

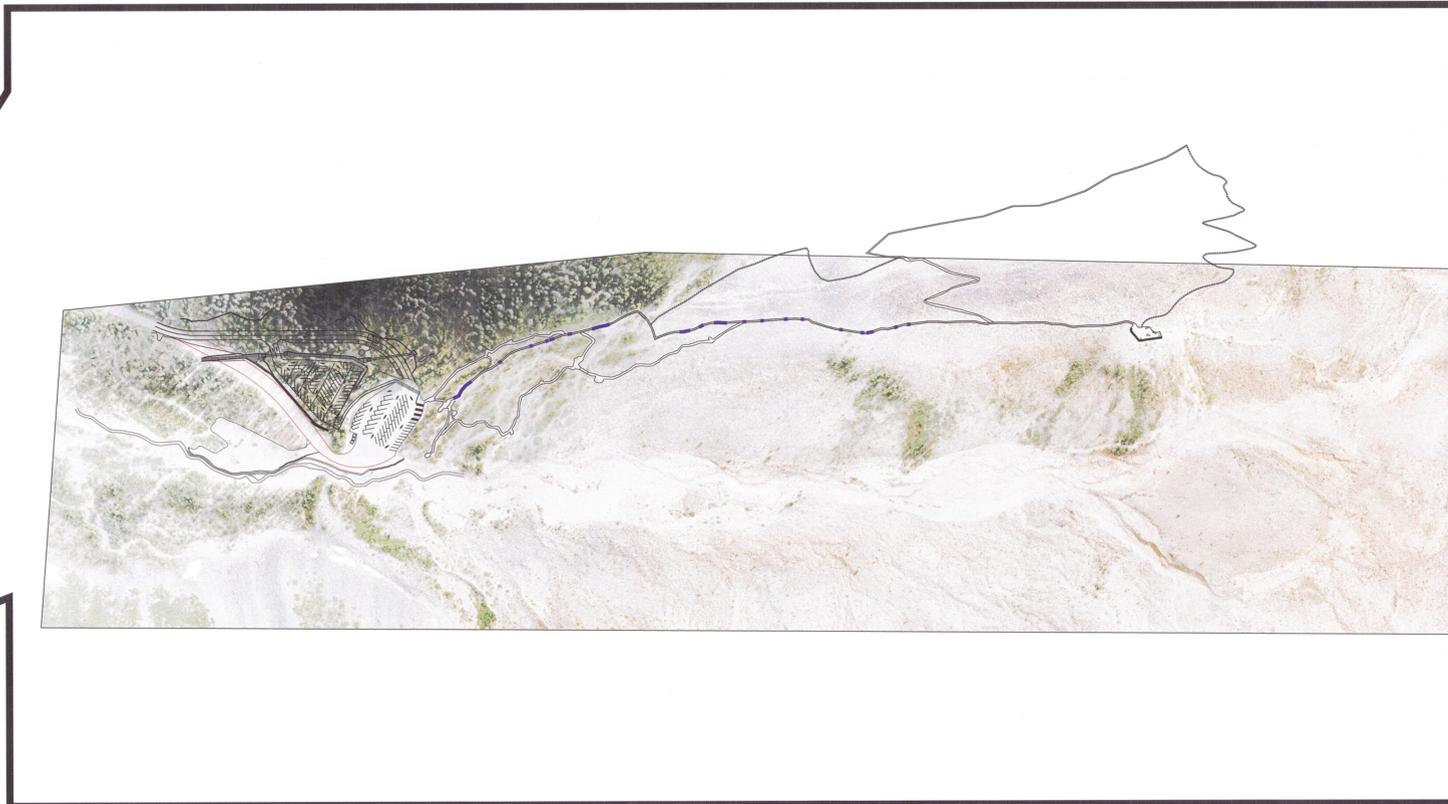
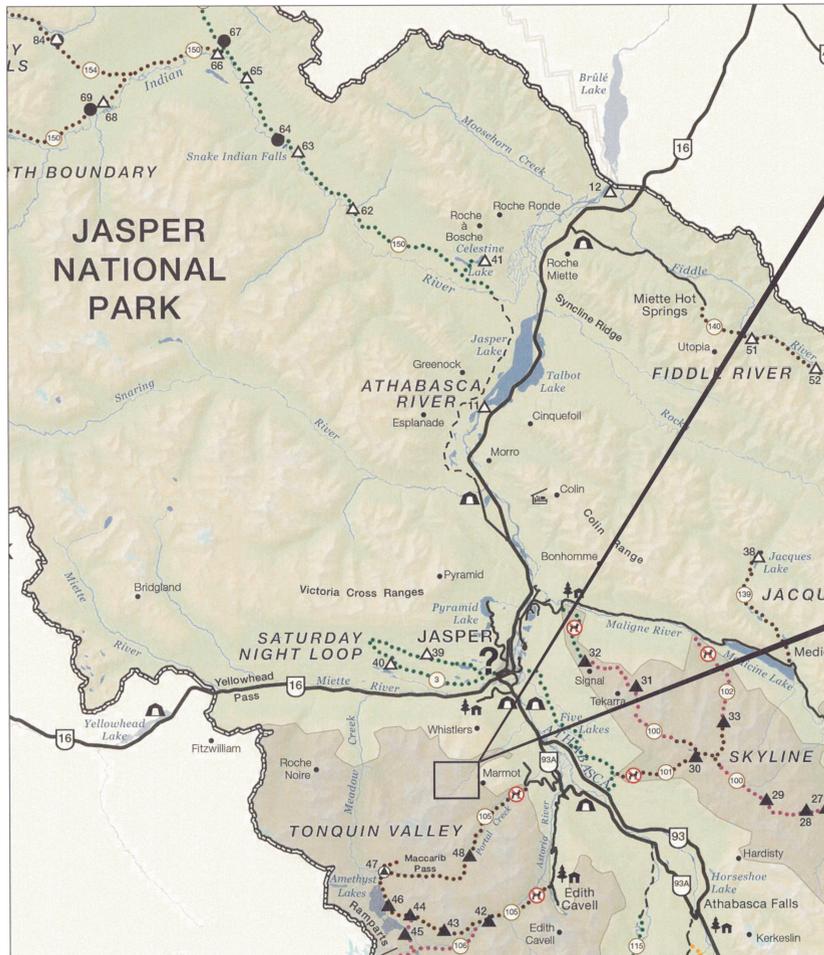


Public Works and
Government Services
Canada

Travaux publics et
Services gouvernementaux
Canada

MT. EDITH CAVELL REHABILITATION CONTRACT 2 JASPER NATIONAL PARK OF CANADA PROJECT NUMBER: 719

Sheet List Table			
SHEET	REVISION	DISCIPLINE	DESCRIPTION
GENERAL			
1	0		COVER PAGE AND DRAWING LIST
CIVIL			
2	0	CIVIL	LEGEND SHEET
3	0	CIVIL	EXISTING CONDITIONS / REMOVAL PLAN
4	0	CIVIL	ACCESS ROAD PLAN & PROFILE
5	0	CIVIL	PAVEMENT MARKINGS AND SIGNS
6	0	CIVIL	EROSION AND SEDIMENT CONTROL
7	0	CIVIL	PROPOSED PARKING LOT AND ACCESS ROAD - SECTIONS
8	0	CIVIL	PROPOSED PARKING LOT AND ACCESS ROAD - SECTIONS
9	0	CIVIL	PROPOSED TRAIL PROFILE & SECTIONS
10	0	CIVIL	PROPOSED RETAINING WALL AT VIEWPOINT 1
11	0	CIVIL	DETAILS
12	0	CIVIL AND STRUCTURAL	DETAILS
LANDSCAPE			
13	0	LANDSCAPE	PARKING LOT RESTORATION
14	0	LANDSCAPE	WHITESARK PINE RESTORATION
15	0	LANDSCAPE	MIXED FOREST RESTORATION
16	0	LANDSCAPE	EXISTING TRAILS AND VIEWPOINT IMPROVEMENTS
17	0	LANDSCAPE	NEW TRAILS AND VIEWPOINT
18	0	LANDSCAPE	DETAILS
19	0	LANDSCAPE	DETAILS



ASSOCIATED ENGINEERING QUALITY MANAGEMENT	QUALITY MANAGER	DATE	PROJECT CAD LEAD	DATE
	<i>[Signature]</i>	<i>[Date]</i>	<i>[Signature]</i>	<i>[Date]</i>

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0	2017MAR17	ISSUED FOR TENDER	M.T.	A.P.
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No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé
Revision / Revision				
A		detail number numéro de détail		
B		source drawing no. de dessin no.		
C		detail on drawing no. détail sur dessin no.		

Consultant's Name
Nom de l'expert-consultant

AE Associated Engineering

Cap. Stamp
Scieu de l'ingénieur

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

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

Canada

Parks Canada Agency
L'Agence Parcs Canada

Western and Northern Region
Ouest et Nord du Canada

Project title/Titre du projet
MT. EDITH CAVELL REHABILITATION CONTRACT 2 JASPER NATIONAL PARK OF CANADA

Drawing title/Titre du dessin
COVER PAGE AND DRAWING LIST

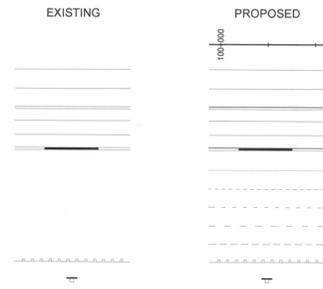
Surveyed by/Arpenté par	Drawn by/Dessiné par	Date/Date
	M. TREMBLAY	2017MAR15
Designed by/Conçu par	Reviewed by/Revisé par	Scale/Echelle
A. PODOLSKI		AS SHOWN
PWSC Project Manager/Administrateur de Projets TPSC C. MAKI		
Client Acceptance/Acceptation du client		
Approved by/Approuvé par		
PWSC Project Manager/Administrateur de Projets TPSC		
Project No./No. du projet	Asset No./No. du bien	Sheet No./No. de la feuille
719		1
Drawing Reference No./No. de référence du dessin		
G-01		19



LINETYPES

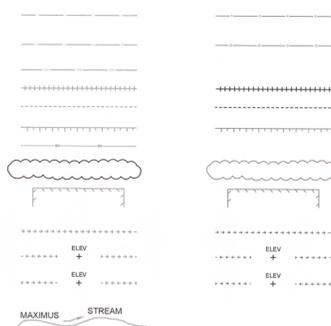
ROAD

- CONTROL LINE
- GRAVEL ROAD
- EDGE OF PAVEMENT
- CURB (ACTUAL WIDTH)
- SIDEWALK (ACTUAL WIDTH)
- CURB DEPRESSION
- MARKING 1-1-1
- MARKING 3-3-3
- MARKING 3-6-3
- MARKING 5-8-5
- MARKING 6-3-6
- GUIDE RAIL
- SIGN



MISCELLANEOUS

- FENCE
- SILT FENCE
- ABANDONED PIPE
- RAILWAY
- BOTTOM OF BANK
- TOP OF BANK
- EDGE OF WATER
- HEDGE
- BUILDING
- DITCH
- DITCH (HIGH POINT)
- DITCH (LOWPOINT)
- STREAM (LESS THAN 3 m WIDE)



- CREEK (OVER 3 m WIDE) (WIDTH OF CREEK SHOWN TO SCALE)



CONTOUR

- MAJOR
- MINOR



PROPERTY

- PARCEL / LOT LINE
- EASEMENT
- STATUTORY ROW
- ROAD ROW



GENERAL NOTES:

1. THE CONTRACTOR WILL BE RESPONSIBLE TO CLEAN ALL MACHINERY AND EQUIPMENT PRIOR TO ENTERING AND DEPARTING JASPER NATIONAL PARK.
2. THE CONTRACTOR WILL BE RESPONSIBLE TO OBTAIN A BUSINESS LICENSE TO OPERATE WITHIN JASPER NATIONAL PARK.
3. PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR WILL BE RESPONSIBLE TO READ, UNDERSTAND AND FOLLOW THE EDITH CAVELL REHABILITATION BASIC IMPACT ANALYSIS (BIA).
4. PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR WILL BE RESPONSIBLE TO READ, UNDERSTAND AND FOLLOW THE EROSION AND SEDIMENT CONTROL PLAN.
5. PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR WILL BE RESPONSIBLE TO OBTAIN A SPECIAL ACTIVITY PERMIT.
6. THE CONTRACTOR WILL BE RESPONSIBLE TO REPORT ANY OBSERVATIONS (SIGHTINGS, SIGNS) OF CARIBOU IN THE PROJECT AREA TO PARKS CANADA BIOLOGISTS THROUGH THE JASPER DISPATCH CONTACT (780-952-6155) AND SUSPEND CONSTRUCTION ACTIVITY UNTIL ADVISED OTHERWISE BY DEPARTMENT REPRESENTATIVE.

WATER

- WATER MAIN
- WATER MAIN (PROFILE)
- FIRE SUPPRESSION
- IRRIGATION
- RAW WATER
- POTABLE WATER

EXISTING

PROPOSED



STORM DRAINAGE

- CULVERT (Ø AND TYPE)
- STORM SEWER



SANITARY SEWER

- SANITARY SEWER
- SANITARY FORCEMAIN
- SANITARY COMBINED SEWER



COMMUNICATIONS / TELEPHONE

- CABLE
- FIBRE OPTIC CABLE
- TELEPHONE LINE
- UNDERGROUND TELEPHONE



ELECTRICAL / POWER

- POWER / COMM / CONDUIT
- OVERHEAD POWER
- UNDERGROUND POWER



GAS/OIL

- GAS
- OIL



PROFILE VIEW

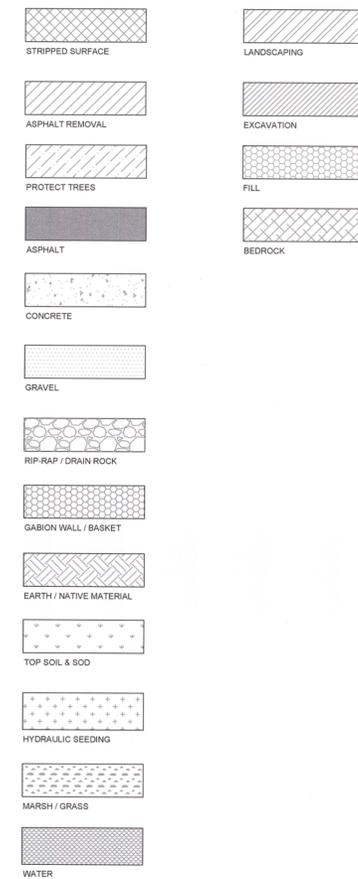
- GROUND
- WATER MAIN
- SANITARY SEWER
- STORM SEWER

EXISTING

PROPOSED



HATCH PATTERNS



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0	2017MAR17	ISSUED FOR TENDER	M.T.	A.P.

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

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

Eng. Stamp / Scellé de l'ingénieur: [Stamp]

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

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

Canada

Parks Canada Agency / L'Agence Parcs Canada

Western and Northern Region / Ouest et Nord du Canada

Project title/Titre du projet: **MT. EDITH CAVELL REHABILITATION CONTRACT 2 JASPER NATIONAL PARK OF CANADA**

Drawing title/Titre du dessin: **CIVIL LEGEND SHEET**

Surveyed by/Arpenté par: A. PODLESKI	Drawn by/Dessiné par: M. TREMBLAY	Date/Date: 2017Mar17
Designed by/Concept par: A. PODLESKI	Reviewed by/Revisé par: C. MAKI	Scale/Echelle: N.T.S.
PWSC Project Manager/Administrateur de Projets TPSC: C. MAKI		
Client Acceptance/Acceptation du client / Approved by/ Approuvé par: [Signature]		
Project No./No. du projet: 719	Asset No./No. du bien: [Blank]	Sheet No./No. de la feuille: 2
Drawing Reference No./No. de référence du dessin: C-01		19



- NOTES:**
1. CONTRACTOR TO PROTECT THE EXISTING TREES
 2. CONTRACTOR TO PROTECT EXISTING RIBBON TREE
 3. EXCESS TOPSOIL, MULCH, UNUSED RETAINING WALL BLOCKS AND SECTION TO BE TRANSPORTED AND STOCKPILED AT THE MARMOT PIT FOR FUTURE USE. THE PIT IS LOCATED ON HIGHWAY 93A, APPROXIMATELY 20km NORTH OF THE PROJECT SITE NEAR THE INTERSECTION WITH THE ICEFIELD PARKING LOT.
 4. REMOVED ASPHALT PAVEMENT TO BE TRANSPORTED AND DISPOSED OUTSIDE OF JASPER NATIONAL PARK.
 5. CONTRACTOR TO LEVEL THE EXISTING SUBGRADE AND REMOVE AND DISPOSE ALL UNSUITABLE MATERIAL AT MARMOT PIT.

