
166+570.5	90.0°	10.98	11.02	22.0	1200	0.91	255.80	256.00



Consultant's Name
Nom de l'expert-conseil

Eng. Stamp
Scéau de l'ingénieur

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch
Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

Client/client
Parks Canada Agency
L'Agence Parcs Canada

Western and Northern Region
Ouest et Nord du Canada

Project title/Titre du projet
HIGHWAY 5 ROAD REHABILITATION PHASE 2 - SEGMENT 2
WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin
PLAN-PROFILE

Surveyed by/Arpenté par	Drawn by/Dessiné par WSP CANADA INC.	Date/Date 2017-01-20
Designed by/Concept par WSP CANADA INC.	Reviewed by/Revisé par	Scale/Echelle 1:2000

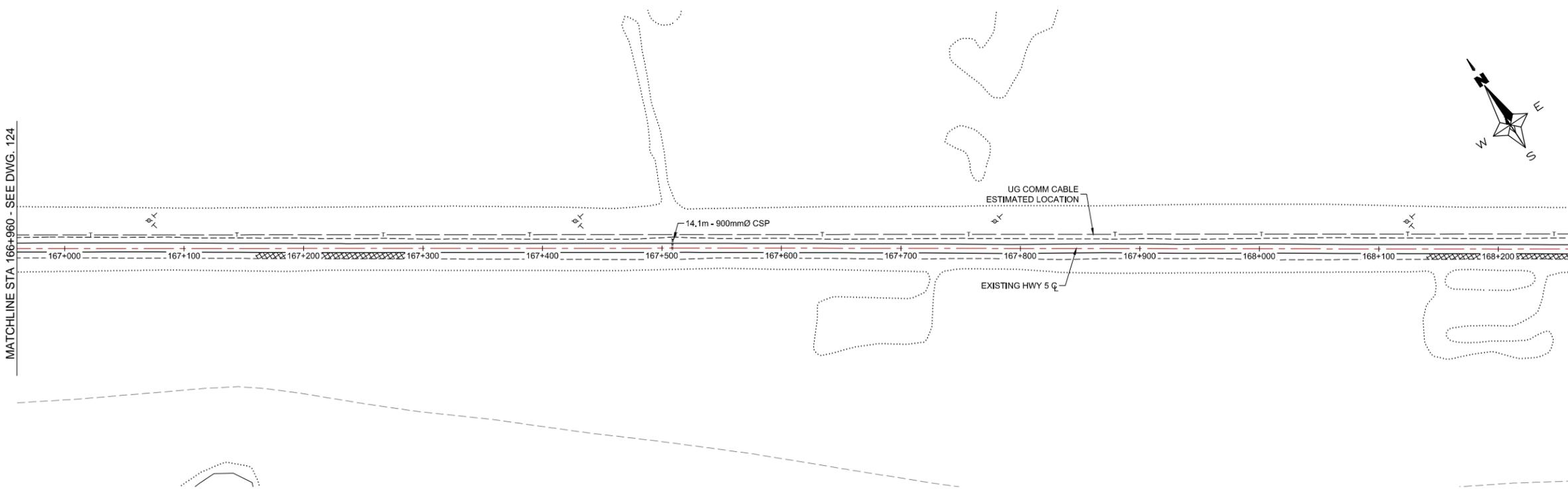
PWGSC Project Manager/Administrateur de Projets TPSGC

Client Acceptance/Acceptation du client	Approved by/Approuvé par
Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC

Project No./No. du projet 161-11147-01	Asset No./No. du bien	Sheet No./No. de la feuille 124
Drawing Reference No./No. de référence du dessin		

MATCHLINE STA 166+960 - SEE DWG. 124

MATCHLINE STA 168+260 - SEE DWG. 126

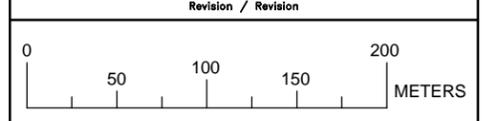


LEGEND

---	SHOULDER OF HIGHWAY
- - - -	SHOULDER OF GRAVEL ROAD
.....	DITCH LINE
.....	TREE LINE
---	WATER
- - - -	ROAD CULVERT
⌋	ACCESS CULVERT INLET/OUTLET
⊕	TOWER LOCATION
⊕	ANCHOR LOCATION
▨	DITCHING REQUIRED

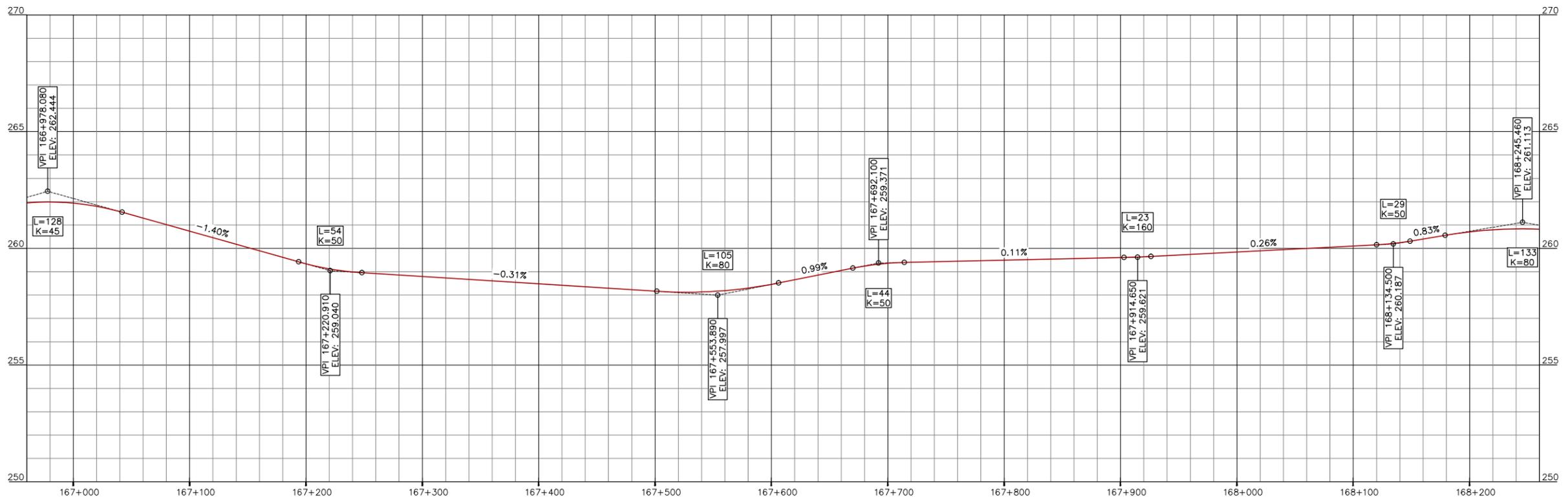
INFORMATION SHOWN ON THESE DRAWINGS REGARDING EXISTING UTILITIES IS COMPILED FROM SOME RECORD DRAWINGS AND SOME SURVEYS, AND MAY NOT BE COMPLETE OR FULLY ACCURATE. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND ADVISE THE DEPARTMENTAL REPRESENTATIVE OF ANY POTENTIAL CONFLICTS.

No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé
1	17-01-20	ISSUED FOR TENDER	CH	HW
0	17-01-12	ISSUED FOR REVIEW	CH	HW



ROAD CULVERT EXTENSION TABLE

STATION @ CL	SIDE TO EXTEND	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	INVERT (m)
167+507.6	RIGHT	3.0	900	-0.80	256.67



Consultant's Name / Nom de l'expert-conseil: **WSP**

Eng. Stamp / Scéau de l'ingénieur

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch / Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

Canada

Client/client: Parks Canada Agency / L'Agence Parcs Canada

Western and Northern Region / Ouest et Nord du Canada

Project title/Titre du projet: **HIGHWAY 5 ROAD REHABILITATION PHASE 2 - SEGMENT 2**

WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin: **PLAN-PROFILE**

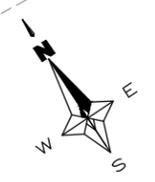
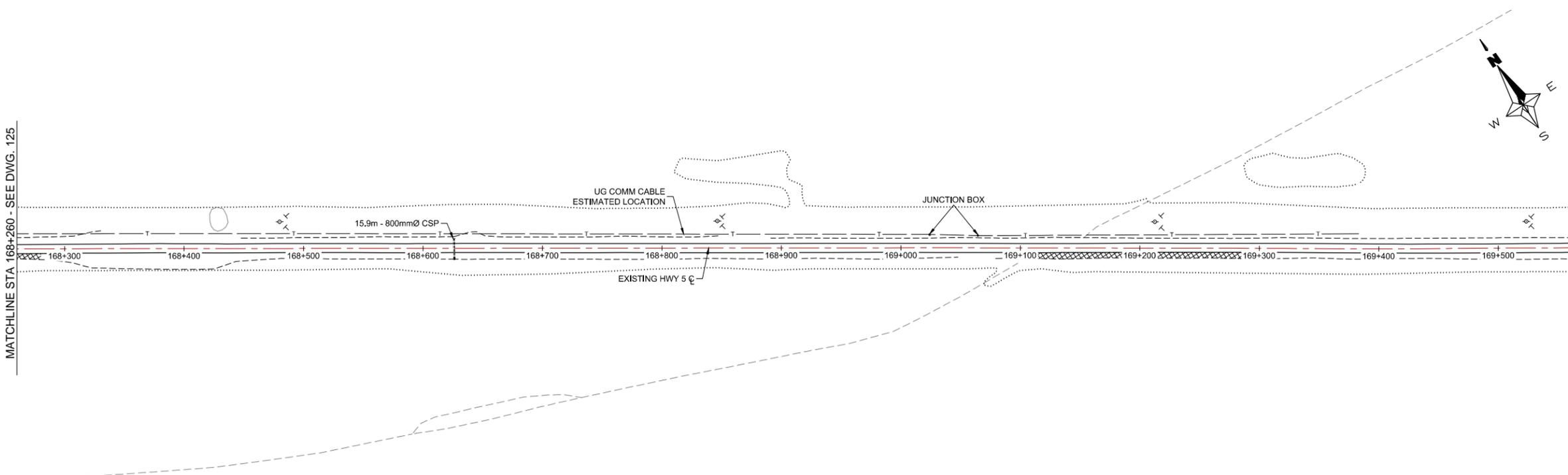
Surveyed by/Arpenté par	Drawn by/Dessiné par	Date/Date
	WSP CANADA INC.	2017-01-20
Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle
WSP CANADA INC.		1:2000

PWGSC Project Manager/Administrateur de Projets TPSGC

Client Acceptance/Acceptation du client	Approved by/Approuvé par	
Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC	
Project No./No. du projet	Asset No./No. du bien	Sheet No./No. de la feuille
161-11147-01		125
Drawing Reference No./No. de référence du dessin		

MATCHLINE STA 168+260 - SEE DWG. 125

MATCHLINE STA 169+560 - SEE DWG. 127

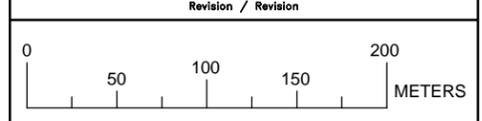


LEGEND

	SHOULDER OF HIGHWAY
	SHOULDER OF GRAVEL ROAD
	DITCH LINE
	TREE LINE
	WATER
	ROAD CULVERT
	ACCESS CULVERT INLET/OUTLET
	TOWER LOCATION
	ANCHOR LOCATION
	DITCHING REQUIRED

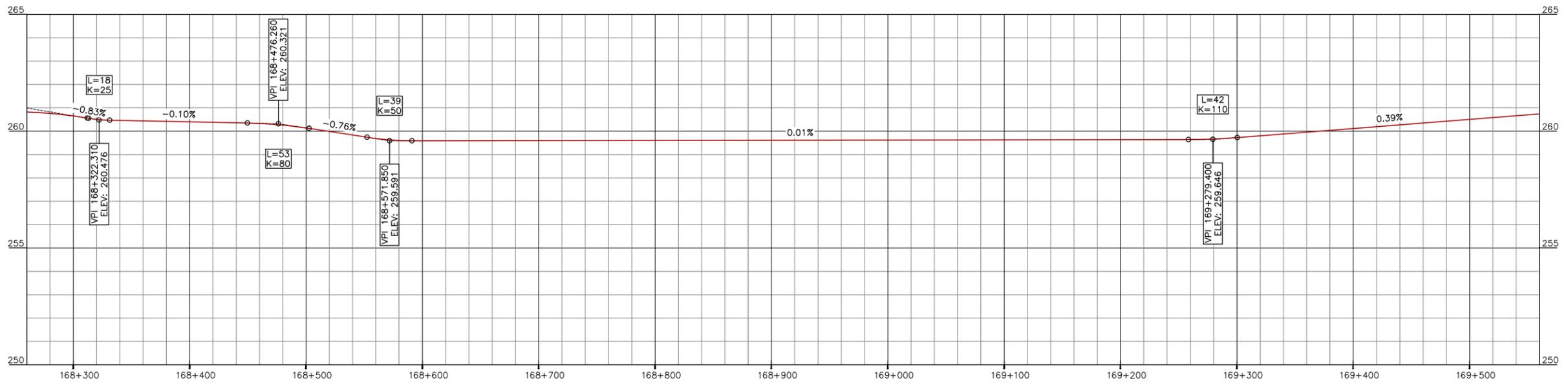
INFORMATION SHOWN ON THESE DRAWINGS REGARDING EXISTING UTILITIES IS COMPILED FROM SOME RECORD DRAWINGS AND SOME SURVEYS, AND MAY NOT BE COMPLETE OR FULLY ACCURATE. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND ADVISE THE DEPARTMENTAL REPRESENTATIVE OF ANY POTENTIAL CONFLICTS.

