



**McElhanney**

**McElhanney Consulting Services Ltd.**

for / pour



Public Works and  
Government Services  
Canada

Travaux publics et  
Services gouvernementaux  
Canada

**BADLANDS SCENIC DRIVE  
ROADWAY IMPROVEMENTS**

**EAST BLOCK  
GRASSLANDS NATIONAL PARK, SK**

**ISSUED FOR TENDER**

TYPICAL ABBREVIATIONS

START - ALIGNMENT BEGINNING  
END - ALIGNMENT END  
PC - POINT OF CURVATURE  
PT - POINT OF TANGENCY  
TC - TANGENT TO CURVE  
CS - CURVE TO SPIRAL  
SC - SPIRAL TO CURVE  
CT - CURVE TO TANGENT  
TS - TANGENT TO SPIRAL  
ST - SPIRAL TO TANGENT  
BVC - BEGINNING OF VERTICAL CURVE  
EVC - END OF VERTICAL CURVE  
PVI - POINT OF VERTICAL INTERSECTION  
ELEV - ELEVATION  
PI - POINT OF INTERSECTION  
MHI - SASKATCHEWAN MINISTRY OF HIGHWAYS & INFRASTRUCTURE  
ACP - ASPHALT CONCRETE PAVEMENT  
GBC - GRANULAR BASE COURSE  
WGB - WELL GRADED BASE  
SSSB - SELECT GRANULAR SUB BASE

MISCELLANEOUS ABBREVIATIONS

SHLD - SHOULDER  
EOP - EDGE OF PAVEMENT  
EX - EXISTING  
CSP - CORRUGATED STEEL PIPE  
R/W - RIGHT OF WAY

ROAD CONSTRUCTION

EXISTING

DESCRIPTION

PROPOSED



SURVEY CONTROL

KM MARKER



CONTROL LINE AND STATIONING

5+600

ALIGNMENT TIE POINTS & STATIONING

CT 4+481.399

LANE INFORMATION

PROP 3.70

ALIGNMENT SEGMENT LABEL

C2

CURVE INFO (NON ALIGNMENT)

C203

EDGE OF GRAVEL SHOULDER

EDGE OF ROAD

BOTTOM OF FILL

B.O.F.

TOP OF CUT

T.O.C.

DITCH

=====

DRAINAGE FLOW DIRECTION

→

CULVERT

=====

BOREHOLE



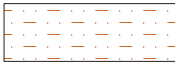
CONTOUR

1210

ARCHAEOLOGICAL SITE (GENERAL AREA)



SAGE GROUSE HABITAT



SPRAGUE'S PIPIT HABITAT



MORMON METALMARK HABITAT



PROFILES

DESCRIPTION

PROPOSED

FINISHED GROUND

=====

EXISTING GROUND

-----

LEFT DITCH

-----

RIGHT DITCH

-----

CULVERT

=====

SUBDRAIN

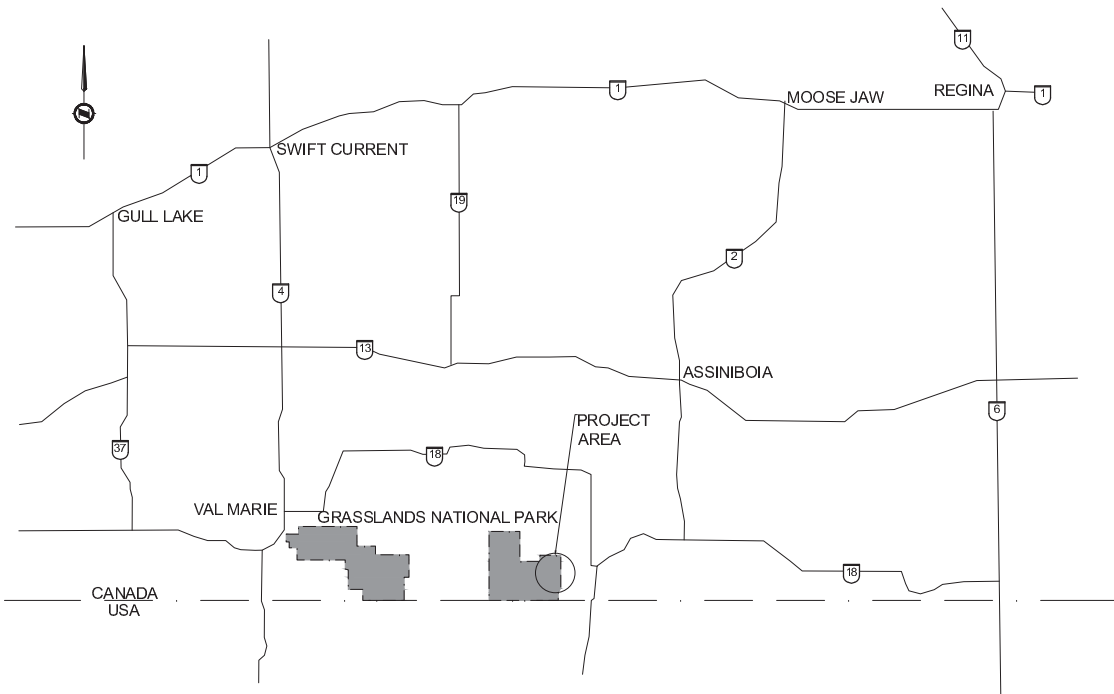
50m  
INSTALL SUBDRAIN

SURVEY CONTROL POINTS				
POINT	DESCRIPTION	NORTHING	EASTING	ELEVATION
1	CP200	5436138.960	388615.030	870.780
2	CP203	5430035.170	387573.390	959.360
3	CP252	5430022.040	387558.130	958.130
4	CP253	5430998.900	388133.230	932.590
5	CP255	5436512.220	388282.020	845.400
6	CP256	5436449.680	388307.220	845.070
7	FIP C/S NE 5-1-4-3	5430153.767	390570.413	915.425
8	FIP MR N1/4 6-1-4-3	5430191.375	388137.542	939.402
9	FIP C/S NE 6-1-4-3	5430179.521	388942.770	928.675
10	FIP C/S N1/4 5-1-4-3	5430166.470	389766.645	919.856
11	FCP	5430152.617	390570.656	915.714
12	FCP	5430163.014	388958.995	919.211

COORDINATES ARE IN CSRS UTM NAD 83 ZONE 13.

DRAWING INDEX

SHEET	DWG	DRAWING TITLE	
C-01	000	COVER	
C-02	001	LEGEND & DRAWING INDEX	
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C-04	102	PLAN & PROFILE	STA 1+400 TO STA 3+025
C-05	103	PLAN & PROFILE	STA 3+025 TO STA 4+650
C-06	104	PLAN & PROFILE	STA 4+650 TO STA 6+275
C-07	105	PLAN & PROFILE	STA 6+275 TO STA 7+900
C-08	106	PLAN & PROFILE	STA 7+900 TO STA 9+525
C-09	107	PLAN & PROFILE	STA 9+525 TO STA 10+410
C-10	108	PLAN & PROFILE	STA 50+000 TO STA 51+500
C-11	109	PLAN & PROFILE	STA 51+500 TO STA 53+014
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C-13	111	GEOMETRIC TABLES	AL02 - SOUTH ACCESS ROAD & LAYBYS
C-14	201	INTERSECTION PLANS	SCENIC ROAD AND ACCESS ROAD TERMINALS
C-15	301	TYPICAL SECTIONS & LAYBY DIMENSIONS	
C-16	401	PARKING LOTS	VIEWPOINT 1
C-17	402	PARKING LOTS	VIEWPOINT 3
C-18	403	PARKING LOTS	VIEWPOINT 6
C-19	404	PARKING LOTS	VIEWPOINTS 2, 4 & 5, TYPICAL DIMENSIONS
C-20	501	MISCELLANEOUS DETAILS	KIOSK AND GATE
C-21	502	MISCELLANEOUS DETAILS	LIVESTOCK GUARD



LOCATION PLAN  
N.T.S.

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PD	2017.04.28	ISSUED FOR TENDER	DL	DL	MRJW
PC	2017.02.07	99% DESIGN SUBMISSION	DL	DY	MRJW
PB	2016.11.18	ISSUED FOR DISCUSSION	DL	DY	MRJW
PA	2016.03.18	DESIGN REPORT	DL	DY	MRJW
Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé



A detail number  
numéro de détail  
B source drawing no.  
de dessin no.  
C detail on drawing no.  
détail sur dessin no.



Consultant's Stamp  
Sceau de l'expert-conseil

Association of Professional Engineers & Geoscientists  
of Saskatchewan  
CERTIFICATE OF AUTHORIZATION  
McElhanney Consulting Services Ltd.  
Number 20663  
Permission to Consult held by:  
Discipline Civil Engineering 22616  
Signature  
Date 17/03/2017  
YR MM DAY

Eng. Stamp  
Sceau de l'ingénieur

PROFESSIONAL ENGINEER  
DR. J. McELHANNEY  
17/03/2017  
YR MM DAY  
SASKATCHEWAN

Client

Public Works and Government Services Canada

Travaux public et Services gouvernementaux Canada

Consultant's Name  
Nom de l'expert-conseil

**McElhanney**  
McElhanney Consulting Services Ltd.

Project Title  
Titre du projet

**BADLANDS SCENIC DRIVE  
ROADWAY IMPROVEMENTS**

**EAST BLOCK  
GRASSLANDS NATIONAL PARK, SK**

Drawing Title  
Titre du dossier

**LEGEND &  
DRAWING INDEX**

Surveyed by / Arpenté par <b>ALTUS</b>	Drawn by / Dessiné par <b>DL</b>	Date <b>2017.03.06</b>
Designed by / Conçu par <b>DY</b>	Reviewed by / Révisé par <b>MRJW</b>	Scale / Echelle

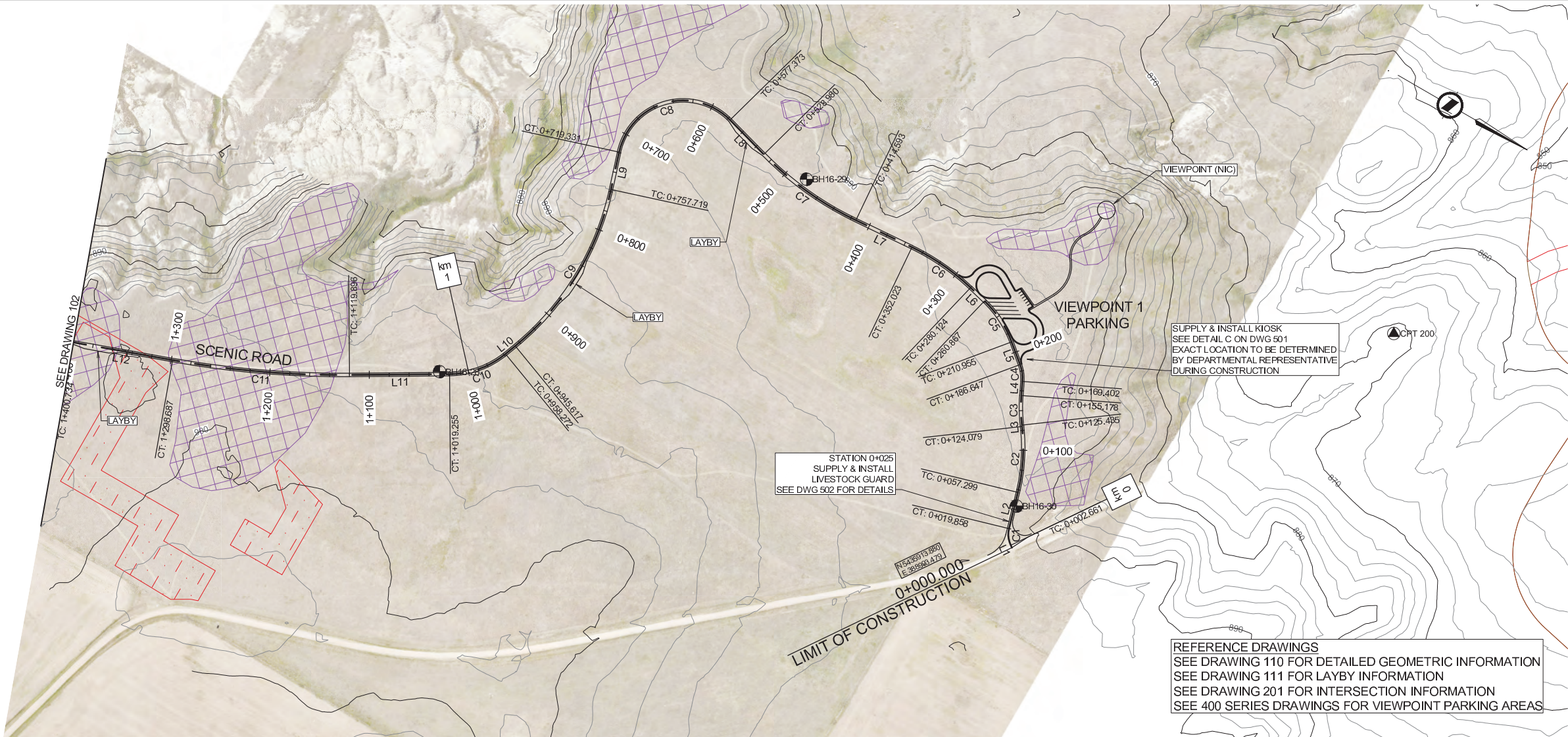
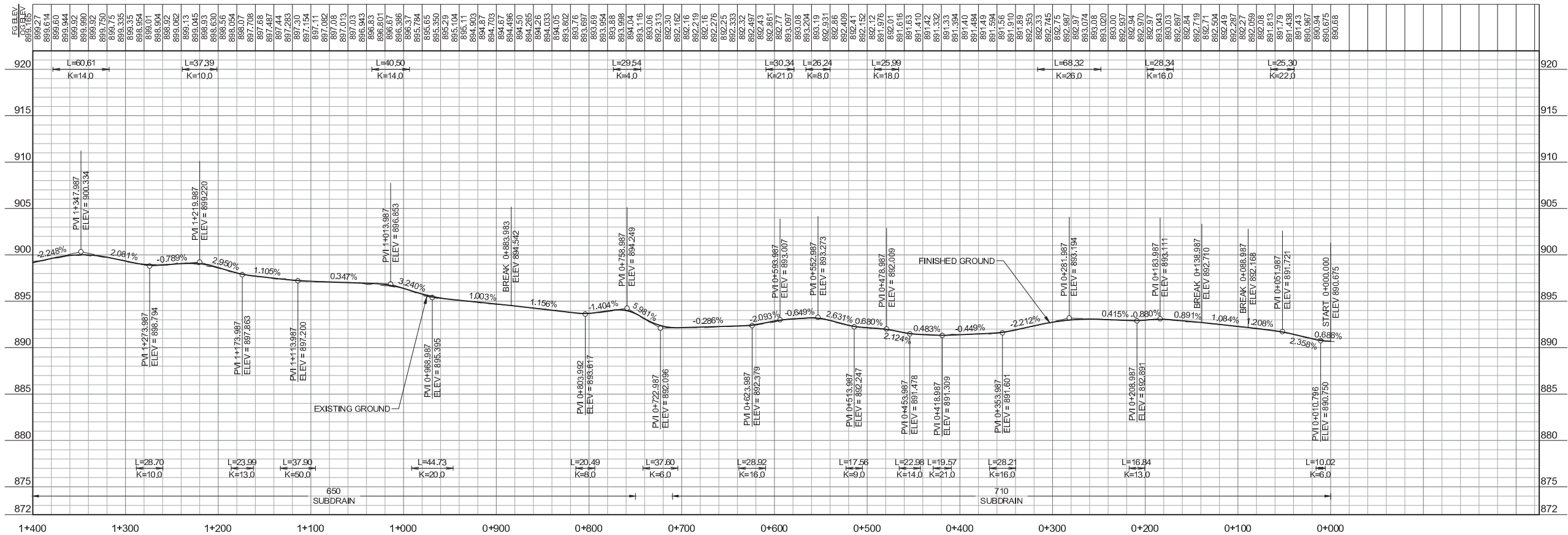
Parks Canada Project Manager / Administrateur de Projets Parcs Canada		
Client Acceptance / Acceptation du client Parks Canada Responsible Officer / Agent Responsable Parcs Canada	Approved by / Approuvé par Parks Canada Project Manager / Administrateur de Projets Parcs Canada	

Project No. / No. du projet <b>R.075061.001</b>	Asset No. / No. du bien	Sheet No. / No. de la feuille <b>C-02</b>
Drawing Reference No. / No. de référence du dessin <b>001</b>		





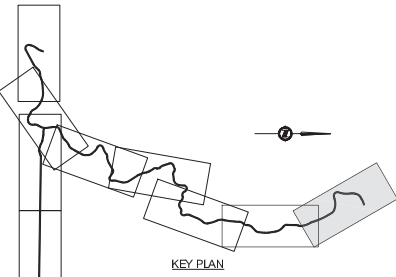
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PB	2016.11.18	ISSUED FOR DISCUSSION	DL	DY	MRJW
PA	2016.03.18	DESIGN REPORT	DL	DY	MRJW



A detail number  
numéro de détail  
B source drawing no.  
de dessin no.  
C detail on drawing no.  
détail sur dessin no.



