

Public Works And
Government Services
Canada
Western Region

for

Canadian Heritage
Parks Canada

Travaux publics et
Services gouvernementaux
Canada
Région de l'Ouest

pour

Patrimoine Canadien
Parcs Canada

WATERTON LAKES NATIONAL PARK

WATERTON TOWNSITE
MUNICIPAL INFRASTRUCTURE
UPGRADES
PHASE C

PROJECT No. R.075721.001

AUGUST 2016

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C31	SURFACE IMPROVEMENTS	BERTHA LANE	PLANS	STA 6+000 TO STA 6+160
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C33	SURFACE IMPROVEMENTS	BERTHA LANE	PLANS	STA 6+320 TO STA 6+480
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LEGEND - REMOVALS AND ADJUSTMENTS

EXISTING FEATURES

— W —	WATER MAIN
— SF —	SANITARY FORCE MAIN
— S —	SANITARY SEWER LINE
— SS —	STORM SEWER LINE
— GAS —	GAS LINE
— UGT —	UNDERGROUND TELEPHONE
— UGP —	UNDERGROUND POWER
— OHP —	OVERHEAD POWER
— FO —	FIBRE OPTIC CABLE
⌵	CURB STOP
⌵	FIRE HYDRANT
⌵	WATER VALVE
⊗	SANITARY SEWER MANHOLE
⊗	STORM SEWER MANHOLE
■	CATCH BASIN
⌚	POWER POLE
☆	LIGHT POLE
⬢	POWER BOX
▲ BM11	SURVEY CONTROL POINT

EXISTING FEATURES - REMOVE OR ABANDON

— W —	WATER MAIN
— S —	SANITARY SEWER LINE
— SS —	STORM SEWER LINE
⌵	FIRE HYDRANT - REMOVAL
⌵	WATER VALVE - REMOVAL
⊗	SANITARY SEWER MANHOLE - REMOVAL
⊗	STORM SEWER MANHOLE - REMOVAL
■	ASPHALT REMOVAL EXTENTS
■	SIDEWALK REMOVAL EXTENTS

LEGEND - NEW UTILITIES

PLAN

— W —	WATER MAIN
⌵	WATER VALVE
⌵	FIRE HYDRANT
⌵	PLUG
⌵	TEE
⌵	CROSS
⌵	90° ELBOW
⌵	45° ELBOW
⌵	REDUCER
⌵ S.P.	STOP DRAIN & STAND PIPE

PROFILE

■	WATER MAIN
■	SANITARY SEWER
■	STORM SEWER

— S —	SANITARY SEWER
⊗	SANITARY MANHOLE
⌵	PLUG

— S —	STORM SEWER
⊗	STORM MANHOLE
⊗	CATCH BASIN MANHOLE
⌵	SINGLE CATCH BASIN
⌵	DOUBLE CATCH BASIN
⌵	PLUG


🇨🇦	PARKS CANADA HOUSE
▲ BM11	SURVEY CONTROL POINT

LEGEND - SURFACE IMPROVEMENTS

PLAN

— GAS —	SURVEYED GAS LINE LOCATION
— FO —	SURVEYED FIBRE OPTIC CABLE LOCATION
— — —	EDGE OF PAVEMENT
=====	COMBINED SIDEWALK CURB AND GUTTER
— o — o —	WOOD POST AND RAIL FENCE
⌵	WHEELCHAIR RAMP
	ZEBRA CROSSING

🇨🇦	PARKS CANADA HOUSE
▲ BM11	SURVEY CONTROL POINT



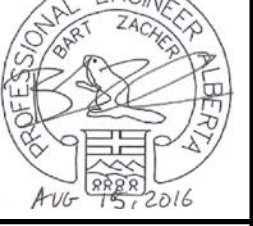

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Canada

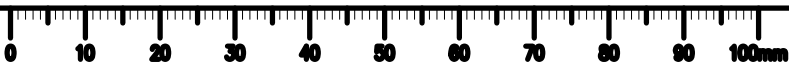
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REAL PROPERTY SERVICES
Western Region
SERVICES IMMOBILIERS
Région de l'ouest

PRELIMINARY
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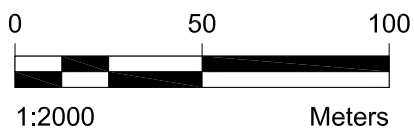
Consultant's Name Nom de l'expert-conseil		Eng. Stamp Sceau de l'ingénieur
PERMIT TO PRACTICE AMEC FOSTER WHEELER ENVIRONNEMENT / INFRASTRUCTURE		
Signature Date		
PERMIT NUMBER: P04546 The Association of Professional Engineers and Geoscientists of Alberta		
D	ISSUED FOR TENDER	16/06/15
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B	ISSUED FOR 90% REVIEW	16/07/20
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<div><div><div>Parks Canada Agency</div></div><div><div>L'Agence Parcs Canada</div><div>Western and Northern Region</div></div></div>		
<div>Canada</div>		
Project title/Titre du projet		
WATERTON TOWNSITE MUNICIPAL INFRASTRUCTURE UPGRADES		
PHASE C WATERTON LAKES NATIONAL PARK ALBERTA		
Approved by/Approuvé par		
Designed by/Concept par B. ZACKER		
Drawn by/Dessiné par R. SCHULTZ		
PWGSC Project Manager/Administrateur de Projets TPSGC M. BURKE		
PWGSC, Architectural and Engineering Resources Manager/ Ressources Architectural et de Directeur d'ingénierie, TPSGC		
Client/client J. LAMBE		
Drawing title/Titre du dessin		
LIST OF PROJECT DRAWINGS LEGENDS		
Project No./No. du projet	Sheet/ Feuille	Revision no./ La Révision no.
R.075721.001	C2 OF 40	D



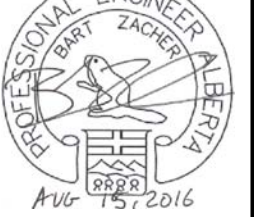
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LEGEND


 CP486 SURVEY CONTROL POINT



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Consultant's Name Nom de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur
PERMIT TO PRACTICE AMEC FOSTER WHEELER ENVIRONMENTAL / ENVIRONNEMENTAL	
Signature <i>B. ZACKER</i>	
Date May 15, 2016	
PERMIT NUMBER: P04546 The Association of Professional Engineers and Geoscientists of Alberta	

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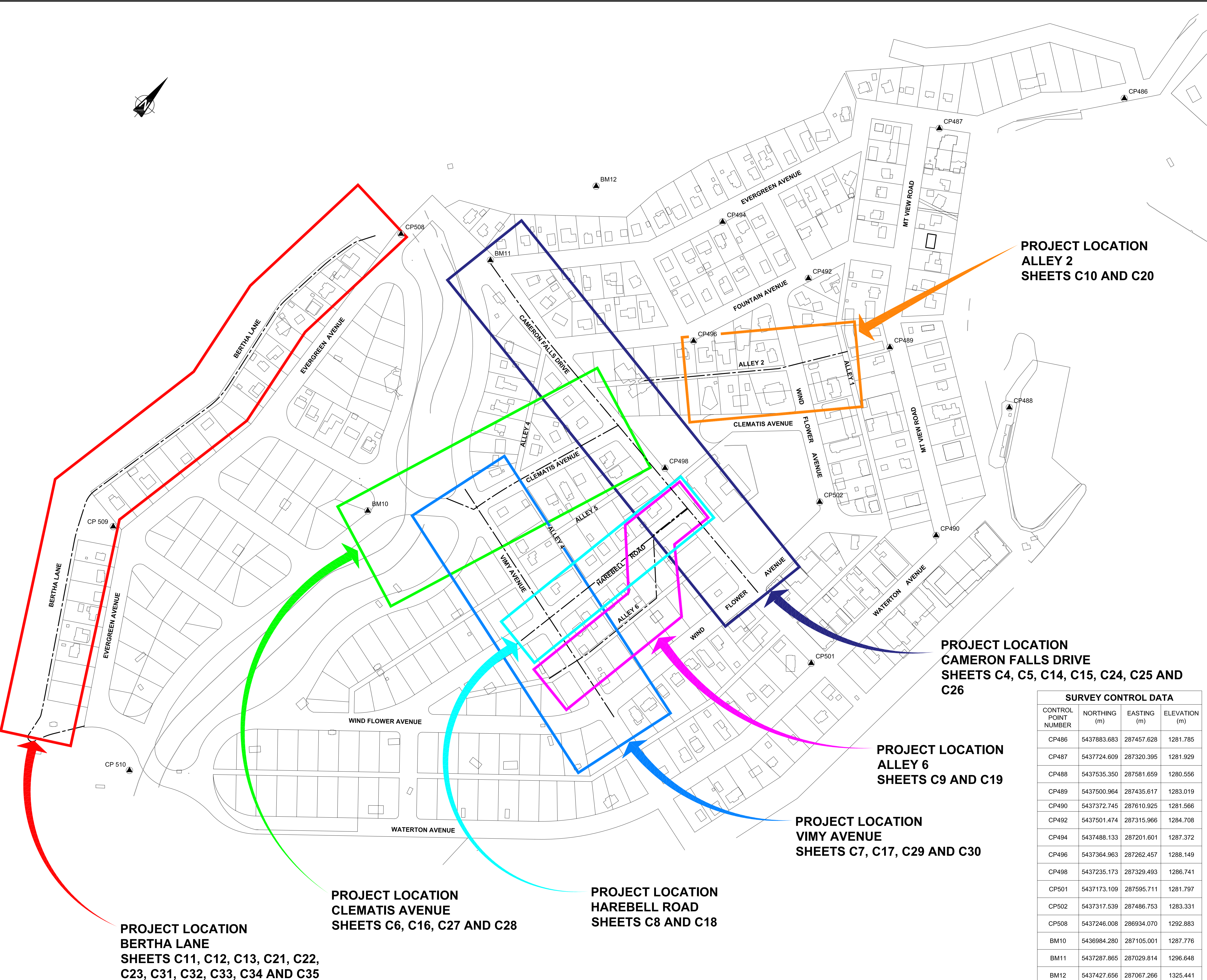
Client/client
 Parks Canada Agency L'Agence Parcs Canada
Western and Northern Region Ouest et Nord du Canada

Canada

Project title/Titre du projet
**WATERTON TOWNSITE
MUNICIPAL INFRASTRUCTURE
UPGRADES**
PHASE C
**WATERTON LAKES NATIONAL PARK
ALBERTA**

Approved by/Approuvé par
Designed by/Concept par B. ZACKER
Drawn by/Dessiné par R. SCHULTZ
PWGSC Project Manager/Administrateur de Projets TPSGC M. BURKE
PWGSC, Architectural and Engineering Resources Manager/ Ressources Architectural et de Directeur d'ingénierie, TPSGC
Client/client J. LAMBE
Drawing title/Titre du dessin PROJECT SITE PLAN SURVEY CONTROL DATA

Project projet	No./No. du	Sheet/ Feuille	Revision no./ La Révision no.
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**PROJECT LOCATION
BERTHA LANE
SHEETS C11, C12, C13, C21, C22,
C23, C31, C32, C33, C34 AND C35**

**PROJECT LOCATION
CLEMATIS AVENUE
SHEETS C6, C16, C27 AND C28**

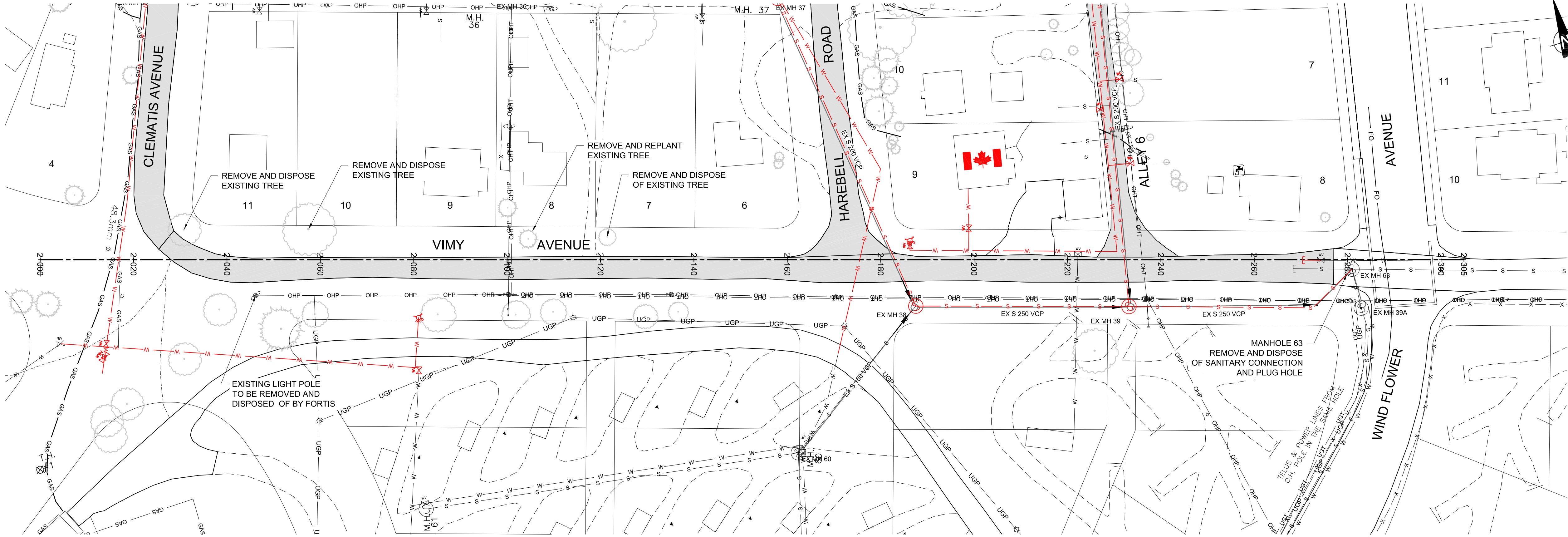
**PROJECT LOCATION
HAREBELL ROAD
SHEETS C8 AND C18**

**PROJECT LOCATION
VIMY AVENUE
SHEETS C7, C17, C29 AND C30**

**PROJECT LOCATION
ALLEY 6
SHEETS C9 AND C19**

**PROJECT LOCATION
CAMERON FALLS DRIVE
SHEETS C4, C5, C14, C15, C24, C25 AND
C26**

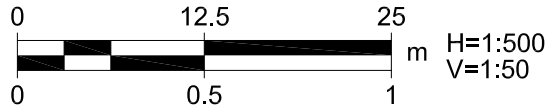
SURVEY CONTROL DATA			
CONTROL POINT NUMBER	NORTHING (m)	EASTING (m)	ELEVATION (m)
CP486	5437883.683	287457.628	1281.785
CP487	5437724.609	287320.395	1281.929
CP488	5437535.350	287581.659	1280.556
CP489	5437500.964	287435.617	1283.019
CP490	5437372.745	287610.925	1281.566
CP492	5437501.474	287315.966	1284.708
CP494	5437488.133	287201.601	1287.372
CP496	5437364.963	287262.457	1288.149
CP498	5437235.173	287329.493	1286.741
CP501	5437173.109	287595.711	1281.797
CP502	5437317.539	287486.753	1283.331
CP508	5437246.008	286934.070	1292.883
BM10	5436984.280	287105.001	1287.776
BM11	5437287.865	287029.814	1296.648
BM12	5437427.656	287067.266	1325.441



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NOTES

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- THE EXISTING WATER MAIN APPURTENANCES (VALVES AND FIRE HYDRANTS) SHALL BE DEMOLISHED AND BECOME THE PROPERTY OF THE CONTRACTOR.
- THE SANITARY SEWER MANHOLES SHALL BE DEMOLISHED, COMPLETELY REMOVED AND WILL BECOME THE PROPERTY OF THE CONTRACTOR.
- REMOVE AND DISPOSE OF EXISTING MAINS ENCOUNTERED DURING INSTALLATION OF NEW UTILITIES.
- REMOVE AND DISPOSE OF ALL EXISTING CURB STOPS UNLESS OTHERWISE SPECIFIED.



amec foster wheeler

Consultant's Name Nom de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur
PERMIT TO PRACTICE AMC FORSTER WHEELER ENVIRONNEMENT / INFRASTRUCTURE	
Signature Date	
PERMIT NUMBER: P04546 The Association of Professional Engineers and Geoscientists of Alberta	

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Client/client

Parks Canada Agency

L'Agence Parcs Canada

Western and Northern Region

Ouest et Nord du Canada

Canada

Project title/Titre du projet

WATERTON TOWNSITE MUNICIPAL INFRASTRUCTURE UPGRADES

PHASE C

WATERTON LAKES NATIONAL PARK
ALBERTA

Approved by/Approuvé par

Designed by/Concept par
B.ZACHER

Drawn by/Dessiné par
R. SCHULTZ

PWGSC Project Manager/Administrateur de Projets TPSGC
M. BURKE

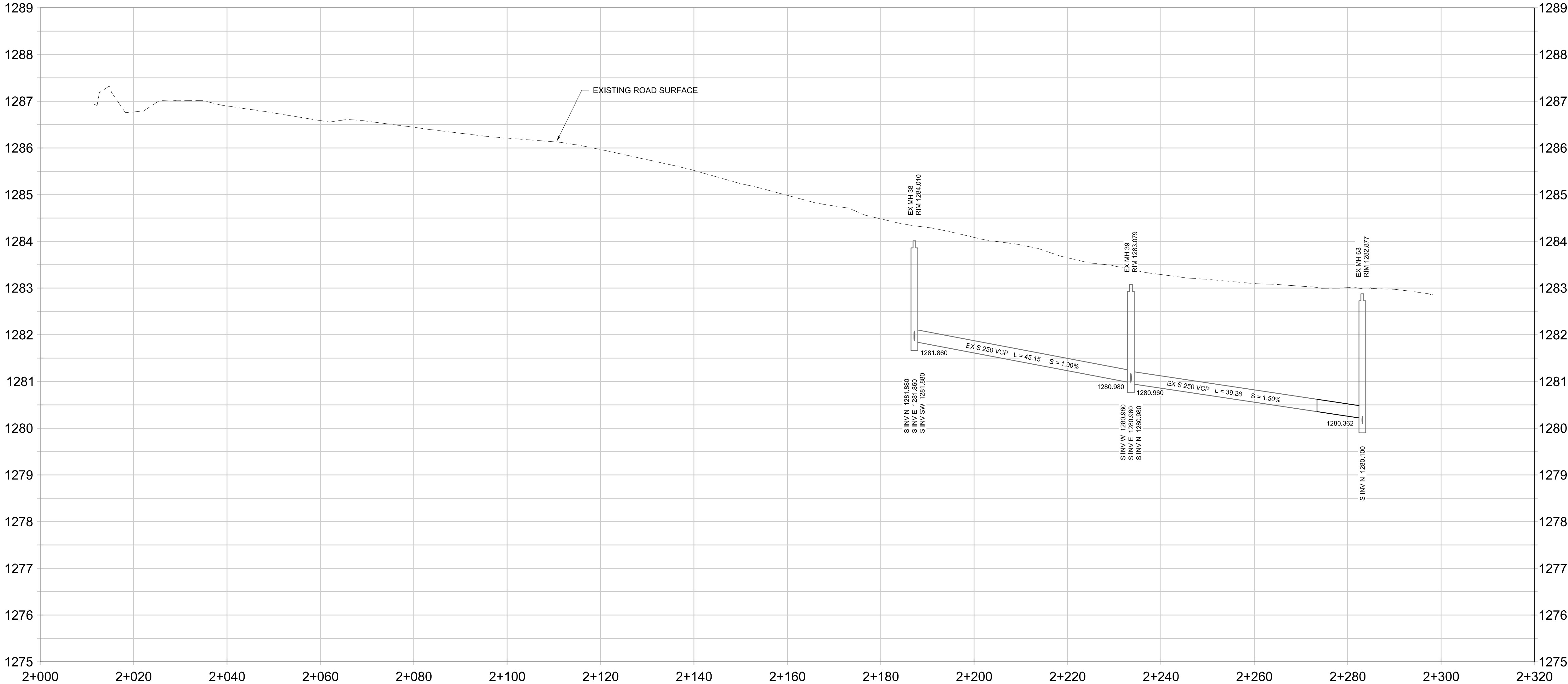
PWGSC, Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'ingénierie, TPSGC

Client/client
J. LAMBE

Drawing title/Titre du dessin

REMOVALS AND ADJUSTMENTS VIMY AVENUE PLAN AND PROFILE STA 2+000 TO STA 2+305

Project No./No. du projet	Sheet/Fauille	Revision no./ La Révision no.
R.075721.001	C7 OF 40	D

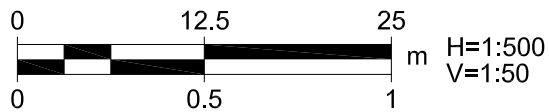




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amec foster wheeler

Consultant's Name Nom de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur
PERMIT TO PRACTICE AMEC FOSTER WHEELER ENVIRONMENTAL ENGINEERING Signature: <i>[Signature]</i> Date: <i>Apr 15/16</i> PERMIT NUMBER: P04546 The Association of Professional Engineers and Geoscientists of Alberta	