No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé
1	17-01-20	ISSUED FOR TENDER	CH	HW
0	17-01-12	ISSUED FOR REVIEW	CH	HW



ROAD CULVERT EXTENSION TABLE

STATION @ CL	SIDE TO EXTEND	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	INVERT (m)
168+625.7	RIGHT	2.0	800	0.60	257.87



Consultant's Name
Nom de l'expert-conseil

Eng. Stamp
Scéau de l'ingénieur

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch
Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

Canada

Client/client
Parks Canada Agency
L'Agence Parcs Canada

Western and Northern Region
Ouest et Nord du Canada

Project title/Titre du projet

**HIGHWAY 5
ROAD REHABILITATION
PHASE 2 - SEGMENT 2**

WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin

PLAN-PROFILE

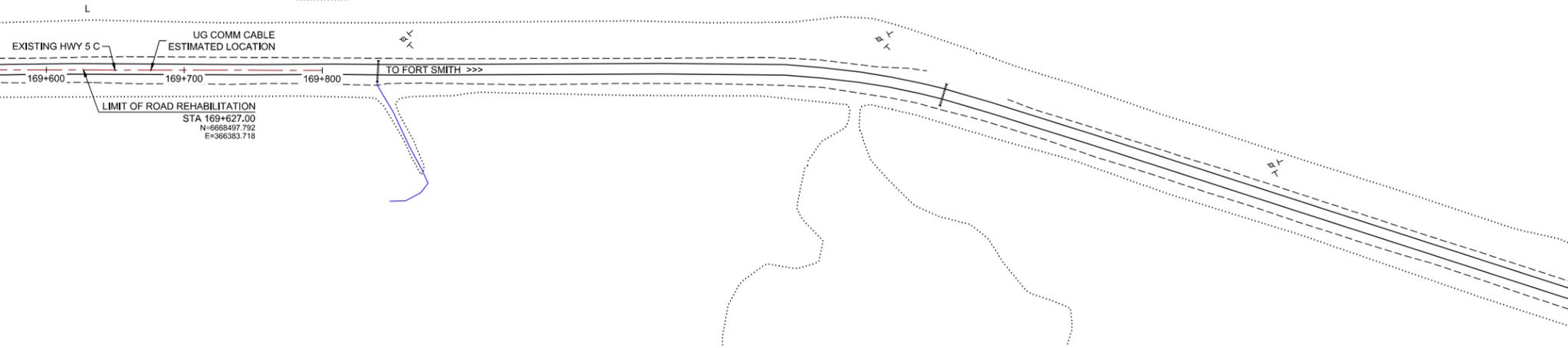
Surveyed by/Arpenté par	Drawn by/Dessiné par WSP CANADA INC.	Date/Date 2017-01-20
Designed by/Concept par WSP CANADA INC.	Reviewed by/Revisé par	Scale/Echelle 1:2000

PWGS Project Manager/Administrateur de Projets TPSGC

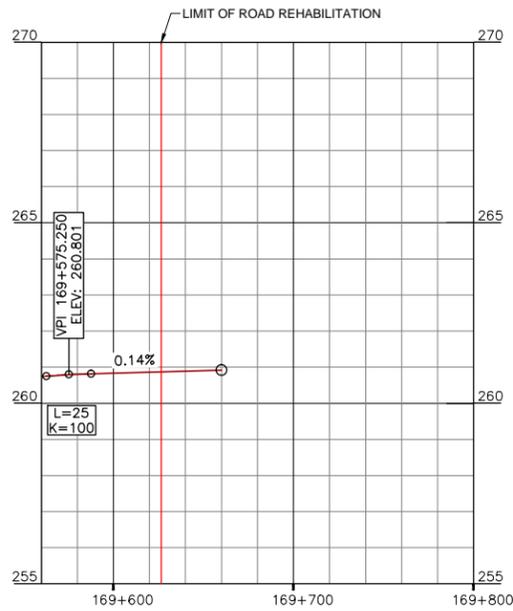
Client Acceptance/Acceptation du client	Approved by/Approuvé par
Park Responsible Officer/Agent Responsable	PWGS Project Manager/Administrateur de Projets TPSGC
Project No./No. du projet 161-11147-01	Asset No./No. du-bien
Sheet No./No. de la feuille 126	

Drawing Reference No./No. de référence du dessin

MATCHLINE STA 169+560 - SEE DWG. 126



SURVEY CONTROL POINTS (UTM12)			
POINT NUMBER	NORTHING	EASTING	ELEVATION
579	6667822.424	367171.431	263.962

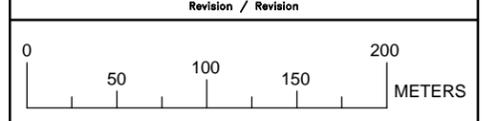


LEGEND

- EXISTING**
- SHOULDER OF HIGHWAY
 - - - SHOULDER OF GRAVEL ROAD
 - - - DITCH LINE
 - TREE LINE
 - WATER
 - - - ROAD CULVERT
 - > ACCESS CULVERT INLET/OUTLET
 - ◇ TOWER LOCATION
 - ⊥ ANCHOR LOCATION
 - ▨ DITCHING REQUIRED

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No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé
1	17-01-20	ISSUED FOR TENDER	CH	HW
0	17-01-12	ISSUED FOR REVIEW	CH	HW



Consultant's Name Nom de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur
WSP	

Public Works and Government Services Canada	Travaux publics et Services gouvernementaux Canada
Client Services Team Southern Alberta Operations Branch	Le Client Entretien l'Équipe Alberta Méridional Branche d'Opérations
Canada	

Client/client	Parks Canada Agency	L'Agence Parcs Canada
	Western and Northern Region	Ouest et Nord du Canada

Project title/Titre du projet

**HIGHWAY 5
ROAD REHABILITATION
PHASE 2 – SEGMENT 2**

WOOD BUFFALO NATIONAL PARK

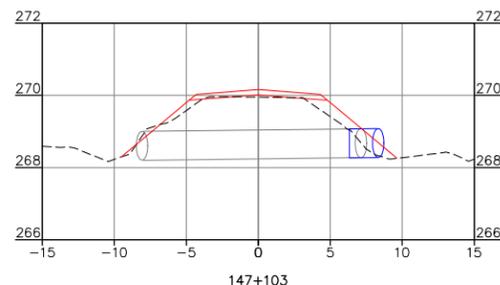
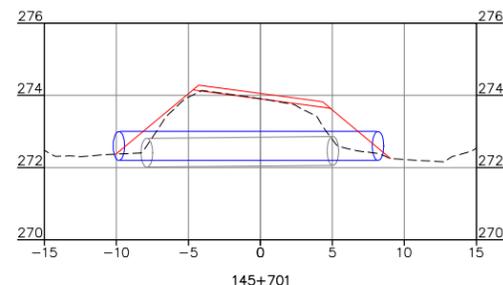
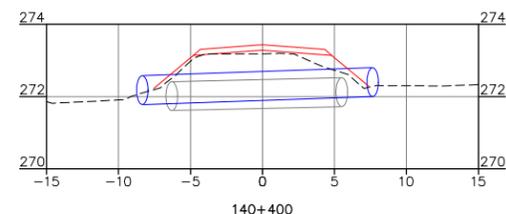
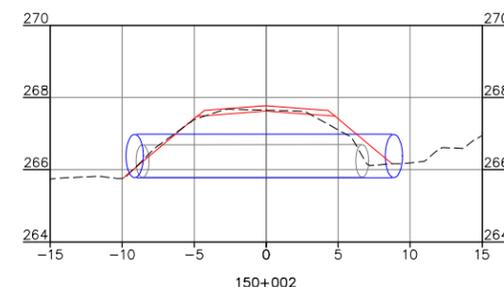
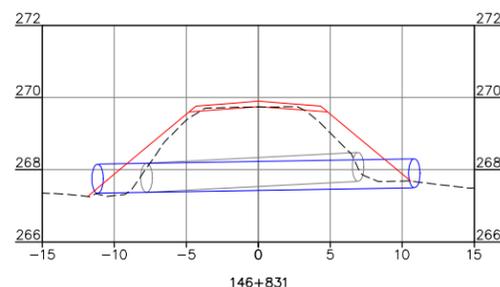
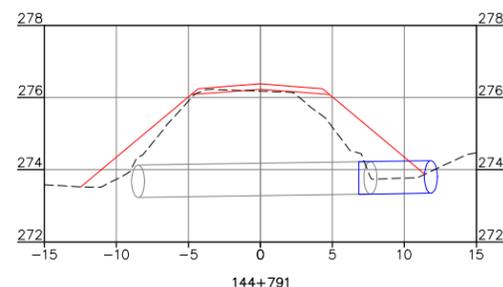
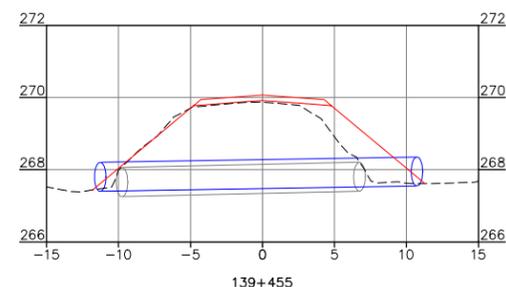
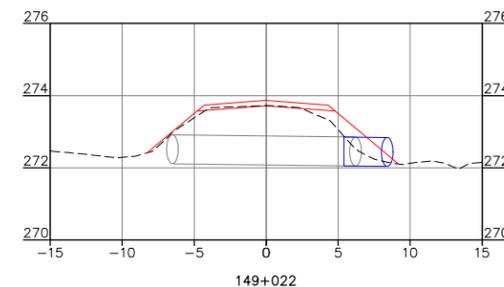
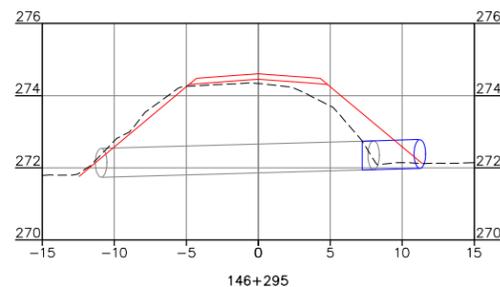
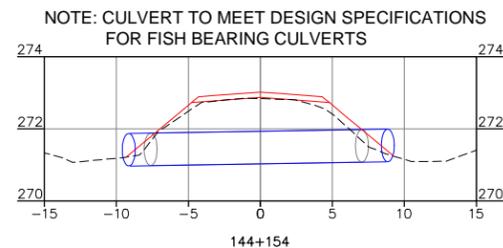
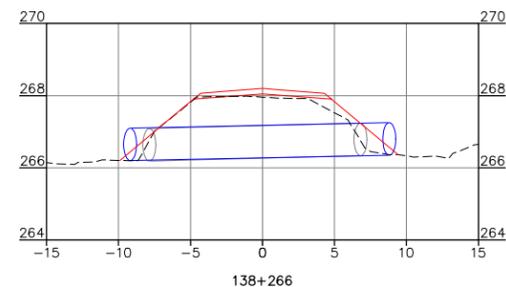
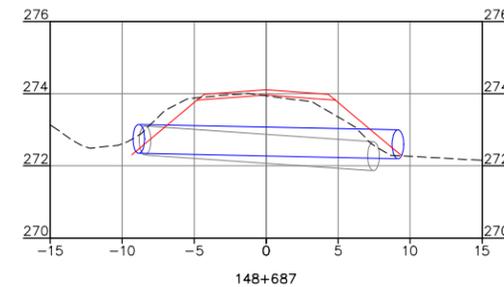
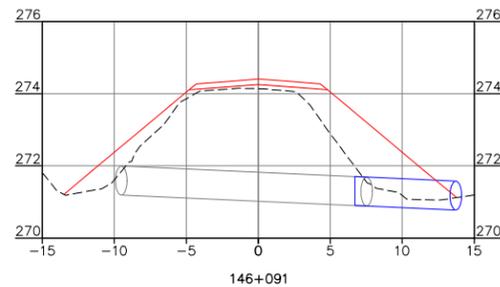
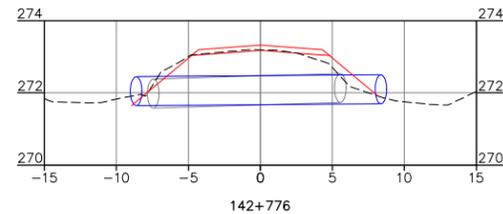
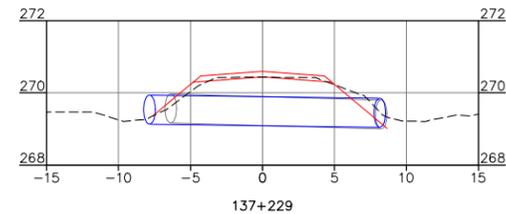
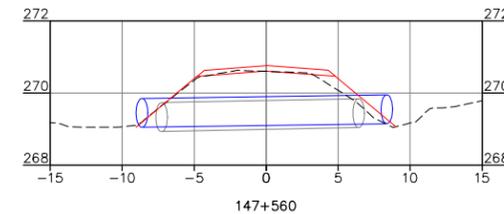
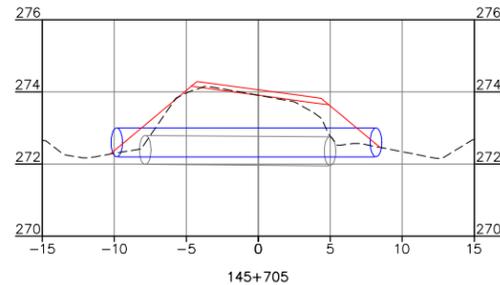
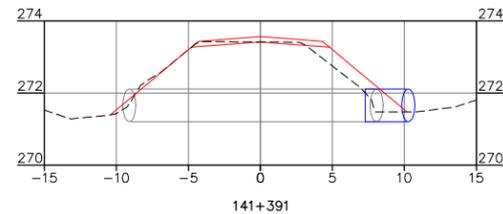
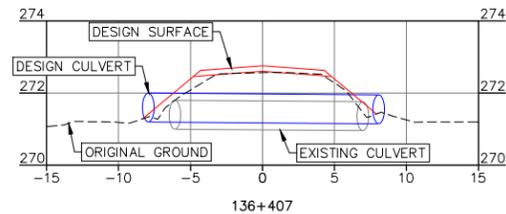
Drawing title/Titre du dessin