Consultant's Stamp Sceau de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur
<b>CERTIFICATE OF AUTHORIZATION</b> McElhanney Consulting Services Ltd. Number 28683	
Permission to Consult held by: Discipline: Civil Engineering Ex. Reg. No.: 22616	

Client	Public Works and Government Services Canada	Travaux publics et Services gouvernementaux Canada
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Consultant's Name Nom de l'expert-conseil	 <b>McElhanney Consulting Services Ltd.</b>
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Project Title Titre du projet	<b>BADLANDS SCENIC DRIVE ROADWAY IMPROVEMENTS</b>
Drawing Title Titre du dossier	<b>PLAN &amp; PROFILE</b>
	<b>STA 0+000 TO STA 1+400</b>

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
ALTUS	DL	2017.03.06
Designed by / Conçu par	Reviewed by / Révisé par	Scale / Echelle
DY	MRJW	1:2500

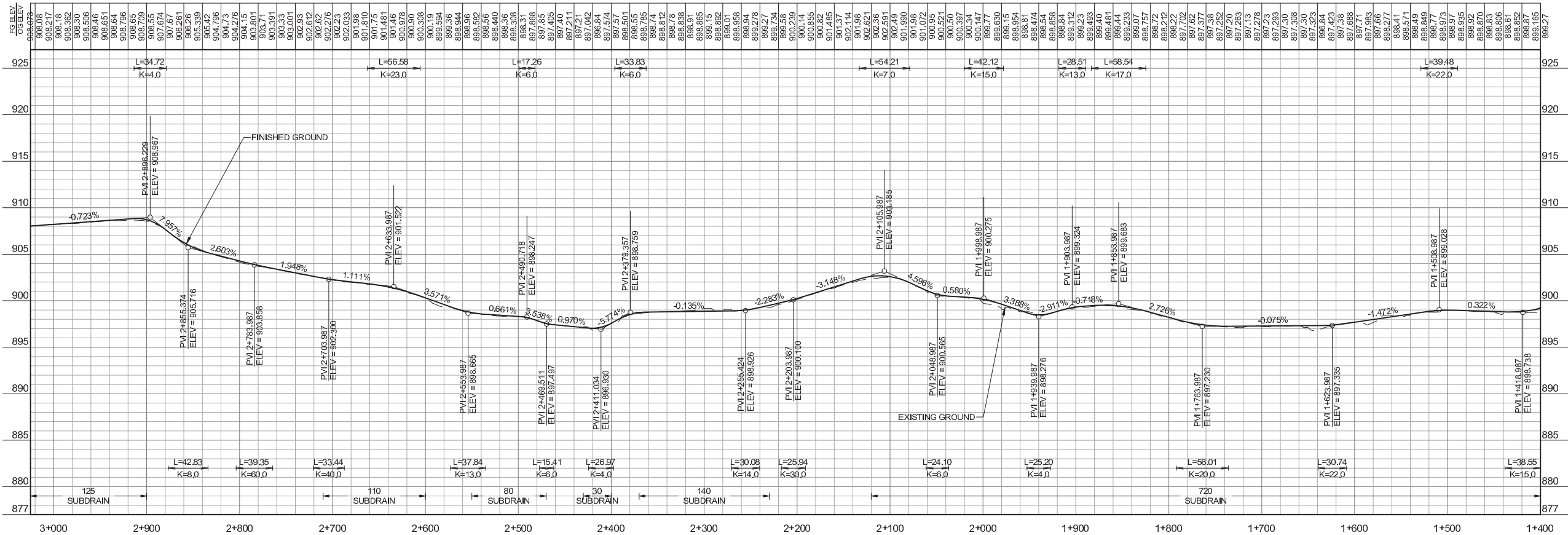
Client Acceptance / Acceptation du client	Approved by / Approuvé par

Project No. / No. du projet	Asset No. / No. du bien	Sheet No. / No. de la feuille
R.075061.001		C-03

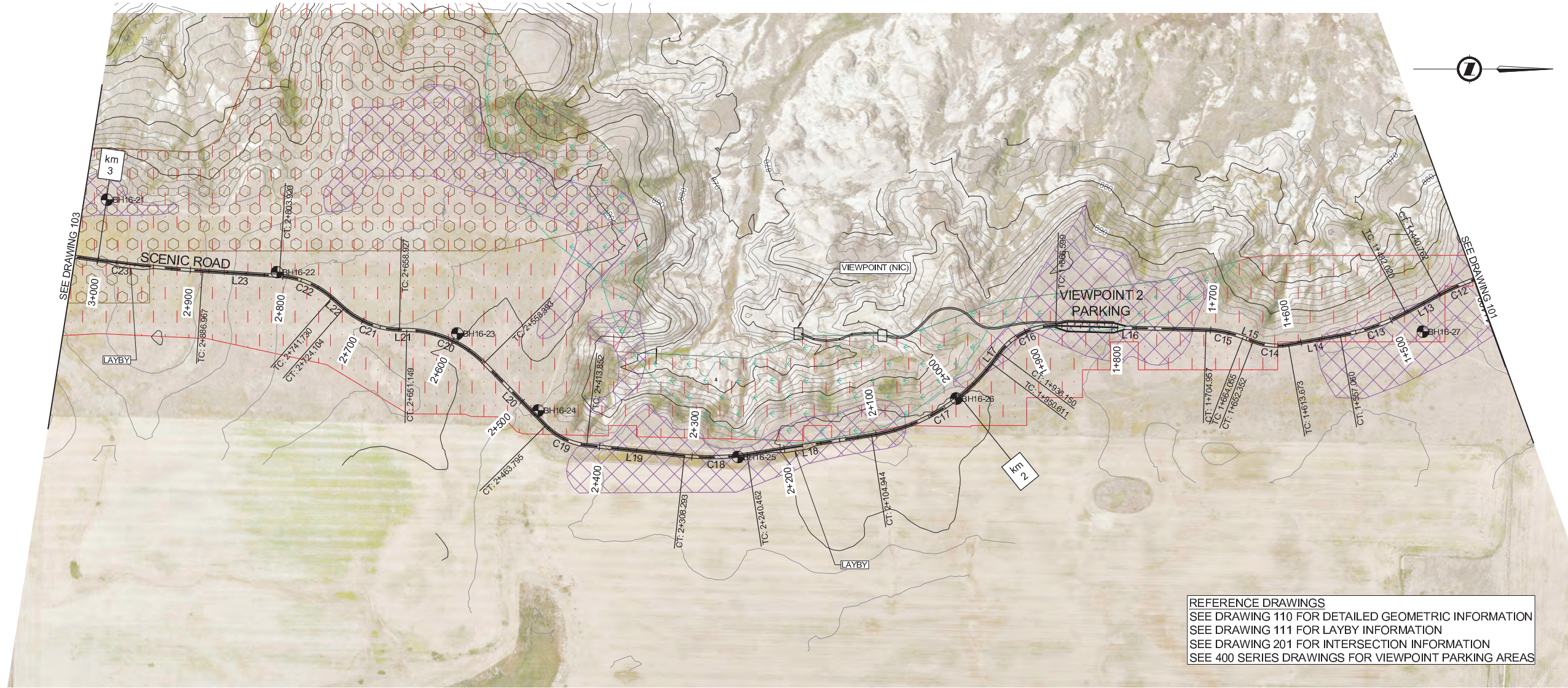
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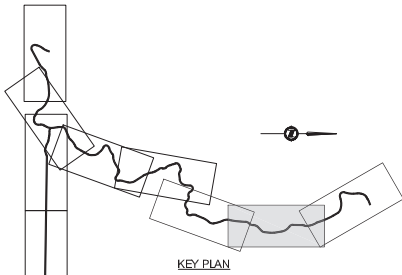


REFERENCE DRAWINGS  
SEE DRAWING 110 FOR DETAILED GEOMETRIC INFORMATION  
SEE DRAWING 111 FOR LAYBY INFORMATION  
SEE DRAWING 201 FOR INTERSECTION INFORMATION  
SEE 400 SERIES DRAWINGS FOR VIEWPOINT PARKING AREAS

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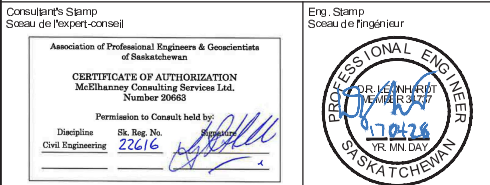
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PA	2016.03.18	DESIGN REPORT	DL	DY	MRJW

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B source drawing no.  
C detail on drawing no.



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

Consultant's Name  
Nom de l'expert-conseil  
**McElhanney**  
McElhanney Consulting Services Ltd.

Project Title  
Titre du projet  
**BADLANDS SCENIC DRIVE  
ROADWAY IMPROVEMENTS**  
EAST BLOCK  
GRASSLANDS NATIONAL PARK, SK

Drawing Title  
Titre du dessin  
**PLAN & PROFILE**  
STA 1+400 TO STA 3+025

Surveyed by / Arpenté par  
ALTUS

Designed by / Conçu par  
DY

Drawn by / Dessiné par  
DL

Date  
2017.03.06

Scale / Echelle  
1:2500

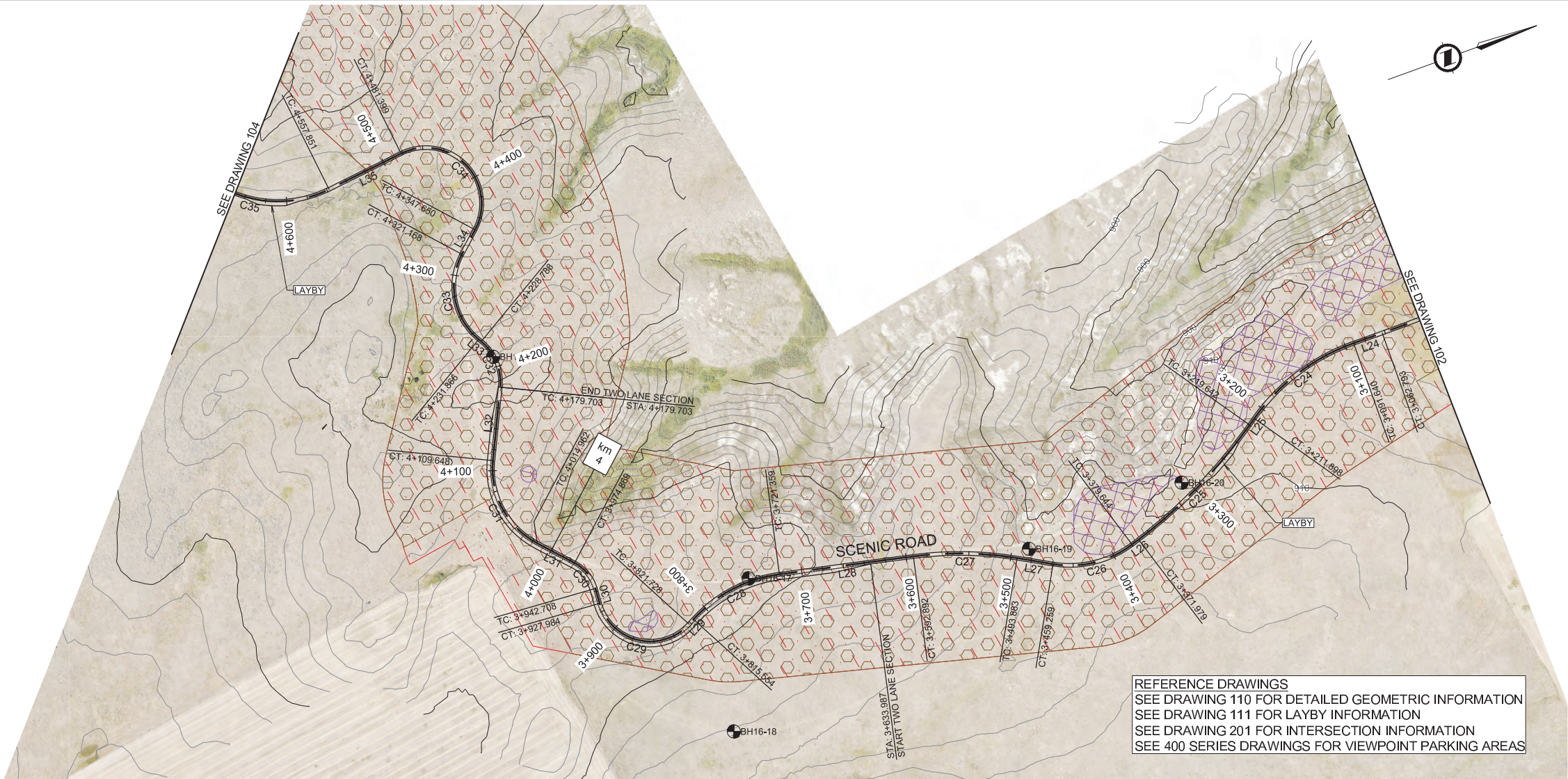
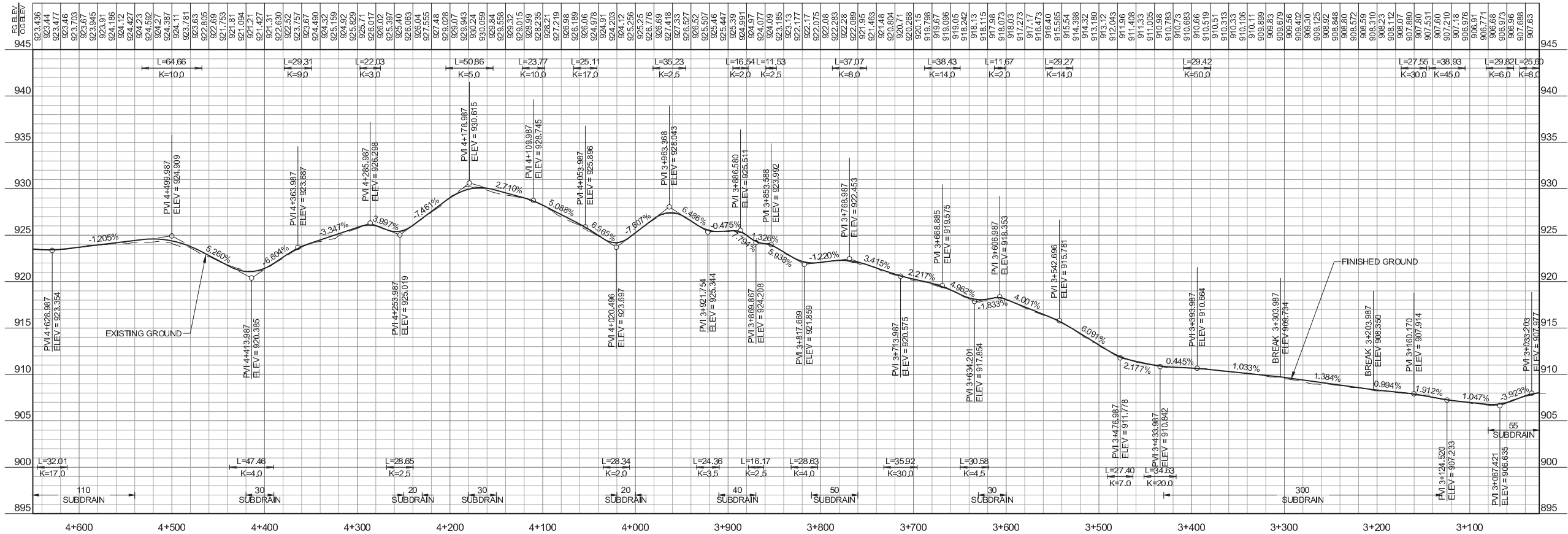
Client Acceptance / Acceptation du client  
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Project No. / No. du projet  
R.075061.001

Sheet No. / No. de la feuille  
C-04



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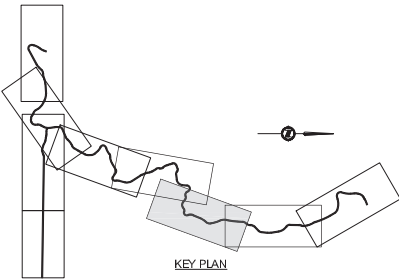


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SEE DRAWING 110 FOR DETAILED GEOMETRIC INFORMATION  
SEE DRAWING 111 FOR LAYBY INFORMATION  
SEE DRAWING 201 FOR INTERSECTION INFORMATION  
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A	detail number numéro de détail	A
B	source drawing no. de dessin no.	B
C	detail on drawing no. détail sur dessin no.	C

Consultant's Stamp  
Sceau de l'expert-conseil

Association of Professional Engineers & Geoscientists  
of Saskatchewan

CERTIFICATE OF AUTHORIZATION  
McElhanney Consulting Services Ltd.  
Number 28663

Permission to Consult held by:  
Discipline  
Civil Engineering  
22616

Eng. Stamp  
Sceau de l'ingénieur

PROFESSIONAL ENGINEER  
DR. J. McElhanney  
170428  
YR MM DAY  
SASKATCHEWAN

Client

Public Works and  
Government Services  
Canada

Travaux public et  
Services gouvernementaux  
Canada

Consultant's Name  
Nom de l'expert-conseil

**McElhanney**  
McElhanney Consulting Services Ltd.

Project Title  
Titre du projet

**BADLANDS SCENIC DRIVE  
ROADWAY IMPROVEMENTS**

EAST BLOCK  
GRASSLANDS NATIONAL PARK, SK

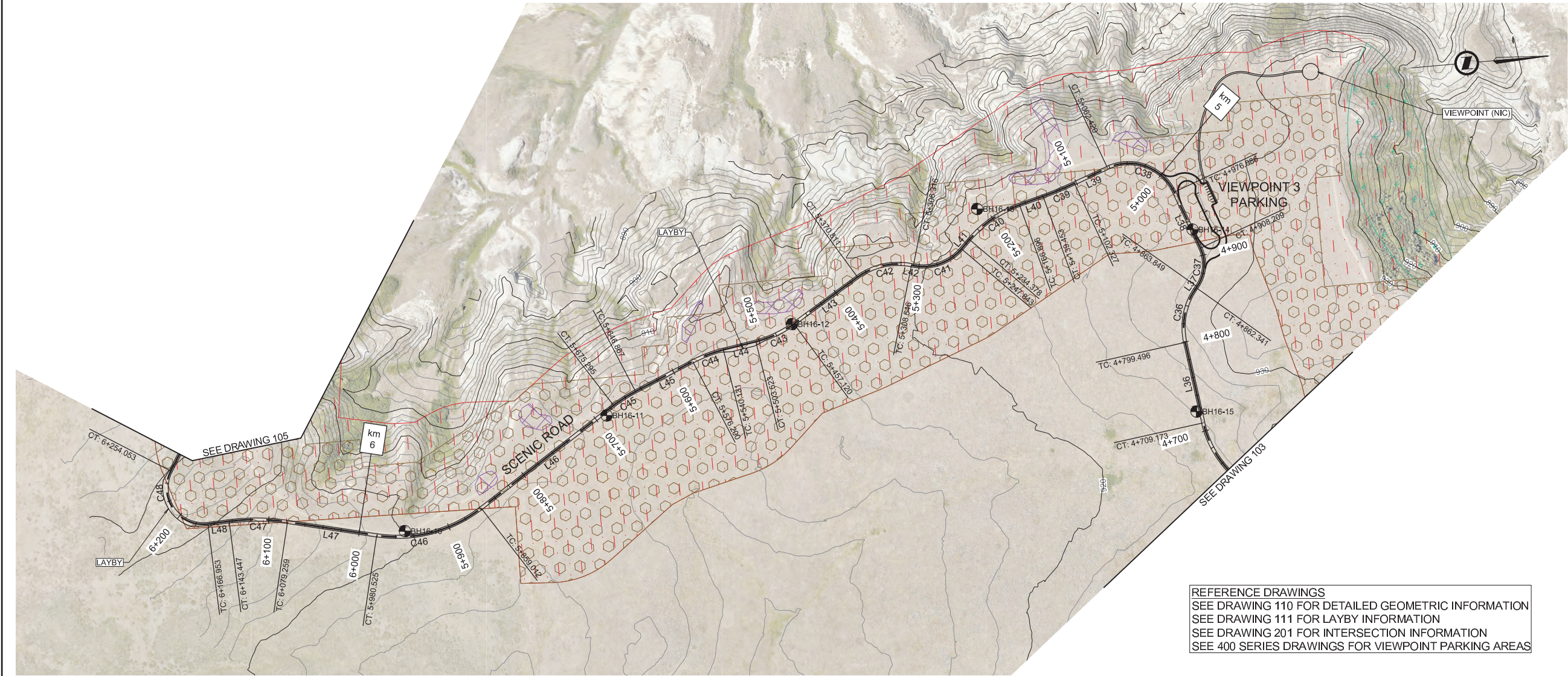
Drawing Title  
Titre du dossier

**PLAN & PROFILE**

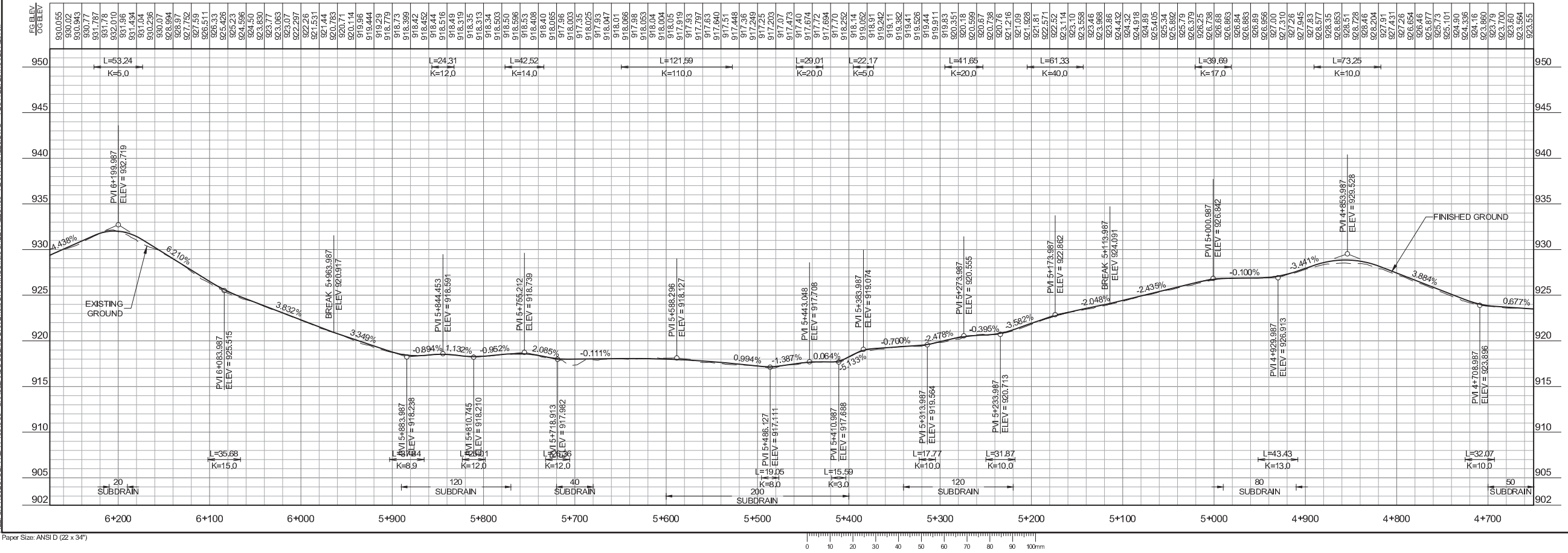
**STA 3+025 TO STA 4+650**

Surveyed by / Arpenté par <b>ALTUS</b>	Drawn by / Dessiné par <b>DL</b>	Date <b>2017.03.06</b>
Designed by / Conçu par <b>DY</b>	Reviewed by / Révisé par <b>MRJW</b>	Scale / Echelle <b>1:2500</b>
Parks Canada Project Manager / Administrateur de Projets Parcs Canada		
Client Acceptance / Acceptation du client		Approved by / Approuvé par
Project No. / No. du projet <b>R.075061.001</b>		Asset No. / No. du bien <b>55</b>
Drawing Reference No. / No. de référence du dessin		Sheet No. No. de la feuille <b>C-05</b>





