

Parks Canada
Agency

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Canada

KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

YOHO NATIONAL PARK
BRITISH COLUMBIA

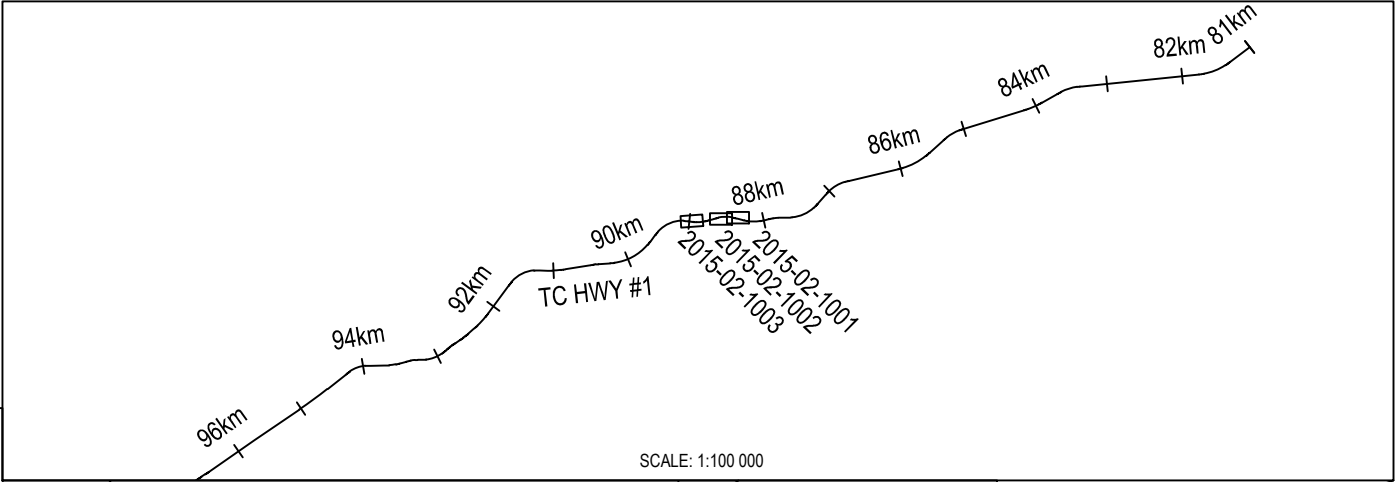
PCA PROJECT No.
2015-02



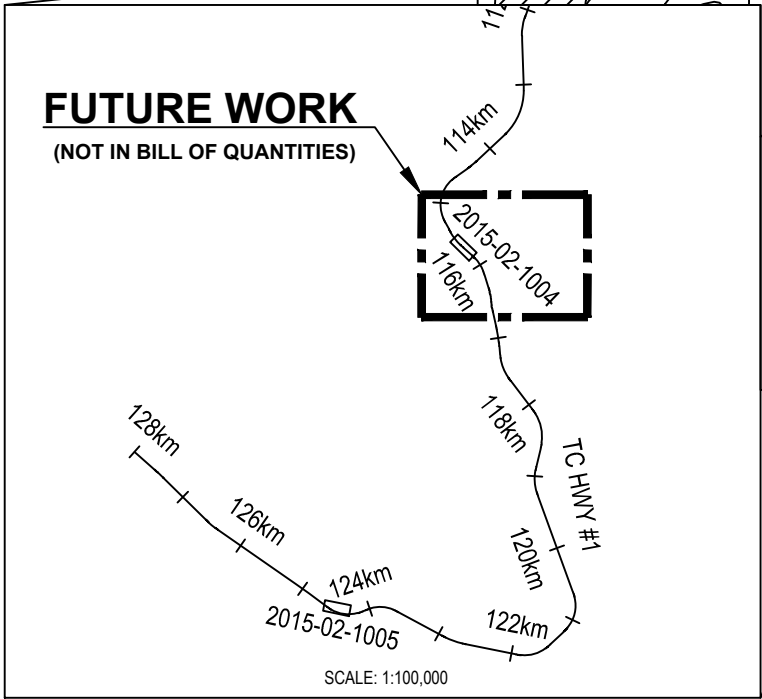
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APRIL 2015

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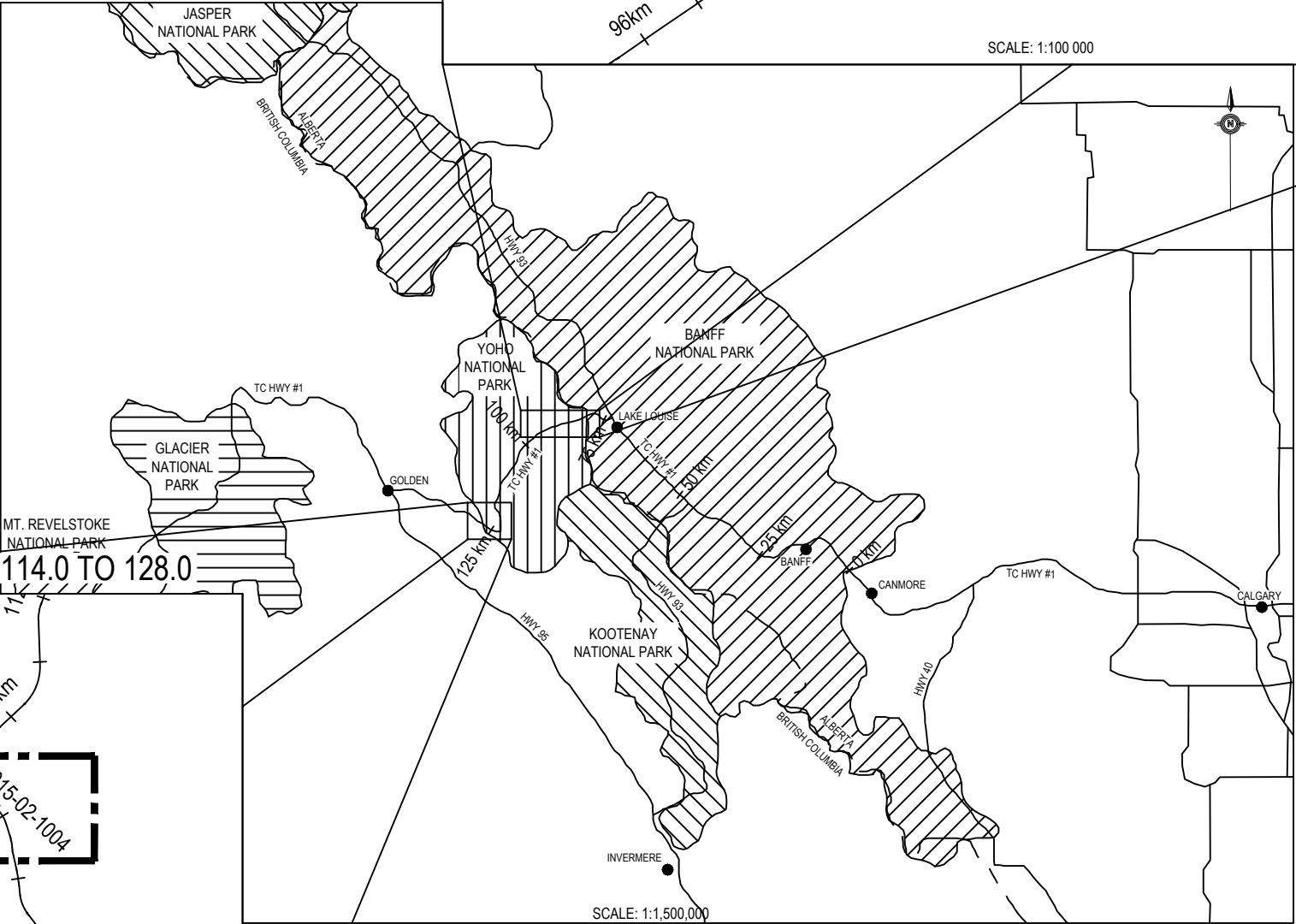
PROJECT KEY PLAN: KM 88.0 TO 91.0



PROJECT KEY PLAN: KM 114.0 TO 128.0



PROJECT LOCATION PLAN



Client/client



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TETRA TECH EBA

ISSUED FOR TENDER

PCA PROJECT No.
2015-02

TETRA TECH EBA No.
V13403095
V13403096

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| Revision/ Revision | Date/Date | Description/Description | DES | DWN | CHK |

Project title/Titre du projet

YOHO NATIONAL PARK
BRITISH COLUMBIA

KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par

A. FRAPPELL

Drawn by/Dessine par

A. DEEPWELL

Client/client

PARKS CANADA AGENCY

Drawing title/Titre du dessin

PROJECT LOCATION & KEY PLAN

Project No./No. du projet

V13403095-01/
V13403096-01

Sheet/ Feuille

2015-02-0001

Revision no./
La Révision no.

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GENERAL:

1.

ALL COORDINATES ARE IN YOHO LOCAL COORDINATES SYSTEM AND ALL ELEVATIONS ARE TO NAD 1983 SET AT 800 METRES. SEE DWG. 2015-02-0004 ESTABLISHMENT OF SURVEY MONUMENTS.
2.

ALL ELEVATIONS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
3.

AZIMUTH IS MEASURED AS A POSITIVE ANGLE CLOCKWISE FROM NORTH.
4.

QUALITY OF CONSTRUCTION REQUIRED. PERFORMANCE LEVELS OF WORKMANSHIP, MANUFACTURING AND INDUSTRY STANDARDS, STRENGTH AND PHYSICAL REQUIREMENTS OF MATERIALS, CONFORMANCE TO CODES AND REGULATIONS, GUARANTEES AND OTHER PROJECT REQUIREMENTS ARE SPECIFIED IN THE SPECIFICATIONS.
5.

IF THE MATERIALS, QUANTITIES, STRENGTHS OR SIZES INDICATED BY THE DRAWINGS OR SPECIFICATIONS ARE NOT IN AGREEMENT WITH THESE NOTES, THE BETTER QUALITY AND/OR GREATER QUANTITY, STRENGTH OR SIZE INDICATED, SPECIFIED, OR NOTED SHALL BE PROVIDED.
6.

PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. ANY CHANGES PROPOSED BY THE CONTRACTOR TO THE STRUCTURAL SYSTEMS SHALL BE SUBMITTED TO DEPARTMENTAL REPRESENTATIVE FOR APPROVAL PRIOR TO BEGINNING THE WORK. WHERE APPLICABLE, DESIGN CHANGES SHALL BE SUBMITTED FOR APPROVAL AND DESIGN BY THE COMPANY REPRESENTATIVE. ALL DESIGN CHANGES SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN BRITISH COLUMBIA.
7.

IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE TO ENSURE THE SAFETY OF THE WORKS AND ITS COMPONENT PARTS DURING CONSTRUCTION.
8.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE THAT RESULT IF DESIGN LOADS ARE EXCEEDED, AND SHALL NOTIFY THE DEPARTMENTAL REPRESENTATIVE IF THE DESIGN LOAD IS EXCEEDED.
9.

ALL DIMENSIONS AND ELEVATIONS SHOWN ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR WITH THE CONSTRUCTION EQUIPMENT AND MATERIALS TO CONFORM TO THE DESIGN REQUIREMENTS AND SUIT THE CONTRACTORS MEANS AND METHODS.
10.

EXISTING SITE INFORMATION SHOWN ON THESE DRAWINGS IS FROM AS-BUILT REFERENCE DRAWINGS AND A SURVEY PERFORMED BY McELHANNEY CONSULTING SERVICES LTD. THIS INFORMATION HAS BEEN PRESUMED TO BE AN ACCURATE REPRESENTATION OF THE CONDITIONS AT THE SITE. WORK PERFORMED AT EACH SITE OR WITHIN THE PUBLIC RIGHT- OF -WAY SINCE THE DATE OF THE SURVEY MAY NOT BE SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AT EACH SITE AND REPORT SIGNIFICANT DIFFERENCES, IF ANY , TO DEPARTMENTAL REPRESENTATIVE IMMEDIATELY.
11.

UNDERGROUND UTILITY LOCATIONS WERE IDENTIFIED THROUGH RECORDS PROVIDED BY BC ONE CALL. VERTICAL AND HORIZONTAL LOCATION AND SIZE OF UTILITIES MAY VARY FROM THE PLAN. PRE-MOBILIZATION SUBSURFACE UTILITY INVESTIGATIONS ARE REQUIRED TO LOCATE EXISTING UTILITIES AND STRUCTURES TO PERFORM THE WORK.
12.

THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF EXISTING UTILITIES, STRUCTURES, AND APPURTENANCES WHETHER SHOWN ON THESE PLANS OR NOT. THE CONTRACTOR IS ALSO RESPONSIBLE FOR COORDINATION OF ANY NECESSARY RELOCATIONS WITH PARKS CANADA AGENCY (PCA).
13.

FINAL FACE TOLERANCE SHALL BE WITHIN 0.25 m FURTHER THAN THE HIGHWAY OR 0.25 m CLOSER TO THE HIGHWAY.
14.

EXISTING GRADE SHOWN IN PROFILE IS APPROXIMATE. CONTRACTOR TO FIELD VERIFY AS NECESSARY TO PERFORM WORK
15.

REFER TO GEOTECHNICAL FACTUAL DATA REPORT (MARCH 2015) FOR ALL EXPLORATION DATA OBTAINED AS PART OF THIS CONTRACT.
16.

EXCAVATION LINES SHOWN ARE NOT INTENDED TO BE REPRESENTATIVE OF ANTICIPATED GROUND CONDITIONS OR AMOUNT OF OVERBREAK THAT MAY OCCUR DURING EXCAVATION. FOR AVAILABLE GEOLOGIC DATA, SEE THE GEOTECHNICAL DATA REPORT (MARCH 2015). FOR DISCUSSION OF ANTICIPATED CONDITIONS AND GROUND SUPPORT REQUIREMENTS, SEE THE GEOTECHNICAL DESIGN REPORT (APRIL 2015).

17.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL SAFETY REQUIREMENTS AND WITH EXERCISING APPROPRIATE PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF THE GENERAL PUBLIC, CONSTRUCTION EMPLOYEES, AND VEHICULAR TRAFFIC. THE CONTRACTOR SHALL INITIATE, INSTALL, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR SHALL FURNISH AND MAINTAIN ADEQUATE LIGHTS, SIGNS, AND BARRICADES AS MAY BE NECESSARY FOR THE WORK INCLUDING BUT NOT LIMITED TO, AREAS OF OPEN EXCAVATIONS THROUGHOUT THE PROJECT.
18.

WHERE REFERENCE DRAWINGS ARE LISTED ON A DRAWING, THE REFERENCED DRAWINGS MUST BE READ IN CONJUNCTION WITH THAT DRAWING.
19.

THE DRAWINGS IN GENERAL ARE TO SCALE, BUT FIGURED DIMENSIONS AND COORDINATES SHALL ALWAYS BE FOLLOWED. DIMENSIONS AND ELEVATIONS SHALL NOT BE SCALED FROM DRAWINGS UNLESS OTHERWISE NOTED.
20.

UNLESS SPECIFIED DIFFERENTLY ALL FILL SHALL BE WELL GRADED WITH C_u>4 AND 1<C_c<3 FOR GRAVEL AND C_u>=6 AND 1<C_c<3 FOR SANDS.

ROCK BLASTING

1.

TRAFFIC HOLD TIMES SHALL BE LESS THAN 20 MINUTES OR LINE UPS LESS THAN 1 KM IN LENGTH.
2.

HOLD TIMES UP TO 45 MINUTES MAY BE TAKEN ON A TUESDAY , WEDNESDAY OR THURSDAY, WITH THE APPROVAL OF THE DEPARTMENTAL REPRESENTATIVE. IF NO OTHER CONTRACTUAL RESTRICTIONS APPLY AND APPROPRIATE STAKEHOLDERS ARE NOTIFIED SEVEN (7) DAYS IN ADVANCE. EXTENDED HOLD TIME ARE AVAILABLE BETWEEN 08:00 AND 09:30 HOURS.
3.

PEAK PARTICLE VELOCITIES SHALL BE LESS THAN 50 mm/s AS MEASURED AT ANY CP RAIL INFRASTRUCTURE.
4.

ALL FLYROCK SHALL BE RETRIEVED FROM OUTSIDE OF THE WORK SITE AT THE EXPENSE OF THE CONTRACTOR.
5.

THE CONTRACTOR SHALL UNDERTAKE A PRE-CONSTRUCTION SURVEY WITH THE DEPARTMENTAL REPRESENTATIVE PRIOR TO WORK AT ANY LOCATION.
6.

HORIZONTAL BLAST HOLES SHALL ONLY BE CONSIDERED FOR PIONEERING ACCESS ROADS AT THE DEPARTMENTAL REPRESENTATIVES WRITTEN ACCEPTANCE.

ENVIRONMENTAL NOTES:

1.

THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION ENVIRONMENTAL PROTECTION PLAN (EPP) TO THE DEPARTMENTAL REPRESENTATIVE FOR REVIEW AND ACCEPTANCE PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE EPP SHALL DESCRIBE DETAILED, SITE-SPECIFIC ENVIRONMENTAL MITIGATION AND MANAGEMENT MEASURES, AS WELL AS ENVIRONMENTAL EMERGENCY AND SPILL RESPONSE PROCEDURES, CONSISTENT WITH PCA'S CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN (EMP). AS PER THE EMP, THE INTENT OF THE EPP SHALL BE TO PROTECT EXISTING LAND, WATER, VEGETATION AND WILDLIFE VALUES IN THE PROJECT AREA, MINIMIZE ENVIRONMENTAL DISTURBANCE, AND PREVENT ANY ADVERSE ENVIRONMENTAL EFFECTS.
2.


THE CONTRACTOR SHALL RETAIN A QUALIFIED ENVIRONMENTAL PROFESSIONAL (QEP) WITH PROFESSIONAL EXPERTISE AND EXPERIENCE ON CONSTRUCTION PROJECTS OF A SIMILAR NATURE AND SCOPE TO ASSIST IN THE DEVELOPMENT AND IMPLEMENTATION OF ITS EPP. THE QEP SHALL BE AVAILABLE TO DELIVER TECHNICAL, ENVIRONMENTAL ADVICE, GUIDANCE, TAILGATE TRAINING SESSIONS FOR CONSTRUCTION CREWS, AND OVERSIGHT MONITORING SERVICES TO THE CONTRACTOR THROUGHOUT THE CONTRACT TERM.
3.

AS PART OF ITS CONSTRUCTION ENVIRONMENTAL MANAGEMENT PROGRAM, PCA WILL RETAIN A QUALIFIED ENVIRONMENTAL MONITOR(S) TO MONITOR CONTRACTOR COMPLIANCE WITH RESPECT TO REGULATORY REQUIREMENTS AND WORK PRACTICES AND PROCEDURES SET OUT IN THE EMP AND EPP AND TO EVALUATE THE EFFECTIVENESS OF CONTRACTOR'S MITIGATION AND MANAGEMENT MEASURES, AND EMERGENCY RESPONSE PROCEDURES. THE CONTRACTOR IS ADVISED THAT THE ENVIRONMENTAL MONITOR WILL HAVE AUTHORITY TO MAKE DECISIONS REGARDING THE SELECTION AND USE OF ENVIRONMENTAL MITIGATION MEASURES AND TO DIRECT THAT CONSTRUCTION ACTIVITIES BE STOPPED IF THOSE ACTIVITIES POSE AN IMMEDIATE DETRIMENTAL RISK TO THE ENVIRONMENT AND/OR CONTRAVENE THE INTENT OF THE EMP, EPP, REGULATORY REQUIREMENTS, OR RTA ENVIRONMENTAL STANDARDS.
4.

PCA'S CONSTRUCTION EMP SETS OUT REQUIREMENTS TO BE FOLLOWED BY THE CONTRACTOR WITH RESPECT TO ISSUES INCLUDING, BUT NOT LIMITED TO:
 - ESTABLISHMENT OF ENVIRONMENTAL PROTECTION ZONES (EPZs)
 - PROTECTION OF SURFACE AND GROUNDWATER QUALITY
 - EROSION, AND SEDIMENT CONTROL
 - MATERIALS AND WASTE MANAGEMENT
 - WILDLIFE PROTECTION
 - CONTROL OF DUST, NOISE AND VIBRATION
 - MANAGEMENT OF HAZARDOUS SUBSTANCES
 - BLASTING MANAGEMENT
 - SPILL PREVENTION AND EMERGENCY RESPONSE.
 - CULTURAL RESOURCES
 - NATIONAL HISTORIC SITES
 - ARTIFACTS
5.


THROUGHOUT THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE ALL MEMBERS OF THE CONSTRUCTION CREW WITH ON-SITE TRAINING REGARDING BUT NOT LIMITED TO, PCA, DEPARTMENTAL REPRESENTATIVE, ENVIRONMENTAL STANDARDS APPLICABLE FEDERAL AND PROVINCIAL REGULATORY REQUIREMENTS, SITE-SPECIFIC ENVIRONMENTAL VALUES, IMPLEMENTATION OF PROJECT-SPECIFIC ENVIRONMENTAL MITIGATION AND SPILL RESPONSE MEASURES, AND ENVIRONMENTAL MONITORING / REPORTING PROTOCOLS AND PROCEDURES.

Client / client



Parks Canada Agency

L'Agence Parcs Canada



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| Project title/Titre du projet | | | | | |
| YOHO NATIONAL PARK BRITISH COLUMBIA | | | | | |
| KM 88 TO 91 AND KM 114 TO 128 TRANS-CANADA HIGHWAY SLOPE REPROFILING | | | | | |
| Designed by/Concept par A. FRAPPELL | | | | | |
| Drawn by/Dessine par A. DEEPWELL | | | | | |
| | | | | | |
| Client/client | | | | | |
| PARKS CANADA AGENCY | | | | | |
| Drawing title/Titre du dessin | | | | | |
| GENERAL NOTES | | | | | |
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| V13403095-01/ V13403096-01 | | 2015-02-0002 | | 00 | |



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| DRAWING INDEX | |
|---------------|--|
| DRAWING No. | DESCRIPTION |
| 2015-02-0000 | COVER PAGE |
| 2015-02-0001 | PROJECT LOCATION & KEY PLAN |
| 2015-02-0002 | GENERAL NOTES |
| 2015-02-0003 | DRAWING INDEX & LEGEND |
| 2015-02-0004 | ESTABLISHMENT OF SURVEY MONUMENTS |
| 2015-02-1001 | SHERBROOKE CREEK ROCK SLOPE PLAN, STA 88+580 TO 88+820 |
| 2015-02-1002 | SHERBROOKE CREEK ROCK SLOPE PLAN, STA 88+820 TO 89+110 |
| 2015-02-1003 | LOWER SHERBROOKE ROCK SLOPE PLAN, STA 89+195 TO 88+435 |
| 2015-02-1004 | LITTLE TOPPLE ROCK SLOPE PLAN STA 115+660 TO 115+820 |
| 2015-02-1005 | PHYLLITE ROCK SLOPE PLAN STA 124+294 TO 124+637 |
| 2015-02-1006 | ROCK CUT CONSTRUCTION LAYOUT TYPICAL SECTIONS |
| 2015-02-1007 | CONTROL LINE LAYOUT AND WORK POINT TABLES |
| 2015-02-1008 | CONTROL LINE LAYOUT AND WORK POINT TABLES |
| 2015-02-2001 | TYPICAL CROSS SECTIONS |
| 2015-02-2002 | ROCK SUPPORT TYPICAL DETAILS |
| 2015-02-2003 | CATCHMENT AND SLOPE DRAINAGE TYPICAL DETAILS |
| 2015-02-2004 | RESTORATION OR REMOVAL TYPICAL DETAILS |
| 2015-02-3001 | BC/AB BORDER STORAGE SITE |
| 2015-02-3002 | MT. VAUX STORAGE SITE |
| 2015-02-4001 | SHERBROOKE CROSS SECTIONS |
| 2015-02-4002 | SHERBROOKE CROSS SECTIONS |
| 2015-02-4003 | SHERBROOKE CROSS SECTIONS |
| 2015-02-4004 | SHERBROOKE CROSS SECTIONS |
| 2015-02-4005 | SHERBROOKE CROSS SECTIONS |
| 2015-02-4006 | SHERBROOKE CROSS SECTIONS |
| 2015-02-4007 | LOWER SHERBROOKE CROSS SECTIONS |
| 2015-02-4008 | LOWER SHERBROOKE CROSS SECTIONS |
| 2015-02-4009 | LOWER SHERBROOKE CROSS SECTIONS |
| 2015-02-4010 | LITTLE TOPPLE CROSS SECTIONS |
| 2015-02-4011 | LITTLE TOPPLE CROSS SECTIONS |
| 2015-02-4012 | PHYLLITE CROSS SECTIONS |
| 2015-02-4013 | PHYLLITE CROSS SECTIONS |
| 2015-02-4014 | PHYLLITE CROSS SECTIONS |
| 2015-02-4015 | PHYLLITE CROSS SECTIONS |
| 2015-02-4016 | PHYLLITE CROSS SECTIONS |
| 2015-02-4017 | PHYLLITE CROSS SECTIONS |

LEGEND

MISCELLANEOUS ABBREVIATIONS

- BH - BORE HOLE
BW - BACK OF SIDEWALK
CB - CATCH BASIN
C&G - CURB AND GUTTER
C.I.P. - CAST IN PLACE
CONCRETE
CI - CULVERT INLET
CO - CULVERT OUTLET
DES - DESIGN
EP - EDGE OF PAVEMENT
EX - EXISTING
LOG - LIP OF GUTTER
LS - LIGHT STANDARD
MH - MANHOLE
PROP - PROPOSED
PP - POWER POLE
S - SANITARY
ST - STORM
W - WATER
NB - NORTHBOUND
SB - SOUTHBOUND
EB - EASTBOUND
WB - WESTBOUND
N.I.C. - NOT IN CONTRACT

| ROAD CONSTRUCTION | | |
|-------------------|-----------------------------------|-------------------|
| EXISTING | DESCRIPTION | PROPOSED |
| | TEST PIT & ID | TP2010-06 |
| | BORE HOLE & ID | AH12+500 |
| | CONTROL LINE AND STATIONING | 67+500 |
| | ALIGNMENT TIE POINTS & STATIONING | T.S. 55+325.101 |
| ----- | EDGE OF PAVEMENT GRAVEL ROAD | EP |
| ===== | EDGE OF PAVEMENT | EP |
| ===== | EDGE OF PAVED SHOULDER | |
| ----- | SUBGRADE ELEVATION | |
| ----- | THROUGH ROCK PAVING | |
| ===== | CURB AND GUTTER | |
| ===== | CONCRETE BARRIER | |
| ===== | GUARD RAIL C/W POSTS | |
| ===== | DRAINAGE BARRIER | DB DB |
| ===== | DRAINAGE SIDE DITCH | DIRECTION OF FLOW |
| ===== | DRAINAGE MEDIAN DITCH | DIRECTION OF FLOW |
| ----- | DAY LIGHT LINE | ----- |
| ===== | CANADIAN PACIFIC RAILWAY | |
| ===== | EXISTING PAVEMENT | |
| ===== | PAVEMENT REMOVAL | |
| ===== | SURVEY GRID (NAD 83) | |
| ===== | TREE LINE | |
| ===== | UNDERGROUND TEL & MANHOLE | |
| ===== | WATER LINE | |
| ===== | CULVERT | CO CI |
| ===== | RETAINING WALL | |
| ===== | DITCH BLOCK | |
| ===== | DITCH DAM | |
| ===== | SMALL CSP CULVERT | |
| ===== | CATCH BASIN AND 300 mm Ø PIPE | |
| ===== | WILDLIFE FENCING | |
| ===== | WILDERNESS ZONE BOUNDARY | WZB |
| ===== | CONTROL POINT | CP 03.01 |
| ===== | GATE | |
| ===== | BARRIER DRAIN AND 300 mm PIPE | BD OR BD |
| ===== | RIP-RAP SPILLWAY | |
| ===== | FOG LINE | FL |
| ===== | CLEAR & GRUB | ----- |
| ===== | ROCK CUT FACE | |



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Project title/Titre du projet

