



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



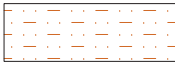
CONTOUR

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

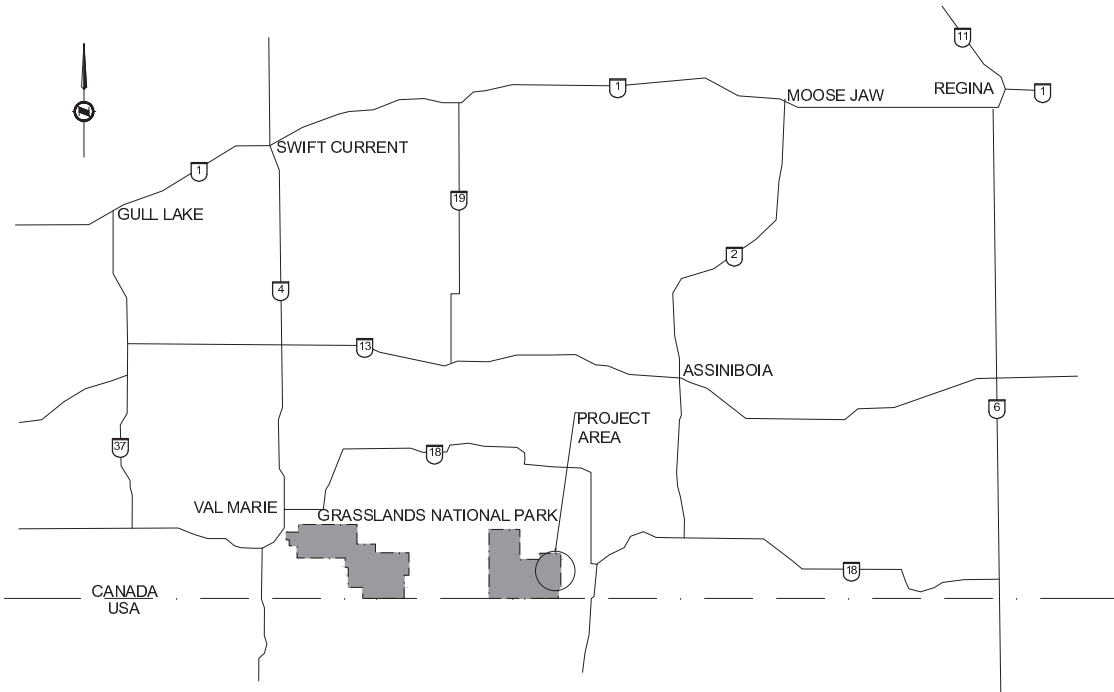
SURVEY CONTROL POINTS

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	
C-03	101	PLAN & PROFILE	STA 0+000 TO STA 1+400
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
C-12	110	GEOMETRIC TABLES	AL01 - SCENIC ROAD
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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Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
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

A

B

C

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

A

B

C

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
Reg. No.: 22616
Signature: [Signature]

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER

DR. JONATHAN
NUMBER 337

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**

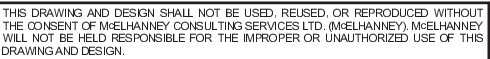
Drawing Title
Titre du dossier

**LEGEND &
DRAWING INDEX**

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

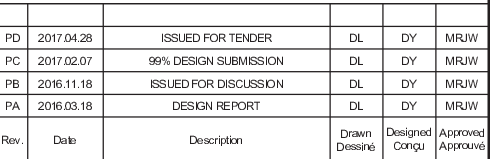
Parks Canada Project Manager / Administrateur de Projets Parcs Canada		
Client Acceptance / Acceptation du client Parks Canada Responsible Officer / Agent Responsable Parcs Canada	Approved by / Approuvé par Parks Canada Project Manager / Administrateur de Projets Parcs Canada	
Project No. / No. du projet R.075061.001	Asset No. / No. du bien	Sheet No. No. de la feuille C-02
Drawing Reference No. / No. de référence du dessin 001		







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	<p>A detail number numéro de détail</p> <p>B source (drawing no., de dessin no.</p> <p>C detail on drawing no., détail sur dessin no.</p>	
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Consultant's Stamp Date: 10/10/2011	Eng. Stamp Date: 10/10/2011
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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	
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BADLANDS SCENIC DRIVE ROADWAY IMPROVEMENTS

EAST BLOCK
GRASSLANDS NATIONAL PARK, SK

Drawing Title	
Titre du dessin	

PLAN & PROFILE

STA 0+000 TO STA 1+400

Surveyed by / Arpenté par ALTUS	Drawn by / Dessiné par DL	Date 2017.03.06
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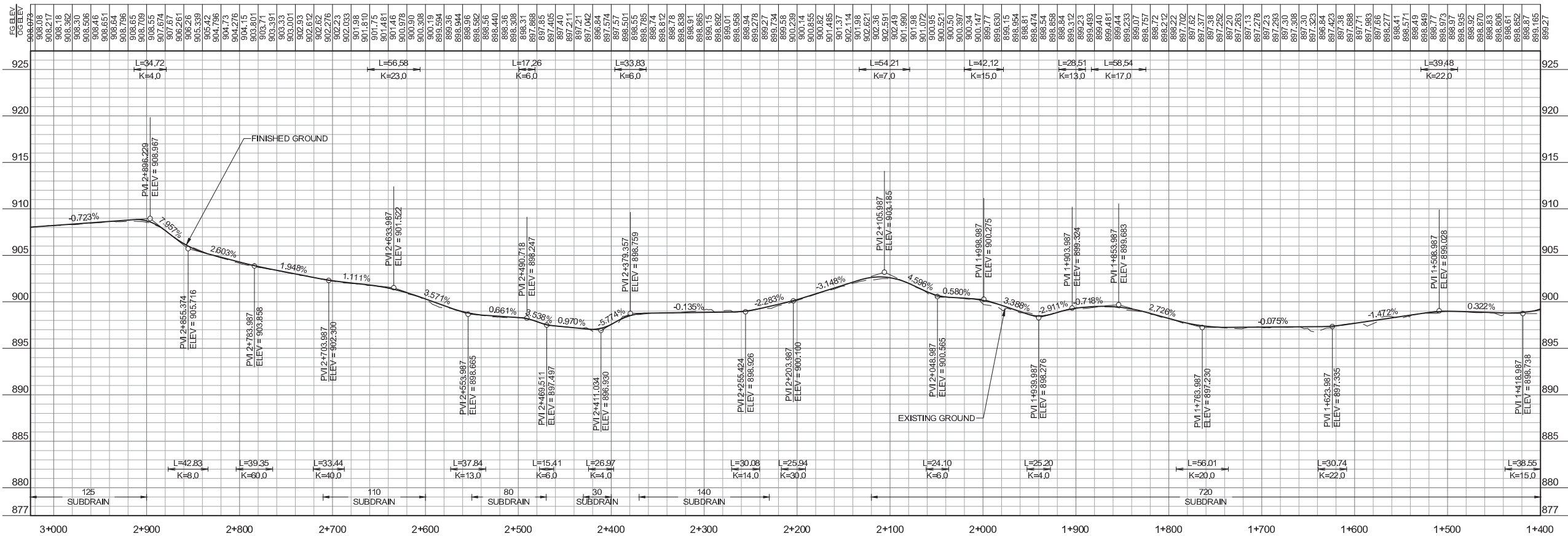
Parcs Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client	Approved by / Approuvé par
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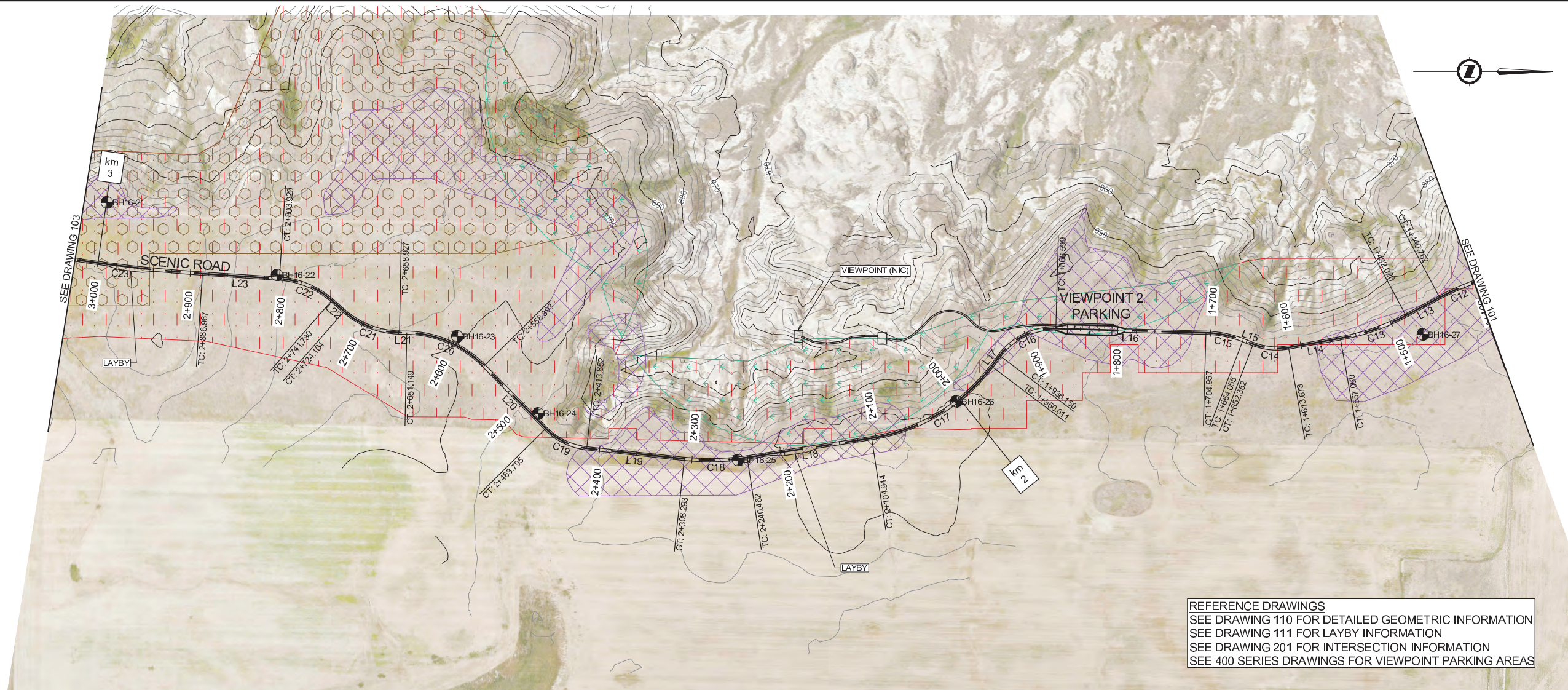
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Drawing Reference No. / No. de référence du dessin	C-03
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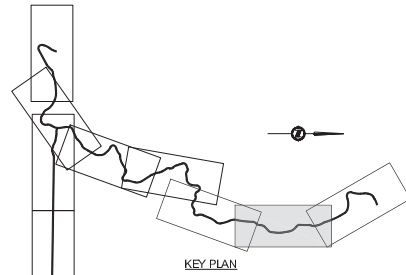


REFERENCE DRAWINGS
SEE DRAWING 110 FOR DETAILED GEOMETRIC INFORMATION
SEE DRAWING 111 FOR LAYBY INFORMATION
SEE DRAWING 201 FOR INTERSECTION INFORMATION
SEE 400 SERIES DRAWINGS FOR VIEWPOINT PARKING AREAS

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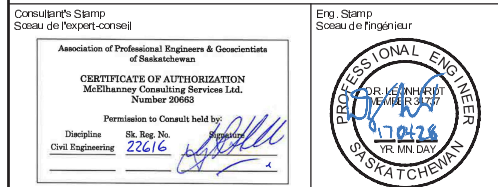
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PD	2017.04.28	ISSUED FOR TENDER	DL	DY	MRJW
PC	2017.02.07	99% DESIGN SUBMISSION	DL	DY	MRJW
PB	2016.11.18	ISSUED FOR DISCUSSION	DL	DY	MRJW
PA	2016.03.18	DESIGN REPORT	DL	DY	MRJW

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



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

Consultant's Name: McElhanney Consulting Services Ltd.

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

Drawing Title: PLAN & PROFILE
STA 1+400 TO STA 3+025

Surveyed by / Arpenté par: ALTUS
Designed by / Conçu par: DY
Date: 2017.03.06
Scale / Echelle: 1:2500

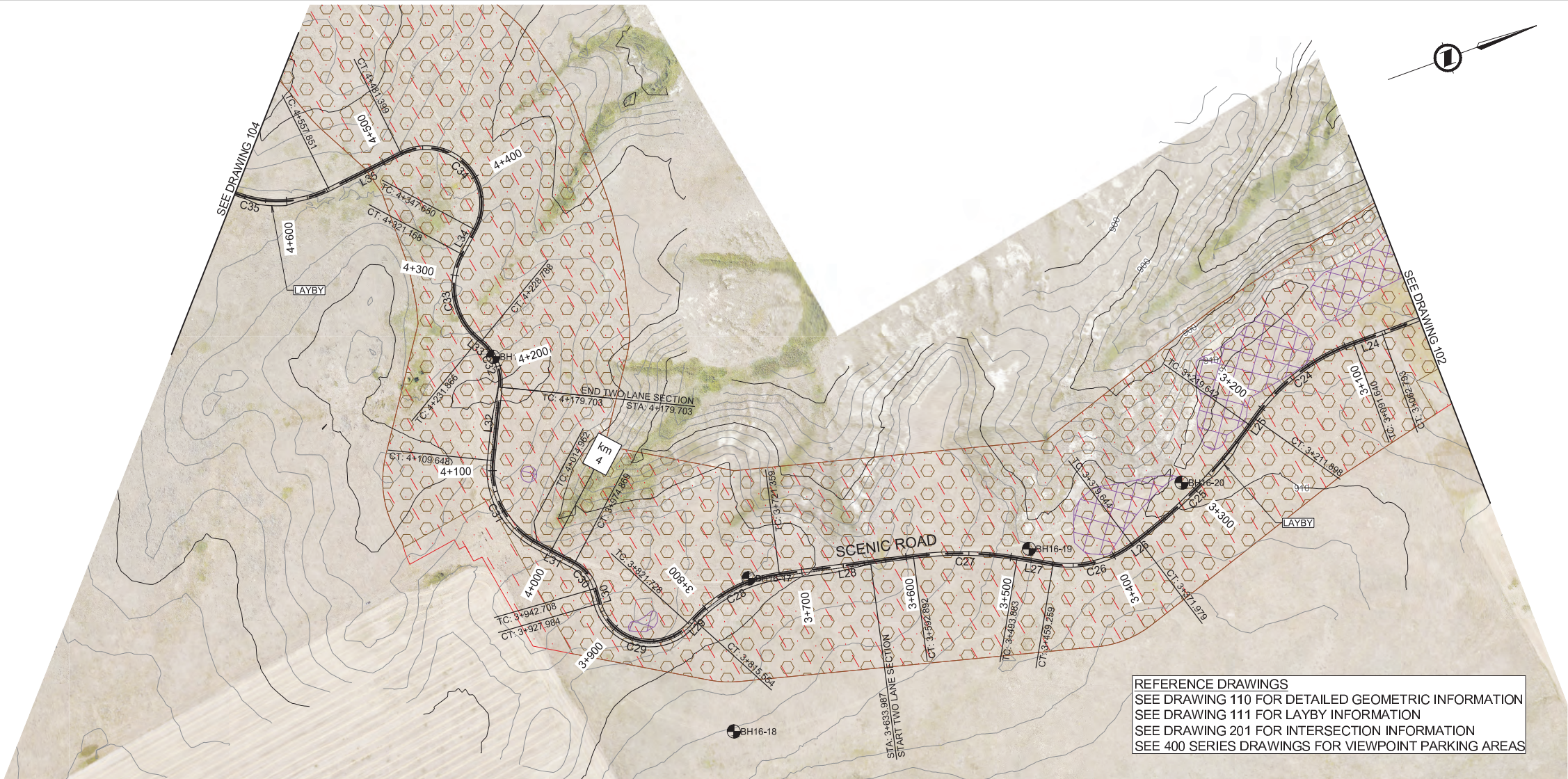
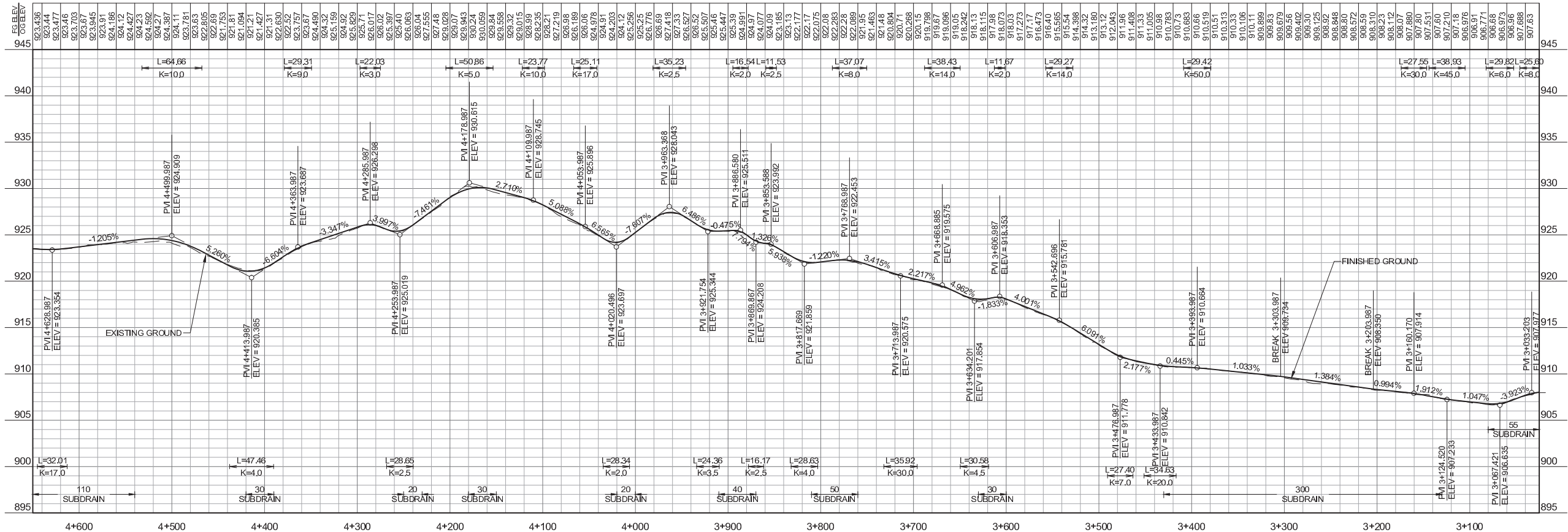
Parcs Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: Approved by / Approuvé par