- LEGEND**
- STRIPPED SURFACE
 - ASPHALT REMOVAL
 - PROTECT TREES

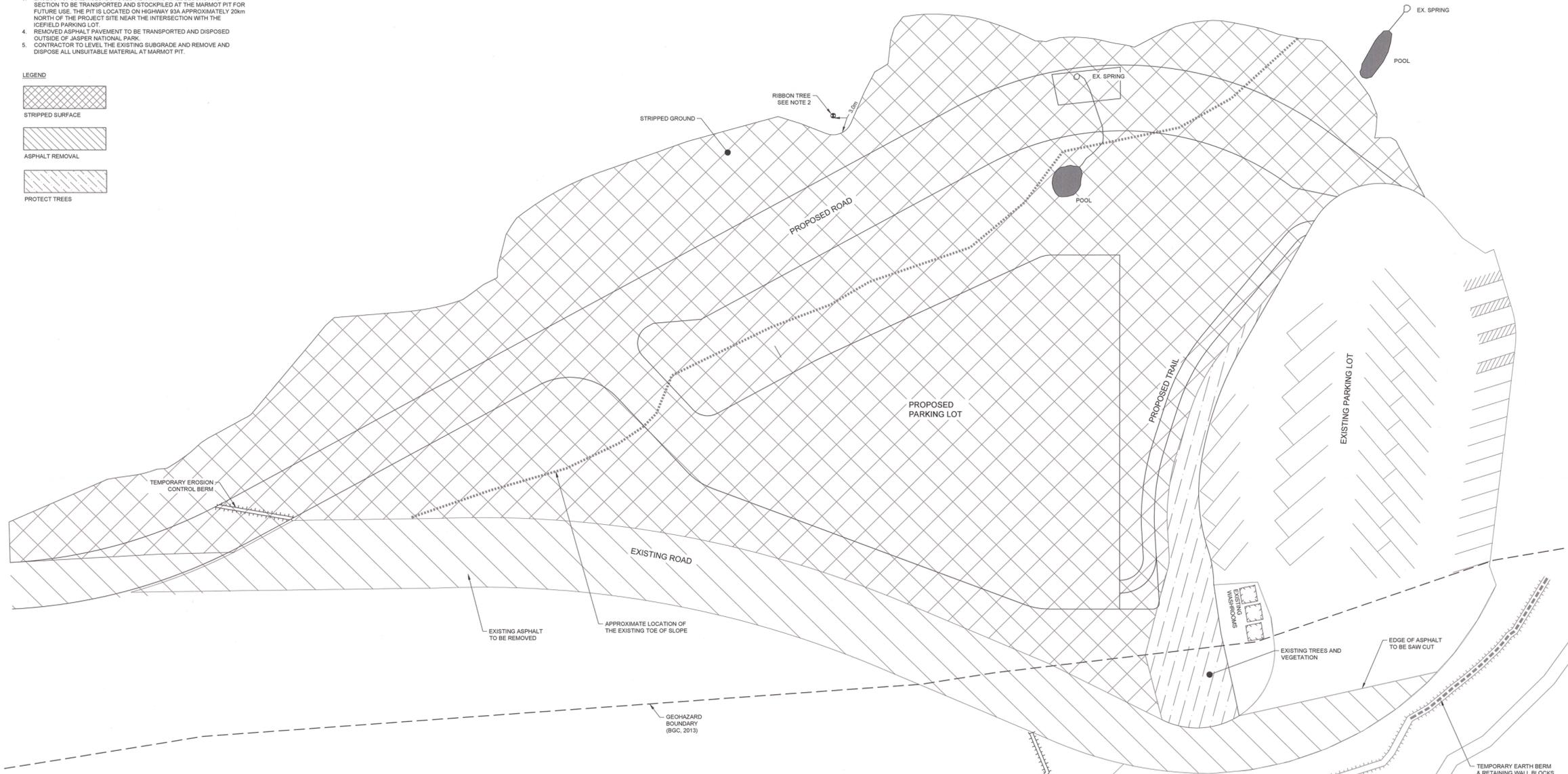
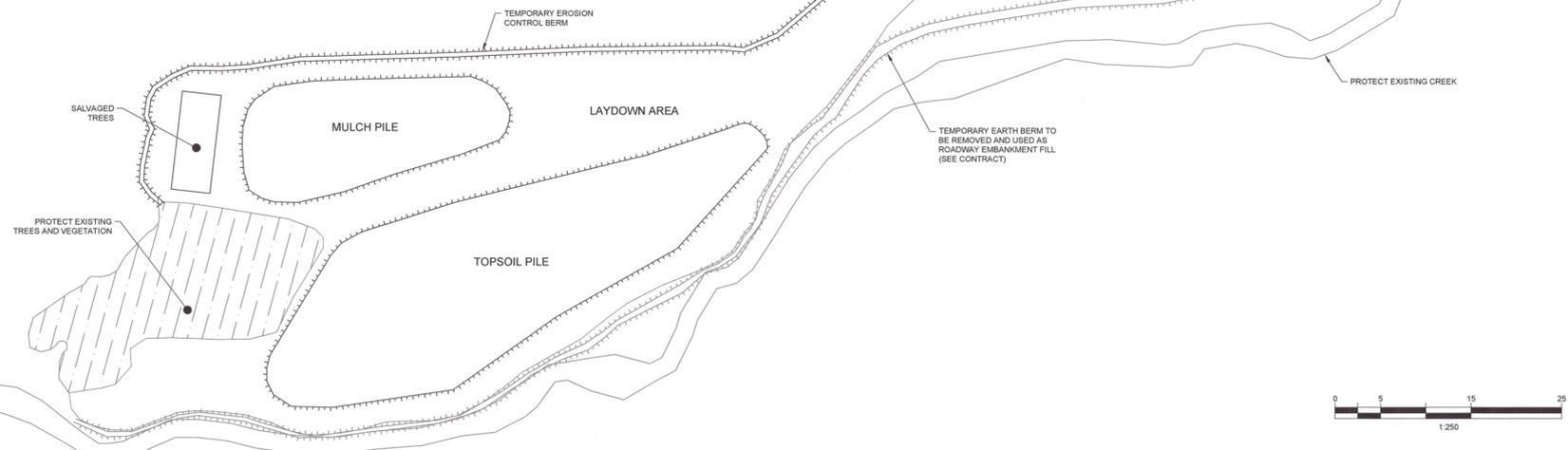


PHOTO
RETAINING WALL BLOCKS AND SECTION TO BE REMOVED



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No.	Date/Date	Description/Description	Drawn by/ Dessiné par	Approved/ Approuvé
0	2017MAR17	ISSUED FOR TENDER	M.T.	A.P.

Revision / Révision	
A	A detail number / numéro de détail
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C	detail on drawing no. / détail sur dessin no.

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

Eng. Stamp / Scelus de l'ingénieur: [Stamp]

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

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

Canada

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

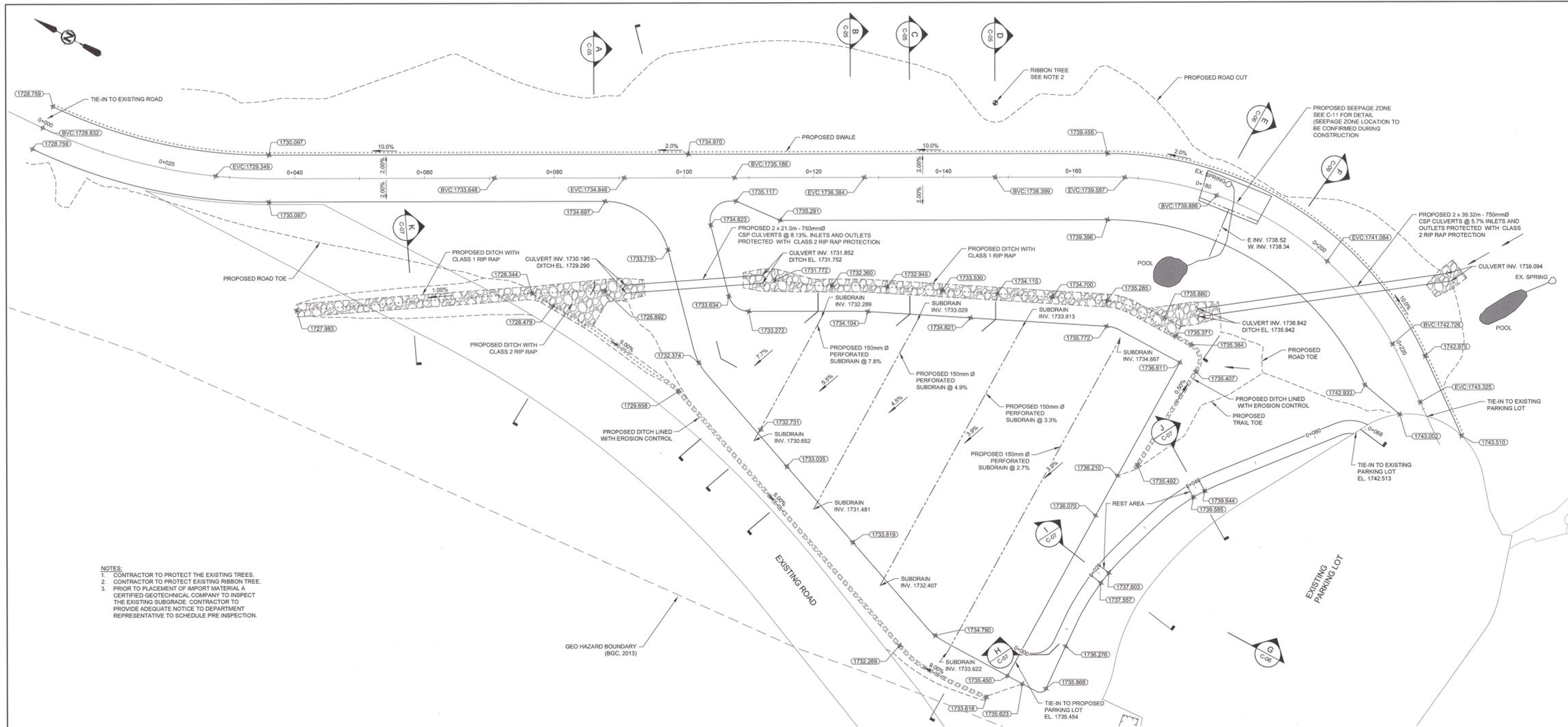
Western and Northern Region / Ouest et Nord du Canada

Project title/Titre du projet:
MT. EDITH CAVELL
REHABILITATION CONTRACT
2 JASPER NATIONAL PARK
OF CANADA

Drawing title/Titre du dessin:
CIVIL
EXISTING CONDITIONS /
REMOVAL PLAN

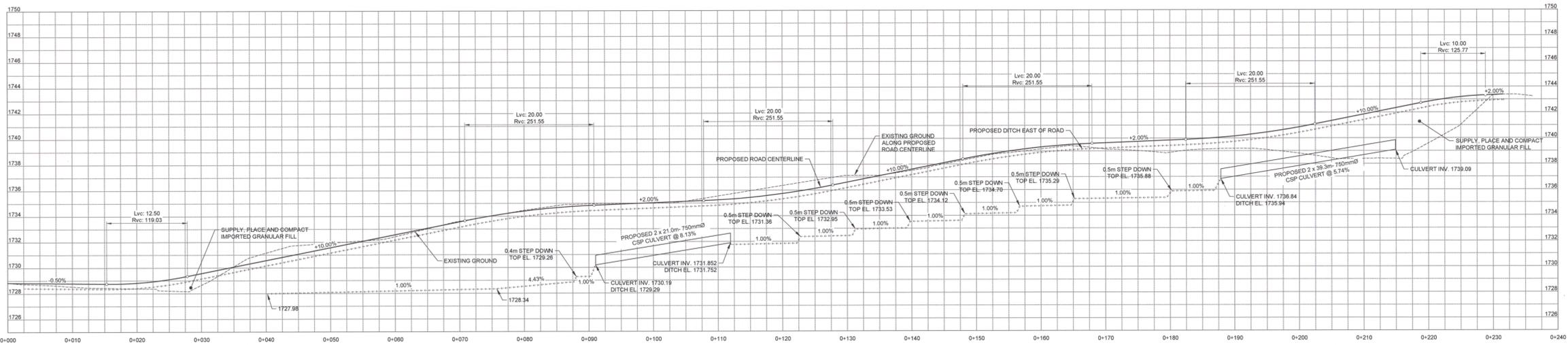
Surveyed by/Arpenté par: A. PODOLSKI	Drawn by/Dessiné par: M. TREMBLAY	Date/Date: 2017Mar15
Designed by/Concept par: A. PODOLSKI	Reviewed by/Revisé par: C. MAKI	Scale/Echelle: 1:250

Client Acceptance/Acceptation du client: [Signature]	Approved by/Approuvé par: [Signature]	
Project No./No. du projet: 719	Asset No./No. du-bien: [Blank]	Sheet No./No. de la feuille: 3
Drawing Reference No./No. de référence du dessin: C-02		19

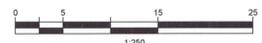


- NOTES:
- CONTRACTOR TO PROTECT THE EXISTING TREES.
 - CONTRACTOR TO PROTECT EXISTING RIBBON TREE.
 - PRIOR TO PLACEMENT OF IMPORT MATERIAL A CERTIFIED GEOTECHNICAL COMPANY TO INSPECT THE EXISTING SUBGRADE. CONTRACTOR TO PROVIDE ADEQUATE NOTICE TO DEPARTMENT REPRESENTATIVE TO SCHEDULE PRE INSPECTION.

PLAN 1:250



PROFILE H:1:250 V:1:125



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0	2017MAR17	ISSUED FOR TENDER	M.T.	A.P.

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

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

Eng. Stamp / Scellé de l'ingénieur: **Associated Engineering**

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

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

Canada

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

Western and Northern Region / Ouest et Nord du Canada

Project title/Titre du projet: **MT. EDITH CAVELL REHABILITATION CONTRACT 2 JASPER NATIONAL PARK OF CANADA**

Drawing title/Titre du dessin: **CIVIL ACCESS ROAD PLAN & PROFILE**

Surveyed by/Arpenté par: A. PODOLSKI	Drawn by/Dessiné par: M. TREMBLAY	Date/Date: 2017MAR17
Designed by/Concept par: A. PODOLSKI	Reviewed by/Revisé par: C. MAKI	Scale/Echelle: AS SHOWN

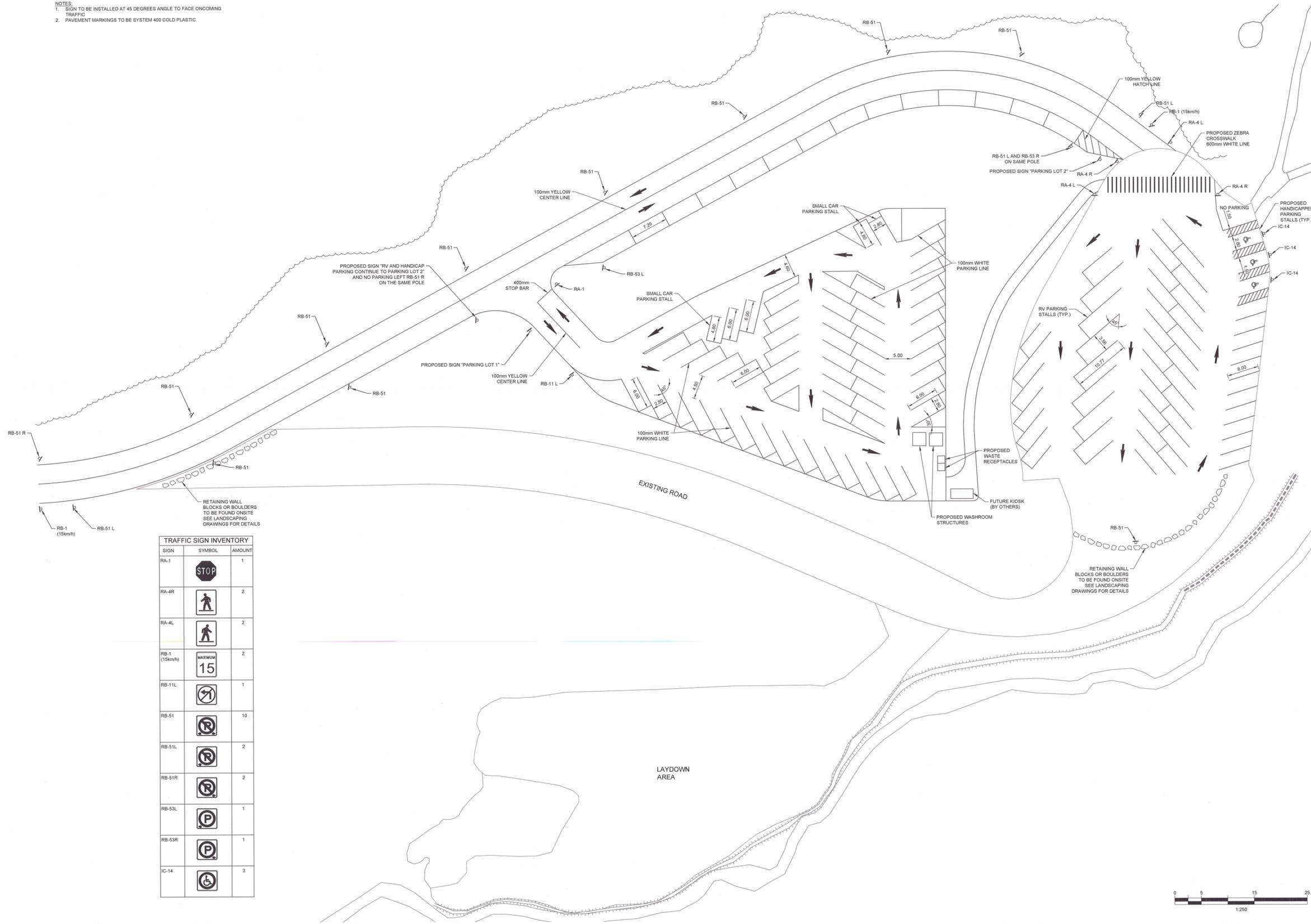
FWGSC Project Manager/Administrateur de Projets TFSGC: C. MAKI

Client Acceptance/Acceptation du client: Approved by/Approuvé par: C. MAKI

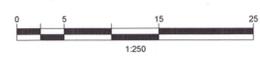
Project No./No. du projet: 719	Asset No./No. du bien: AS SHOWN	Sheet No./No. de la feuille: 4
Drawing Reference No./No. de référence du dessin: C-03		19



NOTES:
 1. SIGN TO BE INSTALLED AT 45 DEGREES ANGLE TO FACE ONCOMING TRAFFIC
 2. PAVEMENT MARKINGS TO BE SYSTEM 400 COLD PLASTIC



SIGN	SYMBOL	AMOUNT
RA-1		1
RA-4R		2
RA-4L		2
RB-1 (15km/h)		2
RB-11L		1
RB-51		10
RB-51L		2
RB-51R		2
RB-53L		1
RB-53R		1
IC-14		3



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No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé
0	2017MAR17	ISSUED FOR TENDER	M.T.	A.P.

Revision / Révision	
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B	B source drawing no. / de dessin no.
C	C detail on drawing no. / détail sur dessin no.