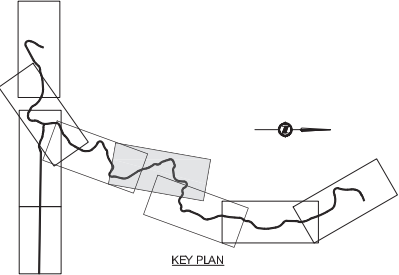
REFERENCE DRAWINGS  
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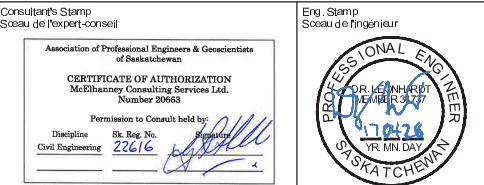
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B source drawing no.  
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Client  
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Travaux publics et Services gouvernementaux Canada



Project Title  
BADLANDS SCENIC DRIVE  
ROADWAY IMPROVEMENTS  
EAST BLOCK  
GRASSLANDS NATIONAL PARK, SK

Drawing Title  
PLAN & PROFILE  
STA 4+650 TO STA 6+275

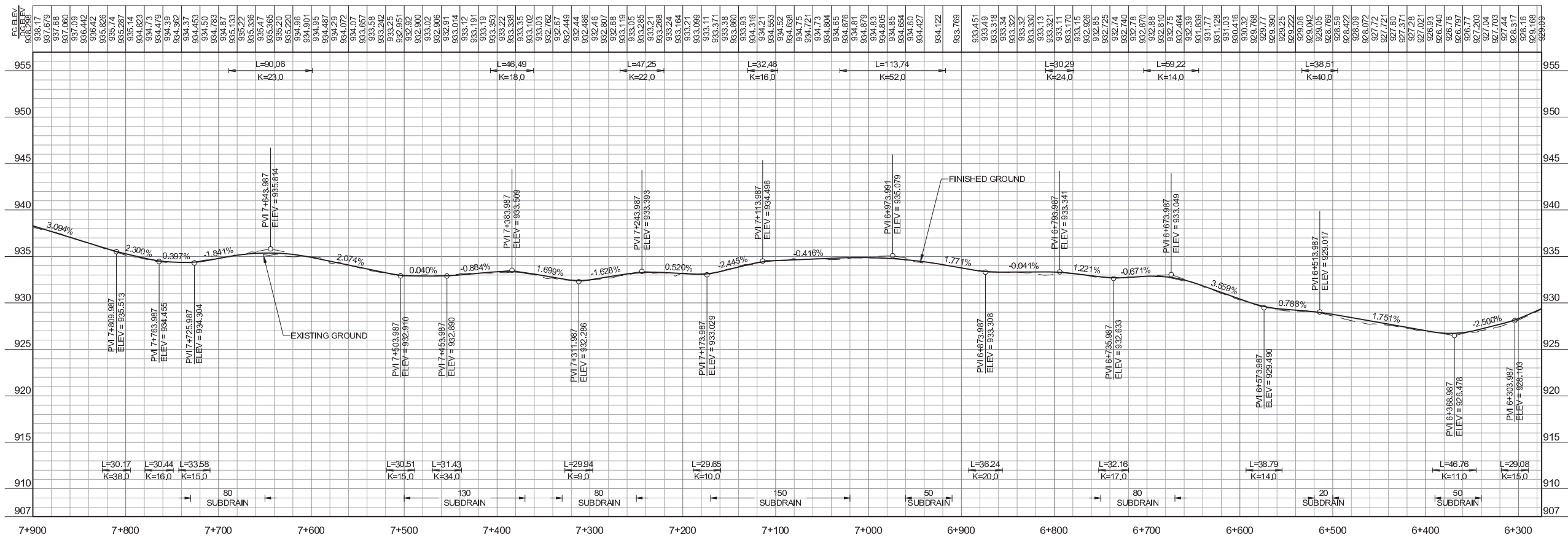
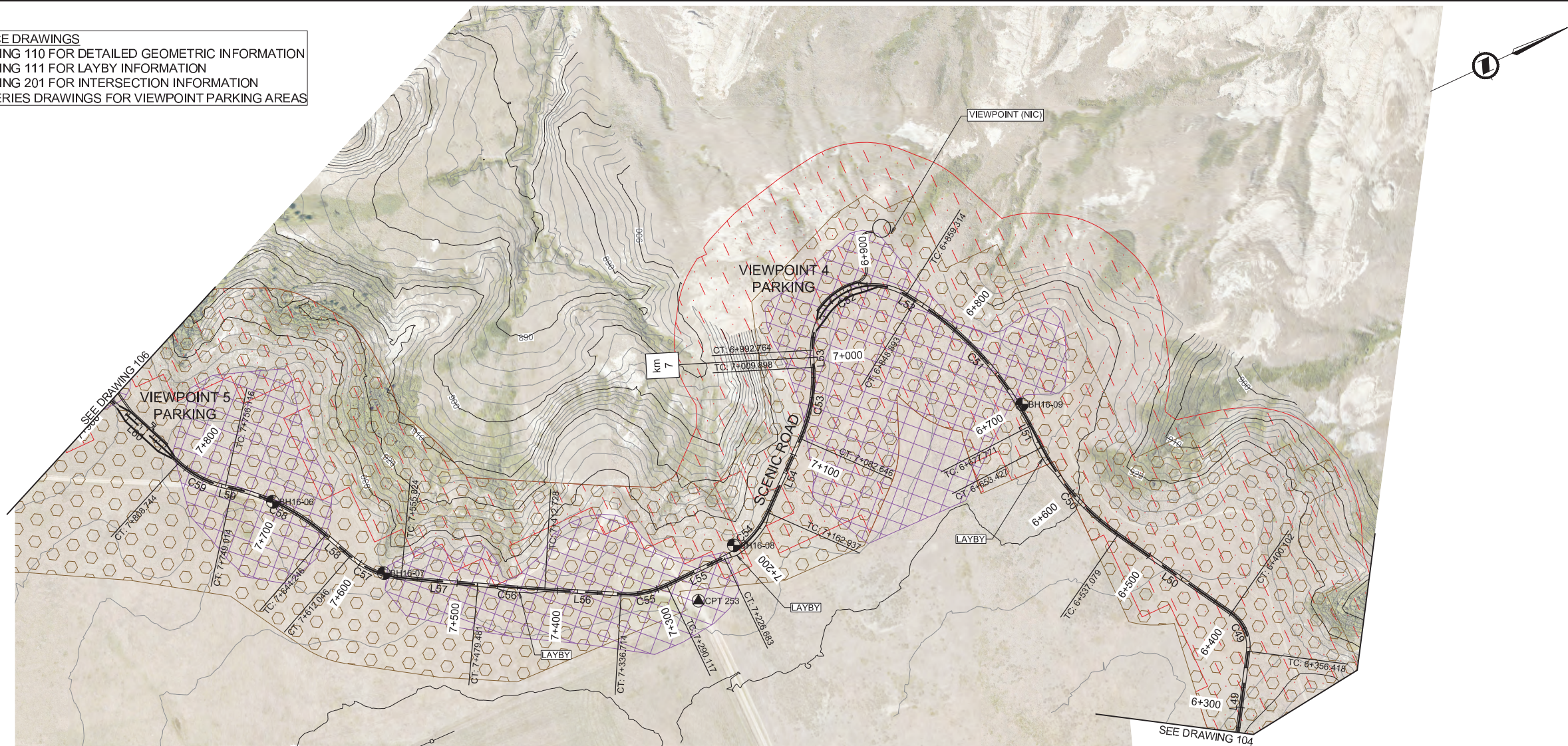
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ALTUS  
Designed by / Conçu par  
DY  
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DL  
Reviewed by / Revisé par  
MRJW  
Date  
2017.03.06  
Scale / Echelle  
1:2500

Client Acceptance / Acceptation du client  
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Project No. / No. du projet  
R.075061.001  
Assent No. / No. du bém  
Sheet No. / No. de la feuille  
C-06

Drawing Reference No. / No. de référence du dessin  
104



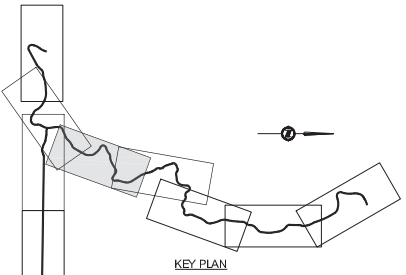
<p><u>REFERENCE DRAWINGS</u></p> <p>SEE DRAWING 110 FOR DETAILED GEOMETRIC INFORMATION</p> <p>SEE DRAWING 111 FOR LAYBY INFORMATION</p> <p>SEE DRAWING 201 FOR INTERSECTION INFORMATION</p> <p>SEE 400 SERIES DRAWINGS FOR VIEWPOINT PARKING AREAS</p>
--



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PC	2017.04.28	ISSUED FOR TENDER	DL	DY	MRJW
PD	2017.02.07	99% DESIGN SUBMISSION	DL	DY	MRJW
PB	2016.11.18	ISSUED FOR DISCUSSION	DL	DY	MRJW
PA	2016.03.18	DESIGN REPORT	DL	DY	MRJW
Rev.	Date	Description	Drawn Design	Designed Config	Approved Approve

The diagram illustrates the relationship between three types of numbers used in technical drawing:

- A** detail number / numéro de détail
- B** source drawing no. / de dessin no.
- C** detail on drawing no. / détail sur dessin no.

Visual representation: A circle is divided into two horizontal halves. The top half is labeled 'A' and the bottom half is labeled 'C'. To the right, another circle is divided into a top half labeled 'A' and a bottom half that is further divided vertically into two equal parts, each labeled 'B' and 'C' respectively.

Consultant's Stamp Date: 10/10/2011	Eng. Stamp Date: 10/10/2011
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Client	
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Public Works and  
Government Services  
Canada

Travaux public et  
Services gouvernementaux  
Canada

Consultant's Name Nom de l'expert-conseil
--



## McElhanney

**McElhanney Consulting Services Ltd.**

Project Title Titre du projet	
----------------------------------	--

# BADLANDS SCENIC DRIVE ROADWAY IMPROVEMENTS

EAST BLOCK  
GRASSLANDS NATIONAL PARK, SK

Drawing Title	
Titre du dessin	

## PLAN & PROFILE

STA 6+275 TO STA 7+900

Surveyed by / Arpenté par <b>ALTUS</b>	Drawn by / Dessiné par <b>DL</b>	Date <b>2017.03.06</b>
Designed by / Conçu par <b>DY</b>	Reviewed by / Révisé par <b>MRJW</b>	Scale / Echelle <b>1:2500</b>

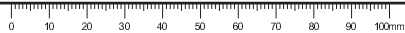
Parcs Canada Project Manager / Administrateur de Projets Parcs Canada

Cient Acceptance / Acception du client	Approved by / Approuvé par
<small>Banque Comptable Reconnue au Québec / Société Financière du Québec</small>	<small>Banque Comptable Reconnue au Québec / Société Financière du Québec</small>

Project No. / No. du projet		Asset No. / No. du bien	Sheet No.
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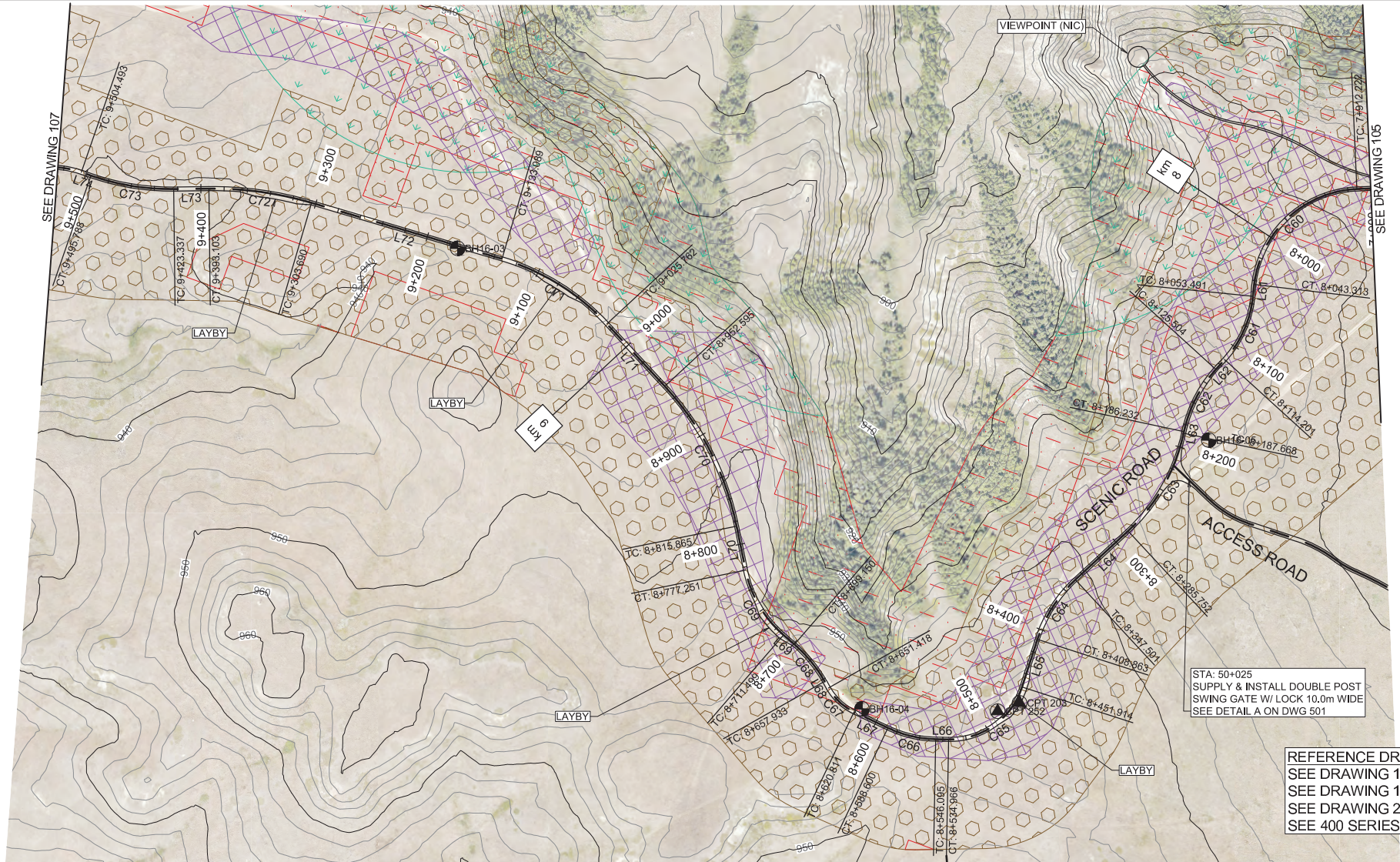
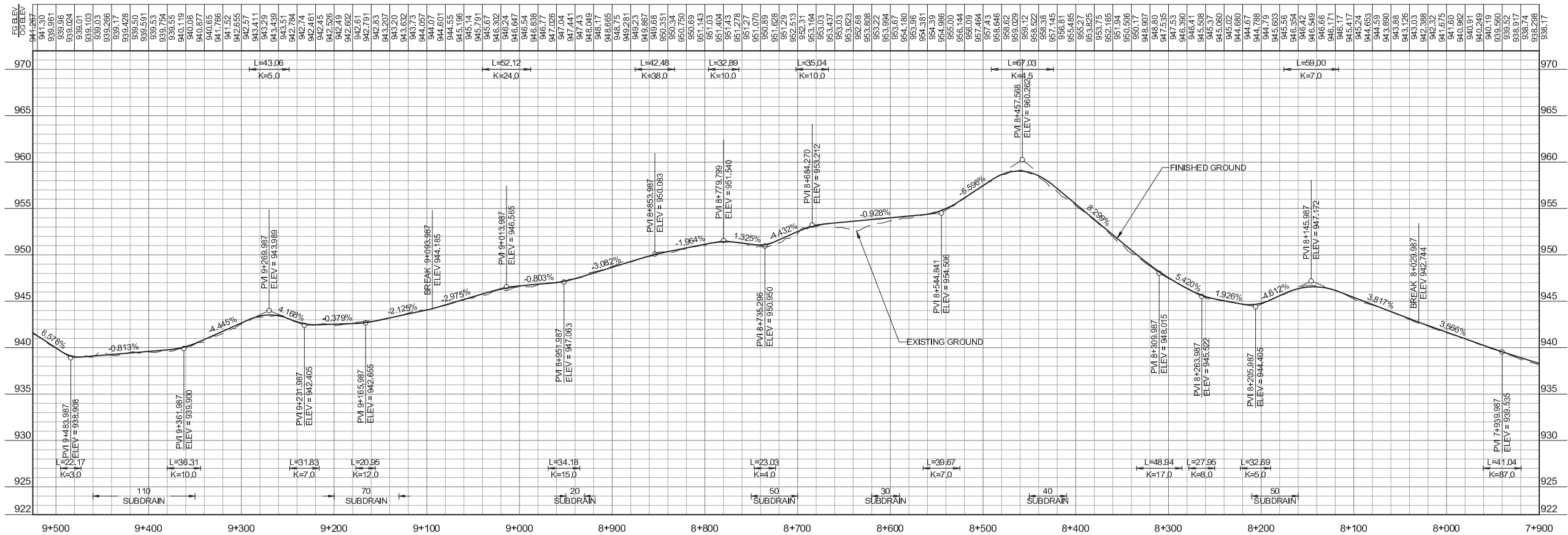
R.075061.001	No. de la feuille
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Drawing Reference No. / No. de référence du dessin	C-07
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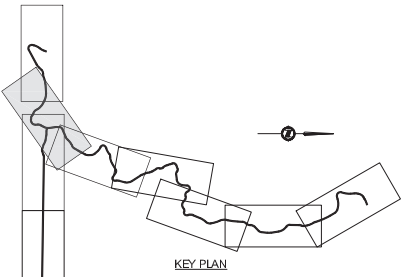


REFERENCE DRAWINGS  
SEE DRAWING 110 FOR DETAILED GEOMETRIC INFORMATION  
SEE DRAWING 111 FOR LAYBY INFORMATION  
SEE DRAWING 201 FOR INTERSECTION INFORMATION  
SEE 400 SERIES DRAWINGS FOR VIEWPOINT PARKING AREAS

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Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
PD	2017.04.28	ISSUED FOR TENDER	DL	DY	MRJW
PC	2017.02.07	99% DESIGN SUBMISSION	DL	DY	MRJW
PB	2016.11.18	ISSUED FOR DISCUSSION	DL	DY	MRJW
PA	2016.03.18	DESIGN REPORT	DL	DY	MRJW



A detail number  
B source drawing no.  
C detail on drawing no.  
detail sur dessin no.