Project No. / No. du projet: R.075061.001
Sheet No. / No. de la feuille: C-04

Drawing Reference No. / No. de référence du dessin: 102

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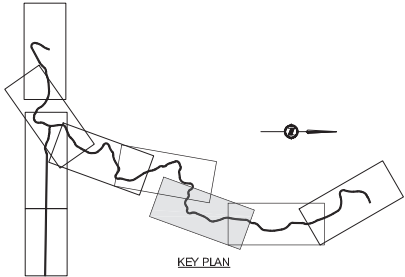


REFERENCE DRAWINGS
SEE DRAWING 110 FOR DETAILED GEOMETRIC INFORMATION
SEE DRAWING 111 FOR LAYBY INFORMATION
SEE DRAWING 201 FOR INTERSECTION INFORMATION
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PB	2016.11.18	ISSUED FOR DISCUSSION	DL	DY	MRJW
PA	2016.03.18	DESIGN REPORT	DL	DY	MRJW
Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé

A	detail number numéro de détail	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

Eng. Stamp
Sceau de l'ingénieur

CERTIFICATE OF AUTHORIZATION
McElhanney Consulting Services Ltd.
Number 28663

PROFESSIONAL ENGINEER
DR. J. McElhanney
170428
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 dossier

PLAN & PROFILE

STA 3+025 TO STA 4+650

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

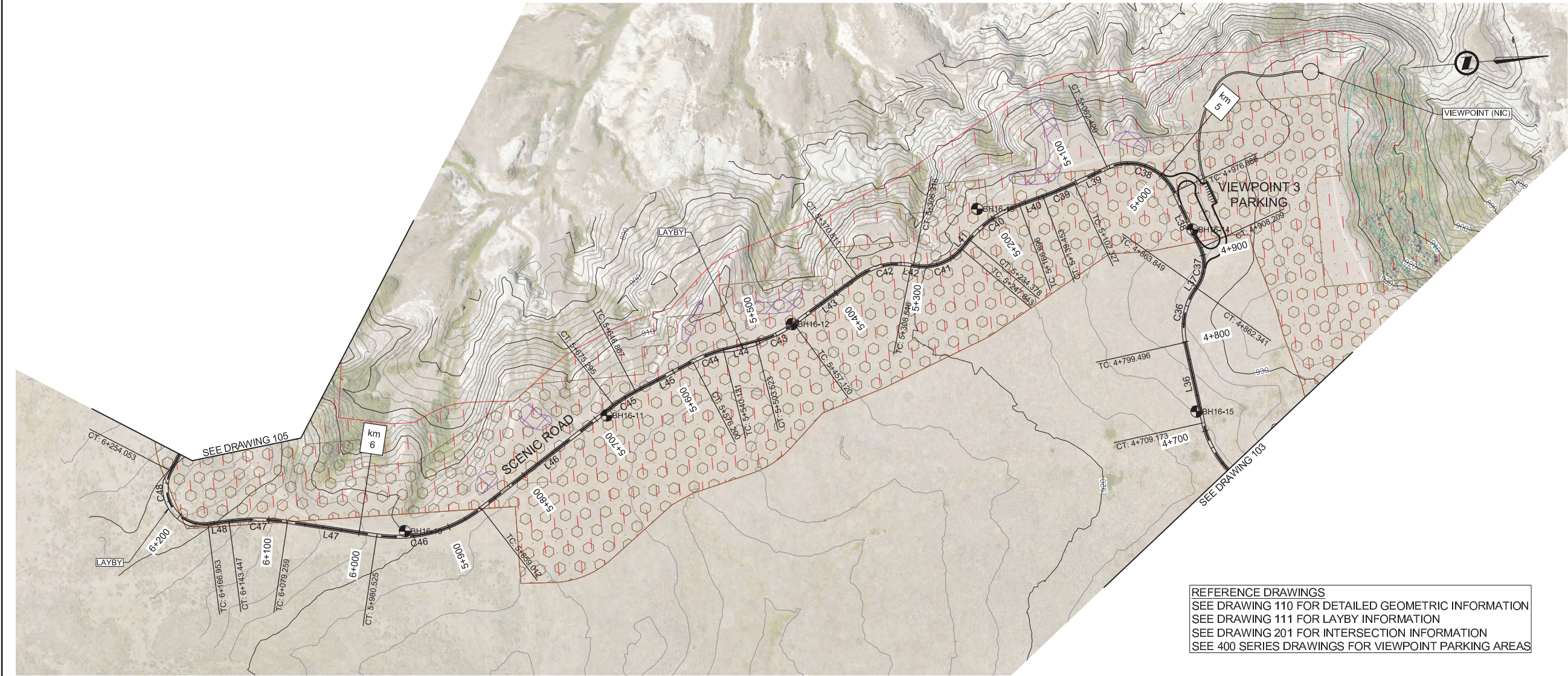
Client Acceptance / Acceptation du client

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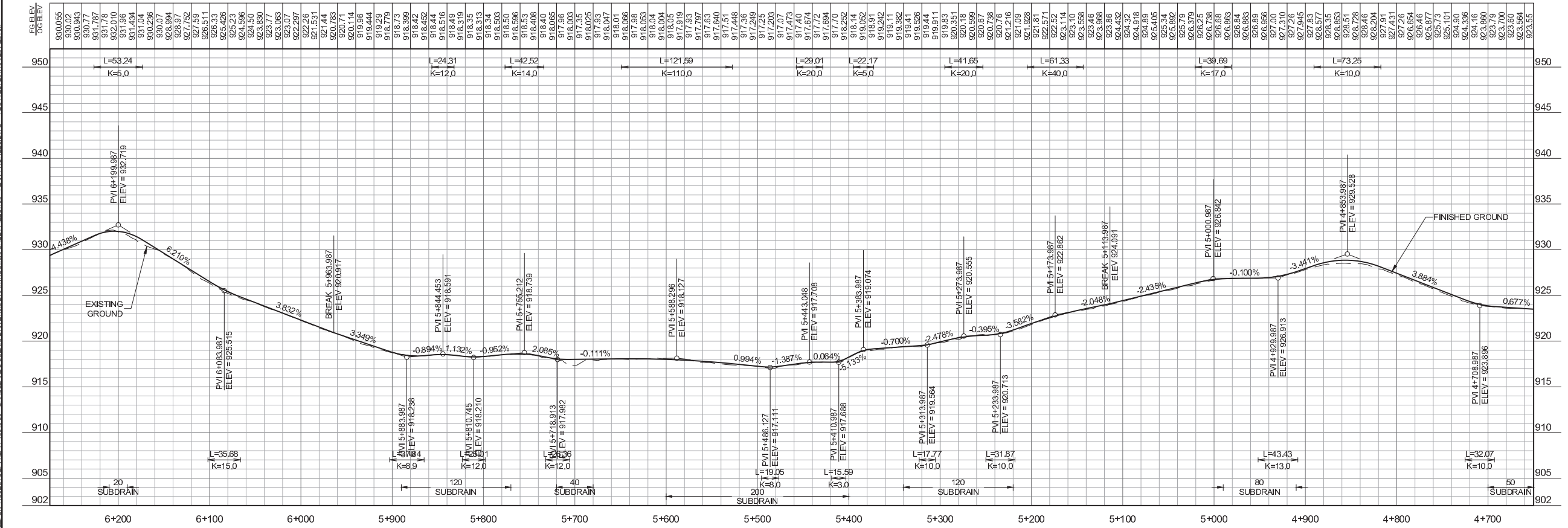
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R.075061.001

Asset No. / No. du bien

Sheet No.
No. de la feuille
C-05



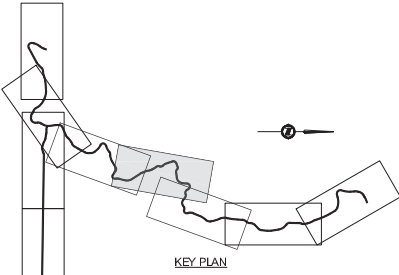
REFERENCE DRAWINGS
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SEE DRAWING 111 FOR LAYBY INFORMATION
SEE DRAWING 201 FOR INTERSECTION INFORMATION
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PB	2016.11.18	ISSUED FOR DISCUSSION	DL	DY	MRJW
PA	2016.03.18	DESIGN REPORT	DL	DY	MRJW
Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé

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

A
B
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
Reg. No.: 22616

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER
DR. J. McELHANNY
170438
17 YR. MN. DAY
SASKATCHEWAN

Client

Public Works and Government Services Canada

Travaux publics 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

PLAN & PROFILE

STA 4+650 TO STA 6+275

Surveyed by / Arpenté par
ALTUS

Drawn by / Dessiné par
DL

Date
2017.03.06

Designed by / Conçu par
DY

Reviewed by / Révisé par
MRJW

Scale / Echelle
1:2500

Parcs 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

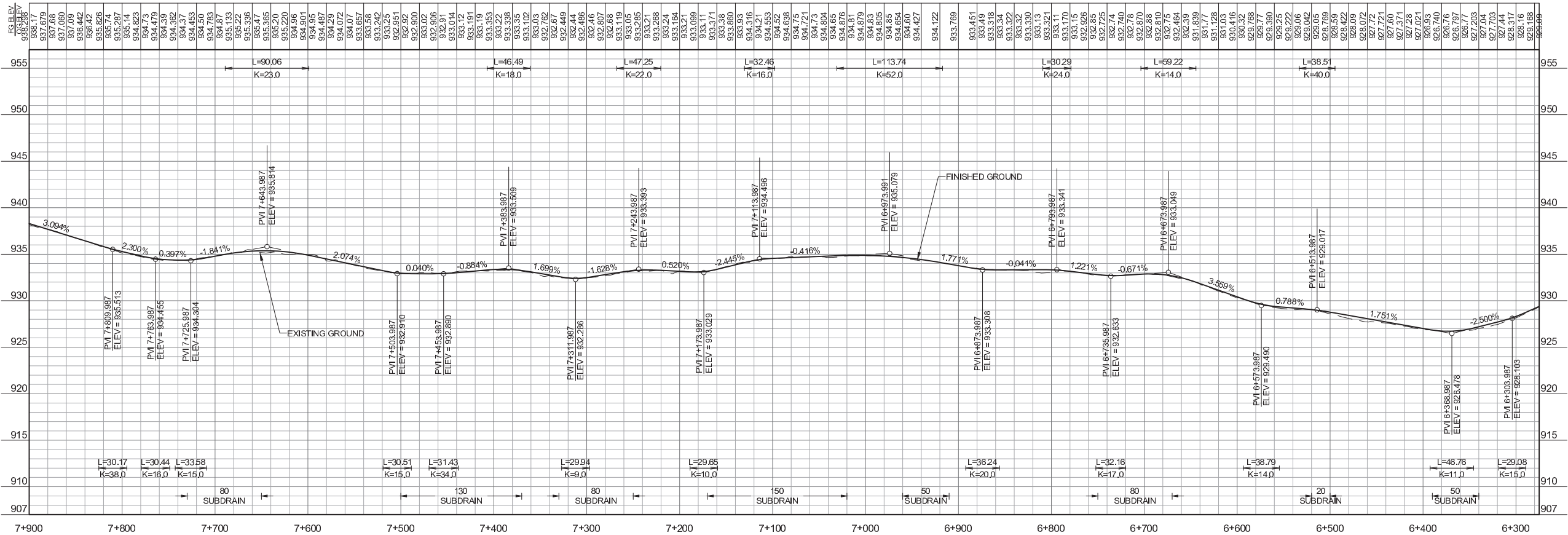
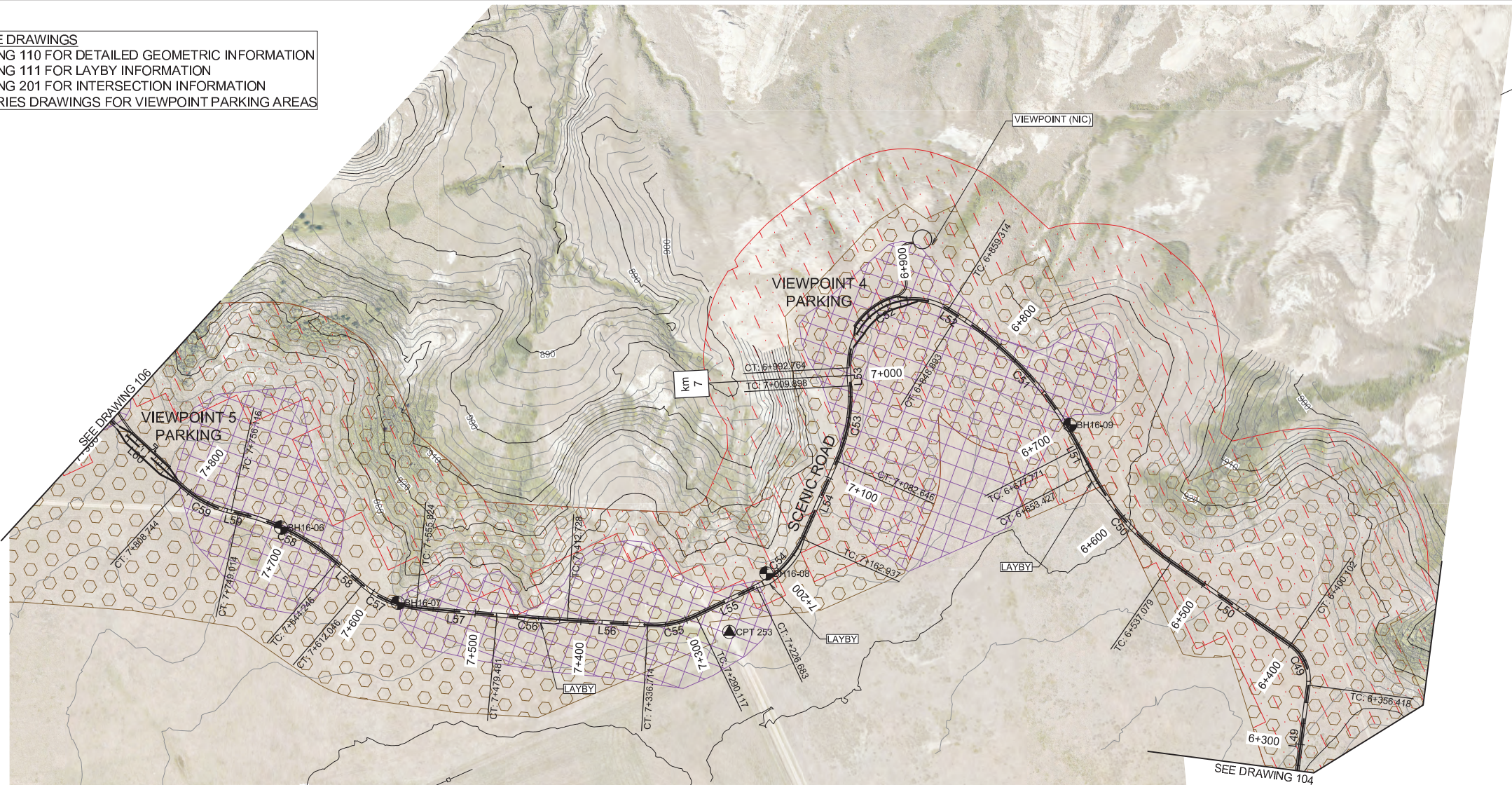
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Sheet No. / No. de la feuille
C-06