PLAN-PROFILE

Surveyed by/Arpenté par	Drawn by/Dessiné par WSP CANADA INC.	Date/Date 2017-01-20
Designed by/Concept par WSP CANADA INC.	Reviewed by/Revisé par	Scale/Echelle 1:2000

PWGSC Project Manager/Administrateur de Projets TPSGC	
Client Acceptance/Acceptation du client	Approved by/Approuvé par
Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC

Project No./No. du projet 161-11147-01	Asset No./No. du-bien	Sheet No./No. de la feuille 127
Drawing Reference No./No. de référence du dessin		



NOTE: APPLICABLE END SECTIONS NOT SHOWN

THE SURVEY AND LAYOUT OF THE C&P CULVERTS IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL DESIGN DIMENSIONS AND TOLERANCES ARE TO BE VERIFIED FOR CONFORMITY WITH FIELD CONDITIONS BY THE CONTRACTOR PRIOR TO THE START OF INSTALLATION. THE CONTRACTOR MUST OBTAIN THE DEPARTMENTAL REPRESENTATIVE'S APPROVAL OF THE TRENCH LINE AND DEPTH PRIOR TO PLACING BEDDING MATERIAL OR PIPE.

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0	17-01-12	ISSUED FOR REVIEW	CH	HW
Revision / Revision				

Consultant's Name
Nom de l'expert-conseil

Eng. Stamp
Scéau de l'ingénieur

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch
Le Client Entretien l'Équipe Alberta Méridional Branche d'Opérations

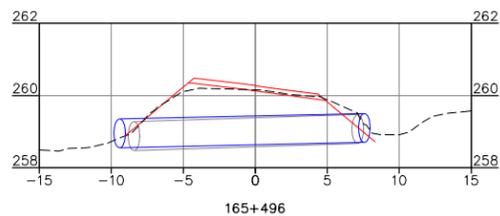
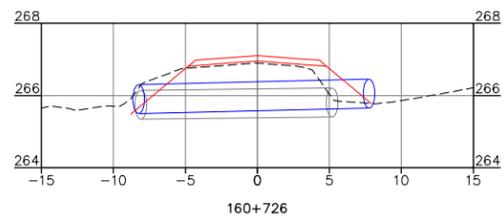
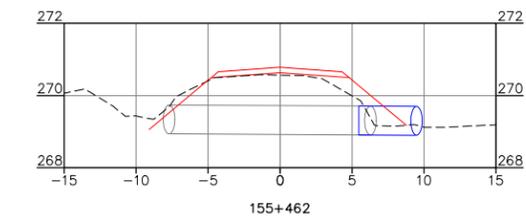
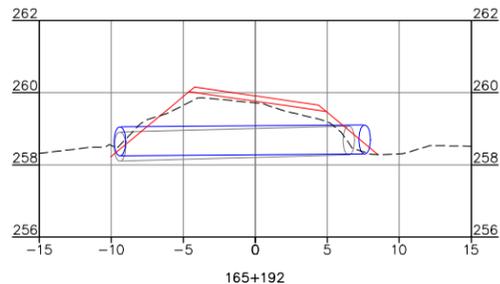
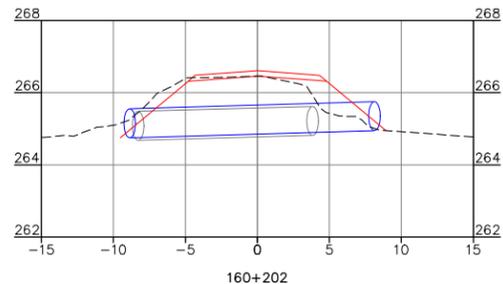
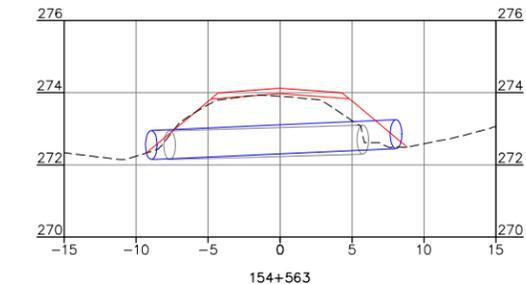
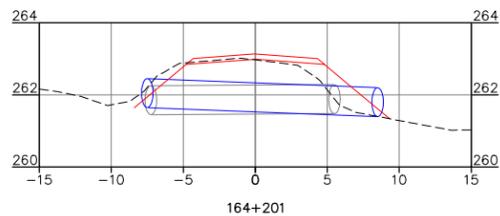
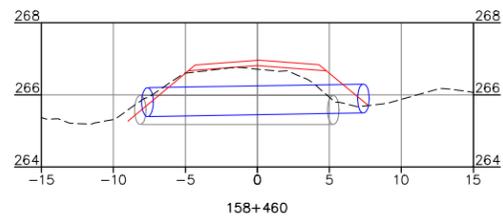
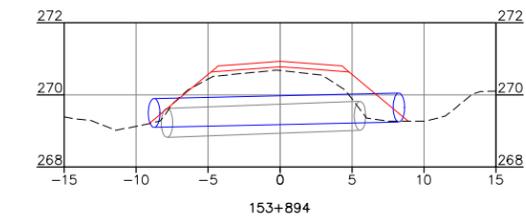
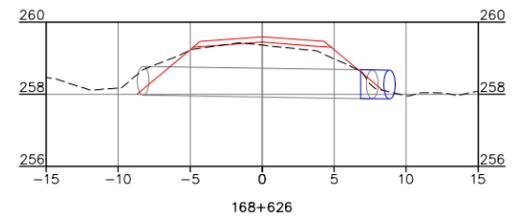
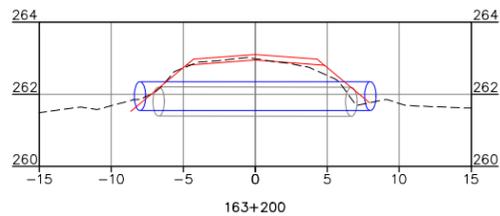
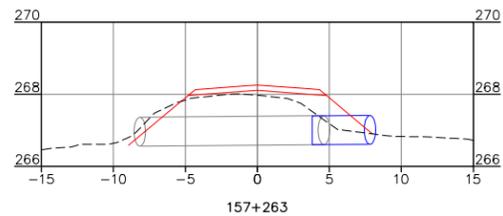
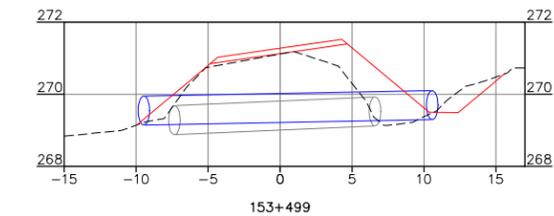
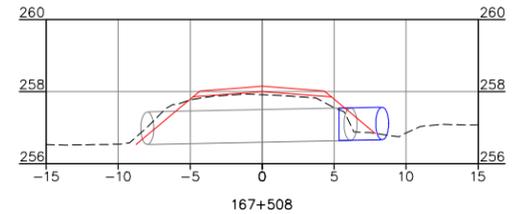
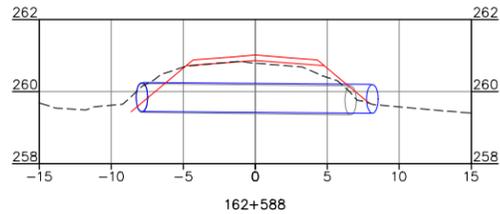
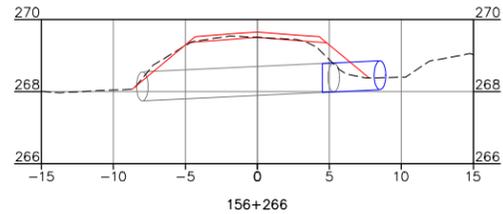
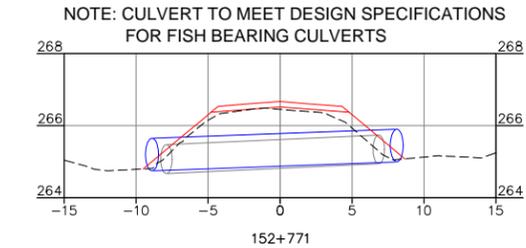
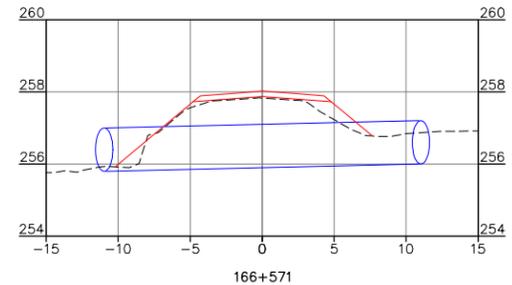
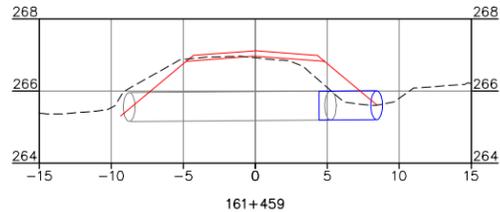
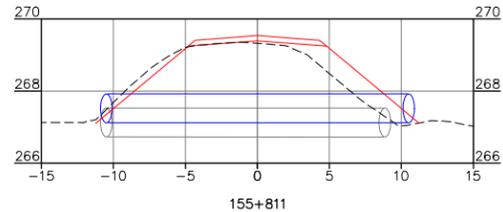
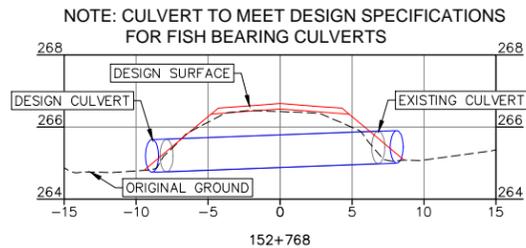
Client/client
Parks Canada Agency
L'Agence Parcs Canada

Western and Northern Region
Ouest et Nord du Canada

Project title/Titre du projet
HIGHWAY 5 ROAD REHABILITATION PHASE 2 - SEGMENT 2
WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin
REPLACEMENT AND EXTENSION CULVERT CROSS SECTIONS

Surveyed by/Arpenté par	Drawn by/Dessiné par WSP CANADA INC.	Date/Date 2017-01-20
Designed by/Concept par WSP CANADA INC.	Reviewed by/Revisé par	Scale/Echelle 1:250 (H) 1:100 (V)
PWGSC Project Manager/Administrateur de Projets TPSGC		
Client Acceptance/Acceptation du client	Approved by/Approuvé par	
Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC	
Project No./No. du projet 161-11147-01	Asset No./No. du-bien	Sheet No./No. de la feuille 201
Drawing Reference No./No. de référence du dessin		



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Revision / Revision

Consultant's Name
Nom de l'expert-conseil

Eng. Stamp
Scéau de l'ingénieur

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch / Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

Client/client

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Western and Northern Region / Ouest et Nord du Canada