Consultant's Stamp  
Sceau de l'expert-conseil

Association of Professional Engineers & Geoscientists  
of Saskatchewan

CERTIFICATE OF AUTHORIZATION  
McElhanney Consulting Services Ltd.  
Number 20068

Permission to Consult held by:  
Discipline: Civil Engineering  
Reg. No.: 22616

Eng. Stamp  
Sceau de l'ingénieur

PROFESSIONAL ENGINEER  
DR. J. McElhanney  
170438  
YR MM DAY  
SASKATCHEWAN

Client

Public Works and  
Government Services  
Canada

Travaux public et  
Services gouvernementaux  
Canada

Consultant's Name  
Nom de l'expert-conseil

**McElhanney**  
McElhanney Consulting Services Ltd.

Project Title  
Titre du projet

**BADLANDS SCENIC DRIVE  
ROADWAY IMPROVEMENTS**

EAST BLOCK  
GRASSLANDS NATIONAL PARK, SK

Drawing Title  
Titre du dessin

**PLAN & PROFILE**

**STA 7+900 TO STA 9+525**

Surveyed by / Arpenté par <b>ALTUS</b>	Drawn by / Dessiné par <b>DL</b>	Date <b>2017.03.06</b>
Designed by / Conçu par <b>DY</b>	Reviewed by / Révisé par <b>MRJW</b>	Scale / Echelle <b>1:2500</b>

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client Parcs Canada Project Manager / Administrateur de Projets Parcs Canada	Approved by / Approuvé par Parcs Canada Project Manager / Administrateur de Projets Parcs Canada
--	---

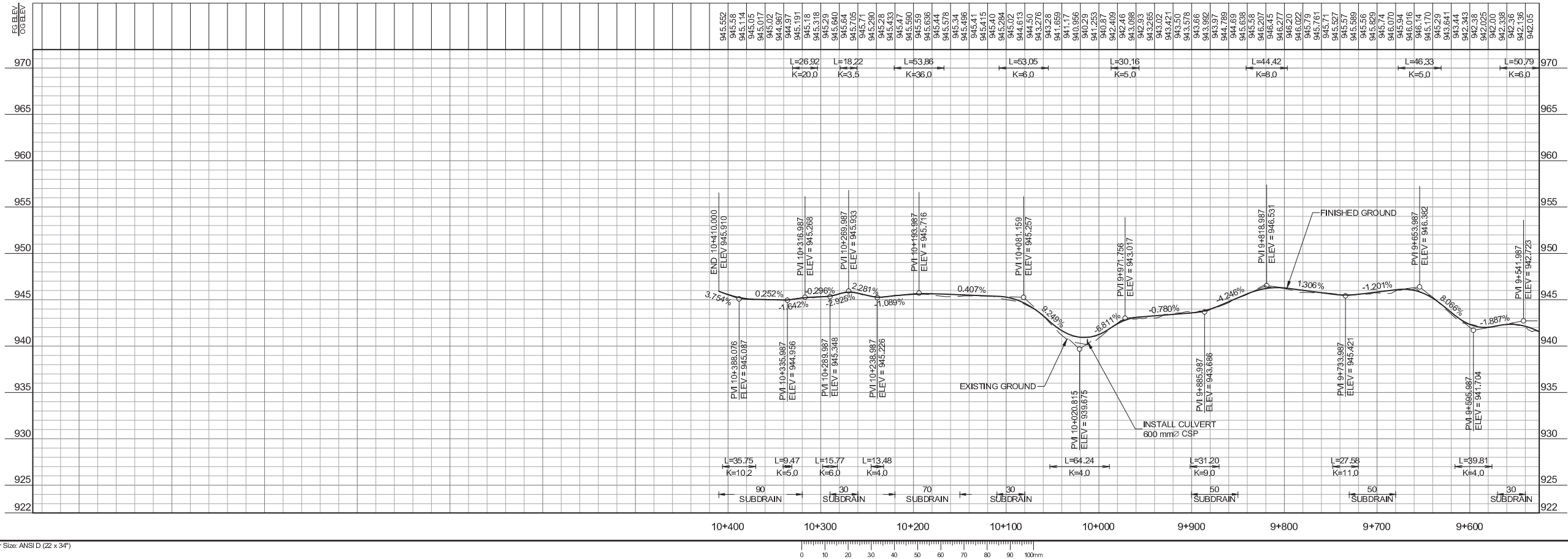
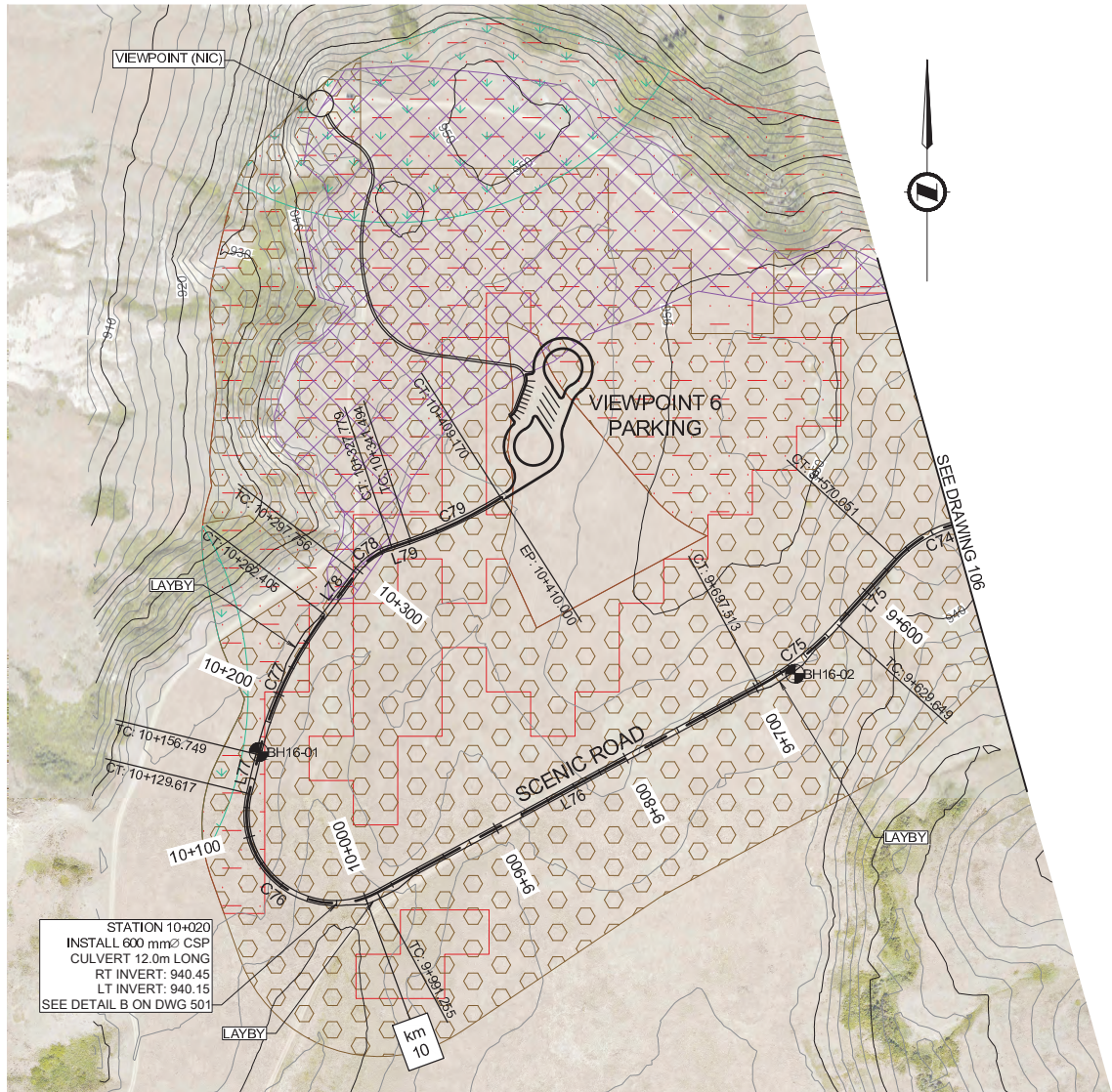
Project No. / No. du projet <b>R.075061.001</b>	Asset No. / No. de bien <b>C-08</b>
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Drawing Reference No. / No. de référence du dessin  
**106**



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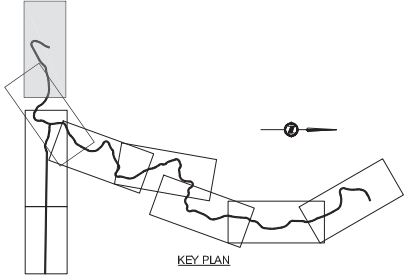
REFERENCE DRAWINGS  
SEE DRAWING 110 FOR DETAILED GEOMETRIC INFORMATION  
SEE DRAWING 111 FOR LAYBY INFORMATION  
SEE DRAWING 201 FOR INTERSECTION INFORMATION  
SEE 400 SERIES DRAWINGS FOR VIEWPOINT PARKING AREAS



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PD	2017.04.28	ISSUED FOR TENDER	DL	DY	MRJW
PC	2017.02.07	99% DESIGN SUBMISSION	DL	DY	MRJW
PB	2016.11.18	ISSUED FOR DISCUSSION	DL	DY	MRJW
PA	2016.03.18	DESIGN REPORT	DL	DY	MRJW
Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé



A detail number  
numéro de détail  
B source drawing no.  
de dessin no.  
C detail on drawing no.  
détail sur dessin no.



Consultant's Stamp  
Sceau de l'expert-conseil

Association of Professional Engineers & Geoscientists  
of Saskatchewan

CERTIFICATE OF AUTHORIZATION  
McElhanney Consulting Services Ltd.  
Number 50668

Permission to Consult held by  
Discipline: Civil Engineering  
Sk. Reg. No. 22616

Eng. Stamp  
Sceau de l'ingénieur

PROFESSIONAL ENGINEER  
DR. J. McELHANNEY  
170428  
YR MM DAY  
SASKATCHEWAN

Client

Public Works and  
Government Services  
Canada

Travaux public et  
Services gouvernementaux  
Canada

Consultant's Name  
Nom de l'expert-conseil

**McElhanney**  
McElhanney Consulting Services Ltd.

Project Title  
Titre du projet

**BADLANDS SCENIC DRIVE  
ROADWAY IMPROVEMENTS**

EAST BLOCK  
GRASSLANDS NATIONAL PARK, SK

Drawing Title  
Titre du dessin

**PLAN & PROFILE**

**STA 9+525 TO STA 10+410**

Surveyed by / Arpenté par <b>ALTUS</b>	Drawn by / Dessiné par <b>DL</b>	Date <b>2017.03.06</b>
Designed by / Conçu par <b>DY</b>	Reviewed by / Révisé par <b>MRJW</b>	Scale / Echelle <b>1:2500</b>

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

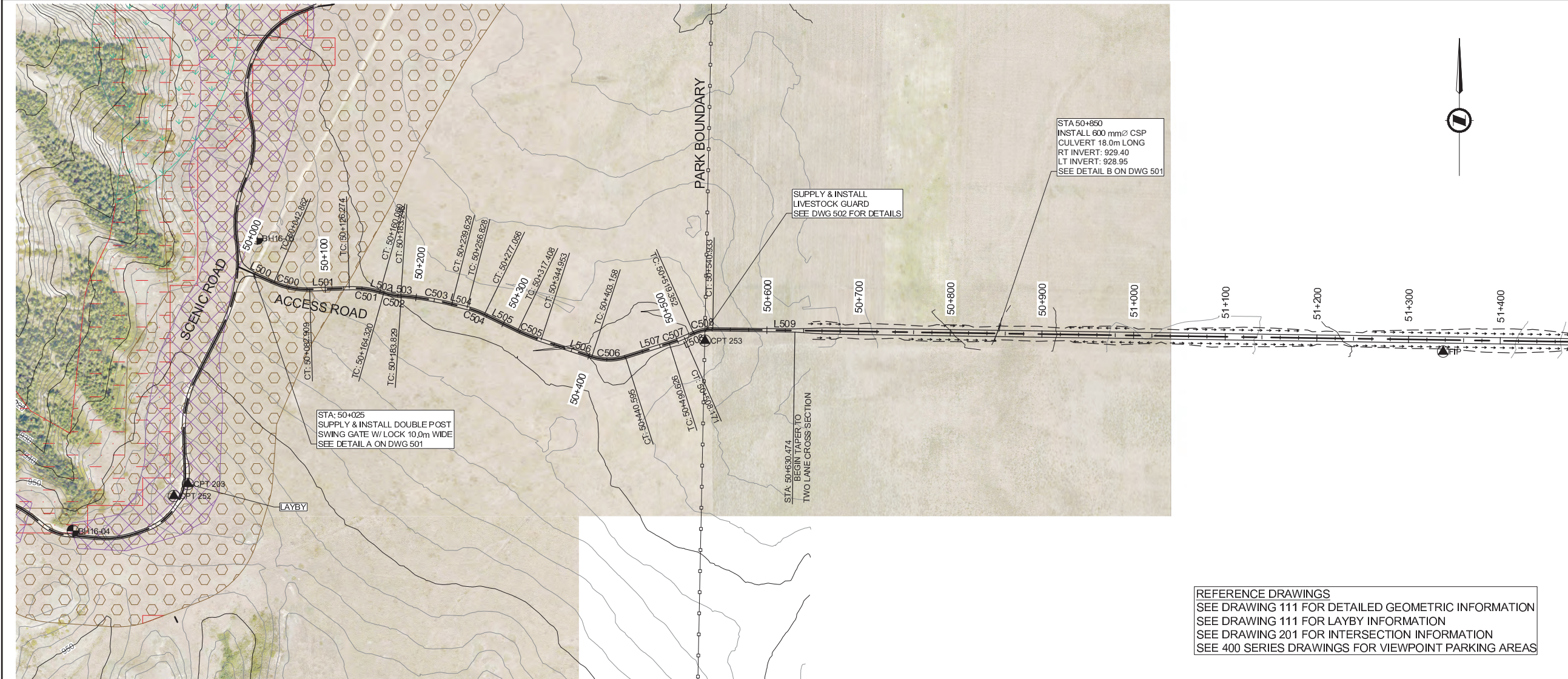
Client Acceptance / Acceptation du client	Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada	Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet <b>R.075061.001</b>	Asset No. / No. du bien	Sheet No. / No. de la feuille <b>C-09</b>
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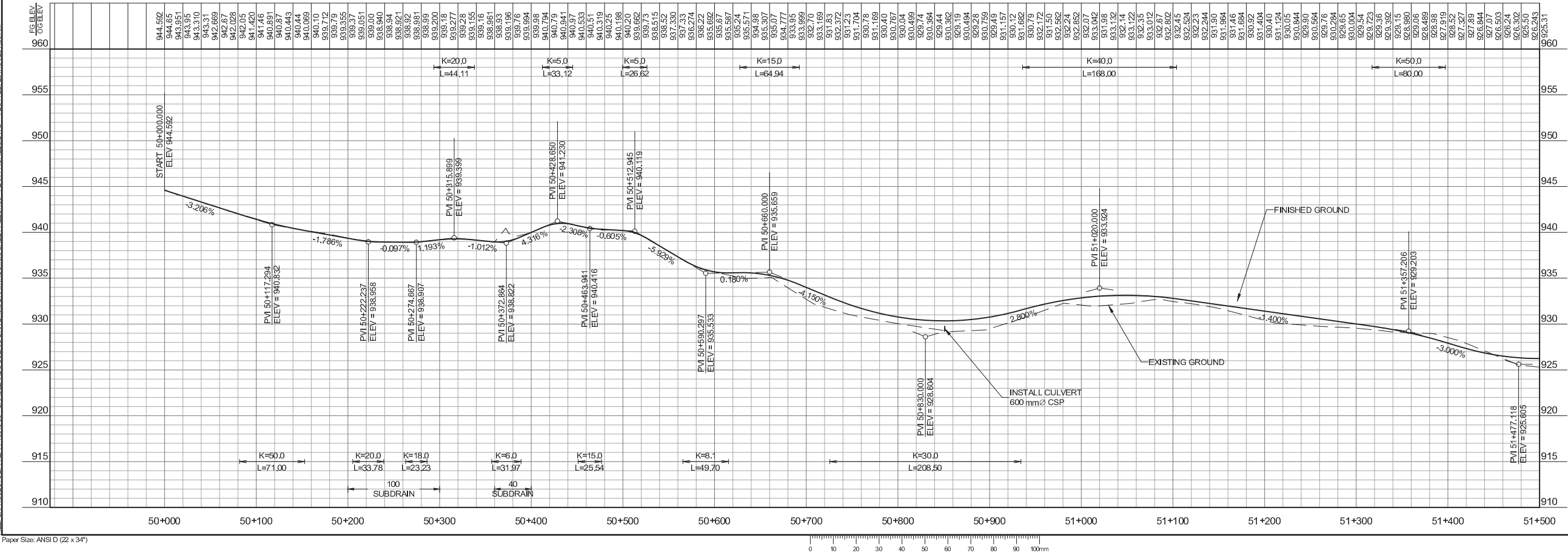
Drawing Reference No. / No. de référence du dessin



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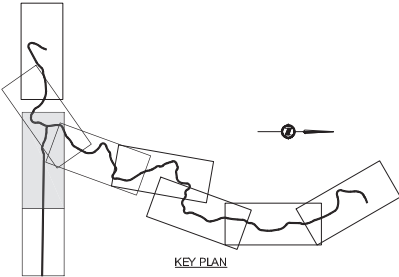
REFERENCE DRAWINGS  
SEE DRAWING 111 FOR DETAILED GEOMETRIC INFORMATION  
SEE DRAWING 111 FOR LAYBY INFORMATION  
SEE DRAWING 201 FOR INTERSECTION INFORMATION  
SEE 400 SERIES DRAWINGS FOR VIEWPOINT PARKING AREAS



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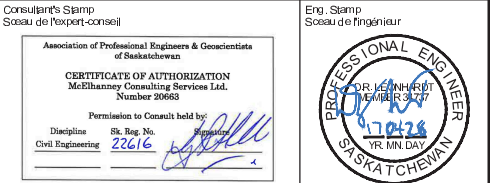
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PD	2017.04.28	ISSUED FOR TENDER	DL	DY	MRJW
PC	2017.02.07	99% DESIGN SUBMISSION	DL	DY	MRJW
PB	2016.11.18	ISSUED FOR DISCUSSION	DL	DY	MRJW
PA	2016.03.18	DESIGN REPORT	DL	DY	MRJW
Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé

A detail number  
B source drawing no.  
C detail on drawing no.



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

Consultant's Name  
Nom de l'expert-conseil  
**McElhanney**  
McElhanney Consulting Services Ltd.