YOHO NATIONAL PARK
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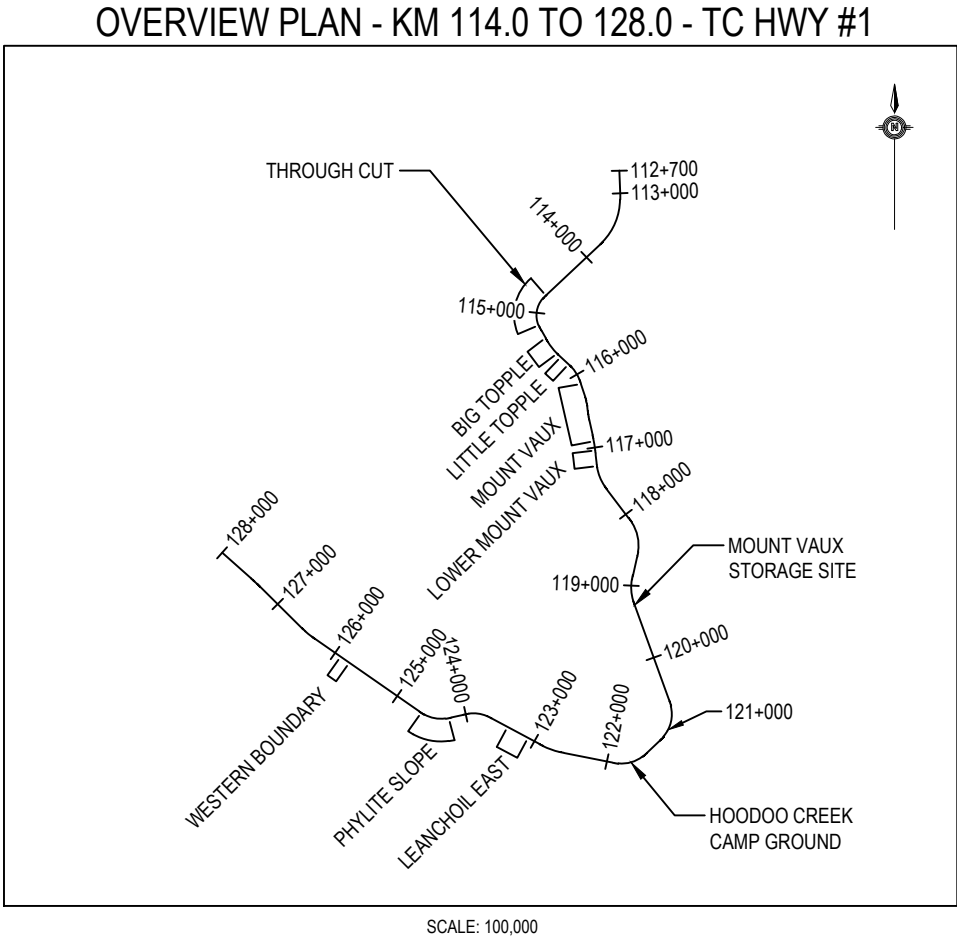
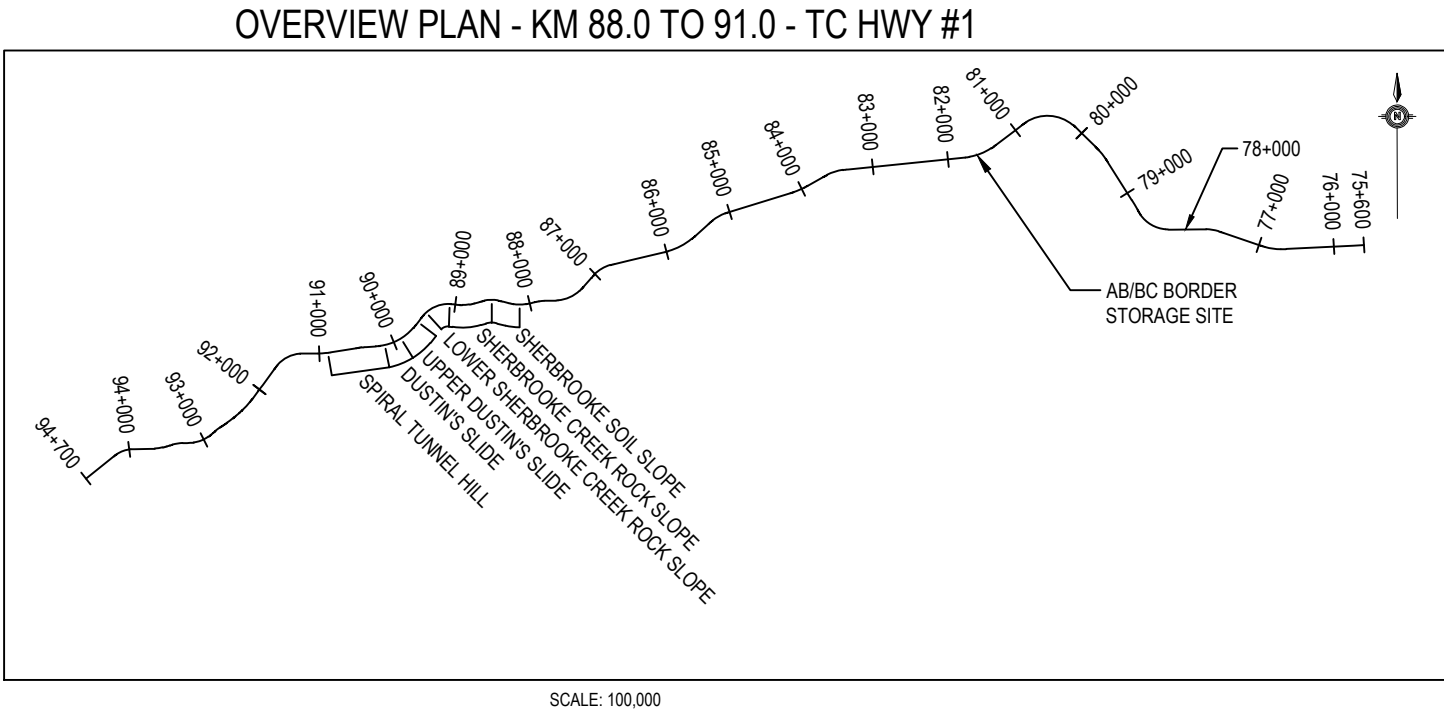
DRAWING INDEX & LEGEND



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| CONTROL MONUMENTS | | | | | |
|-------------------|----------|---------|-----------|--------------------|-----------------------------------|
| MONUMENT NO. | NORTHING | EASTING | ELEVATION | STATIONS | LIST OF SLOPES |
| | | | | KM 88 TO 91 | |
| 1 | * | * | * | 88+200 TO 88+500 | SHERBROOKE SOIL SLOPE |
| 2 | * | * | * | 88+580 TO 89+110 | SHERBROOKE CREEK ROCK SLOPE |
| 3 | * | * | * | 88+195 TO 89+435 | LOWER SHERBROOKE CREEK ROCK SLOPE |
| 4 | * | * | * | 89+540 TO 89+900 | UPPER DUSTIN'S SLIDE |
| 5 | * | * | * | 89+900 TO 90+150 | DUSTIN'S SLIDE |
| 6 | * | * | * | 90+150 TO 90+900 | SPIRAL TUNNELS HILL |
| | * | * | * | KM 114 TO 128 | |
| 7 | * | * | * | 114+800 TO 115+020 | THROUGH CUT (LEFT) |
| 8 | * | * | * | 114+900 TO 115+050 | THROUGH CUT (RIGHT) |
| 9 | * | * | * | 115+380 TO 115+580 | BIG TOPPLE |
| 10 | * | * | * | 115+650 TO 115+860 | LITTLE TOPPLE |
| 11 | * | * | * | 116+150 TO 116+900 | MOUNT VAUX |
| 12 | * | * | * | 117+010 TO 117+170 | LOWER MOUNT VAUX |
| 13 | | | | 116+470 TO 116+900 | MOUNT VAUX |
| 14 | * | * | * | 123+100 TO 123+400 | LEANCHOIL EAST |
| 15 | * | * | * | 124+280 TO 124+580 | PHYLLITE SLOPE |
| 16 | * | * | * | 125+820 TO 125+940 | WESTERN BOUNDARY |

* ALL VALUES TO BE PROVIDED BY MCELHANNEY PRIOR TO CONSTRUCTION



- NOTES:
1. SURVEY CONTROL MONUMENTS WILL BE ESTABLISHED BY MCELHANNEY AT EACH MAJOR ROCK CUT.
 2. THE GRID COORDINATES ARE FROM UTM ZONE 11, NAD83 (CSRS) AND ARE DERIVED FROM DUAL FREQUENCY GPS DIFFERENTIAL CARRIER PHASE OBSERVATIONS TO BE ACTIVE CONTROL POINTS BCMR BCSF, & BCVC.
 3. ELEVATIONS ARE REFERRED TO GEODETIC DATUM CVD28.
 4. THIS PLAN SHOWS GRID MEASURED DISTANCES. TO COMPUTE GROUND LEVEL DISTANCES, DIVIDE GRID DISTANCES BY A COMBINED FACTOR OF 0.999562753.

Client/client

Parks Canada Agency

L'Agence Parcs Canada

TETRA TECH

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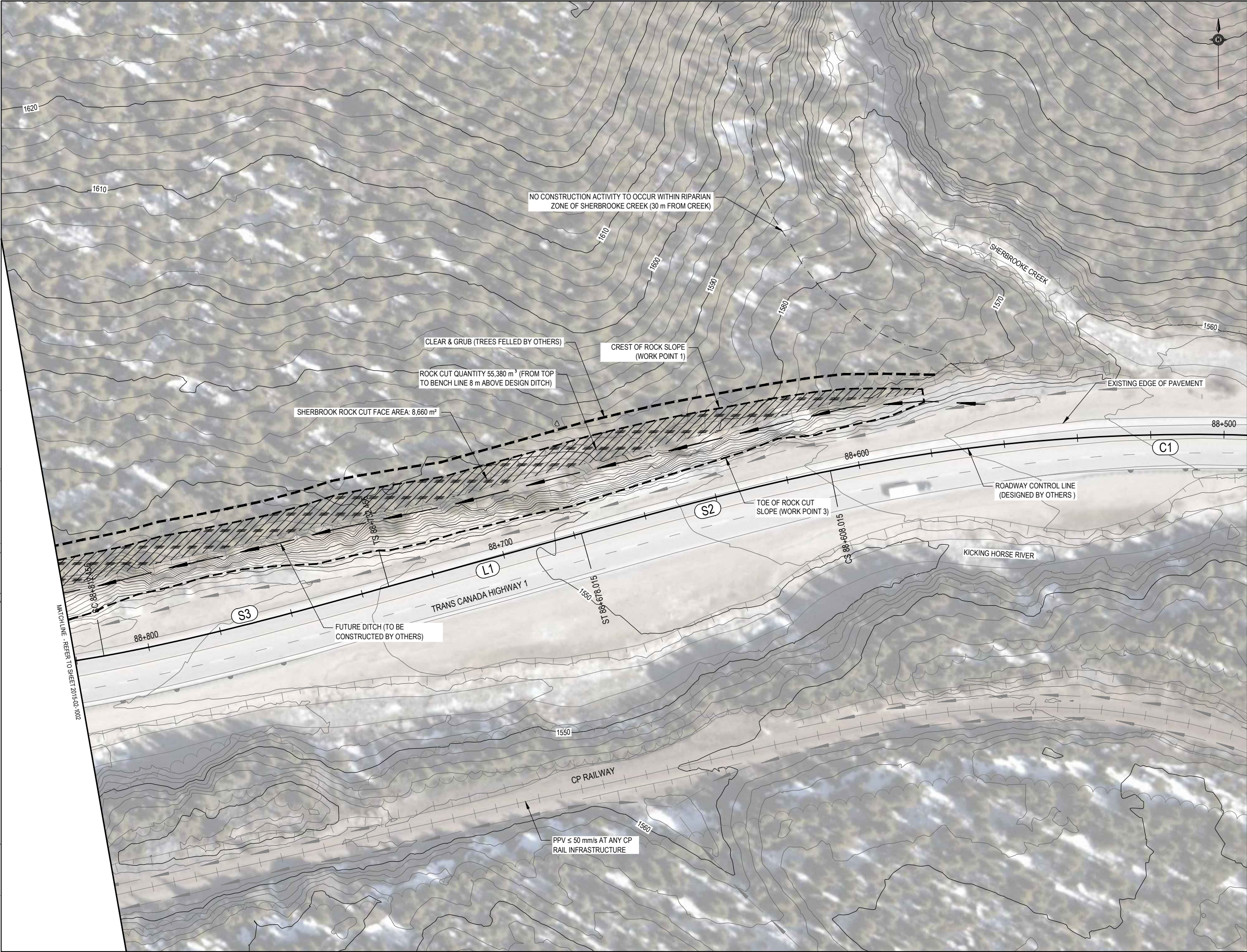
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ESTABLISHMENT OF SURVEY
MONUMENTS

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Client/client

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A. FRAPPELL / E. YANG

Drawn by/Dessine par
T. TAKEDA

Client/client

PARKS CANADA AGENCY

Drawing title/Titre du dessin

SHERBROOKE CREEK
ROCK SLOPE PLAN
STA 88+580 TO 88+820

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| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
| V13403095-01 | 2015-02-1001 | 00 |





Client/client

Parks Canada Agency

L'Agence Parcs Canada

TETRA TECH EBA

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| 00 | 24/04/15 | ISSUED FOR TENDER | AF | TT | AF |
| Revision/Revision | Date/Date | Description/Description | DES | DWN | CHK |

Project title/Titre du projet

YOHO NATIONAL PARK
BRITISH COLUMBIA

KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par
A. FRAPPELL / E. YANG

Drawn by/Dessine par
T. TAKEDA

Client/client

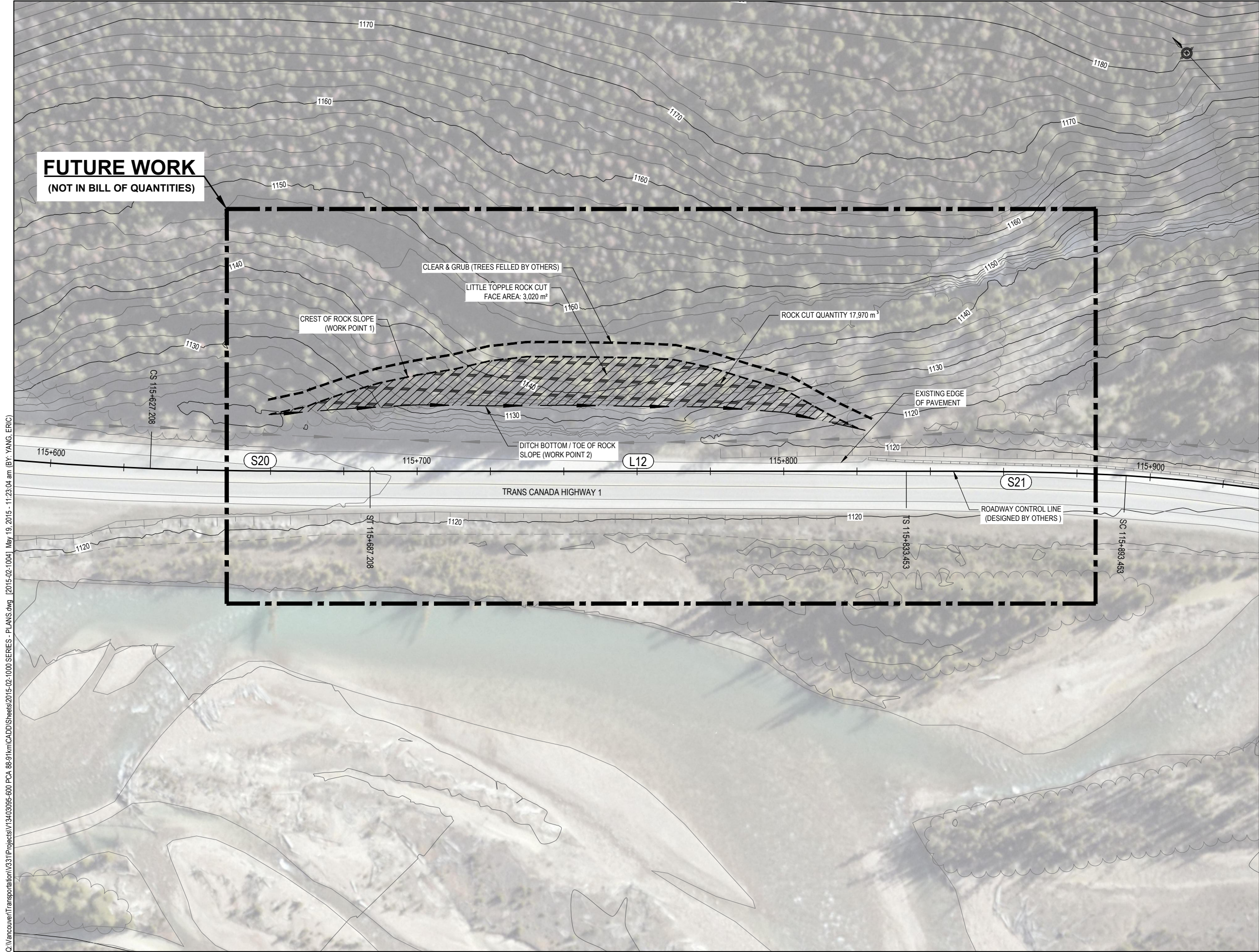
PARKS CANADA AGENCY

Drawing title/Titre du dessin

SHERBROOKE CREEK
ROCK SLOPE PLAN
STA 88+820 TO 89+110

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|---------------------------|----------------|----------------------------------|
| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
| V13403095-01 | 2015-02-1002 | 00 |





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Client/client

Parks Canada
Agency

L'Agence Parcs
Canada

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| 00 | 24/04/15 | ISSUED FOR TENDER | AF/ | TT | AF |
| Revision/ Revision | Date/Date | Description/Description | DES | DWN | CHK |

Project title/Titre du projet

YOHO NATIONAL PARK
BRITISH COLUMBIA

KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par
A. FRAPPELL / E. YANG

Drawn by/Dessine par
T. TAKEDA

Client/client

PARKS CANADA AGENCY

Drawing title/Titre du dessin

LITTLE TOPPLE
ROCK SLOPE PLAN
STA 115+660 TO 115+820

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| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
| V13403095-01 | 2015-02-1004 | 00 |



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Client/client

Parks Canada
Agency

L'Agence Parcs
Canada

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| Revision/ Revision | Date/Date | Description/Description | DES | DWN | CHK |

Project title/Titre du projet

YOHO NATIONAL PARK
BRITISH COLUMBIA

KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par
A. FRAPPELL / E. YANG

Drawn by/Dessiné par
T. TAKEDA

Client/client

PARKS CANADA AGENCY

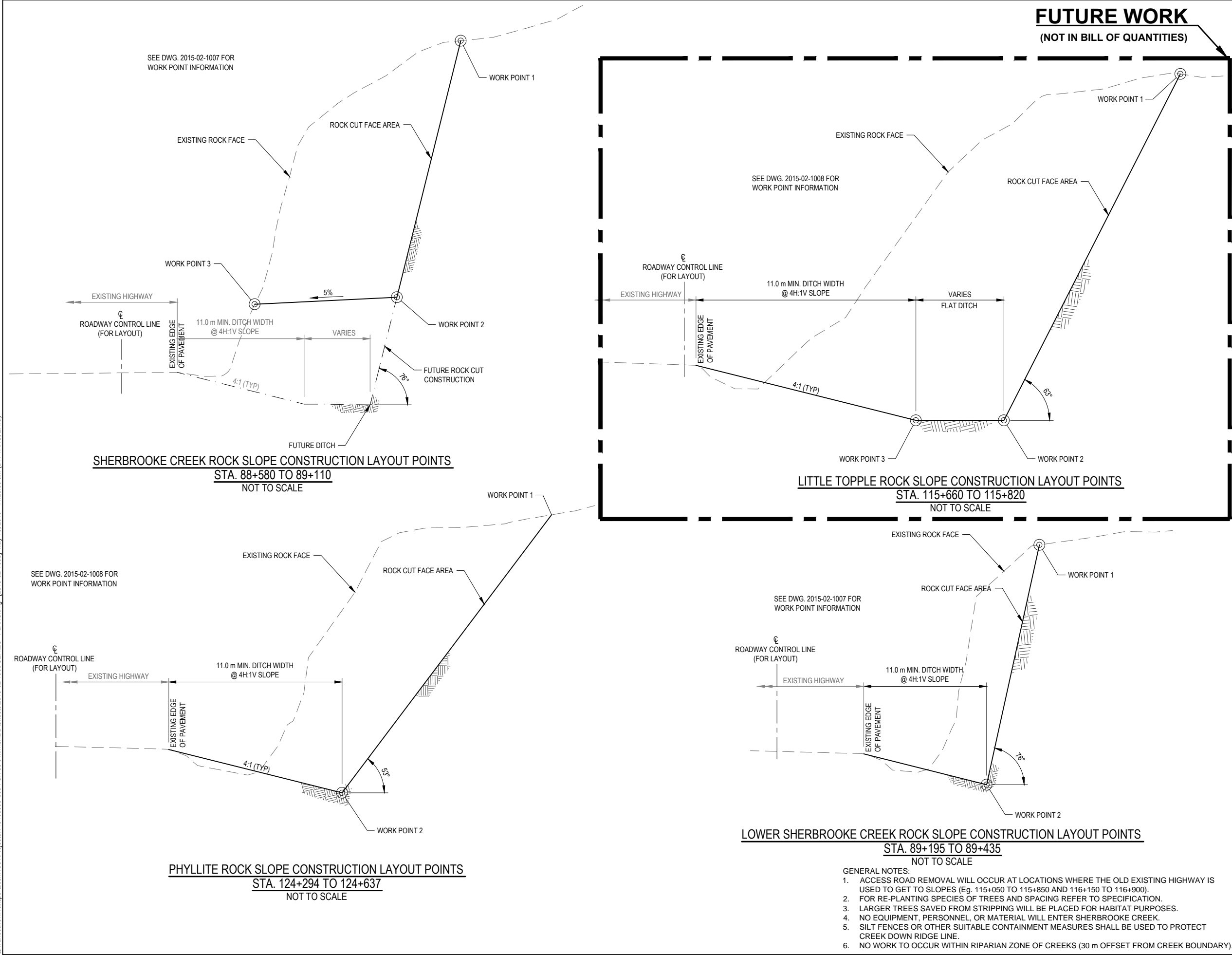
Drawing title/Titre du dessin

PHYLLITE
ROCK SLOPE PLAN
STA 124+294 TO 124+637

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| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
| V13403095-01 | 2015-02-1005 | 00 |



Q:\Vancouver\Transportation\V331\Projects\13403095-600 PCA 88-91km\CADD\Sheets\2015-02-1000 SERIES - PLANS.dwg [2015-02-1006] May 19, 2015 - 11:28:50 am (BY: YANG, ERIC)



Client/client

Parks Canada Agency

L'Agence Parcs Canada

TETRA TECH EBA

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| 00 | 24/04/15 | ISSUED FOR TENDER | AF | TT | AF |
| Revision/Revision | Date/Date | Description/Description | DES | DWN | CHK |

Project title/Titre du projet

YOHO NATIONAL PARK
BRITISH COLUMBIA

KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par
A. FRAPPELL / E. YANG

Drawn by/Dessine par
T. TAKEDA

Client/client

PARKS CANADA AGENCY

Drawing title/Titre du dessin

ROCK CUT CONSTRUCTION LAYOUT
TYPICAL SECTIONS

| | | |
|---------------------------|----------------|----------------------------------|
| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
| V13403095-01 | 2015-02-1006 | 00 |



Q:\Vancouver\Transportation\V331\Projects\13403095-600 PCA 88-91km\CADD\Sheets\2015-02-1000 SERIES - PLANS.dwg [2015-02-1007] April 27, 2015 - 11:15:06 am (BY: YANG, ERC)

| CONTROL LINE DATA - km 88 - km 91 | | | | | | | | |
|-----------------------------------|----------|---------|----------------------------|----------|------------|------------|-------------|-------------------------------|
| SEGMENT # | RADIUS | LENGTH | LINE / CHORD BEARING | SPIRAL A | BC STATION | EC STATION | Δ / Θs | PI COORD. |
| L7 | | 23.825 | 257° 00' 16" | | | | | |
| S13 | Incurve | 70.000 | | 187.083 | 87+983.825 | 88+053.825 | 4° 00' 39" | |
| C7 | 500 | 162.554 | 270° 19' 44" | | 88+053.825 | 88+216.378 | 18° 37' 38" | N 5698533.466 E 543829.436 |
| S14 | Outcurve | 70.000 | | 187.083 | 88+216.378 | 88+286.378 | 4° 00' 39" | |
| L8 | | 67.676 | 283° 39' 12" | | | | | |
| S1 | Incurve | 70.000 | | 187.083 | 88+354.054 | 88+424.054 | 4° 00' 39" | |
| C1 | 500 | 183.961 | 269° 06' 09" | | 88+424.054 | 88+608.015 | 21° 04' 49" | N 5698624.596 E 543454.276 |
| S2 | Outcurve | 70.000 | | 187.083 | 88+608.015 | 88+678.015 | 4° 00' 39" | |
| L1 | | 54.441 | 254° 33' 05" | | | | | |
| S3 | Incurve | 80.000 | | 187.617 | 88+732.456 | 88+812.456 | 5° 12' 31" | |
| C2 | 440 | 92.275 | 265° 46' 05" | | 88+812.456 | 88+904.731 | 12° 00' 57" | N 5698532.248 E 543120.114 |
| S4 | Outcurve | 80.000 | | 187.617 | 88+904.731 | 88+984.731 | 5° 12' 31" | |
| L2 | | 11.038 | 276° 59' 05" | | | | | |
| S5 | Incurve | 80.000 | | 187.617 | 88+995.769 | 89+075.769 | 5° 12' 31" | |
| C3 | 440 | 374.845 | 247° 22' 13" | | 89+075.769 | 89+450.614 | 48° 48' 41" | N 5698584.397 E 542694.460 |
| S6 | Outcurve | 80.000 | | 187.617 | 89+450.614 | 89+530.614 | 5° 12' 31" | |
| L3 | | 89.151 | 217° 45' 21" | | | | | |
| S7 | Incurve | 60.000 | | 201.990 | 89+619.765 | 89+679.765 | 2° 31' 40" | |
| C4 | 680 | 506.049 | 241° 36' 11" | | 89+679.765 | 90+185.814 | 42° 38' 20" | N 5698022.841 E 542259.564 |
| S8 | Outcurve | 60.000 | | 201.990 | 90+185.814 | 90+245.814 | 2° 31' 40" | |
| L4 | | 129.032 | 265° 27' 01" | | | | | |
| S9 | Incurve | 60.000 | | 244.949 | 90+374.846 | 90+434.846 | 1° 43' 08" | |
| C5 | 1000 | 21.066 | 263° 07' 41" | | 90+434.846 | 90+455.912 | 1° 12' 25" | N 5697980.778 E 541730.962 |
| S10 | Outcurve | 60.000 | | 244.949 | 90+455.912 | 90+515.912 | 1° 43' 08" | |
| L5 | | 329.474 | 260° 48' 20" | | | | | |
| S11 | Incurve | 60.000 | | 244.949 | 90+845.386 | 90+905.386 | 1° 43' 08" | |
| C6 | 1000 | 111.253 | 265° 42' 42" | | 90+905.386 | 91+016.639 | 6° 22' 28" | N 5697898.348 E 541221.707 |
| S12 | Outcurve | 60.000 | | 244.949 | 91+016.639 | 91+076.639 | 1° 43' 08" | |
| L6 | | 83.361 | 270° 37' 04" | | | | | |

| SHERBROOKE ROCK CUT CONSTRUCTION LAYOUT | | | | | | |
|---|---------------|-----------|---------------|-----------|---------------|-----------|
| STATION | WORK POINT #1 | | WORK POINT #2 | | WORK POINT #3 | |
| | OFFSET | ELEVATION | OFFSET | ELEVATION | OFFSET | ELEVATION |
| 88+680.000 | 17.651m | 1566.233m | 16.352m | 1561.024m | 14.072m | 1560.910m |
| 88+690.000 | 19.465m | 1569.953m | 17.089m | 1560.423m | 11.611m | 1560.149m |
| 88+600.000 | 21.173m | 1572.530m | 18.034m | 1559.939m | 11.089m | 1559.591m |
| 88+610.000 | 22.018m | 1577.108m | 17.620m | 1559.466m | 10.320m | 1559.101m |
| 88+620.000 | 22.649m | 1580.058m | 17.390m | 1558.969m | 11.569m | 1558.678m |
| 88+630.000 | 23.087m | 1581.593m | 17.282m | 1558.311m | 10.128m | 1557.953m |
| 88+640.000 | 23.715m | 1583.380m | 17.314m | 1557.709m | 9.511m | 1557.319m |
| 88+650.000 | 24.368m | 1584.955m | 17.459m | 1557.244m | 9.131m | 1556.827m |
| 88+660.000 | 24.738m | 1584.891m | 17.685m | 1556.601m | 8.608m | 1556.147m |
| 88+670.000 | 25.035m | 1584.284m | 17.982m | 1555.998m | 8.231m | 1555.510m |
| 88+680.000 | 24.924m | 1581.999m | 18.349m | 1555.628m | 7.934m | 1555.107m |
| 88+690.000 | 24.916m | 1580.627m | 18.529m | 1555.010m | 8.621m | 1554.514m |
| 88+700.000 | 24.960m | 1579.820m | 18.708m | 1554.745m | 8.761m | 1554.248m |
| 88+710.000 | 24.881m | 1578.164m | 18.888m | 1554.127m | 9.155m | 1553.640m |
| 88+720.000 | 26.030m | 1579.701m | 19.535m | 1553.649m | 8.886m | 1553.117m |
| 88+730.000 | 27.042m | 1580.679m | 20.182m | 1553.168m | 9.510m | 1552.634m |
| 88+740.000 | 27.898m | 1581.150m | 20.827m | 1552.791m | 10.760m | 1552.287m |
| 88+750.000 | 27.495m | 1577.853m | 21.104m | 1552.220m | 11.153m | 1551.722m |
| 88+760.000 | 27.480m | 1576.642m | 21.311m | 1551.899m | 13.318m | 1551.499m |
| 88+770.000 | 27.916m | 1576.812m | 21.597m | 1551.470m | 14.880m | 1551.134m |
| 88+780.000 | 28.368m | 1577.278m | 21.850m | 1551.136m | 15.340m | 1550.811m |
| 88+790.000 | 28.874m | 1578.406m | 21.948m | 1550.628m | 14.840m | 1550.273m |
| 88+800.000 | 28.341m | 1577.155m | 21.619m | 1550.196m | 14.712m | 1549.851m |
| 88+810.000 | 28.225m | 1578.361m | 21.107m | 1549.811m | 13.140m | 1549.412m |
| 88+820.000 | 27.899m | 1577.949m | 20.814m | 1549.534m | 11.426m | 1549.065m |
| 88+830.000 | 27.261m | 1576.846m | 20.302m | 1548.937m | 10.717m | 1548.457m |
| 88+840.000 | 26.216m | 1575.244m | 19.571m | 1548.591m | 11.043m | 1548.165m |
| 88+850.000 | 25.682m | 1574.176m | 19.177m | 1548.084m | 11.447m | 1547.697m |
| 88+860.000 | 24.761m | 1571.815m | 18.777m | 1547.813m | 11.267m | 1547.437m |
| 88+870.000 | 24.662m | 1569.752m | 19.058m | 1547.279m | 9.052m | 1546.779m |
| 88+880.000 | 24.908m | 1567.771m | 19.712m | 1546.934m | 8.475m | 1546.373m |
| 88+890.000 | 24.984m | 1565.972m | 20.147m | 1546.571m | 9.965m | 1546.062m |
| 88+900.000 | 24.924m | 1564.414m | 20.362m | 1546.118m | 9.896m | 1545.594m |
| 88+910.000 | 24.777m | 1562.665m | 20.522m | 1545.600m | 9.322m | 1545.040m |
| 88+920.000 | 24.504m | 1560.795m | 20.624m | 1545.232m | 10.245m | 1544.713m |
| 88+930.000 | 23.287m | 1555.702m | 20.548m | 1544.719m | 9.852m | 1544.184m |
| 88+940.000 | 21.355m | 1550.636m | 19.801m | 1544.404m | 12.045m | 1544.016m |
| 88+950.000 | 19.956m | 1548.020m | 18.924m | 1543.880m | 11.990m | 1543.533m |
| 88+960.000 | 19.382m | 1549.203m | 17.943m | 1543.432m | 11.077m | 1543.088m |
| 88+970.000 | 19.127m | 1548.773m | 17.727m | 1543.160m | 11.281m | 1542.838m |
| 88+980.000 | 18.144m | 1545.373m | 17.468m | 1542.660m | 15.157m | 1542.544m |
| 88+990.000 | 18.074m | 1545.889m | 17.194m | 1542.360m | 12.990m | 1542.150m |
| 89+000.000 | 17.637m | 1544.965m | 16.853m | 1541.821m | 12.714m | 1541.614m |
| 89+010.000 | 16.758m | 1542.370m | 16.525m | 1541.434m | 15.263m | 1541.371m |