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**WATERTON TOWNSITE
MUNICIPAL INFRASTRUCTURE
UPGRADES**

PHASE C

**WATERTON LAKES NATIONAL PARK
ALBERTA**

Approved by/Approuvé par
APPROVED BY

Designed by/Concept par
B. ZACHER

Drawn by/Dessiné par
DRAWN BY

PWGSC Project Manager/Administrateur de Projets TPSGC
M. BURKE

PWGSC Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'ingénierie, TPSGC
AERM BY

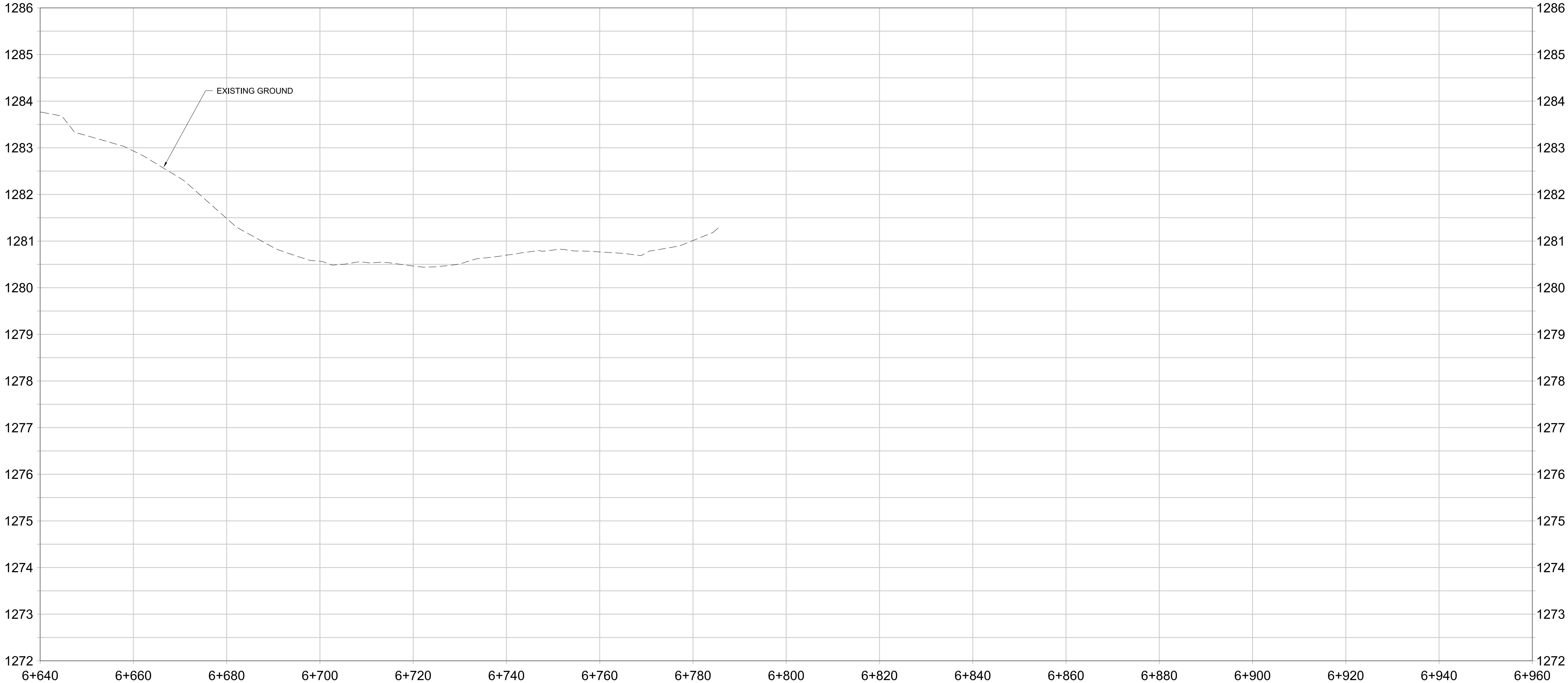
Client/client

J. LAMBE

Drawing title/Titre du dessin

**REMOVALS AND ADJUSTMENTS
BERTHA LANE
PLAN AND PROFILE
STA 6+640 TO STA 6+698**

Project No./No. du projet	Sheet/Fauille	Revision no./ La Révision no.
R.075721.001	C13 OF 40	C





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1. REFER TO DRAWING C2 FOR LINEWORK AND SYMBOLS LEGEND.
2. REFER TO DRAWING C40 FOR NEW UTILITY DATA.
3. ALL HOUSES, BATHROOM WATER AND SANITARY SERVICES REQUIRE RECONNECTION UNLESS OTHERWISE DIRECTED BY THE DEPARTMENTAL REPRESENTATIVE. THIS SHALL INCLUDE A NEW CURB STOP. ALL SERVICES 25mm UNLESS OTHERWISE NOTED.
4. ALL WATER INSTALLATIONS SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 33 11 16.
5. ALL SANITARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 33 31 13.
6. WATERMAIN TIE IN ELEVATIONS MAY HAVE UP TO 1.2m OF ELEVATION DIFFERENCE RELATIVE TO WHAT IS SHOWN ON THE DRAWINGS. CONTRACTOR TO ASSUME VERTICAL BENDS AND MECHANICAL RESTRAINTS WILL BE REQUIRED.



Revision/ Revision	Description/Description	Date/Date
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Approved by/Approuve par	
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Designed by/Concept par
B. ZACHER

Drawn by/Dessiné par
R. SCHULTZ

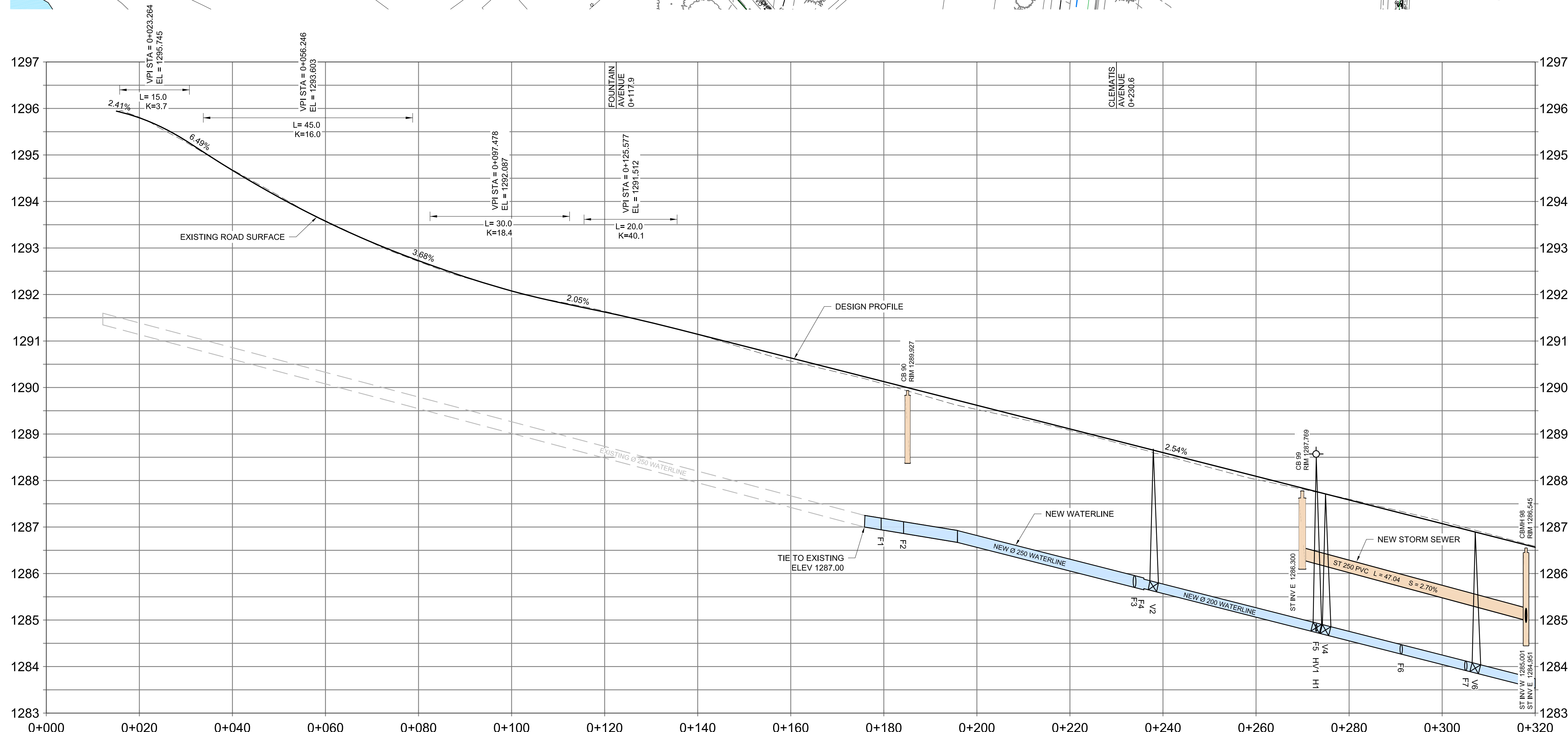
PWGSC Project Manager/Administrateur de Projets TPSGC
M. BURKE

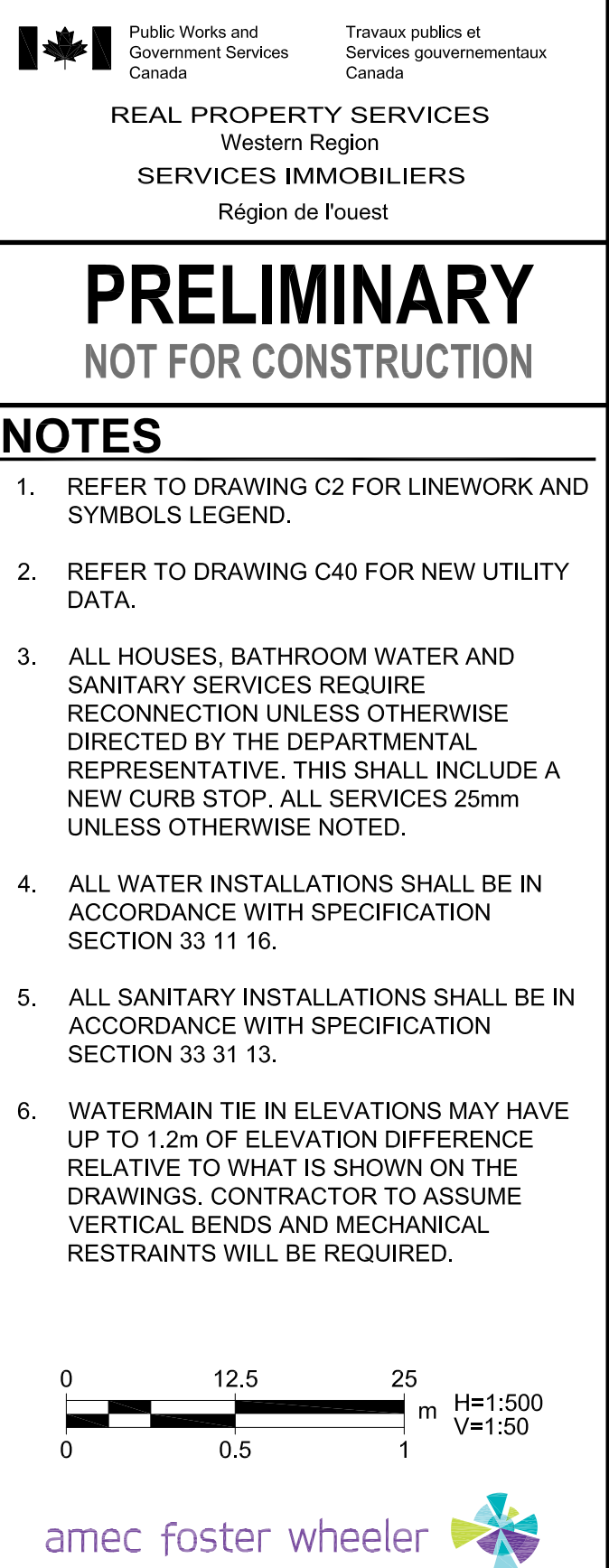
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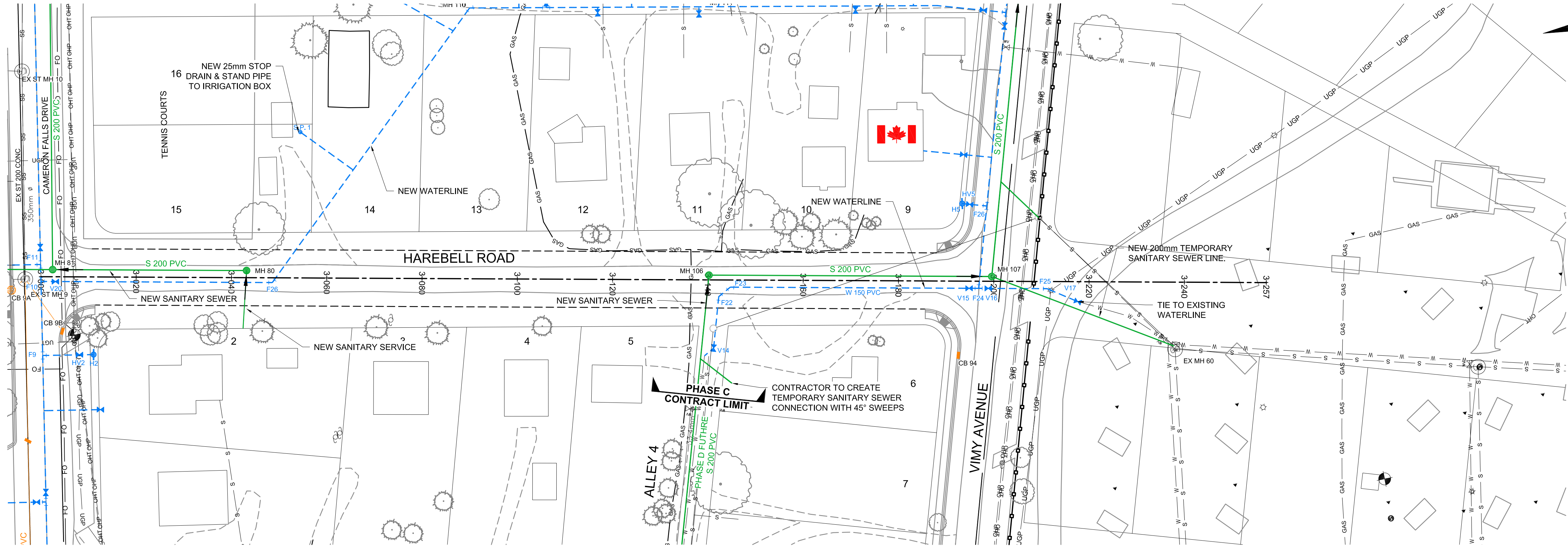
Client/client	LLAMPE
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Drawing title/Titre du dessin

OF 40



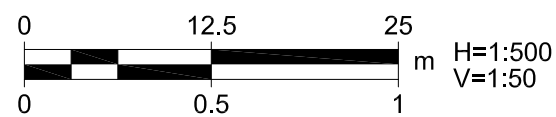




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PERMIT TO PRACTICE AMEC FOSTER WHEELER ENVIRONNEMENT ET INFRASTRUCTURE	PROFESSIONAL ENGINEER B. ZACHER MVP 15172016
Signature Date PERMIT NUMBER: P04546 The Association of Professional Engineers and Geoscientists of Alberta	

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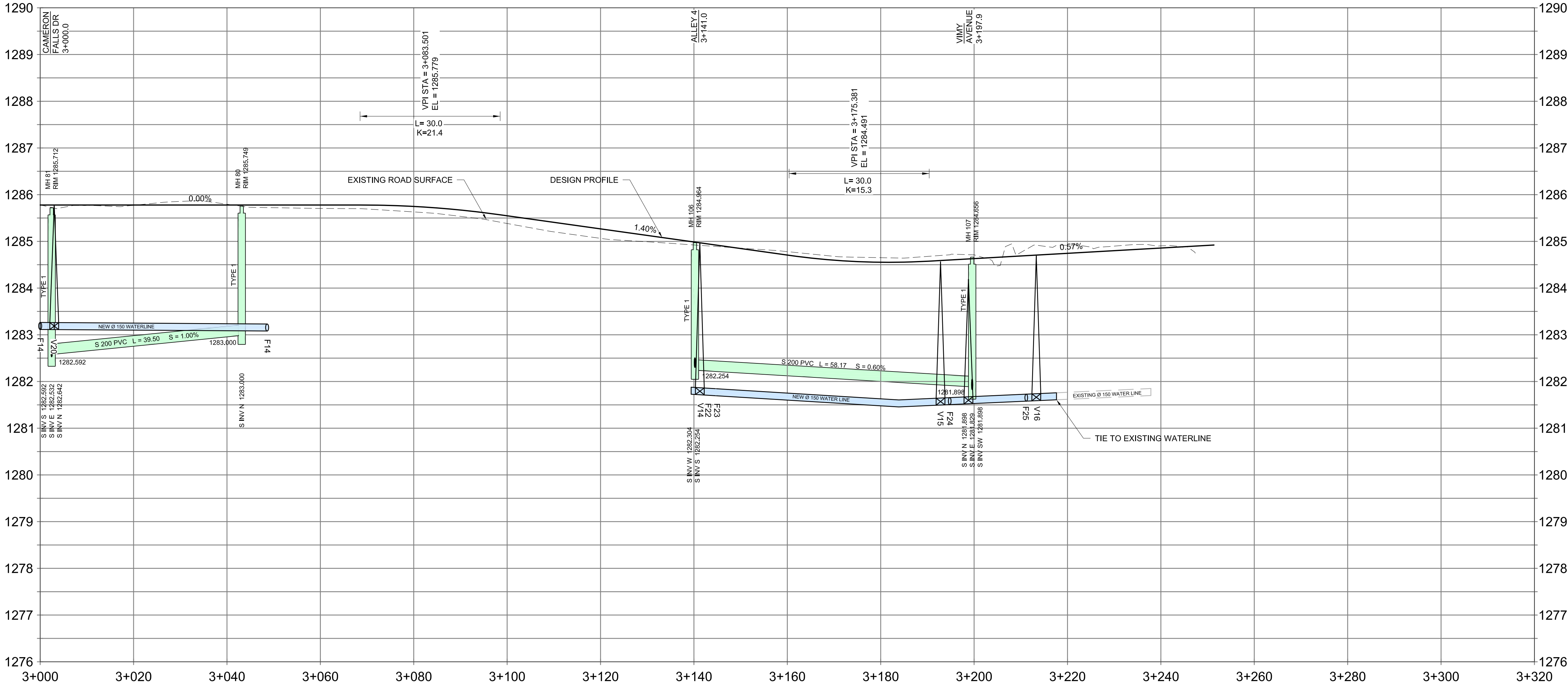
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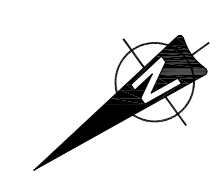
Project title/Titre du projet
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MUNICIPAL INFRASTRUCTURE
UPGRADES**
PHASE C
**WATERTON LAKES NATIONAL PARK
ALBERTA**

Approved by/Approuvé par
Designed by/Concept par B. ZACHER
Drawn by/Dessiné par R. SCHULTZ
PWGSC Project Manager/Administrateur de Projets TPSGC M. BURKE
PWGSC, Architectural and Engineering Resources Manager/ Ressources Architectural et de Directeur d'ingénierie, TPSGC

Client/client J. LAMBE
Drawing title/Titre du dessin NEW UTILITIES HAREBELL ROAD PLAN AND PROFILE STA 3+000 TO STA 3+235

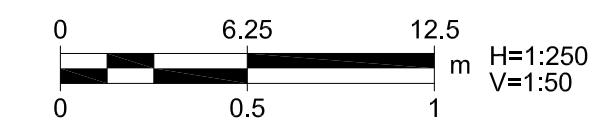
Project No./No. du projet R.075721.001	Sheet/Fauille C18 OF 40	Revision no./ La Révision no. D
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ALBERTA

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PWGSC Project Manager/Administrateur de Projets TPSGC
M. BURKE