Drawing Reference No. / No. de référence du dessin

104

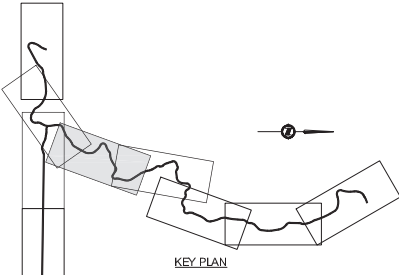
REFERENCE DRAWINGS
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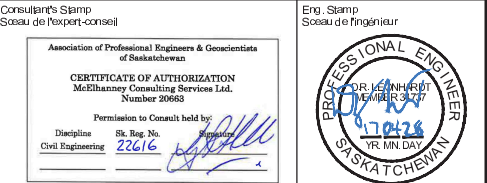
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Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
PD	2017.04.28	ISSUED FOR TENDER	DL	DY	MRJW
PC	2017.02.07	99% DESIGN SUBMISSION	DL	DY	MRJW
PB	2016.11.18	ISSUED FOR DISCUSSION	DL	DY	MRJW
PA	2016.03.18	DESIGN REPORT	DL	DY	MRJW

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



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

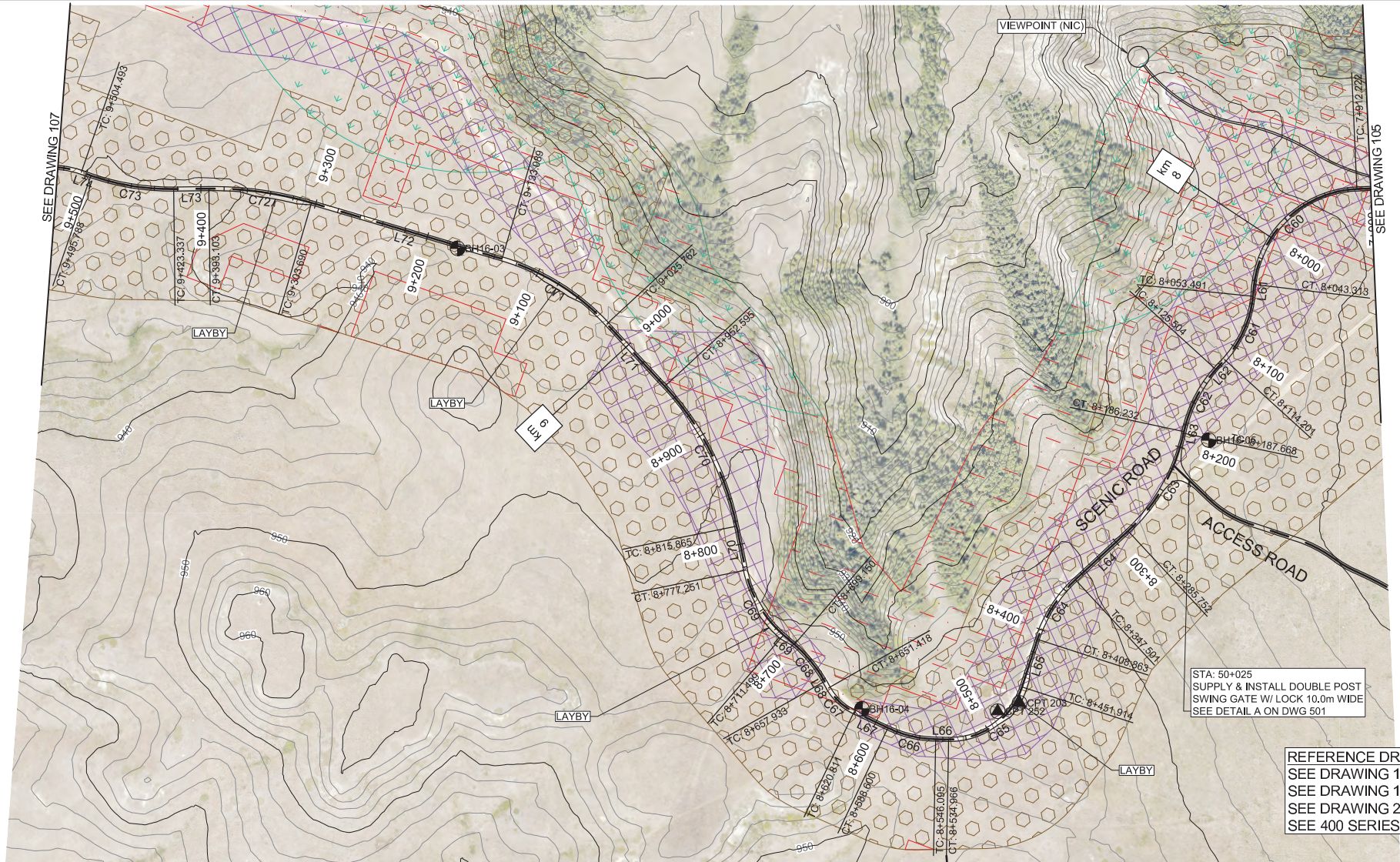
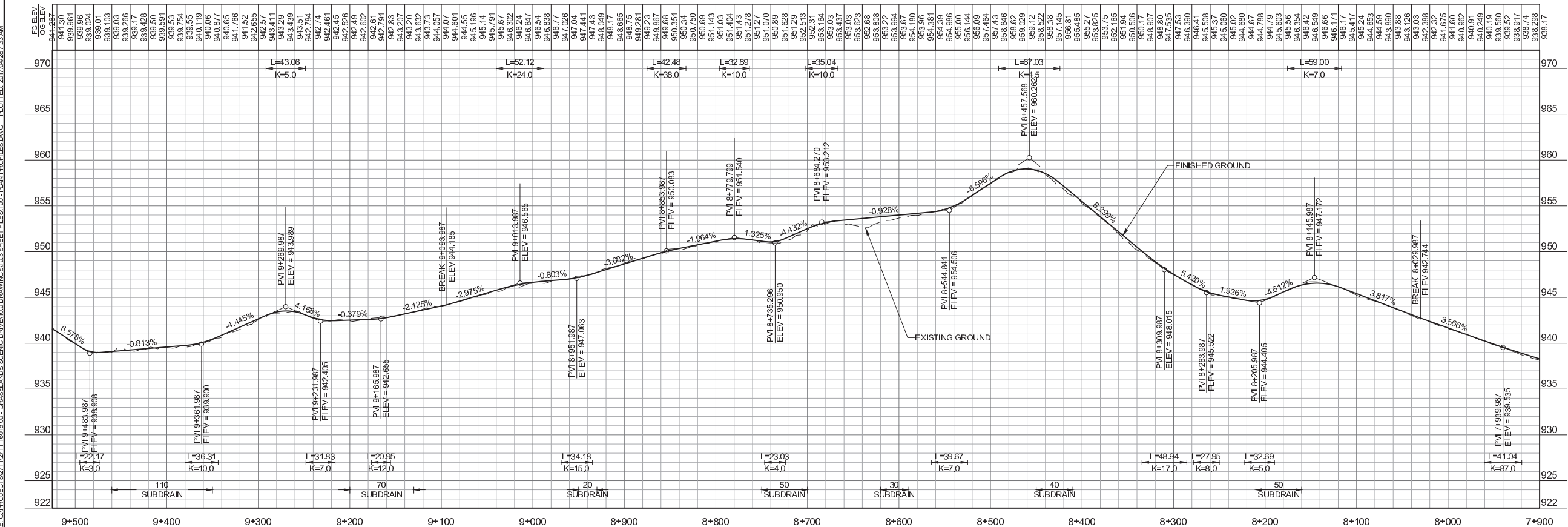
Drawing Title
Titre du dossier
PLAN & PROFILE
STA 6+275 TO STA 7+900

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. du bien
Sheet No. / No. de la feuille
C-07

Drawing Reference No. / No. de référence du dessin
105

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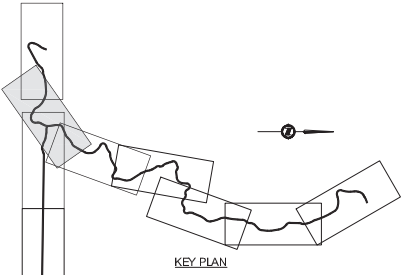
REFERENCE DRAWINGS
SEE DRAWING 110 FOR DETAILED GEOMETRIC INFORMATION
SEE DRAWING 111 FOR LAYBY INFORMATION
SEE DRAWING 201 FOR INTERSECTION INFORMATION
SEE 400 SERIES DRAWINGS FOR VIEWPOINT PARKING AREAS

STA: 50+025
SUPPLY & INSTALL DOUBLE POST
SWING GATE W/ LOCK 10.0m WIDE
SEE DETAIL A ON DWG 501

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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.

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. McELHANN
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 7+900 TO STA 9+525

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

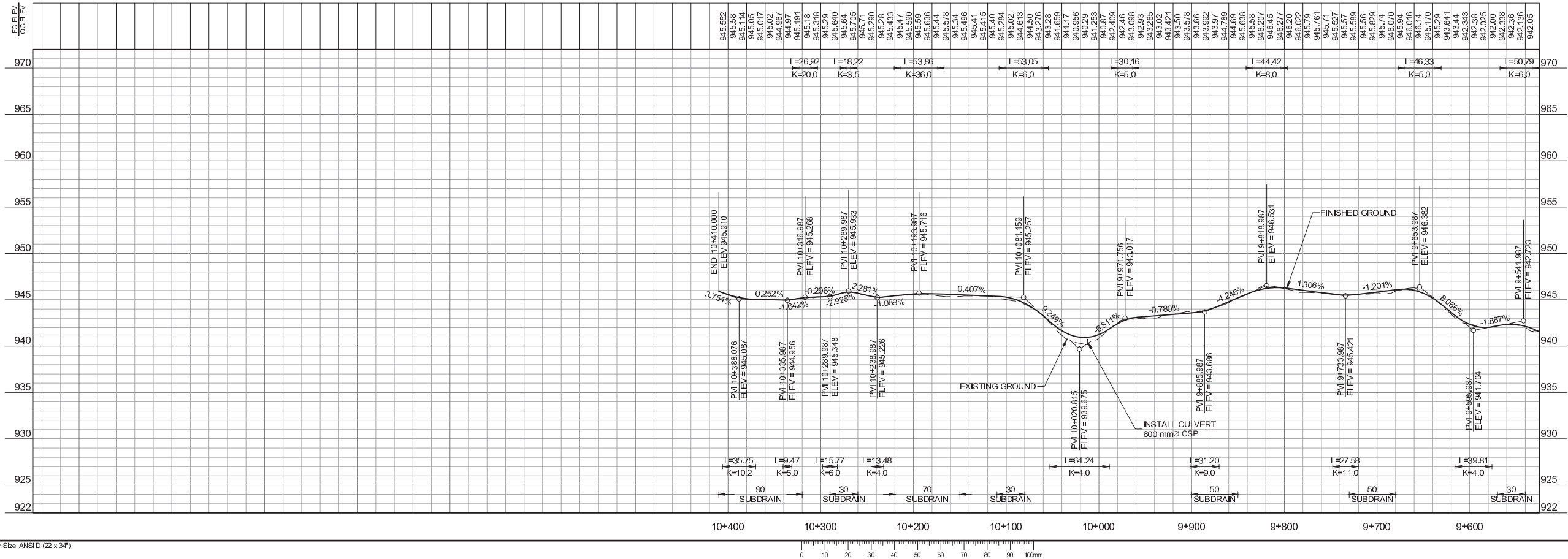
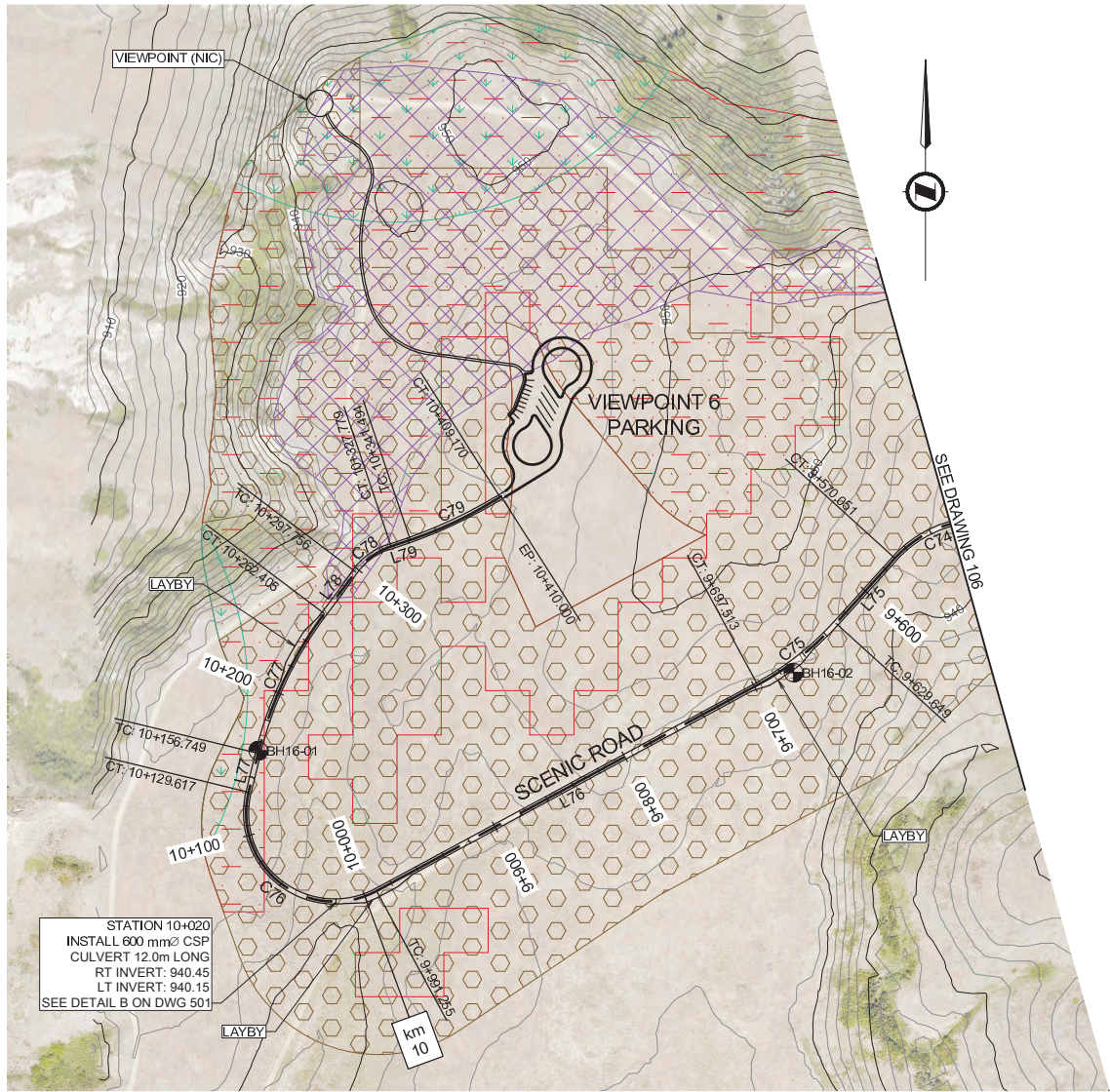
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client Parcs Canada Responsable / Agent Respons. des Parcs Canada	Approved by / Approuvé par Parcs Canada Project Manager / Administrateur des Projets Parcs Canada
Project No. / No. du projet R.075061.001	Sheet No. / No. de la feuille C-08

Drawing Reference No. / No. de référence du dessin

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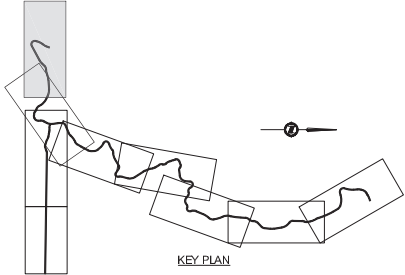
REFERENCE DRAWINGS
SEE DRAWING 110 FOR DETAILED GEOMETRIC INFORMATION
SEE DRAWING 111 FOR LAYBY INFORMATION
SEE DRAWING 201 FOR INTERSECTION INFORMATION
SEE 400 SERIES DRAWINGS FOR VIEWPOINT PARKING AREAS



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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.