Project title/Titre du projet

HIGHWAY 5 ROAD REHABILITATION PHASE 2 - SEGMENT 2

WOOD BUFFALO NATIONAL PARK

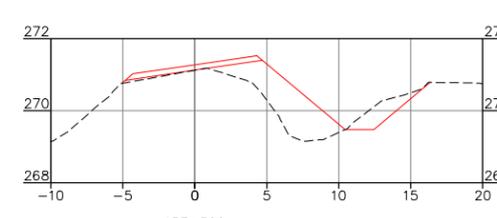
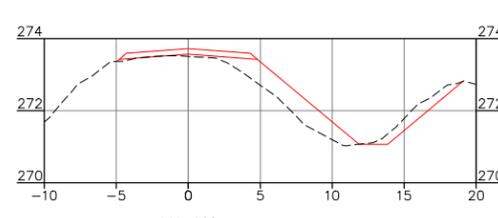
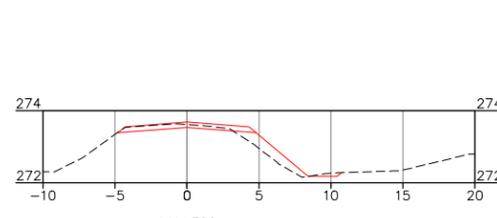
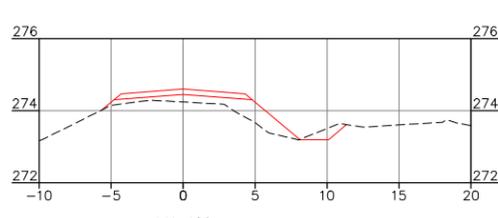
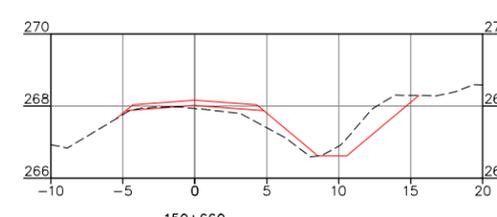
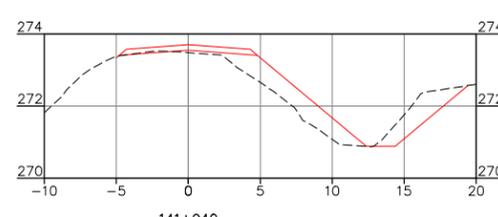
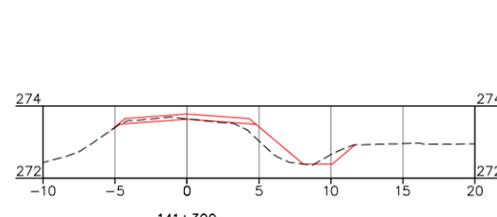
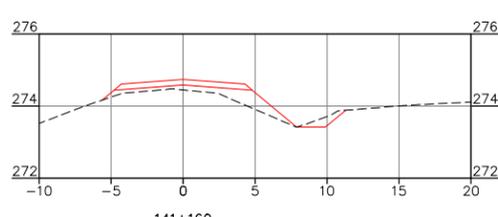
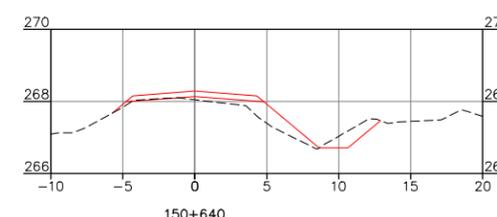
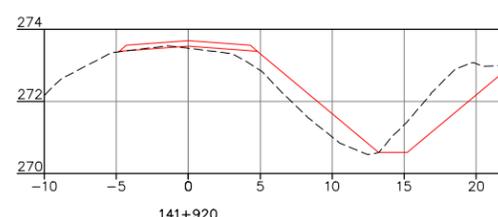
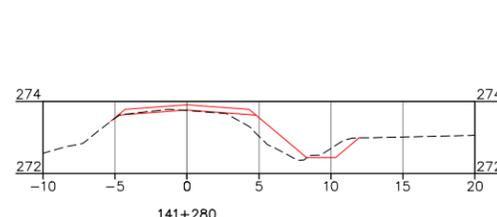
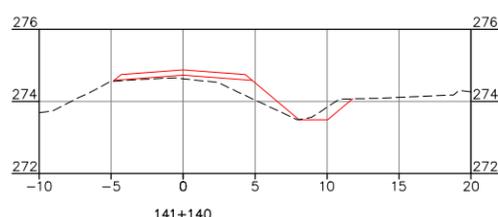
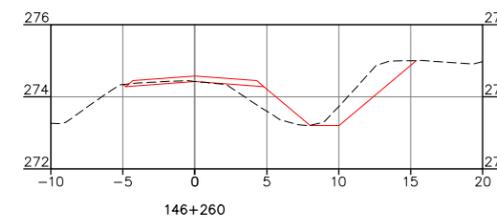
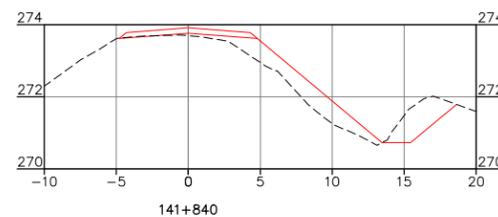
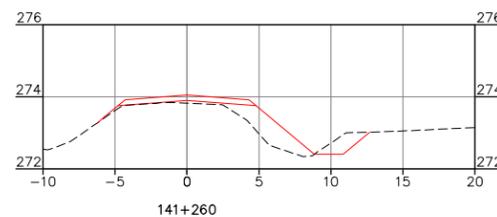
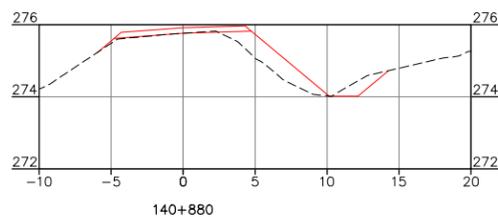
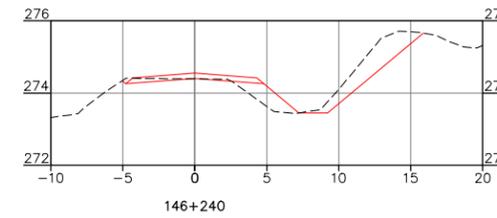
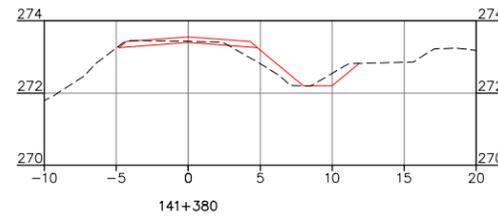
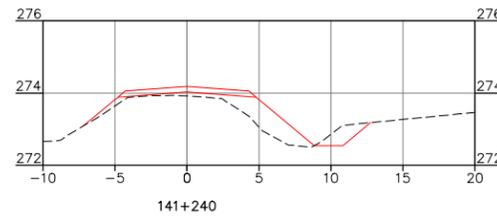
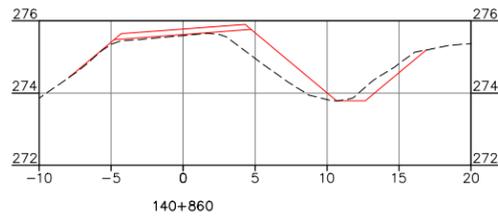
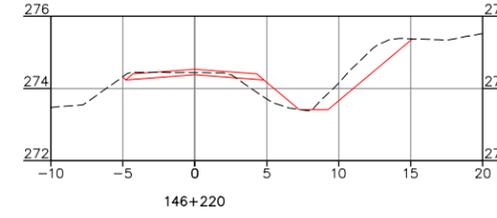
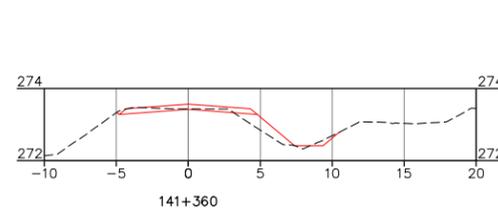
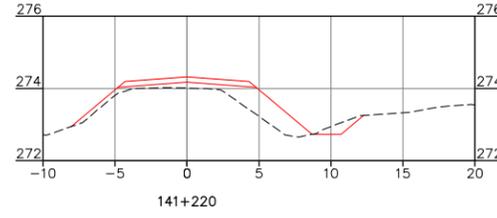
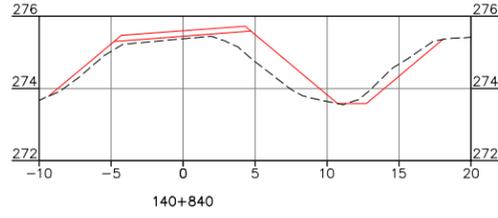
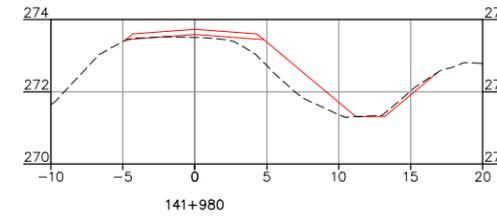
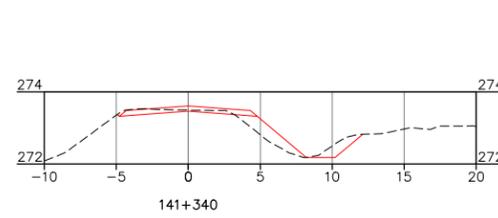
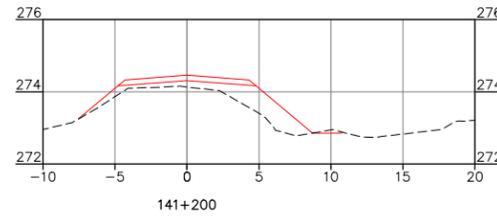
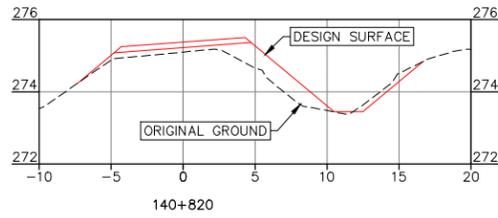
Drawing title/Titre du dessin

REPLACEMENT AND EXTENSION CULVERT CROSS SECTIONS

Surveyed by/Arpenté par	Drawn by/Dessiné par	Date/Date
	WSP CANADA INC.	2017-01-20
Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle
WSP CANADA INC.		1:250 (H) 1:100 (V)

Client Acceptance/Acceptation du client	Approved by/Approuvé par
Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC

Project No./No. du projet	Asset No./No. du bien	Sheet No./No. de la feuille
161-11147-01		202
Drawing Reference No./No. de référence du dessin		



THE SURVEY AND LAYOUT OF THE DITCHING IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL DESIGN DIMENSIONS AND TOLERANCES ARE TO BE VERIFIED FOR THE CONFORMITY WITH FIELD CONDITIONS BY THE CONTRACTOR PRIOR TO EXCAVATION. THE CONTRACTOR MUST OBTAIN THE DEPARTMENTAL REPRESENTATIVE'S APPROVAL OF THE DITCHING LIMITS PRIOR TO EXCAVATION.

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Revision / Revision

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Eng. Stamp
Scéau de l'ingénieur

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Client/client

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Project title/Titre du projet