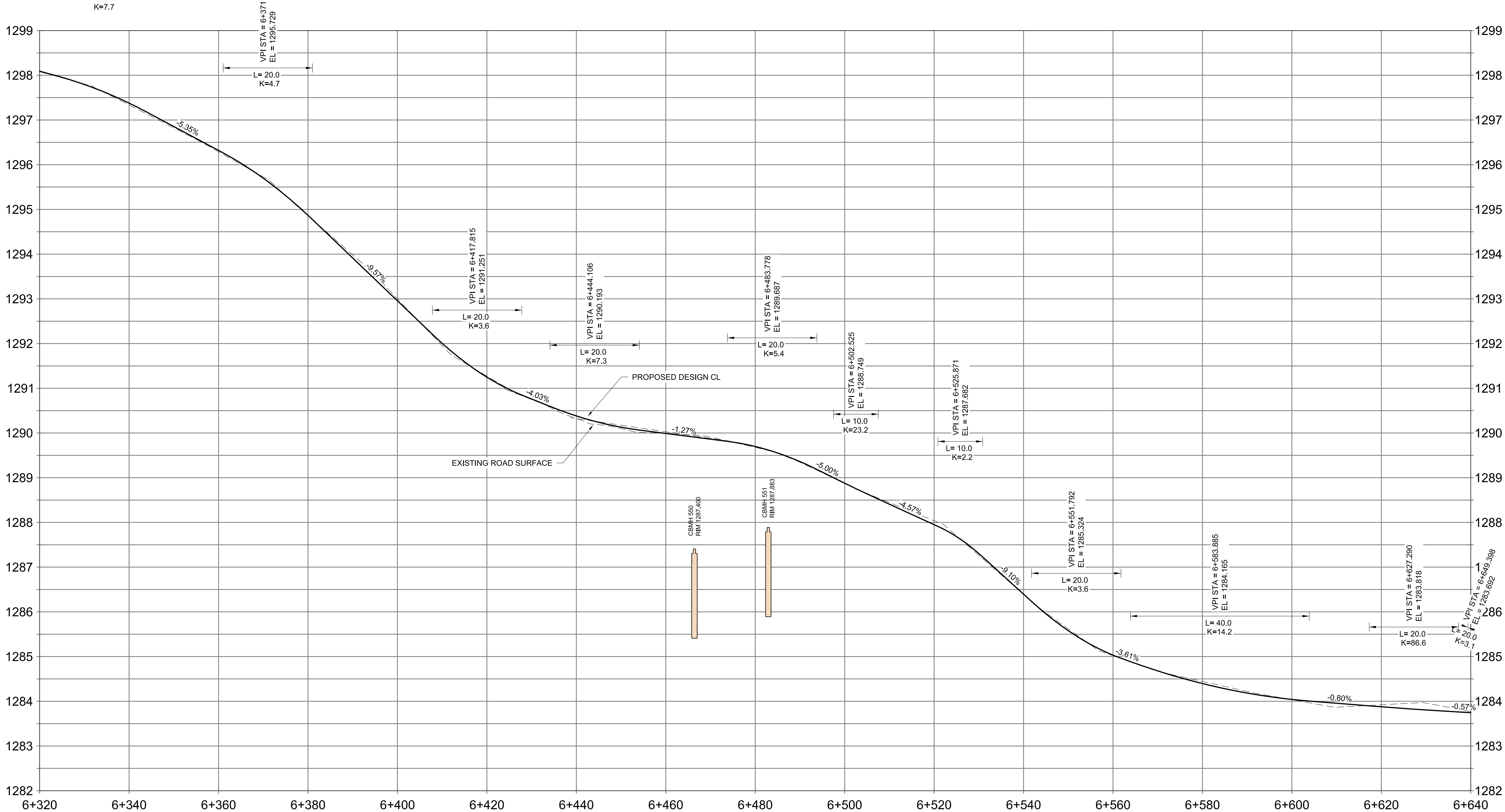
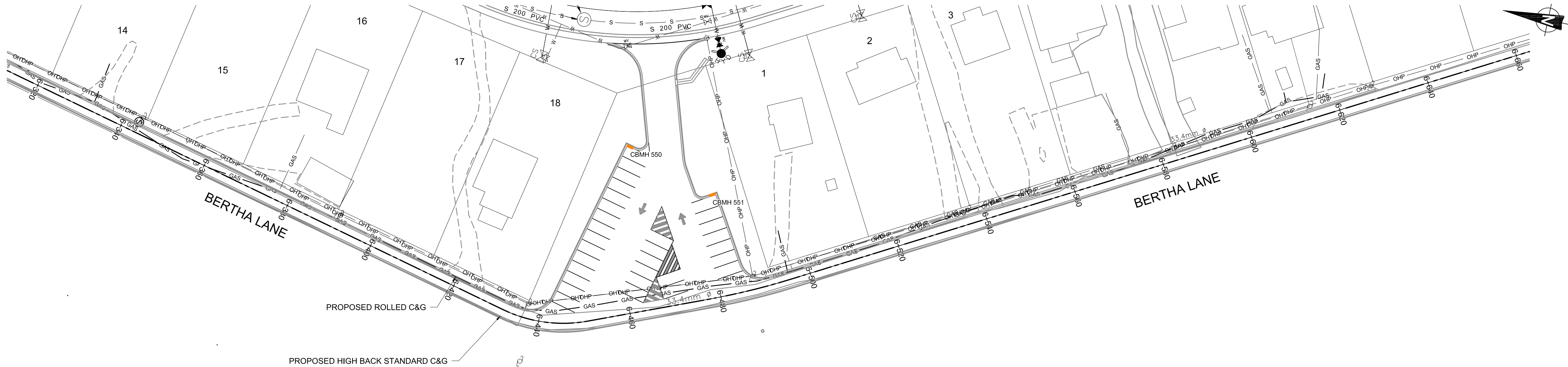
PWGSC, Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'Ingénierie, TPSGC

Client/client	
J. J. AMBE	

Drawing title/Titre du dessin

**NEW UTILITIES
ALLEY 2
PLAN AND PROFILE
STA 5+000 TO STA 5+171**

Project No./No. du projet R.075721.001	Sheet/Feuille C20	Revision no. La Révision no. D
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Public Works and Government Services Canada

Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Western Region
SERVICES IMMOBILIERS
Région de l'ouest

PRELIMINARY

NOT FOR CONSTRUCTION

NOTES

- REFER TO DRAWING C2 FOR LINEWORK AND SYMBOLS LEGEND.
- REFER TO DRAWING C40 FOR NEW UTILITY DATA.
- ALL HOUSES, BATHROOM WATER AND SANITARY SERVICES REQUIRE RECONNECTION UNLESS OTHERWISE DIRECTED BY THE DEPARTMENTAL REPRESENTATIVE. THIS SHALL INCLUDE A NEW CURB STOP. ALL SERVICES 25mm UNLESS OTHERWISE NOTED.
- ALL WATER INSTALLATIONS SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 33 11 16.
- ALL SANITARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 33 31 13.
- WATERMAIN TIE IN ELEVATIONS MAY HAVE UP TO 1.2m OF ELEVATION DIFFERENCE RELATIVE TO WHAT IS SHOWN ON THE DRAWINGS. CONTRACTOR TO ASSUME VERTICAL BENDS AND MECHANICAL RESTRAINTS WILL BE REQUIRED.

H=1:500
V=1:50

Consultant's Name Nom de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur
PERMIT TO PRACTICE AMEC FOSTER WHEELER ENVIRONNEMENT / ENVIRONNEMENT Signature: <i>[Signature]</i> Date: <i>Apr 15/16</i> PERMIT NUMBER: P04546 The Association of Professional Engineers and Geoscientists of Alberta	

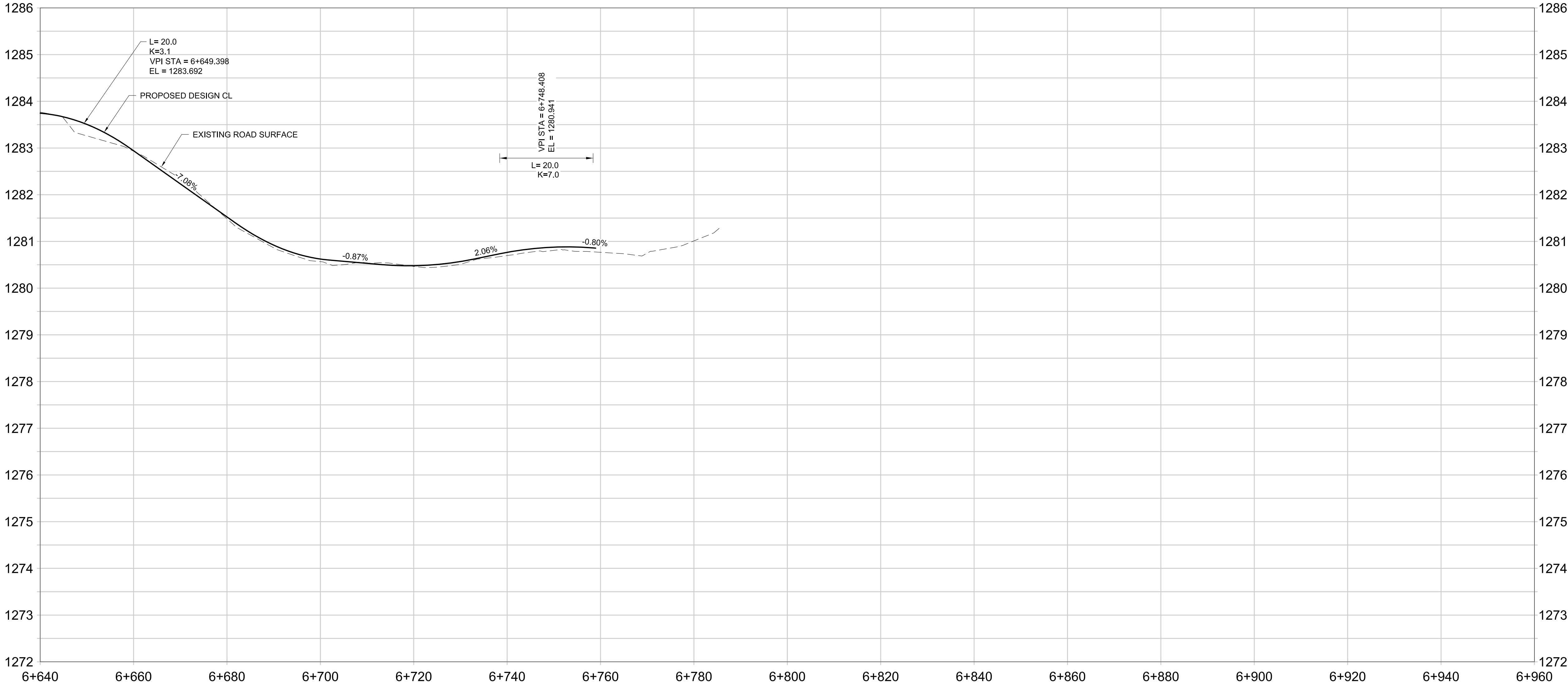
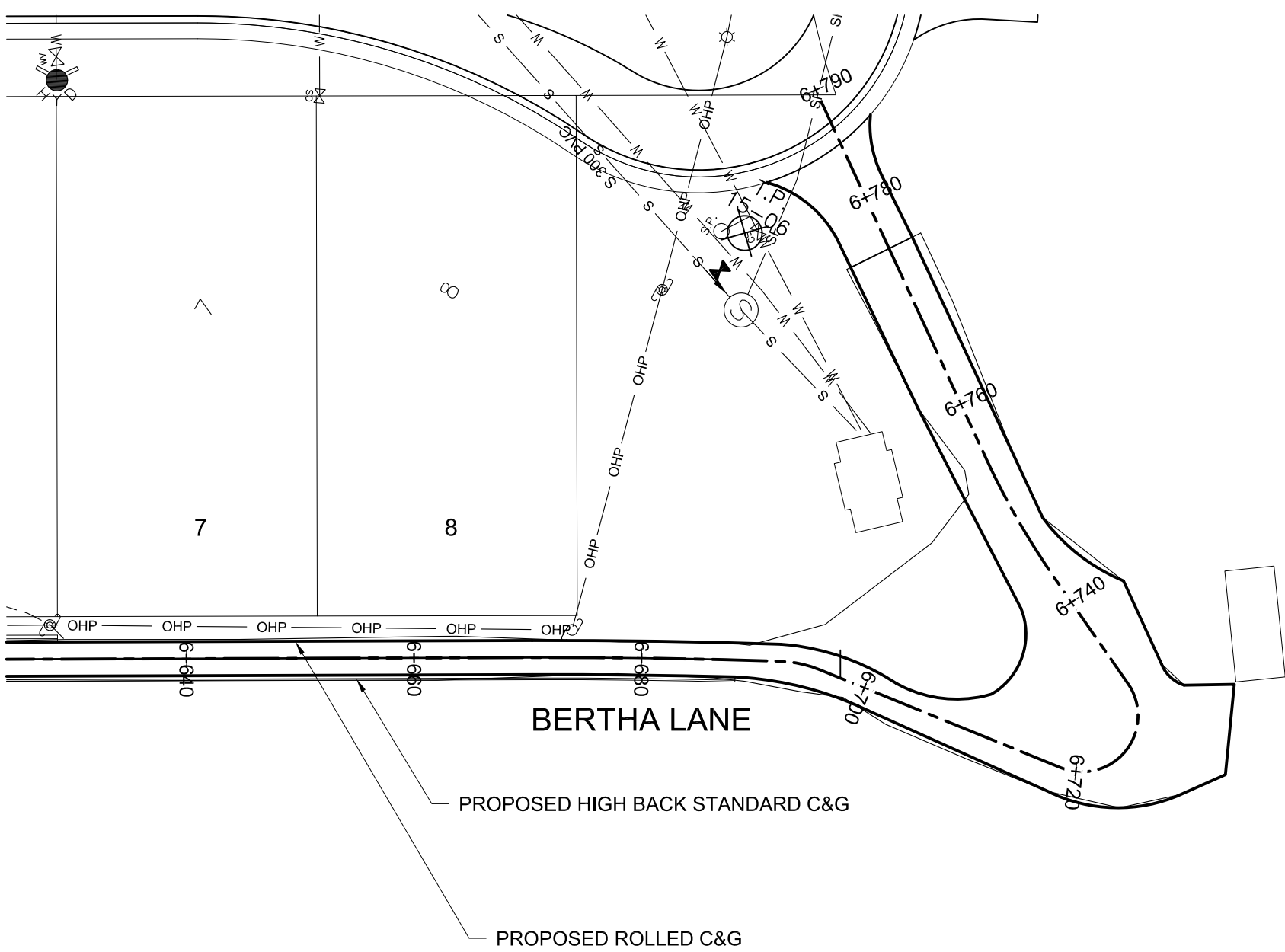
Revision/	Description/Description	Date/Date
D	ISSUED FOR TENDER	16/06/15
C	ISSUED FOR 100% REVIEW	16/09/05
B	ISSUED FOR 90% REVIEW	16/07/20
A	ISSUED FOR 50% REVIEW	16/06/16

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

Project title/Titre du projet
WATERTON TOWNSITE MUNICIPAL INFRASTRUCTURE UPGRADES
PHASE C
WATERTON LAKES NATIONAL PARK ALBERTA

Approved by/Approuvé par
Designed by/Concept par B. ZACHER Drawn by/Dessiné par R. SCHULTZ PWGSC Project Manager/Administrateur de Projets TPSGC M. BURKE PWGSC, Architectural and Engineering Resources Manager/Ressources Architectural et de Directeur d'ingénierie, TPSGC Client/client J. LAMBE Drawing title/Titre du dessin NEW UTILITIES BERTHA LANE PLAN AND PROFILE STA 6+320 TO STA 6+640

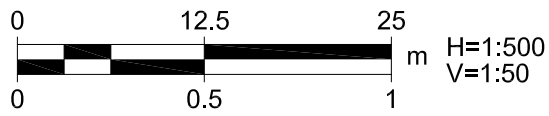
Project No./No. du projet	Sheet/Fauille	Revision no./La Révision no.
R.075721.001	C22 OF 40	D



PRELIMINARY
NOT FOR CONSTRUCTION

NOTES

1. REFER TO DRAWING C2 FOR LINEWORK AND SYMBOLS LEGEND.
2. REFER TO DRAWING C40 FOR NEW UTILITY DATA.
3. ALL HOUSES, BATHROOM WATER AND SANITARY SERVICES REQUIRE RECONNECTION UNLESS OTHERWISE DIRECTED BY THE DEPARTMENTAL REPRESENTATIVE. THIS SHALL INCLUDE A NEW CURB STOP, ALL SERVICES 25mm UNLESS OTHERWISE NOTED.
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5. ALL SANITARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 33 31 13.
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amec foster wheeler

Consultant's Name Nom de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur
PERMIT TO PRACTICE AMEC FOSTER WHEELER ENVIRONNEMENT / INFRASTRUCTURE Signature: <i>[Signature]</i> Date: <i>Apr 15/16</i> PERMIT NUMBER: P04546 The Association of Professional Engineers and Geoscientists of Alberta	

Revision/ Révision	Description/Description	Date/Date
D	ISSUED FOR TENDER	16/06/15
C	ISSUED FOR 100% REVIEW	16/06/05
B	ISSUED FOR 90% REVIEW	16/07/20
A	ISSUED FOR 50% REVIEW	16/06/16

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

Canada

Project title/Titre du projet
**WATERTON TOWNSITE
MUNICIPAL INFRASTRUCTURE
UPGRADES**
PHASE C
WATERTON LAKES NATIONAL PARK
ALBERTA

Approved by/Approuve par

Designed by/Concept par
B. ZACHER

Drawn by/Dessiné par
R. SCHULTZ

PWGSC Project Manager/Administrateur de Projets TPSGC
M. BURKE

PWGSC, Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'ingénierie, TPSGC

Client/client
J. LAMBE

Drawing title/Titre du dessin
**NEW UTILITIES
BERTHA LANE
PLAN AND PROFILE
STA 6+640 TO STA 6+698**

Project No./No. du projet	Sheet/Fauille	Revision no./ La Révision no.
R.075721.001	C23 OF 40	D

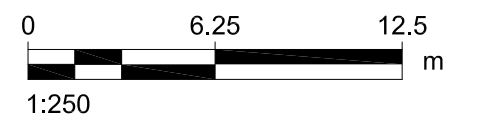


PRELIMINARY NOT FOR CONSTRUCTION

NOTES

- REFER TO DRAWING C2 FOR LINEWORK AND SYMBOLS LEGEND.
- REFER TO DRAWINGS C14 - C23 FOR NEW AND EXISTING ROAD PROFILES.
- FOLLOWING DEEP UTILITY WORK, ALL ROADS TO BE RECONSTRUCTED TO TYPICAL ROADWAY STRUCTURE SHOWN ON DRAWING C39.
- ALL TIE IN LOCATIONS TO BE STEPPED TIE IN AS PER STANDARD DRAWINGS.