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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

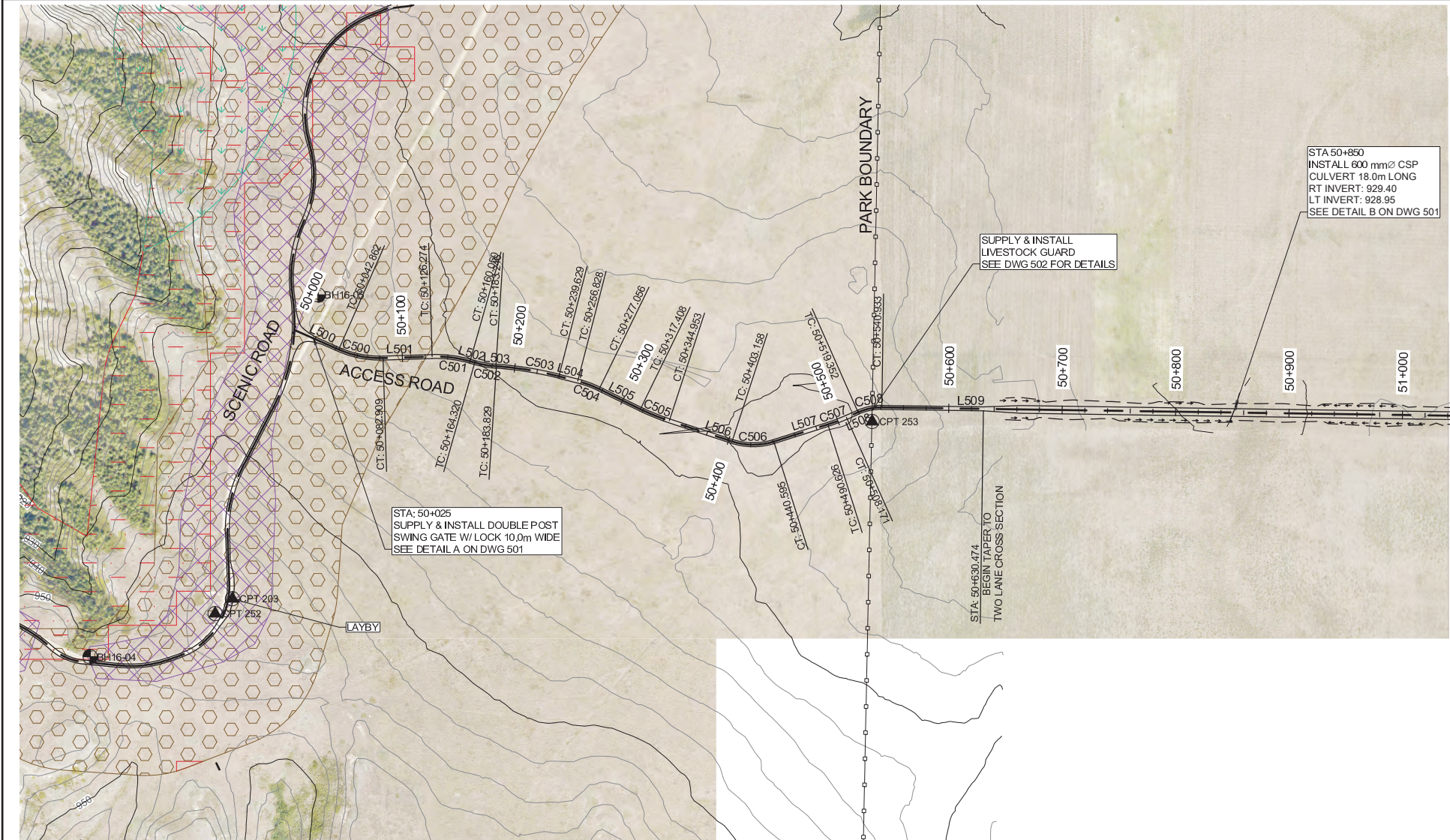
Surveyed by / Arpenté par ALTUS	Drawn by / Dessiné par DL	Date 2017.03.06
Designed by / Conçu par DY	Reviewed by / Révisé par MRJW	Scale / Echelle 1:2500

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

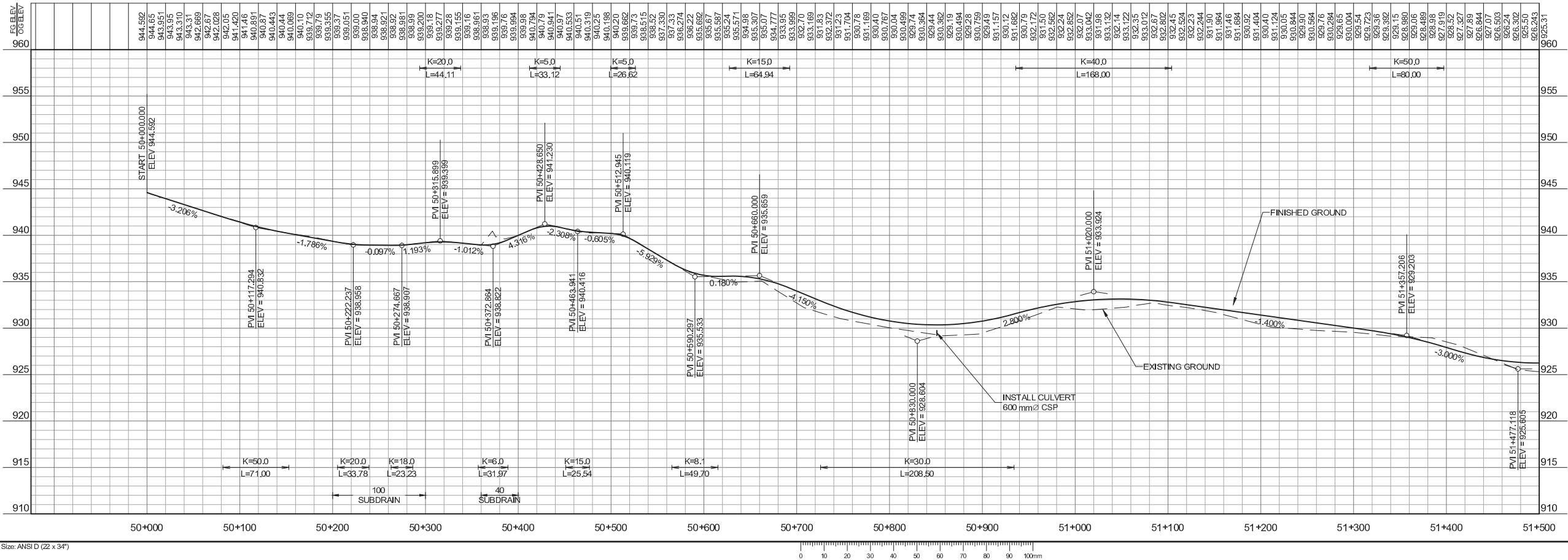
Client Acceptance / Acceptation du client	Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada	Parks Canada Project Manager / Administrateur de Projets Parcs Canada
Project No. / No. du projet R.075061.001	Sheet No. / No. de la feuille C-09

Drawing Reference No. / No. de référence du dessin

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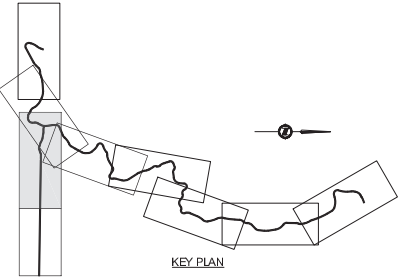
REFERENCE DRAWINGS
SEE DRAWING 111 FOR DETAILED GEOMETRIC INFORMATION
SEE DRAWING 111 FOR LAYBY INFORMATION
SEE DRAWING 201 FOR INTERSECTION INFORMATION
SEE 400 SERIES DRAWINGS FOR VIEWPOINT PARKING AREAS



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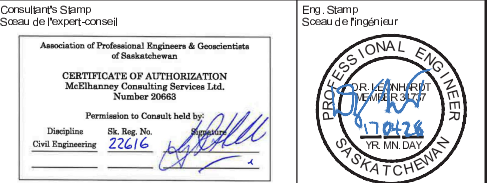
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PD	2017.04.28	ISSUED FOR TENDER		DL	MRJW
PC	2017.02.07	99% DESIGN SUBMISSION		DL	MRJW
PB	2016.11.18	ISSUED FOR DISCUSSION		DL	MRJW
PA	2016.03.18	DESIGN REPORT		DL	MRJW

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



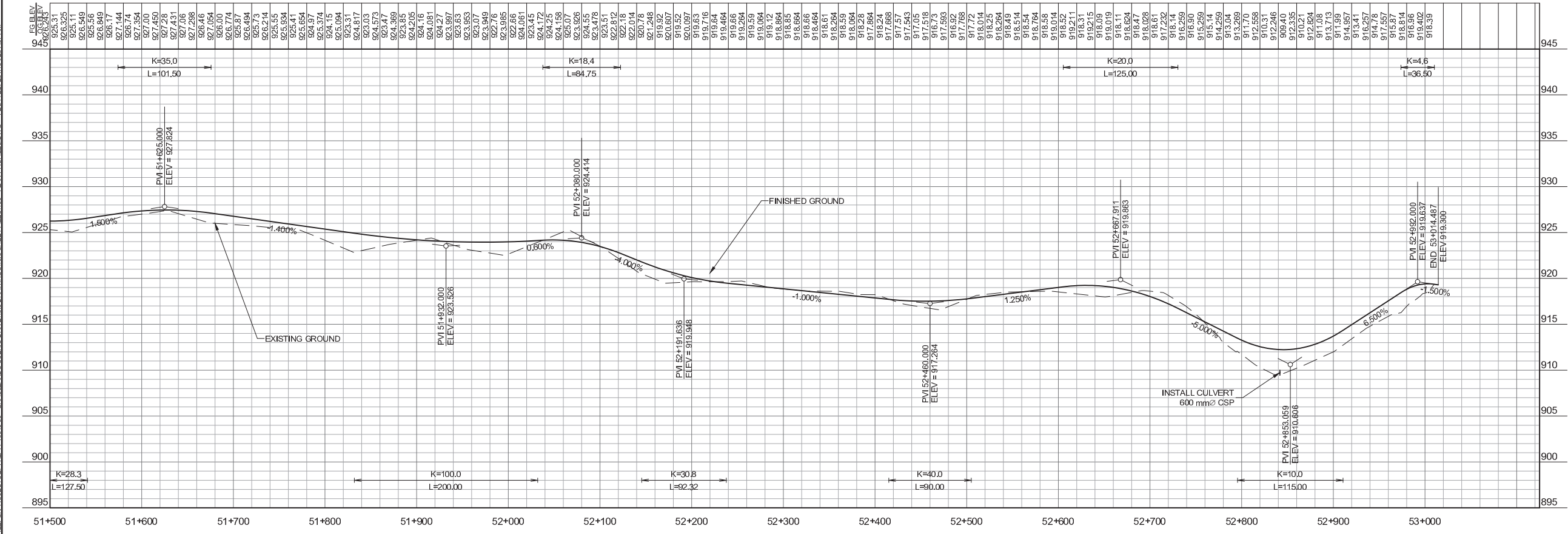
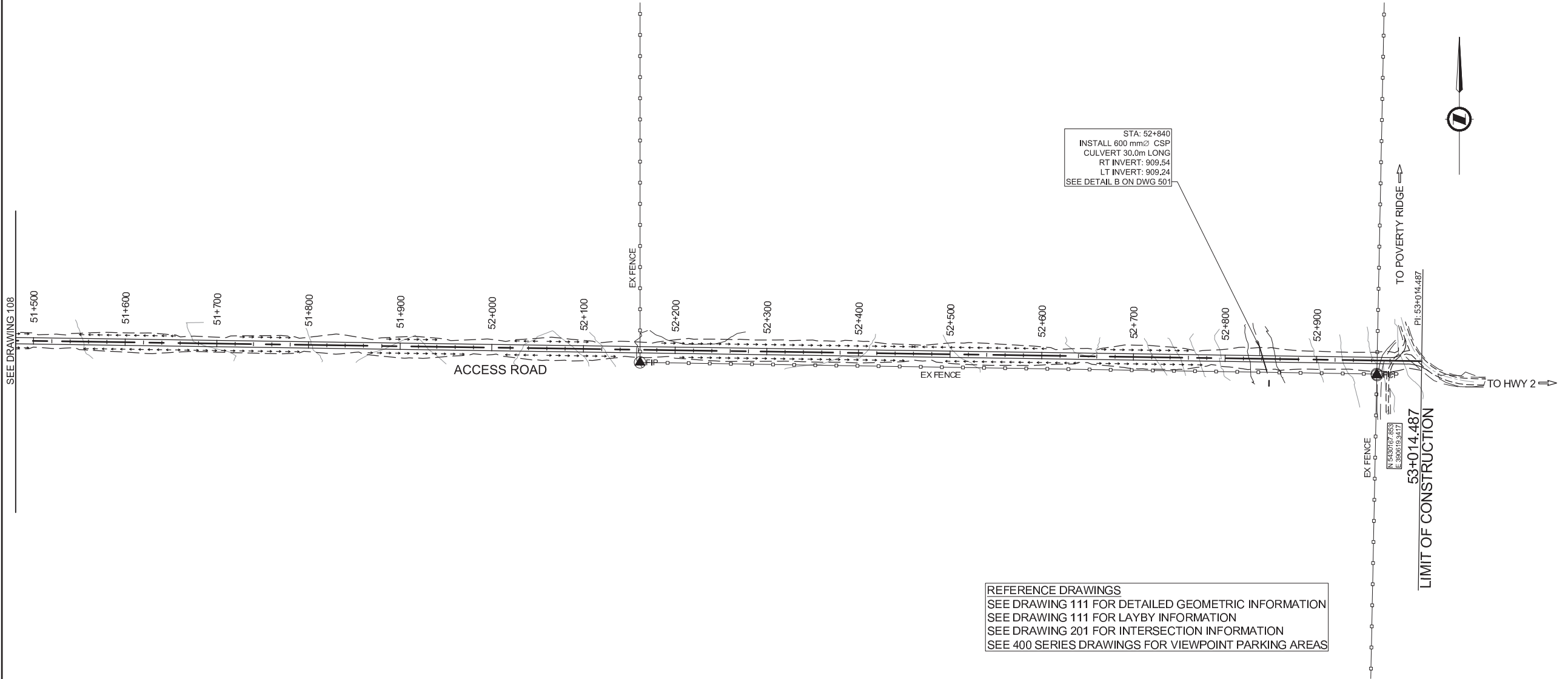
Project Title
Titre du projet
**BADLANDS SCENIC DRIVE
ROADWAY IMPROVEMENTS**
EAST BLOCK
GRASSLANDS NATIONAL PARK, SK

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

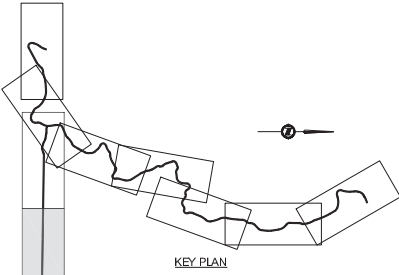
Project No. / No. du projet
R.075061.001
Asset No. / No. de bien
Sheet No. / No. de la feuille
C-10



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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.