**HIGHWAY 5
ROAD REHABILITATION
PHASE 2 – SEGMENT 2**

WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin

**REQUIRED DITCHING
CROSS SECTIONS**

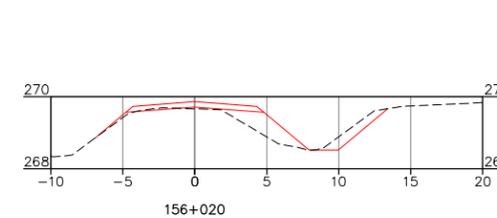
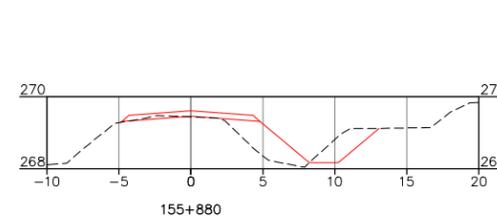
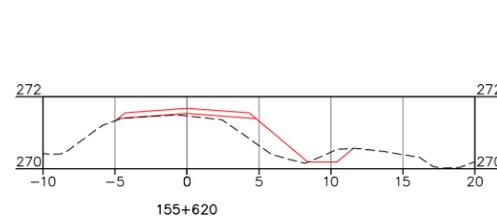
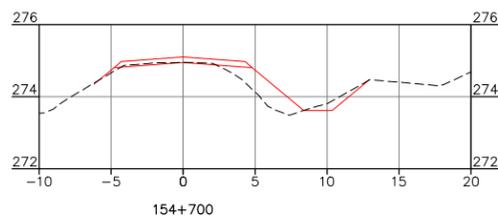
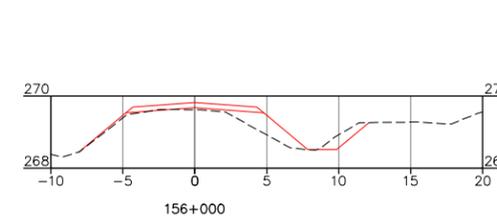
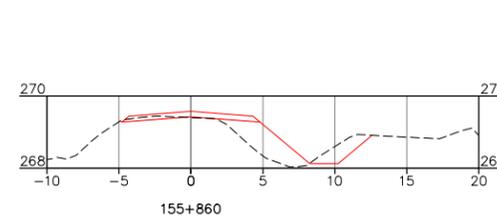
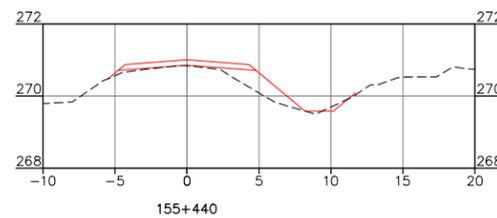
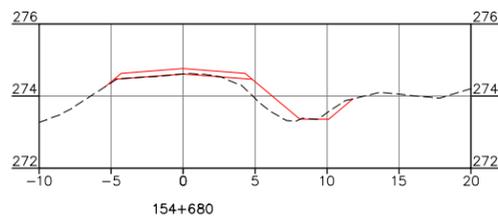
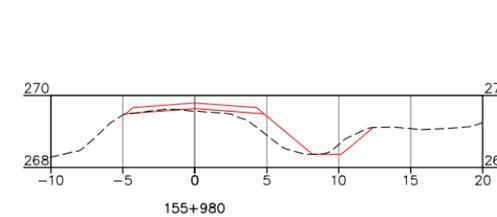
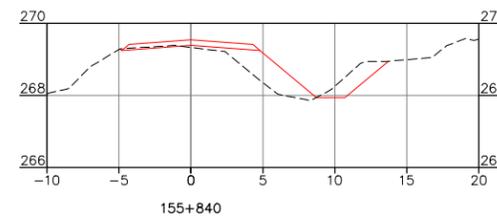
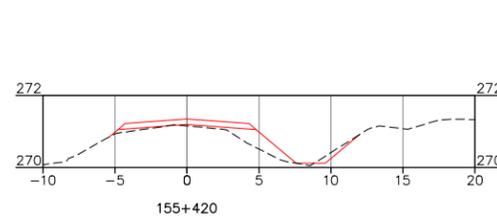
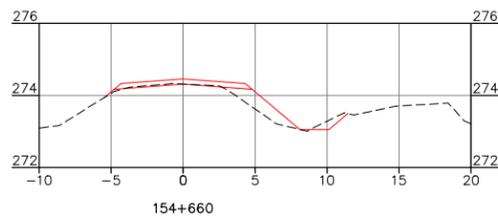
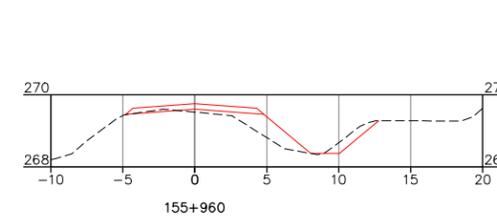
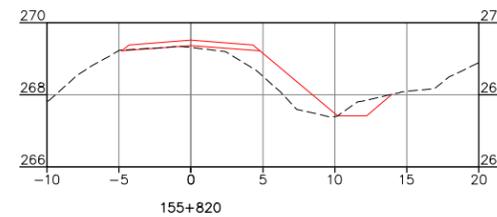
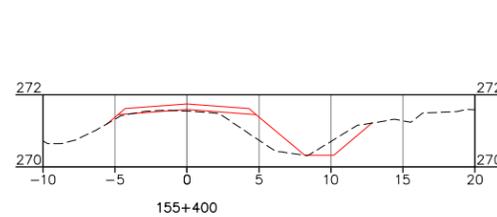
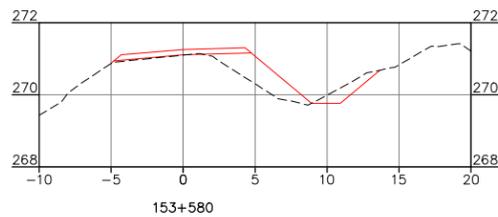
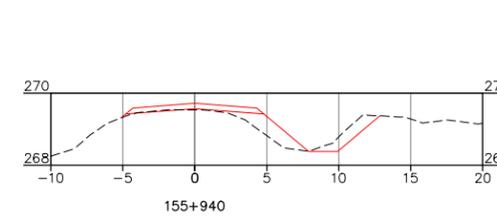
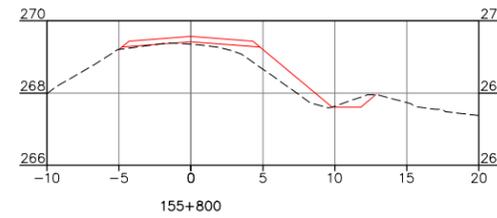
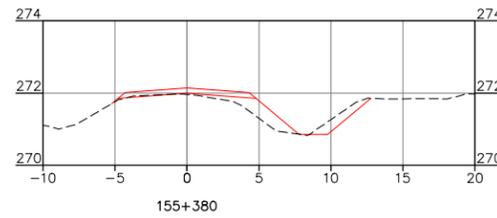
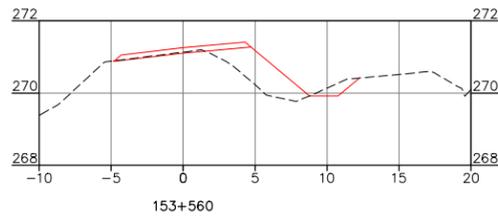
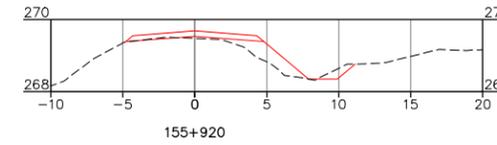
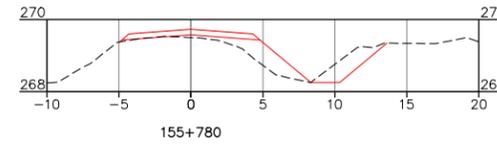
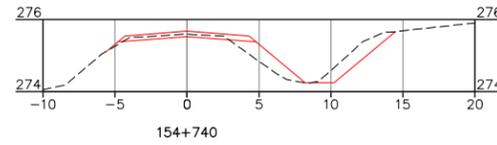
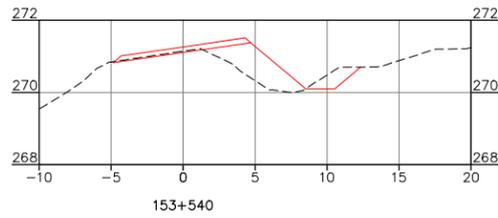
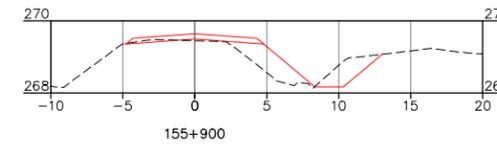
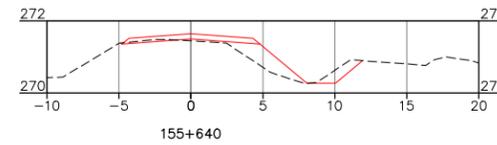
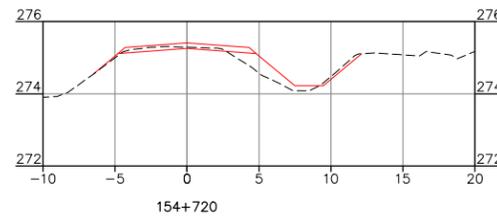
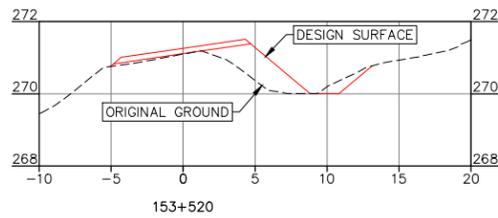
Surveyed by/Arpenté par	Drawn by/Dessiné par WSP CANADA INC.	Date/Date 2017-01-20
Designed by/Concept par WSP CANADA INC.	Reviewed by/Revisé par	Scale/Echelle 1:250 (H) 1:100 (V)

PWGSC Project Manager/Administrateur de Projets TPSGC

Client Acceptance/Acceptation du client

Approved by/Approuvé par

Project No./No. du projet 161-11147-01	Asset No./No. du-bien	Sheet No./ No. de la feuille 301
Drawing Reference No./No. de référence du dessin		



THE SURVEY AND LAYOUT OF THE DITCHING IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL DESIGN DIMENSIONS AND TOLERANCES ARE TO BE VERIFIED FOR THE CONFORMITY WITH FIELD CONDITIONS BY THE CONTRACTOR PRIOR TO EXCAVATION. THE CONTRACTOR MUST OBTAIN THE DEPARTMENTAL REPRESENTATIVE'S APPROVAL OF THE DITCHING LIMITS PRIOR TO EXCAVATION.

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1	17-01-20	ISSUED FOR TENDER	CH	HW
0	17-01-12	ISSUED FOR REVIEW	CH	HW
No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé

Revision / Revision

Consultant's Name
Nom de l'expert-conseil



Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada
Client Services Team Southern Alberta Operations Branch
Le Client Entretien l'Équipe Alberta Méridional Branche d'Opérations



Client/client
Parks Canada Agency
L'Agence Parcs Canada
Western and Northern Region
Ouest et Nord du Canada

Project title/Titre du projet

HIGHWAY 5
ROAD REHABILITATION
PHASE 2 – SEGMENT 2
WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin

REQUIRED DITCHING
CROSS SECTIONS

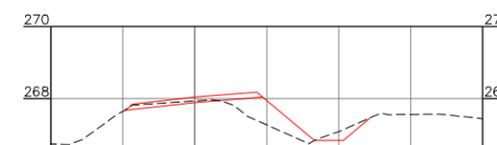
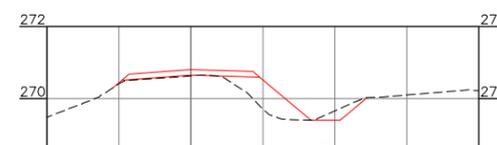
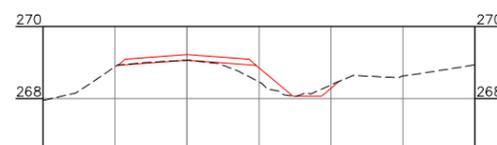
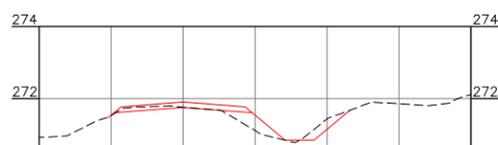
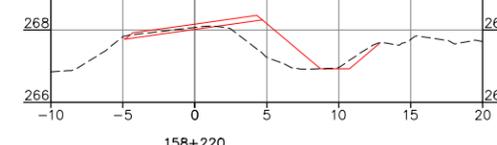
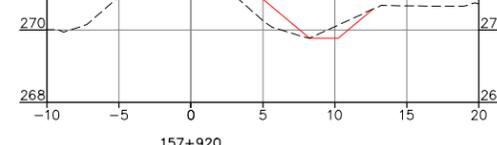
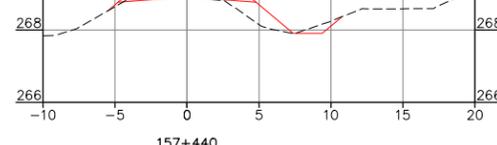
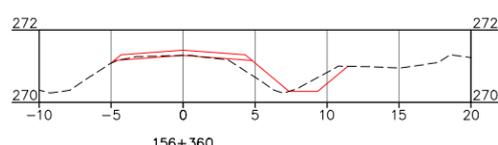
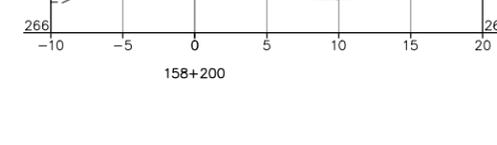
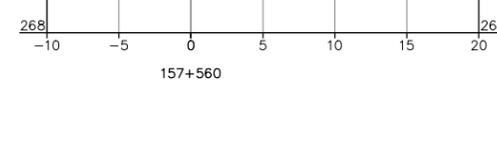
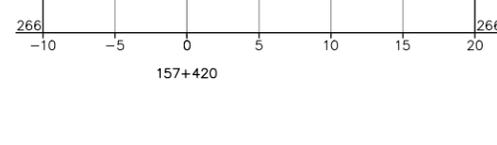
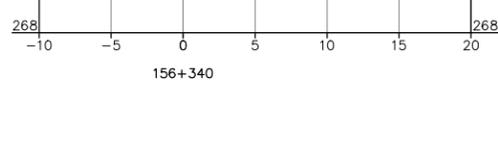
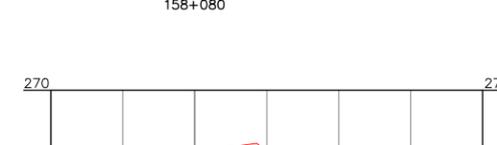
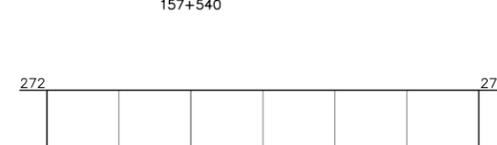
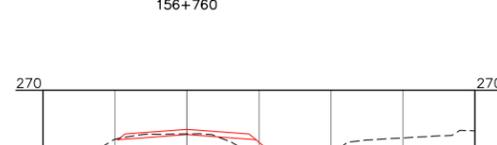
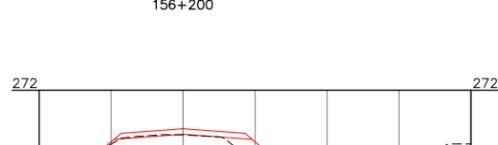
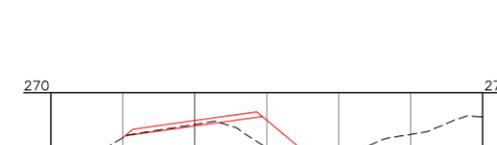
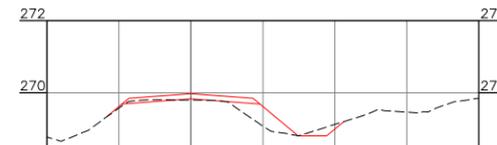
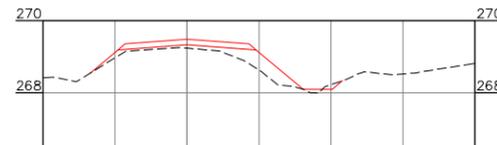
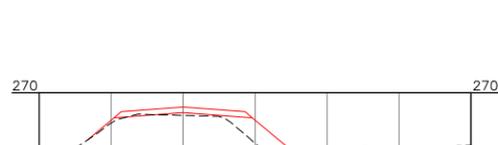
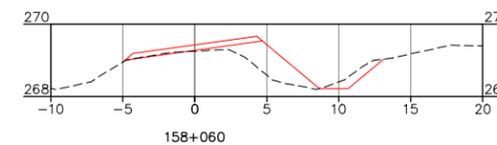
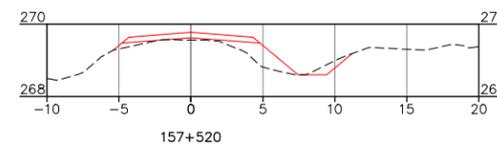
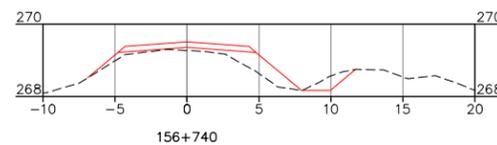
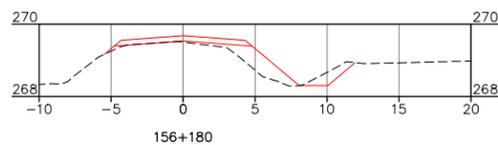
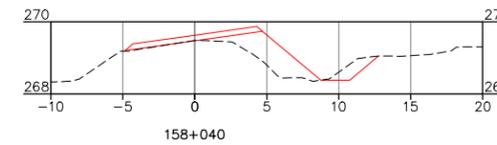
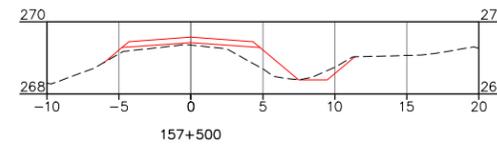
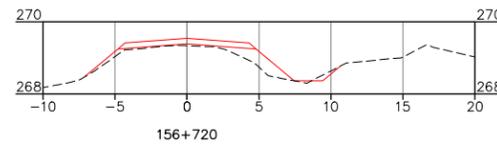
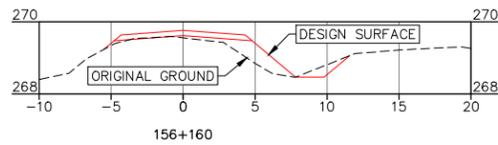
Surveyed by/Arpenté par	Drawn by/Dessiné par WSP CANADA INC.	Date/Date 2017-01-20
Designed by/Concept par WSP CANADA INC.	Reviewed by/Revisé par	Scale/Echelle 1:250 (H) 1:100 (V)