(1233.45) EXISTING SURFACE ELEVATION
(1235.32) PROPOSED SURFACE ELEVATION



amec foster wheeler

Consultant's Name Nom de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur
PERMIT TO PRACTICE AMEC FOSTER WHEELER ENVIRONMENTAL ENGINEERING Signature: <i>[Signature]</i> Date: <i>15/11/16</i> PERMIT NUMBER: P04546 The Association of Professional Engineers and Geoscientists of Alberta	

C	ISSUED FOR TENDER	16/09/15
B	ISSUED FOR 100% REVIEW	16/09/05
A	ISSUED FOR 90% REVIEW	16/07/20

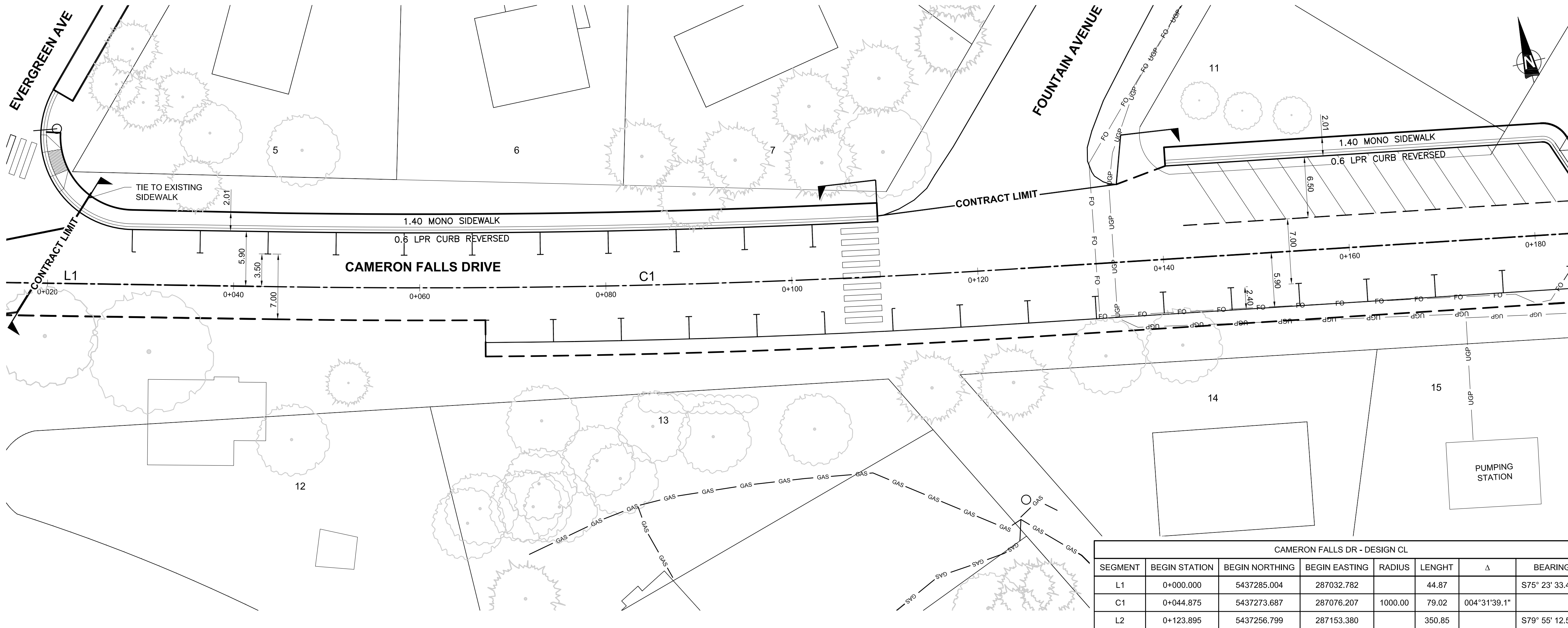
Revision/ Révision	Description/Description	Date/Date
Client/client		
Parks Canada Agency	L'Agence Parcs Canada	
Western and Northern Region	Ouest et Nord du Canada	

Canada

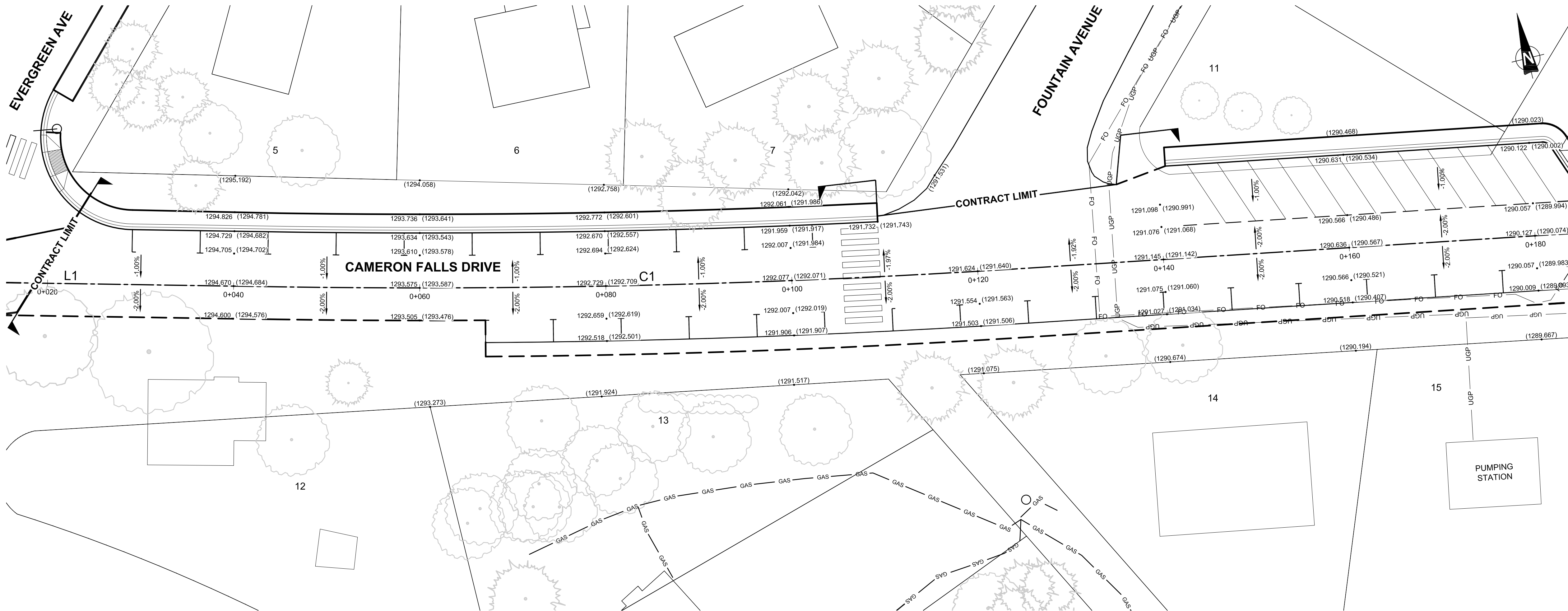
Project title/Titre du projet
**WATERTON TOWNSITE
MUNICIPAL INFRASTRUCTURE
UPGRADES**
PHASE C
**WATERTON LAKES NATIONAL PARK
ALBERTA**

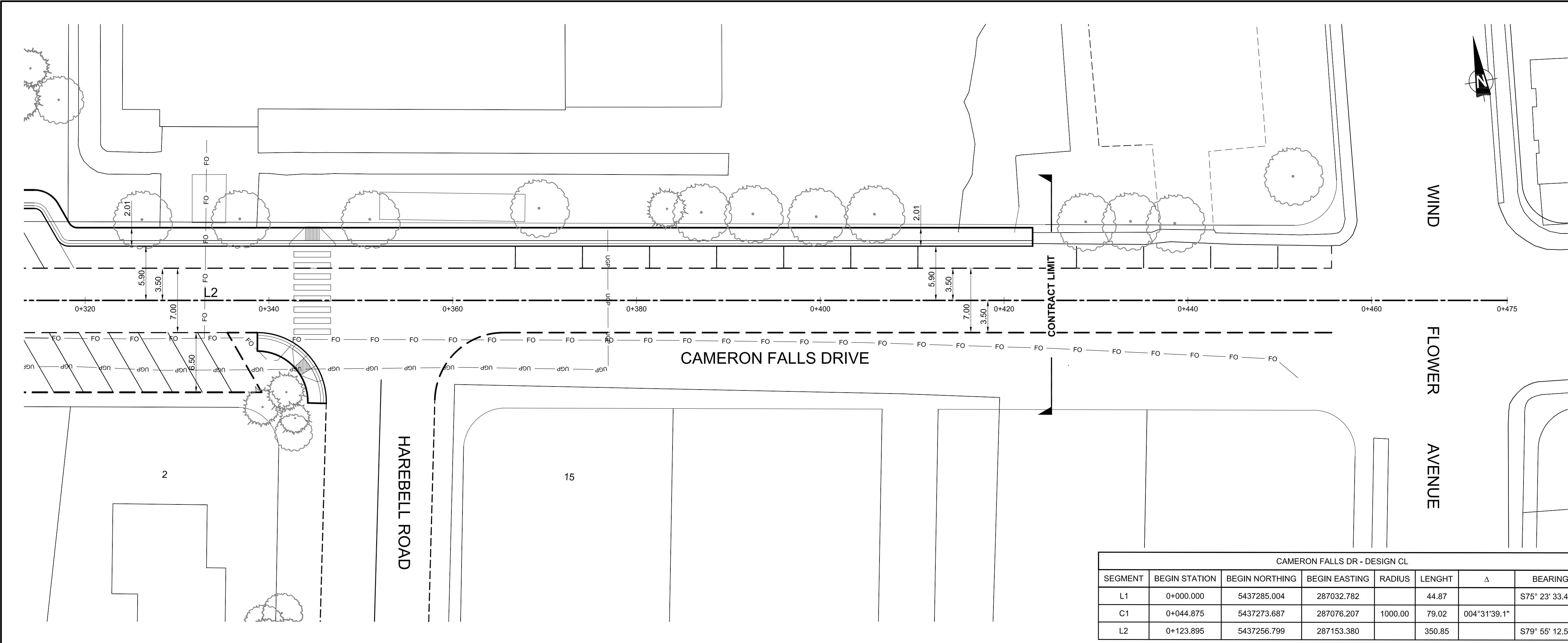
Approved by/Approuvé par
APPROVED BY
Designed by/Concept par
B. ZACHER
Drawn by/Dessiné par
DRAWN BY
PWGSC Project Manager/Administrateur de Projets TPWGC
M. BURKE
PWGSC Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'ingénierie, TPWGC
AERM BY
Client/client
J. LAMBE
Drawing title/Titre du dessin
**SURFACE IMPROVEMENTS
CAMERON FALLS DRIVE
PLANS**
STA 0+000 TO STA 0+160

Project No./No. du projet R.075721.001	Sheet/Fauille C24 OF 40	Revision no./ La Révision no. C
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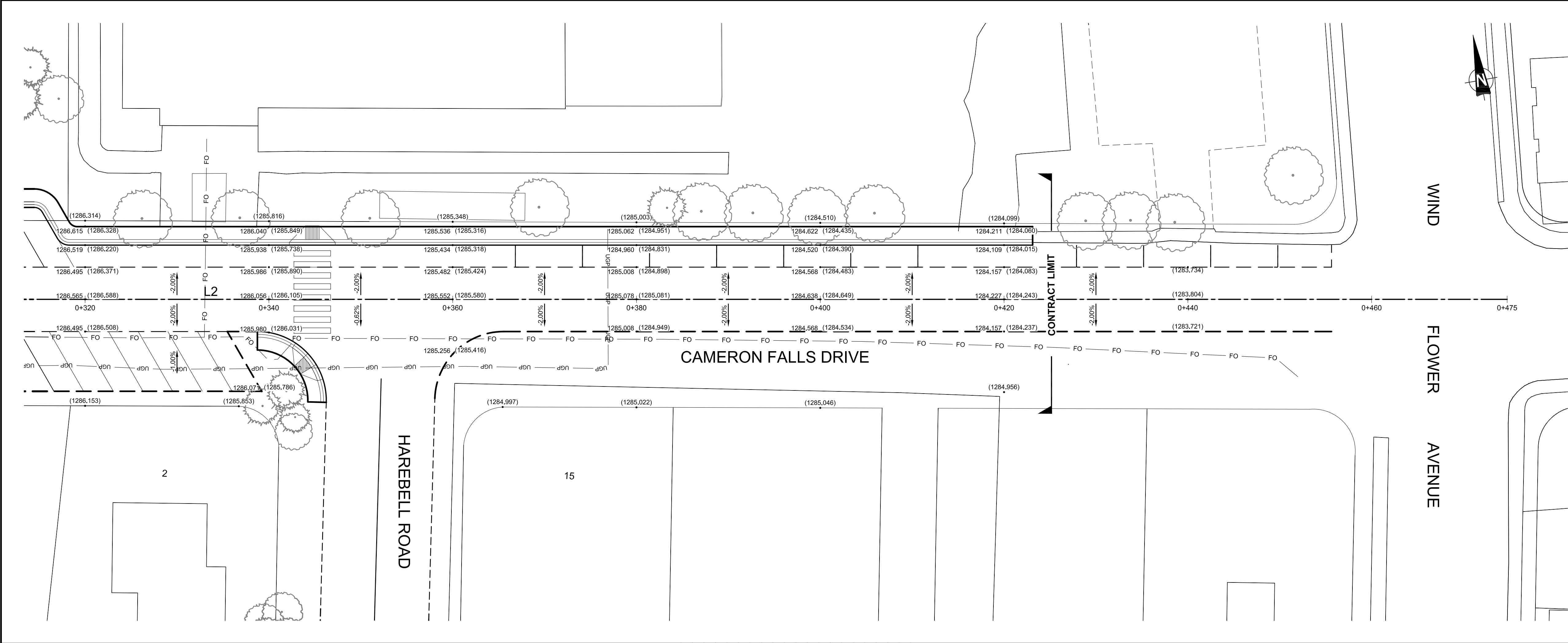



CAMERON FALLS DR - DESIGN CL							
SEGMENT	BEGIN STATION	BEGIN NORTHING	BEGIN EASTING	RADIUS	LENGHT	Δ	BEARING
L1	0+000.000	5437285.004	287032.782		44.87		S75° 23' 33.47"E
C1	0+044.875	5437273.687	287076.207	1000.00	79.02	004°31'39.1"	
L2	0+123.895	5437256.799	287153.380		350.85		S79° 55' 12.53"E





CAMERON FALLS DR - DESIGN CL							
SEGMENT	BEGIN STATION	BEGIN NORTHING	BEGIN EASTING	RADIUS	LENGHT	Δ	BEARING
L1	0+000.000	5437285.004	287032.782		44.87		S75° 23' 33.47"E
C1	0+044.875	5437273.687	287076.207	1000.00	79.02	004°31'39.1"	
L2	0+123.895	5437256.799	287153.380		350.85		S79° 55' 12.53"E





Public Works and
Government Services
Canada

Travaux publics et
Services gouvernementaux
Canada

REAL PROPERTY SERVICES
Western Region
SERVICES IMMOBILIERS
Région de l'ouest

PRELIMINARY
NOT FOR CONSTRUCTION

NOTES

1. REFER TO DRAWING C2 FOR LINEWORK AND SYMBOLS LEGEND.

2. REFER TO DRAWINGS C14 - C23 FOR NEW AND EXISTING ROAD PROFILES.

3. FOLLOWING DEEP UTILITY WORK, ALL ROADS TO BE RECONSTRUCTED TO TYPICAL ROADWAY STRUCTURE SHOWN ON DRAWING C39.

4. ALL TIE IN LOCATIONS TO BE STEPPED TIE IN AS PER STANDARD DRAWINGS.


(1233.45)
1235.32

EXISTING SURFACE ELEVATION
PROPOSED SURFACE ELEVATION

06.2512.5

01:250m


amec foster wheeler




Consultant's Name
Nom de l'expert-conseil

PERMIT TO PRACTICE
AMEC FOSTER WHEELER
ENVIRONNEMENT ET INFRASTRUCTURE
Signature
Date
PERMIT NUMBER: P04546
The Association of Professional
Engineers and Geoscientists of Alberta

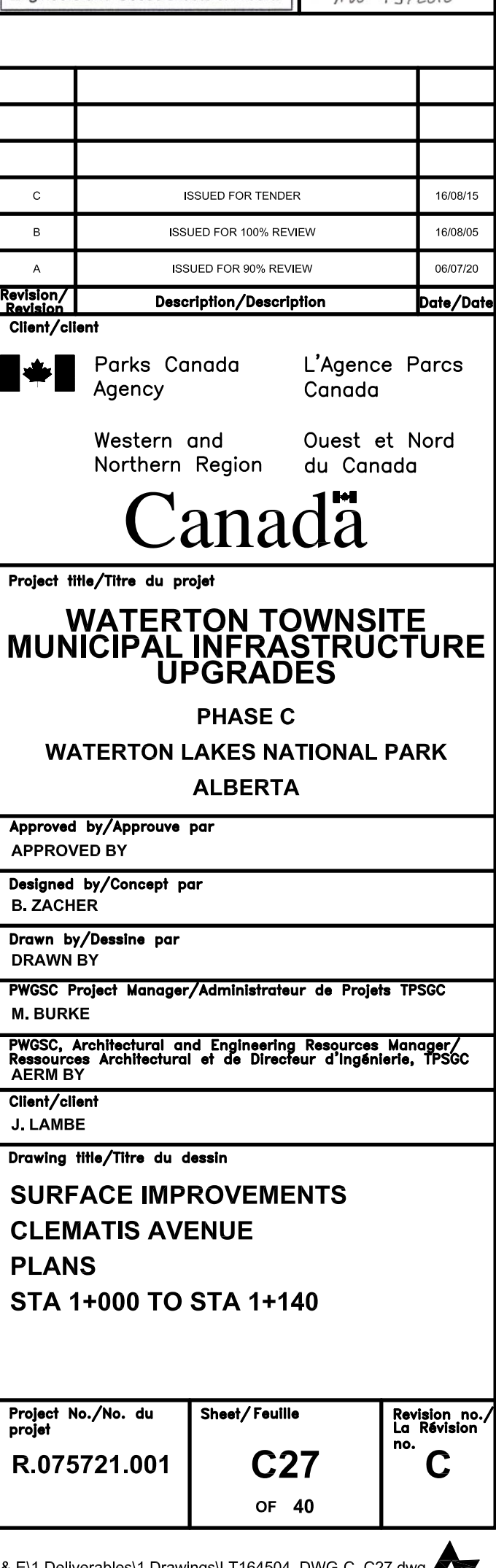
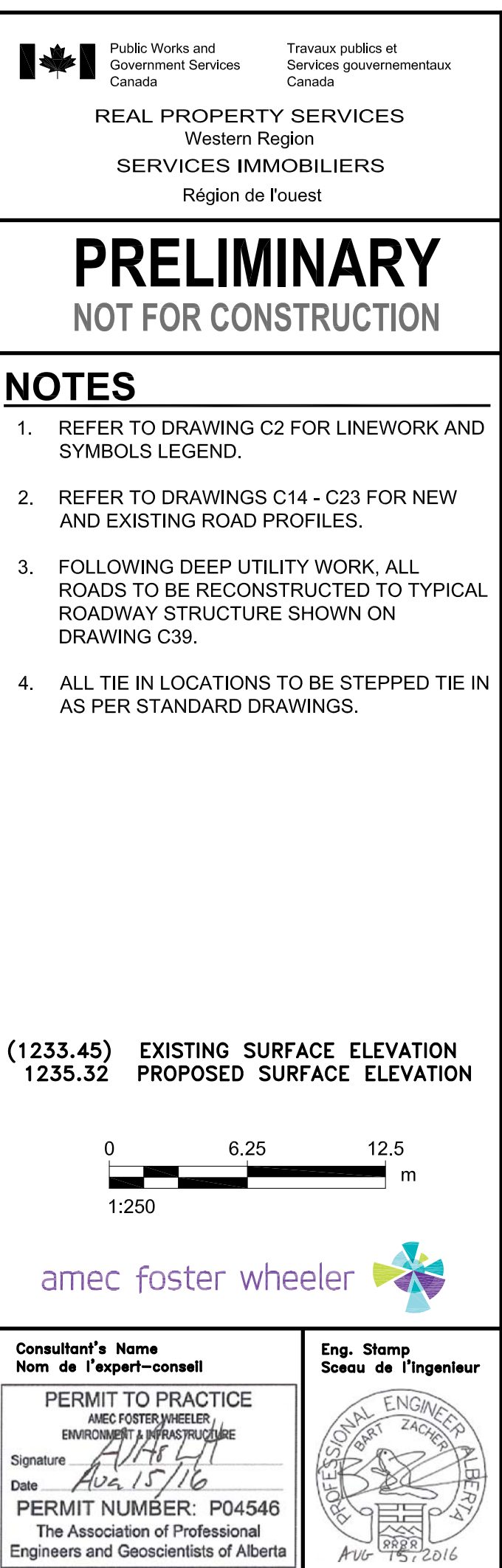
Eng. Stamp
Sceau de l'ingénieur