Project Title  
Titre du projet  
**BADLANDS SCENIC DRIVE  
ROADWAY IMPROVEMENTS**  
EAST BLOCK  
GRASSLANDS NATIONAL PARK, SK

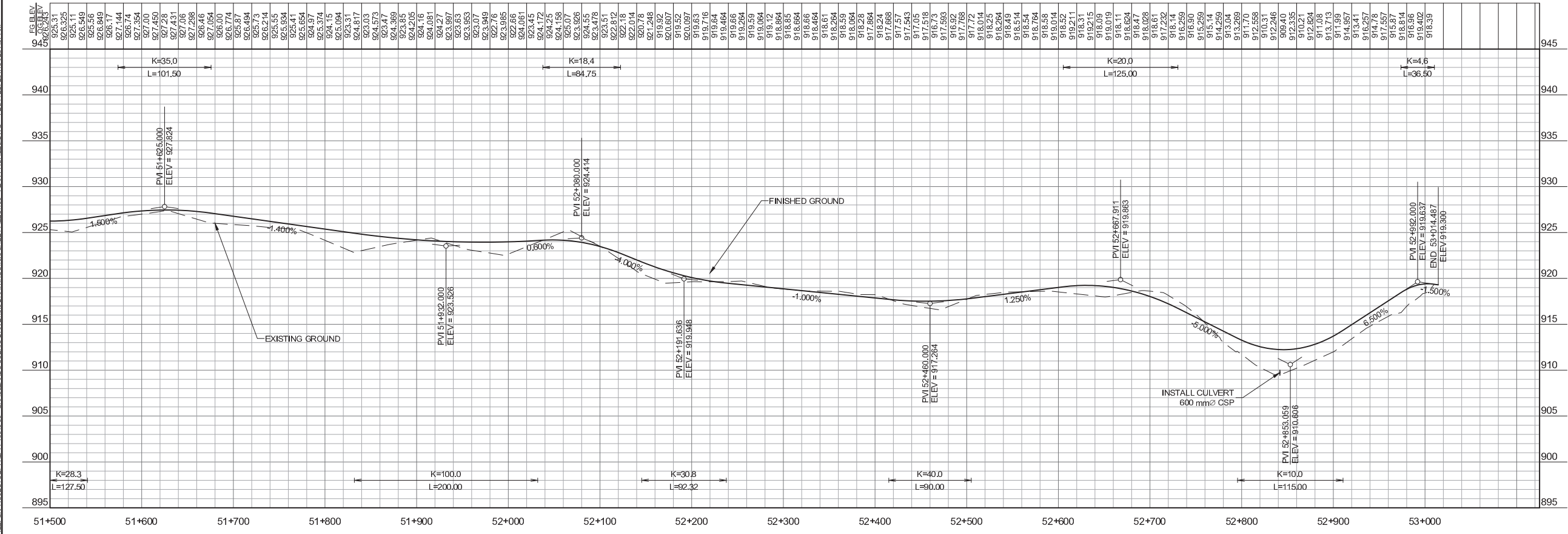
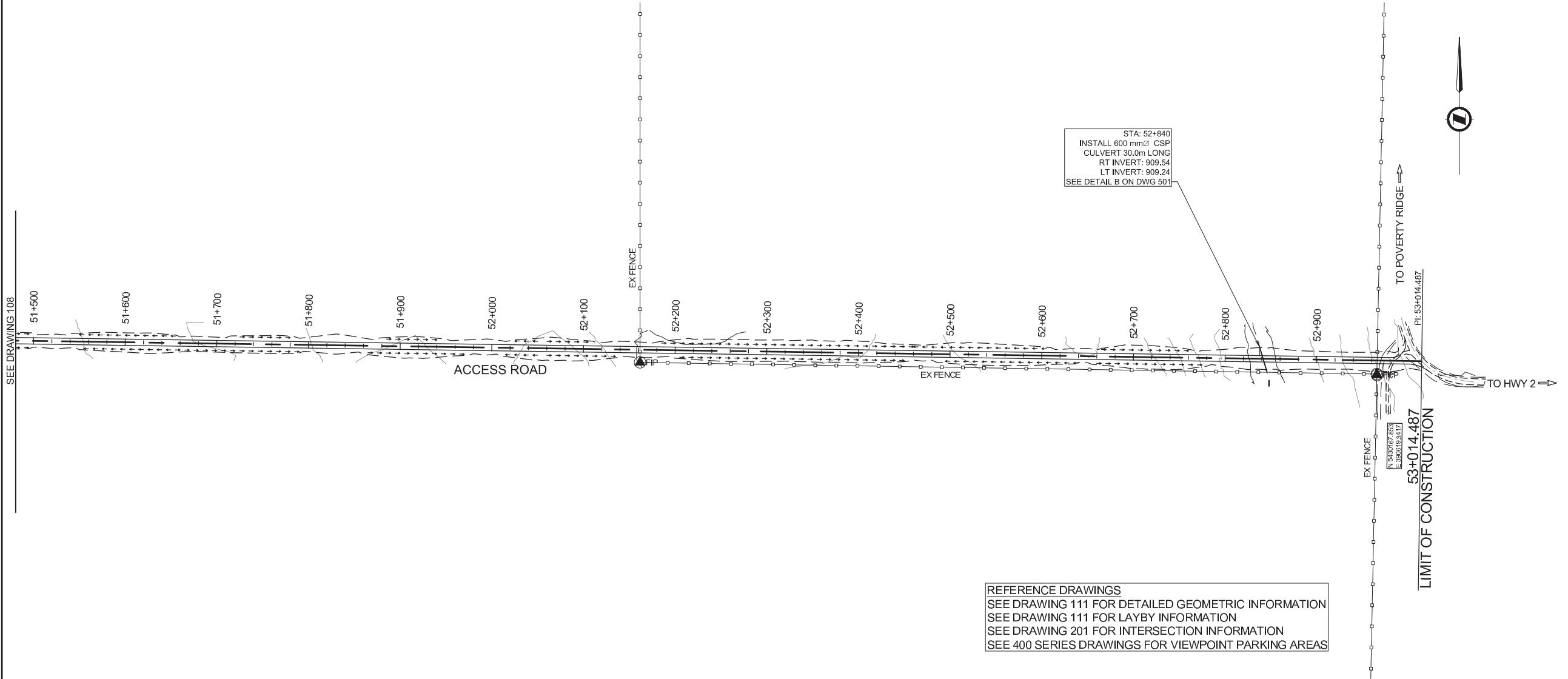
Drawing Title  
Titre du dessin  
**PLAN & PROFILE**  
STA 50+000 TO STA 51+500

Surveyed by / Arpenté par  
ALTUS  
Designed by / Conçu par  
DY  
Drawn by / Dessiné par  
DL  
Reviewed by / Révisé par  
MRJW  
Date  
2017.03.06  
Scale / Echelle  
1:2500

Parks Canada Project Manager / Administrateur de Projets Parcs Canada  
Client Acceptance / Acceptation du client  
Approved by / Approuvé par

Project No. / No. du projet  
R.075061.001  
Asset No. / No. de bien  
Sheet No. / No. de feuille  
C-10

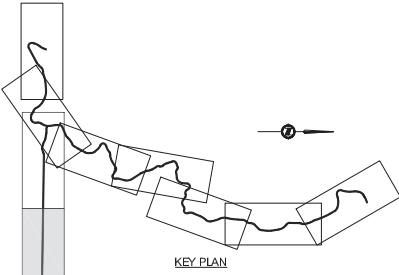




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PD	2017.04.28	ISSUED FOR TENDER	DL	DY	MRJW
PC	2017.02.07	99% DESIGN SUBMISSION	DL	DY	MRJW
PB	2016.11.18	ISSUED FOR DISCUSSION	DL	DY	MRJW
PA	2016.03.18	DESIGN REPORT	DL	DY	MRJW
Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé



A detail number  
B source drawing no.  
C detail on drawing no.



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Sceau de l'expert-conseil

Association of Professional Engineers & Geoscientists  
of Saskatchewan

CERTIFICATE OF AUTHORIZATION  
McElhanney Consulting Services Ltd.  
Number 26683

Permission to Consult held by:  
Discipline  
Civil Engineering  
22616

Eng. Stamp  
Sceau de l'ingénieur

PROFESSIONAL ENGINEER  
DR. J. McElhanney  
170438  
YR. MN. DAY  
SASKATCHEWAN

Client

Public Works and  
Government Services  
Canada

Travaux public et  
Services gouvernementaux  
Canada

Consultant's Name  
Nom de l'expert-conseil

**McElhanney**  
McElhanney Consulting Services Ltd.

Project Title  
Titre du projet

**BADLANDS SCENIC DRIVE  
ROADWAY IMPROVEMENTS**

EAST BLOCK  
GRASSLANDS NATIONAL PARK, SK

Drawing Title  
Titre du dessin

**PLAN & PROFILE**

**STA 51+500 TO STA 53+014**

Surveyed by / Arpenté par <b>ALTUS</b>	Drawn by / Dessiné par <b>DL</b>	Date <b>2017.03.06</b>
Designed by / Conçu par <b>DY</b>	Reviewed by / Révisé par <b>MRJW</b>	Scale / Echelle <b>1:2500</b>

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client	Approved by / Approuvé par
Parks Canada Regional Project Manager / Agent Régional de Parcs Canada	Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet <b>R.075061.001</b>	Asset No. / No. de bien	Sheet No. / No. de la feuille <b>C-11</b>
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Drawing Reference No. / No. de référence du dessin



FILE: G:\PROJECTS\27102711-16015-00 - GRASSLANDS SCENIC DRIVE\03 DRAWINGS\03 SHEET FILES\00 - PLAN PROFILES.DWG PLOTTED: 2017/04/28 2:38 AM

ALIGNMENT TABLE (AL01-SCENIC ROAD)				
PT.	STATION	NORTHING	EASTING	
START	0+000.000	5435913.8805	388993.4794	
TC	0+002.661	5435911.6827	388991.9790	
CT	0+019.858	5435901.7792	388978.3340	
TC	0+067.299	5435891.2923	388942.3919	
CT	0+124.079	5435861.8199	388882.8498	
TC	0+125.435	5435861.0154	388881.7587	
CT	0+155.178	5435845.6838	388856.3213	
TC	0+169.402	5435839.5036	388843.5100	
CT	0+186.647	5435828.9441	388830.0447	
TC	0+210.955	5435810.2005	388814.5686	
CT	0+260.867	5435765.9326	388792.4524	
TC	0+280.124	5435747.2111	388787.9412	
CT	0+352.023	5435675.8346	388782.2079	
TC	0+414.593	5435613.4455	388786.9690	
CT	0+528.980	5435500.1671	388775.9267	
TC	0+577.373	5435453.5338	388762.9966	
CT	0+719.331	5435373.0372	388846.7061	
TC	0+757.719	5435384.7334	388883.2691	
CT	0+945.617	5435379.9532	389067.5992	
TC	0+958.272	5435375.4779	389079.4365	
CT	1+019.255	5435336.9271	389125.1820	
TC	1+119.896	5435250.1824	389176.2109	
CT	1+298.687	5435088.6181	389252.1905	
TC	1+400.734	5434992.6686	389286.9352	
CT	1+440.762	5434956.1419	389303.2215	
TC	1+482.020	5434919.7655	389322.6902	
CT	1+557.060	5434849.1603	389347.1716	
TC	1+613.673	5434793.4232	389357.0907	
CT	1+652.352	5434755.3973	389353.4185	
TC	1+664.055	5434744.4808	389349.2012	
CT	1+704.957	5434704.5737	389341.1849	
TC	1+866.599	5434542.9942	389336.6901	
CT	1+936.150	5434482.6675	389365.7246	
TC	1+950.611	5434473.9638	389377.2729	
CT	2+104.944	5434344.7813	389454.5520	
TC	2+240.462	5434210.8521	389475.2420	
CT	2+308.293	5434143.2316	389476.7861	
TC	2+413.852	5434038.2833	389465.4485	
CT	2+463.795	5433994.1773	389444.1597	
TC	2+558.393	5433927.7142	389376.8443	

ALIGNMENT TABLE (AL01-SCENIC ROAD)				
PT.	STATION	NORTHING	EASTING	
CT	2+651.149	5433844.5785	389341.1760	
TC	2+658.927	5433836.8020	389341.0298	
CT	2+724.104	5433777.2530	389317.9863	
TC	2+741.730	5433763.9979	389306.3691	
CT	2+803.920	5433707.5536	389283.0140	
TC	2+886.967	5433624.6815	389277.6189	
CT	3+062.793	5433450.2780	389256.0856	
TC	3+091.640	5433421.9006	389250.9018	
CT	3+211.898	5433304.4187	389265.6088	
TC	3+219.642	5433297.3787	389268.8355	
CT	3+371.979	5433151.4318	389310.3961	
TC	3+379.844	5433143.8267	389311.3524	
CT	3+459.259	5433069.4234	389289.8678	
TC	3+493.883	5433042.6604	389267.9002	
CT	3+592.892	5432958.0243	389217.2205	
TC	3+721.359	5432839.2899	389168.1701	
CT	3+815.554	5432747.0979	389164.4540	
TC	3+821.728	5432741.2199	389166.3445	
CT	3+927.984	5432677.3810	389106.7090	
TC	3+942.708	5432680.9257	389092.4178	
CT	3+974.869	5432675.9730	389061.5100	
TC	4+014.962	5432654.6457	389027.5610	
CT	4+109.648	5432657.4013	388938.3483	
TC	4+179.703	5432698.2577	388881.4407	
CT	4+228.788	5432704.4532	388834.7121	
TC	4+231.866	5432703.3715	388831.8299	
CT	4+321.168	5432729.9228	388753.7802	
TC	4+347.650	5432752.4168	388739.8041	
CT	4+481.399	5432727.7335	388641.8881	
TC	4+557.851	5432851.4289	388637.1455	
CT	4+709.173	5432549.2251	388541.9516	
TC	4+799.496	5432537.2415	388452.4270	
CT	4+862.341	5432554.4511	388393.8815	
TC	4+863.849	5432555.4283	388392.7328	
CT	4+908.209	5432562.8714	388351.0654	
TC	4+976.086	5432539.5117	388287.3347	
CT	5+062.420	5432468.9999	388254.6017	
TC	5+102.327	5432431.5155	388268.2945	
CT	5+139.453	5432396.1145	388279.4379	
TC	5+166.896	5432369.5912	388286.4846	

ALIGNMENT TABLE (AL01-SCENIC ROAD)				
PT.	STATION	NORTHING	EASTING	
CT	5+234.378	5432311.6593	388319.5946	
TC	5+247.843	5432302.0752	388329.0525	
CT	5+306.316	5432248.0117	388342.6955	
TC	5+308.546	5432245.8718	388342.0699	
CT	5+370.811	5432185.8949	388349.9549	
TC	5+457.120	5432112.1269	388394.7595	
CT	5+503.523	5432068.8471	388410.6794	
TC	5+540.131	5432032.7022	388416.4800	
CT	5+576.200	5431998.0884	388426.3210	
TC	5+646.867	5431932.8598	388453.5058	
CT	5+675.295	5431907.7262	388466.7093	
TC	5+859.012	5431753.3074	388566.2427	
CT	5+980.525	5431636.7442	388585.9521	
TC	6+079.259	5431540.7831	388562.7187	
CT	6+143.447	5431477.1096	388556.4587	
TC	6+166.953	5431453.6247	388557.4348	
CT	6+254.053	5431418.1839	388496.0465	
TC	6+356.418	5431473.0072	388409.6005	
CT	6+400.102	5431473.8020	388368.0629	
TC	6+537.079	5431404.9200	388249.6647	
CT	6+653.427	5431372.5798	388139.0853	
TC	6+677.771	5431371.5543	388114.7631	
CT	6+848.893	5431320.4389	387953.5445	
TC	6+859.314	5431314.7985	387944.7818	
CT	6+992.764	5431206.9021	387955.0606	
TC	7+009.898	5431200.5153	387970.9601	
CT	7+082.646	5431158.8306	388029.7686	
TC	7+162.937	5431098.4402	388082.6783	
CT	7+226.683	5431040.1374	388104.9798	
TC	7+290.117	5430976.7081	388105.6896	
CT	7+336.714	5430931.9513	388094.6393	
TC	7+412.728	5430865.0726	388058.5103	
CT	7+479.481	5430806.8316	388025.8966	
TC	7+555.824	5430740.7950	387987.5901	
CT	7+612.046	5430703.7932	387946.4762	
TC	7+644.246	5430690.6499	387917.0810	
CT	7+749.014	5430626.2701	387835.8042	
TC	7+756.116	5430620.6227	387831.4981	
CT	7+808.744	5430588.8825	387790.2807	
TC	7+912.222	5430549.2464	387694.6944	

ALIGNMENT TABLE (AL01-SCENIC ROAD)			
PT.	STATION	NORTHING	EASTING
CT	8+043.313	5430441.9681	387639.8058
TC	8+053.491	5430432.1062	387642.3216
CT	8+114.201	5430372.5693	387638.1622
TC	8+125.504	5430362.1114	387633.8722
CT	8+186.232	5430302.5569	387626.3743
TC	8+187.668	5430301.1346	387626.5730
CT	8+285.752	5430205.9341	387610.4545
TC	8+347.501	5430150.9994	387582.2564
CT	8+408.863	5430091.7479	387569.0963
TC	8+451.914	5430048.7264	387570.6937
CT	8+534.966	5429984.8259	387526.8135
TC	8+546.095	5429981.2175	387516.2854
CT	8+588.600	5429976.2615	387474.3911
TC	8+620.811	5429979.3073	387442.3249
CT	8+651.418	5429991.0623	387414.5812
TC	8+657.933	5429995.2936	387409.6268
CT	8+699.150	5430016.2079	387374.3459
TC	8+711.499	5430020.5971	387362.8031
CT	8+777.251	5430061.8068	387313.0883
TC	8+815.865	5430094.7282	387292.9081
CT	8+952.595	5430186.5170	387193.8703
TC	9+025.762	5430219.9122	387128.7686
CT	9+133.089	5430241.5670	387024.9600
TC	9+303.690	5430230.8837	386854.6934
CT	9+393.103	5430212.1669	386767.5995
TC	9+423.337	5430201.4963	386739.3114
CT	9+495.788	5430188.0083	386668.4914
TC	9+504.493	5430187.8717	386659.7881
CT	9+570.051	5430161.5652	386601.7306
TC	9+629.649	5430117.3788	386561.7381
CT	9+697.513	5430075.6757	386508.6120
TC	9+891.255	5429935.9172	386250.2476
CT	10+129.617	5430002.9172	386163.4114
TC	10+156.749	5430029.2750	386169.8444
CT	10+262.405	5430124.0957	386214.7820
TC	10+297.756	5430152.3286	386236.0662
CT	10+327.779	5430169.6279	386260.0429
TC	10+341.494	5430174.0020	386273.0425
END	10+409.170	5430203.0886	386333.9658



FILE: G:\PROJECTS\171118\15-00 - GRASSLANDS SCENIC DRIVE\10.0 DRAWINGS\10.3 SHEET FILES\10.3 - PLAN PROFILES.DWG PLOTTED: 2017/04/28 7:39 AM

ALIGNMENT TABLE (AL02-ACCESS ROAD)			
PT.	STATION	NORTHING	EASTING
START	50+000.000	5430272.1955	387627.9669
TC	50+042.862	5430254.9446	387667.2044
CT	50+082.909	5430247.3761	387706.1942
TC	50+126.274	5430248.7094	387749.5386
CT	50+160.050	5430244.5893	387782.9286
TC	50+164.320	5430243.4245	387787.0364
CT	50+183.246	5430240.2069	387805.6520
TC	50+183.829	5430240.1685	387806.2329
CT	50+239.629	5430231.3460	387861.2502
TC	50+256.828	5430227.0575	387877.9058
CT	50+277.056	5430220.0735	387896.8531
TC	50+317.408	5430202.3662	387933.1123
CT	50+344.953	5430192.0188	387958.6166
TC	50+403.158	5430173.8997	388013.9293
CT	50+440.595	5430173.7310	388050.7622
TC	50+490.626	5430188.8693	388098.4475
CT	50+508.171	5430195.0833	388114.8456
TC	50+519.352	5430199.6124	388125.0683
CT	50+540.933	5430203.8928	388146.0503
END	53+014.487	5430167.8532	390619.3417

AL02 - ACCESS ROAD					
CURVE TABLE					
CURVE	RADIUS	LENGTH	Δ	TANGENT	CHORD
C500	90.000	40.047	25°29'41"	20.361	39.718
C501	110.000	33.776	17°35'34"	17.022	33.643
C503	300.000	55.801	10°39'26"	27.981	55.720
C504	100.000	20.228	11°35'23"	10.149	20.193
C505	200.000	27.545	7°53'28"	13.794	27.523
C506	60.000	37.438	35°45'01"	19.351	36.833
C507	160.000	17.545	6°16'58"	8.781	17.536
C508	50.000	21.581	24°43'49"	10.961	21.414

LAYBY			TABLE		
ID		STATION		STATION	LENGTH
1	START	0+528.980	END	0+577.366	23.386
2	START	0+833.987	END	0+883.987	25.000
3	START	1+350.734	END	1+400.734	25.000
4	START	2+163.987	END	2+213.987	25.000
5	START	2+938.987	END	2+988.987	25.000
6	START	3+238.987	END	3+288.987	25.000
7	START	4+588.987	END	4+638.987	25.000
8	START	5+493.987	END	5+543.987	25.000
9	START	6+172.011	END	6+254.053	57.042
10	START	6+623.789	END	6+673.961	25.172
11	START	7+162.937	END	7+226.683	38.746
12	START	7+412.728	END	7+462.728	25.000
13	START	8+433.108	END	8+490.181	32.073
14	START	8+699.150	END	8+749.508	25.358
15	START	9+054.442	END	9+104.442	25.000
16	START	9+303.690	END	9+366.190	37.500
17	START	9+653.108	END	9+703.108	25.000
18	START	9+964.656	END	10+013.108	23.452
19	START	10+208.108	END	10+258.108	25.000

STATIONS INDICATED ARE FROM START OF TAPER TO END OF TAPER.  
TAPERS ARE 12.5m LONG AT EACH END OF THE LAYBY.  
LENGTH OF LAYBY DOES NOT INCLUDE TAPERS.