PWGSC Project Manager/Administrateur de Projets TPSGC

Client Acceptance/Acceptation du client	Approved by/Approuvé par
Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC

Project No./No. du projet 161-11147-01	Asset No./No. du bien	Sheet No./No. de la feuille 302
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Drawing Reference No./No. de référence du dessin



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1	17-01-20	ISSUED FOR TENDER	CH	HW
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Revision / Revision

Consultant's Name
Nom de l'expert-conseil



Eng. Stamp
Scéau de l'ingénieur

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch
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**HIGHWAY 5
ROAD REHABILITATION
PHASE 2 – SEGMENT 2
WOOD BUFFALO NATIONAL PARK**

Drawing title/Titre du dessin
**REQUIRED DITCHING
CROSS SECTIONS**

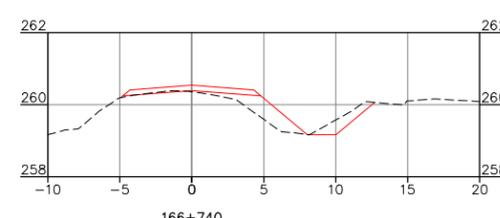
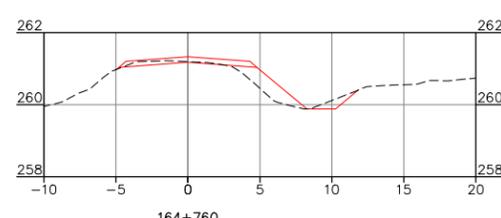
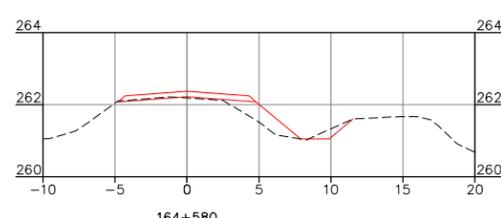
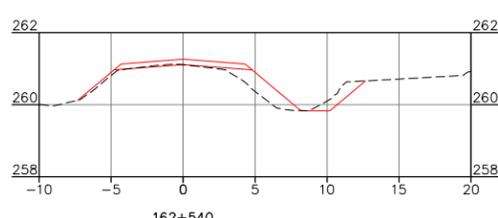
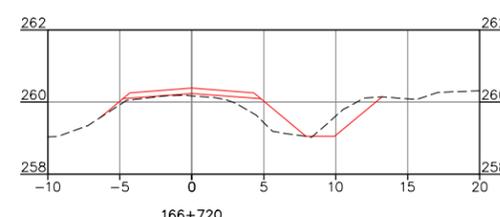
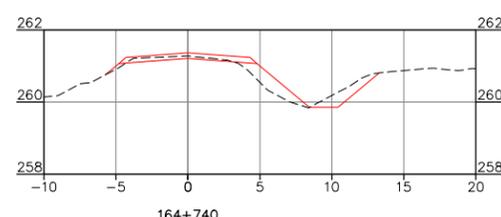
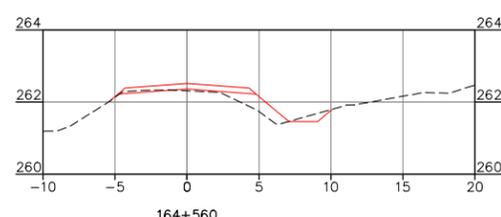
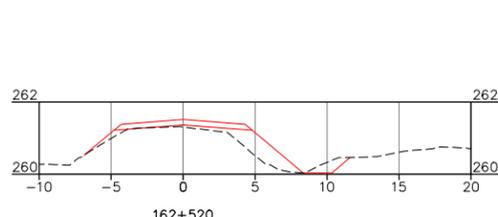
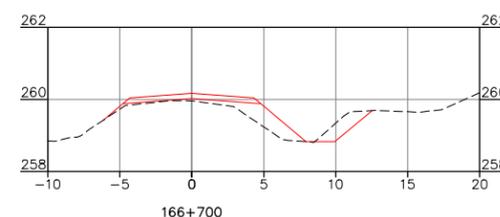
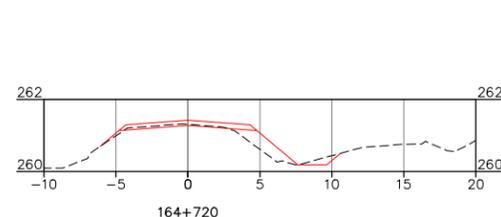
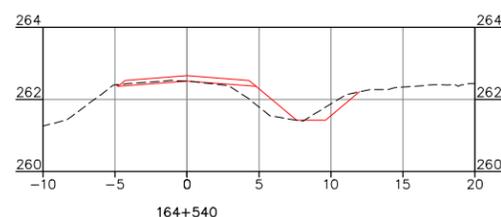
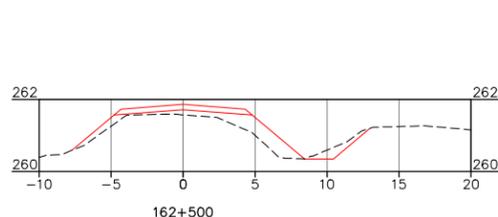
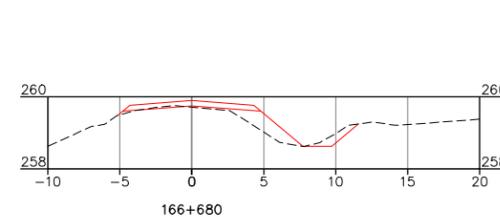
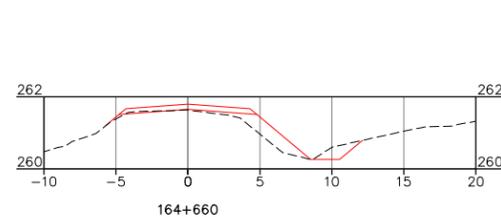
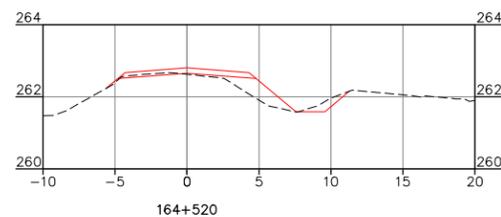
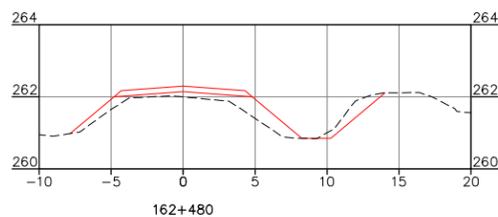
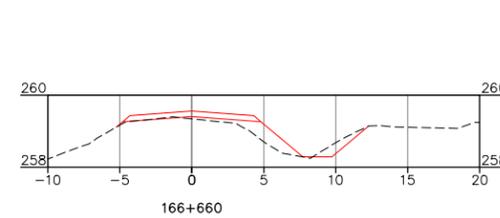
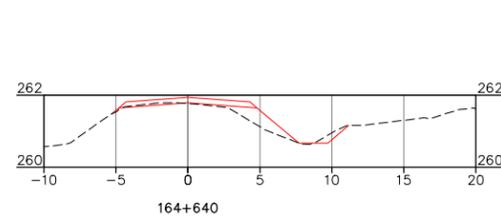
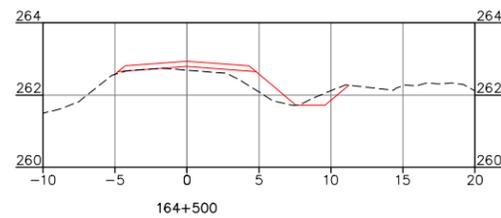
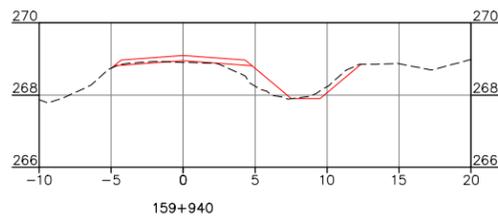
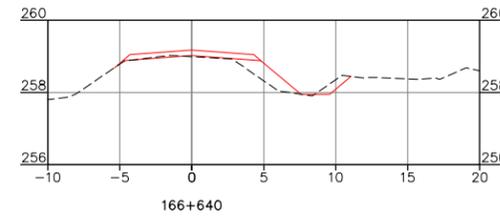
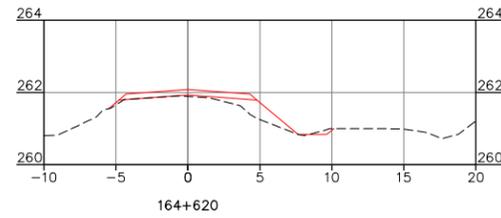
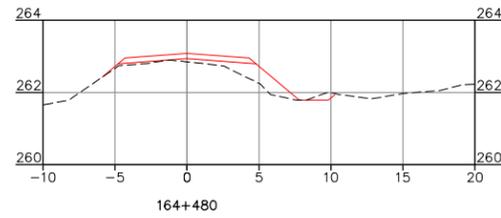
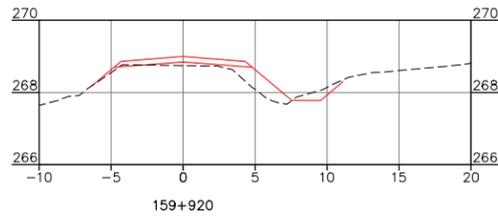
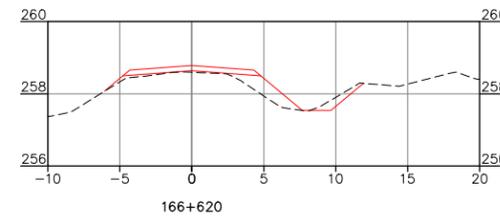
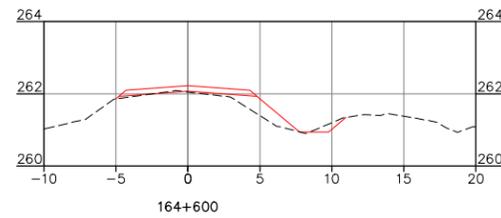
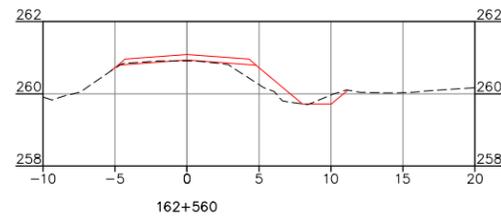
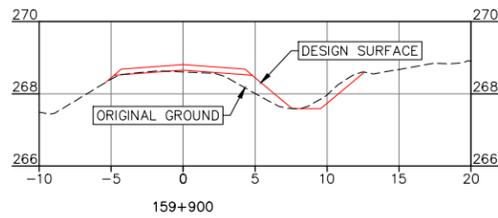
Surveyed by/Arpenté par	Drawn by/Dessiné par WSP CANADA INC.	Date/Date 2017-01-20
Designed by/Concept par WSP CANADA INC.	Reviewed by/Revisé par	Scale/Echelle 1:250 (H) 1:100 (V)

PWGSC Project Manager/Administrateur de Projets TPSGC

Client Acceptance/Acceptation du client	Approved by/Approuvé par
Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC

Project No./No. du projet 161-11147-01	Asset No./No. du-bien	Sheet No./No. de la feuille 303
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Drawing Reference No./No. de référence du dessin



THE SURVEY AND LAYOUT OF THE DITCHING IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL DESIGN DIMENSIONS AND TOLERANCES ARE TO BE VERIFIED FOR THE CONFORMITY WITH FIELD CONDITIONS BY THE CONTRACTOR PRIOR TO EXCAVATION. THE CONTRACTOR MUST OBTAIN THE DEPARTMENTAL REPRESENTATIVE'S APPROVAL OF THE DITCHING LIMITS PRIOR TO EXCAVATION.