Consultant's Stamp
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
ALTUS

Designed by / Conçu par
DY

Drawn by / Dessiné par
DL

Reviewed by / Révisé par
MRJW

Date
2017.03.06

Scale / Echelle
1:2500

Client Acceptance / Acceptation du client

Approved by / Approuvé par

Project No. / No. du projet
R.075061.001

Assent No. / No. du-bien

Sheet No.
No. de la feuille
C-11

Drawing Reference No. / No. de référence du dessin
109

C-11

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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	388786.9680	
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	
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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	
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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	
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TC	3+721.359	5432839.2899	389168.1701	
CT	3+815.554	5432747.0979	389164.4540	
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CT	3+927.984	5432677.3810	389106.7090	
TC	3+942.708	5432680.9257	389092.4178	
CT	3+974.869	5432675.9730	389061.5100	
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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	
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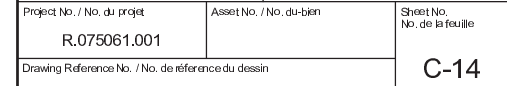
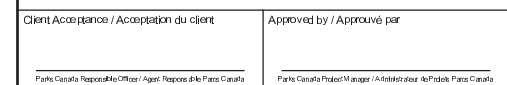
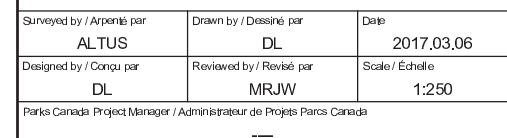
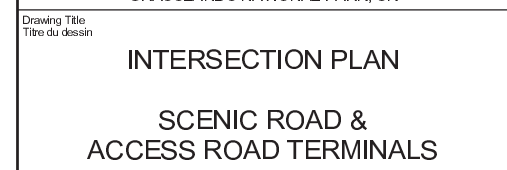
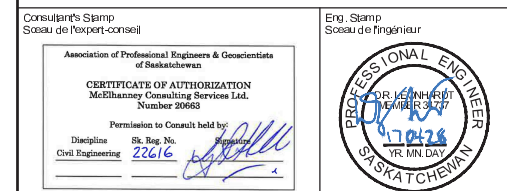
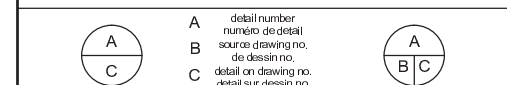
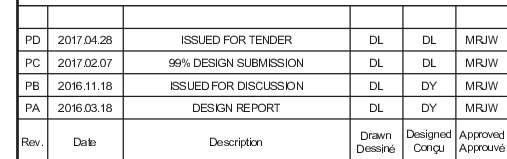
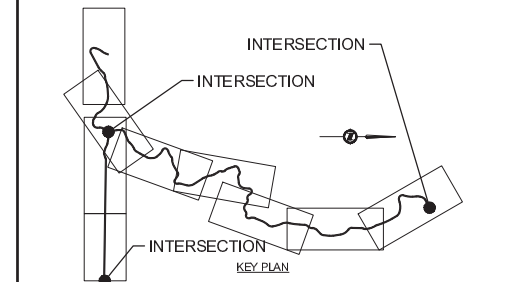
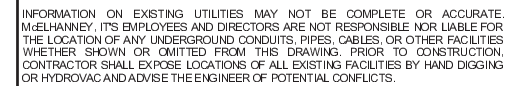
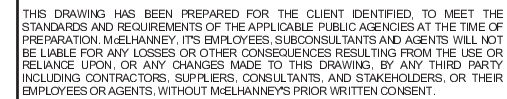
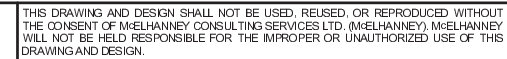
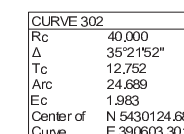
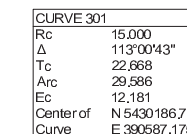
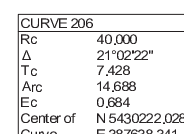
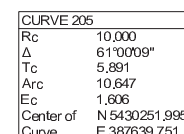
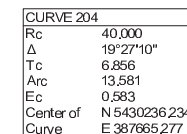
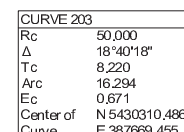
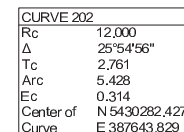
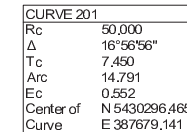
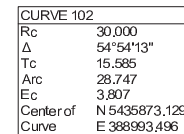
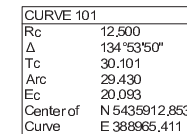
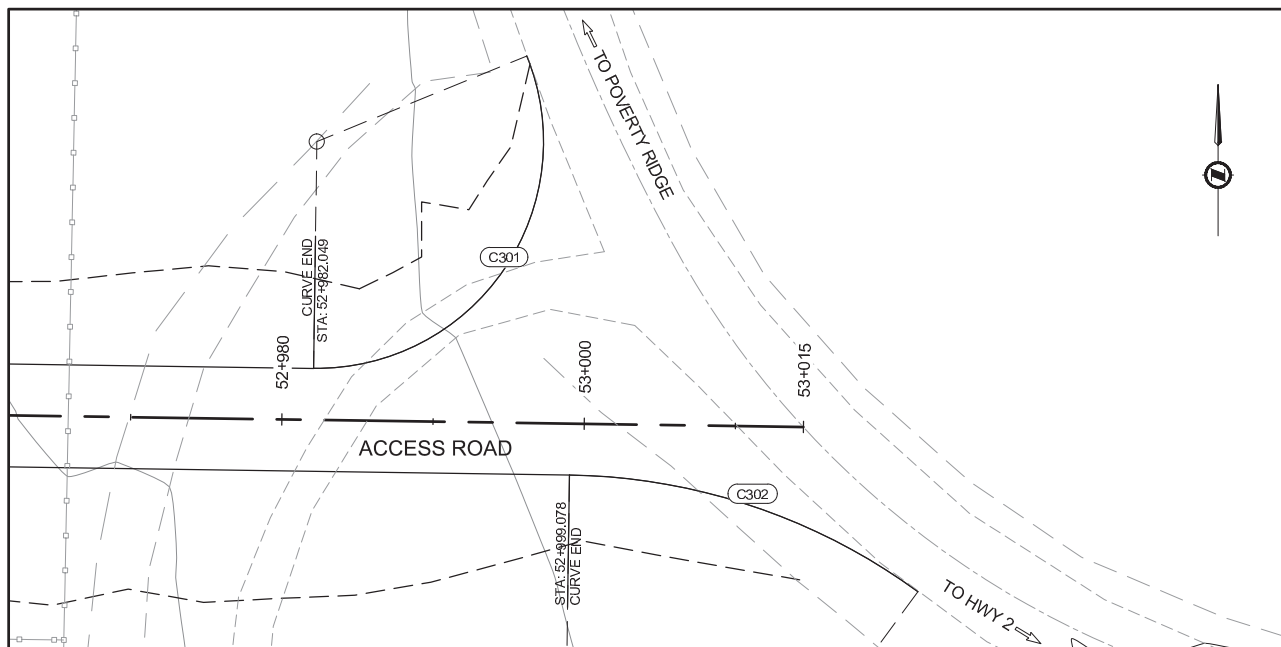
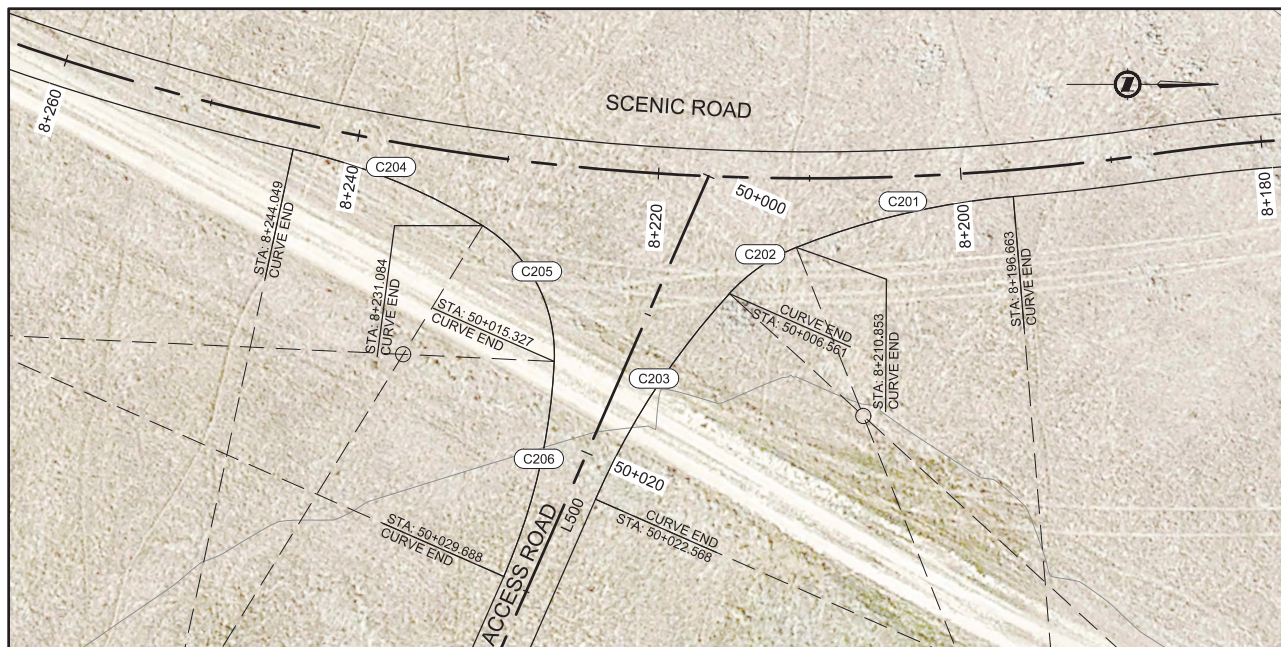
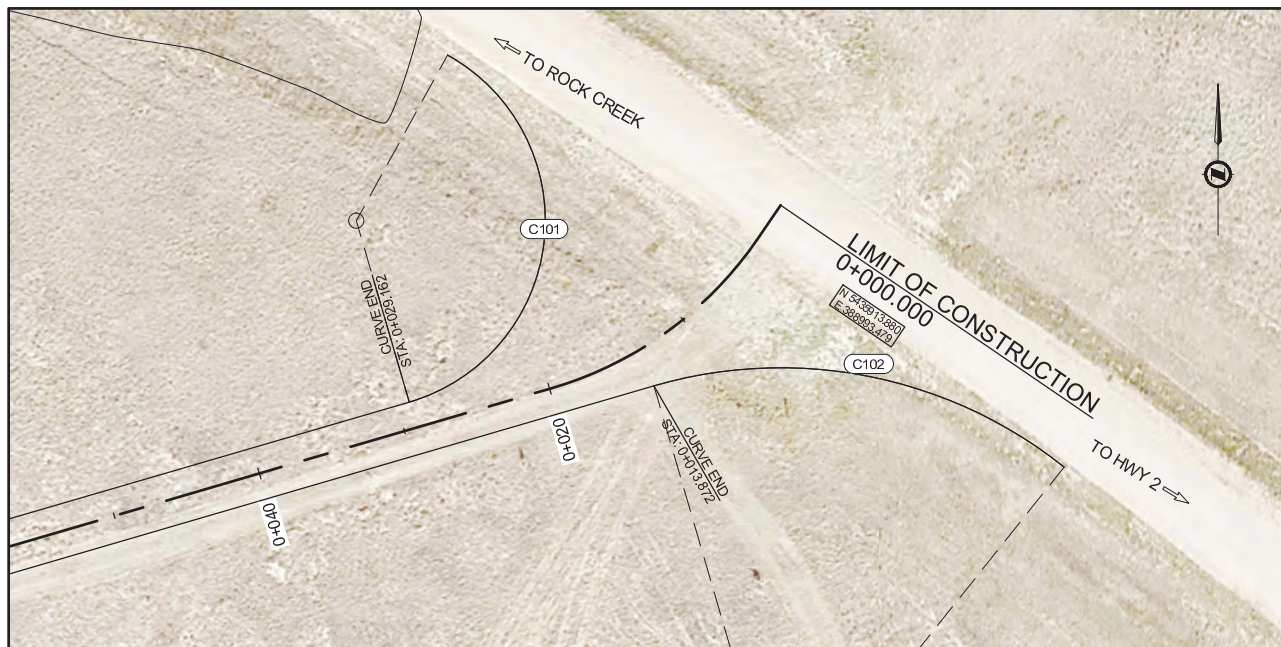
ALIGNMENT TABLE (AL01-SCENIC ROAD)			
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TC	8+063.491	5430432.1062	387642.3216
CT	8+114.201	5430372.5693	387638.1622
TC	8+125.504	5430362.1114	387633.8722
CT	8+186.232	5430302.5569	387626.3743
TC	8+187.668	5430301.1346	387626.5730
CT	8+285.752	5430205.9341	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

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

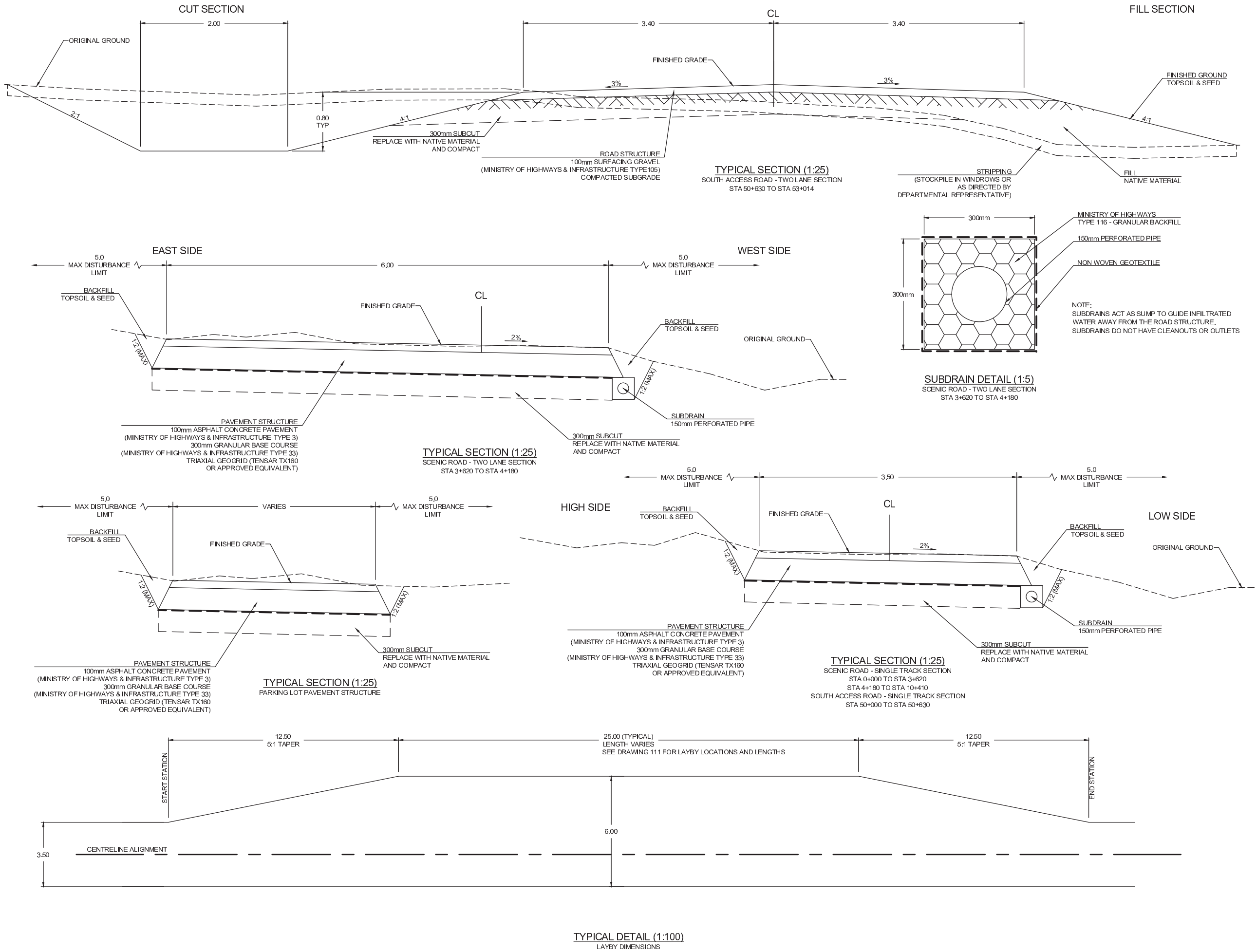
STATIONS INDICATED ARE FROM START OF TAPER TO END OF TAPER.
TAPERS ARE 12.5m LONG AT EACH END OF THE LAYBY.
LENGTH OF LAYBY DOES NOT INCLUDE TAPERS.