Consultant's Name / Nom de l'expert-consultant: **Associated Engineering**

Eng. Stamp / Scellement de l'ingénieur:

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

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

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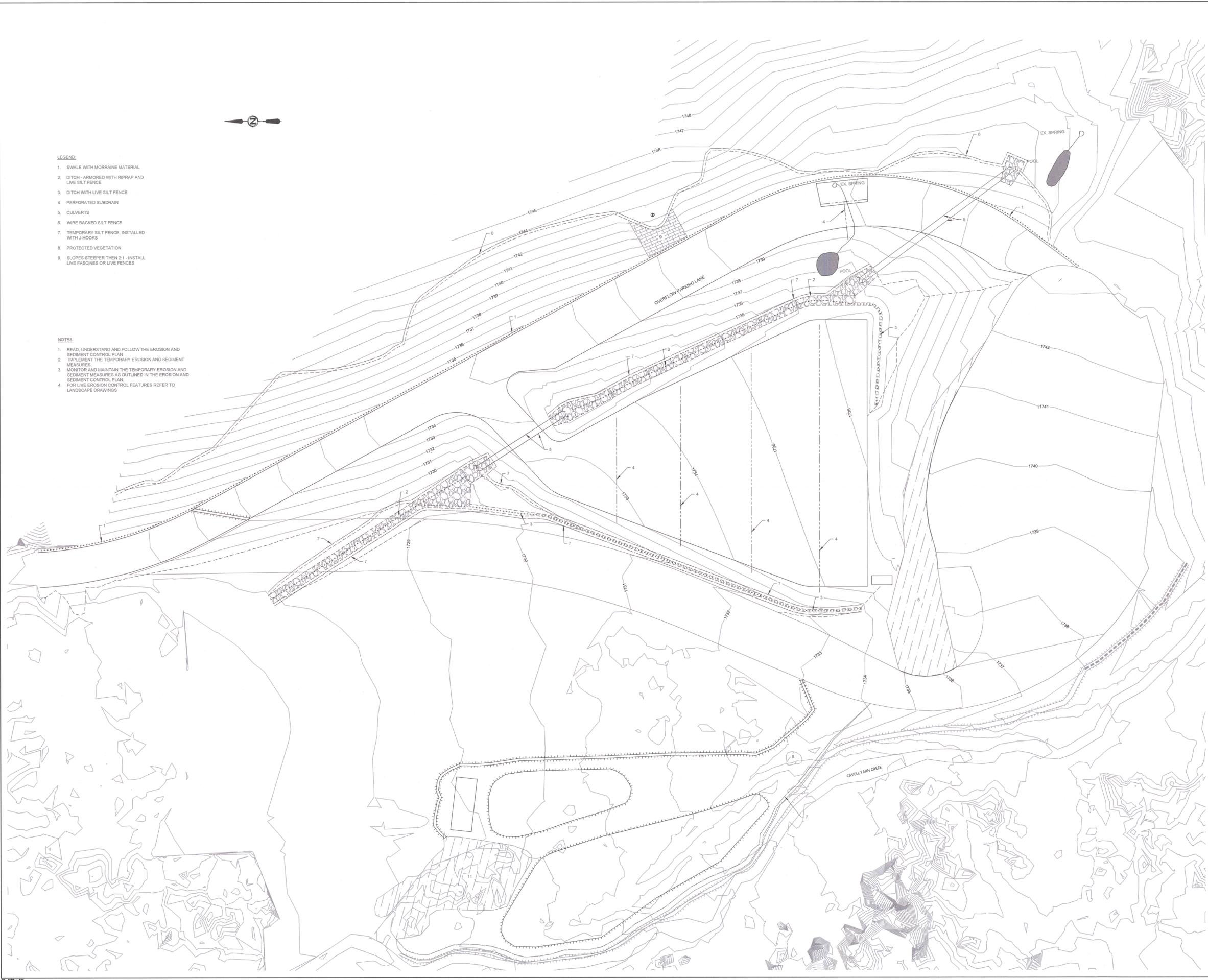
Parks Canada Agency / L'Agence Parcs Canada

Western and Northern Region / Ouest et Nord du Canada

Project Title/Title du projet: **MT. EDITH CAVELL REHABILITATION CONTRACT 2 JASPER NATIONAL PARK OF CANADA**

Drawing Title/Title du dessin: **CIVIL PAVEMENT MARKINGS AND SIGNS**

Survised by/Arpenté par: M. TREMBLAY	Drawn by/Dessiné par: M. TREMBLAY	Date/Date: 2017Mar16
Designed by/Conçu par: A. PODOLSKI	Reviewed by/Revisé par: A. PODOLSKI	Scale/Echelle: 1:250
PWSC Project Manager/Administrateur de Projets TPSC: C. MAKI		
Client Acceptance/Acceptation du client: Approved by/Approuvé par:		
Project No./No. du projet: 719	Sheet No./No. de la feuille: 5	Drawing Reference No./No. de référence du dessin: C-04



- LEGEND:**
1. SWALE WITH MORRAINE MATERIAL
 2. DITCH - ARMORED WITH RIPRAP AND LIVE SILT FENCE
 3. DITCH WITH LIVE SILT FENCE
 4. PERFORATED SUBDRAIN
 5. CULVERTS
 6. WIRE BACKED SILT FENCE
 7. TEMPORARY SILT FENCE, INSTALLED WITH J-HOOKS
 8. PROTECTED VEGETATION
 9. SLOPES STEEPER THEN 2:1 - INSTALL LIVE FASCINES OR LIVE FENCES

- NOTES:**
1. READ, UNDERSTAND AND FOLLOW THE EROSION AND SEDIMENT CONTROL PLAN
 2. IMPLEMENT THE TEMPORARY EROSION AND SEDIMENT MEASURES
 3. MONITOR AND MAINTAIN THE TEMPORARY EROSION AND SEDIMENT MEASURES AS OUTLINED IN THE EROSION AND SEDIMENT CONTROL PLAN
 4. FOR LIVE EROSION CONTROL FEATURES REFER TO LANDSCAPE DRAWINGS

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No.	Date/Date	Description/Description	Drawn by	Approved
0	2017MAR17	ISSUED FOR TENDER	M.T.	A.P.

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

Consultant's Name / Nom de l'expert-consultant: **Associated Engineering**

Eng. Stamp / Scellé de l'ingénieur:

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

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

Canada

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

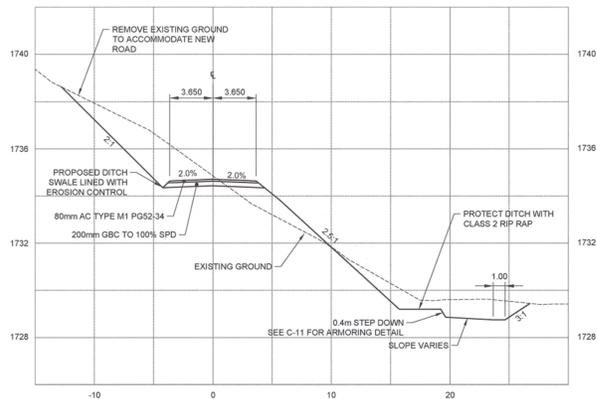
Western and Northern Region / Ouest et Nord du Canada

Project Title/Titre du projet: **MT. EDITH CAVELL REHABILITATION CONTRACT 2 JASPER NATIONAL PARK OF CANADA**

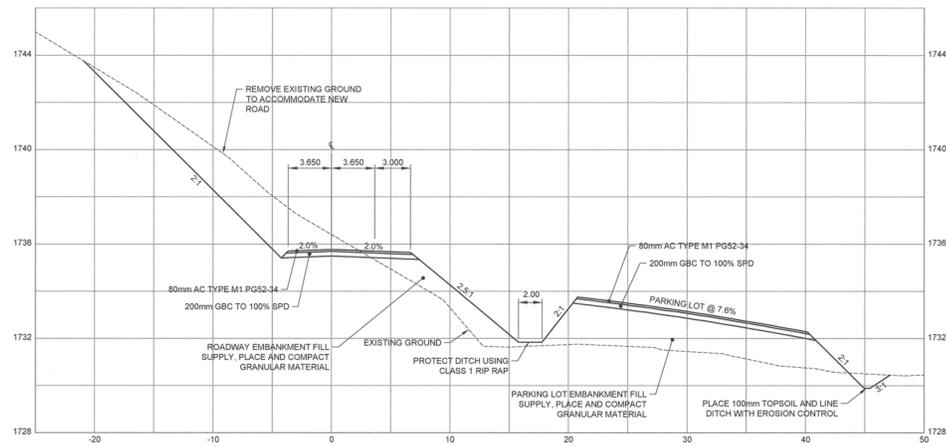
Drawing Title/Titre du dessin: **CIVIL EROSION AND SEDIMENT CONTROL**

Designed by/Concepté par: A. PODOLSKI	Drawn by/Dessiné par: M. TREMBLAY	Date/Date: 2017Mar16
Reviewed by/Revisé par: A. PODOLSKI	Scale/Echelle: AS SHOWN	

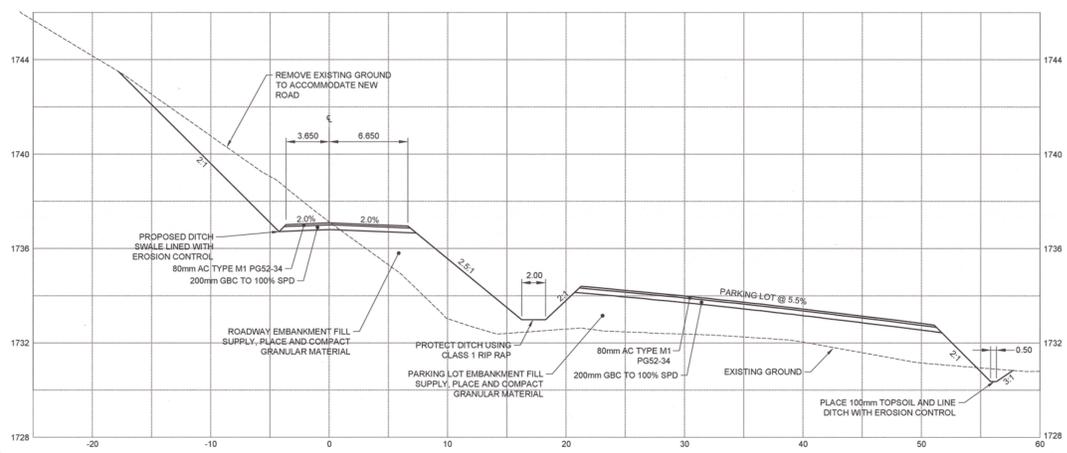
PWSC Project Manager/Administrateur de Projets TPSC: C. MAXI		
Client Acceptance/Acceptation du client/ Approved by/ Approuvé par:		
Project No./No. du projet: 719	Asset No./No. du bien: C-05	Sheet No./No. de la feuille: 6
Drawing Reference No./No. de référence du dessin: C-05		19



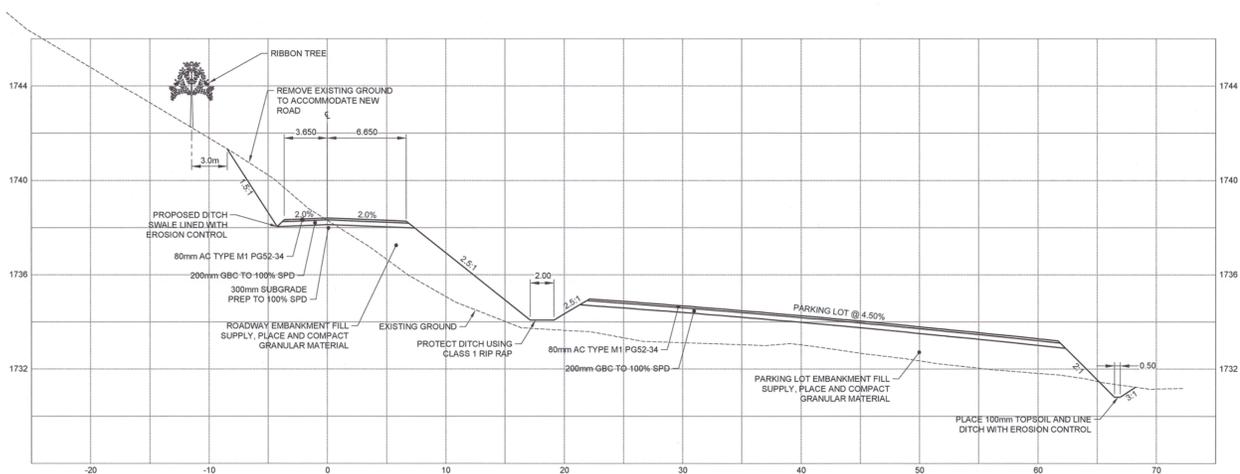
A SECTION
C-03



B SECTION
C-03



C SECTION
C-03



D SECTION
C-03

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No.	Date/Date	Description/Description	Drawn by dessiné par	Approved approuvé
0	2017MAR17	ISSUED FOR TENDER	M.T.	A.P.

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

Consultant's Name
Nom de l'expert-consultant

Eng. Stamp
Sceau de l'ingénieur

Associated Engineering

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

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

Canada

Parks Canada Agency
L'Agence Parcs Canada

Western and Northern Region
Ouest et Nord du Canada

Project Title/Titre du projet
MT. EDITH CAVELL REHABILITATION CONTRACT 2 JASPER NATIONAL PARK OF CANADA

Drawing Title/Titre du dessin
CIVIL PROPOSED PARKING LOT AND ACCESS ROAD - SECTIONS

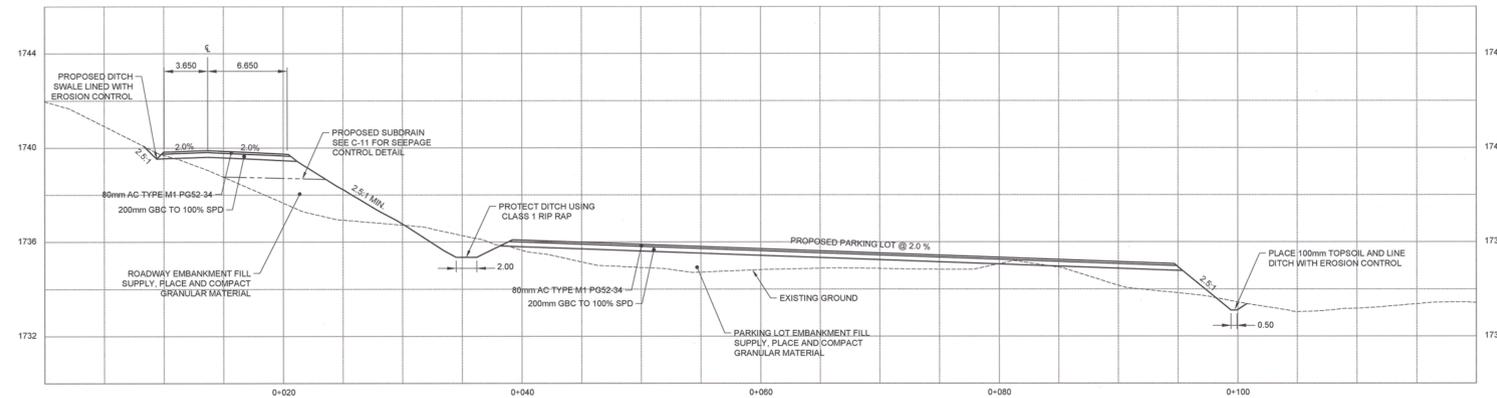
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	M. TREMBLAY	2017Mar17

Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle
A. PODOLSKI		H 1:200 V 1:100

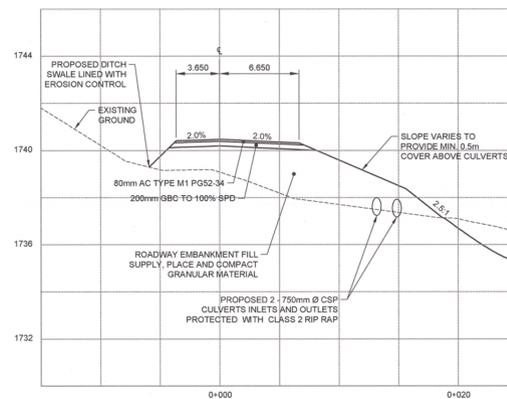
Project Manager/Administrateur de Projets TP50C
C. MARI

Project No./No. du projet	Asset No./No. du bien	Sheet No./No. de la feuille
719		7

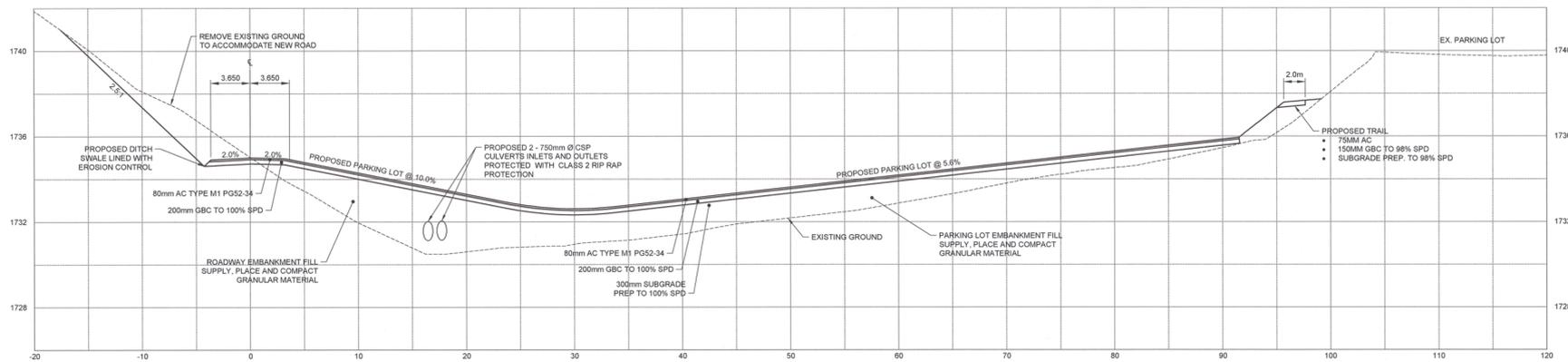
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C-06



E SECTION
C-03



F SECTION
C-03



G SECTION
C-03

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Consultant's Name
Nom de l'expert-conseil