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No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé
1	17-01-20	ISSUED FOR TENDER	CH	HW
0	17-01-12	ISSUED FOR REVIEW	CH	HW

Revision / Revision

Consultant's Name / Nom de l'expert-conseil: **WSP**
 Eng. Stamp / Scéau de l'ingénieur



Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada
 Client Services Team Southern Alberta Operations Branch / Le Client Entretien l'Équipe Alberta Méridional Branche d'Opérations



Client/client: Parks Canada Agency / L'Agence Parcs Canada
 Western and Northern Region / Ouest et Nord du Canada

Project title/Titre du projet: **HIGHWAY 5 ROAD REHABILITATION PHASE 2 - SEGMENT 2 WOOD BUFFALO NATIONAL PARK**

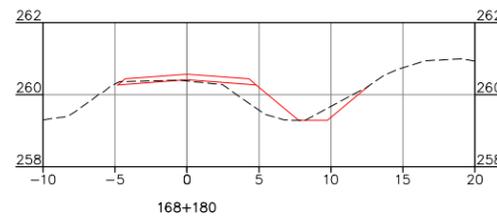
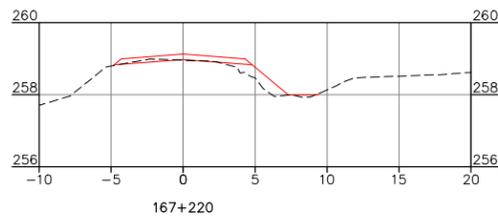
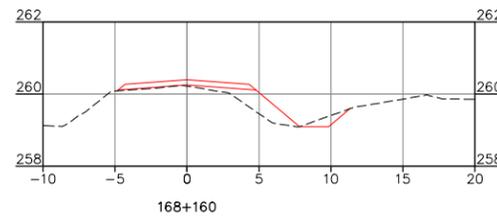
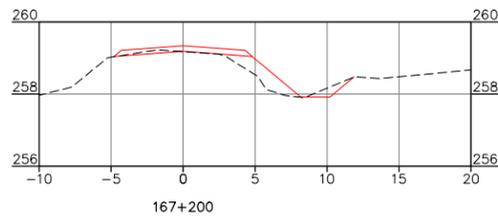
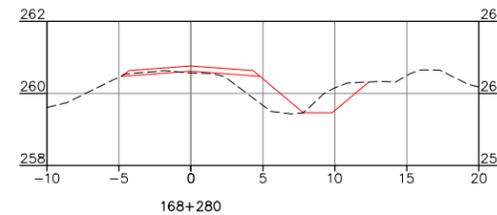
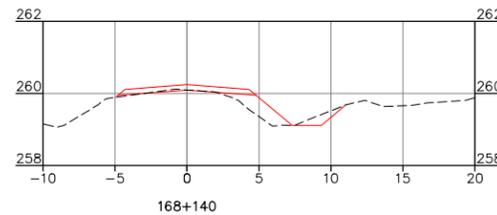
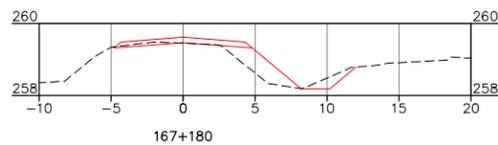
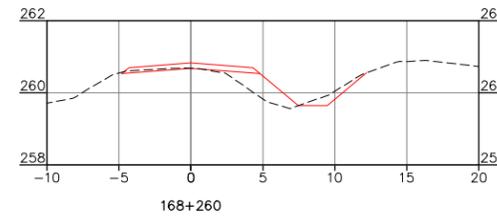
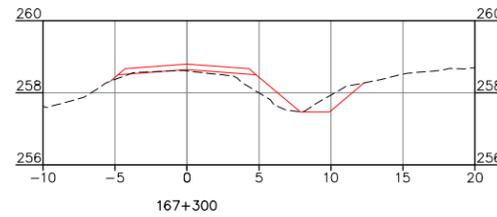
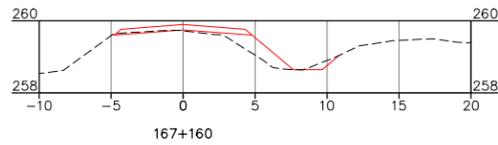
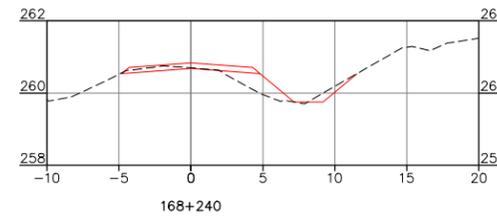
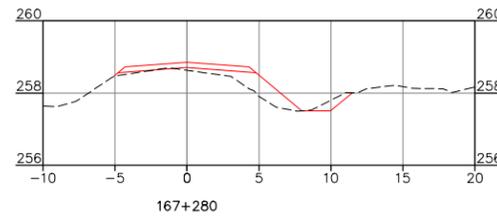
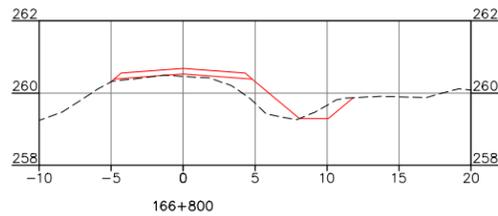
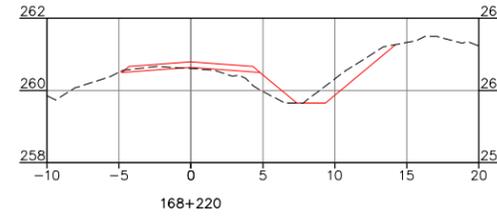
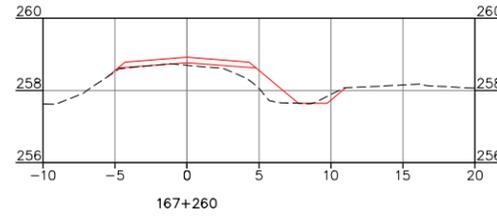
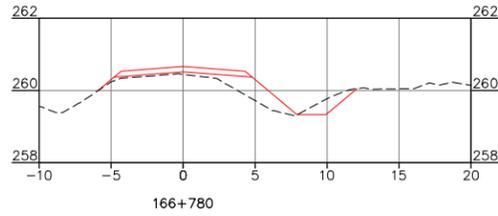
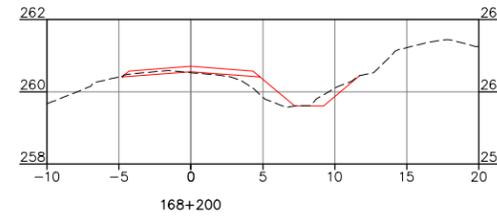
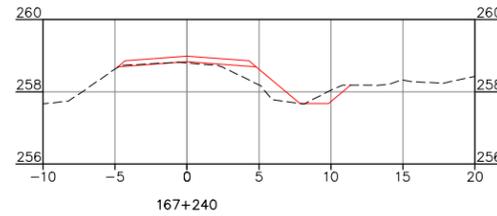
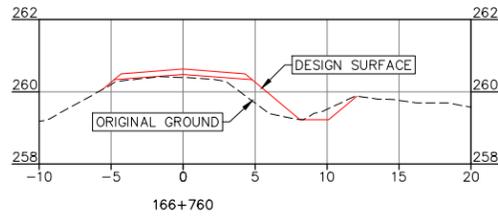
Drawing title/Titre du dessin: **REQUIRED DITCHING CROSS SECTIONS**

Surveyed by/Arpenté par	Drawn by/Dessiné par	Date/Date
	WSP CANADA INC.	2017-01-20
Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle
WSP CANADA INC.		1:250 (H) 1:100 (V)

PWGS/C Project Manager/Administrateur de Projets TPSGC

Client Acceptance/Acceptation du client	Approved by/Approuvé par

Project No./No. du projet	Asset No./No. du bien	Sheet No./No. de la feuille
161-11147-01		304
Drawing Reference No./No. de référence du dessin		



THE SURVEY AND LAYOUT OF THE DITCHING IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL DESIGN DIMENSIONS AND TOLERANCES ARE TO BE VERIFIED FOR THE CONFORMITY WITH FIELD CONDITIONS BY THE CONTRACTOR PRIOR TO EXCAVATION. THE CONTRACTOR MUST OBTAIN THE DEPARTMENTAL REPRESENTATIVE'S APPROVAL OF THE DITCHING LIMITS PRIOR TO EXCAVATION.

INFORMATION SHOWN ON THESE DRAWINGS REGARDING EXISTING UTILITIES IS COMPILED FROM SOME RECORD DRAWINGS AND SOME SURVEYS, AND MAY NOT BE COMPLETE OR FULLY ACCURATE. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND ADVISE THE DEPARTMENTAL REPRESENTATIVE OF ANY POTENTIAL CONFLICTS.

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1	17-01-20	ISSUED FOR TENDER	CH	HW
0	17-01-12	ISSUED FOR REVIEW	CH	HW

Revision / Revision

Consultant's Name
Nom de l'expert-conseil



Eng. Stamp
Scéau de l'ingénieur

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada
Client Services Team Southern Alberta Operations Branch
Le Client Entretien l'Équipe Alberta Méridional Branche d'Opérations



Client/client
Parks Canada Agency
L'Agence Parcs Canada

Western and Northern Region
Ouest et Nord du Canada

Project title/Titre du projet

HIGHWAY 5
ROAD REHABILITATION
PHASE 2 – SEGMENT 2

WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin

REQUIRED DITCHING
CROSS SECTIONS

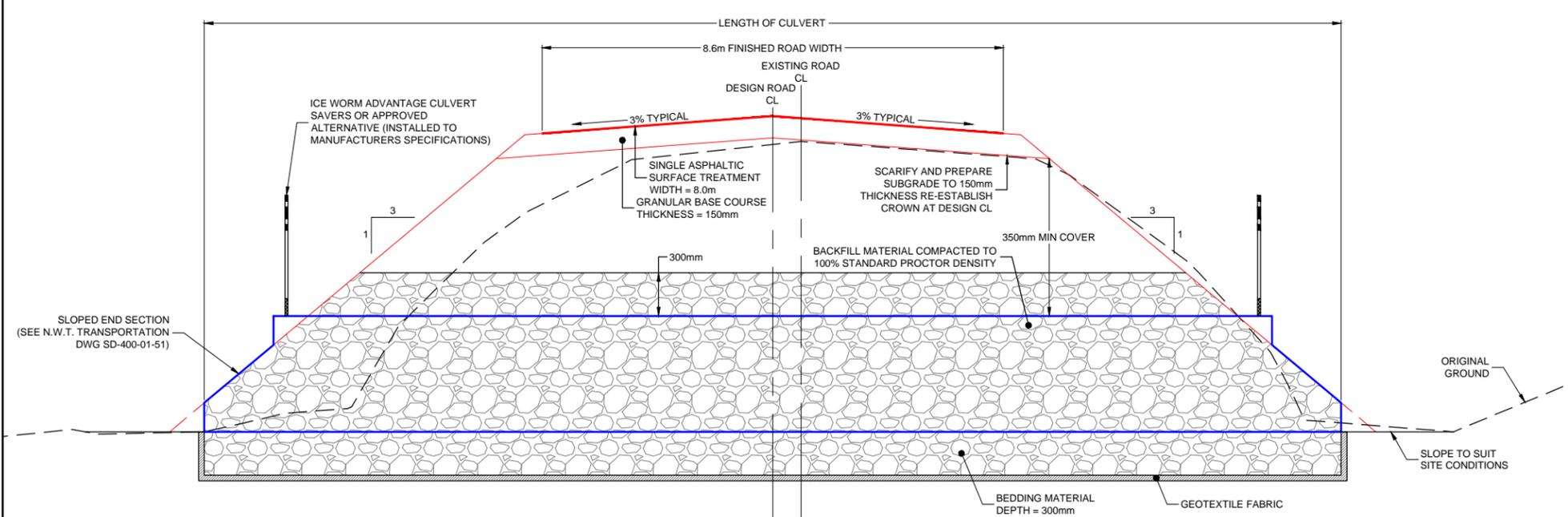
Surveyed by/Arpenté par	Drawn by/Dessiné par WSP CANADA INC.	Date/Date 2017-01-20
Designed by/Concept par WSP CANADA INC.	Reviewed by/Revisé par	Scale/Echelle 1:250 (H) 1:100 (V)