SEE DRAWING 301 FOR TYPICAL LAYBY DIMENSIONS.





FILE: G:\PROJECTS\1711110\15-00 - 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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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

B

C

A

B

C

A

B

C

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-consult

Association of Professional Engineers & Geoscientists
of Saskatchewan

CERTIFICATE OF AUTHORIZATION
McElhanney Consulting Services Ltd.
Number 20663

Permission to Consult held by:
Discipline
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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-consult

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
Parks Canada Responsible Officer / Agent Responsable Parcs Canada	Parks Canada Project Manager / Administrateur de Projets Parcs Canada

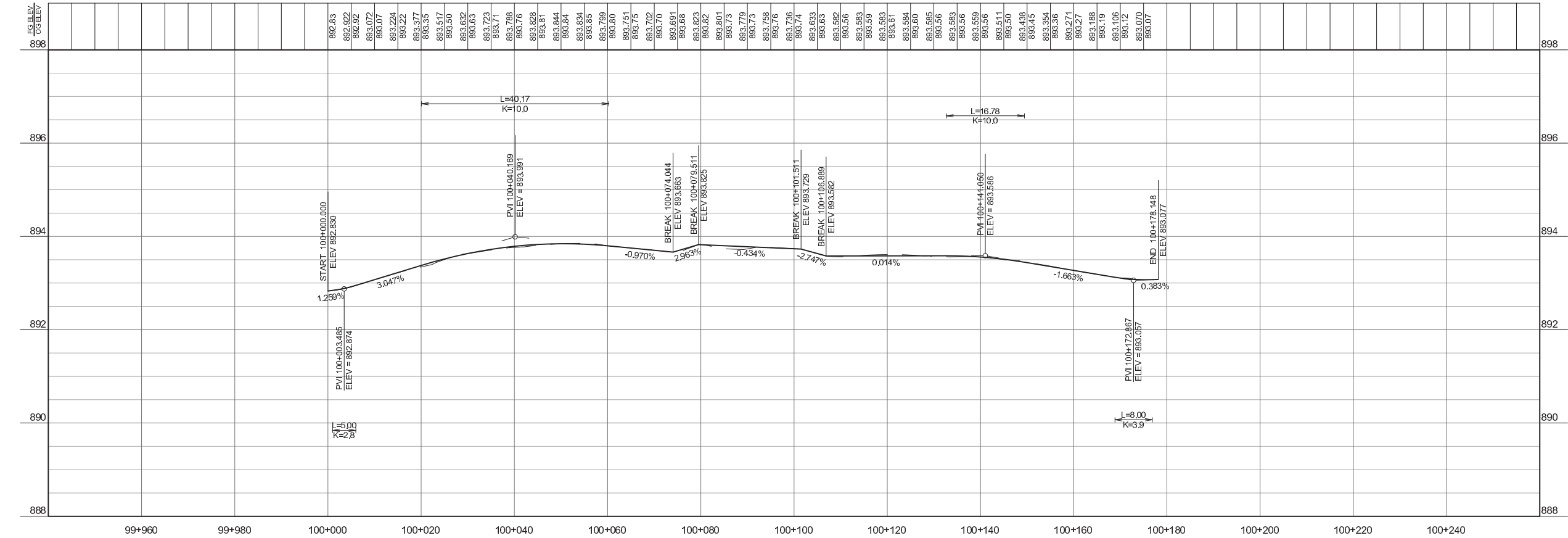
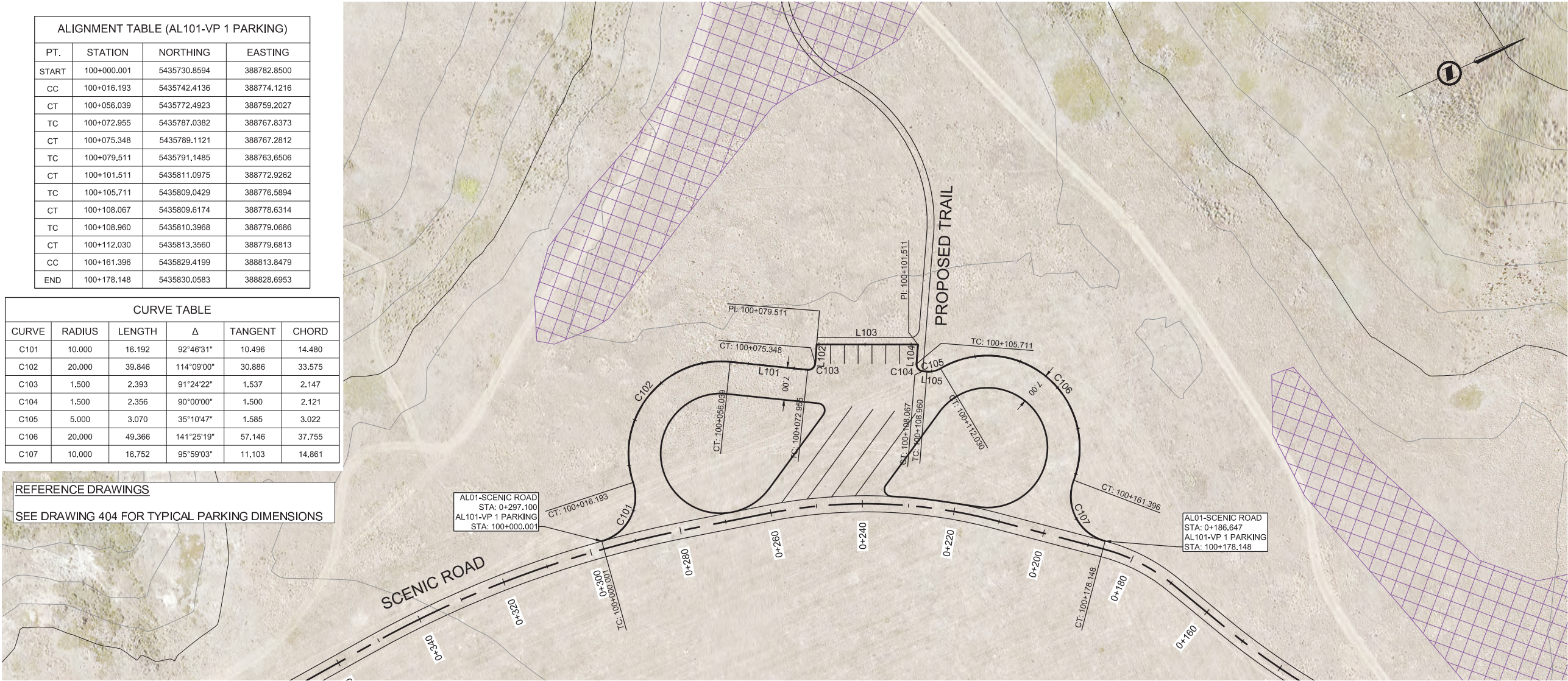
Project No. / No. du projet	Asset No. / No. de l'actif	Sheet No. / No. de la feuille
R.075061.001		C-15

Drawing Reference No. / No. de référence du dessin

301



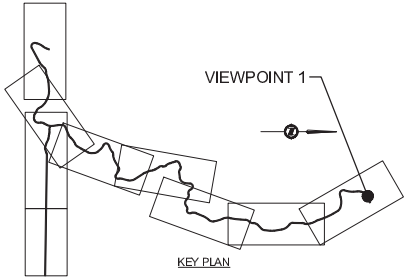
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PD	2017.04.28	ISSUED FOR TENDER	AI	DH	MRJW
PC	2017.02.07	99% DESIGN SUBMISSION	AI	DH	MRJW
PB	2016.11.18	ISSUED FOR DISCUSSION	DL	DY	MRJW
PA	2016.03.18	DESIGN REPORT	DL	DY	MRJW
Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé

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 20663

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

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



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 ALTUS	Drawn by / Dessiné par DL	Date 2017.03.06
Designed by / Conçu par DH	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
<div>_____ Parks Canada Regional Manager / Agent Régional des Parcs Canada</div>	<div>_____ Parks Canada Project Manager / Administrateur des Projets Parcs Canada</div>

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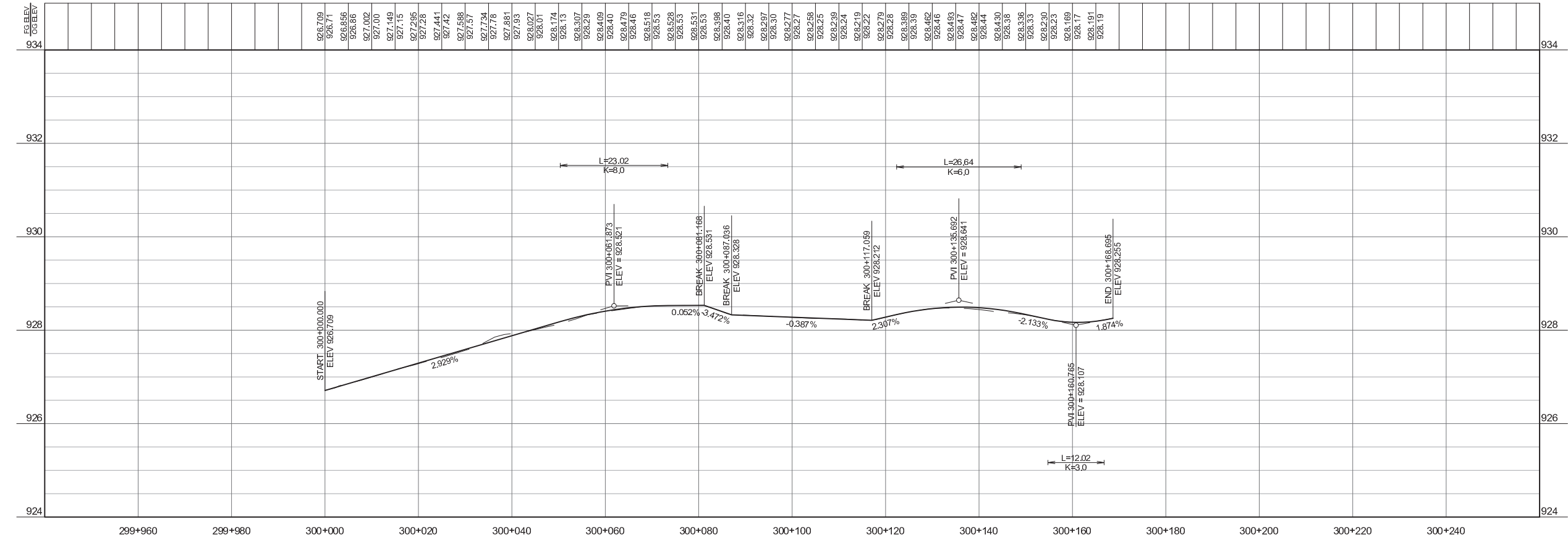
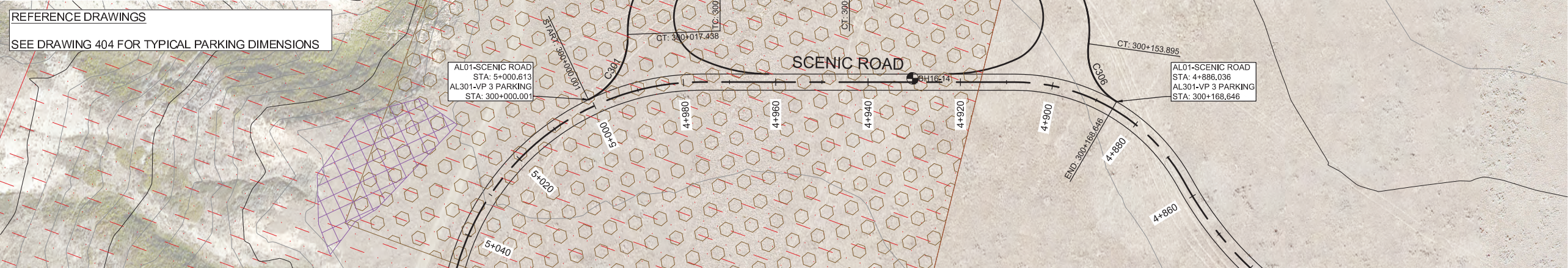


FILE: G:\PROJECTS\127111\127111_00 - GRASSLANDS SCENIC DRIVE\10.0 DRAWINGS\10.3 SHEET FILES\10.3 - PARKING LOTS.DWG PLOTTED: 2017/02/28 7:57 AM

ALIGNMENT TABLE (AL301-VP 3 PARKING)				
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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

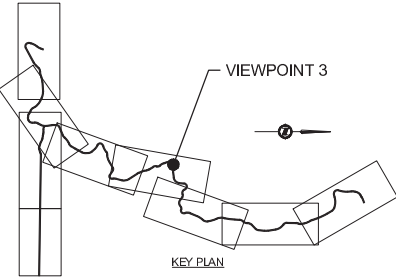
REFERENCE DRAWINGS
SEE DRAWING 404 FOR TYPICAL PARKING DIMENSIONS



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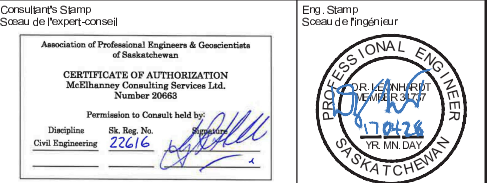
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Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
PD	2017.04.28	ISSUED FOR TENDER	AI	DH	MRJW
PC	2017.02.07	99% DESIGN SUBMISSION	AI	DH	MRJW
PB	2016.11.18	ISSUED FOR DISCUSSION	DL	DY	MRJW
PA	2016.03.18	DESIGN REPORT	DL	DY	MRJW

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



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
**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