| LOWER SHERBROOKE ROCK CUT CONSTRUCTION LAYOUT | | | | |
|---|---------------|-----------|---------------|-----------|
| STATION | WORK POINT #1 | | WORK POINT #2 | |
| | OFFSET | ELEVATION | OFFSET | ELEVATION |
| 89+195.892 | 10.587m | 1529.849m | 10.034m | 1527.632m |
| 89+200.000 | 12.949m | 1531.839m | 11.741m | 1526.992m |
| 89+210.000 | 17.582m | 1536.901m | 14.832m | 1525.873m |
| 89+220.000 | 20.287m | 1539.796m | 16.598m | 1525.001m |
| 89+230.000 | 20.928m | 1541.208m | 16.772m | 1524.541m |
| 89+240.000 | 20.928m | 1539.747m | 17.047m | 1524.181m |
| 89+250.000 | 20.900m | 1538.626m | 17.179m | 1523.703m |
| 89+260.000 | 20.929m | 1537.201m | 17.445m | 1523.227m |
| 89+270.000 | 20.496m | 1534.065m | 17.678m | 1522.763m |
| 89+280.000 | 20.961m | 1534.442m | 17.961m | 1522.412m |
| 89+290.000 | 21.937m | 1536.817m | 18.227m | 1521.935m |
| 89+300.000 | 22.652m | 1538.756m | 18.352m | 1521.512m |
| 89+310.000 | 22.809m | 1538.112m | 18.563m | 1521.079m |
| 89+320.000 | 23.349m | 1539.066m | 18.759m | 1520.653m |
| 89+330.000 | 23.433m | 1536.781m | 19.276m | 1520.109m |
| 89+340.000 | 23.205m | 1534.161m | 19.595m | 1519.681m |
| 89+350.000 | 23.753m | 1533.147m | 20.273m | 1519.190m |
| 89+360.000 | 23.737m | 1530.361m | 20.816m | 1518.644m |
| 89+370.000 | 22.804m | 1526.170m | 20.846m | 1518.320m |
| 89+380.000 | 23.823m | 1529.290m | 20.985m | 1517.908m |
| 89+390.000 | 23.584m | 1526.934m | 21.219m | 1517.450m |
| 89+400.000 | 23.804m | 1526.529m | 21.435m | 1517.026m |
| 89+410.000 | 25.480m | 1531.519m | 21.759m | 1516.596m |
| 89+420.000 | 24.279m | 1529.934m | 20.956m | 1516.603m |
| 89+430.000 | 21.623m | 1525.138m | 19.515m | 1516.683m |
| 89+440.000 | 19.147m | 1520.098m | 18.315m | 1516.761m |
| 89+450.000 | 17.393m | 1516.736m | 17.357m | 1516.590m |
| 89+453.145 | 17.114m | 1516.563m | 17.105m | 1516.526m |



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| 00 | 24/04/15 | ISSUED FOR TENDER | AF/ EY | TT | AF |
| Revision/ Revision | Date/Date | Description/Description | DES | DWN | CHK |

Project title/Titre du projet

YOHO NATIONAL PARK
BRITISH COLUMBIA

KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par
A. FRAPPELL / E. YANG

Drawn by/Dessine par
T. TAKEDA



Q:\Vancouver\Transportation\V331\Projects\13403095-600 PCA 88-9\km\CADD\Sheets\2015-02-1000 SERIES - PLANS.dwg [2015-02-1008] May 19, 2015 - 11:32:14 am (BY: YANG, ERIC)

| CONTROL LINE DATA - km 113 - km 118 | | | | | | | | |
|-------------------------------------|----------|---------|----------------------------|----------|-------------|-------------|-------------|-------------------------------|
| SEGMENT # | RADIUS | LENGTH | LINE / CHORD BEARING | SPIRAL A | BC STATION | EC STATION | Δ / Θs | PI COORD. |
| L9 | | 405.038 | 226° 44' 16" | | | | | |
| S15 | Incurve | 60.000 | | 244.949 | 114+205.038 | 114+265.038 | 1° 43' 08" | |
| C8 | 1000 | 69.917 | 230° 27' 35" | | 114+265.038 | 114+334.955 | 4° 00' 21" | N 5680519.812 E 528465.619 |
| S16 | Outcurve | 60.000 | | 244.949 | 114+334.955 | 114+394.955 | 1° 43' 08" | |
| L10 | | 177.009 | 234° 10' 54" | | | | | |
| S17 | Incurve | 80.000 | | 187.617 | 114+571.964 | 114+651.964 | 5° 12' 31" | |
| C9 | 440 | 554.627 | 192° 51' 42" | | 114+651.964 | 115+206.591 | 72° 13' 20" | N 5680110.506 E 527896.486 |
| S18 | Outcurve | 80.000 | | 187.617 | 115+206.591 | 115+286.591 | 5° 12' 31" | |
| L11 | | 76.653 | 151° 32' 31" | | | | | |
| S19 | Incurve | 60.000 | | 219.089 | 115+363.244 | 115+423.244 | 2° 08' 55" | |
| C10 | 800 | 203.964 | 142° 05' 22" | | 115+423.244 | 115+627.208 | 14° 36' 28" | N 5679523.912 E 528216.425 |
| S20 | Outcurve | 60.000 | | 219.089 | 115+627.208 | 115+687.208 | 2° 08' 55" | |
| L12 | | 146.245 | 132° 38' 13" | | | | | |
| S21 | Incurve | 60.000 | | 173.205 | 115+833.453 | 115+893.453 | 3° 26' 16" | |
| C11 | 500 | 197.028 | 147° 21' 49" | | 115+893.453 | 116+090.481 | 22° 34' 40" | N 5679204.904 E 528662.894 |
| S22 | Outcurve | 60.000 | | 173.205 | 116+090.481 | 116+150.481 | 3° 26' 16" | |
| L13 | | 174.319 | 162° 05' 25" | | | | | |
| S23 | Incurve | 60.000 | | 162.481 | 116+324.800 | 116+384.800 | 3° 54' 24" | |
| C12 | 440 | 29.710 | 167° 55' 52" | | 116+384.800 | 116+414.510 | 3° 52' 08" | N 5678813.958 E 528689.241 |
| S24 | Outcurve | 60.000 | | 162.481 | 116+414.510 | 116+474.510 | 3° 54' 24" | |
| L14 | | 33.454 | 173° 46' 19" | | | | | |
| S25 | Incurve | 60.000 | | 219.089 | 116+507.964 | 116+567.964 | 2° 08' 55" | |
| C13 | 800 | 26.486 | 170° 40' 30" | | 116+567.964 | 116+594.450 | 1° 53' 49" | N 5678633.241 E 528708.962 |
| S26 | Outcurve | 60.000 | | 219.089 | 116+594.450 | 116+654.450 | 2° 08' 55" | |
| L15 | | 174.942 | 167° 34' 41" | | | | | |
| S27 | Incurve | 60.000 | | 346.410 | 116+829.392 | 116+889.392 | 0° 51' 34" | |
| C14 | 2000 | 162.078 | 170° 45' 32" | | 116+889.392 | 117+051.471 | 4° 38' 36" | N 5678252.964 E 528792.725 |
| S28 | Outcurve | 60.000 | | 346.410 | 117+051.471 | 117+111.471 | 0° 51' 34" | |
| L16 | | 106.428 | 173° 56' 24" | | | | | |
| S29 | Incurve | 60.000 | | 189.737 | 117+217.898 | 117+277.898 | 2° 51' 53" | |
| C15 | 600 | 267.103 | 158° 19' 19" | | 117+277.898 | 117+545.001 | 25° 30' 23" | N 5677810.074 E 528839.744 |
| S30 | Outcurve | 60.000 | | 189.737 | 117+545.001 | 117+605.001 | 2° 51' 53" | |
| L17 | | 394.999 | 142° 42' 14" | | | | | |

FUTURE WORK

(NOT IN BILL OF QUANTITIES)

| LITTLE TOPPLE ROCK CUT CONSTRUCTION LAYOUT | | | | | | |
|--|---------------|-----------|---------------|-----------|---------------|-----------|
| | WORK POINT #1 | | WORK POINT #2 | | WORK POINT #3 | |
| STATION | OFFSET | ELEVATION | OFFSET | ELEVATION | OFFSET | ELEVATION |
| 115+660.000 | -15.536m | 1119.825m | - | - | -15.409m | 1119.574m |
| 115+670.000 | -17.679m | 1122.117m | - | - | -16.234m | 1119.282m |
| 115+672.150 | -18.575m | 1123.432m | -16.406m | 1119.174m | -16.405m | 1119.174m |
| 115+680.000 | -21.241m | 1127.345m | -17.025m | 1119.072m | -16.342m | 1119.072m |
| 115+690.000 | -24.152m | 1132.049m | -17.567m | 1119.125m | -16.015m | 1119.125m |
| 115+700.000 | -26.258m | 1134.990m | -18.108m | 1118.995m | -15.421m | 1118.995m |
| 115+710.000 | -27.826m | 1138.262m | -17.993m | 1118.963m | -14.783m | 1118.963m |
| 115+720.000 | -30.149m | 1142.978m | -17.851m | 1118.844m | -14.387m | 1118.844m |
| 115+730.000 | -31.247m | 1144.949m | -17.935m | 1118.822m | -14.156m | 1118.822m |
| 115+740.000 | -31.270m | 1144.737m | -18.019m | 1118.732m | -13.947m | 1118.732m |
| 115+750.000 | -31.117m | 1144.643m | -17.870m | 1118.644m | -13.739m | 1118.644m |
| 115+760.000 | -30.946m | 1144.525m | -17.720m | 1118.567m | -13.588m | 1118.567m |
| 115+770.000 | -30.456m | 1143.661m | -17.628m | 1118.485m | -13.476m | 1118.485m |
| 115+780.000 | -28.328m | 1139.432m | -17.538m | 1118.255m | -13.369m | 1118.255m |
| 115+790.000 | -25.197m | 1134.715m | -16.827m | 1118.288m | -13.263m | 1118.288m |
| 115+800.000 | -22.394m | 1130.628m | -16.080m | 1118.235m | -13.168m | 1118.235m |
| 115+810.000 | -16.824m | 1124.008m | -13.893m | 1118.256m | -13.311m | 1118.256m |
| 115+812.510 | -15.430m | 1122.425m | -13.359m | 1118.316m | -13.339m | 1118.321m |
| 115+820.000 | -11.811m | 1118.561m | - | - | -11.686m | 1118.808m |

| CONTROL LINE DATA - km 121 - km 124 | | | | | | | | |
|-------------------------------------|----------|---------|----------------------------|----------|-------------|-------------|-------------|-------------------------------|
| SEGMENT # | RADIUS | LENGTH | LINE / CHORD BEARING | SPIRAL A | BC STATION | EC STATION | Δ / Θs | PI COORD. |
| L18 | | 140.821 | 226° 31' 25" | | | | | |
| S31 | Incurve | 80.000 | | 187.617 | 121+440.821 | 121+520.821 | 5° 12' 31" | |
| C16 | 440 | 341.879 | 253° 59' 30" | | 121+520.821 | 121+862.699 | 44° 31' 07" | N 5673984.687 E 529286.987 |
| S32 | Outcurve | 80.000 | | 187.617 | 121+862.699 | 121+942.699 | 5° 12' 31" | |
| L19 | | 662.304 | 281° 27' 34" | | | | | |
| S33 | Incurve | 60.000 | | 244.949 | 122+605.003 | 122+665.003 | 1° 43' 08" | |
| C17 | 1000 | 232.863 | 289° 50' 58" | | 122+665.003 | 122+897.867 | 13° 20' 32" | N 5674204.990 E 528200.238 |
| S34 | Outcurve | 60.000 | | 244.949 | 122+897.867 | 122+957.867 | 1° 43' 08" | |
| L20 | | 642.537 | 298° 14' 22" | | | | | |
| S35 | Incurve | 80.000 | | 187.617 | 123+600.404 | 123+680.404 | 5° 12' 31" | |
| C18 | 440 | 303.150 | 273° 17' 35" | | 123+680.404 | 123+983.553 | 39° 28' 32" | N 5674708.898 E 527262.004 |
| S36 | Outcurve | 80.000 | | 187.617 | 123+983.553 | 124+063.553 | 5° 12' 31" | |
| L21 | | 22.841 | 248° 20' 48" | | | | | |
| S37 | Incurve | 80.000 | | 187.617 | 124+086.394 | 124+166.394 | 5° 12' 31" | |
| C19 | 440 | 367.097 | 277° 27' 24" | | 124+166.394 | 124+533.491 | 47° 48' 09" | N 5674504.804 E 526747.922 |
| S38 | Outcurve | 80.000 | | 187.617 | 124+533.491 | 124+613.491 | 5° 12' 31" | |
| L22 | | 286.509 | 306° 33' 59" | | | | | |

| PHYLLITE ROCK CUT CONSTRUCTION LAYOUT | | | | |
|---------------------------------------|---------|---------------|---------|---------------|
| | | WORK POINT #1 | | WORK POINT #2 |
| STATION | OFFSET | ELEVATION | OFFSET | ELEVATION |
| 124+293.658 | 64.525m | 1130.265m | 63.877m | 1129.405m |
| 124+300.000 | 68.180m | 1134.117m | 64.367m | 1129.058m |
| 124+310.000 | 71.010m | 1136.484m | 64.981m | 1128.483m |
| 124+320.000 | 72.048m | 1137.867m | 64.817m | 1128.270m |
| 124+330.000 | 72.557m | 1139.100m | 64.229m | 1128.049m |
| 124+340.000 | 72.013m | 1140.042m | 62.968m | 1128.039m |
| 124+350.000 | 71.992m | 1141.727m | 61.502m | 1127.808m |
| 124+360.000 | 70.431m | 1142.124m | 59.680m | 1127.859m |
| 124+370.000 | 69.689m | 1143.778m | 57.615m | 1127.757m |
| 124+380.000 | 69.127m | 1146.181m | 55.367m | 1127.921m |
| 124+390.000 | 68.409m | 1148.572m | 52.909m | 1128.003m |
| 124+400.000 | 68.386m | 1151.303m | 50.864m | 1128.050m |
| 124+410.000 | 68.813m | 1153.875m | 49.294m | 1127.973m |
| 124+420.000 | 68.724m | 1155.836m | 47.669m | 1127.895m |
| 124+430.000 | 68.854m | 1157.848m | 46.203m | 1127.790m |
| 124+440.000 | 68.165m | 1159.013m | 44.577m | 1127.712m |
| 124+450.000 | 65.163m | 1156.689m | 43.185m | 1127.524m |
| 124+460.000 | 61.971m | 1154.490m | 41.577m | 1127.427m |
| 124+470.000 | 61.659m | 1155.727m | 40.193m | 1127.241m |
| 124+480.000 | 60.573m | 1156.250m | 38.613m | 1127.109m |
| 124+490.000 | 59.434m | 1156.113m | 37.445m | 1126.935m |
| 124+600.000 | 58.130m | 1155.909m | 36.213m | 1126.825m |
| 124+610.000 | 56.724m | 1155.266m | 35.131m | 1126.613m |
| 124+620.000 | 55.240m | 1154.533m | 34.016m | 1126.368m |
| 124+630.000 | 53.768m | 1153.834m | 32.931m | 1126.183m |
| 124+640.000 | 52.093m | 1152.756m | 31.832m | 1125.870m |
| 124+650.000 | 51.000m | 1152.486m | 30.783m | 1125.857m |
| 124+660.000 | 50.943m | 1153.402m | 29.860m | 1125.425m |
| 124+670.000 | 49.924m | 1152.763m | 29.110m | 1125.144m |
| 124+680.000 | 47.726m | 1149.976m | 28.726m | 1124.764m |
| 124+690.000 | 45.796m | 1147.571m | 28.248m | 1124.285m |
| 124+600.000 | 41.869m | 1142.856m | 27.706m | 1124.062m |
| 124+610.000 | 37.802m | 1138.428m | 26.802m | 1123.830m |
| 124+620.000 | 32.538m | 1133.248m | 25.399m | 1123.774m |
| 124+630.000 | 28.401m | 1129.469m | 24.043m | 1123.686m |
| 124+640.000 | 24.901m | 1126.433m | 22.712m | 1123.529m |
| 124+650.000 | 21.753m | 1123.933m | 21.381m | 1123.440m |
| 124+651.233 | 21.639m | 1123.980m | 21.217m | 1123.420m |



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| Revision/ Revision | Date/Date | Description/Description | DES | DWN | CHK |

Project title/Titre du projet

YOHO NATIONAL PARK
BRITISH COLUMBIA

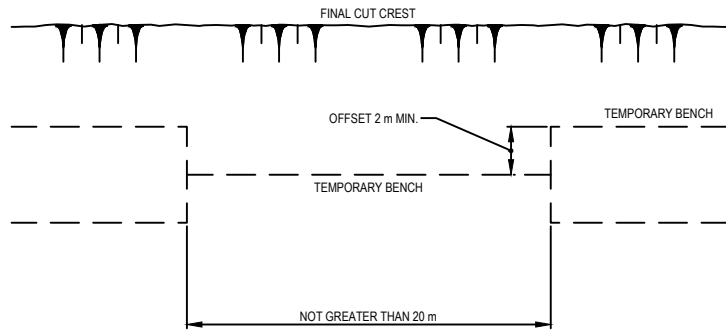
KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par
A. FRAPPELL / E. YANG

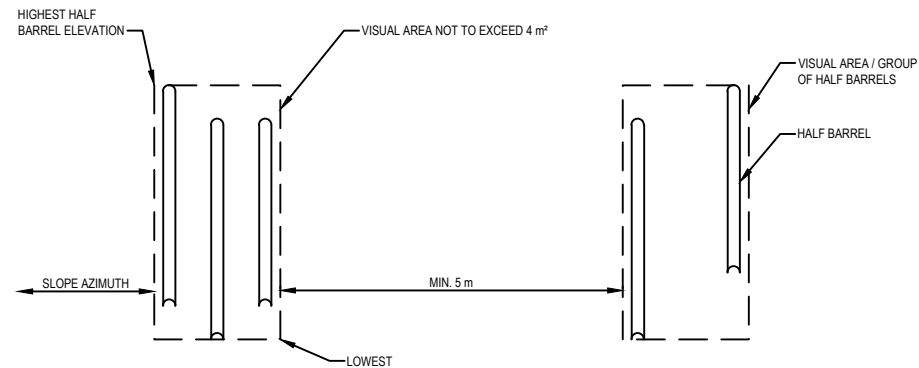
Drawn by/Dessine par
T. TAKEDA



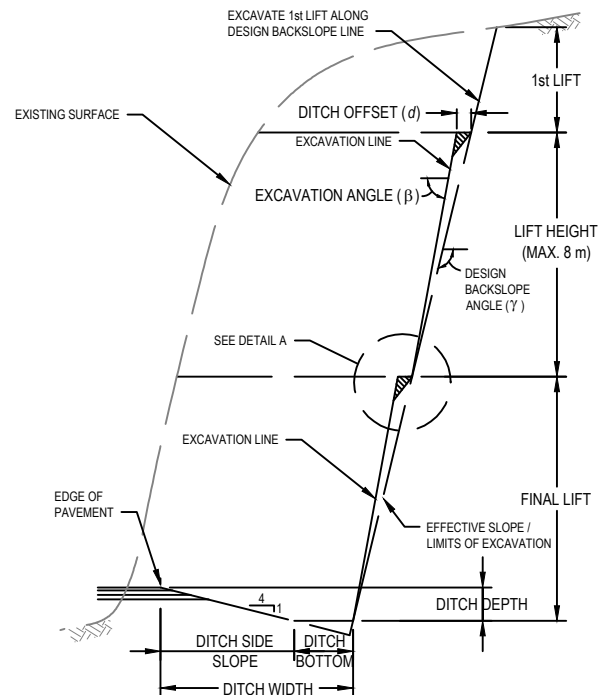
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OFFSET OF TEMPORARY BENCHES
(ELEVATION VIEW)
NOT TO SCALE

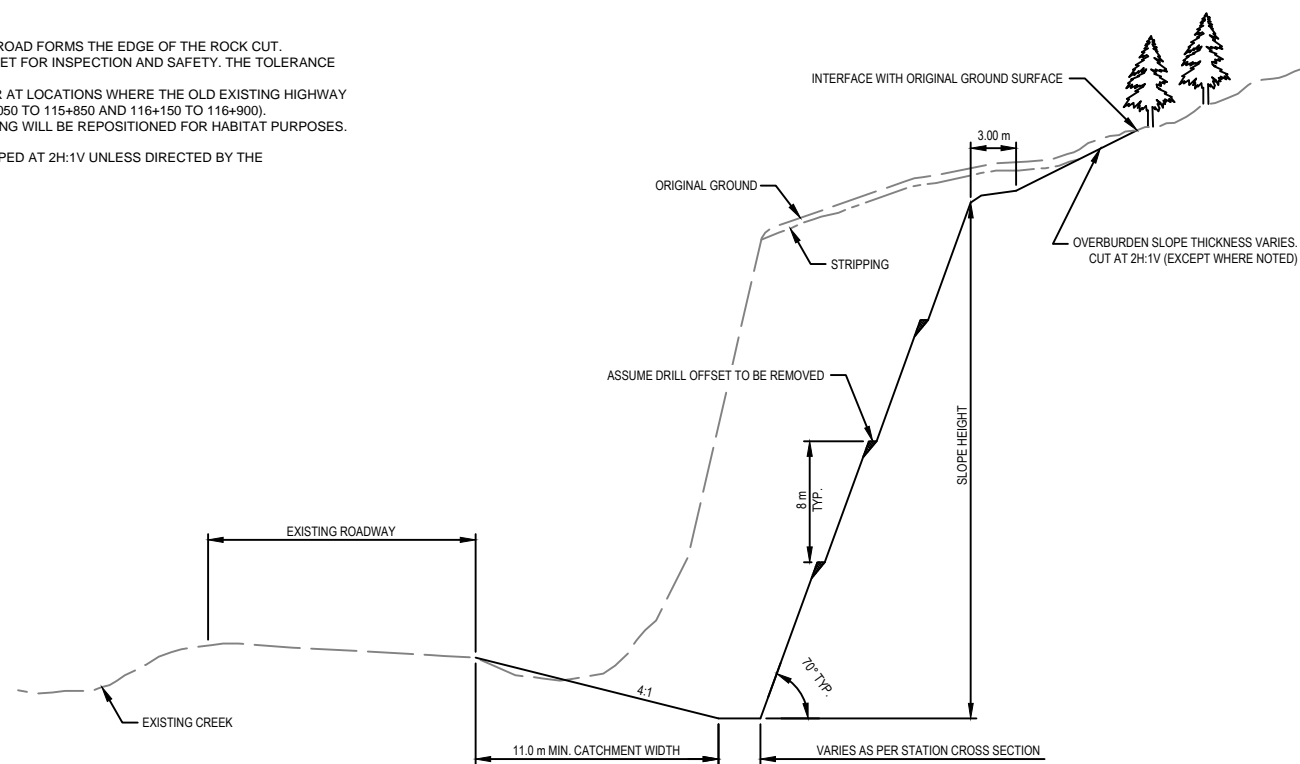


HALF BARREL OR DRILL HOLE ACCEPTABILITY
(ELEVATION VIEW OF ROCK FACE)
NOT TO SCALE

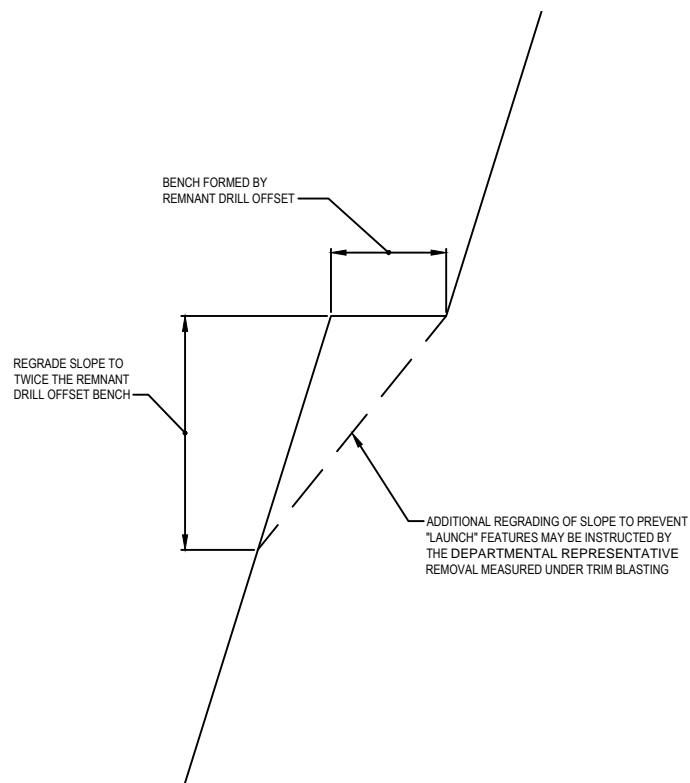


CALCULATION OF BACKSLOPE EXCAVATION ANGLE
NOT TO SCALE
FOR INFORMATION PURPOSES

- GENERAL NOTES:
1. THE OUTSIDE EDGE OF THE ACCESS ROAD FORMS THE EDGE OF THE ROCK CUT.
 2. THE 3 m SET BACK AT THE CREST IS SET FOR INSPECTION AND SAFETY. THE TOLERANCE ON THIS SET BACK IS ± 0.5 m.
 3. ACCESS ROAD REMOVAL WILL OCCUR AT LOCATIONS WHERE THE OLD EXISTING HIGHWAY IS USED TO GET TO SLOPES (Eg. 115+050 TO 115+850 AND 116+150 TO 116+900).
 4. LARGER TREES SAVED FROM STRIPPING WILL BE REPOSITIONED FOR HABITAT PURPOSES. DRILL OFFSETS SHALL BE REMOVED.
 5. OVERBURDEN SLOPES SHALL BE SLOPED AT 2H:1V UNLESS DIRECTED BY THE DEPARTMENTAL REPRESENTATIVE.



TYPICAL SECTION - SOLID ROCK
NOT TO SCALE



DETAIL A: REMOVAL OF DRILL OFFSET BENCHES
NOT TO SCALE

ISSUED FOR TENDER

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| Revision | | | | | |

Project title/Titre du projet

YOHO NATIONAL PARK
BRITISH COLUMBIA

KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par

A. FRAPPELL / E. YANG

Drawn by/Dessine par

T. TAKEDA

Client/client

PARKS CANADA AGENCY

Drawing title/Titre du dessin

TYPICAL CROSS SECTION

Project No./No. du projet

V13403095-01

Sheet/ Feuille

2015-02-2001

Revision no./

La Révision no.