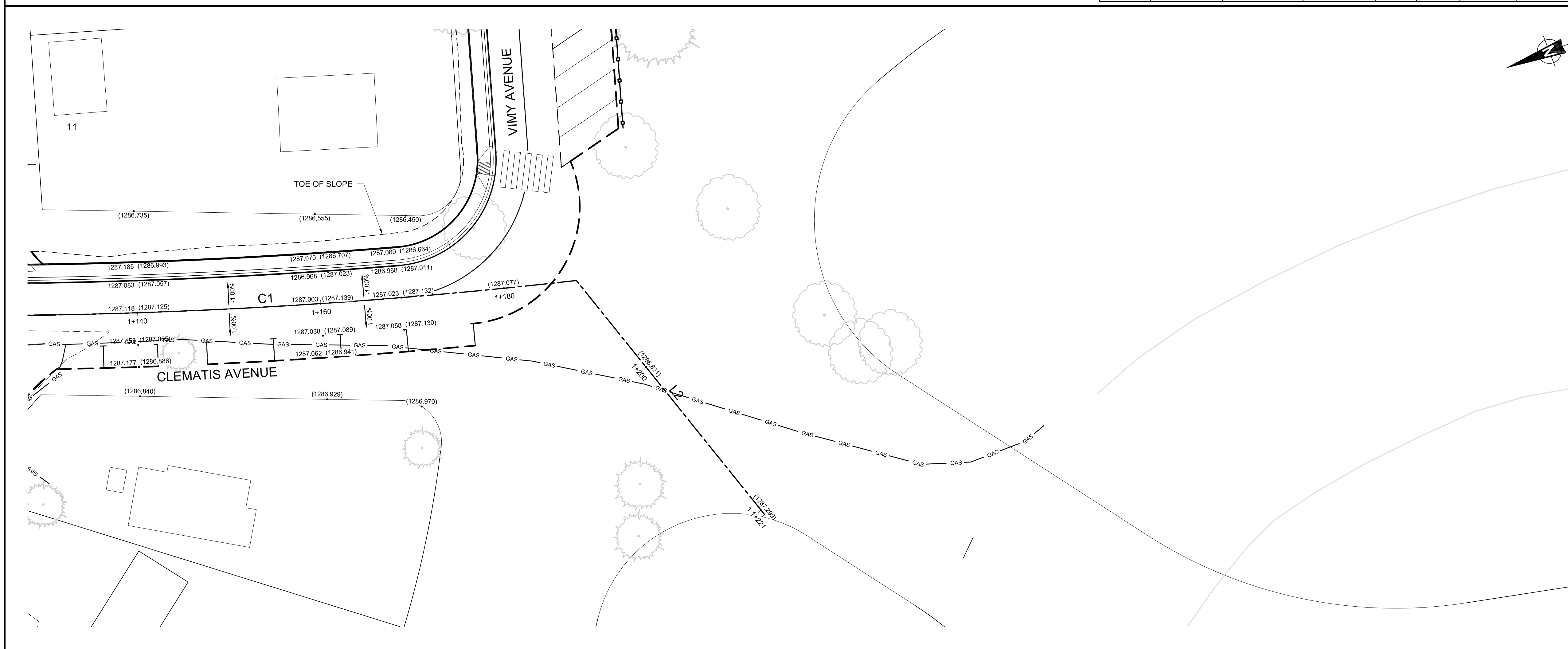
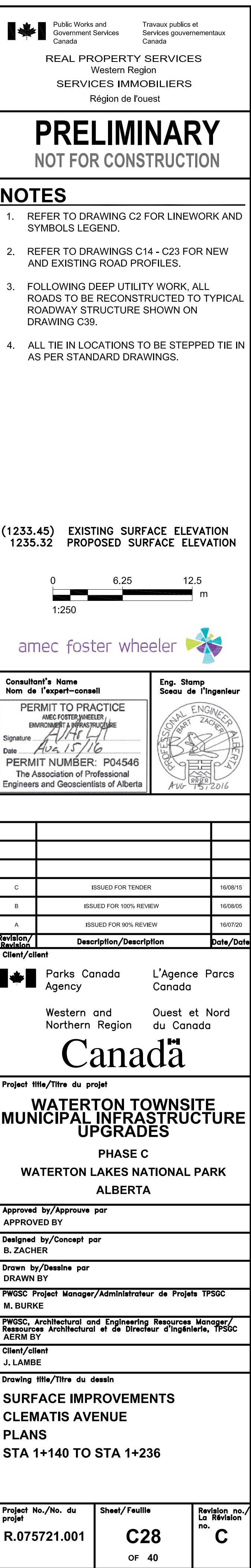


C	ISSUED FOR TENDER	16/09/15
B	ISSUED FOR 100% REVIEW	16/09/05
A	ISSUED FOR 90% REVIEW	16/07/20
Revision/ Révision	Description/Description	Date/Date
Client/client		
	Parks Canada Agence	L'Agence Parcs Canada
	Western and Northern Region	Ouest et Nord du Canada
Canada		
Project title/Titre du projet		
WATERTON TOWNSITE MUNICIPAL INFRASTRUCTURE UPGRADES		
PHASE C		
WATERTON LAKES NATIONAL PARK ALBERTA		
Approved by/Approuvé par APPROVED BY		
Designed by/Concept par B. ZACHER		
Drawn by/Dessiné par DRAWN BY		
PWGSC Project Manager/Administrateur de Projets TPSGC M. BURKE		
PWGSC Architectural and Engineering Resources Manager/ Ressources Architectural et de Directeur d'ingénierie, TPSGC AERM BY		
Client/client J. LAMBE		
Drawing title/Titre du dessin		
SURFACE IMPROVEMENTS CAMERON FALLS DRIVE PLANS STA 0+320 TO STA 0+475		
Project No./No. du projet	Sheet/Fauille	Revision no./ La Révision no.
R.075721.001	C26	C
	OF 40	

PWGSC - A1 - 841x549

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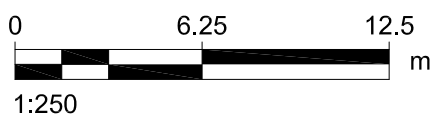


PRELIMINARY
NOT FOR CONSTRUCTION

NOTES

1. REFER TO DRAWING C2 FOR LINEWORK AND SYMBOLS LEGEND.
2. REFER TO DRAWINGS C14 - C23 FOR NEW AND EXISTING ROAD PROFILES.
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4. ALL TIE IN LOCATIONS TO BE STEPPED TIE IN AS PER STANDARD DRAWINGS.


(1233.45)	EXISTING SURFACE ELEVATION
1235.32	PROPOSED SURFACE ELEVATION



amec foster wheeler

Consultant's Name Nom de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur
PERMIT TO PRACTICE AMEC CORPORATE MEMBER ENVIRONMENT & INFRASTRUCTURE	
Signature: <i>AVC/SL</i>	
Date: <i>Aug 15/16</i>	
PERMIT NUMBER: P04546 The Association of Professional Engineers and Geoscientists of Alberta	

C	ISSUED FOR TENDER	16/08/17
B	ISSUED FOR 100% REVIEW	16/08/17
A	ISSUED FOR 90% REVIEW	16/07/17

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

Canada

Project title/Titre du projet

**WATERTON TOWNSITE
MUNICIPAL INFRASTRUCTURE
UPGRADES**

PHASE C

WATERTON LAKES NATIONAL PARK

ALBERTA

Approved by/Approuvé par
APPROVED BY

Designed by/Concept par
B. ZACHER

Drawn by/Dessiné par
DRAWN BY

PWGSC Project Manager/Administrateur de Projets TPSGC
M. BURKE

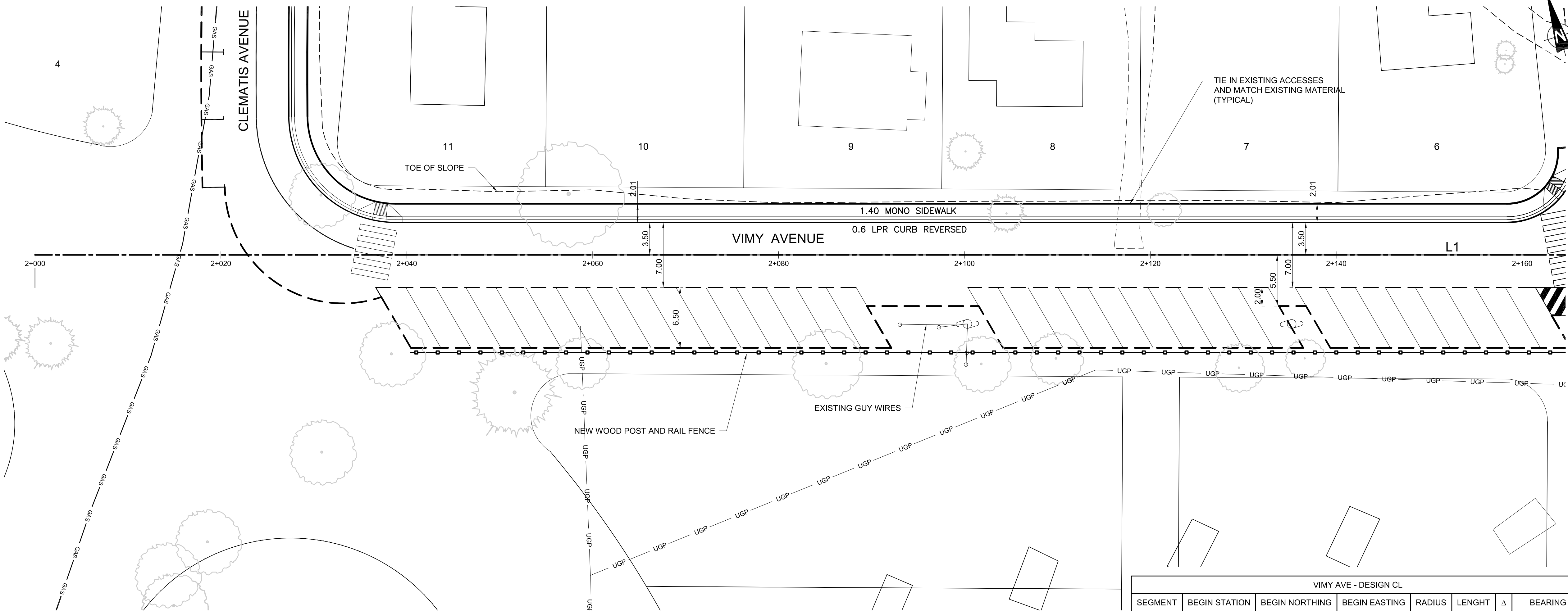
**PWGSC, Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'ingénierie, TPSGC
AERM BY**

Client/client
J. LAMBE

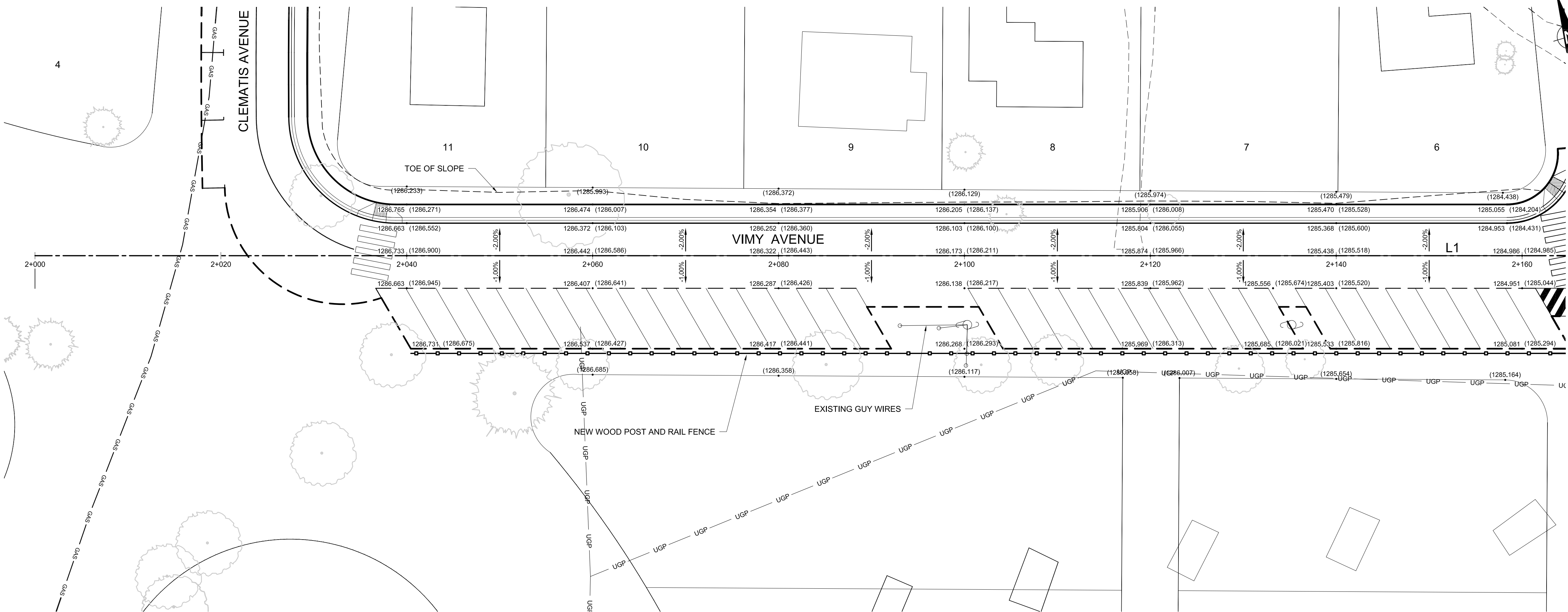
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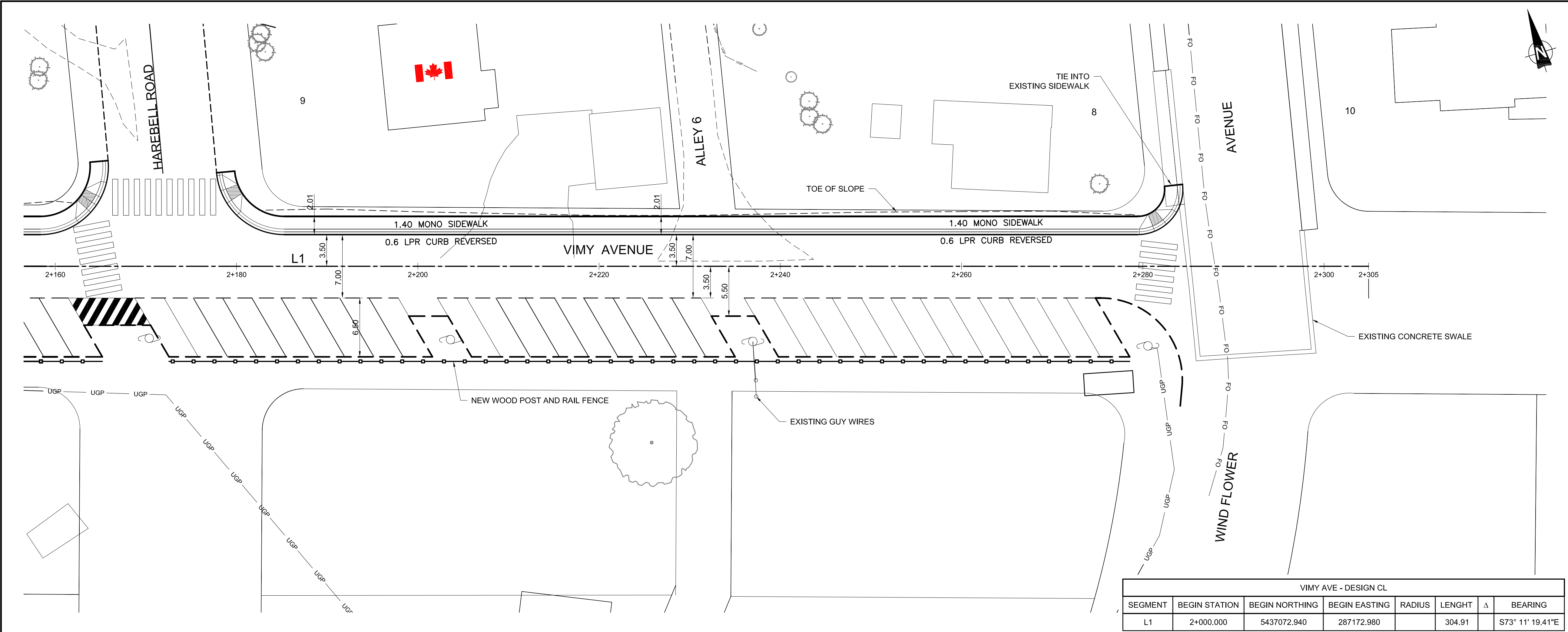
SURFACE IMPROVMENTS
VIMY AVENUE
PLANS
STA 2+000 TO STA 2+160

Project No./No. du projet	Sheet/Feuille	Revision no. La Révision no.
R.075721.001	C29	C




VIMY AVE - DESIGN CL						
SEGMENT	BEGIN STATION	BEGIN NORTHING	BEGIN EASTING	RADIUS	LENGHT	Δ BEARING
L1	2+000.000	5437072.940	287172.980		304.91	S73° 11' 19.41"E





VIMY AVE - DESIGN CL							
SEGMENT	BEGIN STATION	BEGIN NORTHING	BEGIN EASTING	RADIUS	LENGHT	Δ	BEARING
L1	2+000.000	5437072.940	287172.980		304.91		S73° 11' 19.41"E



Public Works and
Government Services
Canada

Travaux publics et
Services gouvernementaux
Canada

REAL PROPERTY SERVICES
Western Region
SERVICES IMMOBILIERS
Région de l'ouest

PRELIMINARY

NOT FOR CONSTRUCTION

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(1233.45) EXISTING SURFACE ELEVATION

(1235.32) PROPOSED SURFACE ELEVATION

06.2512.5

1:250m

amec foster wheeler



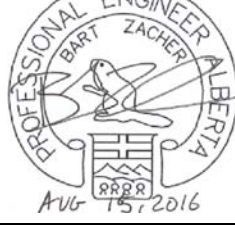
Consultant's Name
Nom de l'expert-conseil

PERMIT TO PRACTICE
AMEC FOSTER WHEELER
ENVIRONNEMENT ET INFRASTRUCTURE

Signature
[Signature]


Date
Apr 15/16

Eng. Stamp
Sceau de l'ingénieur



C	ISSUED FOR TENDER	16/09/15
B	ISSUED FOR 100% REVIEW	16/09/05
A	ISSUED FOR 90% REVIEW	16/07/20
Revision/	Description/Description	Date/Date
Revision		

Client/client



Parks Canada
Agency

L'Agence Parcs
Canada

Western and
Northern Region

Ouest et Nord
du Canada

Canada

Project title/Titre du projet

WATERTON TOWNSITE
MUNICIPAL INFRASTRUCTURE
UPGRADES

PHASE C
WATERTON LAKES NATIONAL PARK
ALBERTA

Approved by/Approuvé par

APPROVED BY

Designed by/Concept par

B. ZACHER

Drawn by/Dessiné par

DRAWN BY

PWGSC Project Manager/Administrateur de Projets TPSGC

M. BURKE

PWGSC Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'ingénierie, TPSGC

AERM BY

Client/client

J. LAMBE

Drawing title/Titre du dessin

SURFACE IMPROVEMENTS
VIMY AVENUE
PLANS
STA 2+160 TO STA 2+305

Project No./No. du
projet

R.075721.001

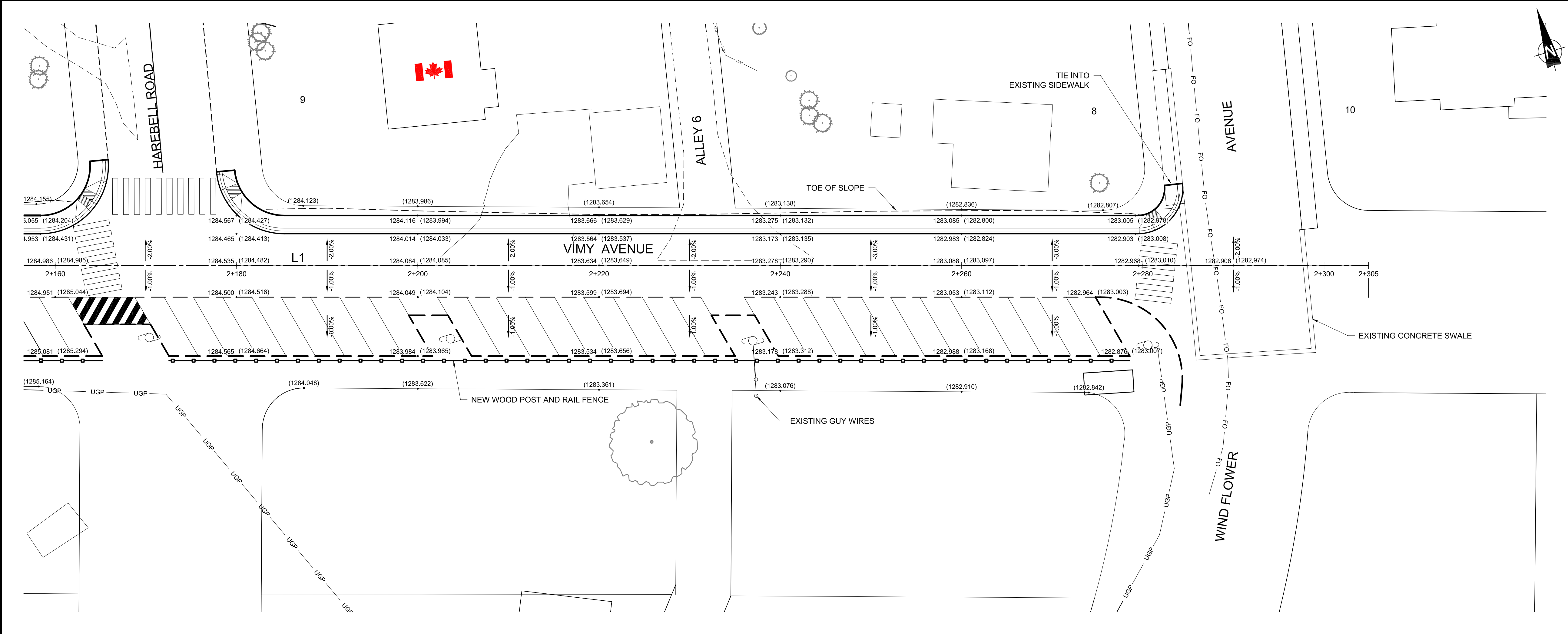
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C30

Revision no./
La Révision
no.