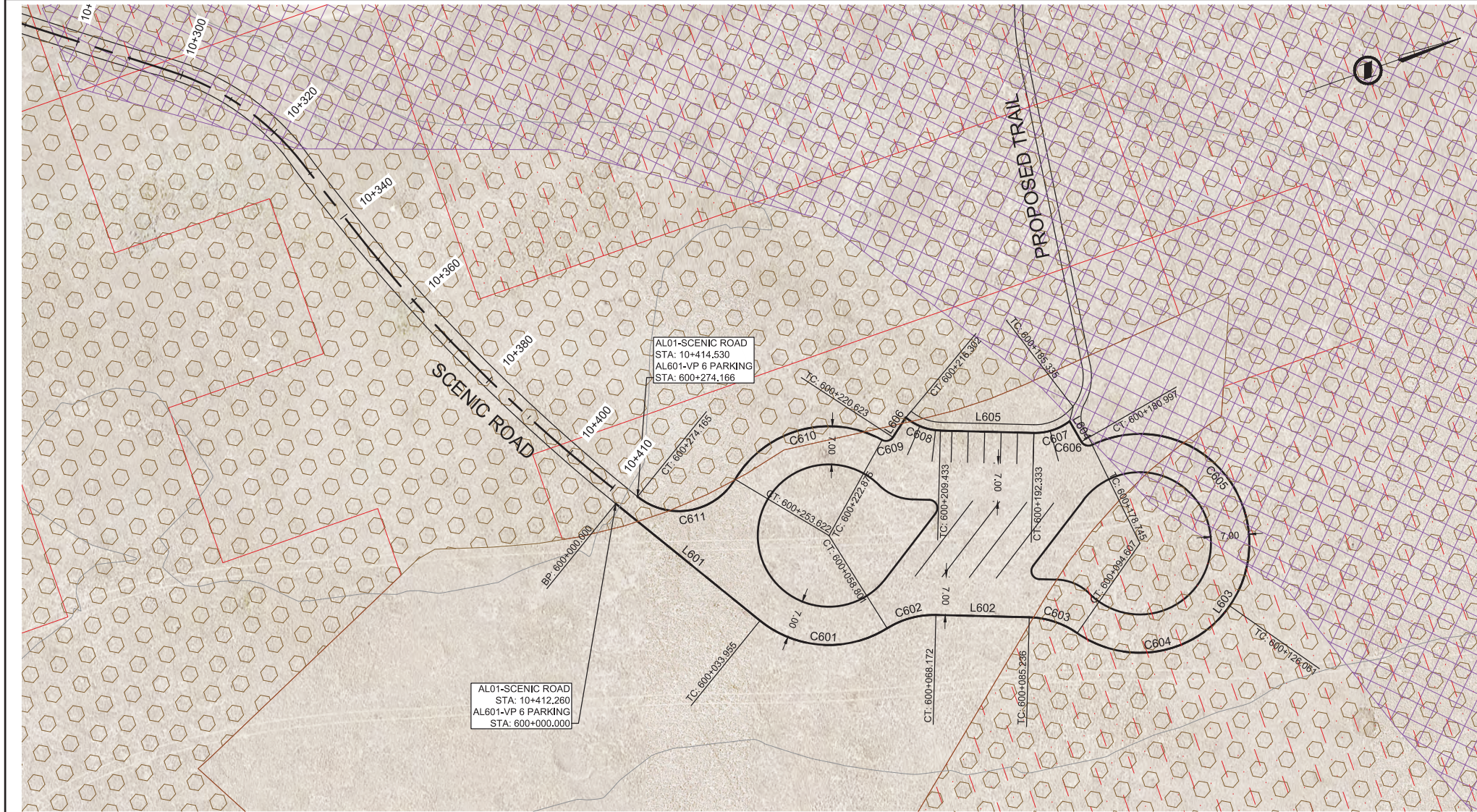
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client Parks Canada Project Manager / Administrateur de Projets Parcs Canada	Approved by / Approuvé par Parks Canada Project Manager / Administrateur de Projets Parcs Canada
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Project No. / No. du projet R.075061.001	Asset No. / No. du bien	Sheet No. / No. de la feuille C-17
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Drawing Reference No. / No. de référence du dessin
402

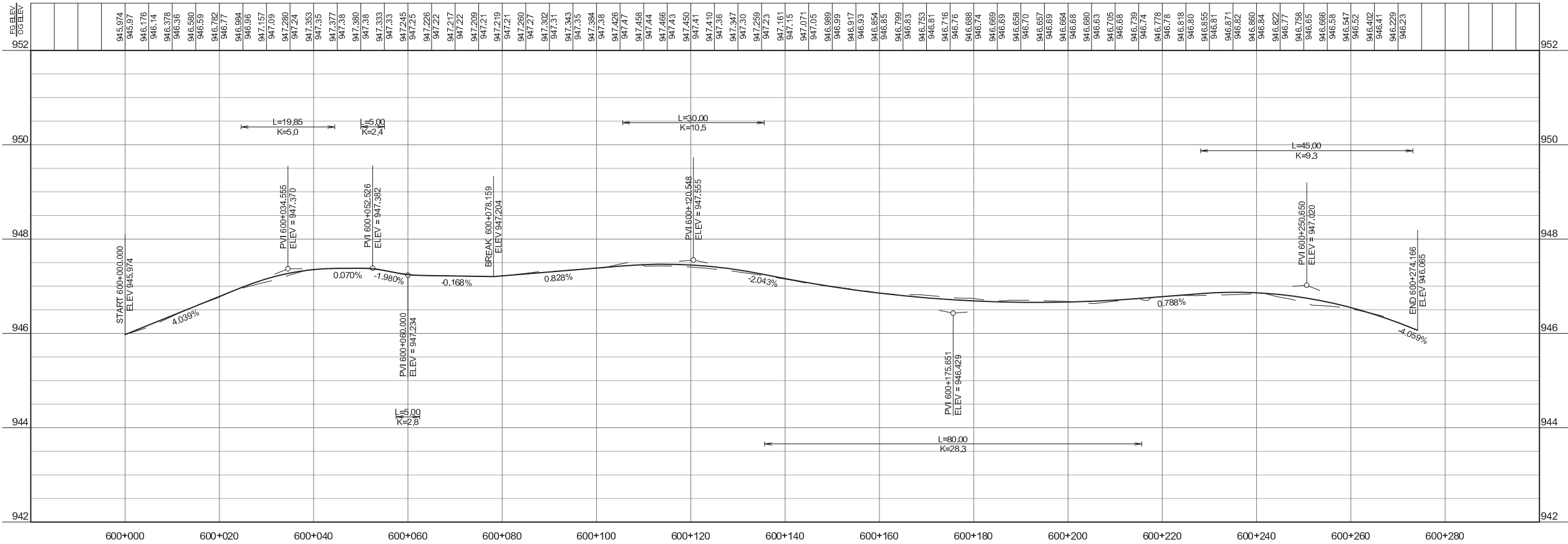
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ALIGNMENT TABLE (AL601-VP 6 PARKING)				
PT.	STATION	NORTHING	EASTING	
START	600+000.000	5430203.1445	386337.5620	
TC	600+033.955	5430220.9773	386366.4567	
CC	600+058.801	5430242.4485	386375.4511	
TC	600+068.172	5430251.6645	386376.0824	
CT	600+085.236	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
C611	12,000	20.543	98°05'02"	13.825	18.125

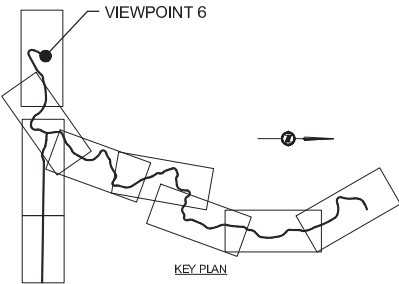
REFERENCE DRAWINGS
SEE DRAWING 404 FOR TYPICAL PARKING DIMENSIONS



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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

A

B

C

A

B

C

A

B

C

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
Sta. 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 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
ALTUS

Drawn by / Dessiné par
DL

Date
2017.03.06

Designed by / Conçu par
DY

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 Representative / Agent Représentant Parcs Canada

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet
R.075061.001

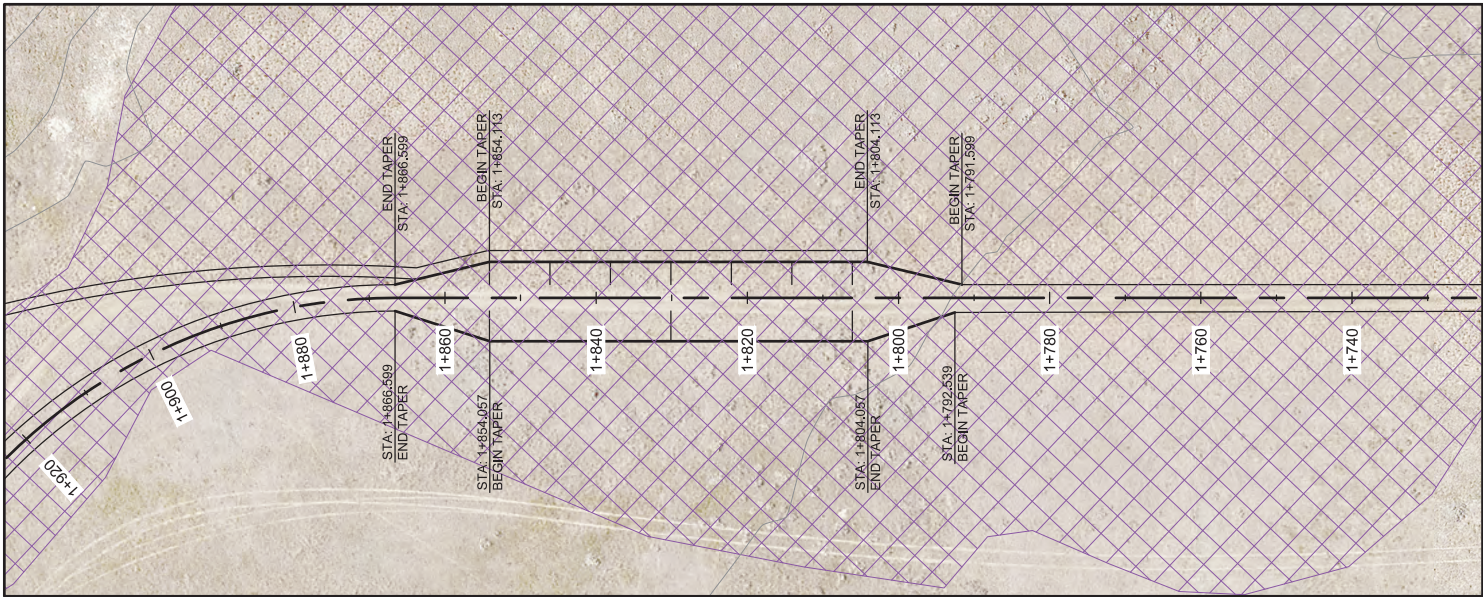
Asset No. / No. du bien

Sheet No. / No. de la feuille
C-18

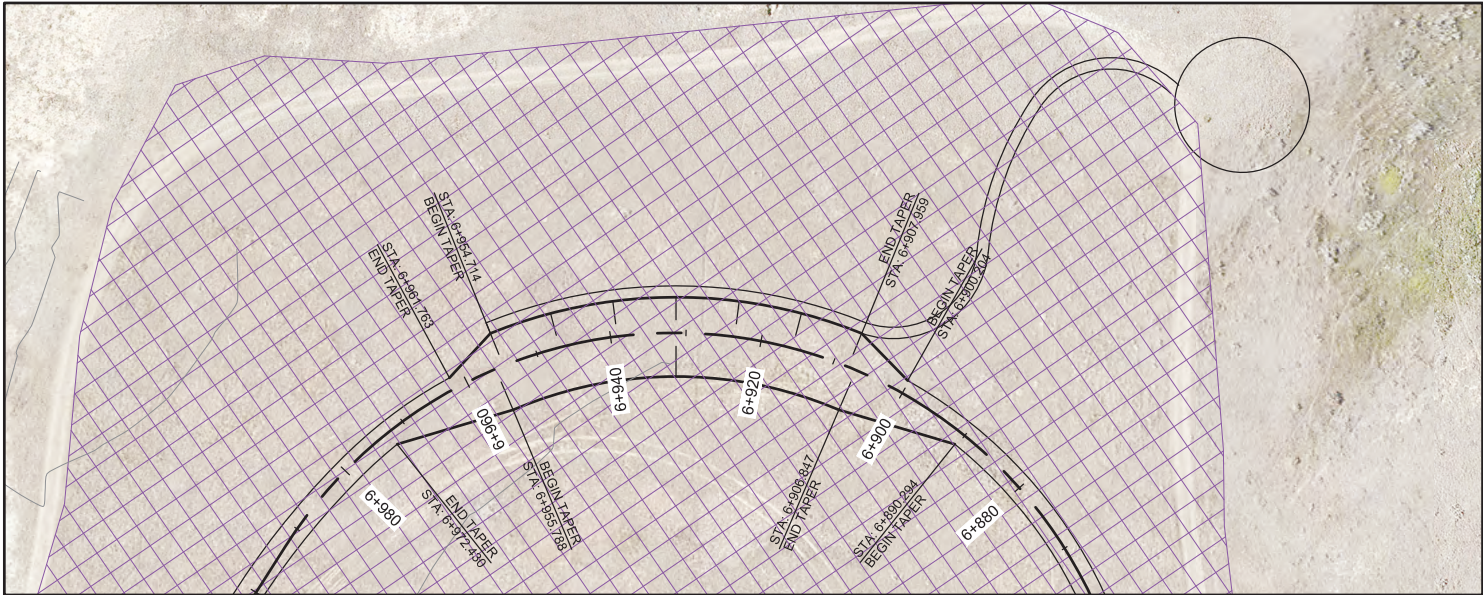
Drawing Reference No. / No. de référence du dessin
403



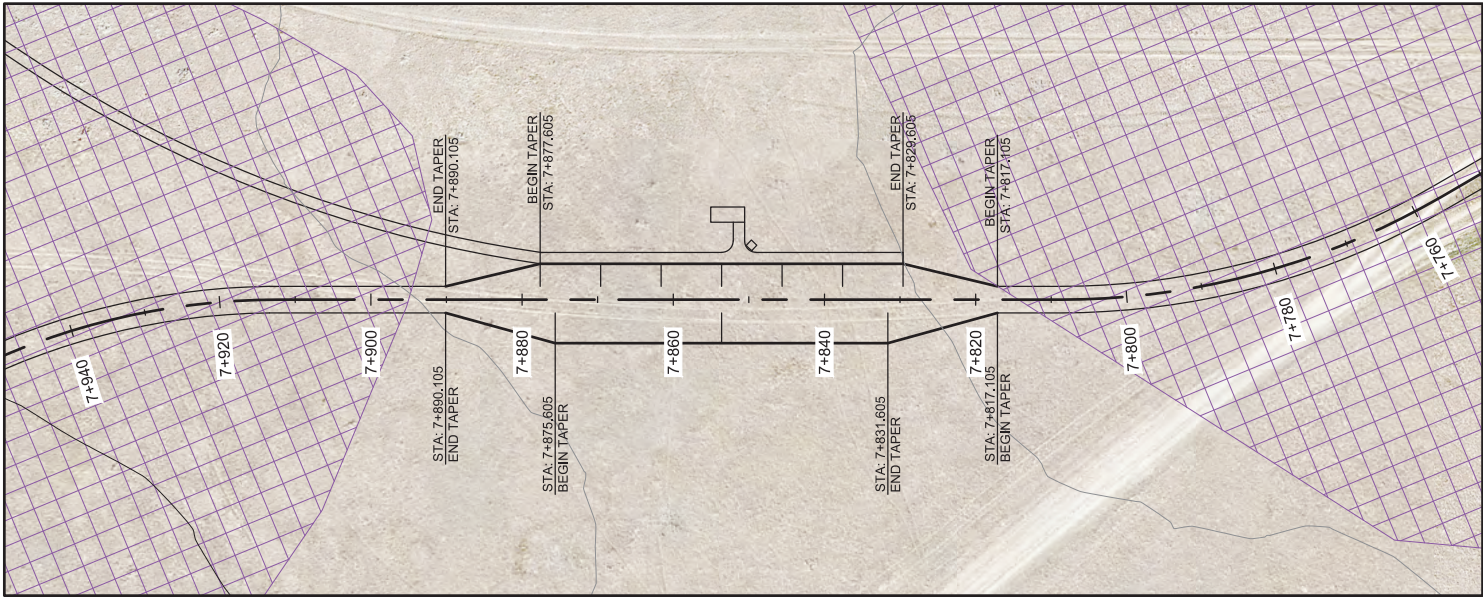
FILE: G:\PROJECTS\1712\111100\15-00 - GRASSLANDS SCENIC DRIVE\10.0 DRAWINGS\10.3 SHEET FILES\10.00 - PARKING LOTS.DWG PLOTTED: 2017/02/28 @ 9 AM



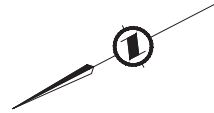
VIEWPOINT 2 PARKING



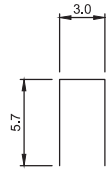
VIEWPOINT 4 PARKING



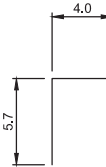
VIEWPOINT 5 PARKING



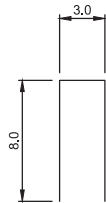
TYPICAL PARKING DIMENSIONS



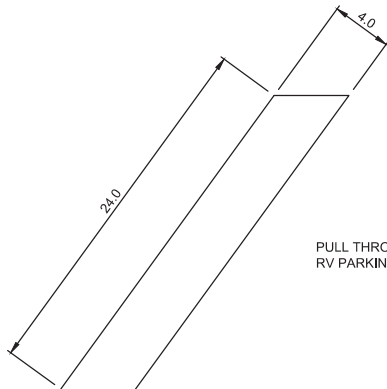
90° PARKING STALL



HANDICAPPED PARKING STALL



PARALLEL PARKING STALL



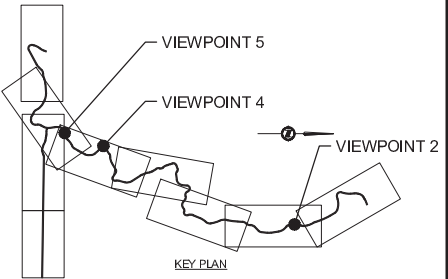
PULL THROUGH + PARALLEL
RV PARKING STALL

PARKING DIMENSIONS ARE PROVIDED FOR
REFERENCE TO CONFIRM ANY MEASUREMENTS
THAT MAY NOT BE CLEAR WITHIN THE DRAWINGS.
PAVEMENT MARKING OF THE PARKING STALLS IS
NOT REQUIRED.