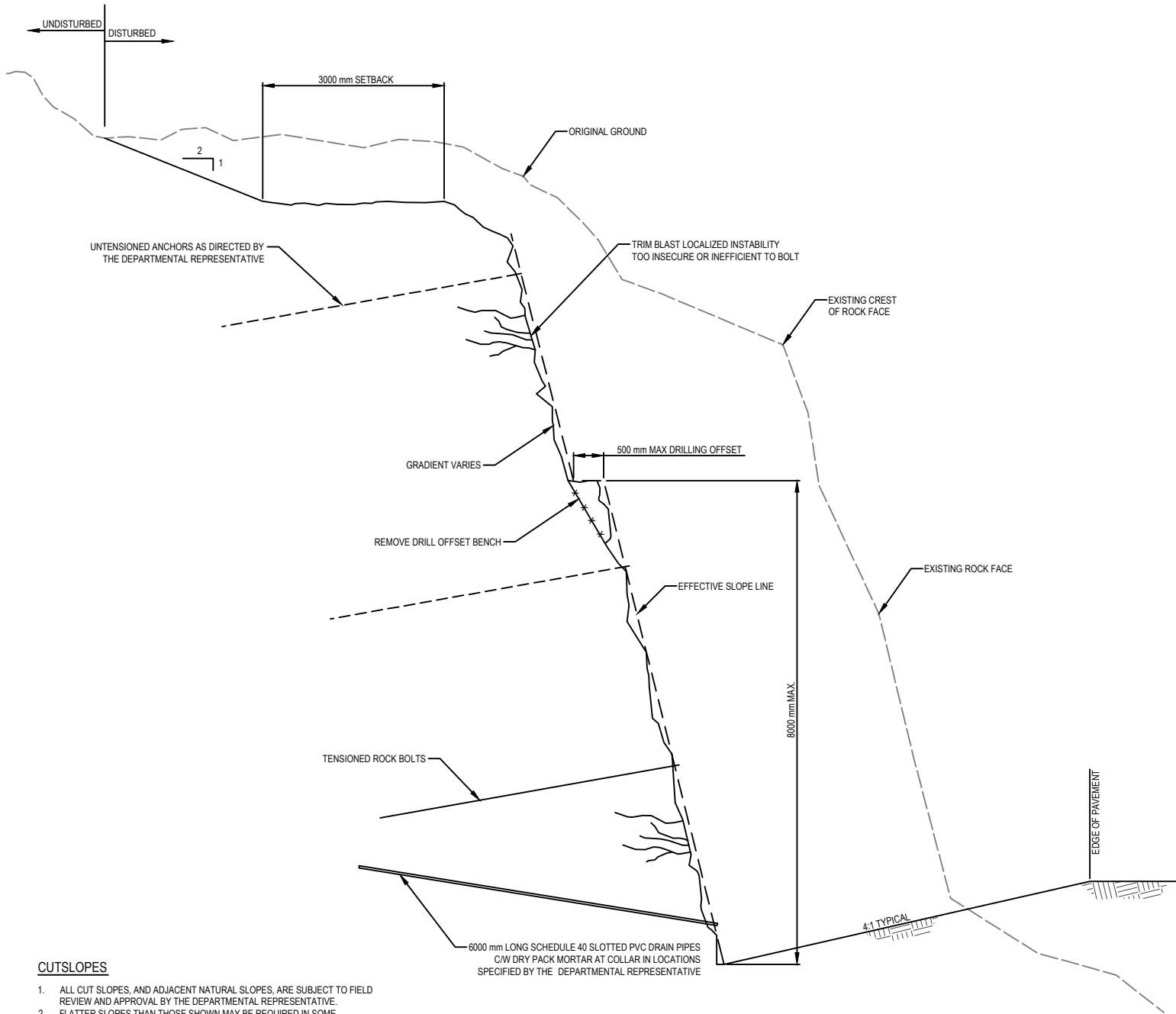
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NOTES

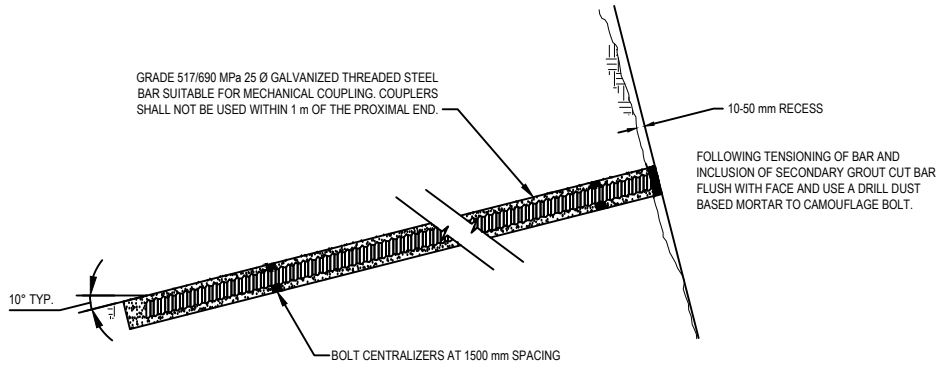
1. INSTALL ROCK SUPPORT AND MAKE SPECIFIED TREATMENTS AS DIRECTED BY THE DEPARTMENTAL REPRESENTATIVE.
2. FIXED BOLT LENGTHS SHALL BE VERIFIED BY THE DEPARTMENTAL REPRESENTATIVE BASED ON SITE CONDITIONS AT EACH APPLICATION LOCATION.
3. ROCK SUPPORT INSTALLATION SHALL BE SEQUENCED WITH THE EXCAVATION.
4. PVC PIPES SHALL CONFORM TO ASTM D1784, AND SHALL HAVE SLOTS CUT AT 2% OF SURFACE AREA AND BE GREY.



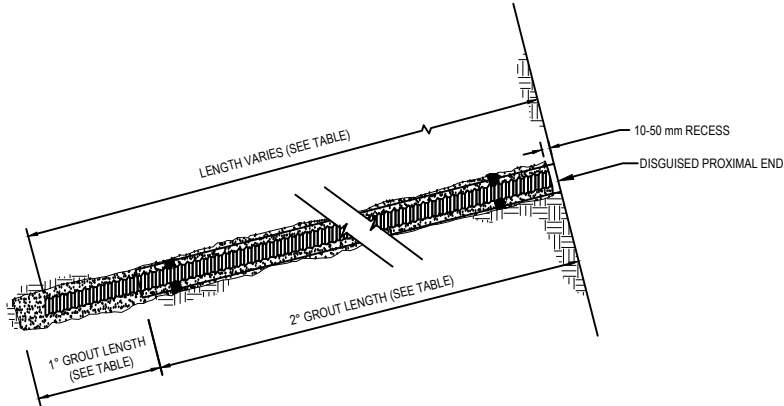
CUTSLOPES

1. ALL CUT SLOPES, AND ADJACENT NATURAL SLOPES, ARE SUBJECT TO FIELD REVIEW AND APPROVAL BY THE DEPARTMENTAL REPRESENTATIVE.
2. FLATTER SLOPES THAN THOSE SHOWN MAY BE REQUIRED IN SOME LOCATIONS FOR SLOPE STABILITY.
3. EMPLOY SCALING, NETTING, HOARDING, AND/OR OTHER MEASURES AS REQUIRED FOR WORKER SAFETY.
4. SOME SLOPE LOCATIONS MAY REQUIRE HAND SCALING OR TRIM BLASTING.

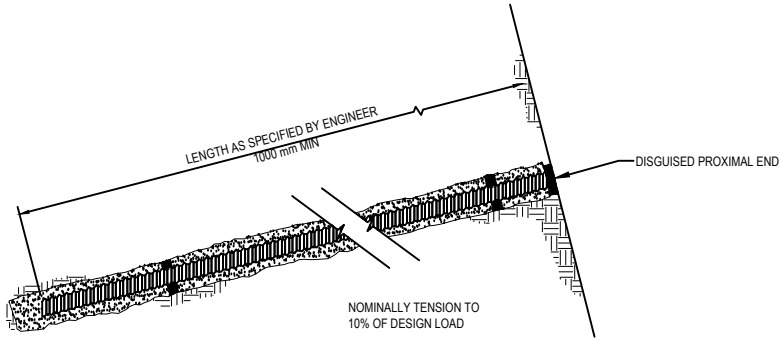
TYPICAL SECTION - ROCK CUT > 3.0 m
NOT TO SCALE



TYPICAL ANCHOR
NOT TO SCALE



TENSIONED ROCK BOLT
NOT TO SCALE



UNTENSIONED ROCK BOLT
NOT TO SCALE

| ROCKBOLT LENGTH (m) | 1° GROUT LENGTH (m) | 2° GROUT LENGTH (m) | TENSION LOAD* (kN) |
|---------------------|---------------------|---------------------|--------------------|
| 3 | 1.5 | 1.5 | 100 |
| 4 | 1.8 | 2.2 | 120 |
| 5 | 2.2 | 2.8 | 130 |
| 6 | 2.5 | 3.5 | 150 |

Client/client



Parks Canada
Agency

L'Agence Parcs
Canada



ISSUED FOR TENDER

GENERAL NOTES:

1. THE 3 m SET BACK AT THE CREST IS SET FOR INSPECTION AND SAFETY. THE TOLERANCE ON THIS SET BACK IS ± 0.5 m.
2. LARGER TREES SAVED FROM STRIPPING WILL BE PLACED FOR HABITAT PURPOSES.
3. LENGTH OF BAR LESS THAN 1 m SHALL NOT BE COUPLED TO FORM LONGER ANCHORS.

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| Revision/Revision | Date/Date | Description/Description | DES | DWN | CHK |

Project title/Titre du projet

YOHO NATIONAL PARK
BRITISH COLUMBIA

KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par

A. FRAPPELL / E. YANG

Drawn by/Dessine par

T. TAKEDA

Client/client

PARKS CANADA AGENCY

Drawing title/Titre du dessin

ROCK SUPPORT TYPICAL DETAILS

Project No./No. du projet

V13403095-01

Sheet/ Feuille

2015-02-2002

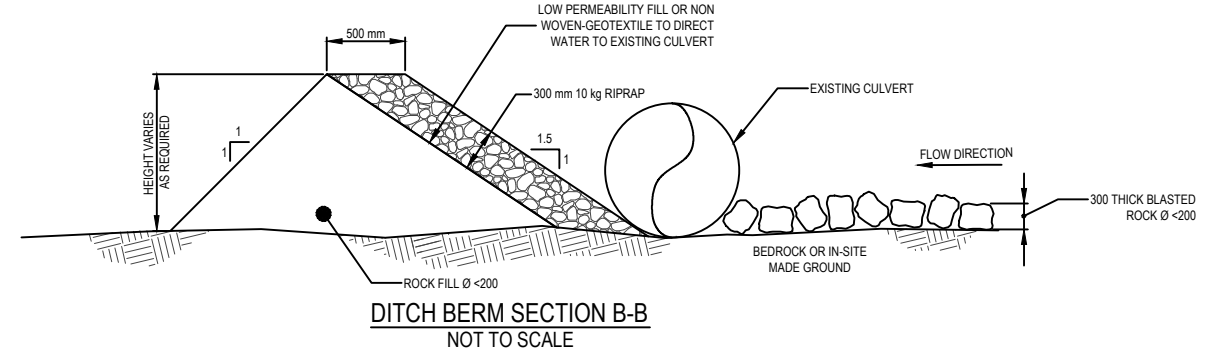
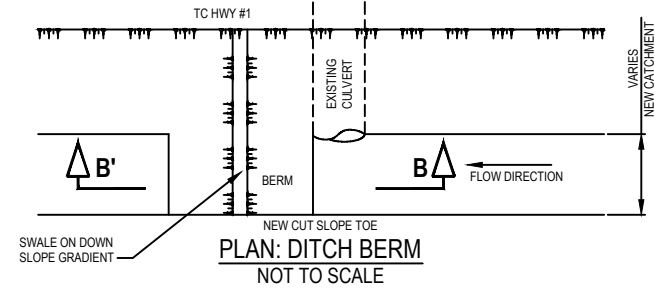
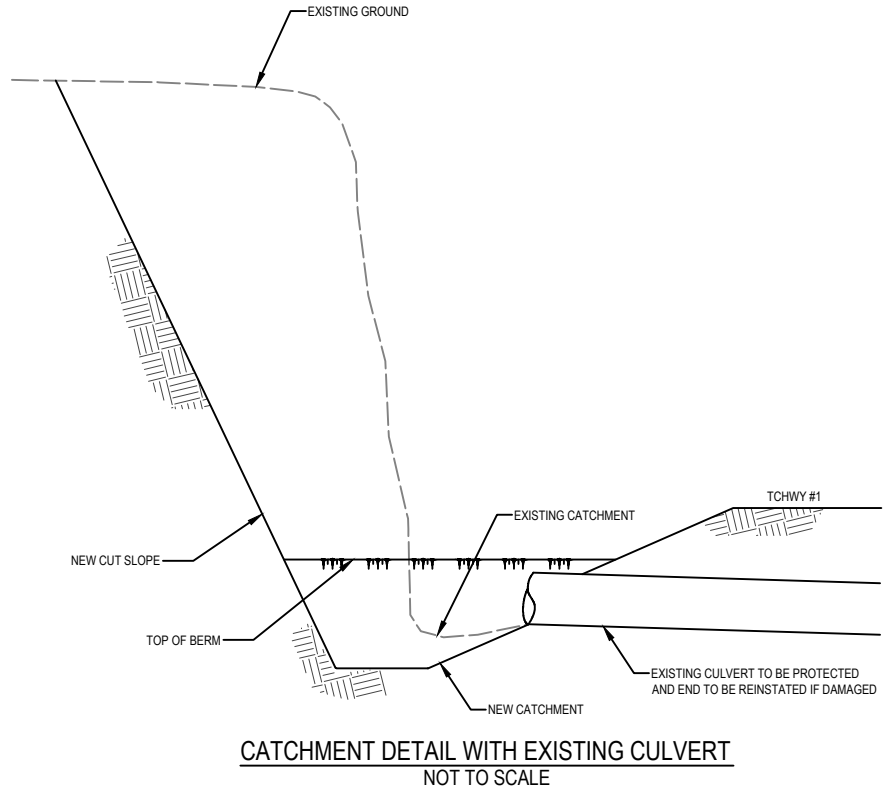
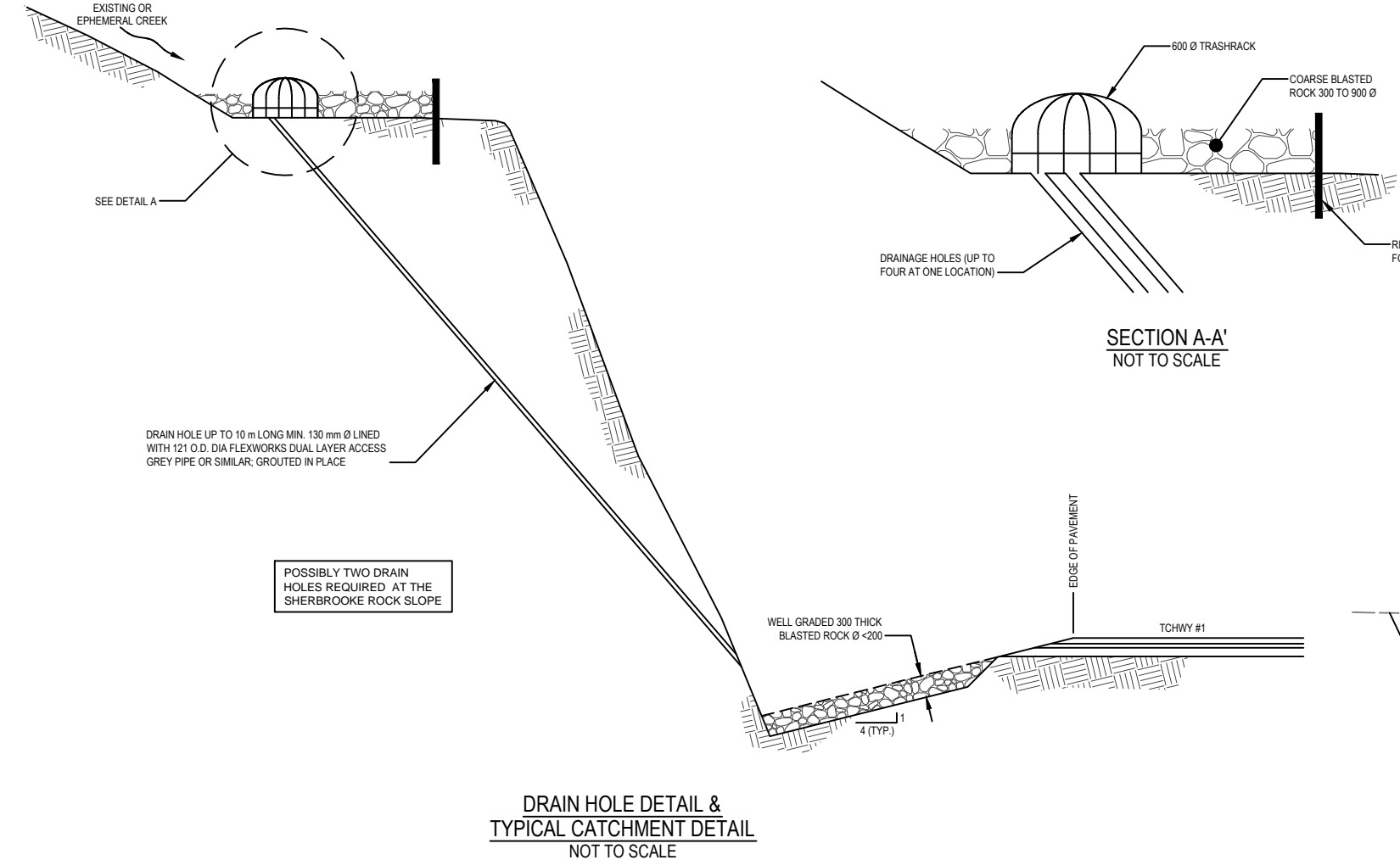
Revision no./
La Révision no.

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- GENERAL NOTES:
1. BLASTED ROCK TO BE PLACED IN CATCHMENT LOOSELY TAMPED WITH EXCAVATOR BUCKET.
 2. AT LOCATIONS OF EXISTING CULVERTS, THESE SHOULD BE PROTECTED DURING COURSE OF THE WORK. IF DAMAGED ENDS SHOULD BE REPLACED AT THE LOCATIONS. A SWALE WILL BE CONSTRUCTED IN THE CATCHMENT TO ENSURE DRAINAGE.
 3. AT LOCATIONS OF LOW CREEK FLOW, DRAIN HOLES WILL BE INSTRUCTED TO CONTROL FLOW OF WATER DOWN SLOPE AS DIRECTED BY THE DEPARTMENT REPRESENTATIVE.



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| Revision | | | | | |

Project title/Titre du projet
**YOHO NATIONAL PARK
BRITISH COLUMBIA**
**KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING**

Designed by/Concept par
A. FRAPPELL / E. YANG
Drawn by/Dessine par
T. TAKEDA

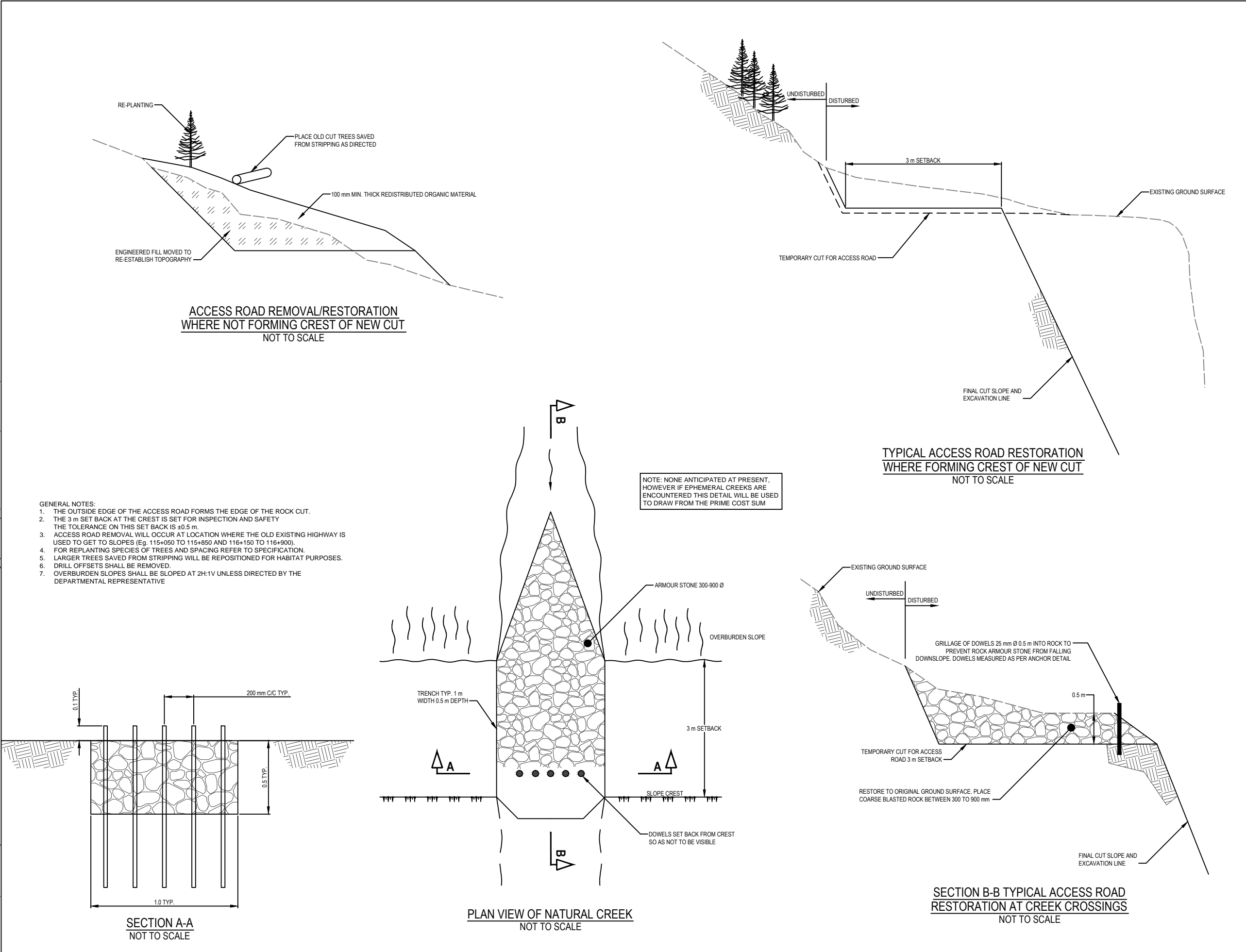
Client/client
PARKS CANADA AGENCY

Drawing title/Titre du dessin
**CATCHMENT AND SLOPE DRAINAGE
TYPICAL DETAILS**

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| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
| V13403095-01 | 2015-02-2003 | 00 |



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Client/client

Parks Canada Agency

L'Agence Parcs Canada

TETRA TECH EBA

ISSUED FOR TENDER

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Project title/Titre du projet

YOHO NATIONAL PARK
BRITISH COLUMBIA

KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par
A. FRAPPELL / E. YANG

Drawn by/Dessiné par
T. TAKEDA

Client/client

PARKS CANADA AGENCY

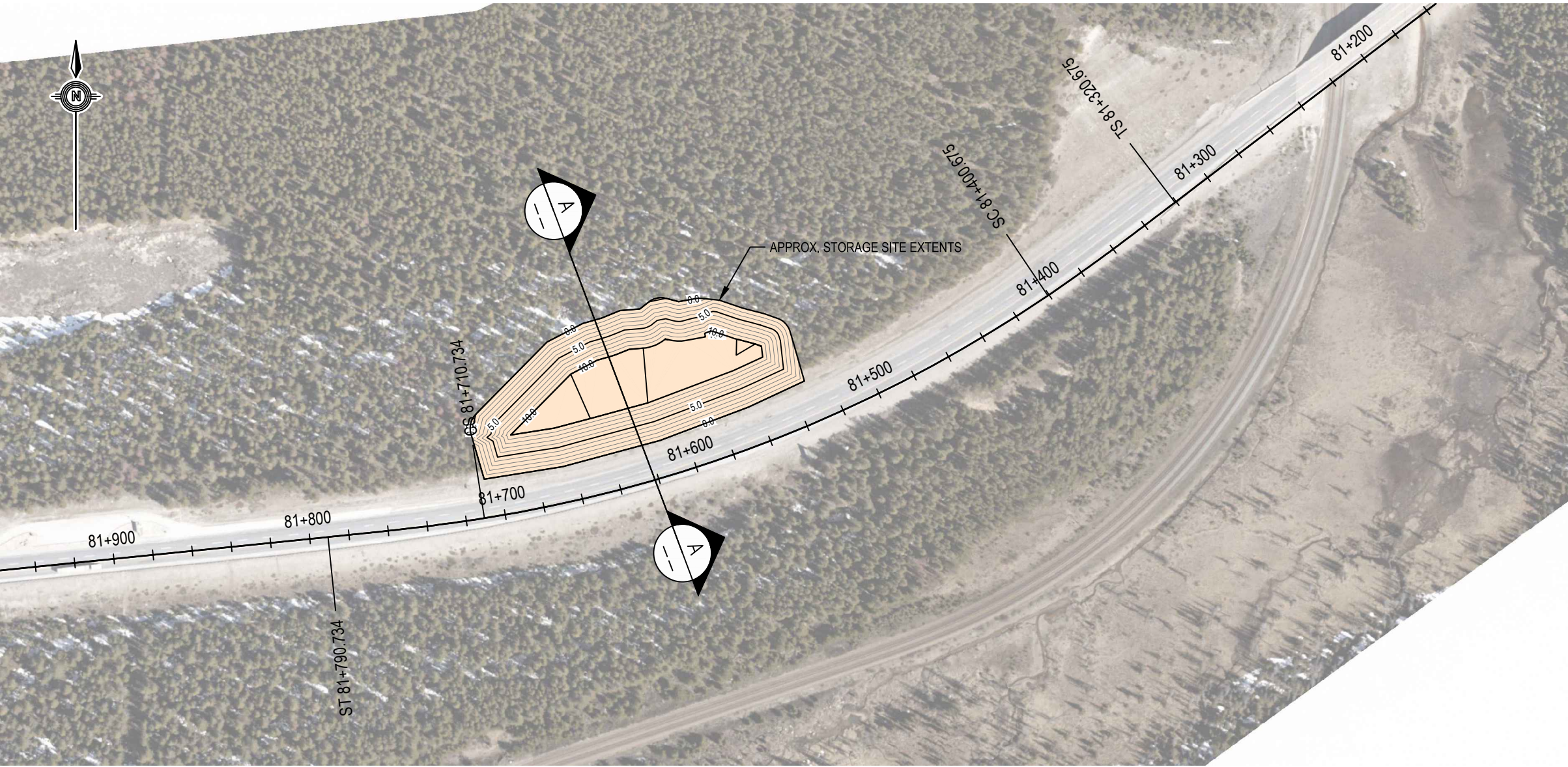
Drawing title/Titre du dessin

RESTORATION OR REMOVAL
TYPICAL DETAILS

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| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
| V13403095-01 | 2015-02-2004 | 00 |

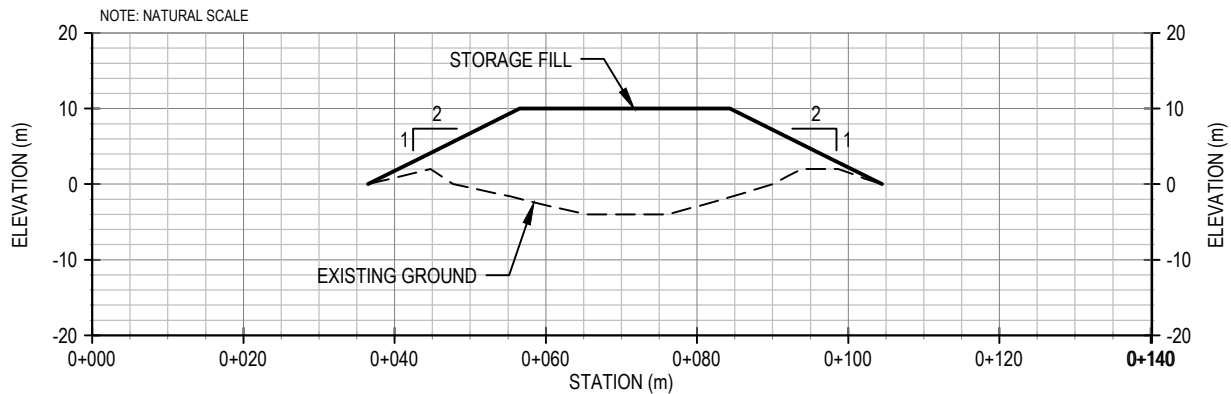


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0 100m
Scale: 1:2,500 @ 11"x17"

PLAN - AB / BC BORDER - STORAGE SITE 1



0 50m
Scale: 1:1,000 @ 11"x17"

SECTION A-A'

QUANTITIES:

1. 2D SURFACE AREA OF STORAGE (AT BASE) = 9,538 m²
2. 3D SURFACE AREA OF STORAGE (AT BASE) = 10,353 m²
3. FILL VOLUME = 65,416 m³

NOTE:

1. CONFIGURATIONS AND DISPOSAL QUANTITIES ARE APPROXIMATE AND WILL BE CONFIRMED THROUGH ADDITIONAL SURVEY BEFORE WORK STARTS. ALL ELEVATIONS SHOWN ON THIS DRAWING ARE RELATIVE.
2. STRIP ORGANICS AND TOPSOIL PRIOR TO PLACING MATERIAL.