SEE DRAWING 301 FOR TYPICAL LAYBY DIMENSIONS.

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KEY PLAN

PD	2017.04.28	ISSUED FOR TENDER	DL	DY	MRJW
PC	2017.02.07	99% DESIGN SUBMISSION	DL	DY	MRJW
PB	2016.11.18	ISSUED FOR DISCUSSION	DL	DY	MRJW
PA	2016.03.18	DESIGN REPORT	DL	DY	MRJW
Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé

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detail number  
numéro de détail

source drawing no.  
de dessin no.

detail on drawing no.  
détail sur dessin no.

Consultant's Stamp  
Sceau de l'expert-conseil

Association of Professional Engineers & Geoscientists  
of Saskatchewan

CERTIFICATE OF AUTHORIZATION  
McElhanney Consulting Services Ltd.  
Number 20668

Permission to Consult held by:  
Discipline  
Civil Engineering  
Reg. No.  
22616

Eng. Stamp  
Sceau de l'ingénieur

PROFESSIONAL ENGINEER

DR. J. McELHANNEY

170428

YR MM DAY

SK SASKATCHEWAN

Client

Public Works and  
Government Services  
Canada

Travaux public et  
Services gouvernementaux  
Canada

Consultant's Name  
Nom de l'expert-conseil

**McElhanney**  
McElhanney Consulting Services Ltd.

Project Title  
Titre du projet

**BADLANDS SCENIC DRIVE  
ROADWAY IMPROVEMENTS**  
-----  
EAST BLOCK  
GRASSLANDS NATIONAL PARK, SK

Drawing Title  
Titre du dessin

**GEOMETRIC TABLES**  
  
**AL02 - SOUTH ACCESS ROAD  
& LAYBYS**

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
ALTUS	DL	2017.03.06
Designed by / Conçu par	Reviewed by / Révisé par	Scale / Echelle
DY	MRJW	1:2500

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

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Client Acceptance / Acceptation du client

Approved by / Approuvé par

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

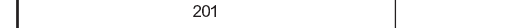
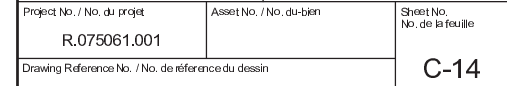
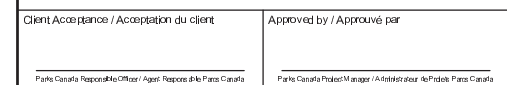
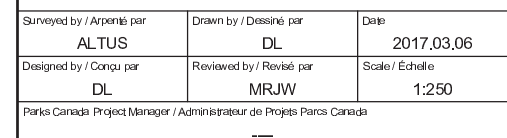
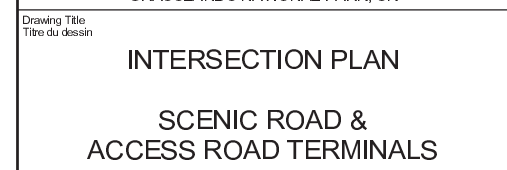
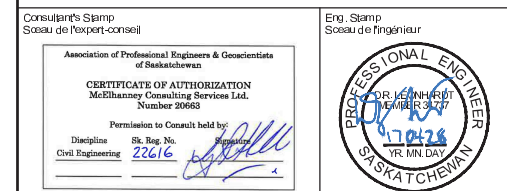
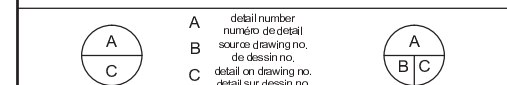
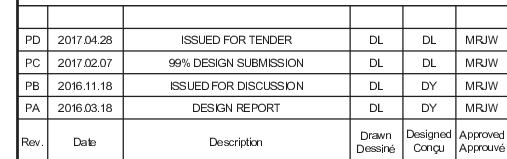
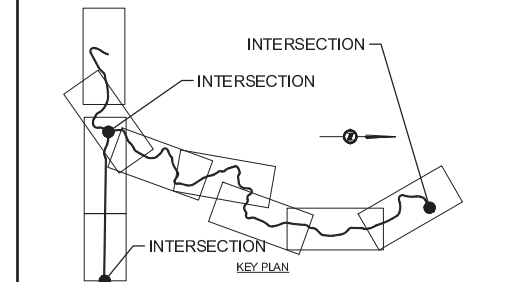
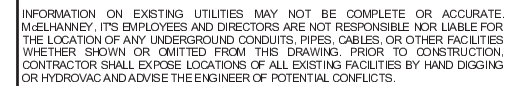
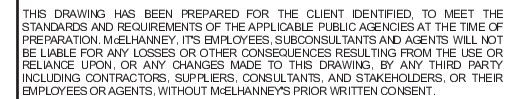
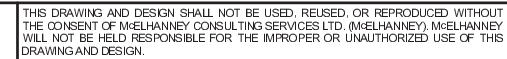
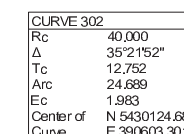
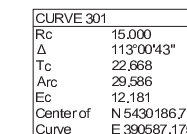
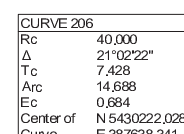
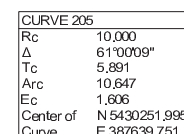
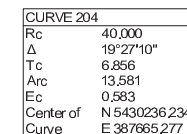
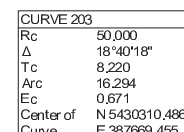
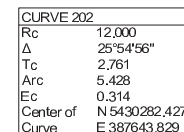
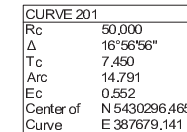
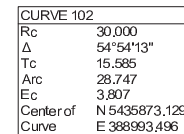
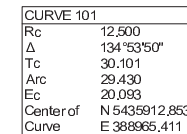
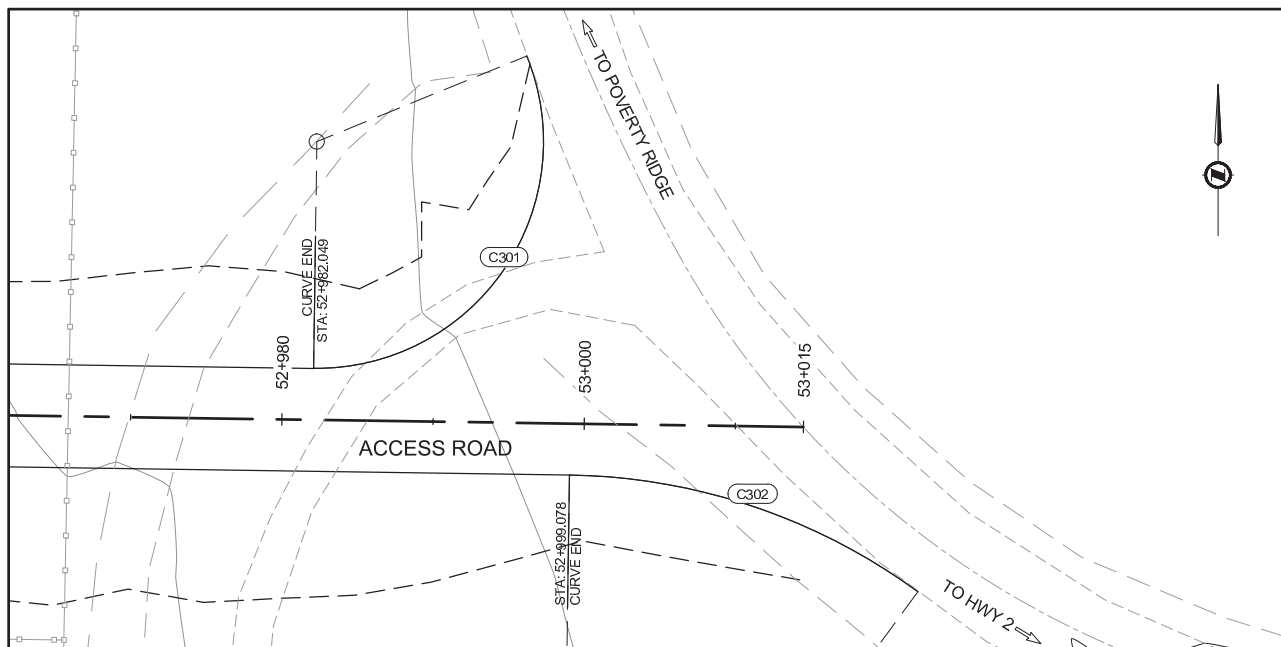
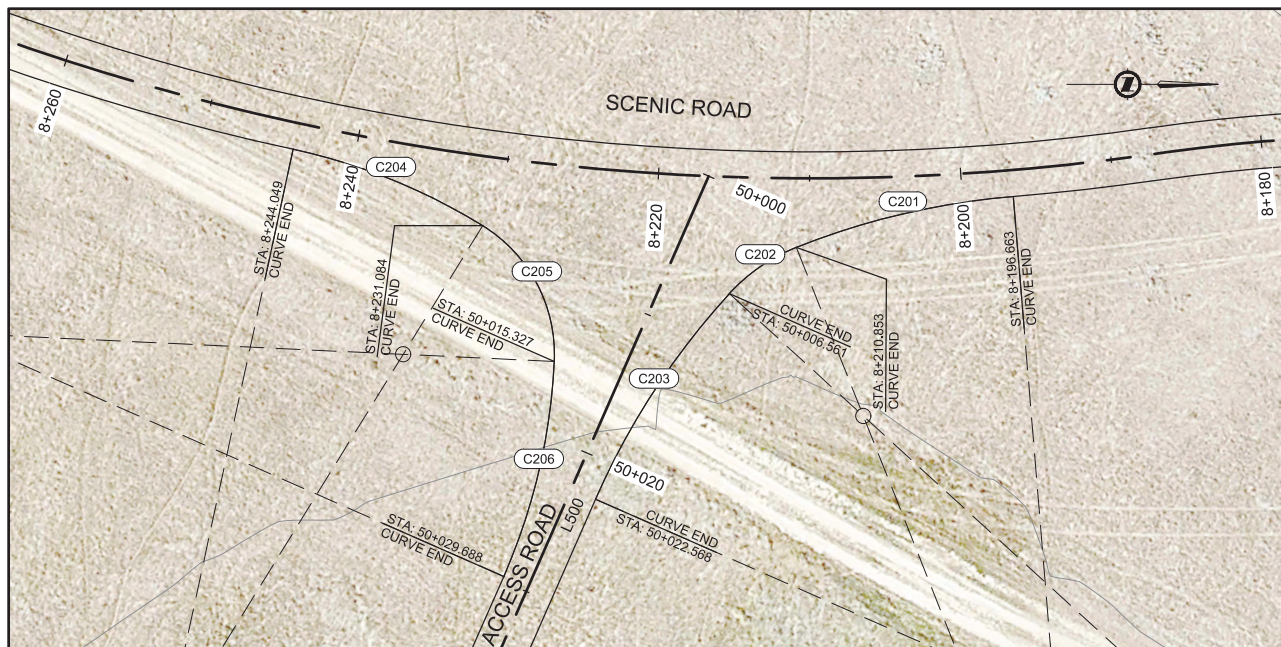
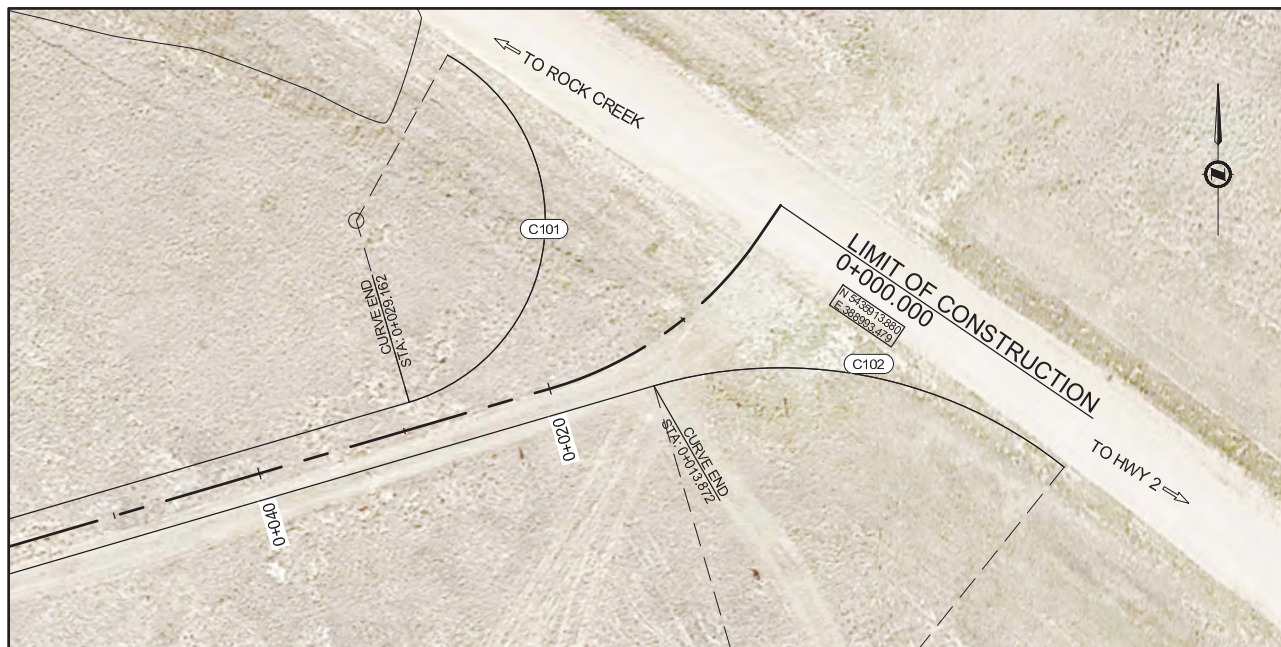
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet	Asset No. / No. du bien	Sheet No. No. de la feuille
R.075061.001		C-13

Drawing Reference No. / No. de référence du dessin

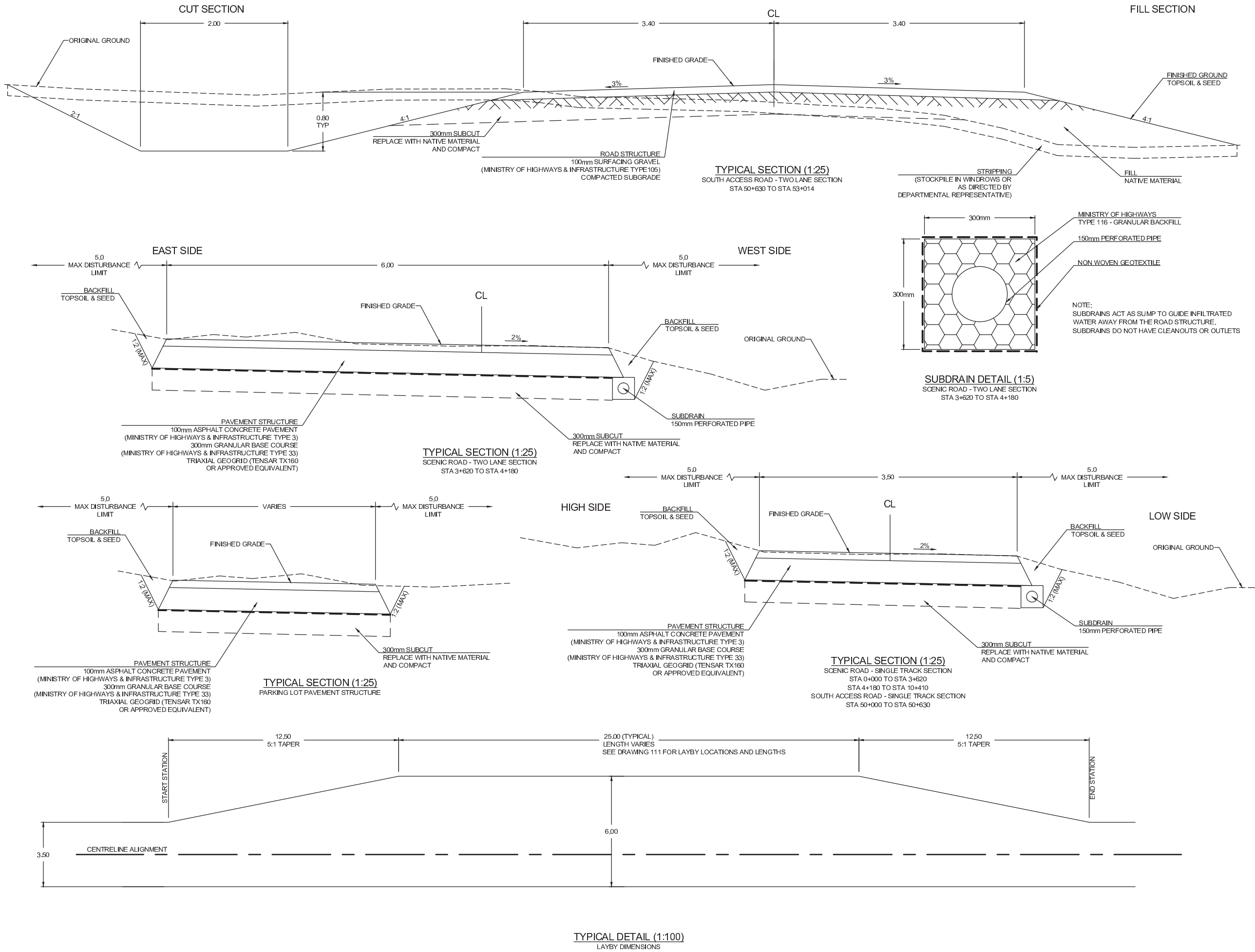
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FILE: G:\PROJECTS\171111\171111-00 - GRASSLANDS SCENIC DRIVE\10.0 DRAWINGS\10.3 SHEET FILES\10.3 - TYPICAL SECTIONS.DWG PLOTTED: 2017/04/28 7:15 AM



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PD	2017.04.28	ISSUED FOR TENDER	DL	DY	MRJW
PC	2017.02.07	99% DESIGN SUBMISSION	DL	DY	MRJW
PB	2016.11.18	ISSUED FOR DISCUSSION	DL	DY	MRJW
PA	2016.03.18	DESIGN REPORT	DL	DY	MRJW

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A detail number  
B source drawing no.  
C de dessin no.  
detail on drawing no.  
détail sur dessin no.