C

OF 40

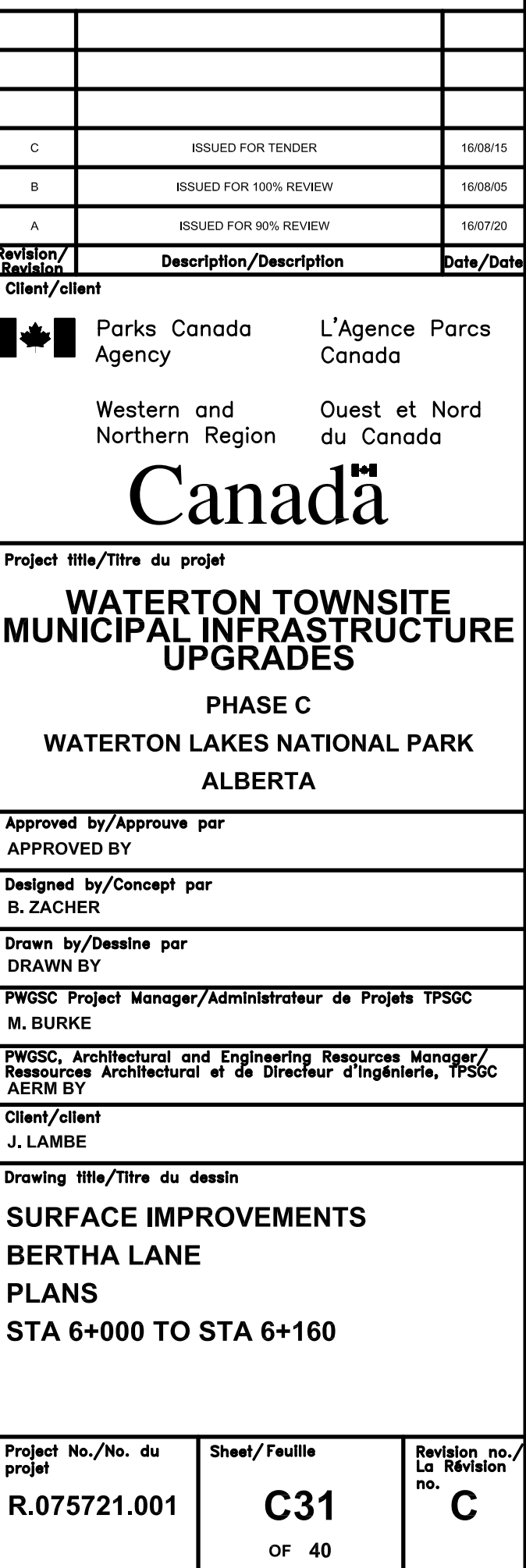


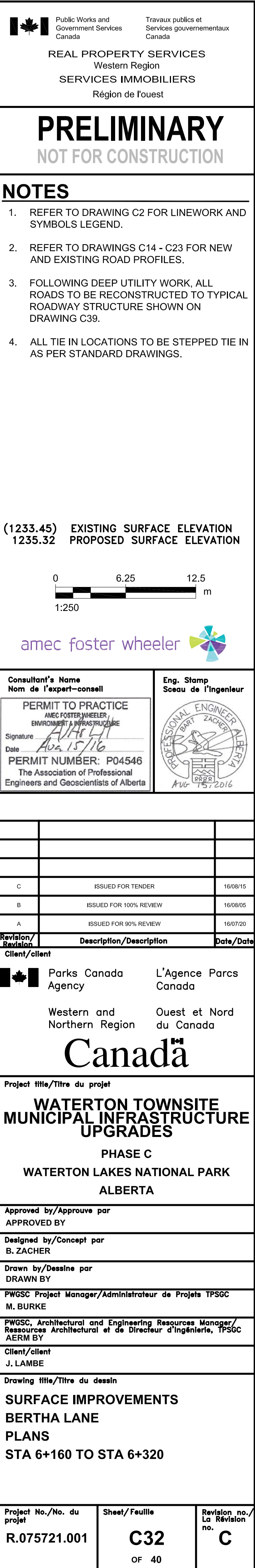


1. REFER TO DRAWING C2 FOR LINEWORK AND SYMBOLS LEGEND.
2. REFER TO DRAWINGS C14 - C23 FOR NEW AND EXISTING ROAD PROFILES.
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4. ALL TIE IN LOCATIONS TO BE STEPPED TIE IN AS PER STANDARD DRAWINGS.



BERTHA LANE - DESIGN CL							
SEGMENT	BEGIN STATION	BEGIN NORTHING	BEGIN EASTING	RADIUS	LENGHT	Δ	BEARING
C9	6+692.201	5436573.627	286971.282	10.00	3.53	020°13'00.3"	
L7	6+695.730	5436570.271	286972.311		22.91		S06° 56' 58.30"E
C10	6+718.644	5436547.525	286975.084	4.93	12.64	146°55'25.9"	
L8	6+731.288	5436545.950	286984.405		11.26		N26° 07' 35.76"E
C11	6+742.552	5436556.063	286989.365	70.00	12.24	010°0'01.08.0"	
L9	6+754.792	5436566.527	286995.686		35.63		N36° 08' 43.72"E





BERTHA LANE - DESIGN CL							
SEGMENT	BEGIN STATION	BEGIN NORTHING	BEGIN EASTING	RADIUS	LENGHT	Δ	BEARING
C9	6+692.201	5436573.627	286971.282	10.00	3.53	020°13'00.3"	
L7	6+695.730	5436570.271	286972.311		22.91		S06° 56' 58.30"E
C10	6+718.644	5436547.525	286975.084	4.93	12.64	146°55'25.9"	
L8	6+731.288	5436545.950	286984.405		11.26		N26° 07' 35.76"E
C11	6+742.552	5436556.063	286989.365	70.00	12.24	010°01'08.0"	
L9	6+754.792	5436566.527	286995.686		35.63		N36° 08' 43.72"E

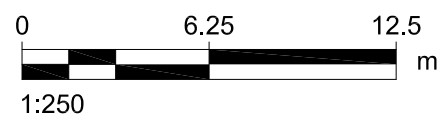


PRELIMINARY NOT FOR CONSTRUCTION

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- ALL TIE IN LOCATIONS TO BE STEPPED TIE IN AS PER STANDARD DRAWINGS.

(1233.45) EXISTING SURFACE ELEVATION
1235.32 PROPOSED SURFACE ELEVATION



amec foster wheeler

Consultant's Name Nom de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur
PERMIT TO PRACTICE AMEC FOSTER WHEELER ENVIRONMENTAL ENGINEERING Signature Date PERMIT NUMBER: P04546 The Association of Professional Engineers and Geoscientists of Alberta	

C	ISSUED FOR TENDER	16/09/15
B	ISSUED FOR 100% REVIEW	16/09/05
A	ISSUED FOR 90% REVIEW	16/07/20

Revision/ Révision	Description/Description	Date/Date
-----------------------	-------------------------	-----------

Client/client

Parks Canada
Agency

L'Agence Parcs
Canada

Western and
Northern Region

Ouest et Nord
du Canada

Canada

Project title/Titre du projet

**WATERTON TOWNSITE
MUNICIPAL INFRASTRUCTURE
UPGRADES**

PHASE C

**WATERTON LAKES NATIONAL PARK
ALBERTA**

Approved by/Approuvé par
APPROVED BY

Designed by/Concept par
B. ZACHER

Drawn by/Dessiné par
DRAWN BY

PWGSC Project Manager/Administrateur de Projets TP5GC
M. BURKE

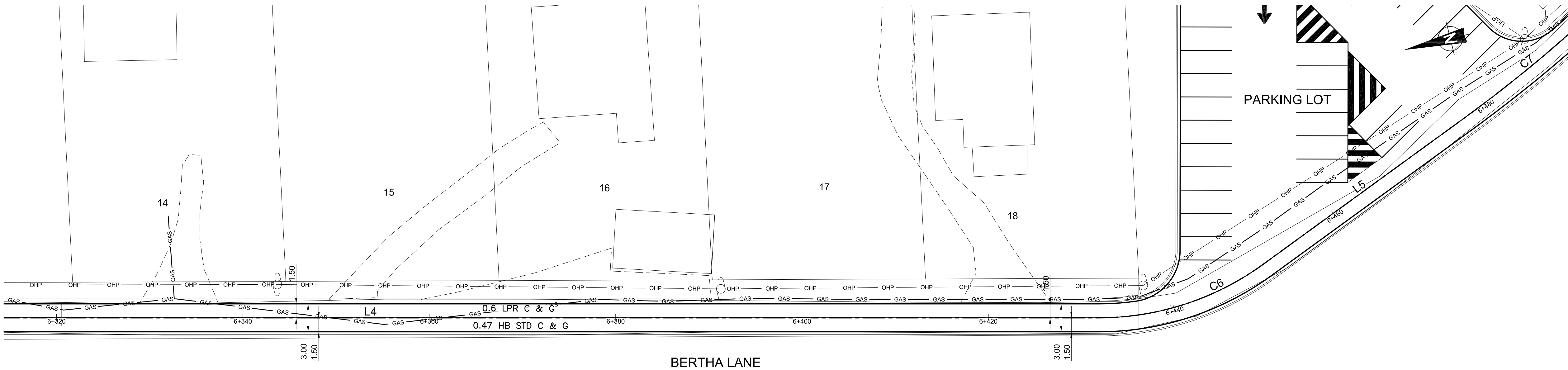
PWGSC Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'ingénierie, TP5GC
AERM BY

Client/client
J. LAMBE

Drawing title/Titre du dessin

**SURFACE IMPROVEMENTS
BERTHA LANE
PLANS
STA 6+320 TO STA 6+480**

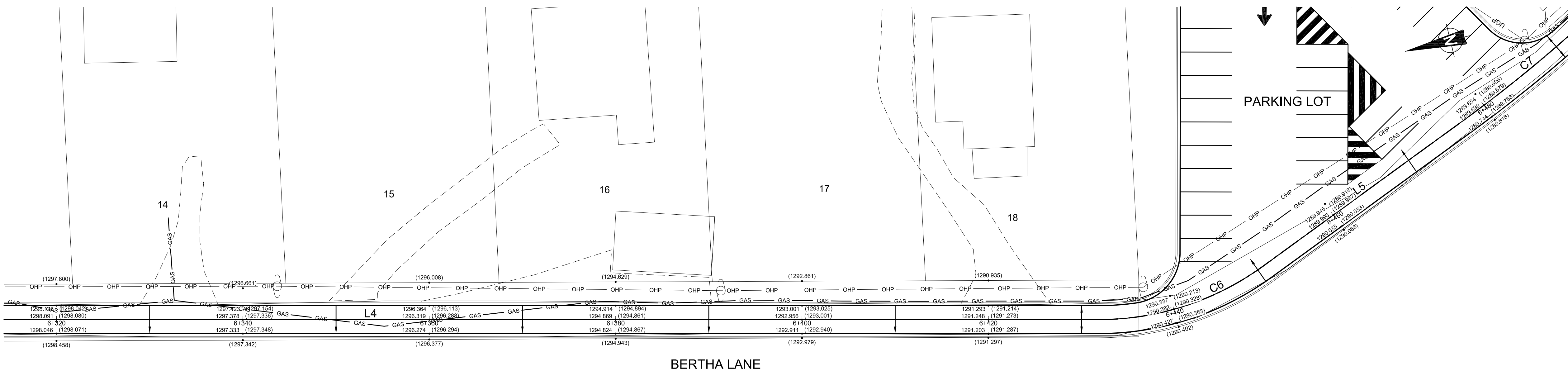
Project No./No. du projet	Sheet/Fauille	Revision no./ La Révision no.
R.075721.001	C33	C
	OF 40	



BERTHA LANE - DESIGN CL							
SEGMENT	BEGIN STATION	BEGIN NORTHING	BEGIN EASTING	RADIUS	LENGHT	Δ	BEARING
L1	6+000.000	5437225.833	286913.118		20.49		S32° 17' 27.04"W
C1	6+020.495	5437208.508	286902.170	20.00	5.20	014°54'24.9"	
C2	6+025.698	5437203.799	286899.990	330.96	27.08	004°41'17.6"	
C3	6+052.778	5437177.653	286892.965	200.00	17.39	004°58'59.8"	
L2	6+070.173	5437160.539	286889.884		53.80		S07° 42' 44.80"W
C4	6+123.973	5437107.226	286882.664	80.00	21.32	015°16'19.2"	
L3	6+145.296	5437085.966	286882.636		93.28		S07° 33' 34.43"E

BERTHA LANE - DESIGN CL							
SEGMENT	BEGIN STATION	BEGIN NORTHING	BEGIN EASTING	RADIUS	LENGHT	Δ	BEARING
C5	6+238.578	5436993.495	286894.908	100.00	37.02	021°12'48.0"	
L4	6+275.602	5436956.734	286892.951		156.24		S13° 39' 13.57"W
C6	6+431.838	5436804.914	286856.071	30.00	18.86	036°01'21.8"	
L5	6+450.699	5436786.415	286857.481		26.55		S22° 22' 08.19"E
C7	6+477.248	5436761.864	286867.584	152.91	18.36	006°52'48.7"	
L6	6+495.609	5436745.344	286875.574		174.78		S29° 14' 56.87"E
C8	6+670.390	5436592.847	286960.973	600.00	21.81	002°04'58.3"	

BERTHA LANE - DESIGN CL							
SEGMENT	BEGIN STATION	BEGIN NORTHING	BEGIN EASTING	RADIUS	LENGHT	Δ	BEARING
C9	6+692.201	5436573.627	286971.282	10.00	3.53	020°13'00.3"	
L7	6+695.730	5436570.271	286972.311		22.91		S06° 56' 58.30"E
C10	6+718.644	5436547.525	286975.084	4.93	12.64	146°55'25.9"	
L8	6+731.288	5436545.950	286984.405		11.26		N26° 07' 35.76"E
C11	6+742.552	5436556.063	286989.365	70.00	12.24	010°01'08.0"	
L9	6+754.792	5436566.527	286995.686		35.63		N36° 08' 43.72"E






NOTES

1. REFER TO DRAWING C2 FOR LINEWORK AND SYMBOLS LEGEND.
2. REFER TO DRAWINGS C14 - C23 FOR NEW AND EXISTING ROAD PROFILES.
3. FOLLOWING DEEP UTILITY WORK, ALL ROADS TO BE RECONSTRUCTED TO TYPICAL ROADWAY STRUCTURE SHOWN ON DRAWING C39.
4. ALL TIE IN LOCATIONS TO BE STEPPED TIE IN AS PER STANDARD DRAWINGS.

<p>Consultant's Name Nom de l'expert-conseil</p> <p>PERMIT TO PRACTICE AMEC FOSTER WHEELER ENVIRONMENT & INFRASTRUCTURE</p> <p>Signature: <i>[Signature]</i> Date: <i>Aug 15/2016</i></p> <p>PERMIT NUMBER: P04546 The Association of Professional Engineers and Geoscientists of Alberta</p>	<p>Eng. Stamp Sceau de l'ingénieur</p> <p>PROFESSIONAL ENGINEER PART 3 ZACHRY</p> <p><i>[Stamp]</i> <i>Aug 15/2016</i></p>
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C	ISSUED FOR TENDER	16/08/15
B	ISSUED FOR 100% REVIEW	16/08/05
A	ISSUED FOR 90% REVIEW	16/07/20

 Parks Canada
Agency

Western and
Northern Region

L'Agence Parcs
Canada

Ouest et Nord
du Canada

Project title/Titre du projet

**WATERTON TOWNSITE
MUNICIPAL INFRASTRUCTURE
UPGRADES**

PHASE C

WATERTON LAKES NATIONAL PARK

ALBERTA

STA 6+480 TO STA 6+640

PWSSC - A1 - 841x549

0 10 20 30 40 50 60 70 80 90 100mm

T:\Drafting\Projects\LT164504-WATERTON PARK PHASE C, D & E\1 Deliverables\1 Drawings\LT164504_DWG-C_C34.dwg



NOTES

1. REFER TO DRAWING C2 FOR LINEWORK AND SYMBOLS LEGEND.
2. REFER TO DRAWINGS C14 - C23 FOR NEW AND EXISTING ROAD PROFILES.
3. FOLLOWING DEEP UTILITY WORK, ALL ROADS TO BE RECONSTRUCTED TO TYPICAL ROADWAY STRUCTURE SHOWN ON DRAWING C39.
4. ALL TIE IN LOCATIONS TO BE STEPPED TIE IN AS PER STANDARD DRAWINGS.



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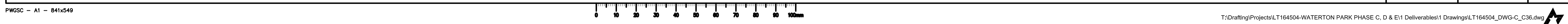
Canada

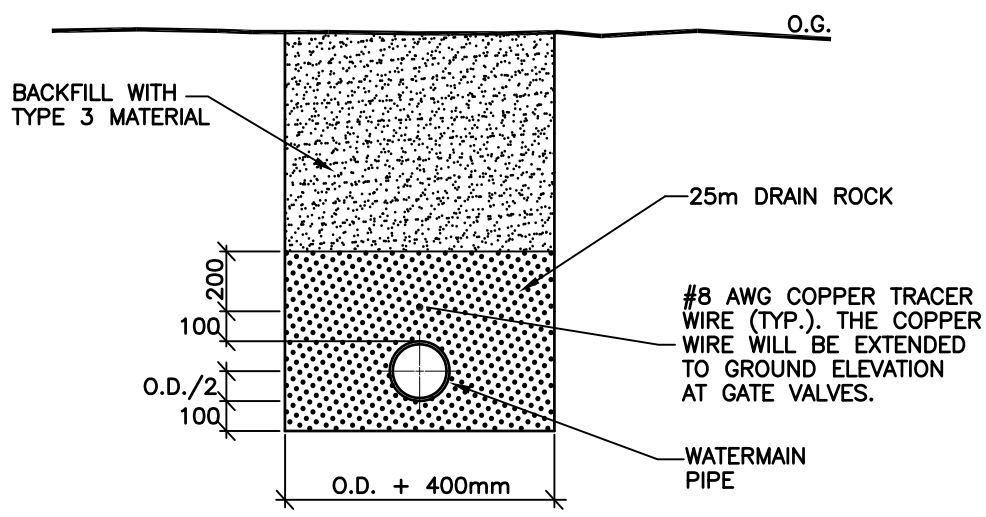
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Designed by/Concept par B. ZACHER
Drawn by/Dessiné par R. SCHULTZ
PWGSC Project Manager/Administrateur de Projets TPSGC M. BURKE

Client/client
J. LAMBE

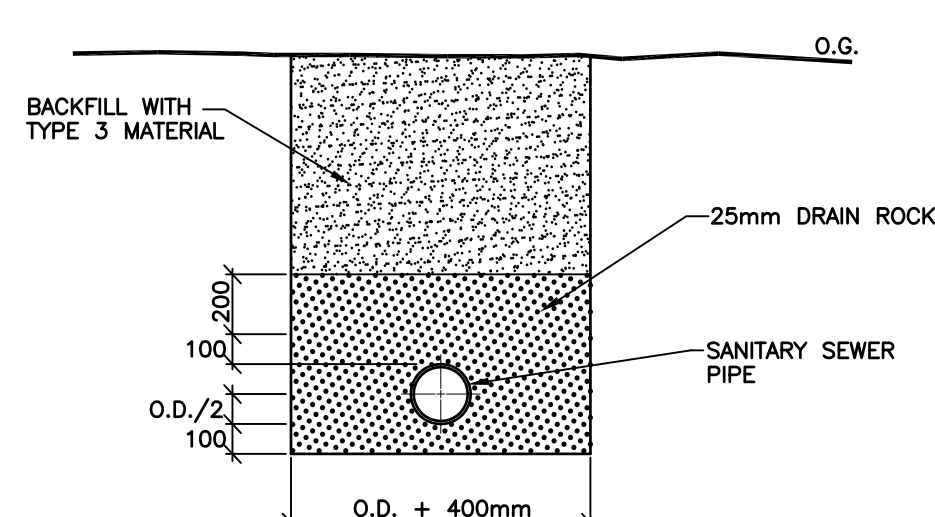
Page 10 of 10

	OF 40	
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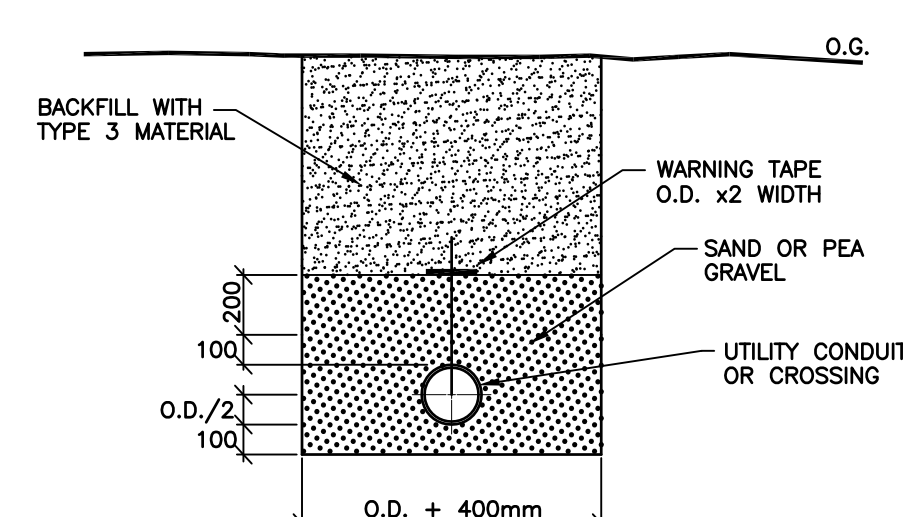