Client/client

Parks Canada Agency

L'Agence Parcs Canada

TETRA TECH EBA

ISSUED FOR TENDER

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| Revision/ Révision | Date/Date | Description/Description | DES | DWN | CHK |

Project title/Titre du projet

YOHO NATIONAL PARK
BRITISH COLUMBIA

KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par
A. FRAPPELL / E. YANG

Drawn by/Dessiné par
T. TAKEDA

Client/client

PARKS CANADA AGENCY

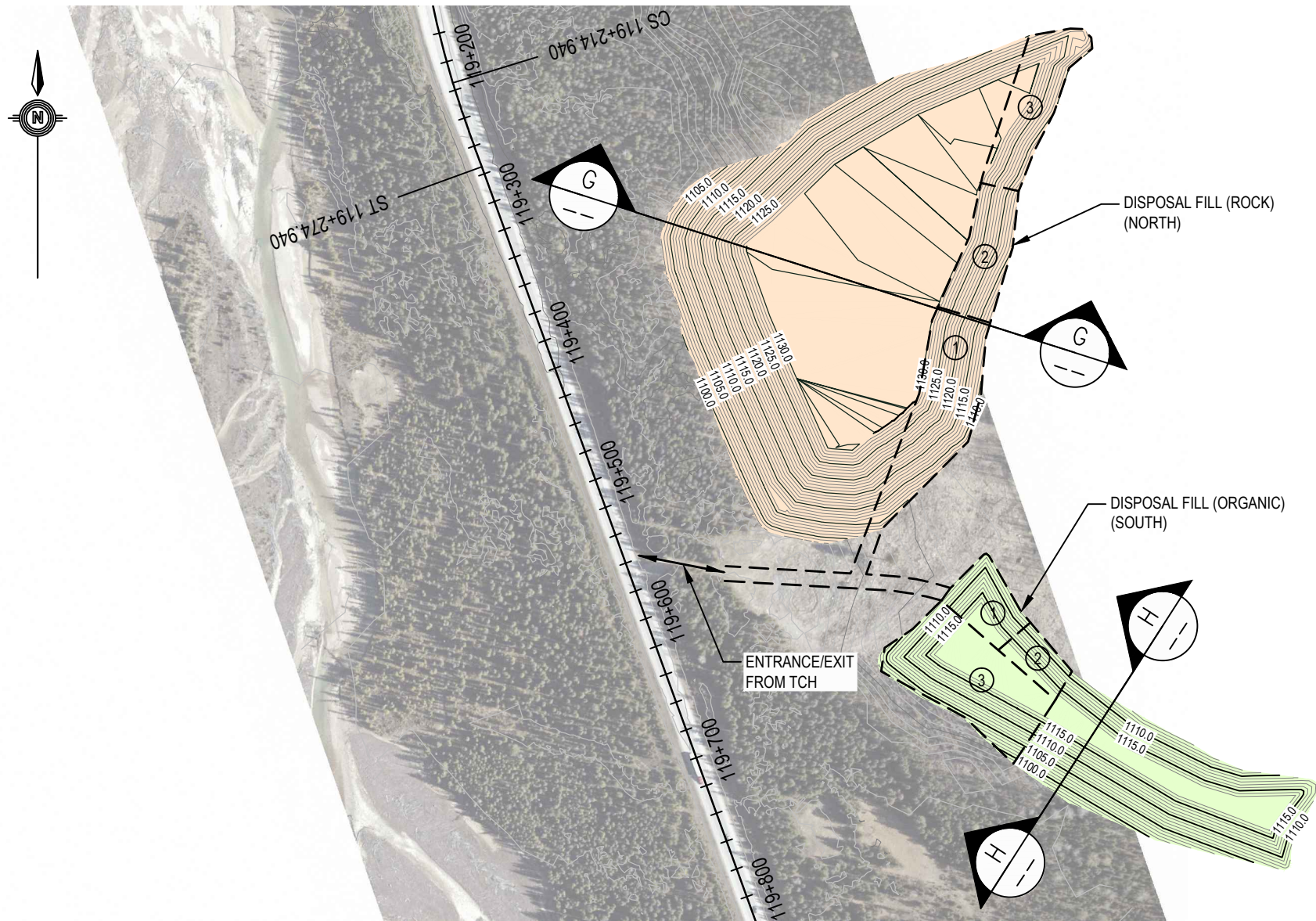
Drawing title/Titre du dessin

PLAN / PROFILE
AB / BC BORDER STORAGE SITE

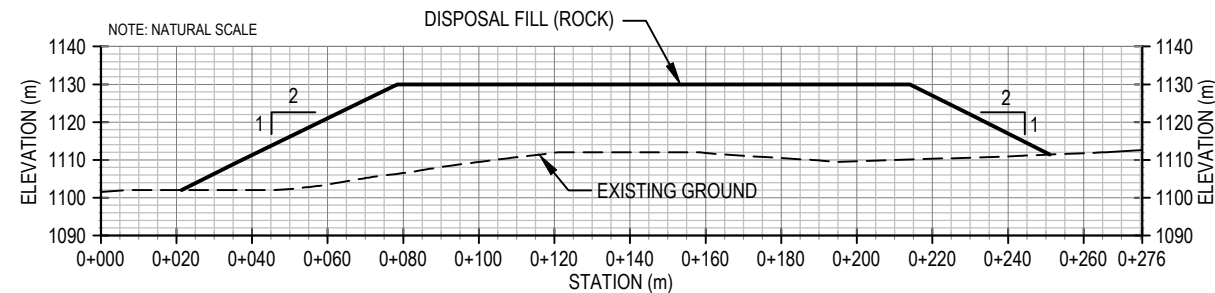
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| V13403095-01 | 2015-02-3001 | 00 |



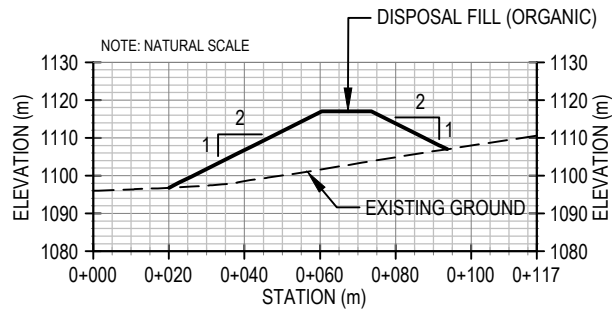
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PLAN - MT. VAUX DISPOSAL - STORAGE SITE 4



SECTION G-G'



SECTION H-H'

QUANTITIES:

- 2D SURFACE AREA OF DISPOSAL (AT BASE) = 58,743 m²
- 3D SURFACE AREA OF DISPOSAL (AT BASE) = 62,858 m²
- ROCK FILL VOLUME = 832,677 m³
- 2D SURFACE AREA OF ORGANIC DISPOSAL (AT BASE) = 22,053 m²
- 3D SURFACE AREA OF ORGANIC DISPOSAL (AT BASE) = 24,068 m²
- ORGANIC FILL VOLUME = 154,570 m³

NOTES:

- EXISTING CONTOURS ARE APPROXIMATE
- ONLY STRIP AREA THAT WILL BE REQUIRED UNDER THIS PROJECT
- SIDE SLOPES ON EASTERN SIDE OF MT. VAUX ARE AT 2H:1V
- ORGANICS AND TOPSOIL WILL BE STRIPPED AND PLACED AT MT. VAUX SOUTH DISPOSAL
- CREEK AND DRAINAGE WILL BE REINSTATED THROUGH BERMS
- EQUIPMENT SHOULD BE CONTAINED WITHIN DISPOSAL SITE FOOTPRINT AS MUCH AS POSSIBLE
- UNDER THIS CONTRACT DISPOSAL WILL OCCUR IN 3 STAGES. THE ACCESS FOOTPRINT MUST BE KEPT TO THE DASHED STAGED AREA, UNLESS APPROVED BY THE DEPARTMENTAL REPRESENTATIVE.

Client/client



Parks Canada
Agency

L'Agence Parcs
Canada



ISSUED FOR TENDER

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| 00 | 24/04/15 | ISSUED FOR TENDER | AF | TT | AF |
| Revision/ Revision | Date/Date | Description/Description | DES | OWN | CHK |

Project title/Titre du projet

YOHO NATIONAL PARK
BRITISH COLUMBIA

KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par

A. FRAPPELL / E. YANG

Drawn by/Dessine par

T. TAKEDA

Client/client

PARKS CANADA AGENCY

Drawing title/Titre du dessin

PLAN / PROFILE
MT. VAUX STOAGE SITE

Project No./No. du projet

V13403095-01

Sheet/Feuille

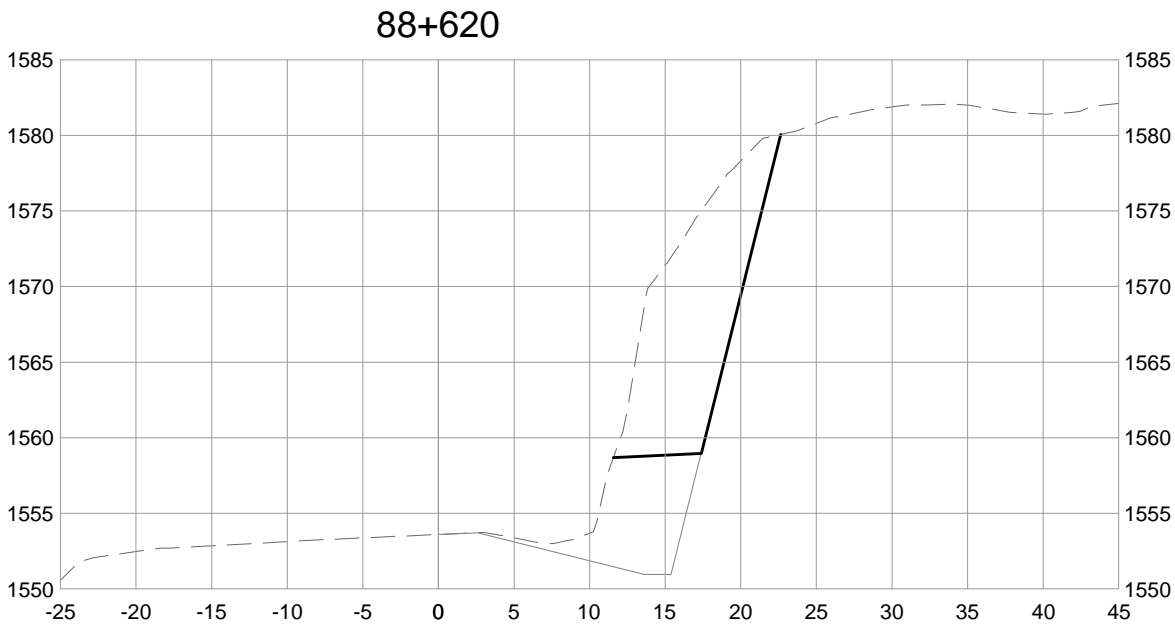
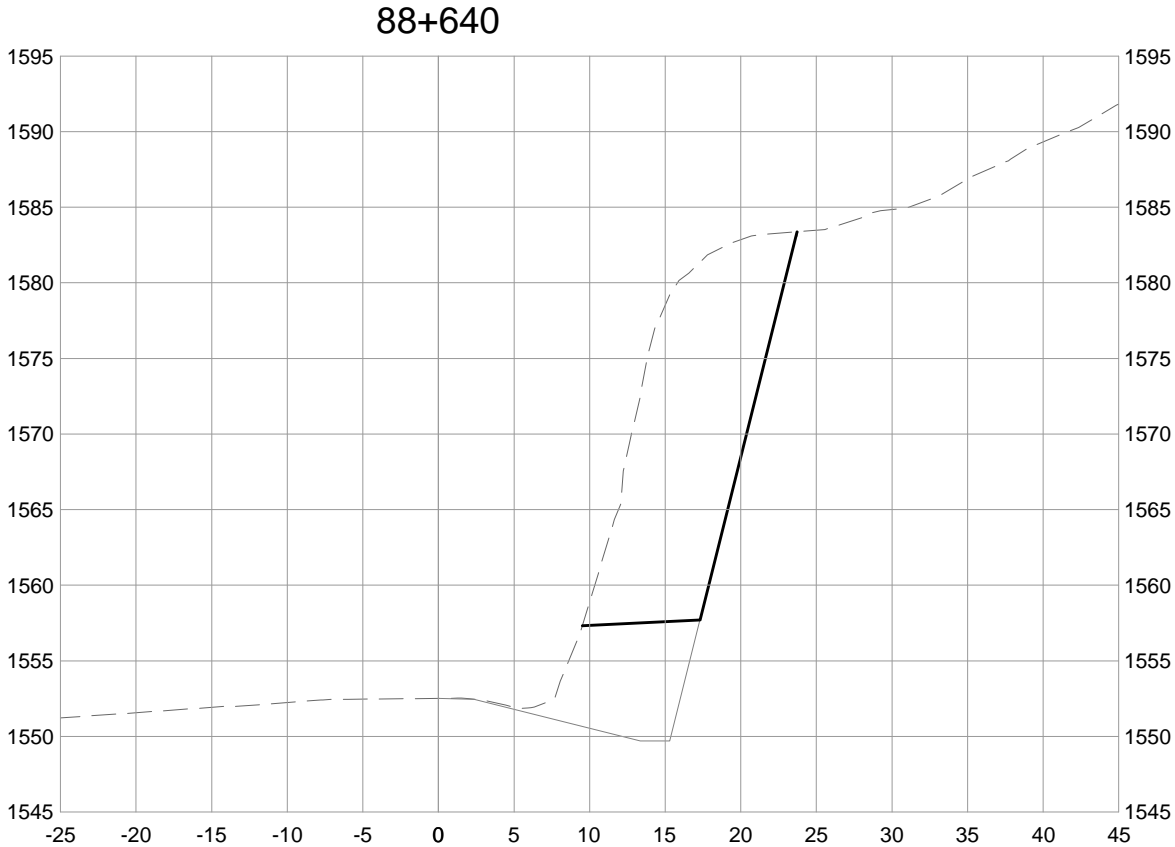
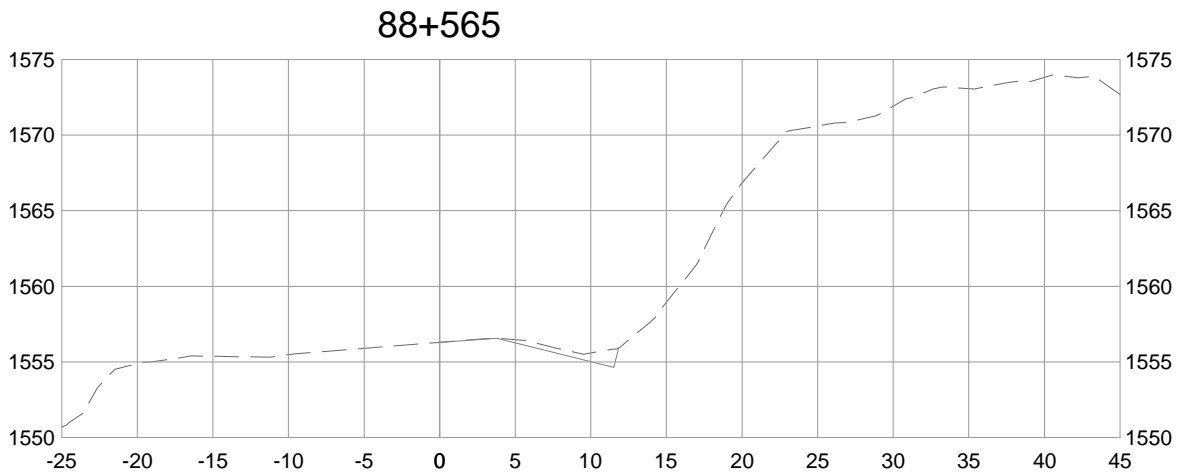
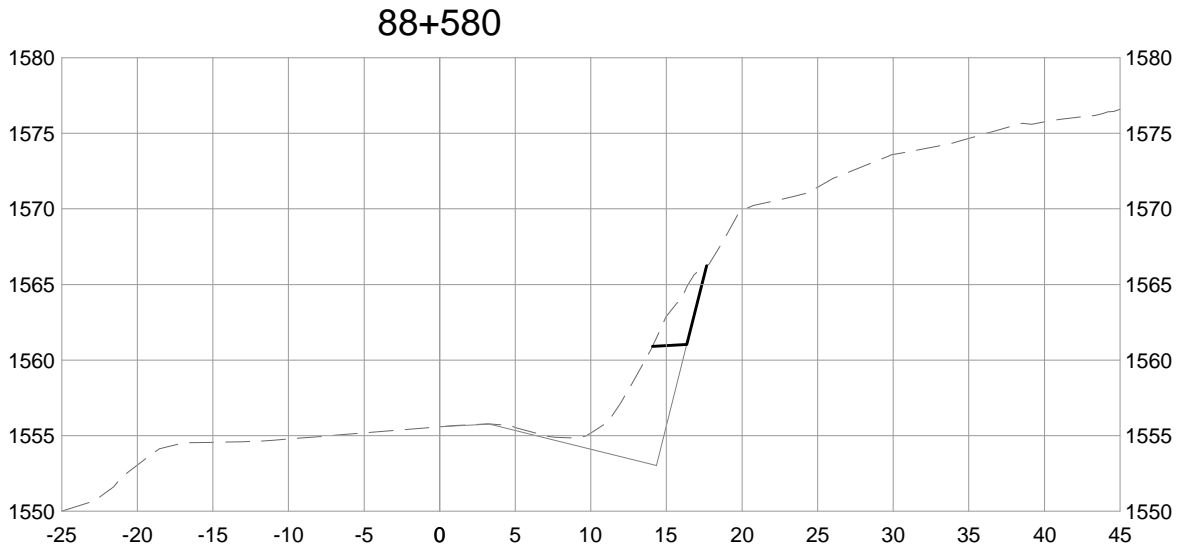
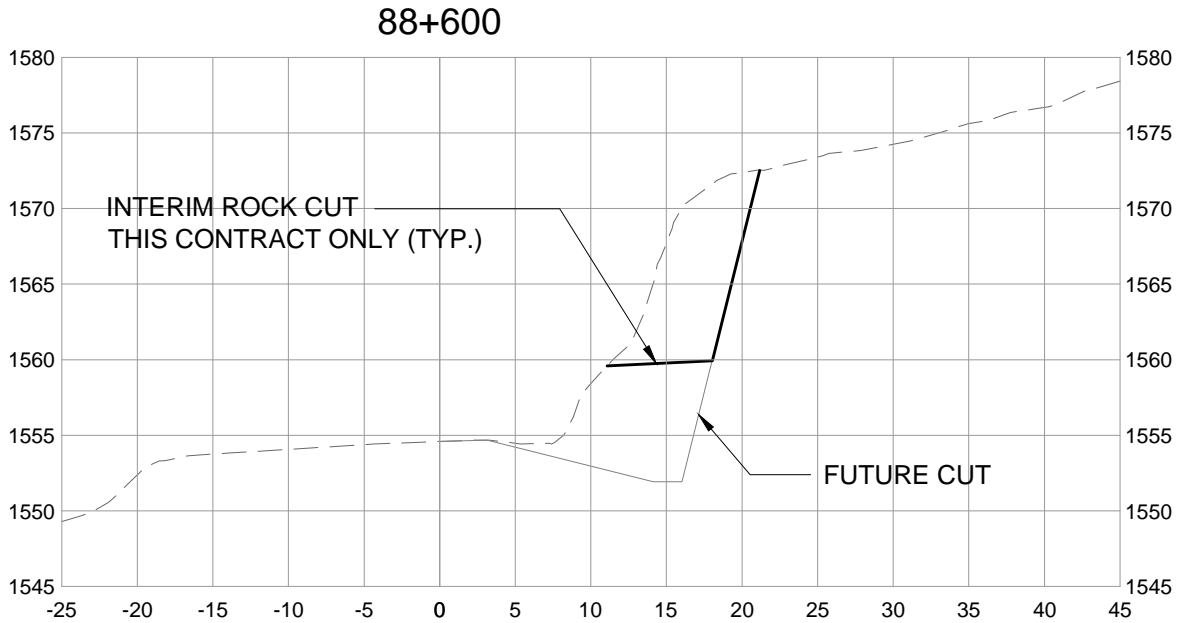
2015-02-3002

Revision no./
La Révision no.

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Client/client

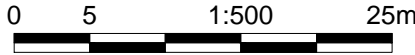


Parks Canada
Agency

L'Agence Parcs
Canada



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| Revision/ Revision | Date/Date | Description/Description | DES | DWN | CHK |

Project title/Titre du projet

YOHO NATIONAL PARK
BRITISH COLUMBIA

KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par

A. FRAPPELL / E. YANG

Drawn by/Dessine par

T. TAKEDA

Client/client

PARKS CANADA AGENCY

Drawing title/Titre du dessin

SHERBROOKE ROCK SLOPE
CROSS SECTIONS
STA. 88+565 TO 88+640

Project No./No. du projet

V13403095-01

Sheet/ Feuille

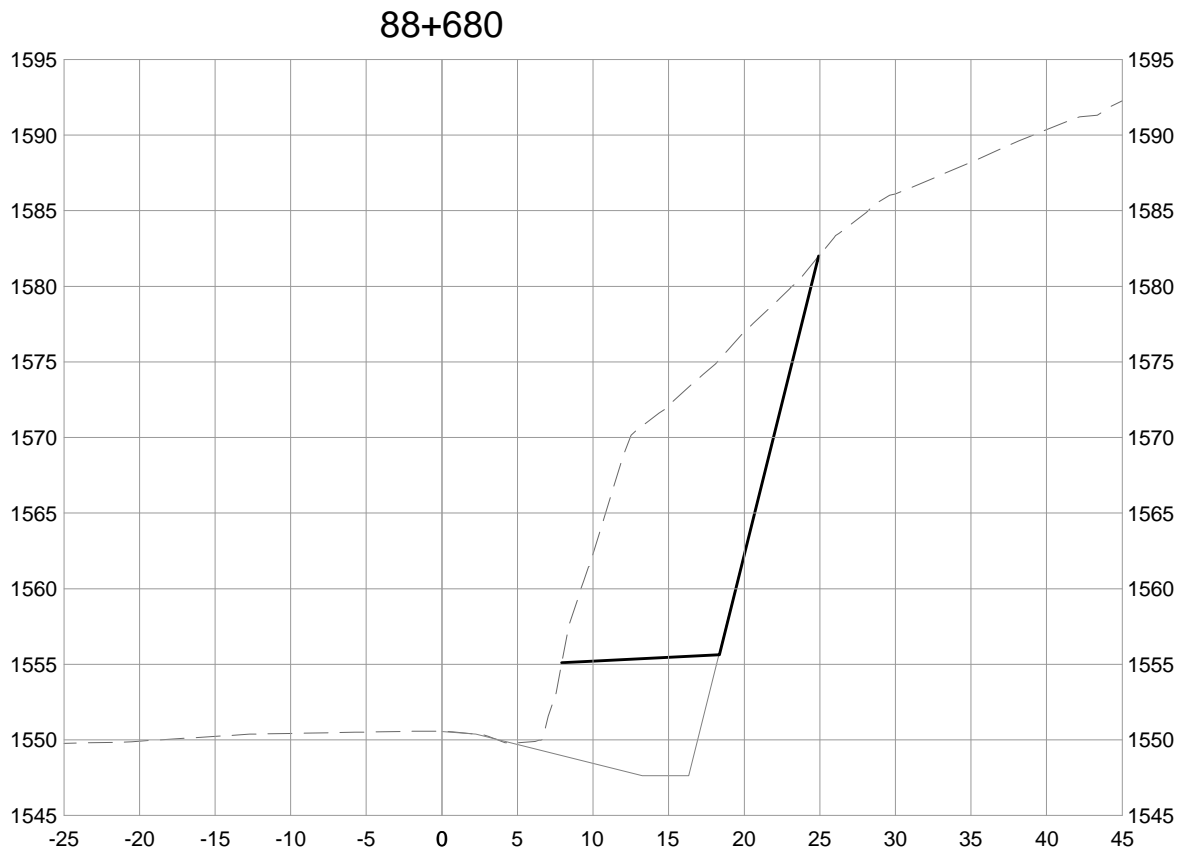
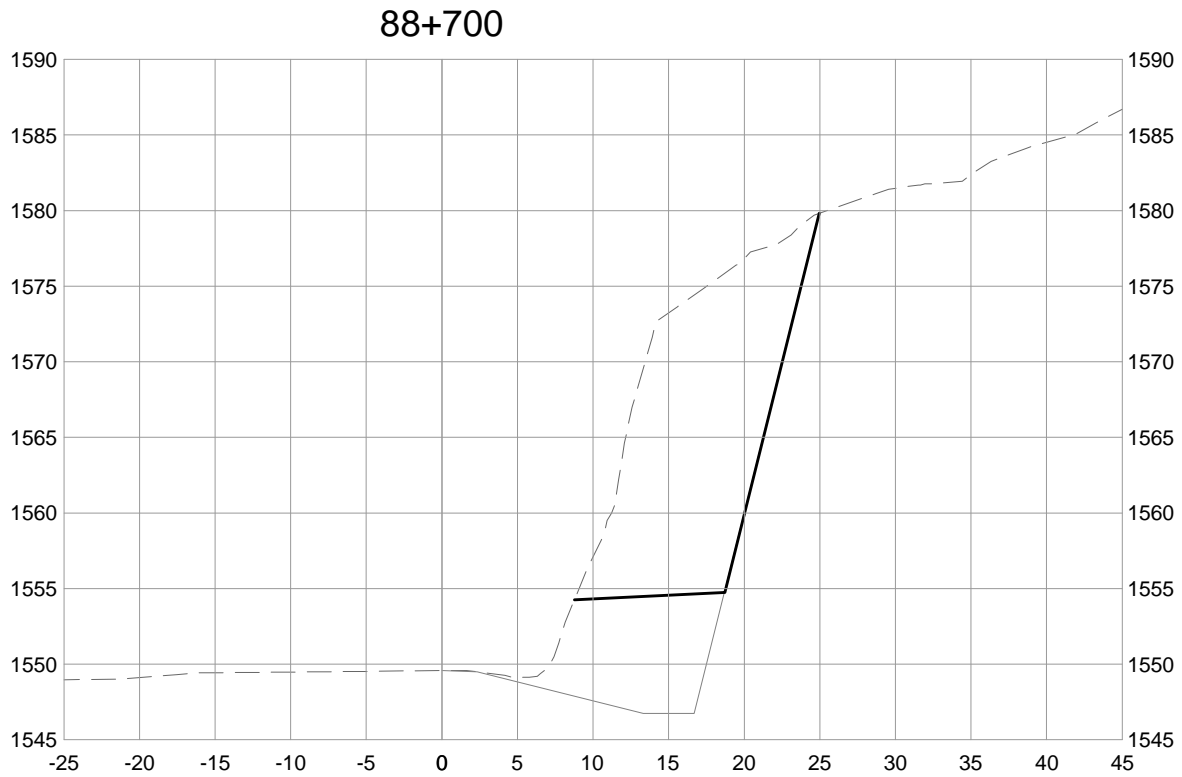
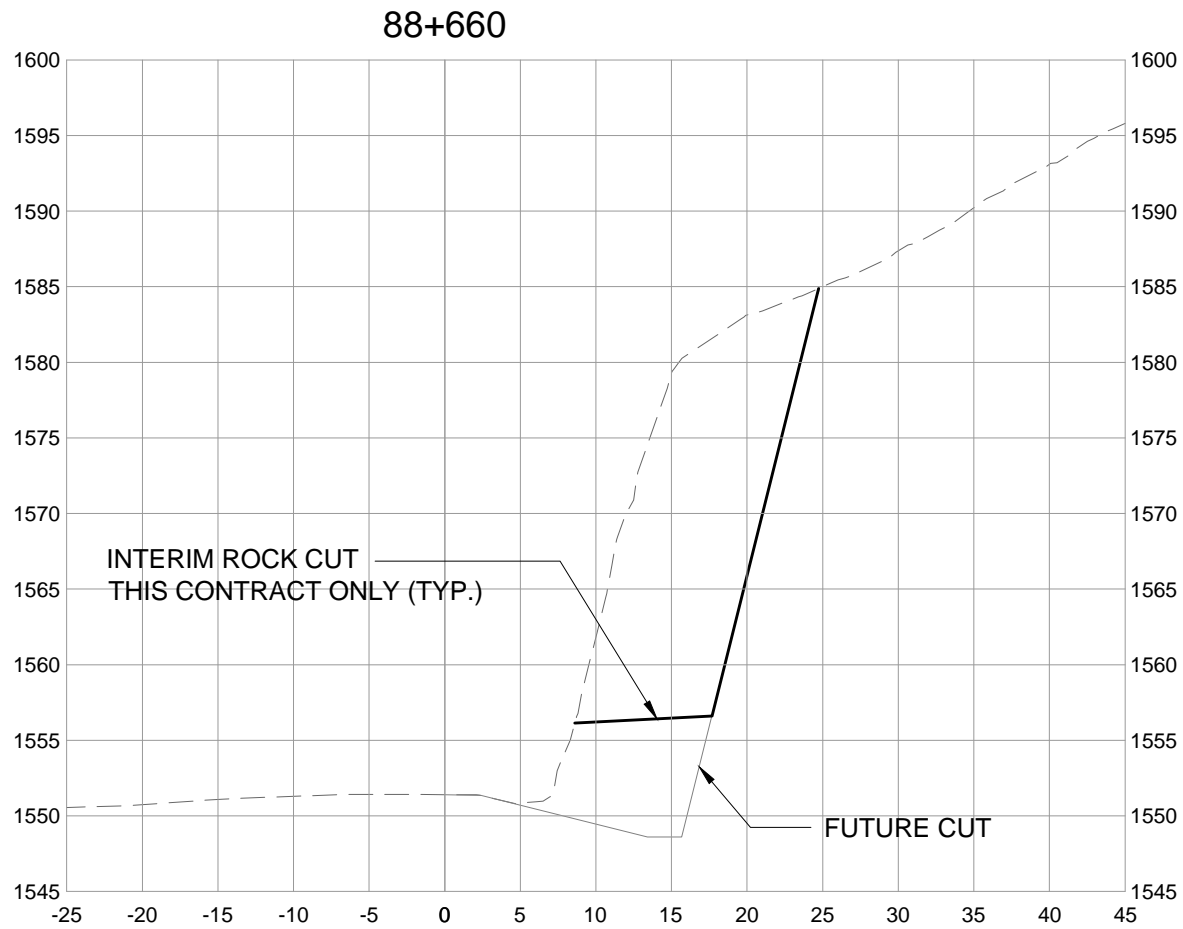
2015-02-4001

Revision no./
La Révision no.