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C

Consultant's Stamp  
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Association of Professional Engineers & Geoscientists  
of Saskatchewan

CERTIFICATE OF AUTHORIZATION  
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Number 20663

Permission to Consult held by:  
Discipline: Civil Engineering  
Reg. No.: 22616

Eng. Stamp  
Sceau de l'ingénieur

PROFESSIONAL ENGINEER

DR. J. McELHANNEY

170428

YR MM DAY

SK SASKATCHEWAN

Client

Public Works and  
Government Services  
Canada

Travaux public et  
Services gouvernementaux  
Canada

Consultant's Name  
Nom de l'expert-conseil

**McElhanney**  
McElhanney Consulting Services Ltd.

Project Title  
Titre du projet

**BADLANDS SCENIC DRIVE  
ROADWAY IMPROVEMENTS**

EAST BLOCK  
GRASSLANDS NATIONAL PARK, SK

Drawing Title  
Titre du dessin

**TYPICAL SECTIONS  
& LAYBY DIMENSIONS**

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
ALTUS	DL	2017.04.28

Designed by / Conçu par	Reviewed by / Révisé par	Scale / Echelle
DY	MRJW	AS NOTED

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client	Approved by / Approuvé par
<div><div>Parks Canada Responsible Officer / Agent Responsable Parcs Canada</div><div></div></div>	<div><div>Parks Canada Project Manager / Administrateur des Projets Parcs Canada</div><div></div></div>

Project No. / No. du projet	Asset No. / No. de l'actif	Sheet No. No. de la feuille
R.075061.001		C-15

Drawing Reference No. / No. de référence du dessin

301

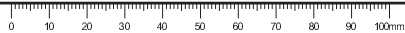
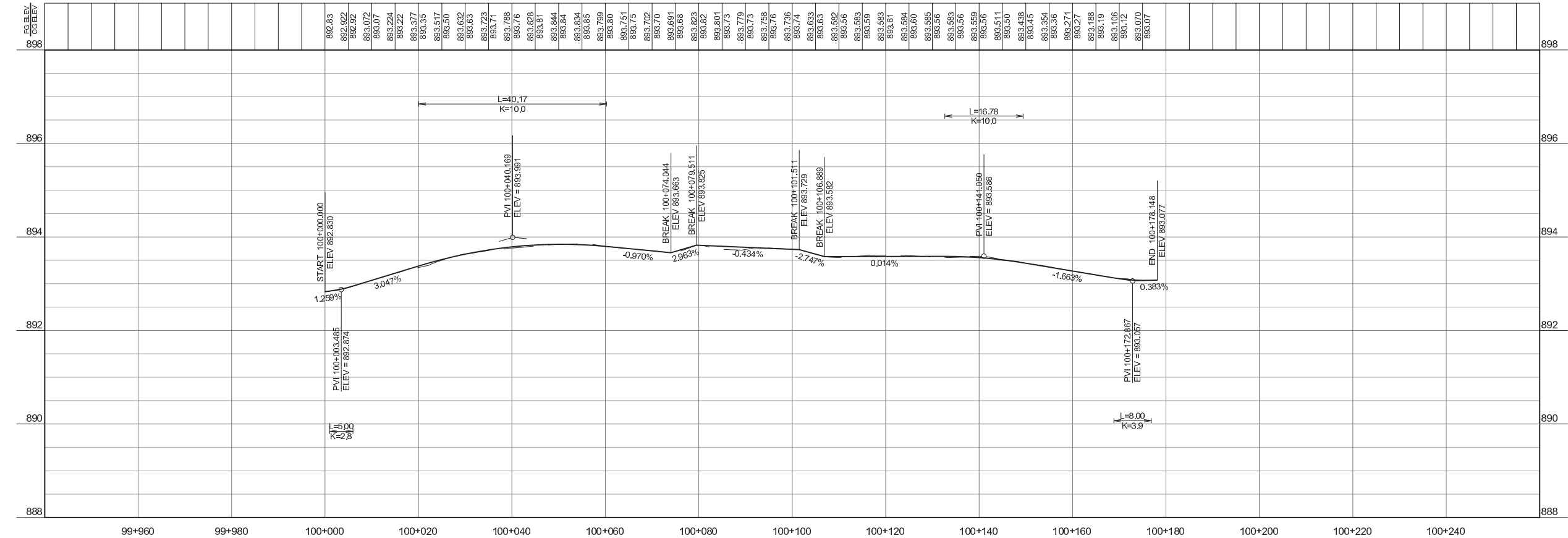


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ALIGNMENT TABLE (AL101-VP 1 PARKING)			
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START	100+000.001	5435730.8594	388782.8500
CC	100+016.193	5435742.4136	388774.1216
CT	100+056.039	5435772.4923	388759.2027
TC	100+072.955	5435787.0382	388767.8373
CT	100+075.348	5435789.1121	388767.2812
TC	100+079.511	5435791.1485	388763.6506
CT	100+101.511	5435811.0975	388772.9262
TC	100+105.711	5435809.0429	388776.5894
CT	100+108.067	5435809.6174	388778.6314
TC	100+108.960	5435810.3968	388779.0686
CT	100+112.030	5435813.3560	388779.6813
CC	100+161.396	5435829.4199	388813.8479
END	100+178.148	5435830.0583	388828.6953

CURVE TABLE					
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C101	10,000	16.192	92°46'31"	10.496	14.480
C102	20,000	39.846	114°09'00"	30.886	33.575
C103	1,500	2.393	91°24'22"	1.537	2.147
C104	1,500	2.356	90°00'00"	1.500	2.121
C105	5,000	3.070	35°10'47"	1.585	3.022
C106	20,000	49.366	141°25'19"	57.146	37.755
C107	10,000	16.752	95°59'03"	11.103	14.861

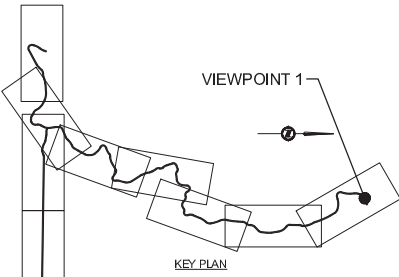
REFERENCE DRAWINGS  
SEE DRAWING 404 FOR TYPICAL PARKING DIMENSIONS



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Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
PD	2017.04.28	ISSUED FOR TENDER	AI	DH	MRJW
PC	2017.02.07	99% DESIGN SUBMISSION	AI	DH	MRJW
PB	2016.11.18	ISSUED FOR DISCUSSION	DL	DY	MRJW
PA	2016.03.18	DESIGN REPORT	DL	DY	MRJW

A detail number  
B source drawing no.  
C detail on drawing no.

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Sceau de l'expert-conseil

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**CERTIFICATE OF AUTHORIZATION**  
McElhanney Consulting Services Ltd.  
Number 20663

Permission to Consult held by:  
Discipline: Civil Engineering  
Sta. Reg. No.: 22616  
YR MM DAY

Eng. Stamp  
Sceau de l'ingénieur

**PROFESSIONAL ENGINEER**  
DR. JENNY HART  
170428  
YR MM DAY  
SASKATCHEWAN

Client

Public Works and Government Services Canada

Travaux public et Services gouvernementaux Canada

Consultant's Name  
Nom de l'expert-conseil

**McElhanney**  
McElhanney Consulting Services Ltd.

Project Title  
Titre du projet

**BADLANDS SCENIC DRIVE  
ROADWAY IMPROVEMENTS**

-----

**EAST BLOCK  
GRASSLANDS NATIONAL PARK, SK**

Drawing Title  
Titre du dessin

**PARKING LOTS  
VIEWPOINT 1**

Surveyed by / Arpenté par <b>ALTUS</b>	Drawn by / Dessiné par <b>DL</b>	Date <b>2017.03.06</b>
Designed by / Conçu par <b>DH</b>	Reviewed by / Revisé par <b>MRJW</b>	Scale / Echelle <b>1:500</b>

Parks Canada Project Manager / Administrateur de Projets Parcs Canada	
Client Acceptance / Acceptation du client	Approved by / Approuvé par
Parks Canada Regional Manager / Agent Régional des Parcs Canada	Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet <b>R.075061.001</b>	Asset No. / No. du bien	Sheet No. / No. de la feuille <b>C-16</b>
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Drawing Reference No. / No. de référence du dessin  
**401**

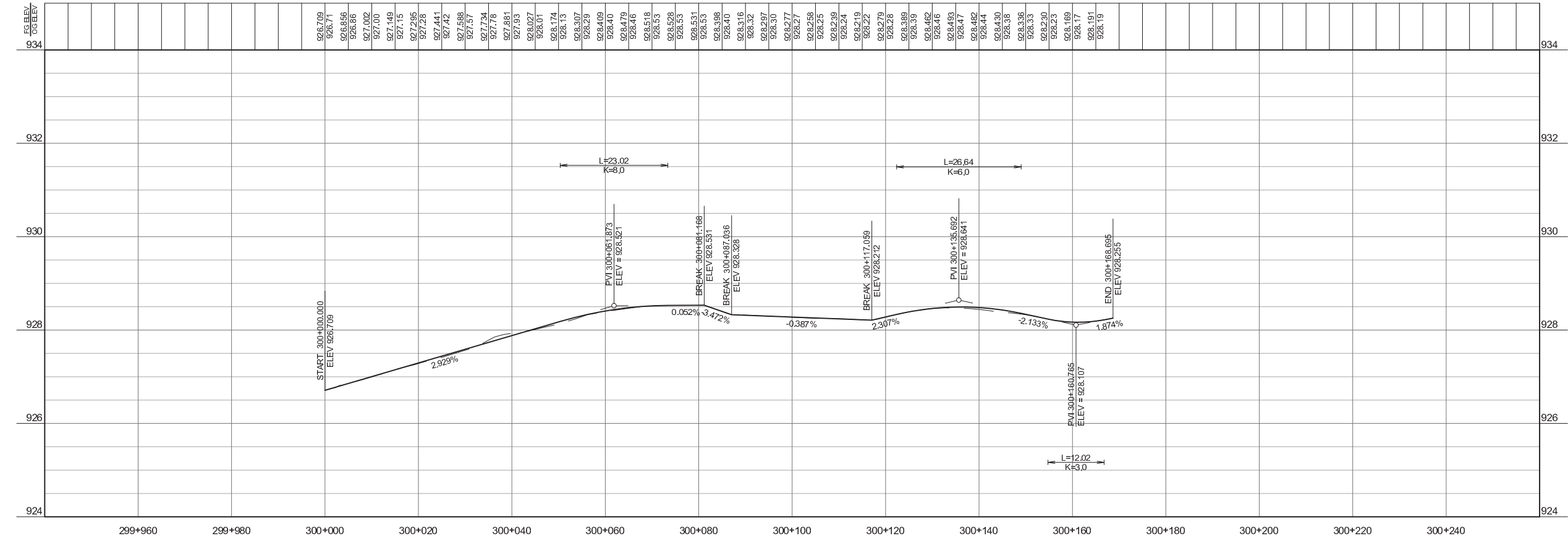
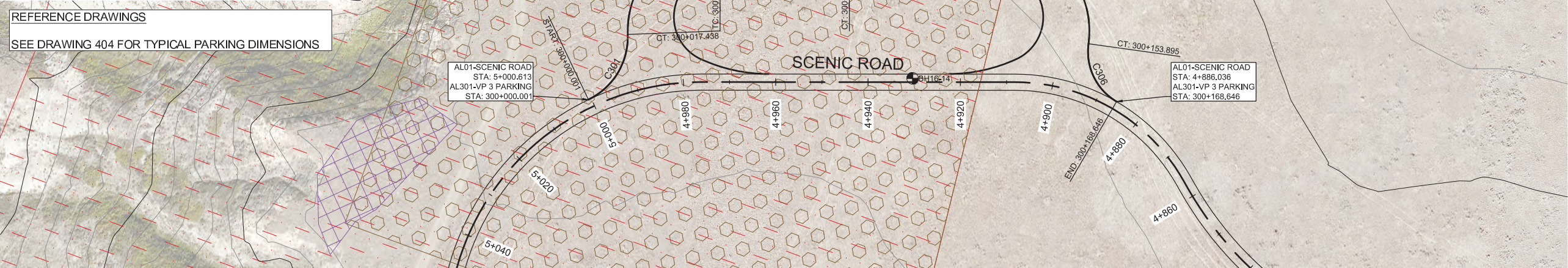


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ALIGNMENT TABLE (AL301-VP 3 PARKING)				
PT.	STATION	NORTHING	EASTING	
START	300+000.001	5432527.5203	388265.6608	
CC	300+017.449	5432543.6982	388268.8046	
CT	300+049.612	5432570.0515	388280.4316	
TC	300+051.968	5432571.9761	388281.3238	
CT	300+056.168	5432575.9196	388279.8783	
TC	300+081.168	5432584.5233	388303.3512	
CT	300+085.368	5432580.5798	388304.7967	
TC	300+087.724	5432579.6877	388306.7213	
CT	300+119.724	5432590.7004	388336.7665	
CC	300+153.902	5432576.1545	388363.1965	
END	300+168.646	5432566.5064	388373.2064	

CURVE TABLE					
CURVE	RADIUS	LENGTH	Δ	TANGENT	CHORD
C301	15,000	17.437	66°36'20"	9.854	16.472
C302	19,990	32.152	92°09'22"	20.757	28.797
C303	1,500	2.356	90°00'00"	1.500	2.121
C304	1,500	2.356	90°00'00"	1.500	2.121
C305	20,000	34.171	97°53'36"	22.964	30.164
C306	12,490	14.744	67°38'07"	8.367	13.903

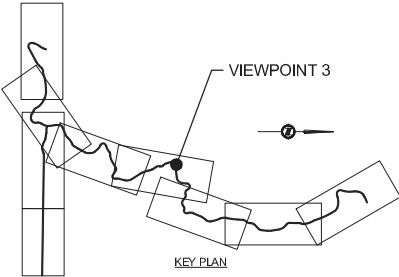
REFERENCE DRAWINGS  
SEE DRAWING 404 FOR TYPICAL PARKING DIMENSIONS



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PD	2017.04.28	ISSUED FOR TENDER	AI	DH	MRJW
PC	2017.02.07	99% DESIGN SUBMISSION	AI	DH	MRJW
PB	2016.11.18	ISSUED FOR DISCUSSION	DL	DY	MRJW
PA	2016.03.18	DESIGN REPORT	DL	DY	MRJW

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detail number  
numéro de détail

source drawing no.  
de dessin no.

detail on drawing no.  
détail sur dessin no.

Consultant's Stamp  
Sceau de l'expert-conseil

Association of Professional Engineers & Geoscientists  
of Saskatchewan

CERTIFICATE OF AUTHORIZATION  
McElhanney Consulting Services Ltd.  
Number 20063

Permission to Consult held by:  
Discipline: Civil Engineering  
Reg. No.: 22616

Eng. Stamp  
Sceau de l'ingénieur

PROFESSIONAL ENGINEER

DR. J. McELHANNEY

170428

YR MM DAY

SK SASKATCHEWAN

Client

Public Works and  
Government Services  
Canada

Travaux public et  
Services gouvernementaux  
Canada

Consultant's Name  
Nom de l'expert-conseil

McElhanney Consulting Services Ltd.