PWGC Project Manager/Administrateur de Projets TPSGC

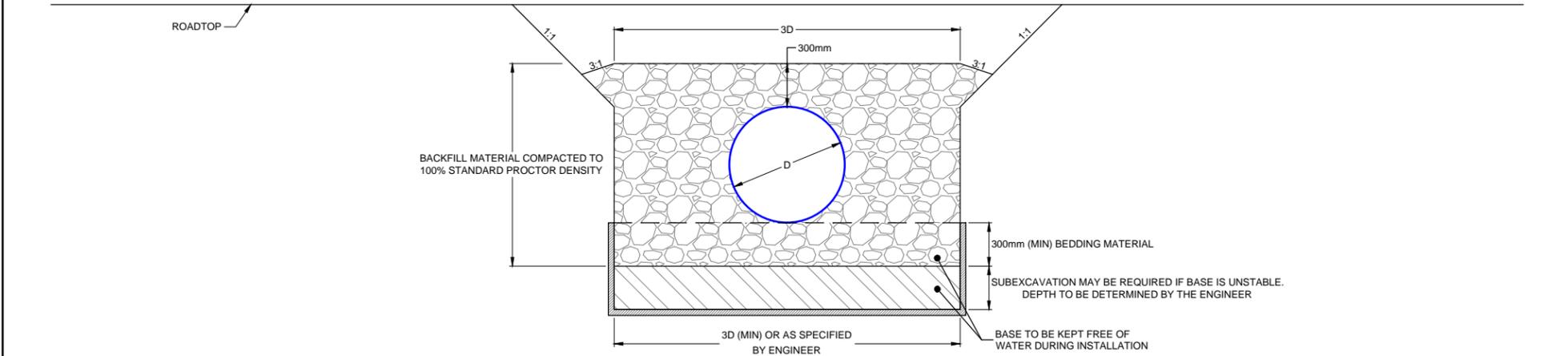
Client Acceptance/Acceptation du client	Approved by/Approuvé par
Park Responsible Officer/Agent Responsable	PWGC Project Manager/Administrateur de Projets TPSGC

Project No./No. du projet 161-11147-01	Asset No./No. du-bien	Sheet No./No. de la feuille 305
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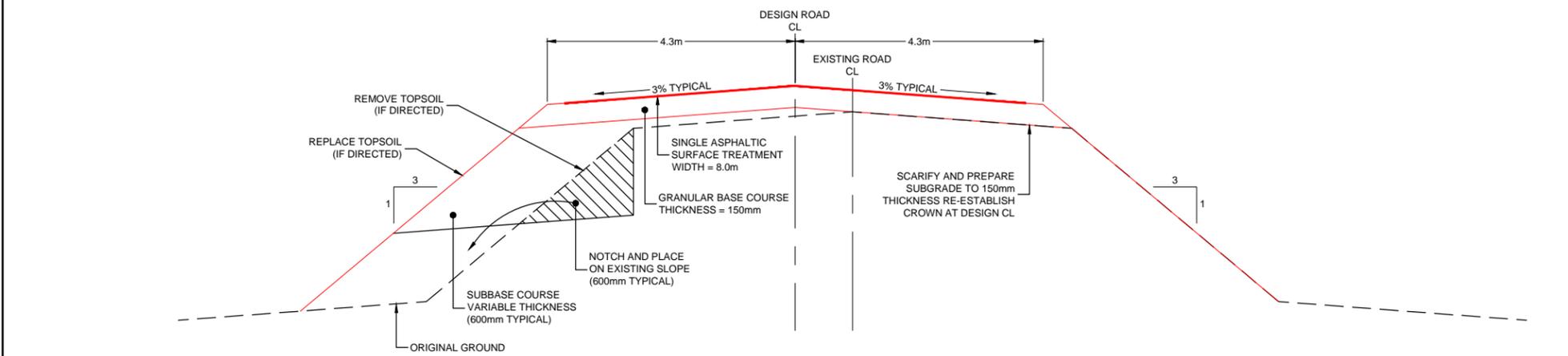
Drawing Reference No./No. de référence du dessin



SECTION VIEW
TYPICAL SECTION - REPLACEMENT CULVERT



SECTION VIEW: NTS
TYPICAL END SECTION - REPLACEMENT CULVERT



SECTION VIEW
TYPICAL SECTION - NOTCH AND WIDEN

- NOTES:
- FOR ENVIRONMENTAL MITIGATION, REFER TO THE BASIC IMPACT ANALYSIS, BEST MANAGEMENT PRACTICES, AND THE CONTRACTOR'S ENVIRONMENTAL PROTECTION PLAN.
 - REFER TO THE QUALITY CONTROL SECTION, SECTION 01 45 00, WITHIN THE TENDERED SPECIFICATIONS FOR ALL QUALITY CONTROL REQUIREMENTS.
 - A COMPLETE STRUCTURE IS REQUIRED AND CONSTRUCTION SHALL INCLUDE ALL MISCELLANEOUS COMPONENTS, MATERIALS, AND CONNECTING HARDWARE NECESSARY TO COMPLETE THE WORK.
 - DAMAGE TO THE GALVANIZED COATING CAUSED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED, AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.
 - REFERENCE STANDARD INSTALLATION INSTRUCTIONS PROVIDED BY THE MANUFACTURER.
 - THE SURVEY AND LAYOUT OF THE CSP CULVERTS IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL DESIGN DIMENSIONS AND TOLERANCES ARE TO BE VERIFIED FOR CONFORMITY WITH FIELD CONDITIONS BY THE CONTRACTOR PRIOR TO THE START OF INSTALLATION. THE CONTRACTOR MUST OBTAIN THE DEPARTMENTAL REPRESENTATIVE'S APPROVAL OF THE TRENCH LINE AND DEPTH PRIOR TO PLACING BEDDING MATERIAL OR PIPE.
 - REFER TO THE PIPE CULVERTS SECTION 33 42 13 FOR OTHER INSTALLATION REQUIREMENTS.
 - BACKFILLING MATERIAL TO BE FREE DRAINING GRANULAR MATERIAL THAT IS APPROVED BY THE DEPARTMENTAL REPRESENTATIVE PRIOR TO ALL BACKFILLING OPERATIONS.
 - VARIOUS CULVERTS AND CULVERT EXTENSIONS MAY NOT HAVE THE MINIMUM COVER SPECIFIED FOR THE CULVERT. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO THESE CULVERTS. ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED, AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.
 - A BURIED COMMUNICATIONS CABLE RUNS ALONG THE HIGHWAY AND IN THE VICINITY OF ALL CULVERTS. CONTRACTOR TO CONTACT NORTHWESTEL TO COORDINATE WORK SAFETY WHEN CABLE IS PRESENT.
 - EXCAVATION WIDTH TO BE THREE(3) TIMES PIPE DIAMETER.

INFORMATION SHOWN ON THESE DRAWINGS REGARDING EXISTING UTILITIES IS COMPILED FROM SOME RECORD DRAWINGS AND SOME SURVEYS, AND MAY NOT BE COMPLETE OR FULLY ACCURATE. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND ADVISE THE DEPARTMENTAL REPRESENTATIVE OF ANY POTENTIAL CONFLICTS.

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0	17-01-12	ISSUED FOR REVIEW	CH	HW

Revision / Revision			

Consultant's Name
Nom de l'expert-conseil

Eng. Stamp
Scéau de l'ingénieur

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch
Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

Client/client

Parks Canada Agency
L'Agence Parcs Canada

Western and Northern Region
Ouest et Nord du Canada

Project title/Titre du projet

HIGHWAY 5
ROAD REHABILITATION
PHASE 2 - SEGMENT 2

WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin

TYPICAL SECTIONS

Surveyed by/Arpenté par	Drawn by/Dessiné par	Date/Date
	WSP CANADA INC.	2017-01-20
Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle
WSP CANADA INC.		1:50 (H) 1:20 (V)

Client Acceptance/Acceptation du client	Approved by/Approuvé par
Park Responsible Officer/Agent Responsable	PWGC Project Manager/Administrateur de Projets TPSGC

Project No./No. du projet	Asset No./No. du bien	Sheet No./No. de la feuille
161-11147-01		401
Drawing Reference No./No. de référence du dessin		

- NOTES:
- BENCHING MAY BE REQUIRED AS PER NWT STANDARD DRAWING SD-300-06-01 IN AREAS OF LARGE EMBANKMENT



CONTROL POINTS COORDINATES (UTM12)

CP586 N: 6683196.157 E: 337465.116 Z: 274.652
 CP584 N: 6680473.346 E: 341816.663 Z: 275.505

ESTIMATED QUANTITY OF AVAILABLE AGGREGATE: 93,567 cu.m

NOTES:

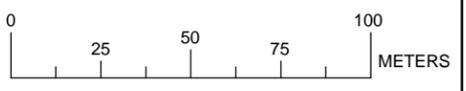
- ADDITIONAL UNPROVEN MATERIAL MAY BE AVAILABLE AS THE BOTTOM OF THE DEPOSIT WAS NOT FOUND.
- GROUNDWATER WAS NOT ENCOUNTERED IN ANY OF THE TEST PITS. IT IS EXPECTED THAT THE PIT WILL BE A DRY PIT.
- THERE IS AN AVERAGE TOPSOIL DEPTH OF 0.1 m AND AN ADDITIONAL OVERBURDEN OF 0.2 m OVER THE AGGREGATE IN THE AREA TO BE WORKED.
- WORK PIT IN DIRECTION INDICATED TO PIT FLOOR PRIOR TO PROCEEDING TO NEW ZONES WITHIN THE AREA TO BE WORKED.
- ALL WORK IN THE PIT MUST ADHERE TO THE BASIC IMPACT ANALYSIS (BIA), APPLICABLE RESTRICTED ACTIVITY PERMITS (RAP), AND THE SPECIFICATIONS OF THE CONTRACT.
- STOCKPILE TOPSOIL & OVERBURDEN SEPARATELY AS DIRECTED BY DEPARTMENTAL REPRESENTATIVE.

LEGEND

- EXISTING**
- PIT BOUNDARY
 - - - SHOULDER OF GRAVEL ROAD
 - TREE LINE
 - █ AREA TO BE GRUBBED & REMOVE OVERBURDEN (1.23 ha)
 - ⊗ TEST PIT LOCATION
 - ⊕ TOWER LOCATION
 - ⊖ ANCHOR LOCATION

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0	17-01-12	ISSUED FOR REVIEW	CH	HW



Consultant's Name / Nom de l'expert-conseil: **WSP**

Eng. Stamp / Sceau de l'ingénieur

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

Client Services Team Southern Alberta Operations Branch / Le Client Entretien l'Équipe Alberta Méridional Branche d'Opérations

Canada

Client/client: Parks Canada Agency / L'Agence Parcs Canada

Western and Northern Region / Ouest et Nord du Canada

Project title/Titre du projet: **HIGHWAY 5 ROAD REHABILITATION PHASE 2 – SEGMENT 2**

WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin: **PIT DEVELOPMENT PLAN KM 136.6**

Surveyed by/Arpenté par	Drawn by/Dessiné par: WSP CANADA INC.	Date/Date: 2017-01-20
Designed by/Concept par: WSP CANADA INC.	Reviewed by/Revisé par	Scale/Echelle: 1:1000

Client Acceptance/Acceptation du client	Approved by/Approuvé par
Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC
Project No./No. du projet: 161-11147-01	Asset No./No. du bien
Drawing Reference No./No. de référence du dessin	Sheet No./No. de la feuille: 501

Hole	% Passing (mm)																
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5	100	100	100	100	100	100	100	100	99	99	99	98	63	43	20	2.9	2
6	100	100	100	100	100	97	95	93	92	91	90	87	75	38	8.1	2.6	1.7
10	100	100	100	93	89	80	71	61	52	46	43	39	26	13	4.6	2.4	1.8
12	100	100	90	85	79	70	66	62	58	55	52	47	31	13	3.5	2.4	2
13	100	100	100	91	86	72	65	60	55	51	48	43	27	8.2	1.3	0.8	0.7
15	100	100	100	100	100	97	96	95	94	94	93	91	85	77	50	25	13
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17	100	100	100	92	92	90	87	85	83	81	79	75	61	40	16	9.3	6.1
19	100	100	100	81	71	61	55	51	48	46	45	42	34	23	9.2	4.7	3.6
20	100	100	100	100	98	95	93	89	85	82	77	70	47	24	8.1	3.1	1.8
21	100	100	100	100	97	92	90	88	82	81	78	72	58	47	39	34	32
22	100	100	100	100	100	96	94	92	90	88	86	82	71	63	58	55	51
GBC Stockpile Average				% Fracture = 72%			100	94	84	73		52	28	18	12	8.8	7