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Client/client




Parks Canada

Agency

L'Agence Parcs

Canada



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| Revision/ Revision | Date/Date | Description/Description | DES | DWN | CHK |

Project title/Titre du projet

YOHO NATIONAL PARK
BRITISH COLUMBIA

KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par

A. FRAPPELL / E. YANG

Drawn by/Dessine par

T. TAKEDA

Client/client

PARKS CANADA AGENCY

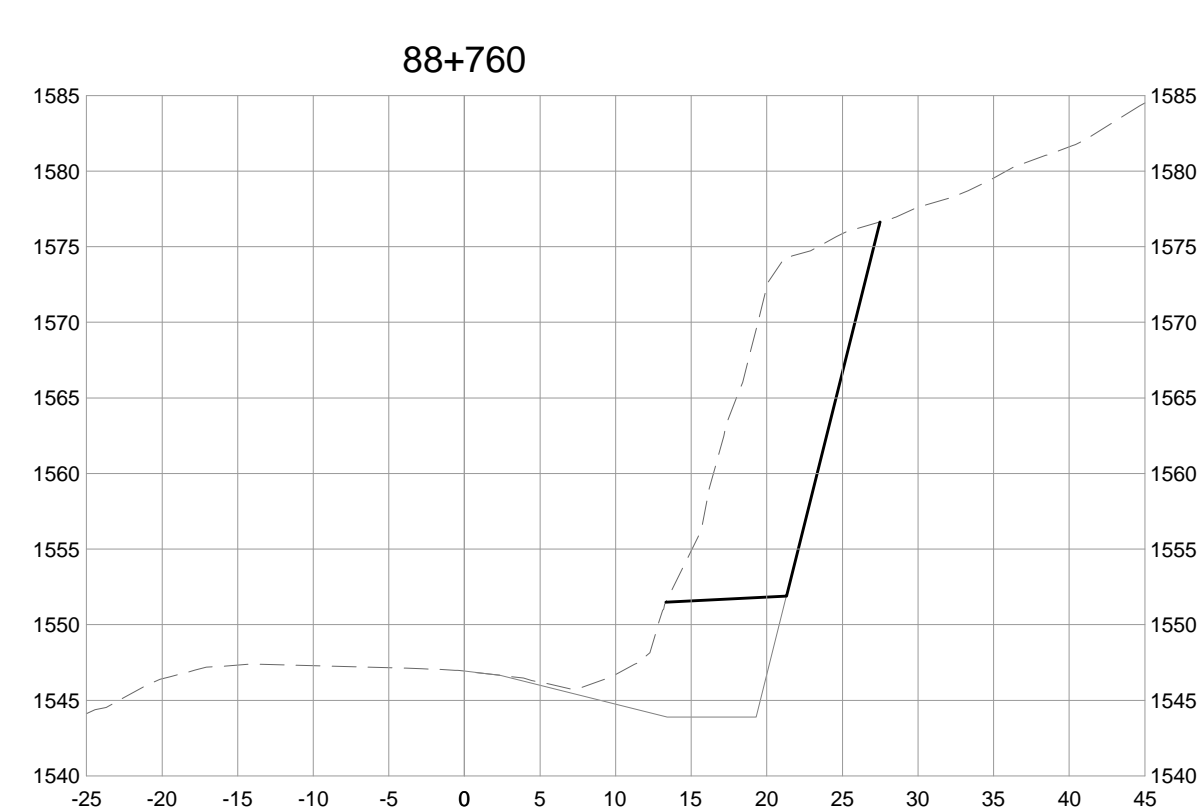
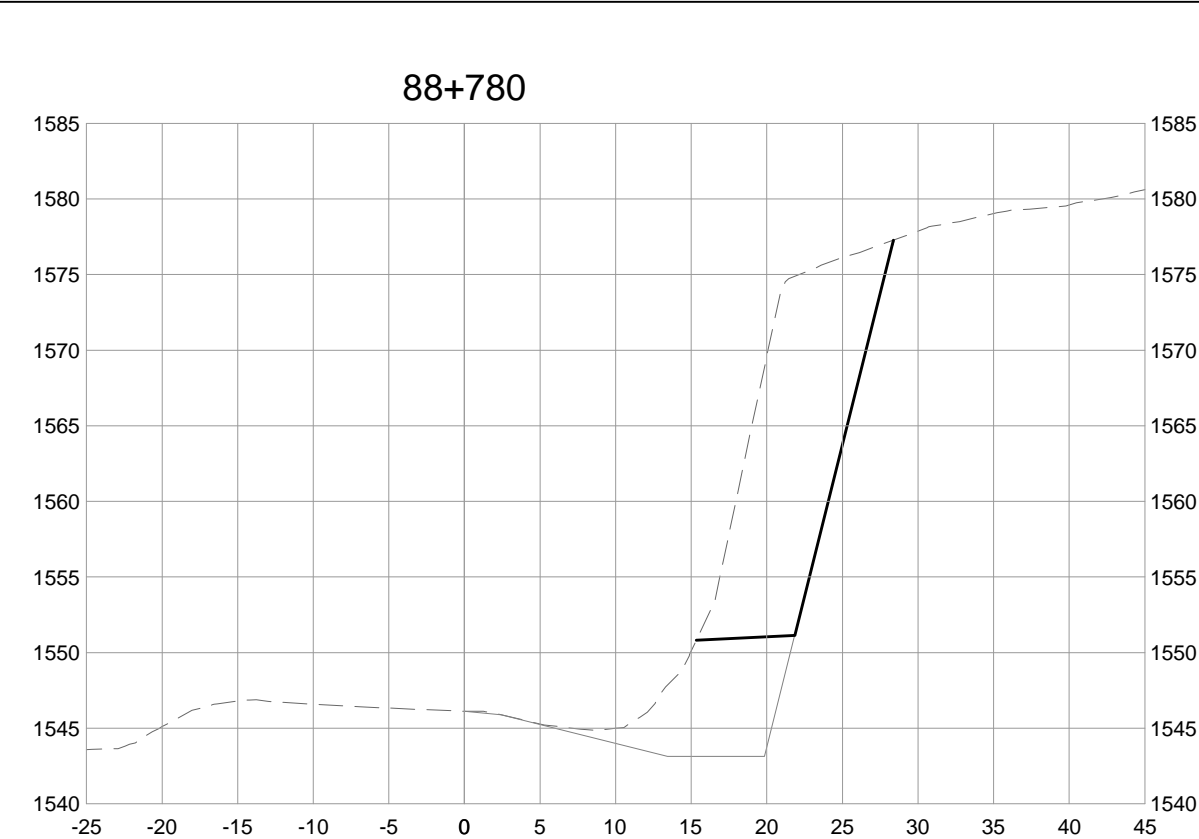
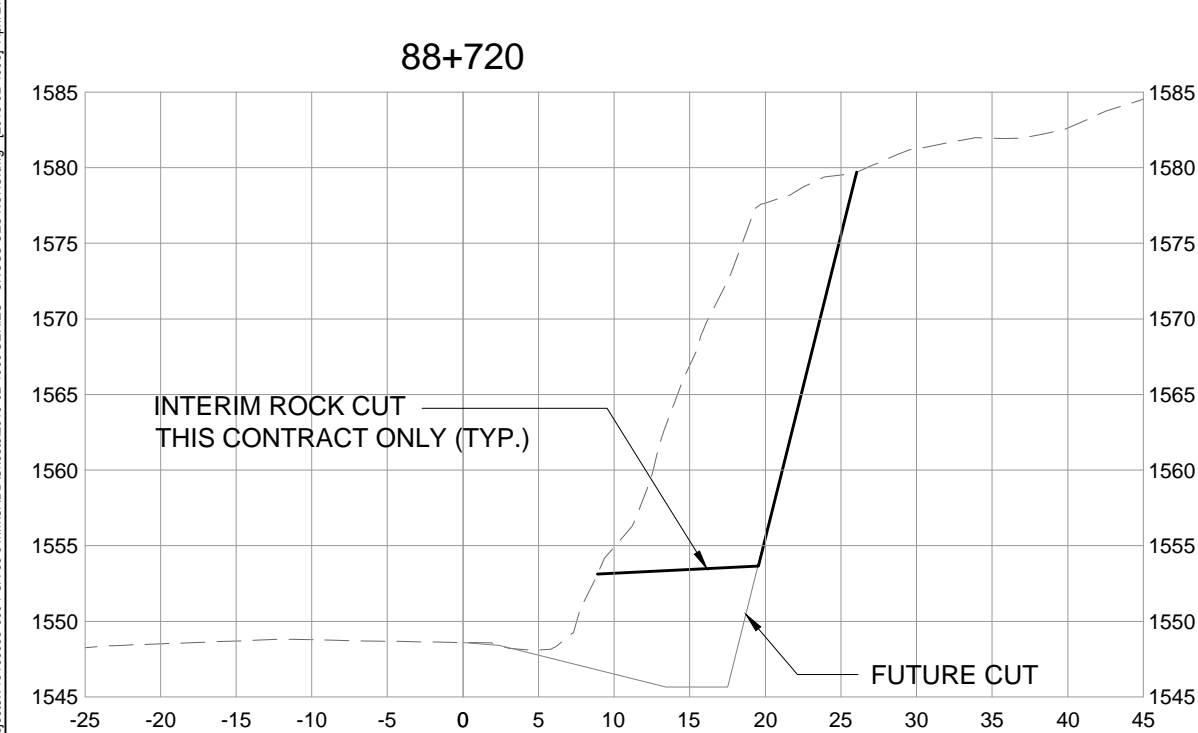
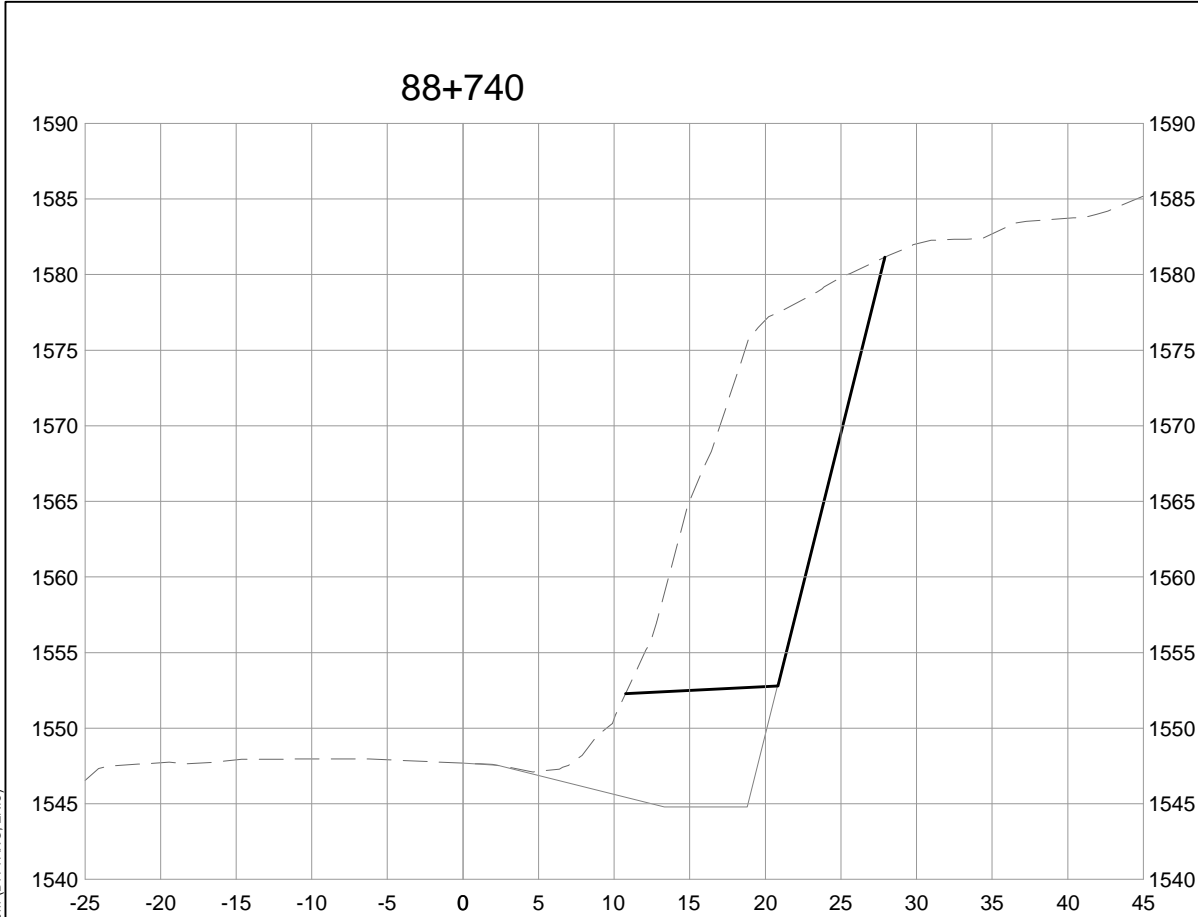
Drawing title/Titre du dessin

SHERBROOKE ROCK SLOPE
CROSS SECTIONS
STA. 88+660 TO 88+700


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| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
| V13403095-01 | 2015-02-4002 | 00 |



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Client/client



Parks Canada
Agency

L'Agence Parcs
Canada



ISSUED FOR TENDER

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| Revision/ Revision | Date/Date | Description/Description | DES | DWN | CHK |

Project title/Titre du projet

YOHO NATIONAL PARK
BRITISH COLUMBIA

KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par
A. FRAPPELL / E. YANG

Drawn by/Dessine par
T. TAKEDA

Client/client

PARKS CANADA AGENCY

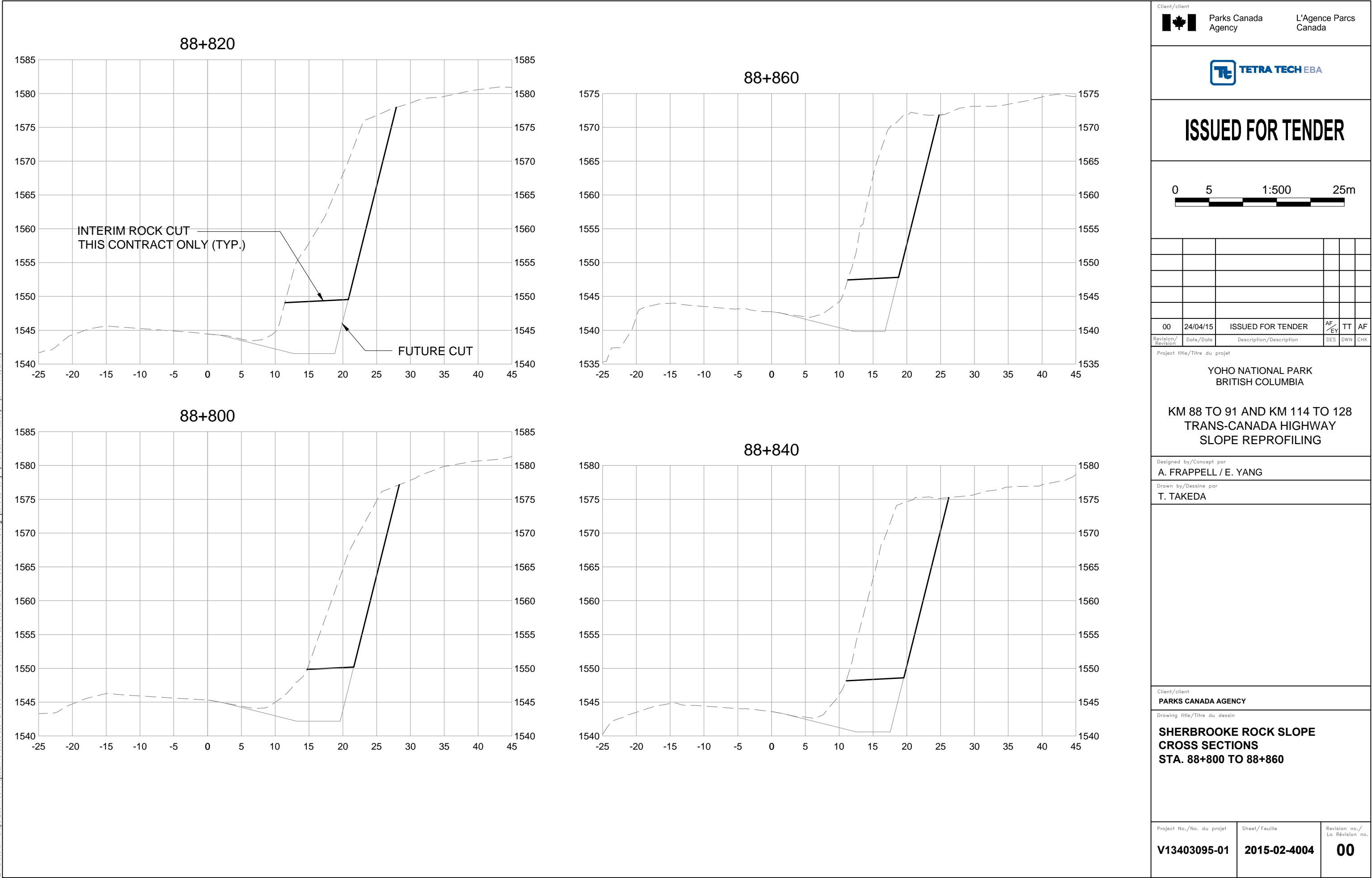
Drawing title/Titre du dessin

SHERBROOKE ROCK SLOPE
CROSS SECTIONS
STA. 88+720 TO 88+780

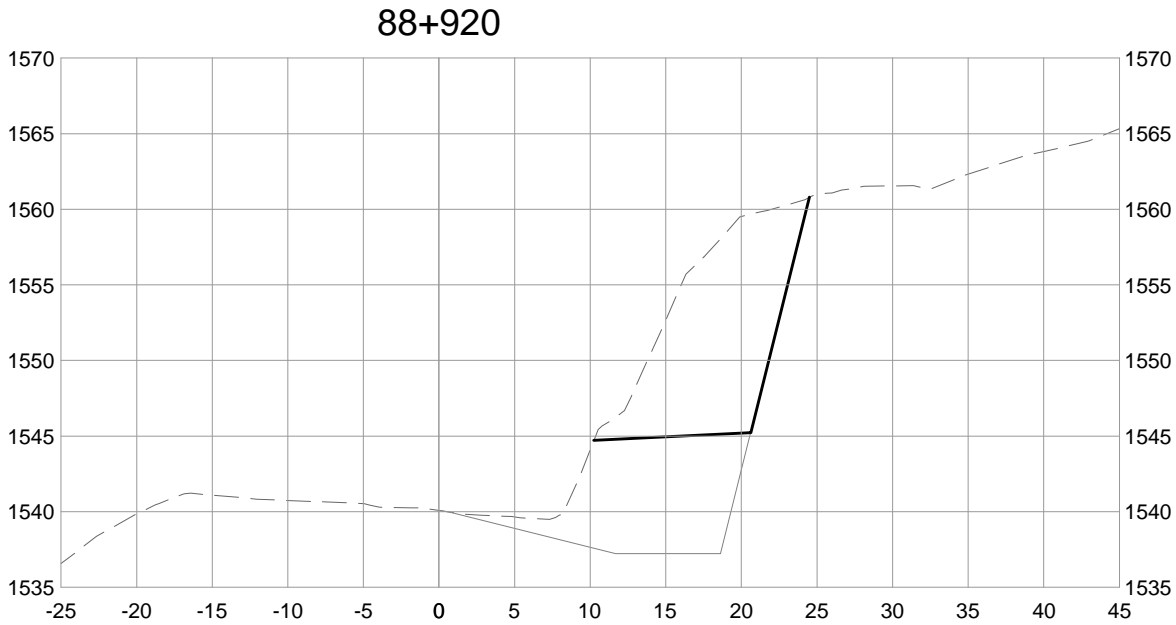
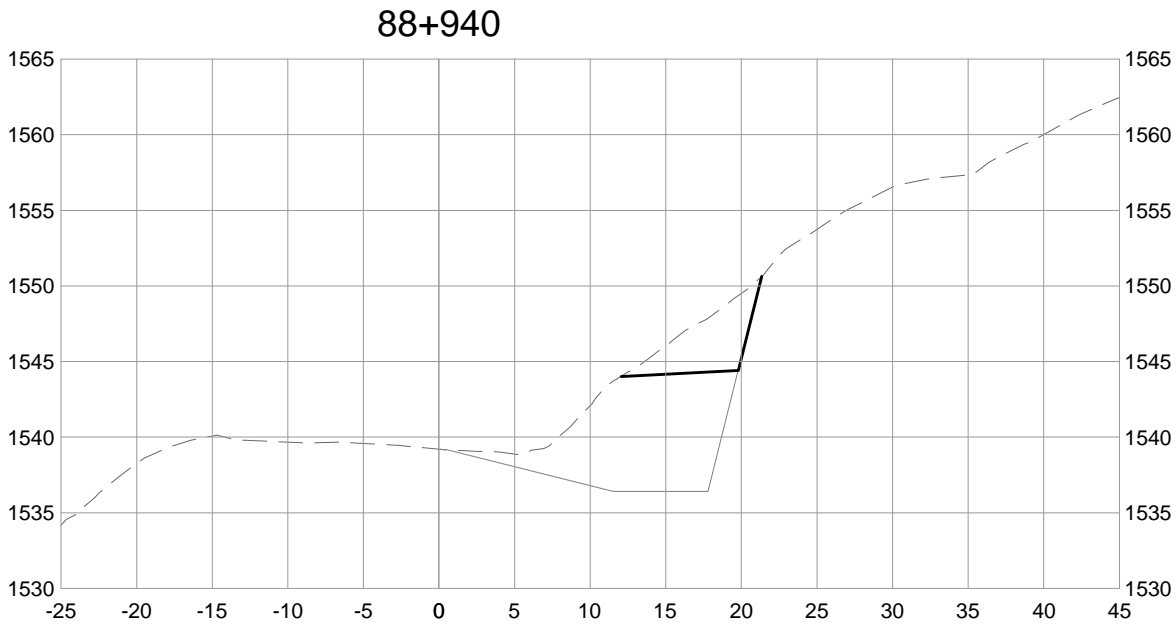
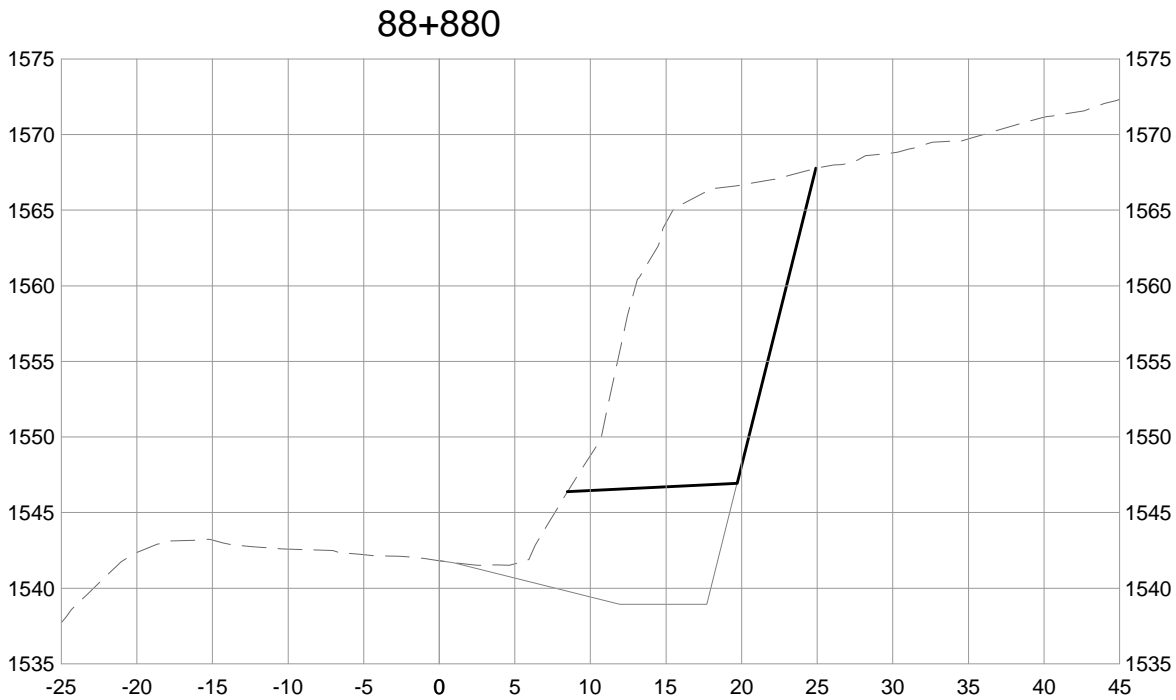
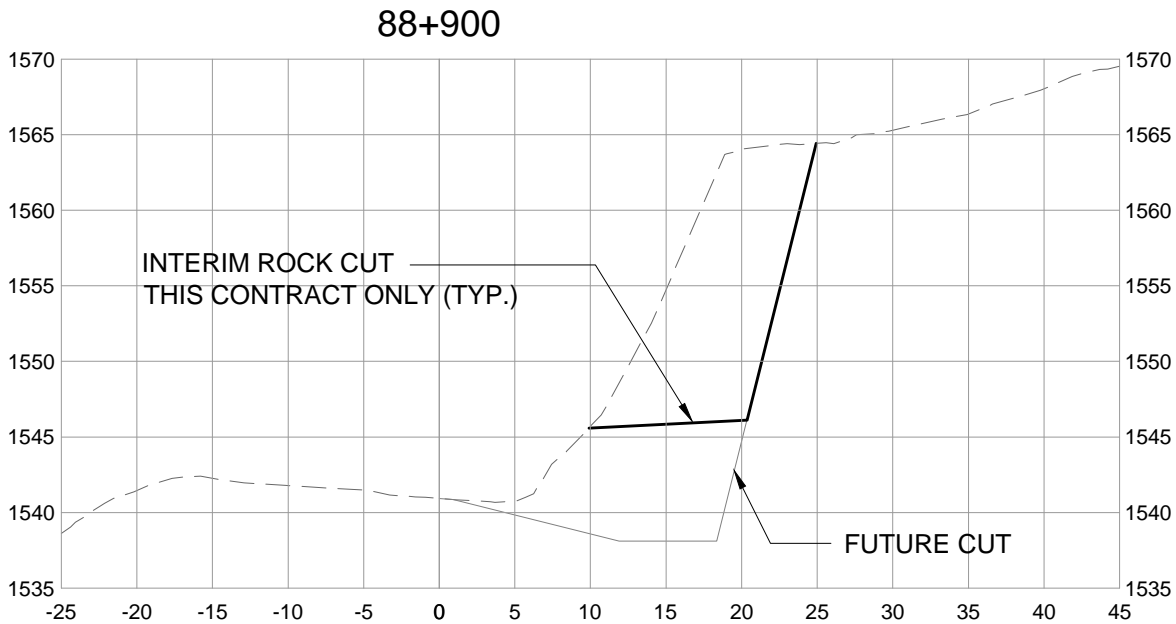
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| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
| V13403095-01 | 2015-02-4003 | 00 |



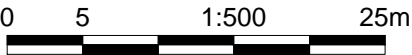
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Q:\Vancouver\Transportation\V331\Projects\134\03095-600 PCA 88-91km\CADD\Sheets\2015-02-4000 SERIES - CROSS SECTIONS.dwg [2015-02-4005] [April 27, 2015 - 1:02:27 pm (BY: YANG, ERIC)]



ISSUED FOR TENDER



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| Revision/ Revision | Date/Date | Description/Description | DES | DWN | CHK |

Project title/Titre du projet
YOHO NATIONAL PARK
BRITISH COLUMBIA
KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par
A. FRAPPELL / E. YANG
Drawn by/Dessine par
T. TAKEDA