Associated Engineering

Eng. Stamp
Scieu de l'ingénieur

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

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

Canada

Client/client
Parks Canada Agency
L'Agence Parcs Canada

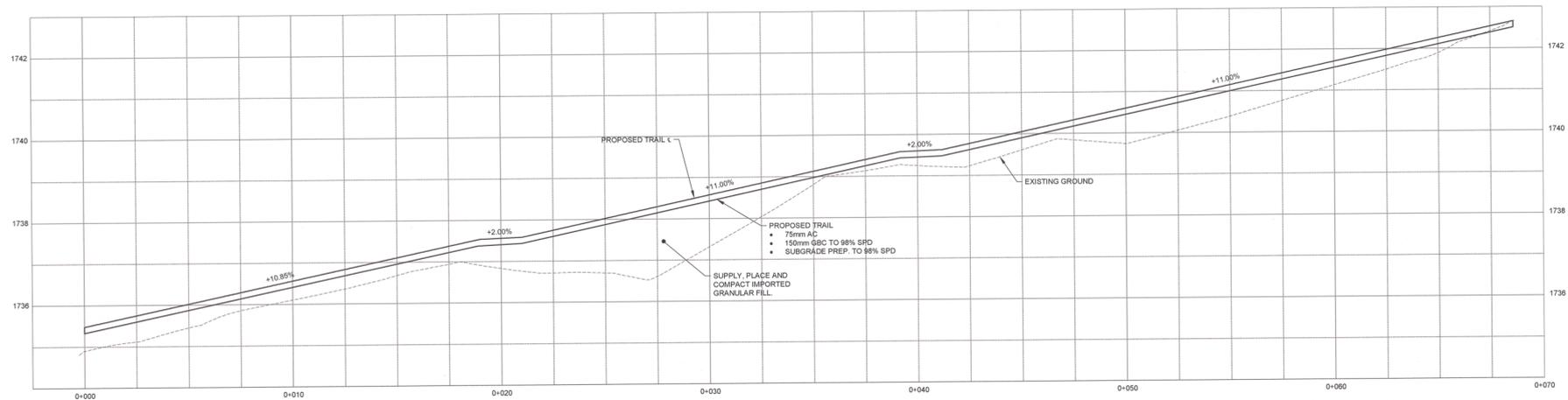
Western and Northern Region
Ouest et Nord du Canada

Project title/Titre du projet
MT. EDITH CAVELL REHABILITATION CONTRACT 2 JASPER NATIONAL PARK OF CANADA

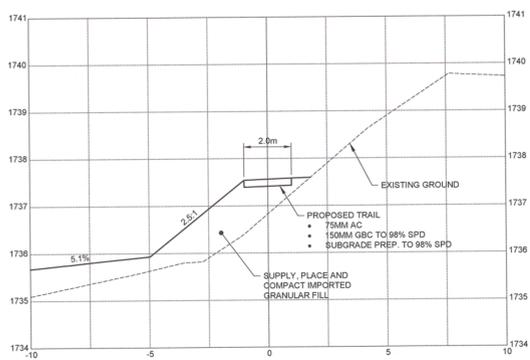
Drawing title/Titre du dessin
CIVIL PROPOSED PARKING LOT AND ACCESS ROAD - SECTIONS

Surveyed by/Aspente par A. PODOLSKI	Drawn by/Dessiné par M. TREMBLAY	Date/Date 2017/Mar/17
Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle H 1:200 V 1:100

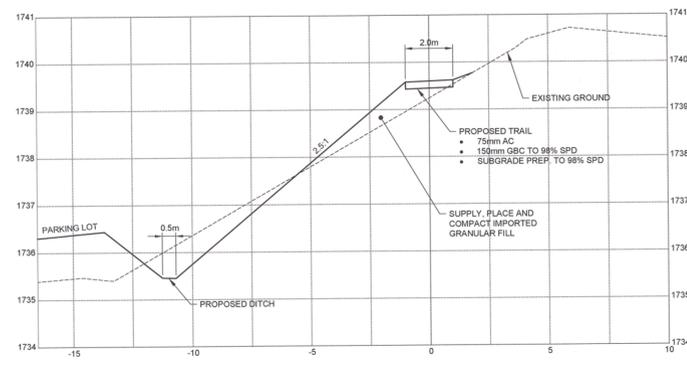
Client Acceptance/Acceptation du client		Approved by/Approuvé par
Park Responsible Officer/Agent Responsable		PWOSC Project Manager/Administrateur de Projets TPSCC
Project No./No. du projet 719	Asset No./No. du bien	Sheet No./No. de la feuille 8
Drawing Reference No./No. de référence du dessin C-07		19



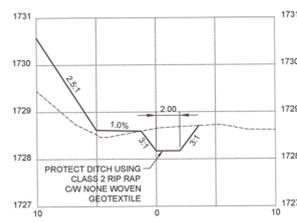
H
C-03 PROFILE H: 1:100 V: 1:50



I
C-03 SECTION H: 1:100 V: 1:50



J
C-03 SECTION H: 1:100 V: 1:50



K
C-03 SECTION H: 1:200 V: 1:50

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PRACTICE
P 3979

No.	Date/Date	Description/Description	Drawn by Designé par	Approved Approuvé
0	2017/MAR/17	ISSUED FOR TENDER	M.T.	A.P.

Revision / Revision	
A	A
B	B
C	C

Consultant's Name
Nom de l'expert-consultant

Associated Engineering

Eng. Stamp
Sceau de l'ingénieur

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

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

Canada

Parks Canada Agency
L'Agence Parcs Canada

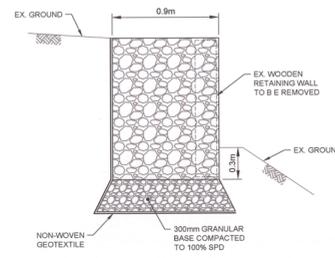
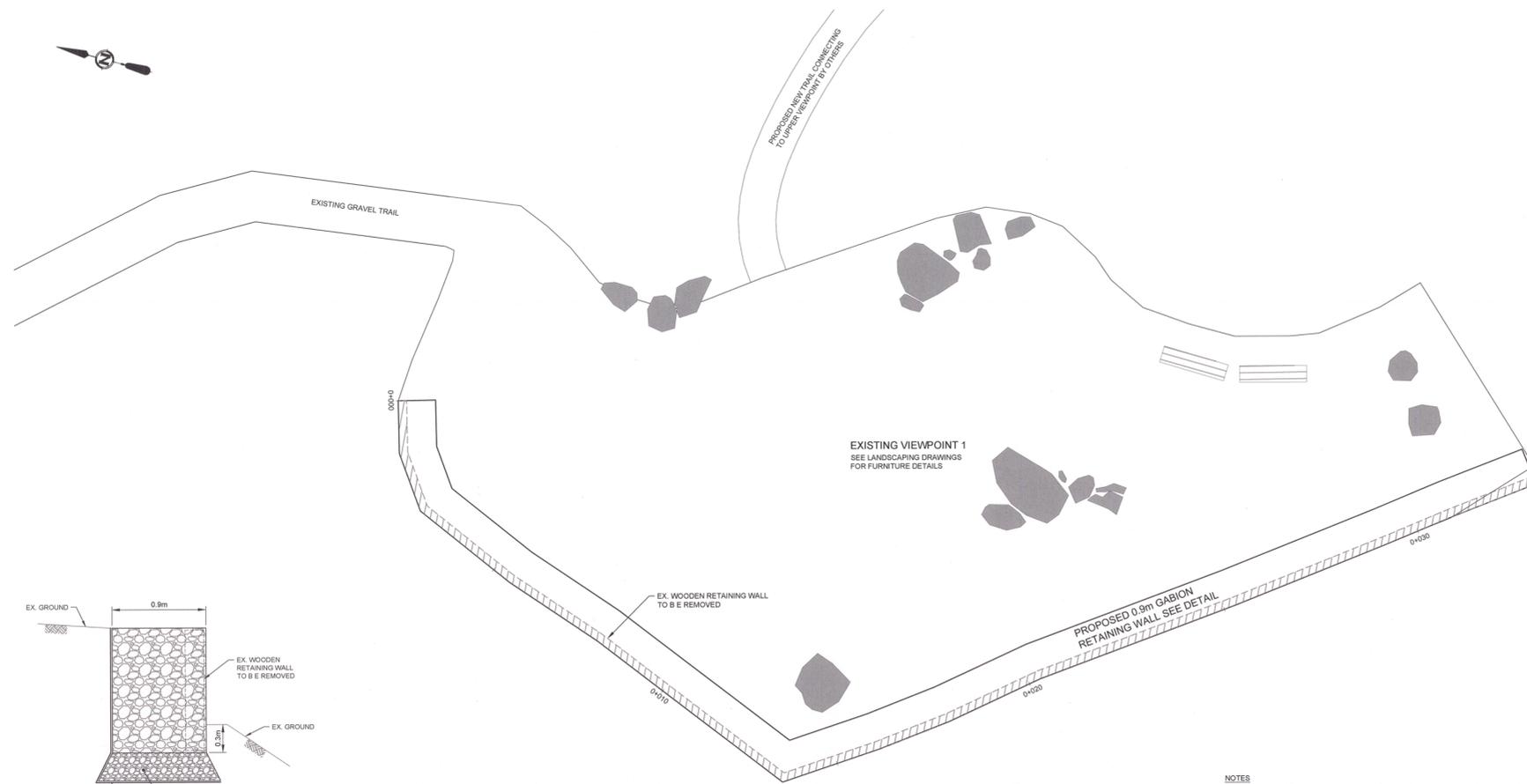
Western and Northern Region
Ouest et Nord du Canada

Project Title/Titre du projet
MT. EDITH CAVELL REHABILITATION CONTRACT 2 JASPER NATIONAL PARK OF CANADA

Drawing Title/Titre du dessin
CIVIL PROPOSED TRAIL PROFILE & SECTIONS

Surveyed by/Arpenté par A. PODOLSKI	Drawn by/Designé par M. TREMBLAY	Date/Date 2017/Mar/15
Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle AS SHOWN

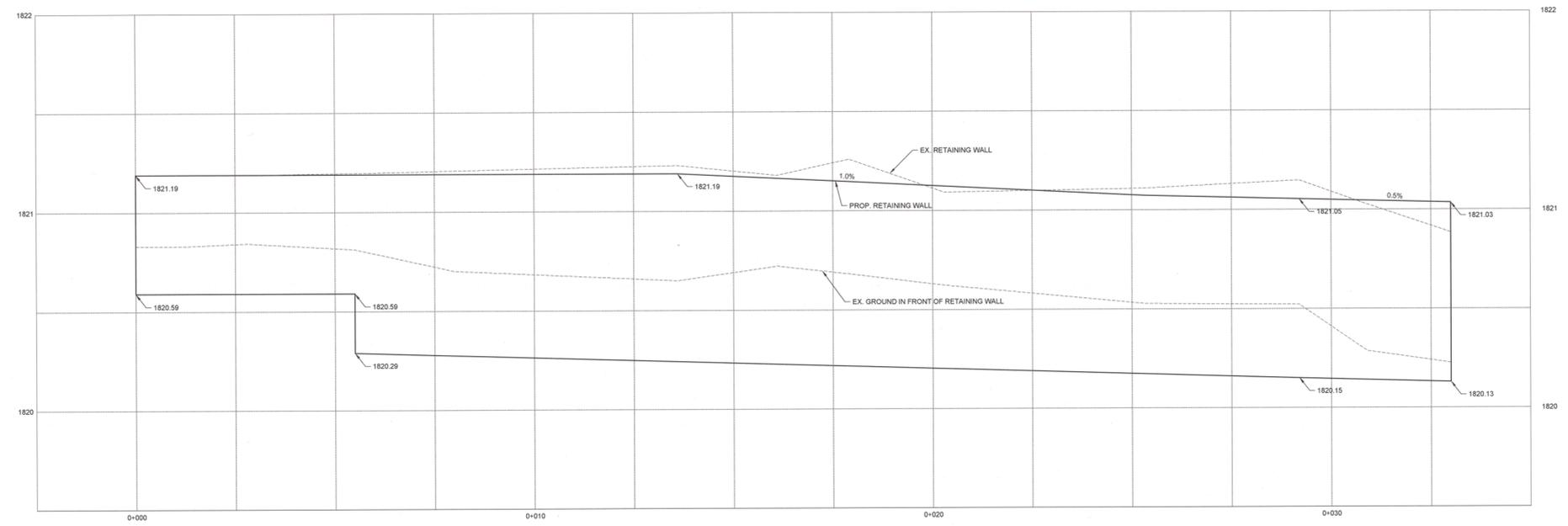
PWSC Project Manager/Administrateur de Projets TPSC C. MAKI		Client Acceptance/Acceptation du client Approved by/Approuvé par
Project No./No. du projet 719	Sheet No./No. de la feuille 9	Drawing Reference No./No. de référence du dessin C-08



DETAIL N.T.S.
GABION RETAINING WALL

- NOTES**
1. THE GABION RETAINING WALL TO BE DESIGNED BY THE CONTRACTOR. THE DESIGN TO BE SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN ALBERTA.
 2. THE INDICATED GABION BASKET SIZE MAY CHANGE.
 3. THE RETAINING WALL ALIGNMENT TO BE CONFIRMED IN THE FIELD BY THE DEPARTMENT REPRESENTATIVE.
 4. THE GABION BASKETS TO BE FILLED WITH ROCK SIZE: 80mm - 200mm. ROCK IS AVAILABLE ON SITE FOR RETAINING WALL FILL.
 5. DESIGN PARAMETERS: ACTIVE EARTH PRESSURE COEFFICIENT (KA): 0.30; ANGLE OF INTERNAL WALL FRICTION (φ): 32 DEGREE.

PLAN H 1:50 V 1:50



PROFILE H 1:50 V 1:10

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P 3979

No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé
0	2017/MAR/17	ISSUED FOR TENDER	M.T.	A.P.

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

Consultant's Name / Nom de l'expert-consultant: **Associated Engineering**

Eng. Stamp / Sceau de l'ingénieur:

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

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

Canada

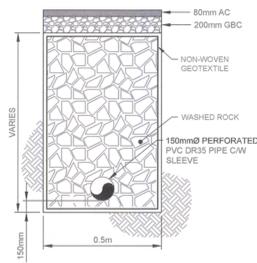
Client/client: **Parks Canada / L'Agence Parcs Canada**
Western and Northern Region / Ouest et Nord du Canada

Project title/Titre du projet: **MT. EDITH CAVELL REHABILITATION CONTRACT 2 JASPER NATIONAL PARK OF CANADA**

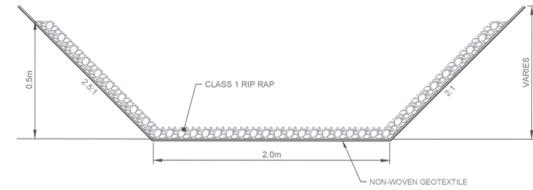
Drawing title/Titre du dessin: **CIVIL PROPOSED RETAINING WALL AT VIEWPOINT 1**

Surveyed by/Arpenté par: A. PODOLSKI	Drawn by/Dessiné par: M. TREMBLAY	Date/Date: 2017/Mar/15
Designed by/Concept par: A. PODOLSKI	Reviewed by/Révisé par: C. MAKI	Scale/Echelle: AS SHOWN

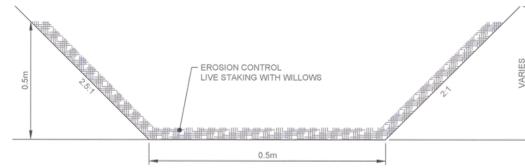
Client Acceptance/Acceptation du client: C. MAKI	Approved by/Approuvé par: C. MAKI
Project No./No. du projet: 719	Sheet No./No. de la feuille: 10
Drawing Reference No./No. de référence du dessin: C-09	19



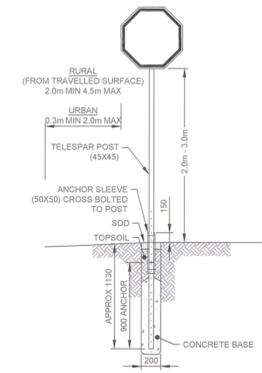
1 DETAIL
SUB-DRAIN TRENCH



2 DETAIL
TYPICAL PARKING LOT EAST DITCH

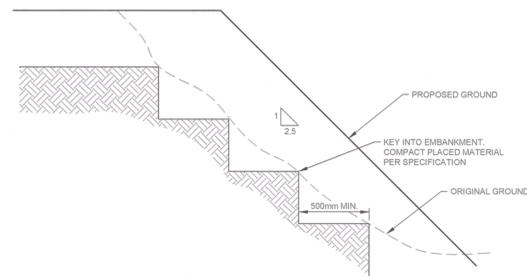


3 DETAIL
TYPICAL PARKING LOT WEST DITCH

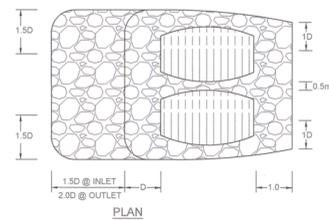
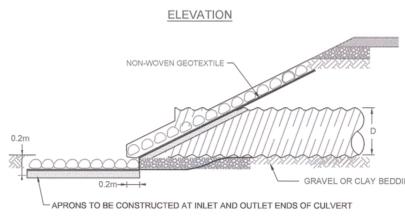
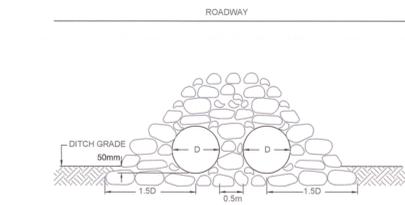


NOTES:
1. REFER TO THE 'MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR CANADA' (MUTCD), LATEST EDITION, FOR FURTHER DETAILS.
2. ALL DIMENSIONS SHOWN IN MILLIMETRES UNLESS NOTED OTHERWISE.