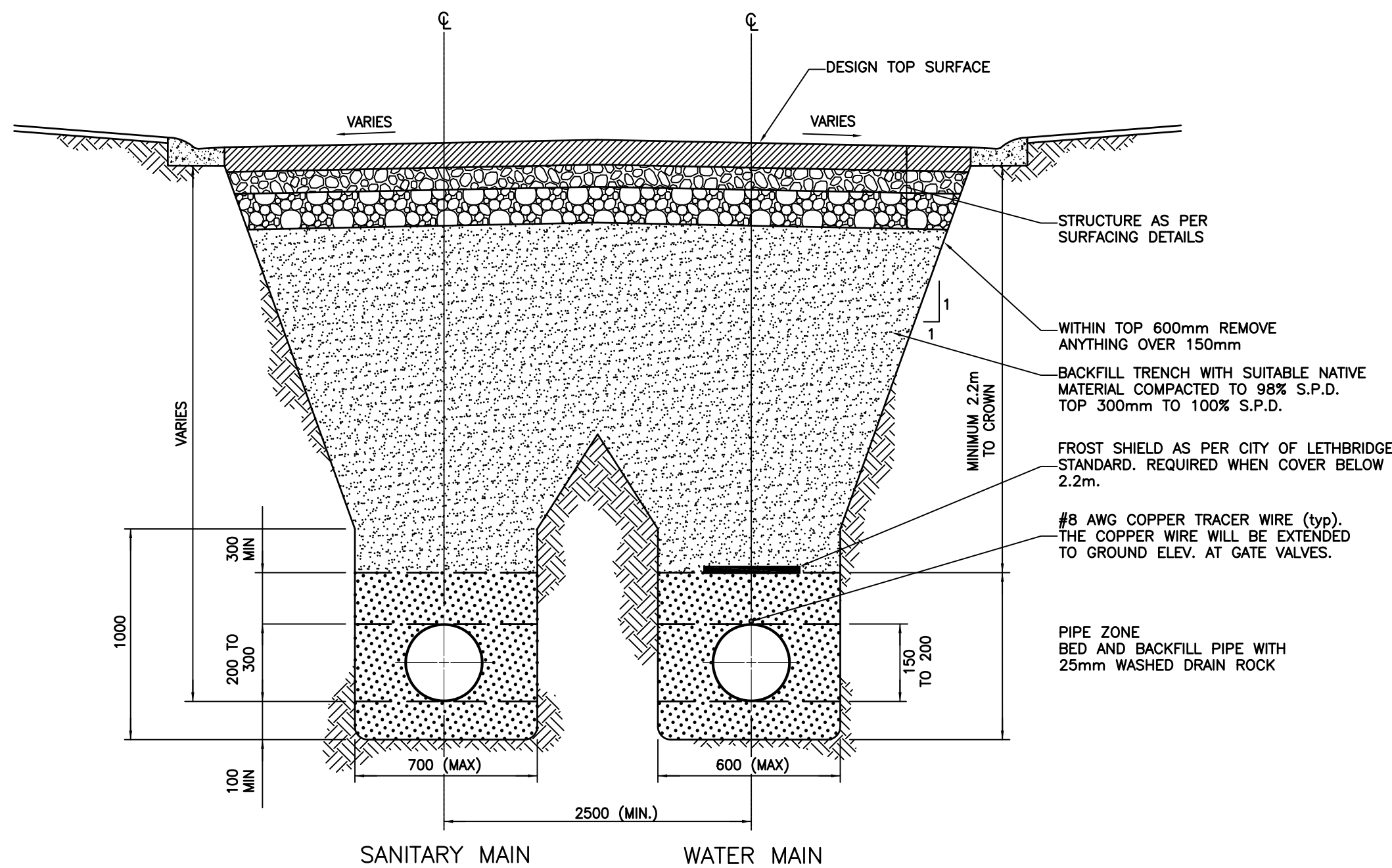
1 WATER LINE AND WATER SERVICE TRENCH DETAIL
N.T.S.



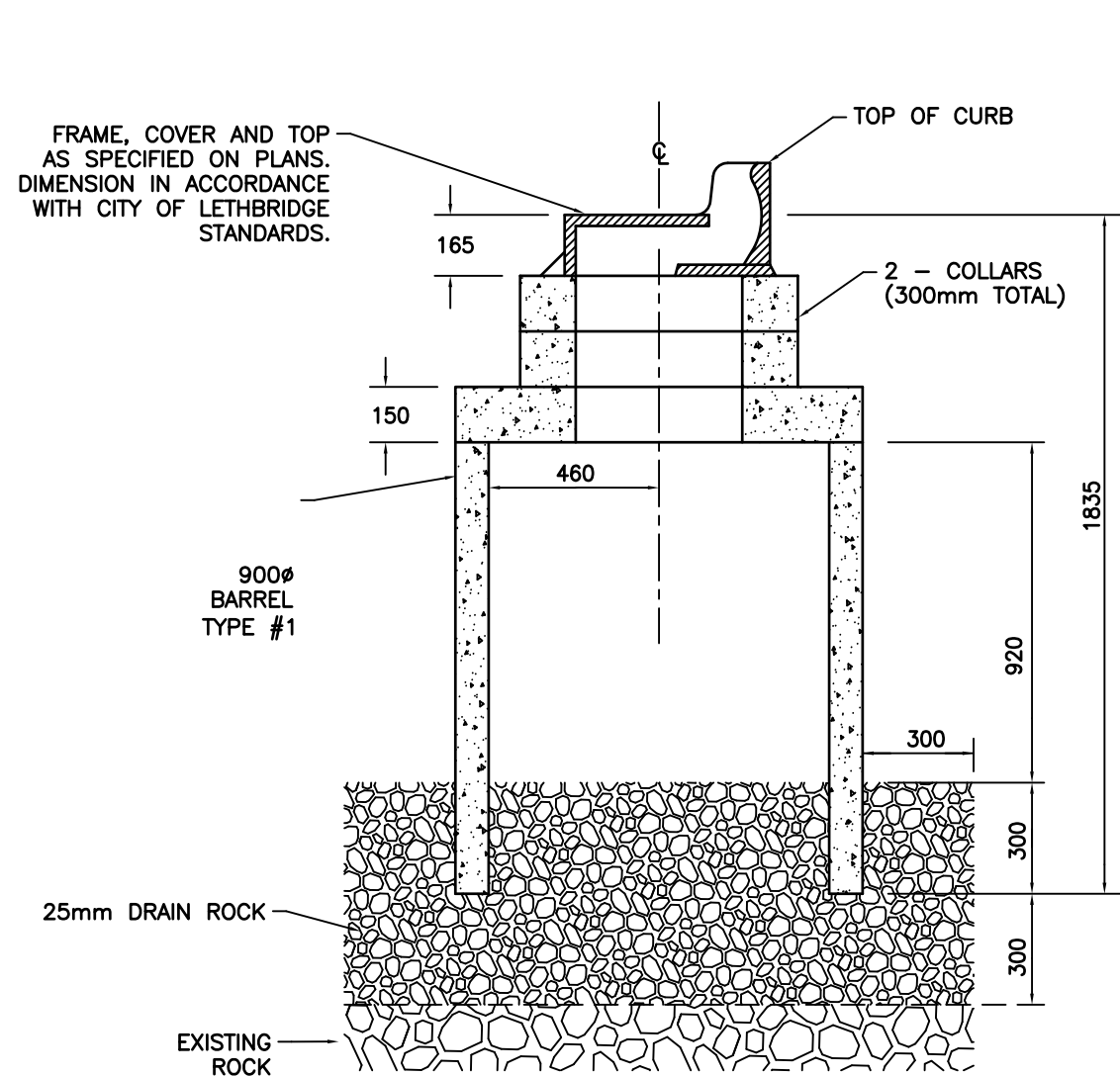
2 SANITARY SEWER AND SANITARY SERVICE TRENCH DETAIL
N.T.S.



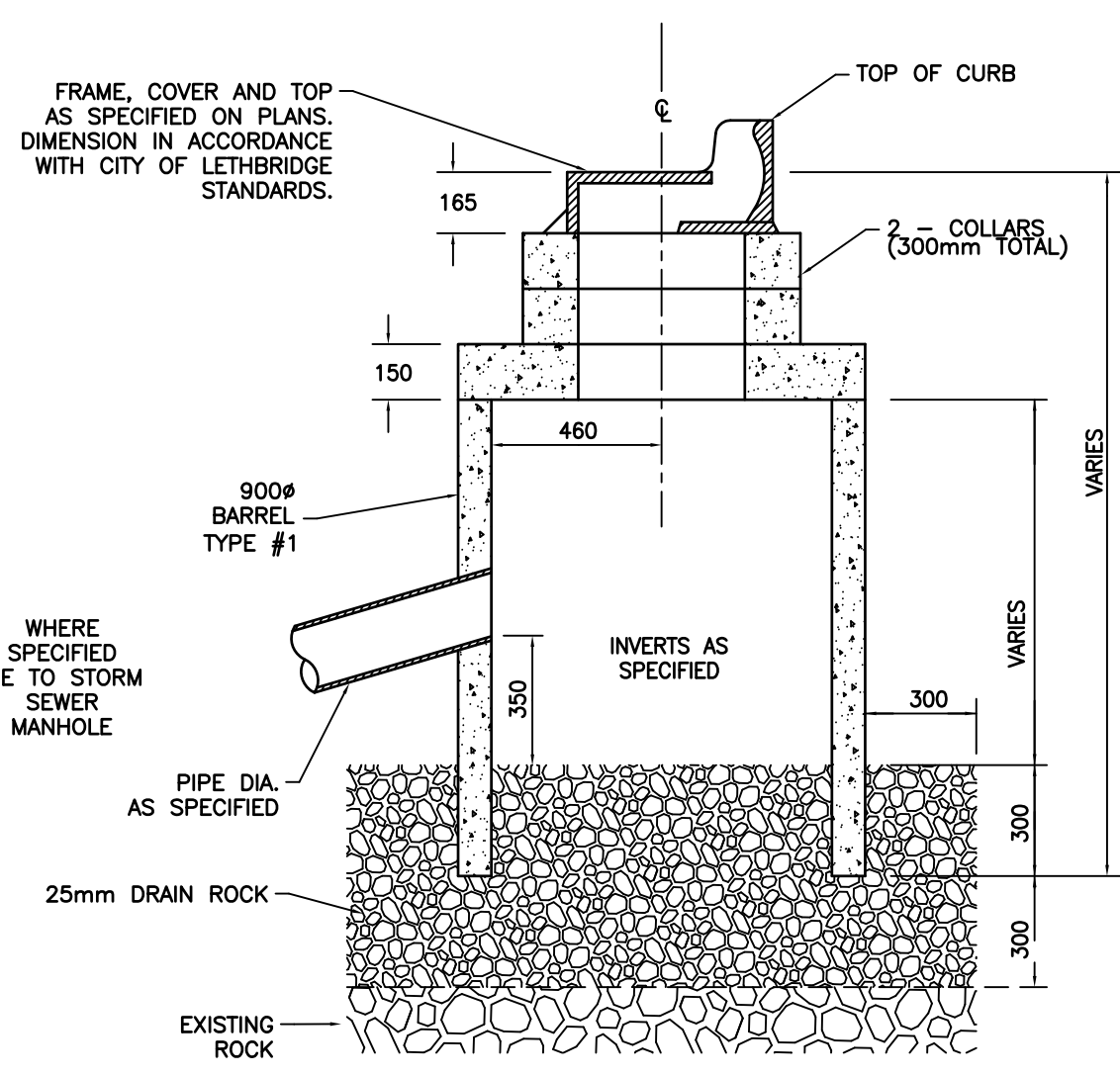
3 UTILITY BACKFILL TRENCH DETAIL
N.T.S.



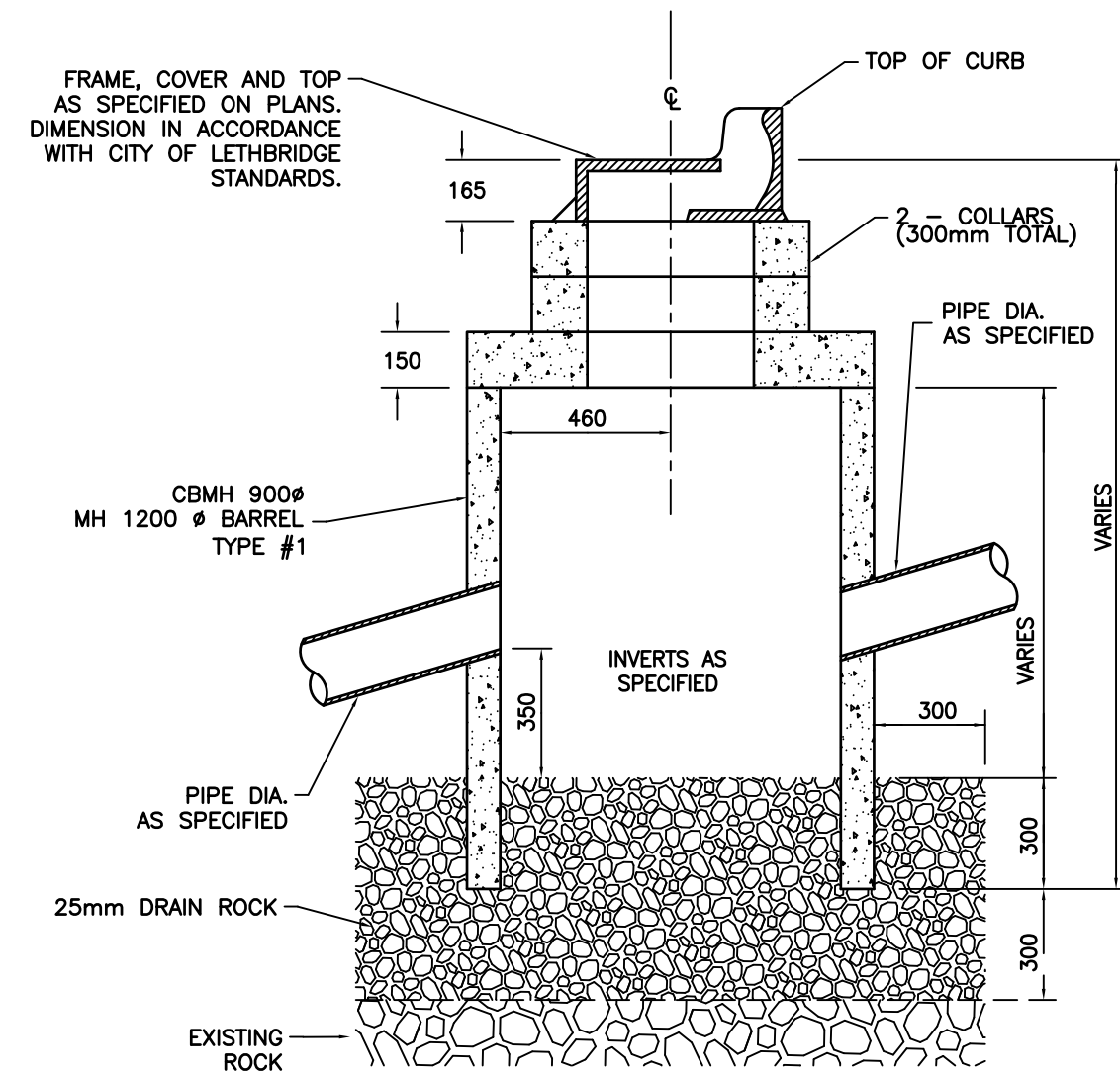
4 SIDE-BY-SIDE TRENCH DETAIL
N.T.S.



5 OPEN BOTTOM CATCH BASIN DETAIL
NO LEAD
N.T.S.



6 OPEN BOTTOM CATCH BASIN DETAIL
WITH LEAD
N.T.S.



7 OPEN BOTTOM CATCH BASIN MANHOLE
& MANHOLE DETAIL
N.T.S.

Public Works and Government Services Canada

Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Western Region
SERVICES IMMOBILIERS
Région de l'ouest

PRELIMINARY

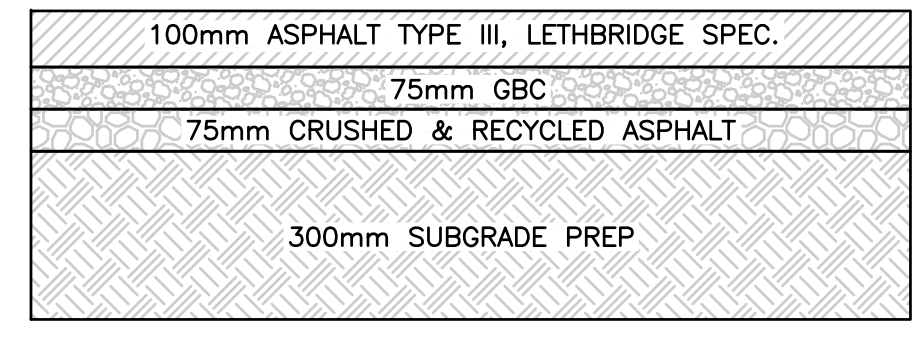
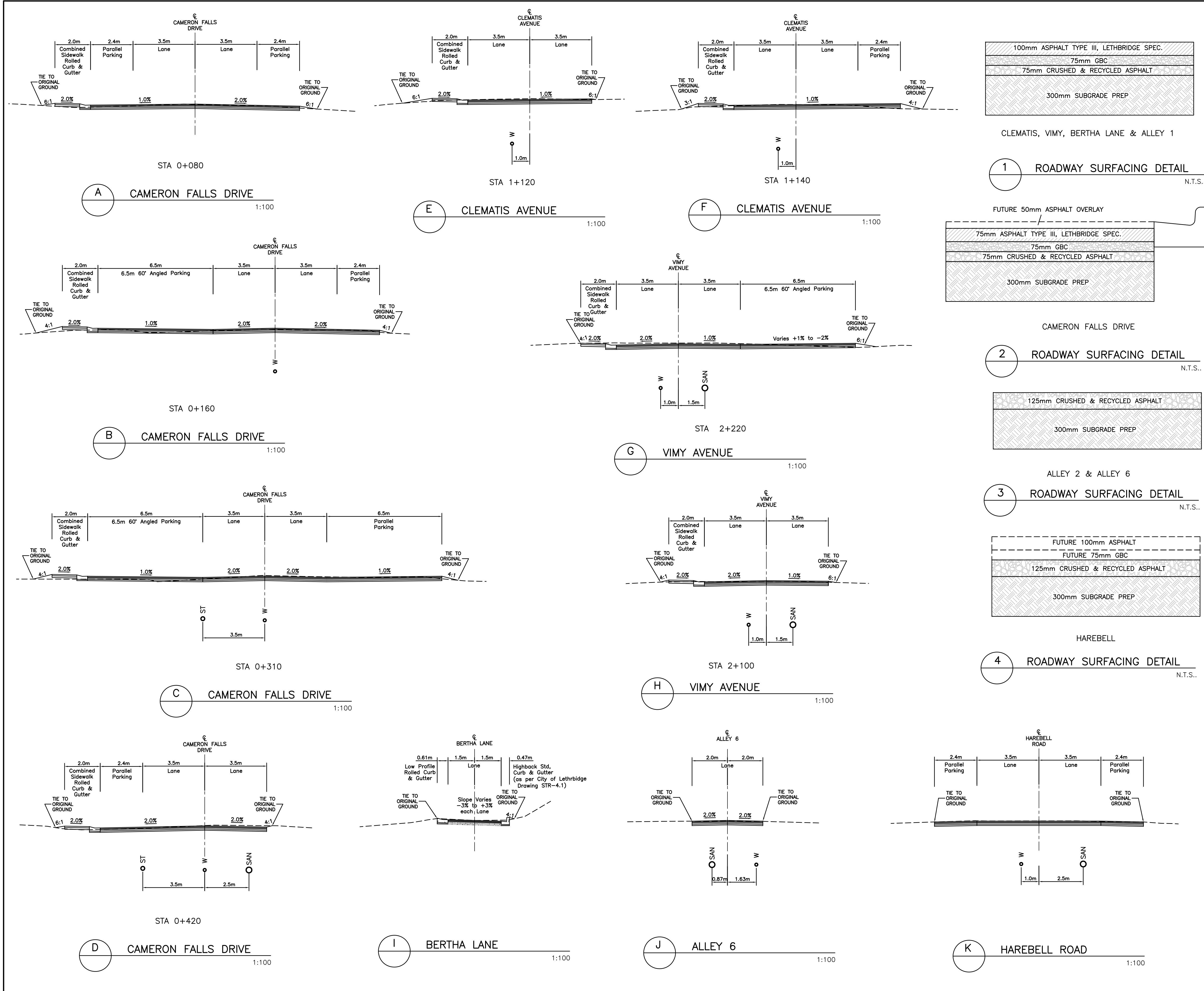
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NOTES

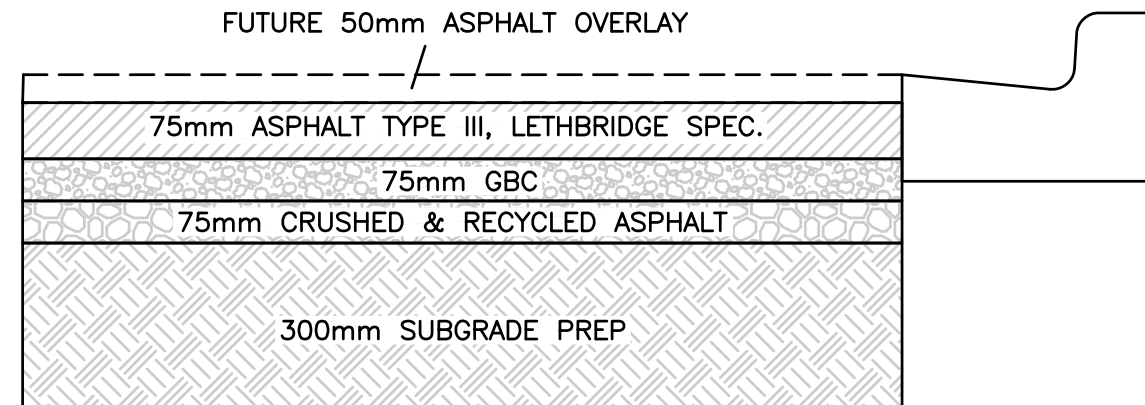
- SEE MANHOLE TABLES FOR TYPE OF CB, CBMH & MANHOLE SPECIFIED FOR EACH LOCATION.