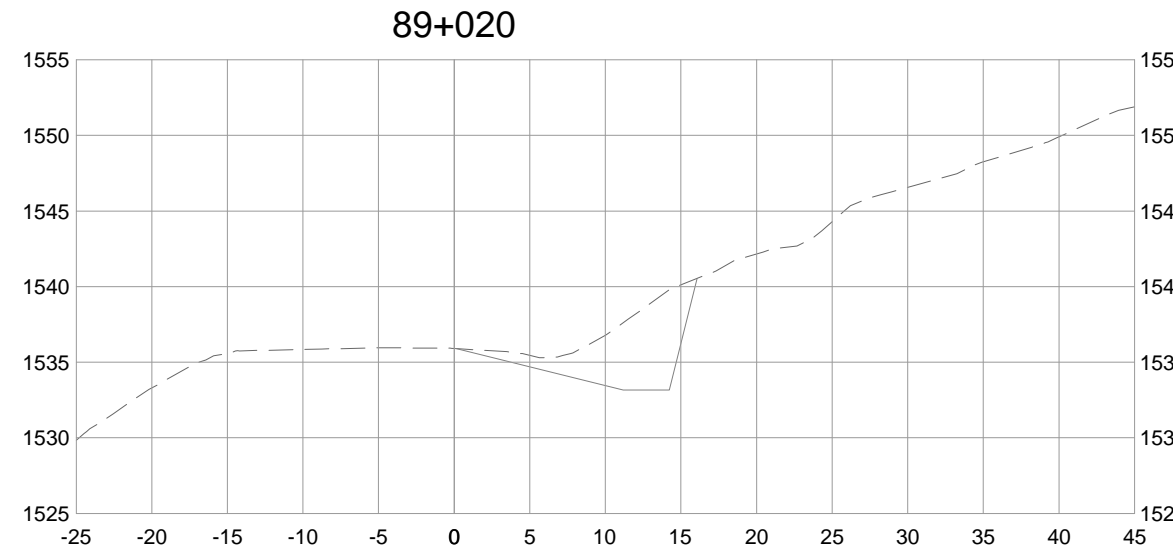
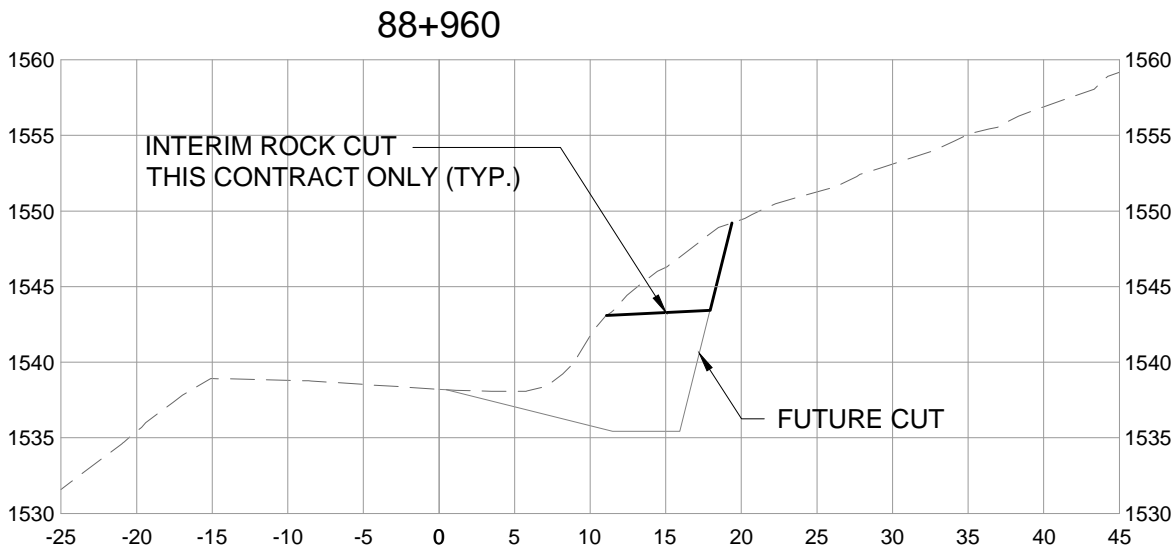
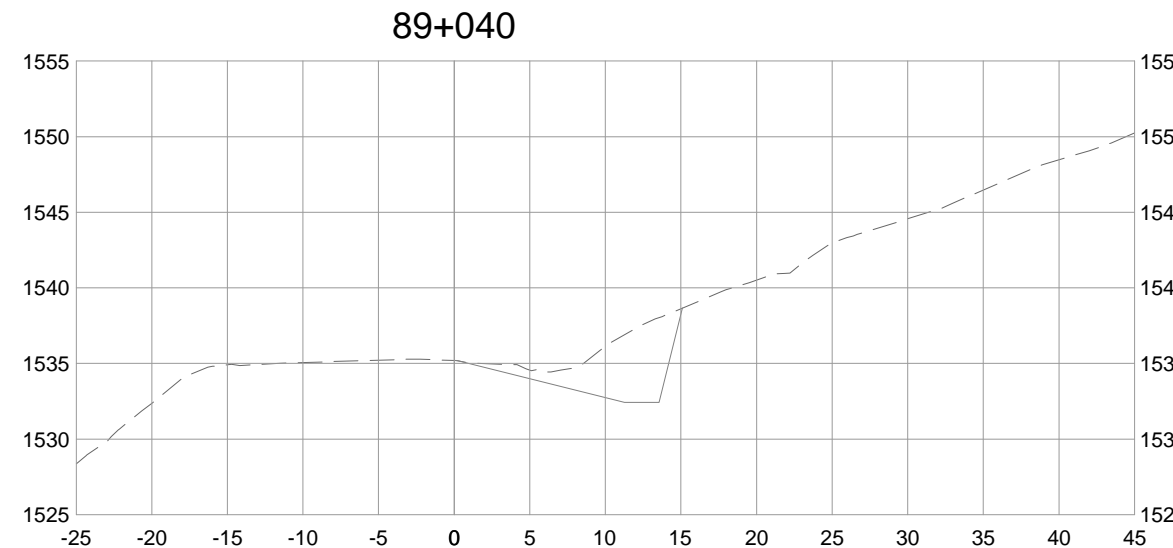
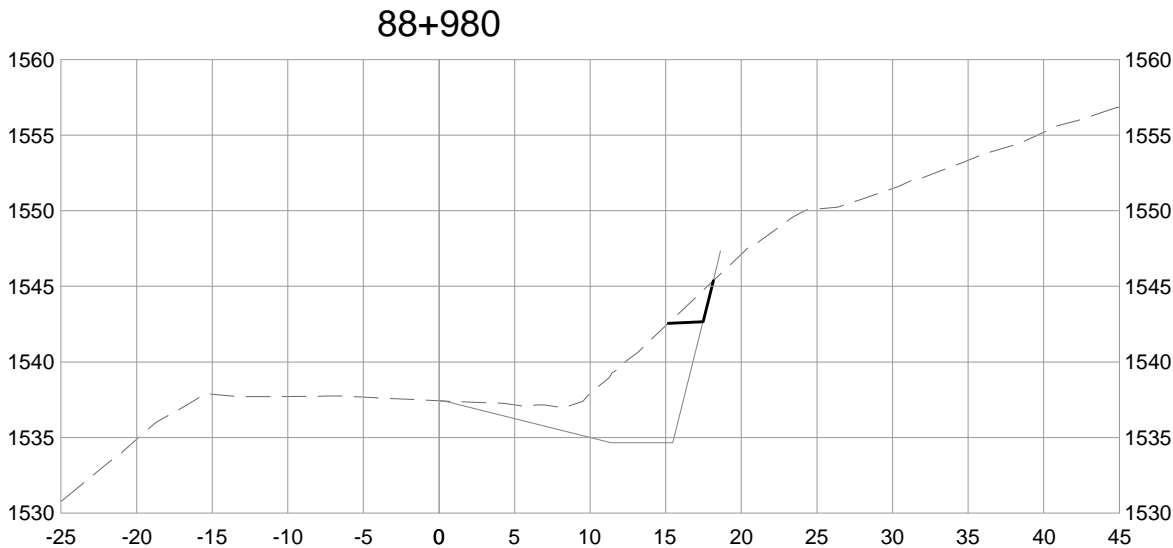
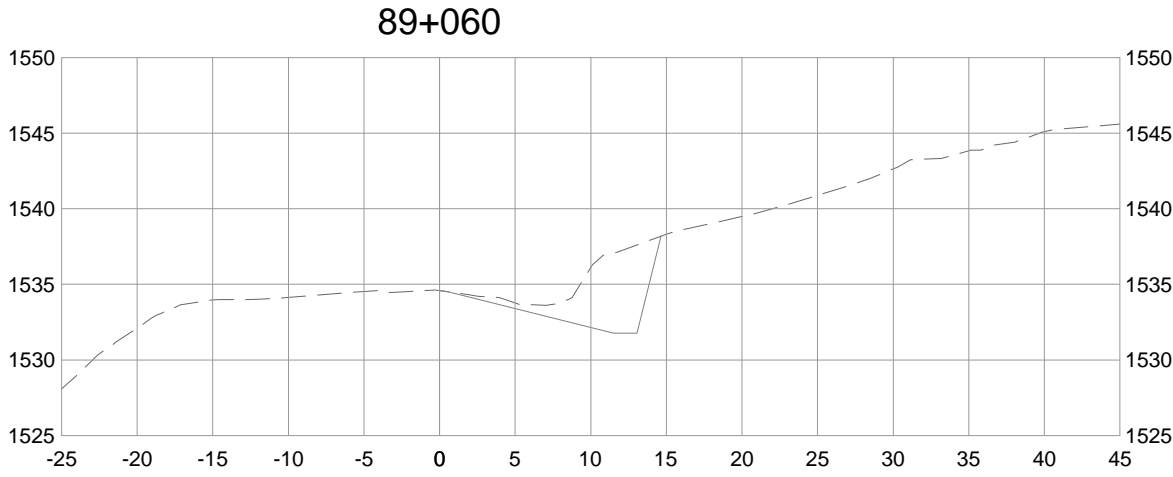
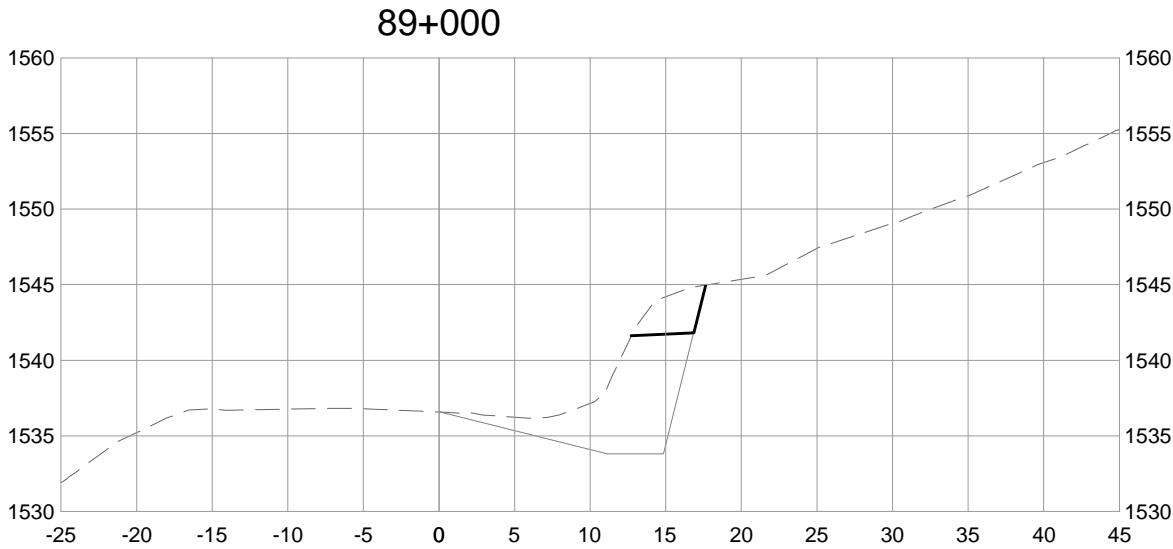
Client/client
PARKS CANADA AGENCY

Drawing title/Titre du dessin
SHERBROOKE ROCK SLOPE
CROSS SECTIONS
STA. 88+880 TO 88+940


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| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
| V13403095-01 | 2015-02-4005 | 00 |



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Client/client



Parks Canada
Agency

L'Agence Parcs
Canada



ISSUED FOR TENDER

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| Revision/ Revision | Date/Date | Description/Description | DES | DWN | CHK |

Project title/Titre du projet

YOHO NATIONAL PARK
BRITISH COLUMBIA

KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par

A. FRAPPELL / E. YANG

Drawn by/Dessine par

T. TAKEDA

Client/client

PARKS CANADA AGENCY

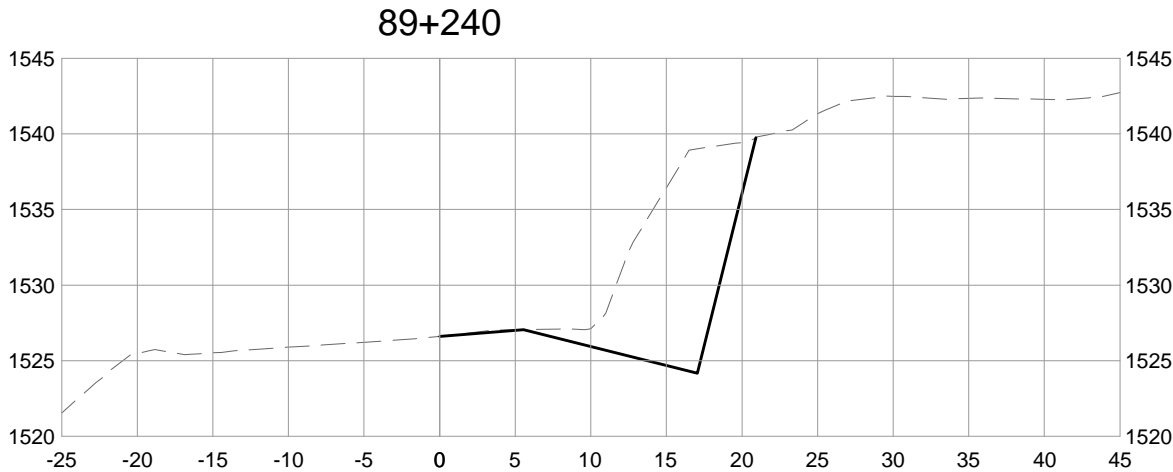
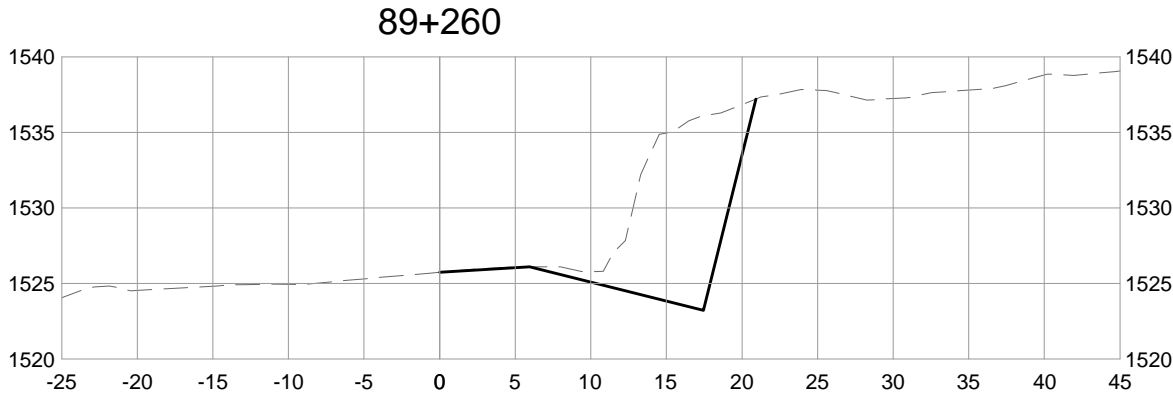
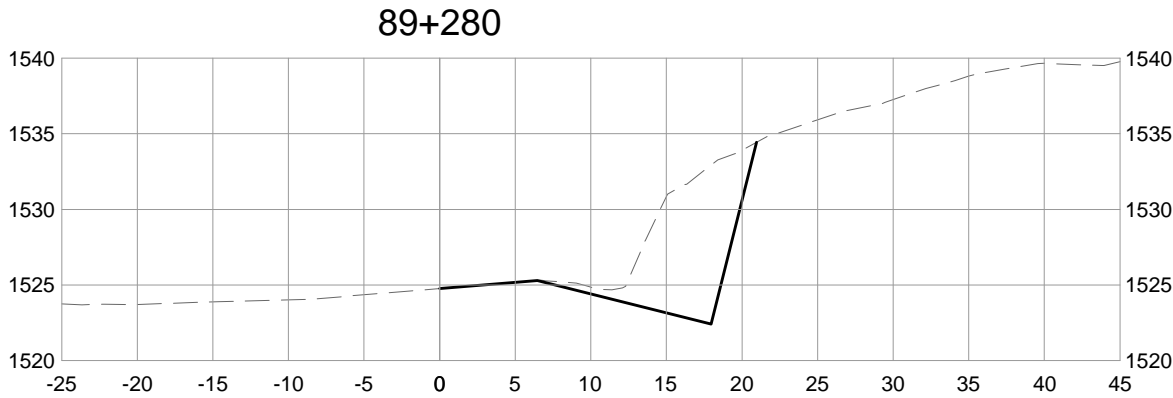
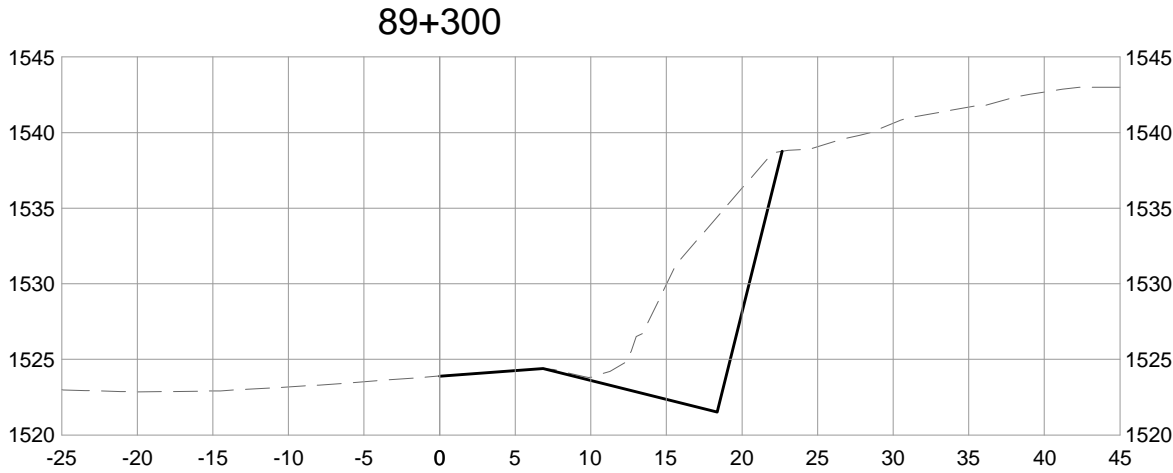
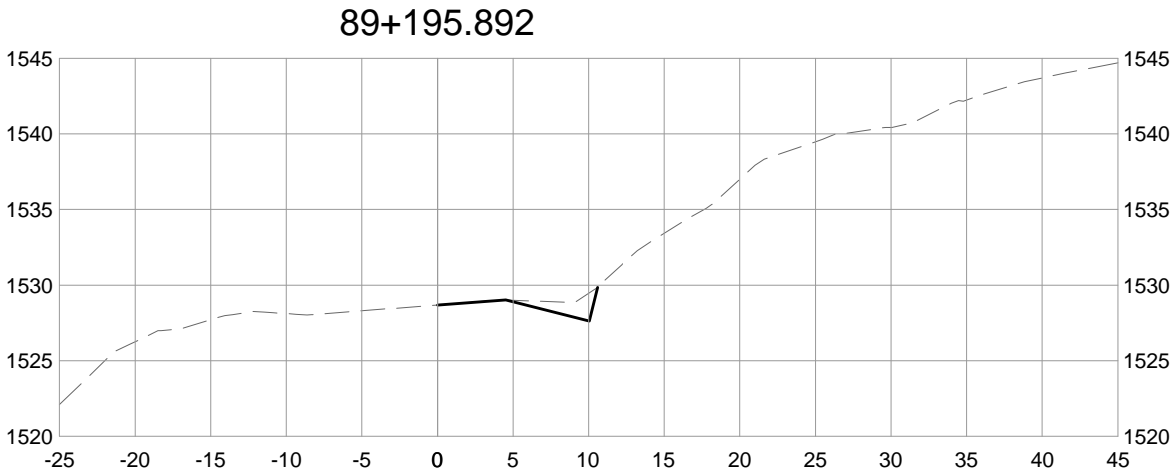
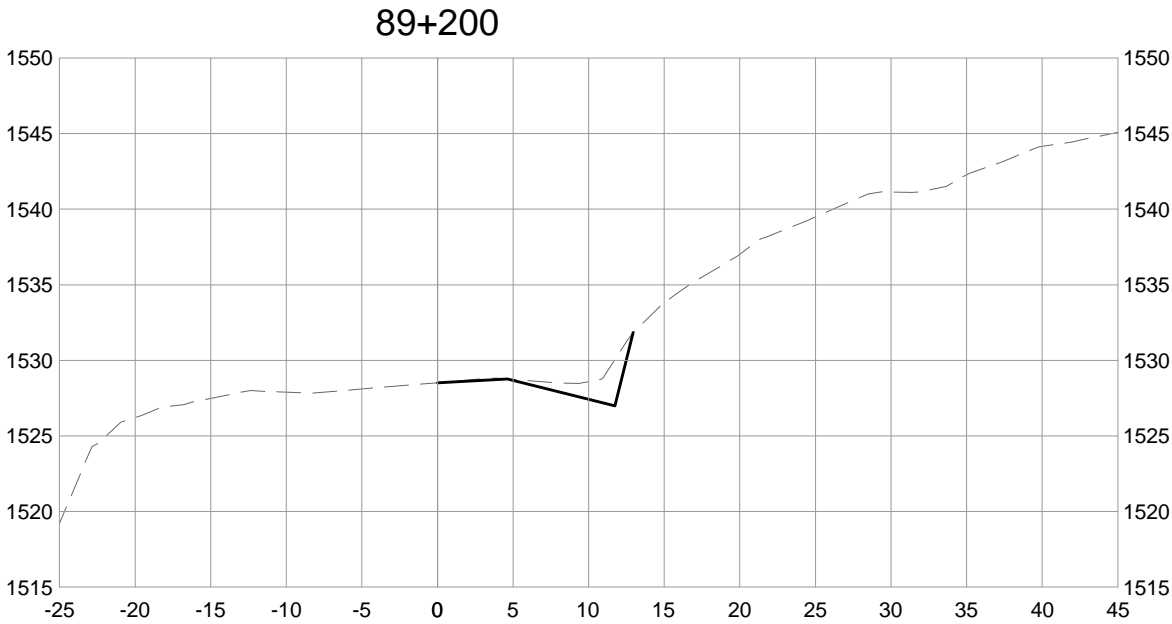
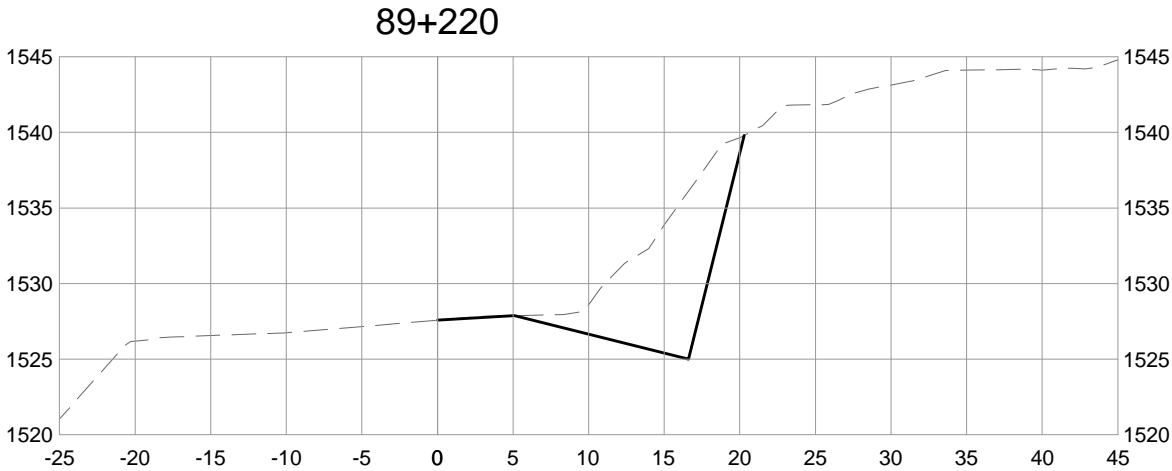
Drawing title/Titre du dessin

SHERBROOKE ROCK SLOPE
CROSS SECTIONS
STA. 88+960 TO 89+060

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| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
| V13403095-01 | 2015-02-4006 | 00 |



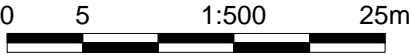
Q:\Vancouver\Transportation\V3311\Projects\134\03095-600 PCA 88-91km\CADD\Sheets\2015-02-4007 SERIES - CROSS SECTIONS.dwg [2015-02-4007] April 24, 2015 - 4:33:26 pm (BY: DEEPWELL, ANDREW)



Client/client
Parks Canada Agency L'Agence Parcs Canada



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| Revision/Revision | Date/Date | Description/Description | DES | DWN | CHK |

Project title/Titre du projet
YOHO NATIONAL PARK
BRITISH COLUMBIA
KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par
A. FRAPPELL / E. YANG
Drawn by/Dessine par
T. TAKEDA