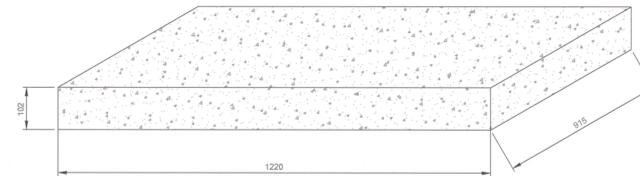
4 DETAIL
TYPICAL SIGN INSTALLATION



5 DETAIL
EMBANKMENT KEY-IN



6 DETAIL
RIP RAP DETAIL



7 DETAIL
CONCRETE MOUNTING PAD FOR STANDARD BEAR RESISTANT RECEPTACLE

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P 3979

No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé
0	2017MAR17	ISSUED FOR TENDER	M.T.	A.P.

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

Consultant's Name
Nom de l'expert-conseil

Associated Engineering

Eng. Stamp
Sceau de l'ingénieur

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

Client Services Team
Southern Alberta
Operations Branch

La Client Entretien / Équipe
Alberta Méridionale
Branche d'Opérations

Canada

Client/client
Parks Canada
Agence

L'Agence Parcs
Canada

Western and Northern Region
Ouest et Nord du Canada

Project title/Titre du projet
MT. EDITH CAVELL
REHABILITATION CONTRACT
2 JASPER NATIONAL PARK
OF CANADA

Drawing title/Titre du dessin
CIVIL
DETAILS

Surveyed by/Arpenté par	Drawn by/Dessiné par	Date/Date
A. PODOLSKI	M. TREMBLAY	2017Feb08

Designed by/Concepté par
A. PODOLSKI

Reviewed by/Revisé par
C. MARI

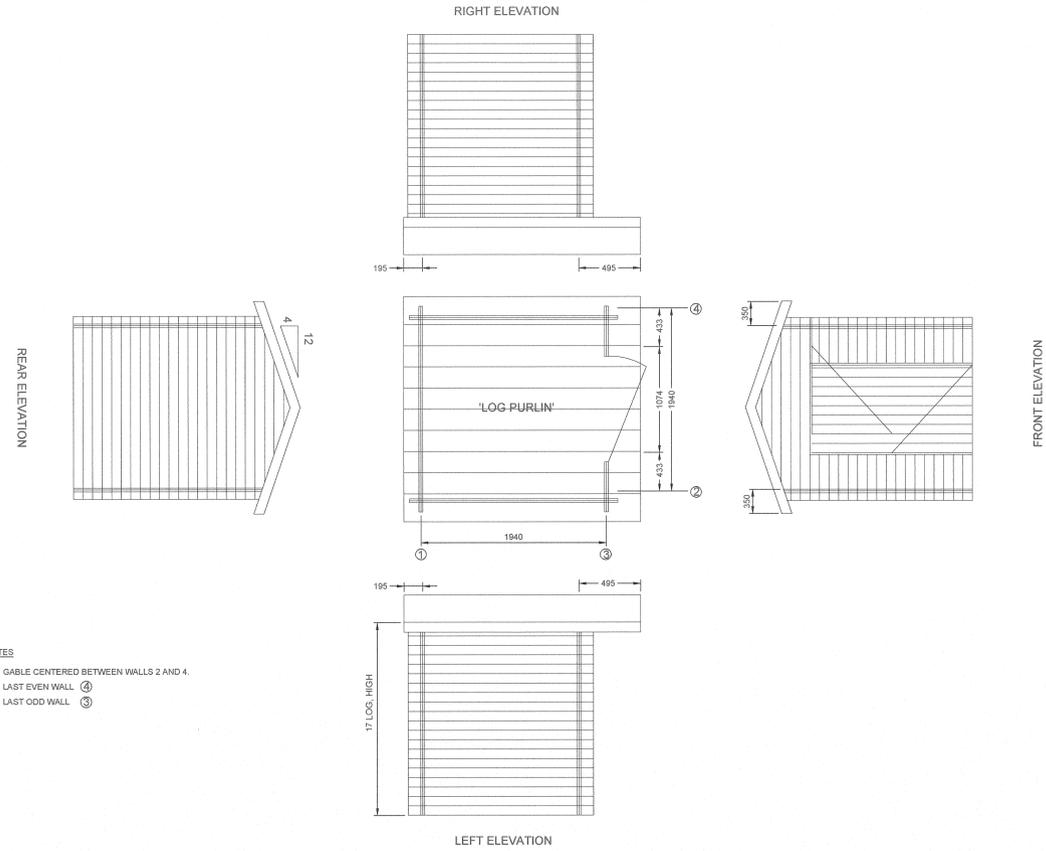
Scale/Echelle
N.T.S.

Client Acceptance/Acceptation du client
C. MARI

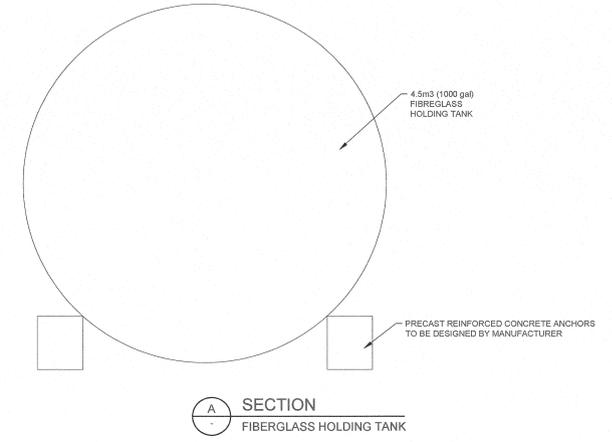
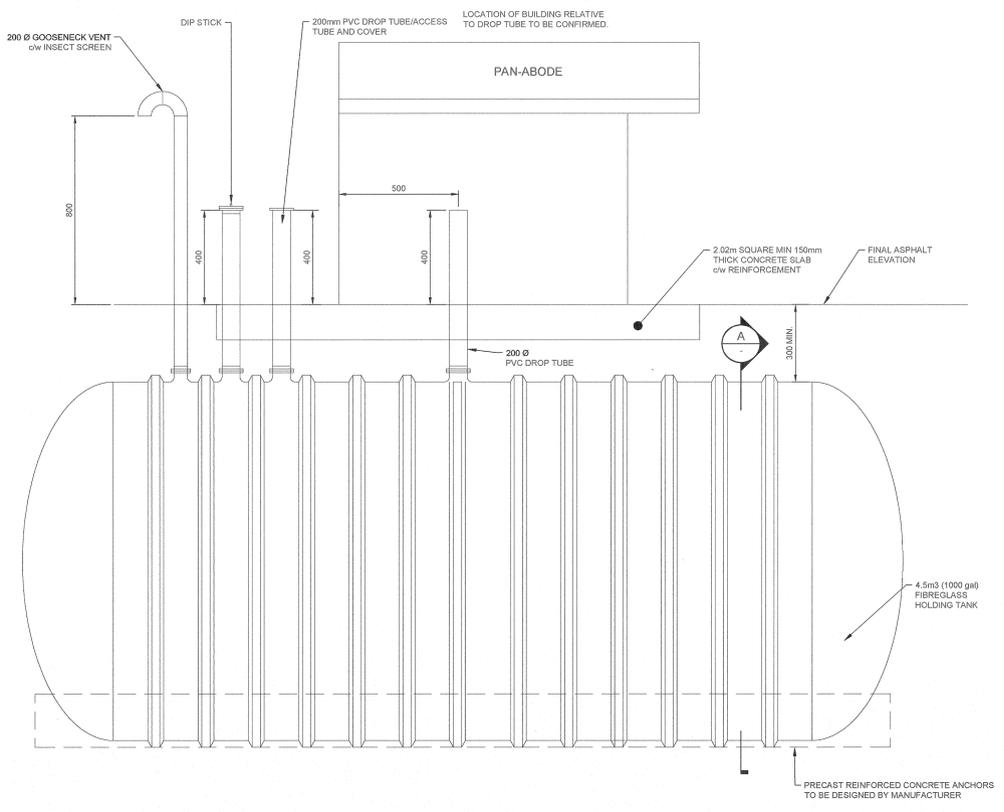
Approved by/Approuvé par
C. MARI

Project No./No. du projet	Sheet No./No. de la feuille
719	11

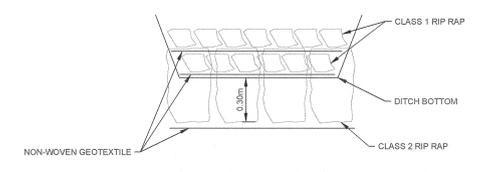
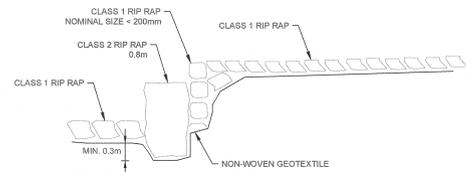
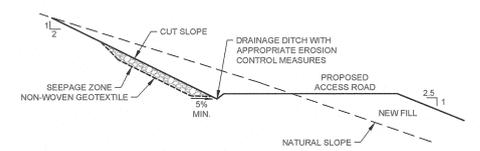
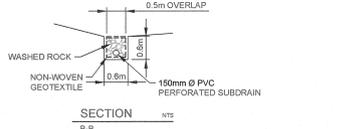
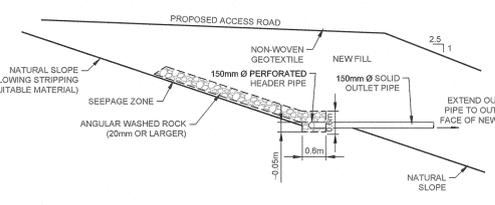
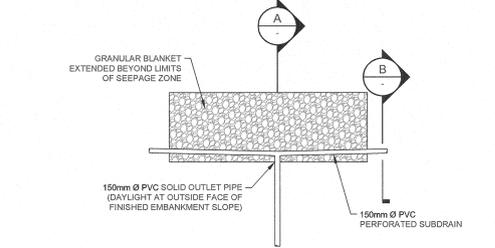
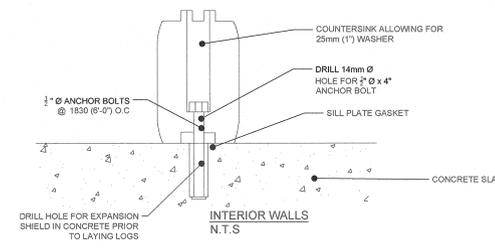
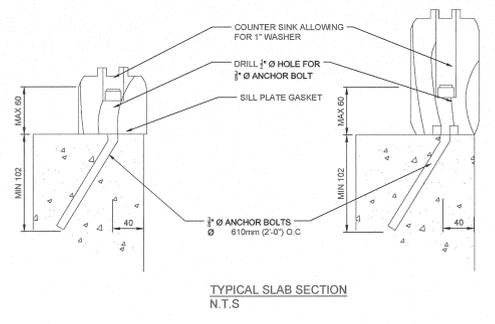
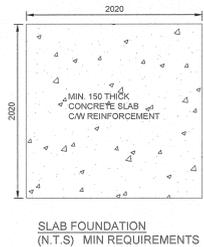
Drawing Reference No./No. de référence du dessin
C-10



- NOTES**
1. GABLE CENTERED BETWEEN WALLS 2 AND 4.
 2. LAST EVEN WALL (4)
 3. LAST ODD WALL (3)



- NOTES**
1. TANK TO BE BED IN 12mm CRUSHED STONE OR PEA GRAVEL. COMPACT BACKFILL TO 95% STANDARD PROCTOR DENSITY.
 2. TANK ANCHOR AND CONCRETE SLAB TO BE DESIGNED, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF ALBERTA.
 3. ALL MEASUREMENTS ARE GIVEN IN MILLIMETERS UNLESS INDICATED OTHERWISE.
 4. CONCRETE TO HAVE A 28 DAY COMPRESSIVE STRENGTH OF MIN 30MPa.
 5. SOIL BEARING CAPACITY IS 80KPa.



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0	2017MAR17	ISSUED FOR TENDER	S.K.	A.P.
No.	Date/Date	Description/Description	Drawn by	Approved
Revision / Revision				
A		A detail number	A	
B		B source drawing no.	B/C	
C		C detail on drawing no.	C	

Consultant's Name
Nom de l'expert-consultant

Associated Engineering

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

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

Canada

Parks Canada Agency
L'Agence Parcs Canada

Western and Northern Region
Ouest et Nord du Canada

Project Title/Titre du projet
MT. EDVALL REHABILITATION CONTRACT 2 JASPER NATIONAL PARK OF CANADA

Drawing Title/Titre du dessin
CIVIL AND STRUCTURAL DETAILS

Surveyed by/Aspété par A. PODOLSKI	Drawn by/Dessiné par S. KAWESKI	Date/Date 2017Mar17
Designed by/Conçut par A. PODOLSKI	Reviewed by/Revisé par S. KAWESKI	Scale/Echelle N.T.S.

Client Acceptance/Acceptation du client
Approved by/Apprové par
C. MAKI

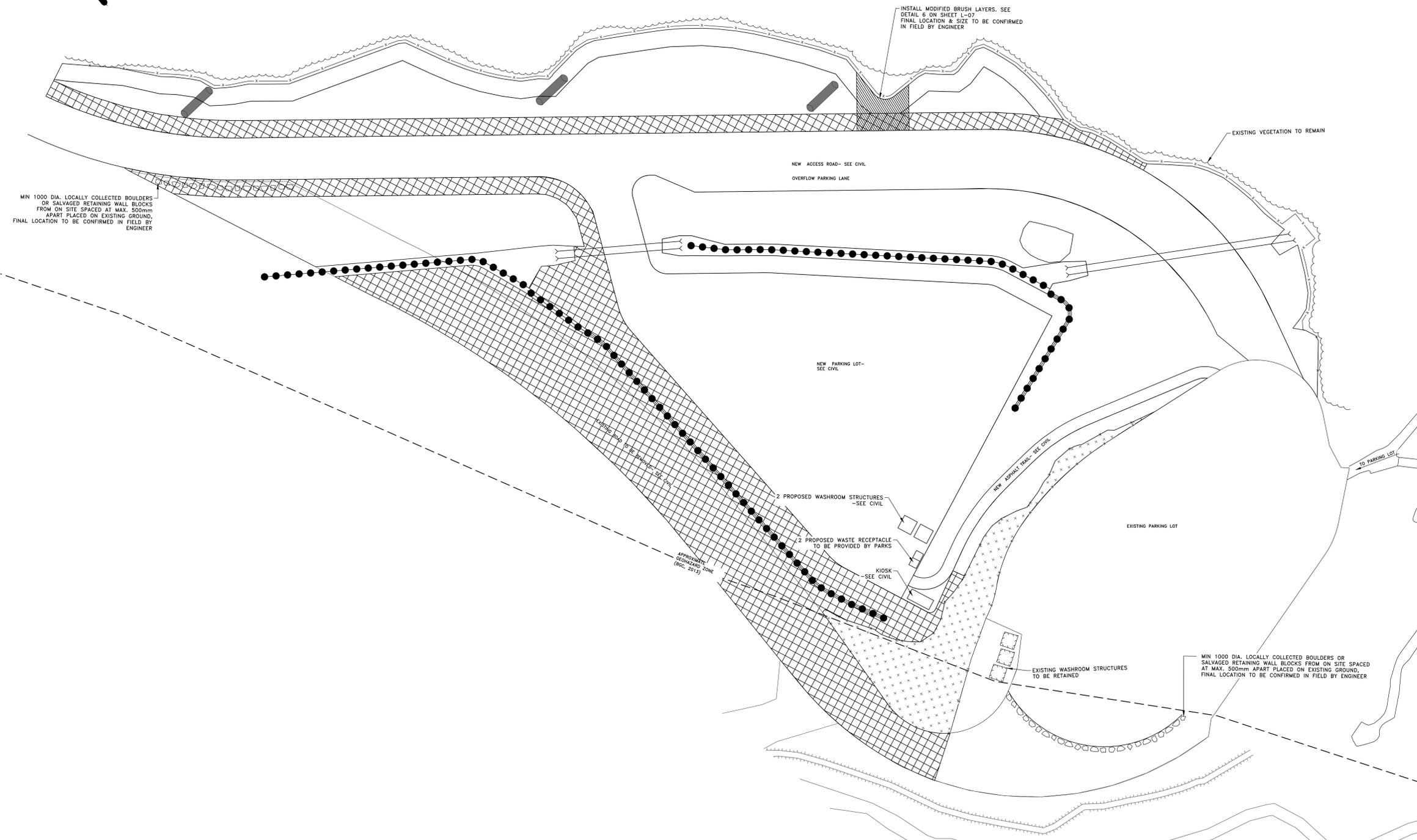
Project No./No. du projet 719	Asset No./No. de bien -	Sheet No./No. de la feuille 12
Drawing Reference No./No. de référence du dessin C-11		19

LEGEND

-  EXISTING VEGETATION TO BE PROTECTED/RETAINED
-  PROTECTIVE SNOW FENCING. SEE DETAIL 2 ON SHEET L-07
-  MORRAINE RESTORATION ZONE- PLACE 100mm DEPTH LOCALLY SALVAGED MORRAINE MATERIAL OVER ENTIRE AREA INDICATED
-  LIVE WILLOW STAKING/WILLOW SILT FENCE IN DITCH - SEE DETAIL 4 & 5 L-07
-  LOG POND SEDIMENT CONTROL STRUCTURE. FINAL LOCATION TO BE CONFIRMED IN FIELD BY ENGINEER- SEE DETAIL 3 L-07

NOTE:

- ALL LOCATIONS SHOWN ARE APPROXIMATE. ALL FINAL LOCATIONS TO BE CONFIRMED IN THE FIELD BY ENGINEER.
- NO NEW PERMANENT CONSTRUCTION TO OCCUR BELOW GEOHAZARD ZONE, WITH EXCEPTION OF BOULDER ACCESS CONTROL.
- SEE SHEET L-07 FOR COMPLETE PLANT LIST