Consultant's Name Nom de l'expert-conseil PERMIT TO PRACTICE AMEC FOSTER WHEELER ENVIRONMENTAL / ENVIRONNEMENTAL Signature: <i>[Signature]</i> Date: <i>Apr 15/16</i> PERMIT NUMBER: P04546 The Association of Professional Engineers and Geoscientists of Alberta		Eng. Stamp Sceau de l'ingénieur
C	ISSUED FOR TENDER	16/09/15
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Revision/Revision	Description/Description	Date/Date
Client/client Parks Canada Agency L'Agence Parcs Canada Western and Northern Region Ouest et Nord du Canada		
Project title/Titre du projet WATERTON TOWNSITE MUNICIPAL INFRASTRUCTURE UPGRADES PHASE C WATERTON LAKES NATIONAL PARK ALBERTA		
Approved by/Approuvé par APPROVED BY		
Designed by/Concept par B. ZACHER		
Drawn by/Dessiné par B. JOHNSON		
PWGSC Project Manager/Administrateur de Projets TPSGC M. BURKE		
PWGSC, Architectural and Engineering Resources Manager/Ressources Architectural et de Directeur d'ingénierie, TPSGC AERM BY		
Client/client J. LAMBE		
Drawing title/Titre du dessin DETAILS		
Project No./No. du projet R.075721.001	Sheet/Fauille C37 OF 40	Revision no./La Révision no. C

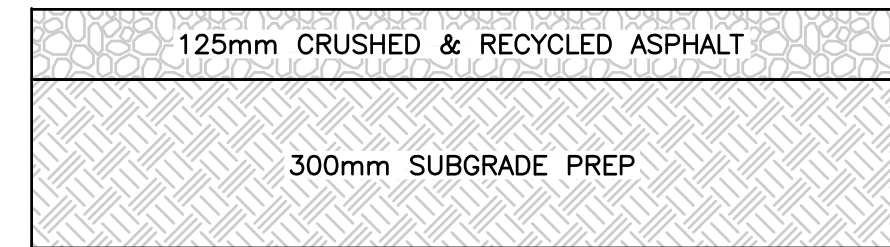




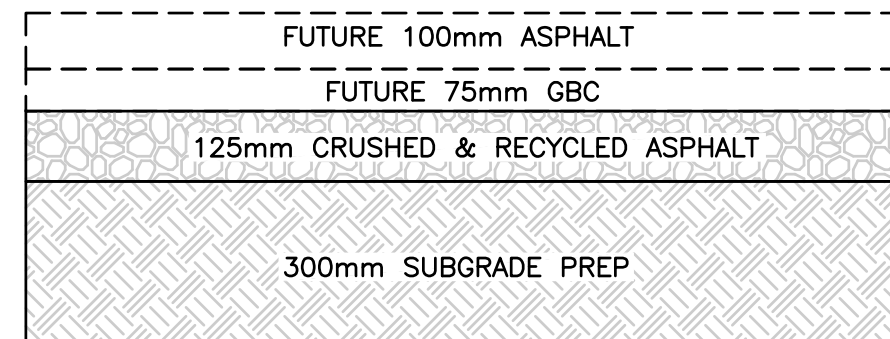
CLEMATIS, VIMY, BERTHA LANE & ALLEY 1
1 ROADWAY SURFACING DETAIL N.T.S..



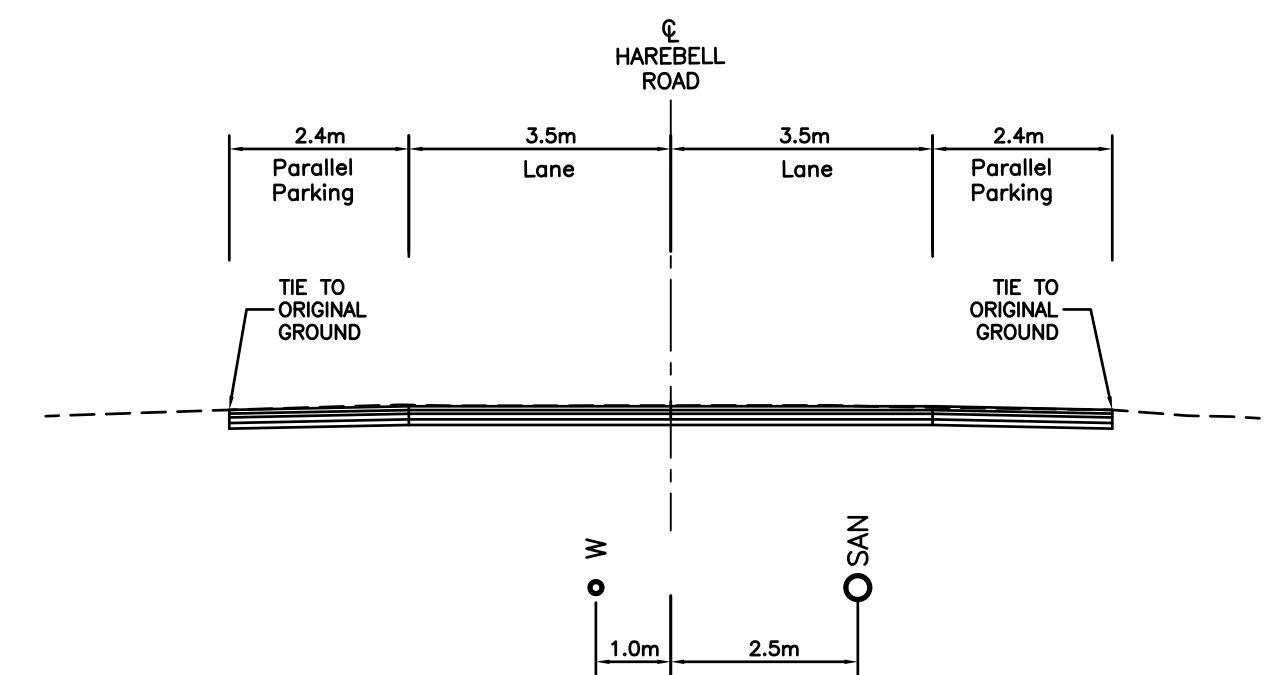
CAMERON FALLS DRIVE
2 ROADWAY SURFACING DETAIL N.T.S..



ALLEY 2 & ALLEY 6
3 ROADWAY SURFACING DETAIL N.T.S..



HAREBELL
4 ROADWAY SURFACING DETAIL N.T.S..



K HAREBELL ROAD 1:100

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

REAL PROPERTY SERVICES
Western Region
SERVICES IMMOBILIERS
Région de l'ouest

PRELIMINARY
NOT FOR CONSTRUCTION

NOTES
1. NEW UTILITIES SHOWN FOR OFFSET REFERENCE ONLY.

Consultant's Name Nom de l'expert-conseil PERMIT TO PRACTICE AMEC FOSTER WHEELER ENVIRONNEMENT / ENVIRONNEMENT Signature: <i>[Signature]</i> Date: <i>Apr 15/16</i> PERMIT NUMBER: P04546 The Association of Professional Engineers and Geoscientists of Alberta		Eng. Stamp Sceau de l'ingénieur
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Revision/	Description/Description	Date/Date
Client/client		
	Parks Canada Agency L'Agence Parcs Canada Western and Northern Region Ouest et Nord du Canada	

Canada
Project title/Titre du projet
WATERTON TOWNSITE MUNICIPAL INFRASTRUCTURE UPGRADES
PHASE C
WATERTON LAKES NATIONAL PARK ALBERTA

Approved by/Approve par APPROVED BY	Designed by/Concept par B. ZACHER
Drawn by/Dessiné par B. JOHNSON	PWGSC Project Manager/Administrateur de Projets TPSGC M. BURKE
PWGSC, Architectural and Engineering Resources Manager/ Ressources Architectural et de Directeur d'ingénierie, TPSGC AERM BY	
Client/client J. LAMBE	
Drawing title/Titre du dessin TYPICAL SECTIONS	

Project No./No. du projet R.075721.001	Sheet/Fauille C39 OF 40	Revision no./La Révision no. C
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CAMERON FALLS DRIVE - NEW WATER UTILITY DATA				
REFERENCE	ALIGNMENT STATION	ALIGNMENT OFFSET (m)	INVERT ELEVATION (m)	DESCRIPTION
F1	0+179.43	-4.52		250 45° ELBOW
F2	0+184.25	0.00		250 45° ELBOW
F3	0+233.89	0.00		250 x 250 x 200 x 200 CROSS
F30	0+233.89	-2.47		200 x 150 REDUCER
V1	0+233.89	1.66		200 VALVE
F4	0+235.40	0.00		250 x 200 REDUCER
S.P. 1	0+235.40	-13.53		STOP DRAIN & STAND PIPE
V2	0+237.90	0.00		200 VALVE
V3	0+236.58	-15.00		150 VALVE
F5	0+272.94	0.00		200 x 200 x 150 TEE
HV1	0+272.94	-2.00		150 VALVE
H1	0.272.94	-7.51		HYDRANT
V4	0+274.93	0.00		200 VALVE
F6	0+291.16	0.00		200 x 200 x 150 TEE
V22	0+291.12	10.04		150 VALVE
F7	0+305.12	0.00		200 x 200 x 150 TEE
V5	0+305.12	-2.00		150 VALVE
F8	0+305.12	-16.81		150 PLUG
V6	0+307.12	0.00		200 VALVE
F9	0+335.90	0.00		200 x 200 x 150 TEE
HV2	0+335.90	7.72		150 VALVE
H2	0+335.90	10.69		HYDRANT
F10	0+351.45	0.00		200 x 200 x 150 TEE
F11	0+355.02	0.00		200 x 200 x 150 TEE
V7	0+358.58	0.00		200 VALVE
F31	0+421.24	0.00		200 x 200 x 150 TEE
V23	0+421.26	-8.10		150mm VALVE
F32	0+421.90	0.00		200 5° ELBOW
F33	0+430.00	0.91		200 5° ELBOW
V8	0+432.53	1.00		200 VALVE

CLEMATIS AVENUE - NEW WATER UTILITY DATA				
REFERENCE	ALIGNMENT STATION	ALIGNMENT OFFSET (m)	INVERT ELEVATION (m)	DESCRIPTION
V1	1+001.51	-3.51		200 VALVE
F12	1+003.11	-3.82		200 45° ELBOW
F13	1+007.38	0.50		200 45° ELBOW
H3	1+117.23	8.59		HYDRANT
HV3	1+118.82	10.11		150 VALVE
V10	1+119.65	13.71		150 VALVE
F16	1+120.97	12.19		150 x 150 x 150 TEE
V9	1+125.76	-9.94		150 VALVE
F14	1+126.37	0.53		200 x 200 x 150 x 150 CROSS
F15	1+126.66	5.72		200 45° ELBOW
V11	1+130.27	0.59		200 VALVE
F17	1+182.57	3.78		200 X 200 X 150 TEE
V12	1+182.68	0.27		150 VALVE
F18	1+193.50	0.00		200 45° ELBOW

REFERENCE	ALIGNMENT STATION	ALIGNMENT OFFSET (m)	INVERT ELEVATION (m)	DESCRIPTION
F17	2+020.31	-1.00		200 X 200 X 150 TEE
V12	2+023.82	-1.00		150 VALVE
H4	2+076.00	11.87		HYDRANT
HV4	2+078.53	12.12		150 VALVE
F19	2+079.29	-1.00		150 45° ELBOW
V13	2+081.15	23.13		150 VALVE
F21	2+082.49	12.51		150 x 150 x 150 TEE
F20	2+083.62	3.59		150 45° ELBOW
F24	2+171.21	-1.00		150 x 150 x 150 TEE
F26	2+188.60	-0.88		150 x 150 x 150 TEE
HV5	2+188.60	-4.48		150 VALVE
H5	2+188.60	-6.07		HYDRANT
V18	2+226.38	-0.75		150 VALVE
F27	2+229.46	-0.74		150 x 150 x 150 TEE
F28	2+270.54	-0.59		150 45 ° ELBOW
F29	2+271.22	0.10		150 45 ° ELBOW

HAREBELL ROAD - NEW WATER UTILITY DATA				
REFERENCE	ALIGNMENT STATION	ALIGNMENT OFFSET (m)	INVERT ELEVATION (m)	DESCRIPTION
V14	3+141.26	14.31		150 VALVE
F22	3+142.30	3.51		150 X 150 45 ° ELBOW
F23	3+144.71	1.50		150 X 150 45 ° ELBOW
V15	3+194.83	1.50		150 VALVE
F24	3+196.84	1.50		150 x 150 x 150 TEE
V16	3+198.85	1.50		150 VALVE
F25	3+211.17	1.50		150 X 150 22.5 ° ELBOW
V17	3+217.65	4.18		150 VALVE
TIE IN	3+217.70	4.20		
F10	3+000.00	1.00		200 X 200 X 200 TEE
V20	3+003.00	1.00		200 VALVE
F26	3+048.58	1.00		200 X 200 45° ELBOW

ALLEY 6 - NEW WATER UTILITY DATA				
REFERENCE	ALIGNMENT STATION	ALIGNMENT OFFSET (m)	INVERT ELEVATION (m)	DESCRIPTION
F10	4+000.00	0.00		200 X 200 X 150 TEE
V20	4+003.00	0.00		200 VALVE
F26	4+048.53	0.00		200 45 ° ELBOW
S.P. 2	4+077.64	-13.66		STOP DRAIN & STAND PIPE
F34	4+119.53	0.00		150 45 ° ELBOW
F28	4+135.61	0.00		150 x 150 x 150 TEE
HV6	4+135.61	-1.00		150 VALVE
H6	4+135.61	-5.60		HYRANT
V19	4+227.40	0.00		150 VALVE
F27	4+232.17	0.00		150 X 150 X 150 TEE

ALLEY 2 - NEW WATER UTILITY DATA				
REFERENCE	ALIGNMENT STATION	ALIGNMENT OFFSET (m)	INVERT ELEVATION (m)	DESCRIPTION
V21	5+006.10	-1.37		150 VALVE
F35	5+008.00	-1.36		FLANGED REDUCER 200 HDPE TO 150 PVC
F36	5+081.70	-1.56		FLANGED REDUCER 200 HDPE TO 150 PVC
V22	5+085.33	-1.56		150 VALVE
F38	5+087.24	-1.56		FLANGED REDUCER 150 PVC TO 100 CAST IRON

PR ST CAMERON FALLS DR				
STRUCTURE NAME	ALIGNMENT STATION	ALIGNMENT OFFSET (m)	RIM ELEVATION (m)	DESCRIPTION
CB 90	0+185.12	-3.500	1289.927	DETAIL 5 SHEET C37 WITH GRATED ROUND TOP
CB 99	0+269.94	-3.500	1287.769	DETAIL 5 SHEET C37 WITH GRATED ROUND TOP
CBMH 98	0+318.03	-3.500	1286.545	DETAIL 5 SHEET C37 WITH GRATED ROUND TOP
CB 9B	0+340.90	4.250	1285.935	STANDARD CATCH BASIN WITH ROLLED CURB FRAME & GRATE
CB 9A	0+349.76	-6.250	1285.696	STANDARD CATCH BASIN WITH ROLLED CURB FRAME & GRATE

PR SAN SOUTH				
STRUCTURE NAME	ALIGNMENT STATION	ALIGNMENT OFFSET (m)	RIM ELEVATION (m)	DESCRIPTION
MH 80	0+352.76	43.187	1285.749	
MH 81	0+353.89	2.500	1285.712	
MH 111	0+408.45	141.661	1283.986	
MH 110	0+409.30	85.587	1284.478	
MH 108	2+233.73	1.655	1283.360	

PR ST VIMY AVE				
STRUCTURE NAME	ALIGNMENT STATION	ALIGNMENT OFFSET (m)	RIM ELEVATION (m)	DESCRIPTION
CB 94	2+156.81	-3.875	1285.002	DETAIL 5 SHEET C37 WITH ROLLED CURB FRAME & GRATE
CB 95	2+241.01	-3.875	1283.175	DETAIL 5 SHEET C37 WITH ROLLED CURB FRAME & GRATE

PR SAN VIMY AVE				
STRUCTURE NAME	ALIGNMENT STATION	ALIGNMENT OFFSET (m)	RIM ELEVATION (m)	DESCRIPTION
MH 107	2+173.95	1.568	1284.656	
MH 108	2+233.73	1.655	1283.360	

PR ST BERTHA LANE				
STRUCTURE NAME	ALIGNMENT STATION	ALIGNMENT OFFSET (m)	RIM ELEVATION (m)	DESCRIPTION
CBMH 500	6+120.00	1.700	1296.993	DETAIL 7 SHEET C37 WITH STANDARD CURB FRAME & GRATE
CBMH 501	6+165.00	1.700	1294.022	DETAIL 7 SHEET C37 WITH STANDARD CURB FRAME & GRATE
CBMH 502	6+208.53	1.700	1292.906	DETAIL 7 SHEET C37 WITH STANDARD CURB FRAME & GRATE
MH 503	6+241.35	0.384	1294.096	TYPE 1 MANHOLE
VS 504	6+255.75	-16.595	1292.391	2.4mx2.4m OPEN BOTTOM VAULT STRUCTURE WITH 0.5m STACK AND GRATED TOP
CBMH 550	6+466.42	-35.514	1287.193	DETAIL 5 SHEET C37 WITH STANDARD CURB FRAME & GRATE
CBMH 551	6+482.93	-22.042	1287.200	DETAIL 5 SHEET C37 WITH STANDARD CURB FRAME & GRATE

PR ST CLEMATIS AVE				
STRUCTURE NAME	ALIGNMENT STATION	ALIGNMENT OFFSET (m)	RIM ELEVATION (m)	DESCRIPTION
CB 91	1+081.38	-3.873	1286.885	DETAIL 5 SHEET C37 WITH ROLLED CURB FRAME & GRATE
CB 92	1+115.11	-3.872	1286.919	DETAIL 5 SHEET C37 WITH ROLLED CURB FRAME & GRATE
CB 93	1+161.90	-3.877	1286.981	DETAIL 5 SHEET C37 WITH ROLLED CURB FRAME & GRATE

PR SAN CLEMATIS AVE				
STRUCTURE NAME	ALIGNMENT STATION	ALIGNMENT OFFSET (m)	RIM ELEVATION (m)	DESCRIPTION
MH 112	1+042.21	-2.000	1287.560	
MH 104	1+125.22	-1.977	1287.015	

PR SAN ALLEY 2				
STRUCTURE NAME	ALIGNMENT STATION	ALIGNMENT OFFSET (m)	RIM ELEVATION (m)	DESCRIPTION
MH 303	5+080.73	-0.455	1285.805	
MH 302	5+169.11	0.940	1287.757	
MH 301	5+214.31	-7.548	1288.720	
MH 300	5+225.71	10.802	1289.034	