Project Title  
Titre du projet

BADLANDS SCENIC DRIVE  
ROADWAY IMPROVEMENTS

EAST BLOCK  
GRASSLANDS NATIONAL PARK, SK

Drawing Title  
Titre du dessin

PARKING LOTS

VIEWPOINT 3

Surveyed by / Arpenté par  
ALTUS

Drawn by / Dessiné par  
DH

Date  
2017.03.06

Designed by / Conçu par  
DL

Reviewed by / Révisé par  
MRJW

Scale / Echelle  
1:500

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client

Approved by / Approuvé par

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet  
R.075061.001

Asset No. / No. du bien

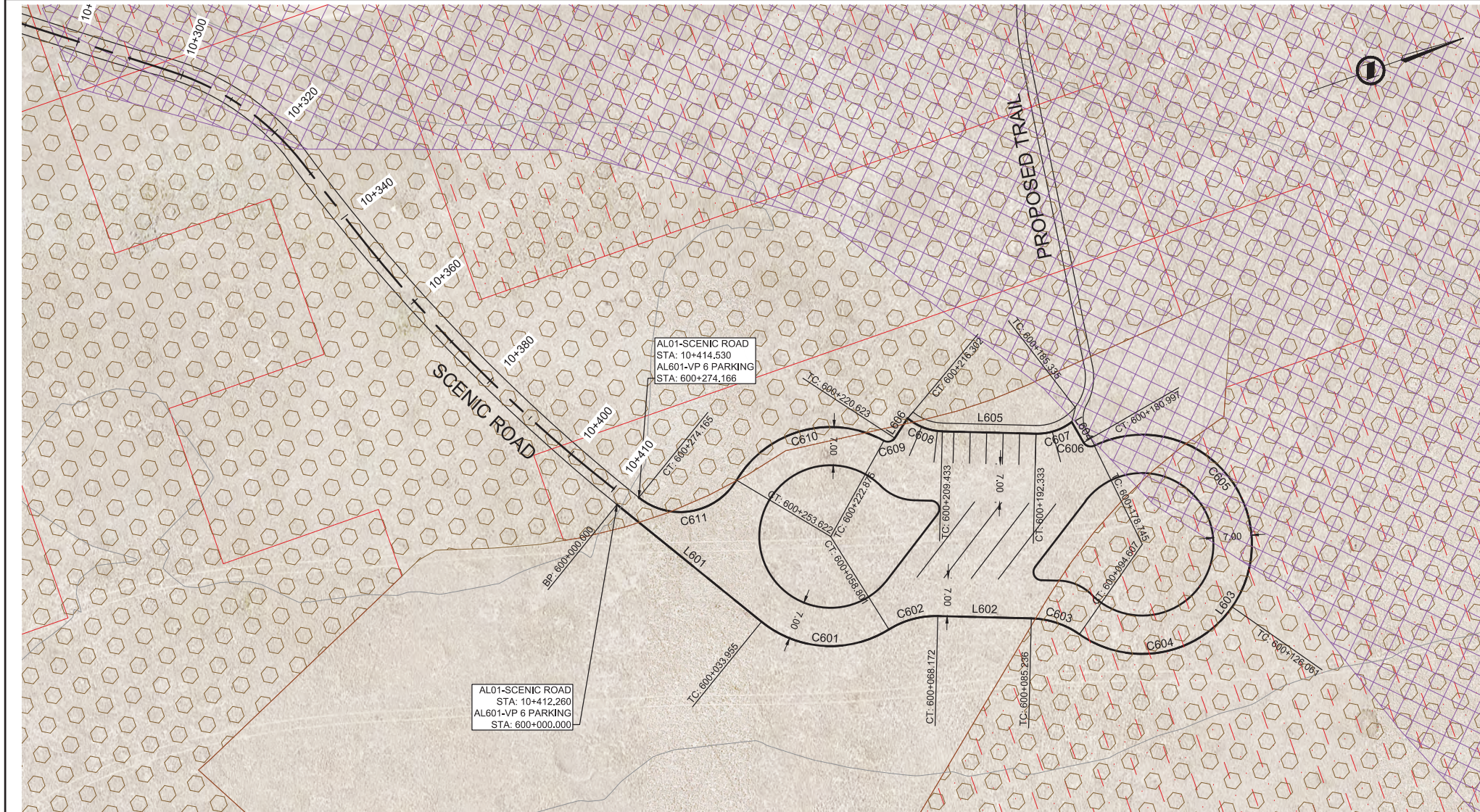
Sheet No.  
No. de la feuille  
C-17

Drawing Reference No. / No. de référence du dessin  
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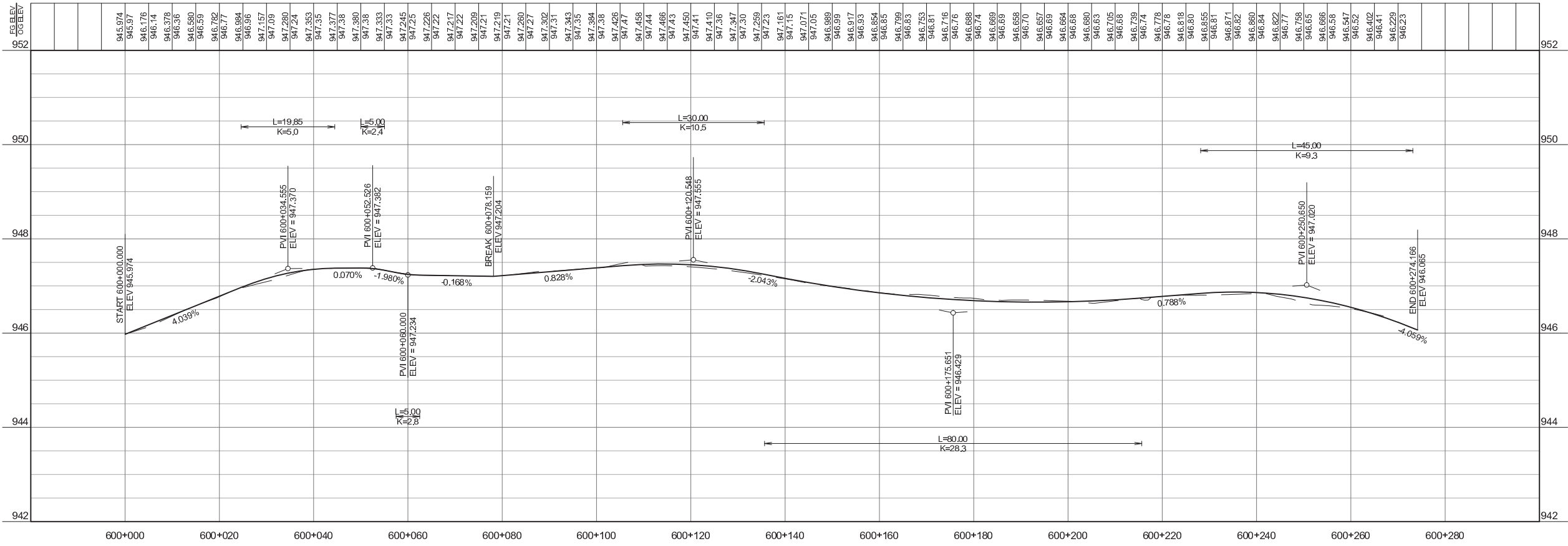
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ALIGNMENT TABLE (AL601-VP 6 PARKING)			
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START	600+000.000	5430203.1445	386337.5620
TC	600+033.955	5430220.9773	386366.4567
CC	600+058.801	5430242.4485	386375.4511
TC	600+068.172	5430251.6645	386376.0824
CT	600+085.236	5430267.6275	386382.1133
TC	600+094.607	5430274.9585	386387.7337
CT	600+126.023	5430302.8747	386392.2822
CC	600+126.061	5430302.9059	386392.2597
CC	600+178.745	5430288.8786	386356.1840
TC	600+180.997	5430287.2309	386354.9710
CT	600+185.335	5430286.4164	386350.7307
TC	600+192.333	5430279.5545	386350.5945
CT	600+209.433	5430263.5586	386344.5511
TC	600+216.320	5430258.3774	386340.2120
CT	600+220.623	5430254.9712	386342.8427
CC	600+222.875	5430252.9340	386342.6530
CC	600+253.622	5430225.2040	386340.5794
END	600+274.165	5430207.3165	386337.6577

CURVE TABLE					
CURVE	RADIUS	LENGTH	Δ	TANGENT	CHORD
C601	20,000	24.846	71°10'44"	14.313	23.279
C602	16,000	9.371	33°33'26"	4.824	9.238
C603	16,000	9.371	33°33'26"	4.824	9.238
C604	20,000	31.416	90°00'00"	20.000	28.284
C605	19,990	52.645	150°53'36"	77.000	38.697
C606	1,500	2,251	85°59'58"	1,399	2,046
C607	10,250	6,998	39°07'12"	3,642	6,863
C608	10,250	6,870	38°24'01"	3,569	6,742
C609	1,500	2,251	85°59'55"	1,399	2,046
C610	20,000	30.747	88°05'02"	19.342	27.807
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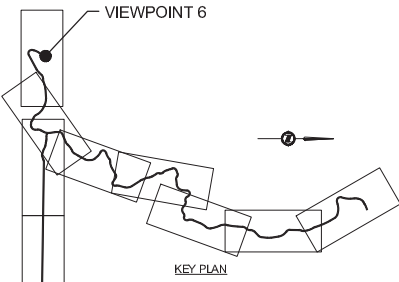
REFERENCE DRAWINGS  
SEE DRAWING 404 FOR TYPICAL PARKING DIMENSIONS



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PD	2017.04.28	ISSUED FOR TENDER	AI	DH	MRJW
PC	2017.02.07	99% DESIGN SUBMISSION	AI	DH	MRJW
PB	2016.11.18	ISSUED FOR DISCUSSION	DL	DY	MRJW
PA	2016.03.18	DESIGN REPORT	DL	DY	MRJW
Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé

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Number 20063

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Sta. Reg. No.: 22616

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PROFESSIONAL ENGINEER

DR. J. McELHANNNEY

170438

YR MM DAY

SK SASKATCHEWAN

Client

Public Works and Government Services Canada

Travaux publics et Services gouvernementaux Canada

Consultant's Name  
Nom de l'expert-conseil

**McElhanney**  
McElhanney Consulting Services Ltd.

Project Title  
Titre du projet

**BADLANDS SCENIC DRIVE  
ROADWAY IMPROVEMENTS**

-----

**EAST BLOCK  
GRASSLANDS NATIONAL PARK, SK**

Drawing Title  
Titre du dessin

**PARKING LOTS  
VIEWPOINT 6**

Surveyed by / Arpenté par <b>ALTUS</b>	Drawn by / Dessiné par <b>DL</b>	Date <b>2017.03.06</b>
Designed by / Conçu par <b>DY</b>	Reviewed by / Revisé par <b>MRJW</b>	Scale / Echelle <b>1:500</b>

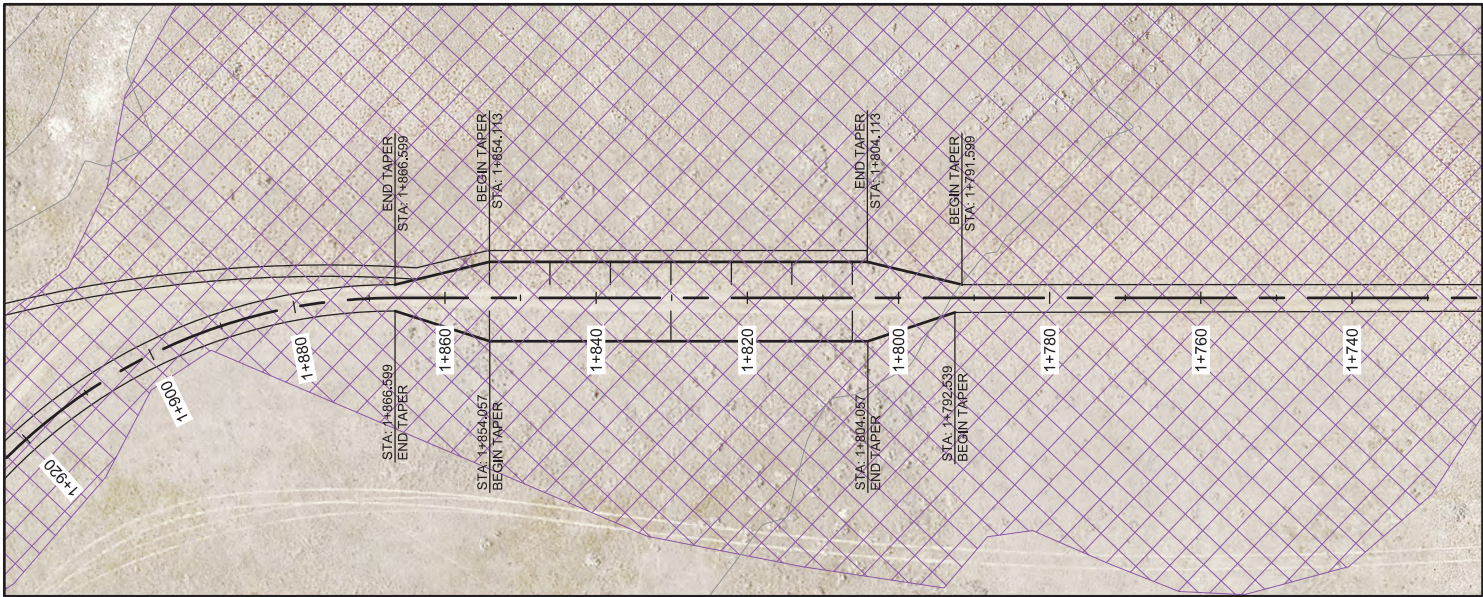
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client	Approved by / Approuvé par
<div>Parks Canada Representative / Agent Représentant Parcs Canada</div>	<div>Parks Canada Project Manager / Administrateur de Projets Parcs Canada</div>

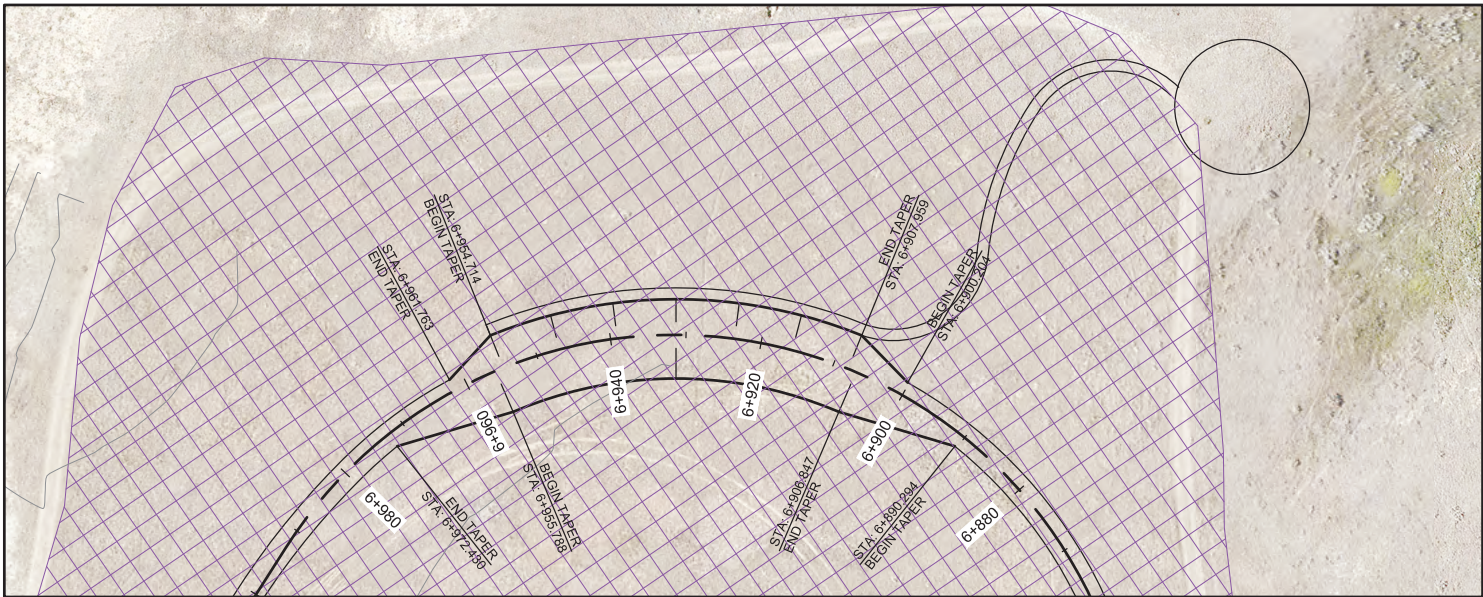
Project No. / No. du projet <b>R.075061.001</b>	Asset No. / No. du bien	Sheet No. / No. de la feuille <b>C-18</b>
Drawing Reference No. / No. de référence du dessin <b>403</b>		



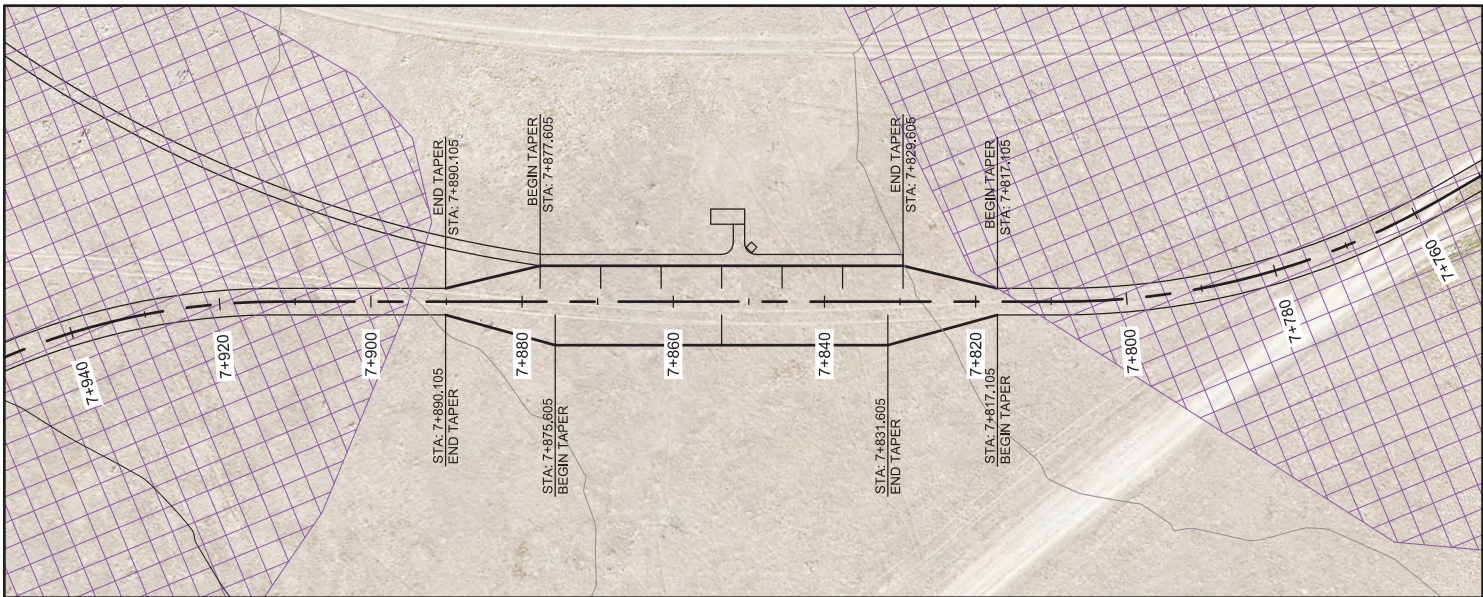
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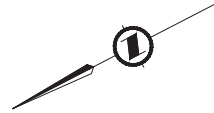
VIEWPOINT 2 PARKING



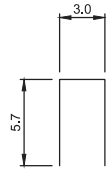
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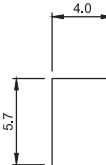
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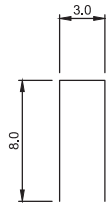
TYPICAL PARKING DIMENSIONS



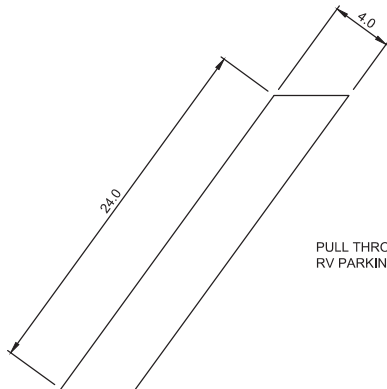
90° PARKING STALL



HANDICAPPED PARKING STALL



PARALLEL PARKING STALL



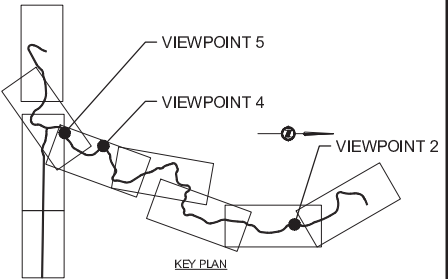
PULL THROUGH + PARALLEL  
RV PARKING STALL

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PA	2016.03.18	DESIGN REPORT	DL	DY	MRJW



A detail number  
B source drawing no.  
C detail on drawing no.



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Sceau de l'expert-conseil

Association of Professional Engineers & Geoscientists  
of Saskatchewan  
CERTIFICATE OF AUTHORIZATION  
McElhanney Consulting Services Ltd.  
Number 29665  
Permission to Consult held by  
Discipline: Civil Engineering  
Sta. Reg. No.: 22616  
Signature: [Signature]  
Expiry Date: 17/04/28  
YR MM DAY

Eng. Stamp  
Sceau de l'ingénieur

PROFESSIONAL ENGINEER  
DR. J. McELHANNEY  
NUMBER 3327  
17/04/28  
YR MM DAY  
SASKATCHEWAN

Client

Public Works and  
Government Services  
Canada

Travaux public et  
Services gouvernementaux  
Canada

Consultant's Name  
Nom de l'expert-conseil

**McElhanney**  
McElhanney Consulting Services Ltd.

Project Title  
Titre du projet

**BADLANDS SCENIC DRIVE  
ROADWAY IMPROVEMENTS**

**EAST BLOCK  
GRASSLANDS NATIONAL PARK, SK**

Drawing Title  
Titre du dessin

**PARKING LOTS**

**VIEWPOINTS 2, 4 & 5  
& TYPICAL DIMENSIONS**

Surveyed by / Arpenté par <b>ALTUS</b>	Drawn by / Dessiné par <b>DL</b>	Date <b>2017.03.06</b>
Designed by / Conçu par <b>DY</b>	Reviewed by / Révisé par <b>MRJW</b>	Scale / Echelle <b>1:500</b>

Parks Canada Project Manager / Administrateur de Projets Parcs Canada		
Client Acceptance / Acceptation du client		Approved by / Approuvé par
Project No. / No. du projet <b>R.075061.001</b>		Sheet No. / No. de la feuille <b>C-19</b>
Drawing Reference No. / No. de référence du dessin <b>404</b>		