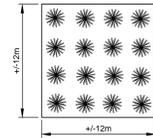
1 PLAN
MORRAINE MATERIAL RESTORATION

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G	2017MAR17	ISSUED FOR TENDER	T.B.	D.S.												
No.	Date/Date	Description/Description	Drawn by dessiné par	Approved Approuvé												
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C detail on drawing no. détail sur dessin no.																
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"> Consultant's Name Nom de l'expert-conseil  </td> <td style="width: 50%;"> Eng. Stamp Scellé de l'ingénieur  </td> </tr> <tr> <td> Public Works and Government Services Canada Client Services Team Southern Alberta Operations Branch </td> <td> Travaux publics et Services gouvernementaux Canada Le Client Entretien l'Équipe Alberta Méridionale Branches d'Opérations </td> </tr> </table>		Consultant's Name Nom de l'expert-conseil 	Eng. Stamp Scellé de l'ingénieur 	Public Works and Government Services Canada Client Services Team Southern Alberta Operations Branch	Travaux publics et Services gouvernementaux Canada Le Client Entretien l'Équipe Alberta Méridionale Branches d'Opérations											
Consultant's Name Nom de l'expert-conseil 	Eng. Stamp Scellé de l'ingénieur 															
Public Works and Government Services Canada Client Services Team Southern Alberta Operations Branch	Travaux publics et Services gouvernementaux Canada Le Client Entretien l'Équipe Alberta Méridionale Branches d'Opérations															
																
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"> Client/client Parks Canada Agency Western and Northern Region </td> <td style="width: 50%;"> L'Agence Parcs Canada Ouest et Nord du Canada </td> </tr> </table>		Client/client Parks Canada Agency Western and Northern Region	L'Agence Parcs Canada Ouest et Nord du Canada													
Client/client Parks Canada Agency Western and Northern Region	L'Agence Parcs Canada Ouest et Nord du Canada															
Project title/Titre du projet <p style="text-align: center;">MT. EDITH CAVELL REHABILITATION CONTRACT 2 JASPER NATIONAL PARK OF CANADA</p>																
Drawing title/Titre du dessin <p style="text-align: center;">LANDSCAPE MORRAINE MATERIAL RESTORATION</p>																
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Surveyed by/Arpenté par</td> <td>Drawn by/Dessiné par</td> <td>Date/Date</td> </tr> <tr> <td></td> <td>T.B.</td> <td>2017MAR17</td> </tr> <tr> <td>Designed by/Concept par</td> <td>Reviewed by/Revisé par</td> <td>Scale/Echelle</td> </tr> <tr> <td>D.S.</td> <td>B.O.</td> <td>AS SHOWN</td> </tr> </table>		Surveyed by/Arpenté par	Drawn by/Dessiné par	Date/Date		T.B.	2017MAR17	Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle	D.S.	B.O.	AS SHOWN			
Surveyed by/Arpenté par	Drawn by/Dessiné par	Date/Date														
	T.B.	2017MAR17														
Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle														
D.S.	B.O.	AS SHOWN														
PWSC Project Manager/Administrateur de Projets TPSGC																
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">Client Acceptance/Acceptation du client</td> <td>Approved by/Approuvé par</td> </tr> <tr> <td colspan="2"></td> <td></td> </tr> </table>		Client Acceptance/Acceptation du client		Approved by/Approuvé par												
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Park Responsibility Office/Agence Responsabilité		PWSC Project Manager/Administrateur de Projets TPSGC														
Project No./No. du projet	Asset No./No. du bien	Sheet No./No. de la feuille														
719		13														
Drawing Reference No./No. de référence du dessin																
L-01																

LEGEND

-  EXISTING VEGETATION TO BE PROTECTED/RETAINED
-  PROTECTIVE SNOW FENCING. SEE DETAIL 2 ON SHEET L-07
-  WHITEBARK PINE RESTORATION ZONE- SEE 12X12 ENLARGEMENT SAMPLE ON THIS SHEET
-  LIVE WILLOW STAKING/WILLOW SILT FENCE IN DITCH - SEE DETAIL 4 & 5 L-07
-  LOG POND SEDIMENT CONTROL STRUCTURE. FINAL LOCATION TO BE CONFIRMED IN FIELD BY ENGINEER- SEE DETAIL 3 L-07

**WHITEBARK PINE RESTORATION ZONE
12X12 ENLARGEMENT SAMPLE**



QUANTITY	SCIENTIFIC NAME	COMMON NAME	SPACING	WHITEBARK PINE
TREES				
16	<i>Pinus albicaulis</i>	Whitebark Pine	3m	

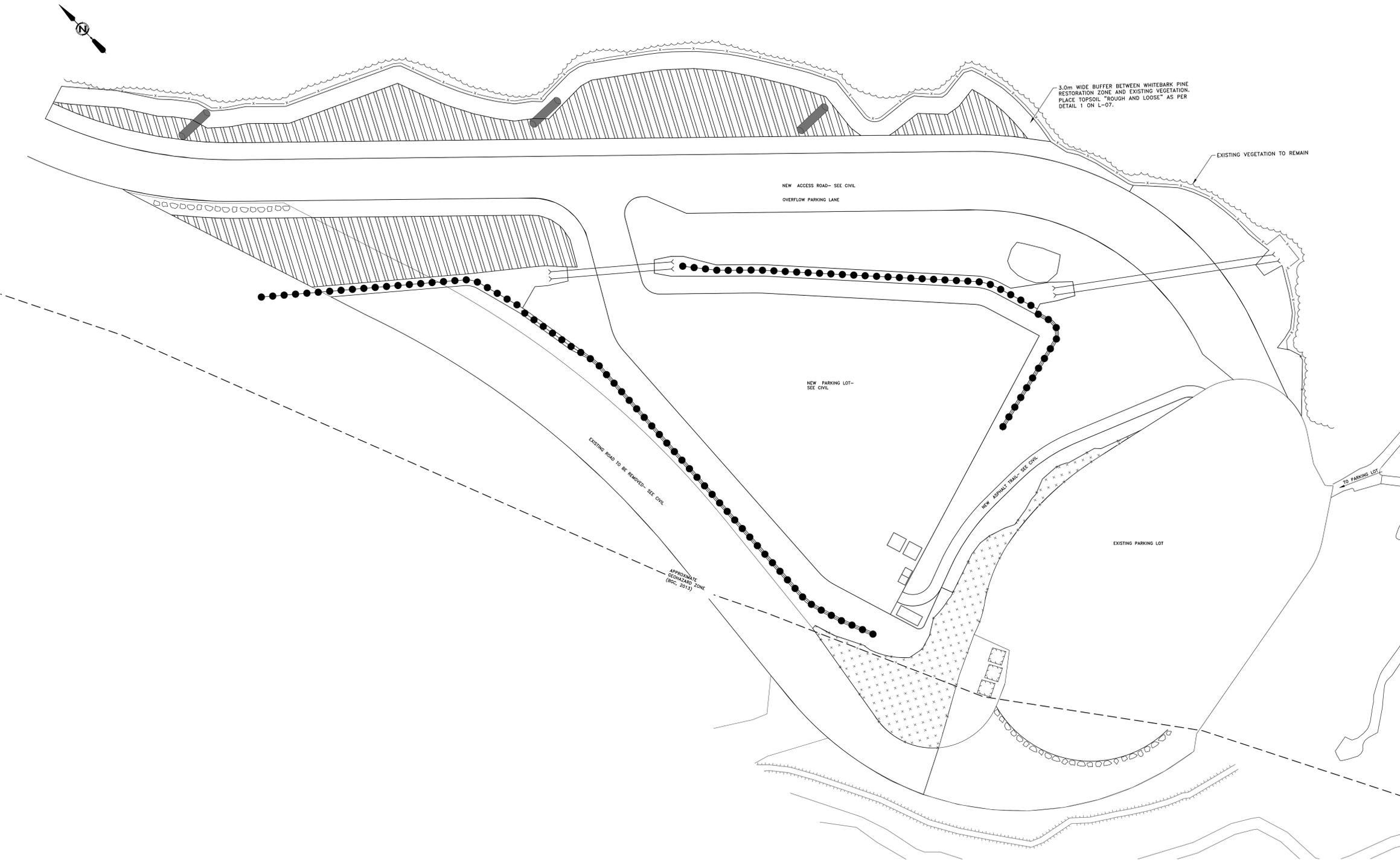
* THIS LAYOUT IS REPRESENTATIVE ONLY OF A TYPICAL 12x12m AREA OF TREE PLANTING WITHIN THE WHITEBARK PINE RESTORATION ZONE. QUANTITIES ON THE PLANT SCHEDULE TAKE PRECEDENCE OVER THIS LAYOUT.

WHITEBARK PINE PLANT LIST

QTY	BOTANICAL NAME	COMMON NAME	SIZE
Coniferous Trees			
179	<i>Pinus albicaulis</i>	Whitebark Pine	Sapling
Total Trees to be Planted in 2017 by Contractor			=150
Total Trees to be Planted in 2018 by Parks			=29

* LOCATION OF CONTRACTOR INSTALLED TREES TO BE DETERMINED IN FIELD BY ENGINEER

- NOTE:**
- ALL LOCATIONS SHOWN ARE APPROXIMATE. ALL FINAL LOCATIONS TO BE CONFIRMED IN THE FIELD BY ENGINEER.
 - NO NEW PERMANENT CONSTRUCTION TO OCCUR BELOW GEHAZARD ZONE, WITH EXCEPTION OF BOULDER ACCESS CONTROL.
 - SEE SHEET L-07 FOR COMPLETE PLANT LIST
 - NEED MIN. 3m SETBACK FROM ROAD & PARKING LOTS FOR WHITEBARK PINE (RARE SPP. PROTECTED BY LAW) TO AVOID ENCROACHMENT FROM ROAD MAINTENANCE
 - CONTRACTOR WILL NOT BE RESPONSIBLE FOR ANY WARRANTY/MAINTENANCE OF WHITEBARK PINE. ALL MAINTENANCE ON WHITEBARK PINE WILL BE DONE BY PARKS.



1 PLAN
WHITEBARK PINE RESTORATION
1:250

No.	Date/Date	Description/Description	Drawn by dessiné par	Approved approuvé
0	2017MAR17	ISSUED FOR TENDER	T.B.	D.S.

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

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

Eng. Stamp / Stamping de l'ingénieur: 

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

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

Canada

Parks Canada Agency / L'Agence Parcs Canada

Western and Northern Region / Ouest et Nord du Canada

Project Title / Titre du projet: **MT. EDITH CAVELL REHABILITATION CONTRACT 2 JASPER NATIONAL PARK OF CANADA**

Drawing Title / Titre du dessin: **LANDSCAPE WHITEBARK PINE RESTORATION**

Surveyed by / Révisé par: T.B.	Drawn by / Dessiné par: T.B.	Date / Date: 2017MAR17
Designed by / Concept par: D.S.	Reviewed by / Révisé par: B.O.	Scale / Echelle: AS SHOWN

Client Acceptance / Acceptation du client		Approved by / Approuvé par	
Park Responsible Officer / Agent Responsable		PWSC Project Manager / Administrateur de Projets TPSCC	
Project No. / No. du projet: 719	Asset No. / No. du bien	Sheet No. / No. de la feuille: 14	Drawing Reference No. / No. de référence du dessin: L-02

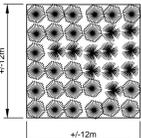
LEGEND

-  EXISTING VEGETATION TO BE PROTECTED/RETAINED
-  PROTECTIVE SNOW FENCING. SEE DETAIL 2 ON SHEET L-07
-  MIXED FOREST RESTORATION ZONE- SEE 10X10 ENLARGEMENT ON THIS SHEET
-  WILLOW STAKING AREA. USE SALIX DRUMMONDIANA (DRUMMONDS WILLOW) SPACED 300mm O.C
-  LIVE WILLOW STAKING/WILLOW SILT FENCE IN DITCH - SEE DETAIL 4 & 5 L-07
-  LOG POND SEDIMENT CONTROL STRUCTURE. FINAL LOCATION TO BE CONFIRMED IN FIELD BY ENGINEER- SEE DETAIL 3 L-07

NOTE:

- ALL LOCATIONS SHOWN ARE APPROXIMATE. ALL FINAL LOCATIONS TO BE CONFIRMED IN THE FIELD BY ENGINEER.
- NO NEW PERMANENT CONSTRUCTION TO OCCUR BELOW GEOHAZARD ZONE. WITH EXCEPTION OF BOULDER ACCESS CONTROL.
- SEE SHEET L-07 FOR COMPLETE PLANT LIST

**MIXED FOREST RESTORATION ZONE
12X12 ENLARGEMENT SAMPLE**

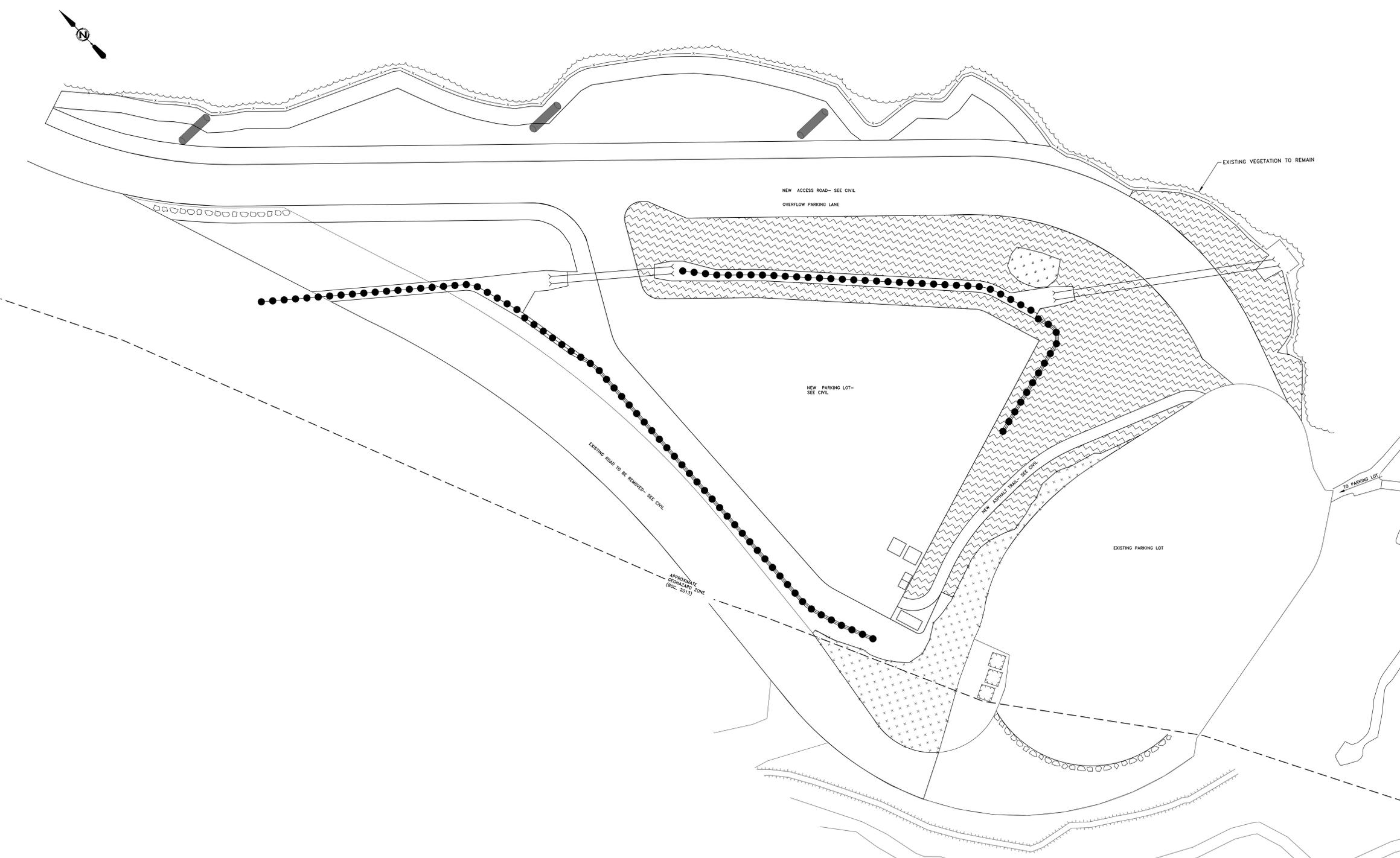


QUANTITY TREES	SCIENTIFIC NAME	COMMON NAME	SPACING
25	<i>Picea engelmannii</i>	Engelmann Spruce	2m
11	<i>Pinus contorta</i>	Lodgepole Pine	2m

* THIS LAYOUT IS REPRESENTATIVE ONLY OF A TYPICAL 12mX12m AREA OF TREE PLANTING WITHIN THE MIXED FOREST RESTORATION ZONE. QUANTITIES ON THE PLANT SCHEDULE TAKE PRECEDENCE OVER THIS LAYOUT.