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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 de dessin no.
detail on drawing no.
détail sur dessin no.



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Sceau de l'expert-conseil

Association of Professional Engineers & Geoscientists
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Sta. Reg. No.: 22616
Signature: [Signature]
Expiry Date: 2017-03-27

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER
DR. J. McELHANNEY
NUMBER 3327
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**

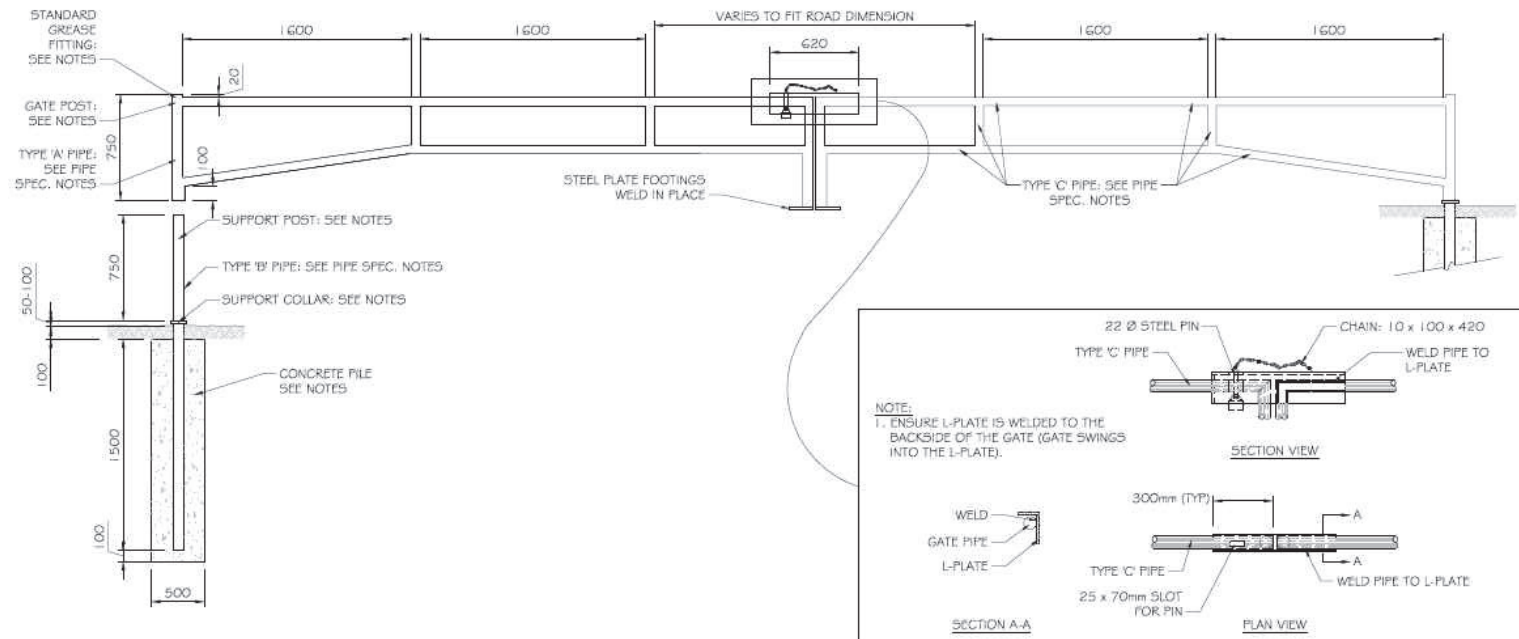
Drawing Title
Titre du dessin

PARKING LOTS

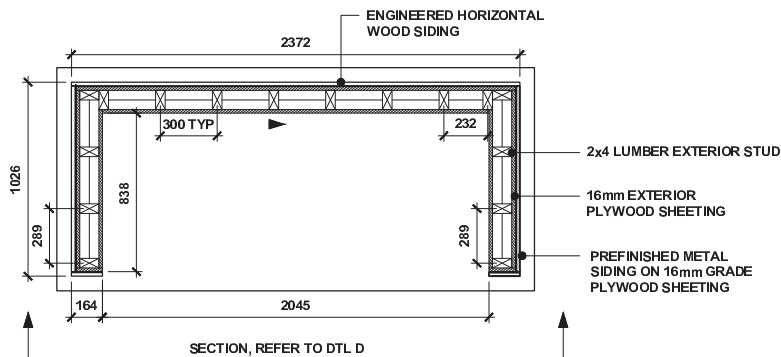
**VIEWPOINTS 2, 4 & 5
& TYPICAL DIMENSIONS**

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

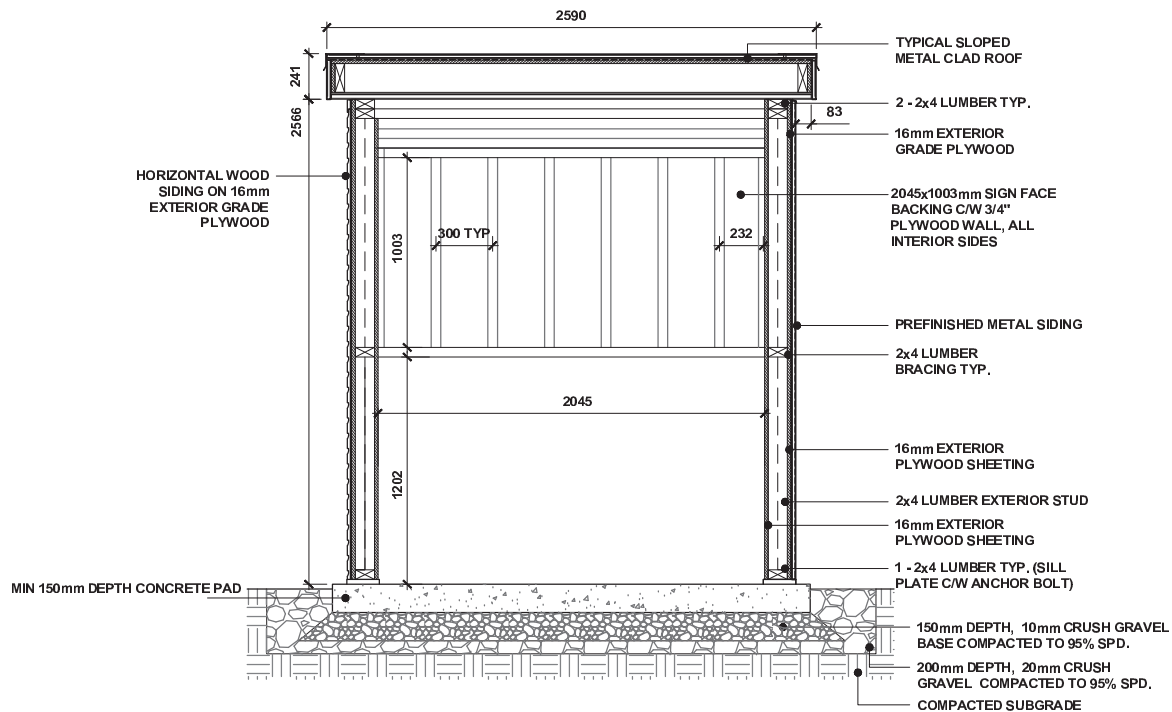
Parks Canada Project Manager / Administrateur de Projets Parcs Canada		
Client Acceptance / Acceptation du client		Approved by / Approuvé par
Project No. / No. du projet R.075061.001		Sheet No. / No. de la feuille C-19
Drawing Reference No. / No. de référence du dessin 404		



DETAIL A
ENTRY GATE



DETAIL C
KIOSK PLAN VIEW



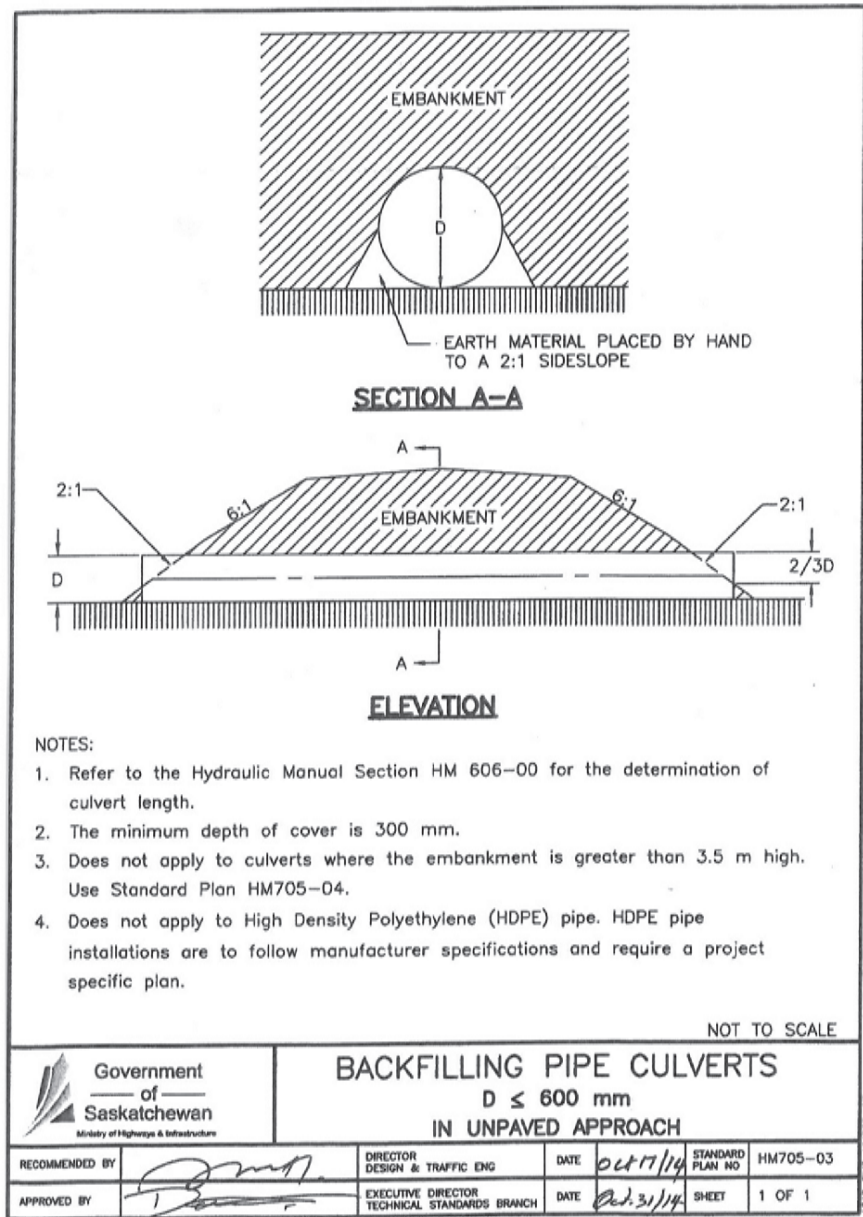
DETAIL D
KIOSK SECTION

SWING GATE NOTES:

1. CONCRETE PILE SHALL BE 21 MPa CONCRETE AND BE OF MIN. 500mm DIAMETER. ANCHOR SHALL BE PLACED AGAINST UNDISTURBED SOIL. IF THE SOIL IS DISTURBED OR IS OF CLEAN GRAVEL, 20mm CRUSHED GRAVEL SHALL BE USED FOR BACKFILL AND COMPACTED TO 97% MAX. DRY DENSITY.
2. SUPPORT COLLAR SHALL BE 12mm x 12mm CONTINUOUS METAL BAR WELDED TO SUPPORT POST.
3. SUPPORT POST SHALL BE CLOSED WITH A 9mm PLATE AND GROUND SMOOTH AND FLAT.
4. GATE POST SHALL BE CLOSED WITH A 9mm PLATE AND THE EDGES SHALL BE BEVELED SMOOTH.
5. STANDARD GREASE FITTING TO BE INSTALLED ON THE BACK OF THE GATE POST.
6. CONCRETE PAD TO SUPPORT LEG.
7. ALL METAL TO BE SAND BLASTED CLEAN AND GIVEN TWO COATS EACH OF RED ZINC-OXIDE PRIMER AND FLAT BEIGE ENAMEL.
8. ALL WELDS TO BE FULL PERIMETER.
9. ALL WELDS AND EXPOSED EDGES SHALL BE GROUND SMOOTH.
10. LOCKING CHAIN TO BE 9mm DIAMETER GALVANIZED AND WELDED TO THE GATE.
11. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

SWING GATE PIPE SPECIFICATIONS:

- TYPE 'A' PIPE: 1 1/4" 3mm O.D. x 6.02mm WALL (4" SCH. 40)
TYPE 'B' PIPE: 88.9mm O.D. x 7.62mm WALL (3" SCH. 80)
TYPE 'C' PIPE: 60.3mm O.D. x 3.91mm WALL (2" SCH. 40)



DETAIL B
CULVERT INSTALLATION

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PC	2017.02.07	99% DESIGN SUBMISSION	DD	DH	MRJW
PB	2016.11.18	ISSUED FOR DISCUSSION	DD	DH	MRJW
PA	2016.03.18	DESIGN REPORT	DD	DH	MRJW

<div><div>A</div><div>B</div><div>C</div></div> <div><div>A</div><div>B</div><div>C</div></div>	<div>detail number numéro de détail</div> <div>source drawing no. de dessin no.</div> <div>detail on drawing no. détail sur dessin no.</div>	<div><div>A</div><div>B</div><div>C</div></div>
Consultant's Stamp Sceau de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur	
<div>Association of Professional Engineers & Geoscientists of Saskatchewan</div> <div>CERTIFICATE OF AUTHORIZATION McElhanney Consulting Services Ltd. Number 20663</div> <div>Permission to Consult held by: Discipline: Civil Engineering, Sk. Reg. No. 22616</div>	<div>PROFESSIONAL ENGINEER DR. J. McELHANNEY 170438 YR MM DAY SASKATCHEWAN</div>	

Client	<div><div></div><div>Public Works and Government Services Canada</div></div>	<div>Travaux public et Services gouvernementaux Canada</div>
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Consultant's Name Nom de l'expert-conseil	<div><div></div><div>McElhanney McElhanney Consulting Services Ltd.</div></div>
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Project Title Titre du projet	<div>BADLANDS SCENIC DRIVE ROADWAY IMPROVEMENTS</div> <div>EAST BLOCK GRASSLANDS NATIONAL PARK, SK</div>
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Drawing Title Titre du dessin	<div>MISCELLANEOUS DETAILS</div> <div>KIOSK, GATE & CULVERT INSTALLATION</div>
----------------------------------	----------------------------------------------------------------------------------------

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
DD	DD	2017.03.06
Designed by / Conçu par	Reviewed by / Révisé par	Scale / Echelle
DH	MRJW	N.T.S.

Parks Canada Project Manager / Administrateur de Projets Parcs Canada	Approved by / Approuvé par
<div>Parcs Canada Project Manager / Administrateur de Projets Parcs Canada</div>	<div>Parcs Canada Project Manager / Administrateur de Projets Parcs Canada</div>

Project No. / No. du projet	Asset No. / No. de bien	Sheet No. / No. de la feuille
R.075061.001		C-20
Drawing Reference No. / No. de référence du dessin		