MIXED FOREST PLANT LIST

QTY	BOTANICAL NAME	COMMON NAME	SIZE
Coniferous Trees			
407	<i>Picea engelmannii</i>	Engelmann Spruce	Sapling
175	<i>Pinus contorta</i>	Lodgepole Pine	Sapling



1 PLAN
MIXED FOREST RESTORATION
1:250

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No.	Date/Date	Description/Description	Drawn by dessiné par	Approved approuvé

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A	A detail number / numéro de détail
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Consultant's Name / Nom de l'expert-conseil: **Associated Engineering**

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

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Project Title / Titre du projet: **MT. EDITH CAVELL REHABILITATION CONTRACT 2 JASPER NATIONAL PARK OF CANADA**

Drawing Title / Titre du dessin: **LANDSCAPE MIXED FOREST RESTORATION**

Surveyed by / Révisé par: [Name]	Drawn by / Dessiné par: [Name]	Date / Date: 2017mar17
Designed by / Concept par: [Name]	Reviewed by / Révisé par: [Name]	Scale / Echelle: AS SHOWN

Client Acceptance / Acceptation du client: [Signature]		Approved by / Approuvé par: [Signature]
Project No. / No. du projet: 719	Asset No. / No. du bien: [Number]	Sheet No. / No. de la feuille: 15
Drawing Reference No. / No. de référence du dessin: L-03		19

ASPHALT PATCHING SUMMARY

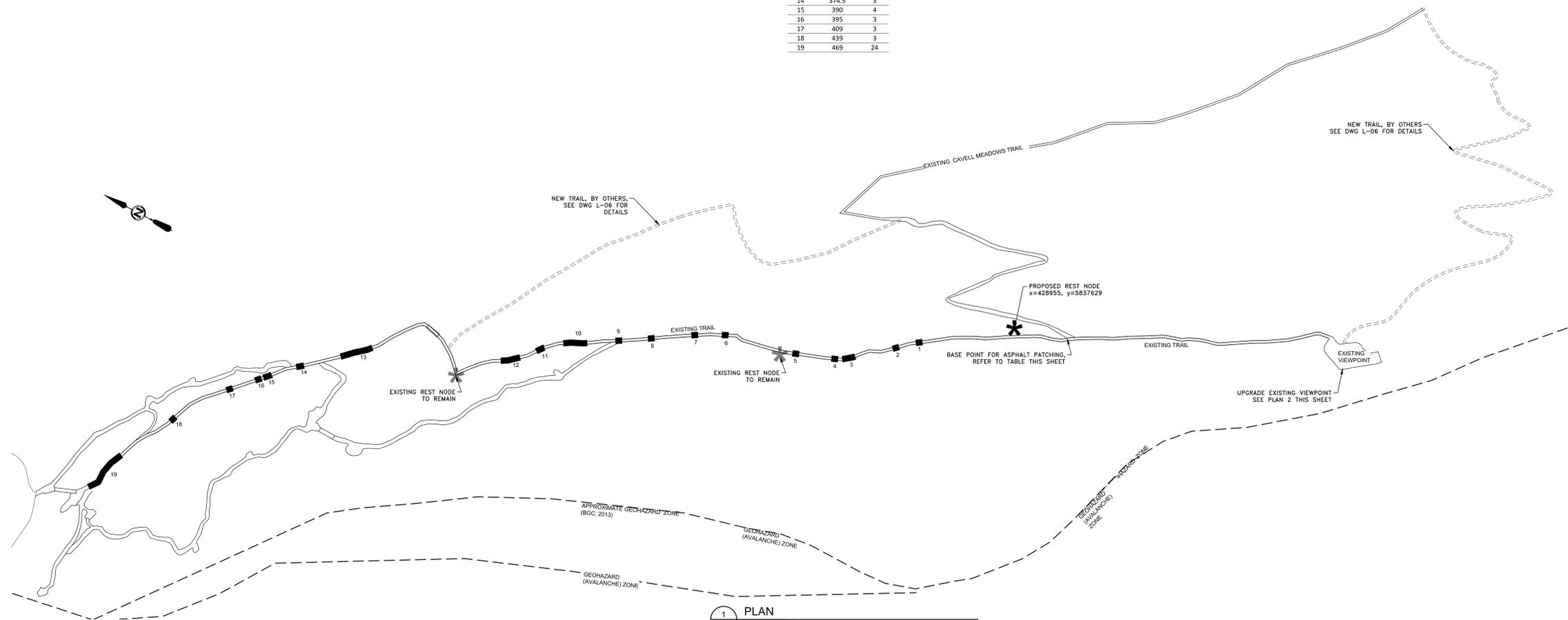
Repair #	Distance from Base Point (m)	Repair Length
1	68	3
2	79	3
3	100	6
4	108	3
5	126	3
6	160	3
7	174	3
8	194	3
9	209	3
10	225	11
11	245	4
12	257	9
13	342	15
14	374.5	3
15	390	4
16	395	3
17	409	3
18	439	3
19	469	24

LEGEND

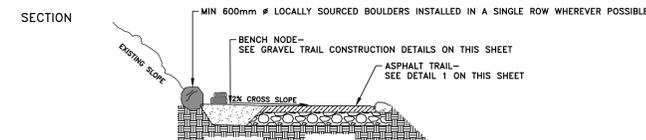
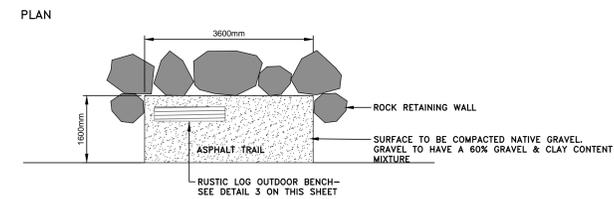
- ASPHALT TRAIL REPAIR. FINAL EXTENTS TO BE CONFIRMED ON SITE. SEE DETAIL 1 THIS SHEET
- EXISTING REST NODE TO REMAIN
- PROPOSED REST NODE. SEE DETAIL 2 ON THIS SHEET
- BACKLESS RUSTIC LOG OUTDOOR BENCH. SEE DETAIL 3 ON THIS SHEET

NOTE:

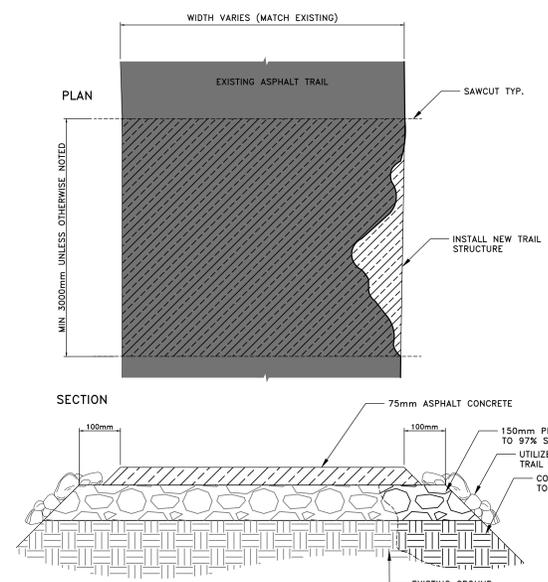
- FINAL TRAIL REPAIR LOCATIONS TO BE CONFIRMED PRIOR TO CONSTRUCTION START IN THE FIELD BY ENGINEER.
- FUTURE INTERPRETIVE SIGNAGE REQUIREMENTS TO BE COORDINATED WITH HFTC.



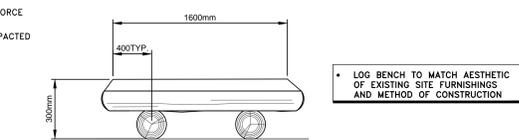
1 PLAN
EXISTING TRAIL UPGRADES



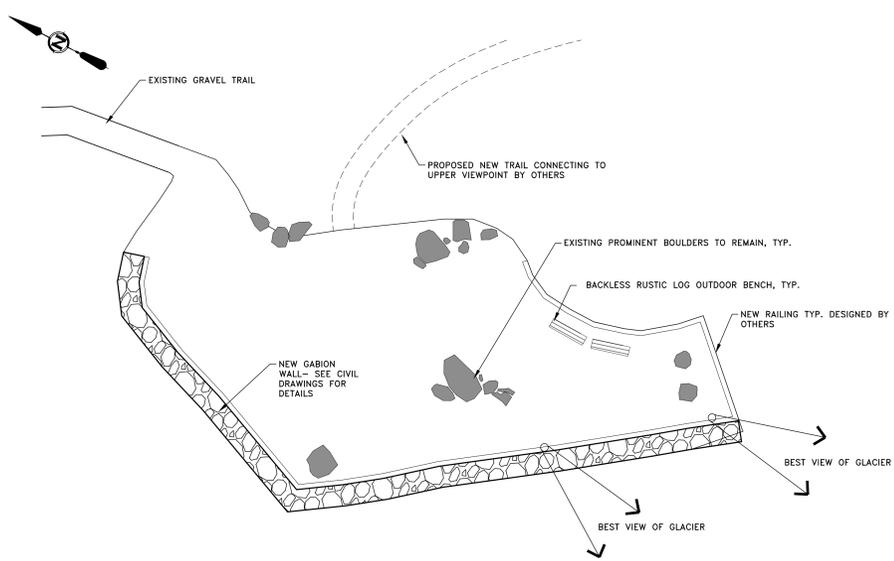
2 DETAIL
REST NODE CONSTRUCTION W/ BOULDER RETAINING WALL



1 DETAIL
ASPHALT REPAIR



3 DETAIL
BACKLESS RUSTIC LOG BENCH



2 PLAN
EXISTING VIEWPOINT UPGRADES

No.	Date/Date	Description/Description	Drawn by/Drawn par	Approved/Approved
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Consultant's Name / Nom de l'expert-conseil: **Associated Engineering**

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Western and Northern Region / Ouest et Nord du Canada

Project Title/Titre du projet: **MT. EDITH CAVELL REHABILITATION CONTRACT 2 JASPER NATIONAL PARK OF CANADA**

Drawing Title/Titre du dessin: **LANDSCAPE EXISTING TRAILS AND VIEWPOINT IMPROVEMENTS**

Surveyed by/Arpenté par	Drawn by/Desiné par	Date/Date
	T.B.	2017MAR17
Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle
D.S.	B.O.	AS SHOWN

PWSC Project Manager/Administrateur de Projets TPSCC

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719		16
Drawing Reference No./No. de référence du dessin		
L-04		



V1 DETAIL
NEW RIDGE TRAIL ROUTE



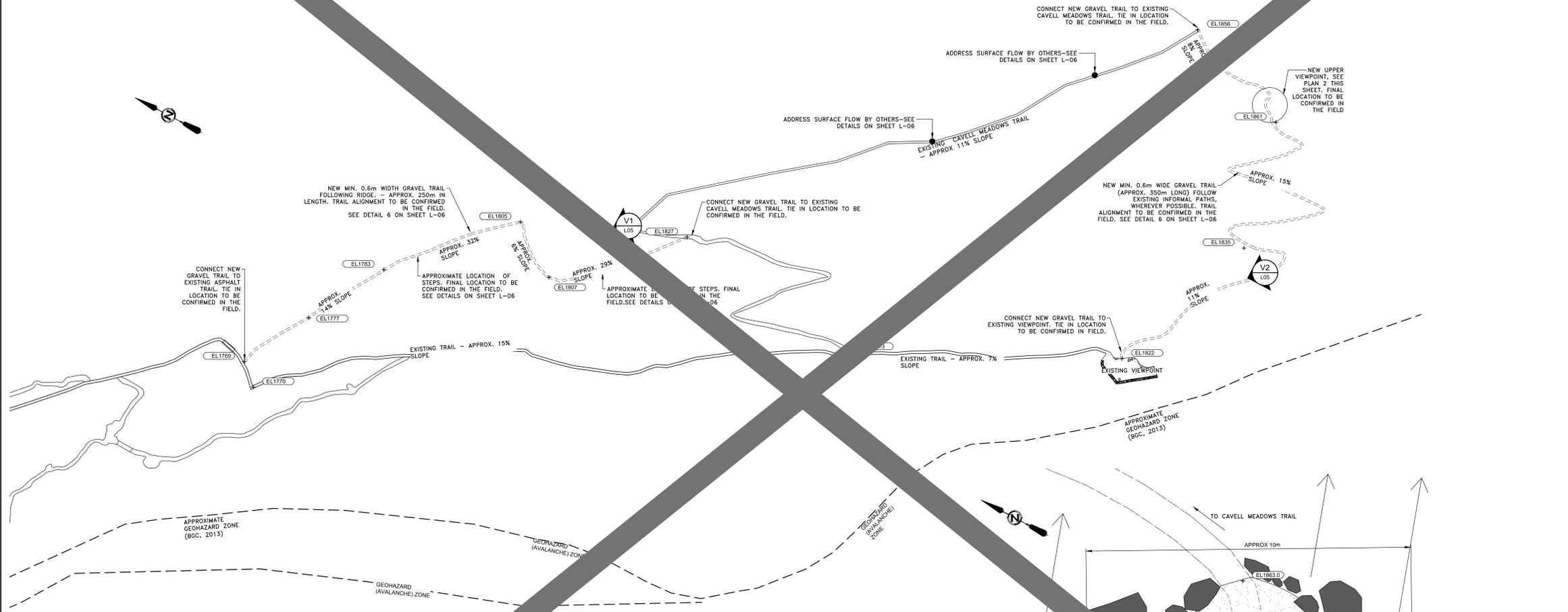
V2 DETAIL
NEW VIEWPOINT ACCESS ROUTE

LEGEND

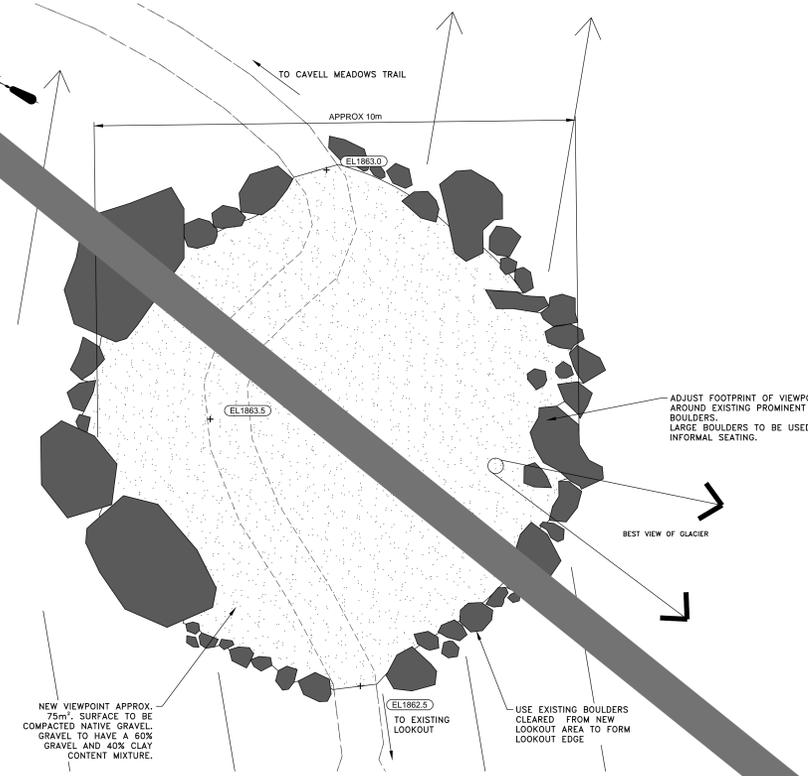
- NEW MIN. 0.6m WIDTH GRAVEL TRAIL TO BE CONSTRUCTED BY PARKS
- COMPACTED NATIVE GRAVEL SURFACE. GRAVEL TO HAVE 60% GRAVEL AND 40% CLAY CONTENT MIXTURE.
- SLOPE DIRECTION
- VIEW LOCATION

NOTE:

- ALL LOCATIONS SHOWN ARE APPROXIMATE. TRAIL ALIGNMENTS TO BE CONFIRMED PRIOR TO CONSTRUCTION START IN THE FIELD.
- INSTALL TIMBER OR STONE STAIRS WHERE NEW TRAIL GRADES EXCEED 20%.
- FINAL SIZE, LOCATION, AND LAYOUT OF NEW VIEWPOINT TO BE CONFIRMED IN THE FIELD PRIOR TO CONSTRUCTION START.
- VIEWPOINT TO BE LOCATED AT TOP OF RIDGE TO PROVIDE OPTIMUM VIEWS.
- ANY PROMINENT ROCK FORMATIONS IN THE AREA OF THE NEW VIEWPOINT TO BE LEFT IN PLACE AND INCORPORATED INTO LOOKOUT DESIGN.
- FUTURE INTERPRETIVE SIGNAGE REQUIREMENTS TO BE COORDINATED WITH HFTC.



1 PLAN
NEW TRAIL LOOP
1:750



2 PLAN
NEW VIEWPOINT
1:50

NOT IN CONTRACT
ALL WORK TO BE
CONDUCTED BY
PARKS

No.	Date/Date	Description/Description	Drawn by dessiné par	Approved approuvé
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Consultant's Name / Nom de l'expert-conseil: **Associated Engineering**

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Project Title/Titre du projet: **MT. EDITH CAVELL REHABILITATION CONTRACT 2 JASPER NATIONAL PARK OF CANADA**

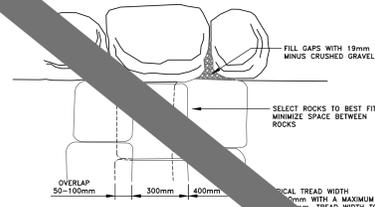
Drawing Title/Titre du dessin: **LANDSCAPE NEW TRAILS AND VIEW POINT**

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D.S.	B.O.	AS SHOWN

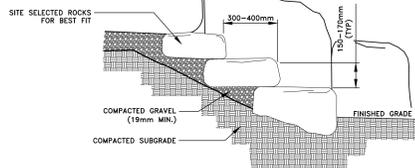
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Park Responsible Officer/Agent Responsable		Project Manager/Administrateur de Projets TPSC
Project No./No. du projet	Asset No./No. du bien	Sheet No./No. de la feuille
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L-05		19

NOTE:
WHERE STAIRS GO DIRECTLY UP A SLOPE, CROWN OR SLOPE TO ONE SIDE TO DRAIN AWAY FROM CENTER OF STAIRS.

PLAN



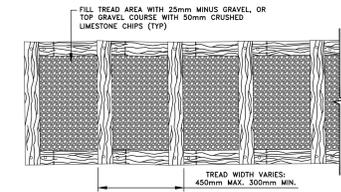
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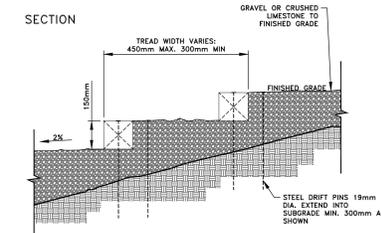
1 DETAIL
STONE STAIRS

NOTE:
TREATMENT TO BE APPLIED TO AREAS WITH GENTLE SLOPES
TREAD TO BE SLOPED DOWNHILL AT 2%
RISE AND RUN TO BE CONSISTENT FOR ENTIRE STAIRWAY
REGULAR MAINTENANCE REQUIRED

PLAN



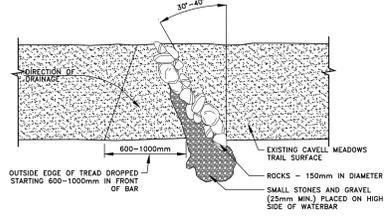
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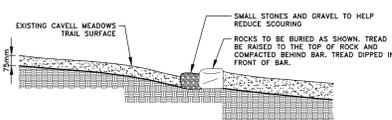
2 DETAIL
TIMBER STEPS W/ GRAVEL FILL

NOTE:
TO BE USED IN AREAS OF HEAVY RAINFALL OR AREAS WITH STEEP GRADES
MOST EFFECTIVE IN AREAS WHICH HAVE WATER RUNNING DOWN THE SURFACE OF THE TRAIL WITH THE GRADE BEING 5% OR LESS

PLAN

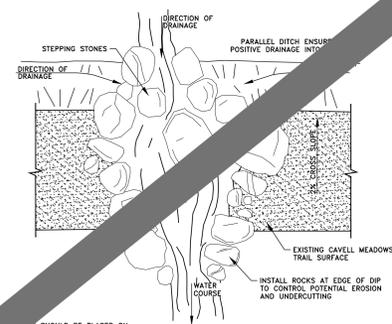


SECTION



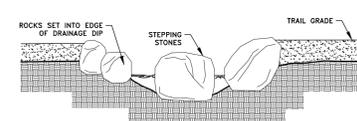
3 DETAIL
ROCK WATERBAR

PLAN



NOTE:
STEPPING STONES SHOULD BE PLACED ON TRAIL SURFACE
STEPPING STONES WILL VARY BASED ON AVAILABILITY
ROCKS WITH A RELATIVELY FLAT SURFACE ARE MOST DESIRABLE
STEPPING STONES SHOULD BE AS STABLE AS POSSIBLE AND SHOULD NOT PROTRUDE HIGH ABOVE THE TREAD SURFACE.

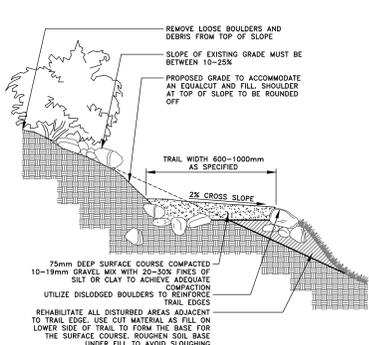
SECTION



4 DETAIL
STEPPING STONES

NOTE:
REMOVE ALL LARGE ROCKS AND LOGS FROM THE TOP OF THE SLOPE WHICH COULD POTENTIALLY ROLL ONTO THE TREAD SURFACE

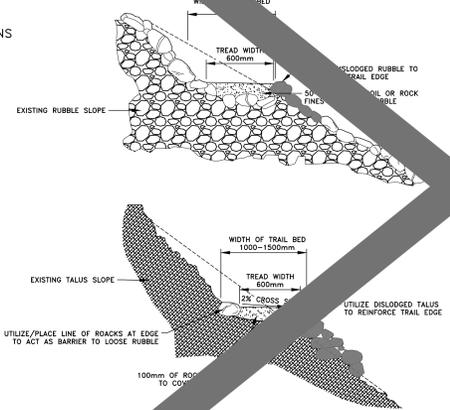
SECTION



5 DETAIL
GRAVEL TRAIL CONSTRUCTION ON MODERATE SLOPE

NOTE:
TRAILS ARE TO BE CONSTRUCTED TO ACCOMMODATE STABLE RUBBLE AND TALUS SLOPES

SECTIONS



6 DETAIL
REST NODE CONSTRUCTION W/ BOULDER RETAINING WALL

NOT IN CONTRACT
ALL WORK TO BE CONDUCTED BY PARKS

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B	B
C	C

Consultant's Name
Nom de l'expert-conseil

Eng. Stamp
Scellum de l'ingénieur

Associated Engineering

The Alberta Association of Professional Engineers
5/17/2017
Edith Cavell

Public Works and Government Services Canada
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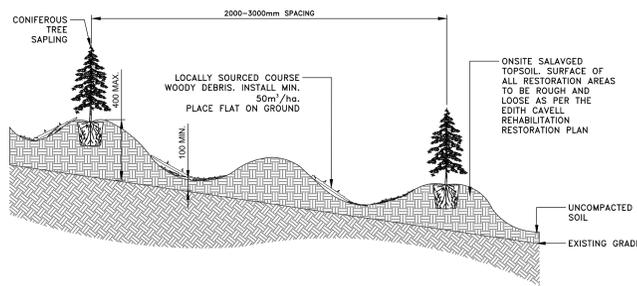
Western and Northern Region
Ouest et Nord du Canada

Project Title/Titre du projet
MT. EDITH CAVELL REHABILITATION CONTRACT 2 JASPER NATIONAL PARK OF CANADA

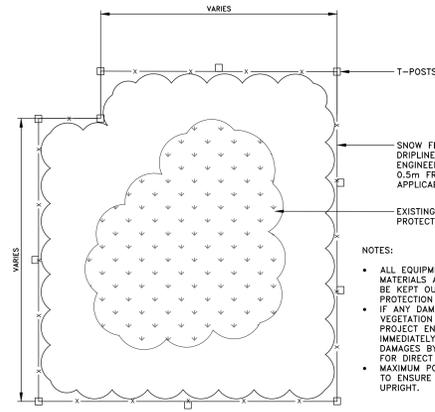
Drawing Title/Titre du dessin
LANDSCAPE DETAILS

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D.S.	B.O.	AS SHOWN

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Project No./No. du projet	Asset No./No. du bien	Sheet No./No. de la feuille
719		18
Drawing Reference No./No. de référence du dessin		
L-06		19



1 DETAIL
FOREST RESTORATION



- NOTES:
- ALL EQUIPMENT, SOIL, BUILDING MATERIALS AND OTHER DEBRIS SHALL BE KEPT OUT OF THE VEGETATION PROTECTION ZONE.
 - IF ANY DAMAGES OCCUR WITHIN THE VEGETATION PROTECTION ZONE, THE PROJECT ENGINEER IS TO BE ADVISED IMMEDIATELY IN ORDER TO ASSESS THE DAMAGES BY A CERTIFIED ARBORIST FOR DIRECT ACTION TO BE TAKEN.
 - MAXIMUM POST SPACING TO BE 2.0m TO ENSURE SNOW FENCE REMAINS UPRIGHT.

2 DETAIL
PROTECTIVE SNOW FENCING TO EXISTING VEGETATION

- NOTE:
- ONLY NATIVE PLANTS WITH LOCAL PROVENANCE SHALL BE USED.
 - PLANT MATERIAL TO BE SOURCED FROM THE SURROUNDING AREA (SEED ZONES: SUBALPINE 1.2 OR 2.2) UNLESS OTHERWISE APPROVED.
 - PLANT SPECIES ARE SUBJECT TO REPLACEMENT BASED ON AVAILABILITY OF PLANT STOCK FOLLOWING APPROVAL BY PARKS CANADA.
 - TOPSOIL PLACEMENT IN TREE/ SHRUB PLANTING AREAS WILL BE ROUGH AND LOOSE CREATING A SERIES OF PITS AND MOUNDS RANGING FROM 100 TO 400mm IN DEPTH, AND WILL NOT BE TRACK PACKED.
 - LARGE WOODY DEBRIS TO BE PLACED IN CLOSED FOREST PLANTING ZONES AT A MINIMUM OF 50m²/ha.
 - WILLOW COLLECTION, SOAKING AND INSTALLATION WILL OCCUR UNDER SUPERVISION OF PERSONNEL WITH TRAINING/EXPERIENCE IN LIVE STAKING.
 - WORK SHALL BE CARRIED OUT ACCORDING TO THE REQUIREMENTS OF THE EDITH CAVELL REHABILITATION RESTORATION PLAN AND EROSION SEDIMENT CONTROL PLAN.
 - CONTRACTOR WILL NOT BE RESPONSIBLE FOR ANY WARRANTY/MAINTENANCE OF WHITEBARK PINE. ALL MAINTENANCE ON WHITEBARK PINE WILL BE DONE BY PARKS.

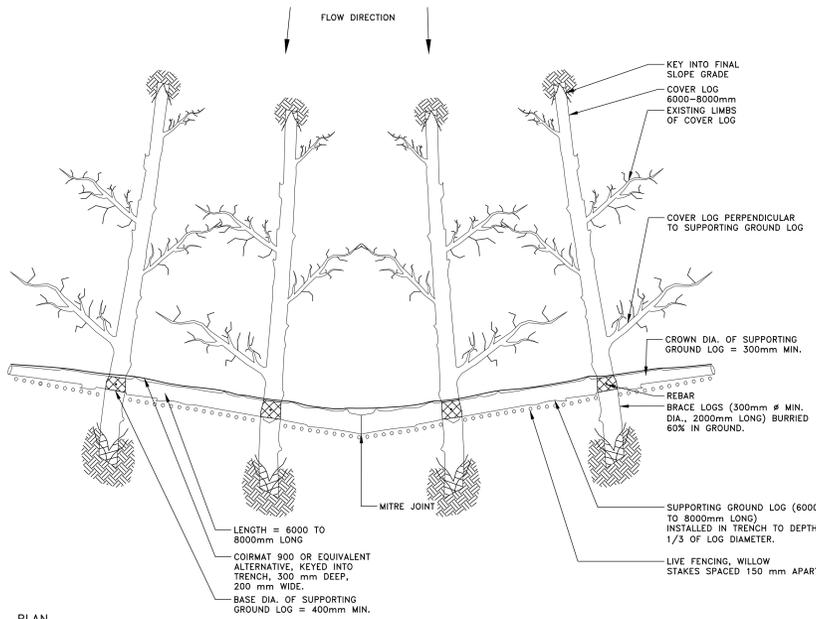
COMPLETE PLANT LIST

QTY	BOTANICAL NAME	COMMON NAME	SIZE
Coniferous Trees			
407	<i>Picea engelmannii</i>	Engelmann Spruce	Sapling
175	<i>Pinus contorta</i>	Lodgepole Pine	Sapling
179	<i>Pinus albicaulis</i>	Whitebark Pine	Sapling

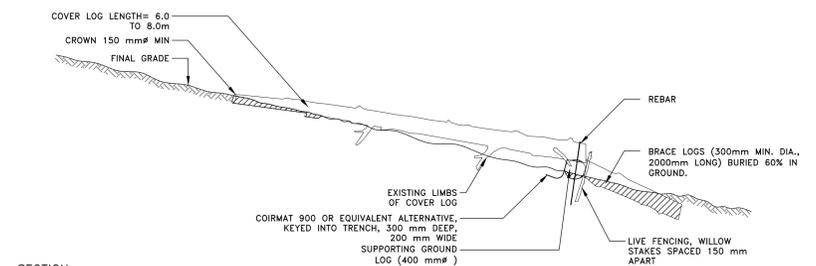
WILLOW STAKES PLANT LIST

QTY	BOTANICAL NAME	COMMON NAME	SIZE
Shrubs			
1400	<i>Salix glauca</i>	Smooth Willow	Live Stake
870	<i>Salix drummondiana</i>	Drummond's Willow	Live Stake

- NOTE:
- DOES NOT INCLUDE WILLOW STAKES FOR LOG POND SEDIMENT CONTROL STRUCTURES.
 - QUANTITY OF EACH SPECIES MAY VARY DEPENDING ON AVAILABILITY AT COLLECTION SITE.



PLAN

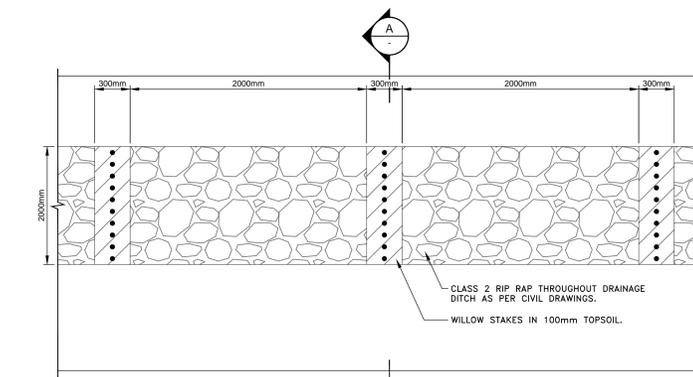


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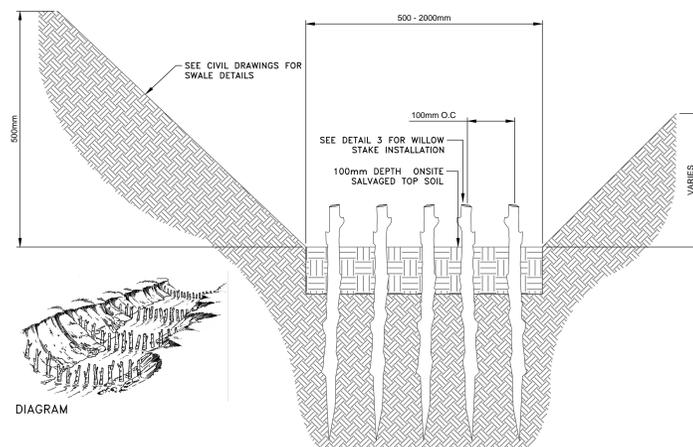
- NOTES:
- COVER LOG TO REST IN NOTCH OF SUPPORTING GROUND LOG.
 - FILTER FABRIC TO BE BIODEGRADABLE, KEYED IN ON UP SLOPE FACE OF SUPPORTING GROUND LOG.
 - INSTALL THE LOG POND SEDIMENT CONTROL STRUCTURE DIRECTLY ONTO SUBSOIL AT FINAL GRADE.
 - WILLOW STAKES MIN LENGTH = 500 mm, MIN DIA. = 40 mm.
 - COVER LOG TO BE SECURED TO SUPPORTING GROUND LOG USING 1.2 M LONG REBAR (15 mm DIA.) AT EACH JOINT, DRIVEN THROUGH PILOT HOLE.
 - TOPSOIL THROUGHOUT THE LOG POND SEDIMENT CONTROL STRUCTURE TO BE MIN. 100 mm THICK.
 - FINAL LOCATIONS OF LOG POND SEDIMENT CONTROL STRUCTURES TO BE DETERMINED IN FIELD BY ENGINEER.
 - INSTALL LOG POND SEDIMENT CONTROL STRUCTURES AS PER SECTION 4.9 OF THE EDITH CAVELL REHABILITATION EROSION AND SEDIMENT CONTROL PLAN.

PREFERENCE FOR WILLOW STAKES FOR LOG POND SEDIMENT CONTROL STRUCTURES IS SALIX DRUMMONDIANA, HOWEVER EITHER SPECIES CAN BE USED.

3 DETAIL
LOG POND SEDIMENT CONTROL STRUCTURE



PLAN - 2.0m WIDTH DITCH ONLY

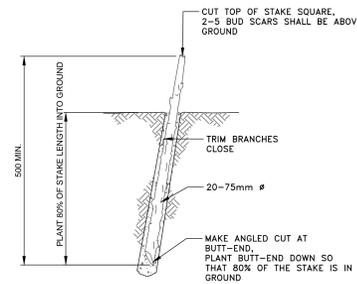


DIAGRAM

SECTION - A

4 DETAIL
WILLOW SILT FENCE

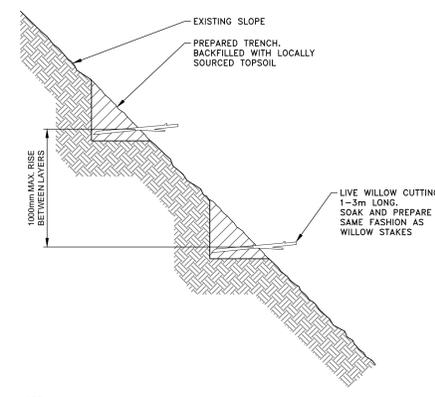
- NOTE:
- PREFERENCE FOR WILLOW STAKES FOR WILLOW SILT FENCE IS SALIX GLAUCA, HOWEVER EITHER SPECIES CAN BE USED.
 - MAXIMUM 2.0m BETWEEN ROWS



- NOTES:
- USE HEALTHY, STRAIGHT AND LIVE WOOD AT LEAST 1 YEAR OLD
 - MAKE CLEAN CUTS AND DO NOT DAMAGE STAKES OR SPLIT ENDS DURING INSTALLATION; USE AN IRON BAR OR PILOT HOLE IN FIRM SOILS
 - SOAK CUTTINGS FOR AT LEAST 24 HOURS PRIOR TO INSTALLATION (SOAK 5-7 DAYS FOR BEST RESULTS)
 - TAMP THE SOIL AROUND THE STAKE FOR STABILITY
 - LOCATION OF CUTTINGS REQUIRE WRITTEN APPROVAL PRIOR TO COLLECTION.

- WILLOW STAKES SHALL BE:
- CUT LOCALLY FROM A SIMILAR ECOSITE
 - CUT DURING THE DORMANT SEASON (AFTER LEAF FALL AND BEFORE BUD BREAK)
 - NOT MORE THAN 10% OF A SINGLE PLANT TO BE HARVESTED
 - NOT MORE THAN 10% OF PLANTS IN A LOCAL POPULATION BE HARVESTED

5 DETAIL
WILLOW STAKE INSTALLATION



- NOTE:
- WILLOW STAKE COLLECTION TO BE AS PER DETAIL 5 THIS SHEET.
 - FOR USE ON SLOPES GREATER THAN 2:1, FINAL LOCATIONS OF BRUSH LAYERING TO BE DETERMINED IN FIELD BY ENGINEER.
 - SPACING BETWEEN LIVE WILLOW STAKES TO BE 100mm.

6 DETAIL
BRUSH LAYERING

PREFERENCE FOR WILLOW STAKES FOR BRUSH LAYERING IS SALIX DRUMMONDIANA, HOWEVER EITHER SPECIES CAN BE USED.

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Eng. Stamp / Stamping de l'ingénieur: **Associated Engineering**

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Canada

Parks Canada Agency / L'Agence Parcs Canada

Western and Northern Region / Ouest et Nord du Canada

Project Title/Titre du projet: **MT. EDITH CAVELL REHABILITATION CONTRACT 2 JASPER NATIONAL PARK OF CANADA**

Drawing Title/Titre du dessin: **LANDSCAPE DETAILS**

Surveyed by/Arpenté par	Drawn by/Dessiné par	Date/Date
	T.B.	2017MAR17
Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle
D.S.	B.O.	AS SHOWN

Client Acceptance/Acceptation du client		Approved by/Approuvé par	
Park Responsible Officer/Agent Responsable		PWSC Project Manager/Administrateur de Projets TPSC	
Project No./No. du projet	Asset No./No. du bien	Sheet No./No. de la feuille	
719		19	
Drawing Reference No./No. de référence du dessin			
L-07			