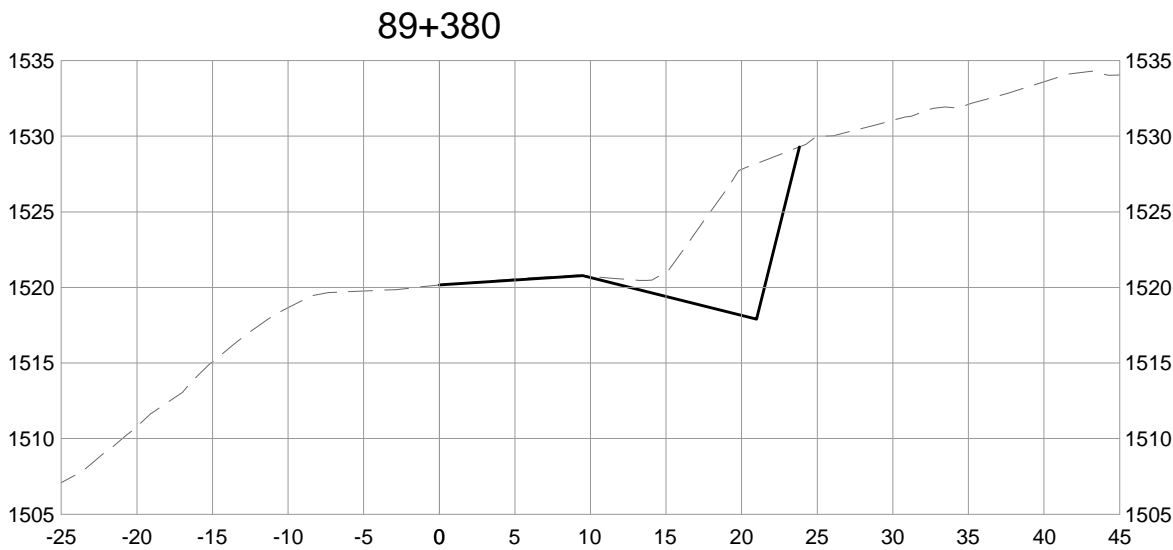
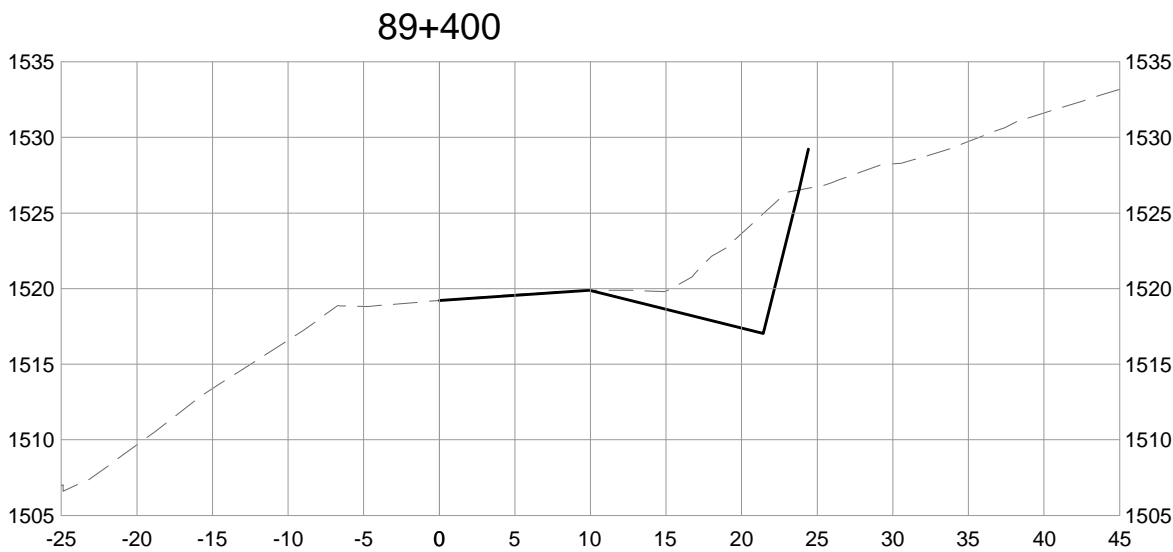
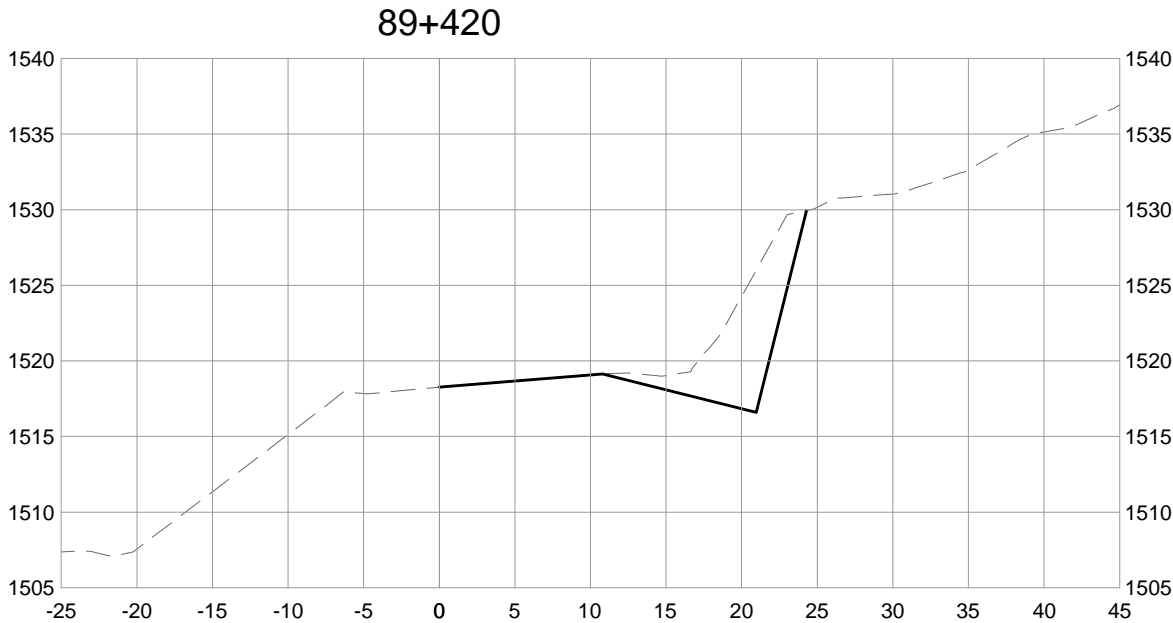
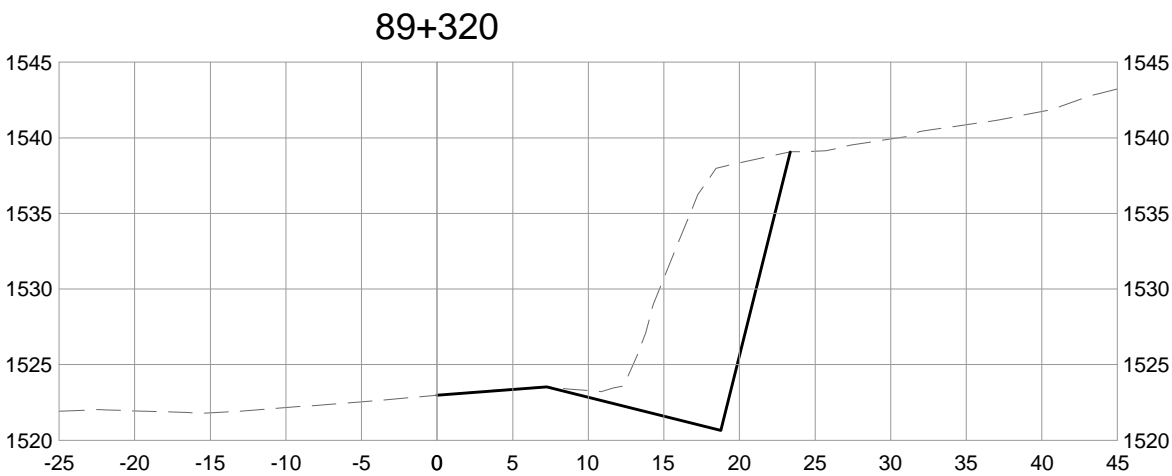
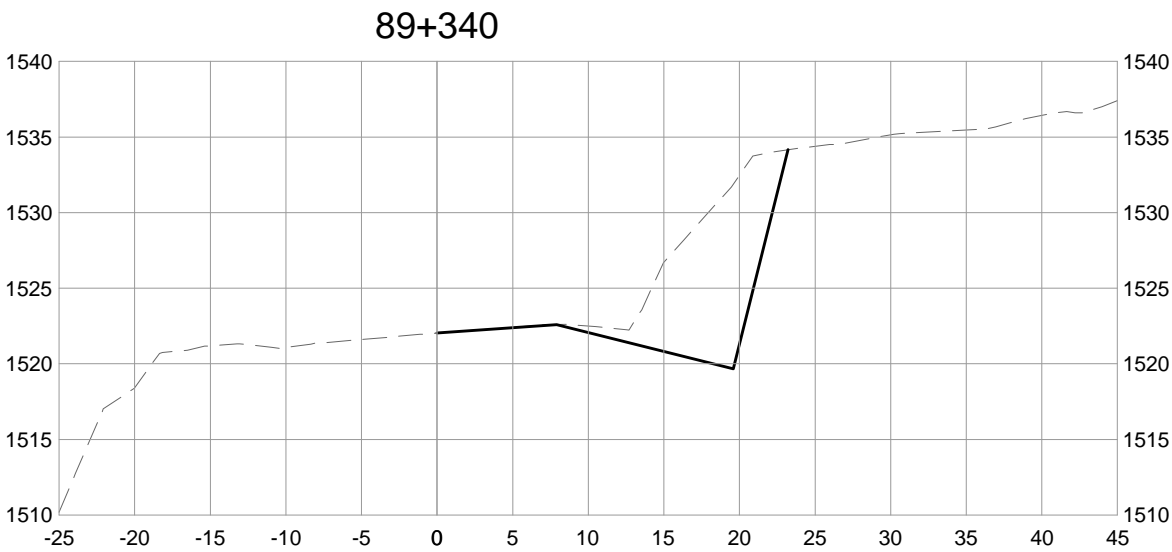
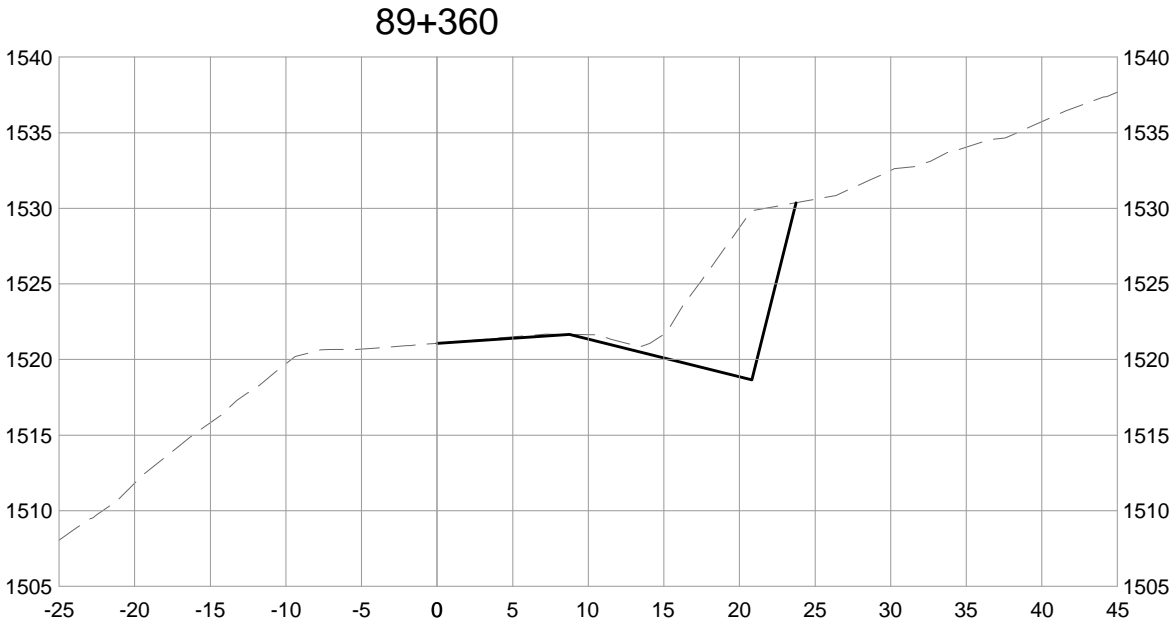
Client/client
PARKS CANADA AGENCY

Drawing title/Titre du dessin
LOWER SHERBROOKE
ROCK SLOPE
CROSS SECTIONS
STA. 89+195 TO 89+300

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| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
| V13403095-01 | 2015-02-4007 | 00 |



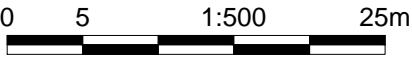
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Client/client
Parks Canada Agency
L'Agence Parcs Canada



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Project title/Titre du projet
YOHO NATIONAL PARK
BRITISH COLUMBIA
KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par
A. FRAPPELL / E. YANG
Drawn by/Dessine par
T. TAKEDA

Client/client
PARKS CANADA AGENCY


Drawing title/Titre du dessin
LOWER SHERBROOKE
ROCK SLOPE
CROSS SECTIONS
STA. 89+320 TO 89+420

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| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
| V13403095-01 | 2015-02-4008 | 00 |




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Client/client



Parks Canada
Agency

L'Agence Parcs
Canada



ISSUED FOR TENDER

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| Revision/ Revision | Date/Date | Description/Description | DES | DWN | CHK |

Project title/Titre du projet

YOHO NATIONAL PARK
BRITISH COLUMBIA

KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par
A. FRAPPELL / E. YANG

Drawn by/Dessine par
T. TAKEDA

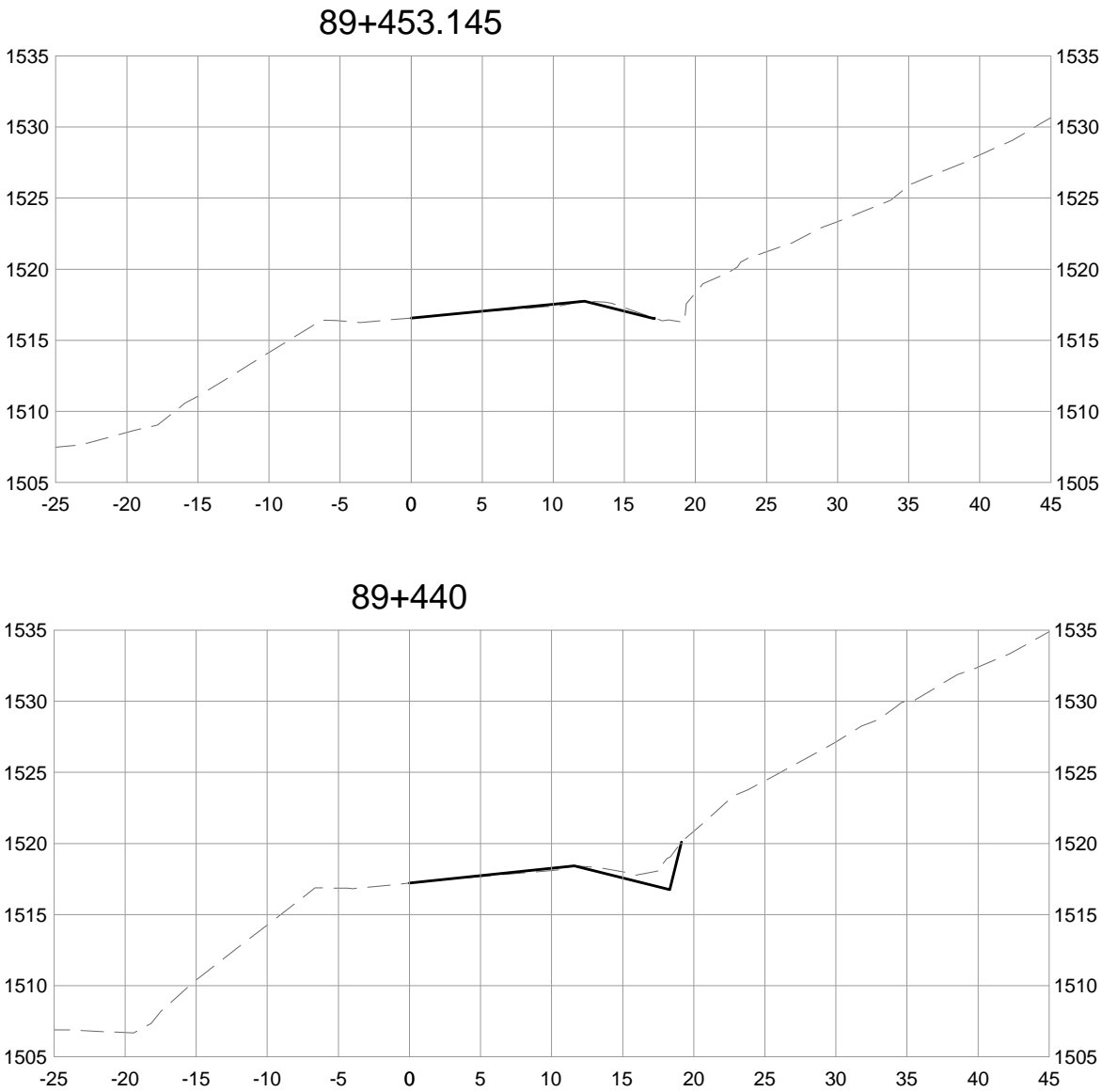
Client/client

PARKS CANADA AGENCY

Drawing title/Titre du dessin

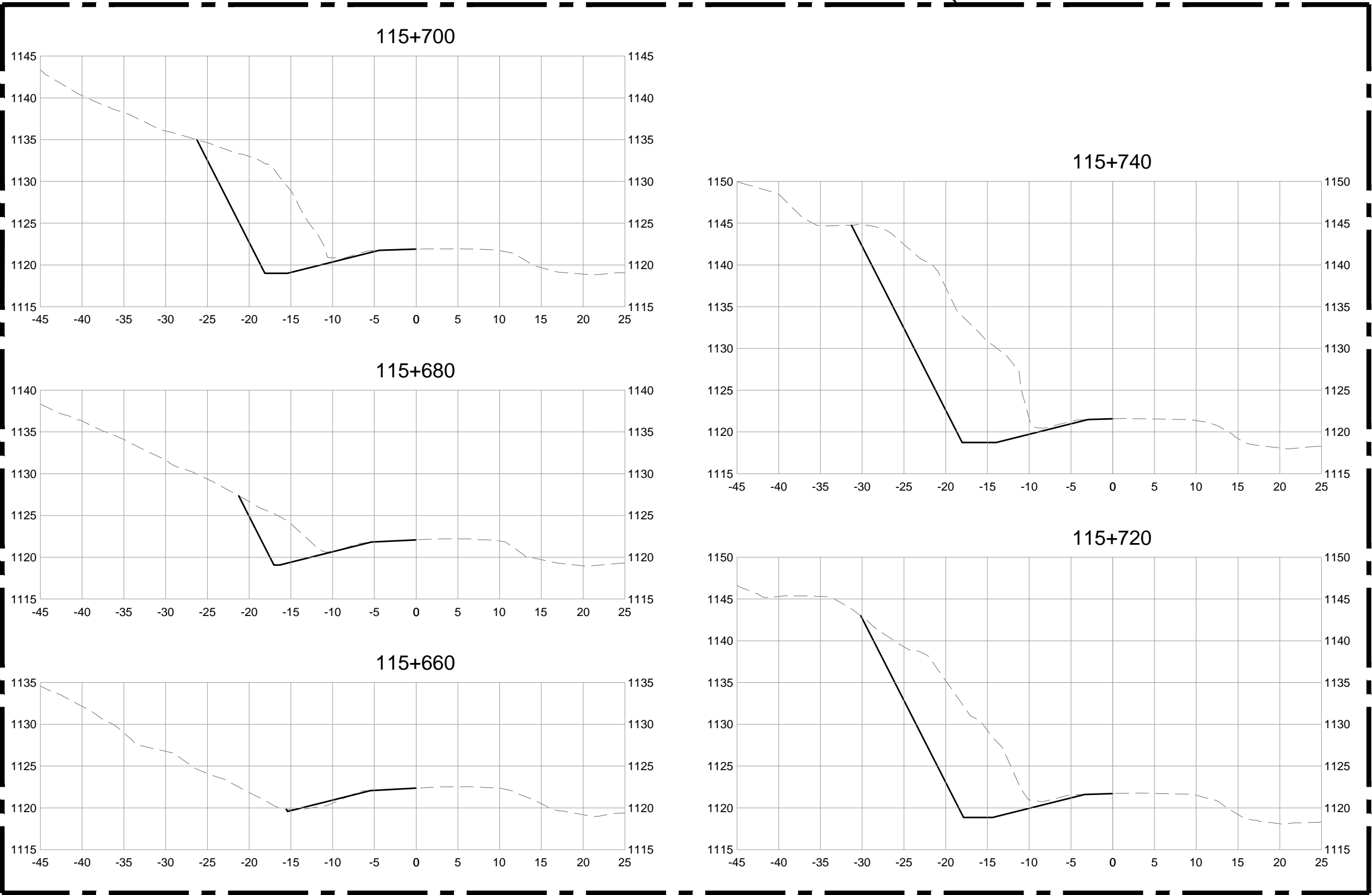
LOWER SHERBROOKE
ROCK SLOPE
CROSS SECTIONS
STA. 89+440 TO 89+453.145

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| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
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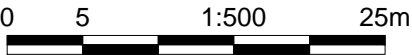


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FUTURE WORK
(NOT IN BILL OF QUANTITIES)



ISSUED FOR TENDER



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| Revision/ Revision | Date/Date | Description/Description | DES | DWN | CHK |

Project title/Titre du projet

YOHO NATIONAL PARK
BRITISH COLUMBIA

KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par
A. FRAPPELL / E. YANG

Drawn by/Dessine par
T. TAKEDA

Client/client

PARKS CANADA AGENCY

Drawing title/Titre du dessin

LITTLE TOPPLE ROCK SLOPE
CROSS SECTIONS
STA. 115+660 TO 115+740

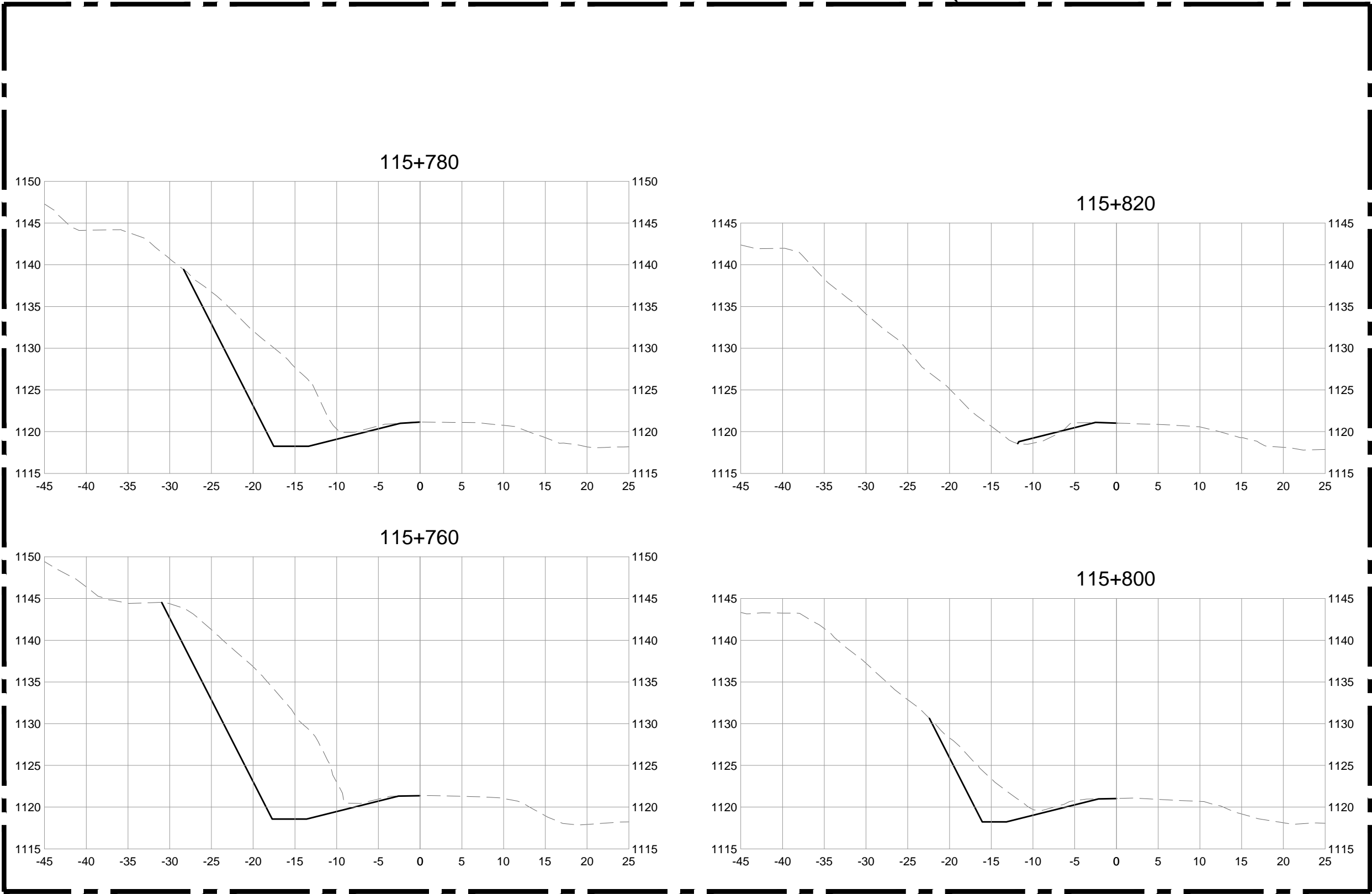
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| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
| V13403095-01 | 2015-02-4010 | 00 |



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FUTURE WORK

(NOT IN BILL OF QUANTITIES)



Client/client



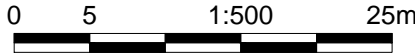
Parks Canada
Agency

L'Agence Parcs
Canada



TETRA TECH EBA

ISSUED FOR TENDER



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| 00 | 24/04/15 | ISSUED FOR TENDER | AF/ | TT | AF |
| Revision/ Revision | Date/Date | Description/Description | DES | DWN | CHK |

Project title/Titre du projet

YOHO NATIONAL PARK
BRITISH COLUMBIA

KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par

A. FRAPPELL / E. YANG

Drawn by/Dessine par

T. TAKEDA

Client/client

PARKS CANADA AGENCY

Drawing title/Titre du dessin

LITTLE TOPPLE ROCK SLOPE
CROSS SECTIONS
STA. 115+760 TO 115+820

Project No./No. du projet

V13403095-01

Sheet/ Feuille

2015-02-4011

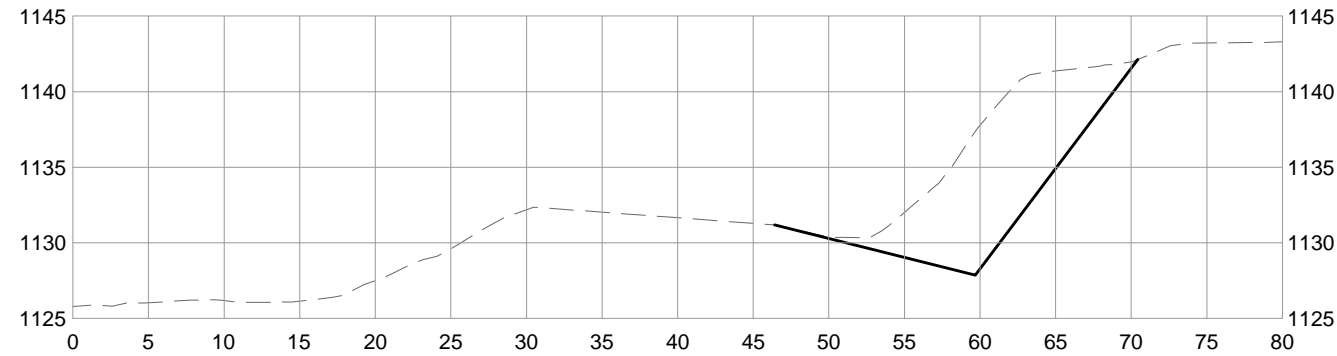
Revision no./
La Révision no.

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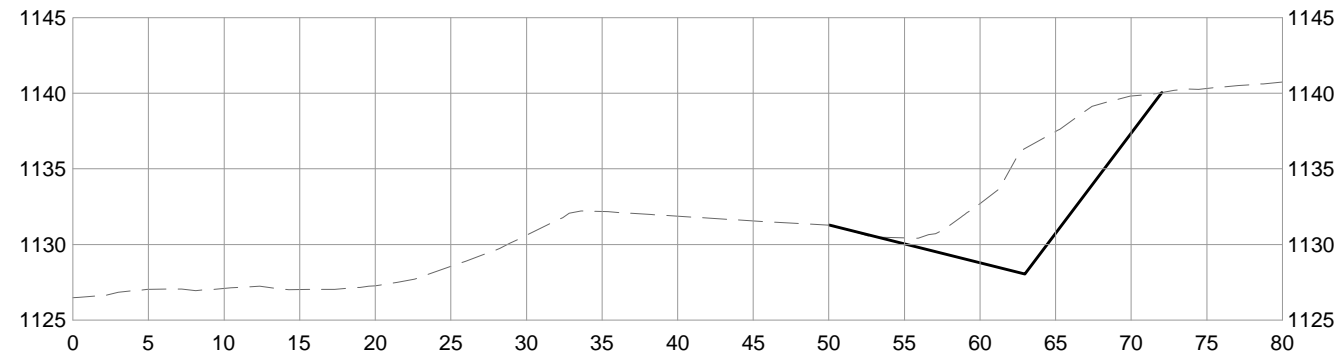


Q:\Vancouver\Transportation\V331\Projects\V13403095-600 PCA 88-91km\CADD\Sheets\2015-02-4000 SERIES - CROSS SECTIONS.dwg [2015-02-4012] April 24, 2015 - 4:33:48 pm (BY: DEEPWELL, ANDREW)

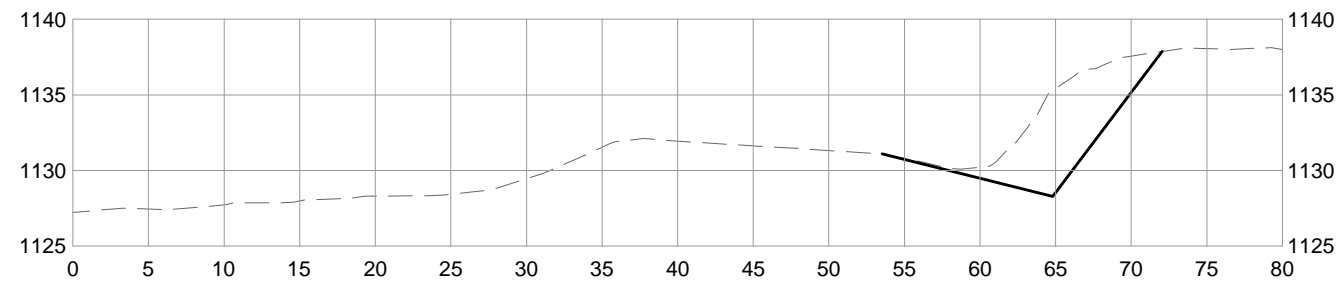
124+360



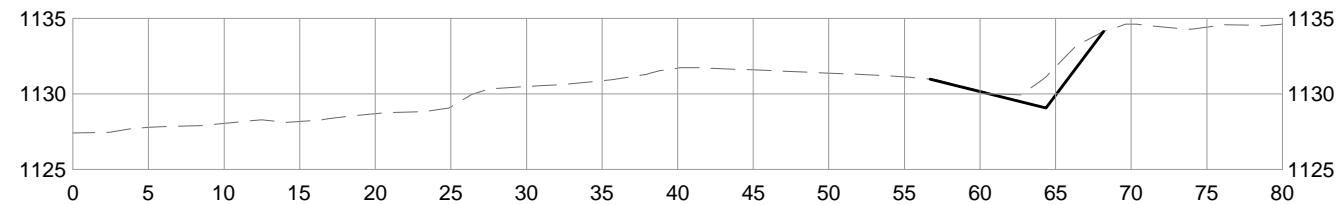
124+340



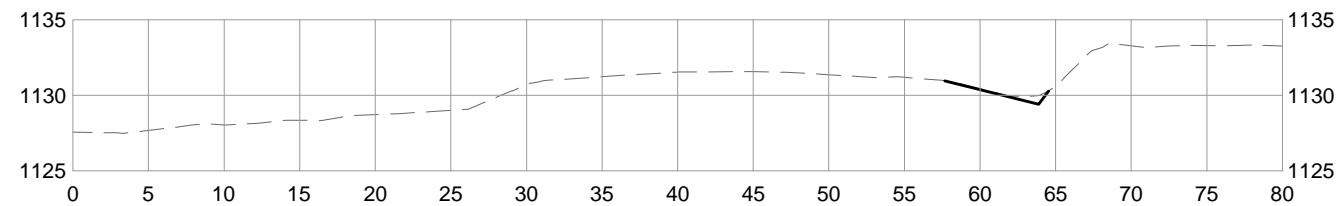
124+320




124+300



124+293.658



Client/client




Parks Canada

Agency

L'Agence Parcs

Canada



ISSUED FOR TENDER

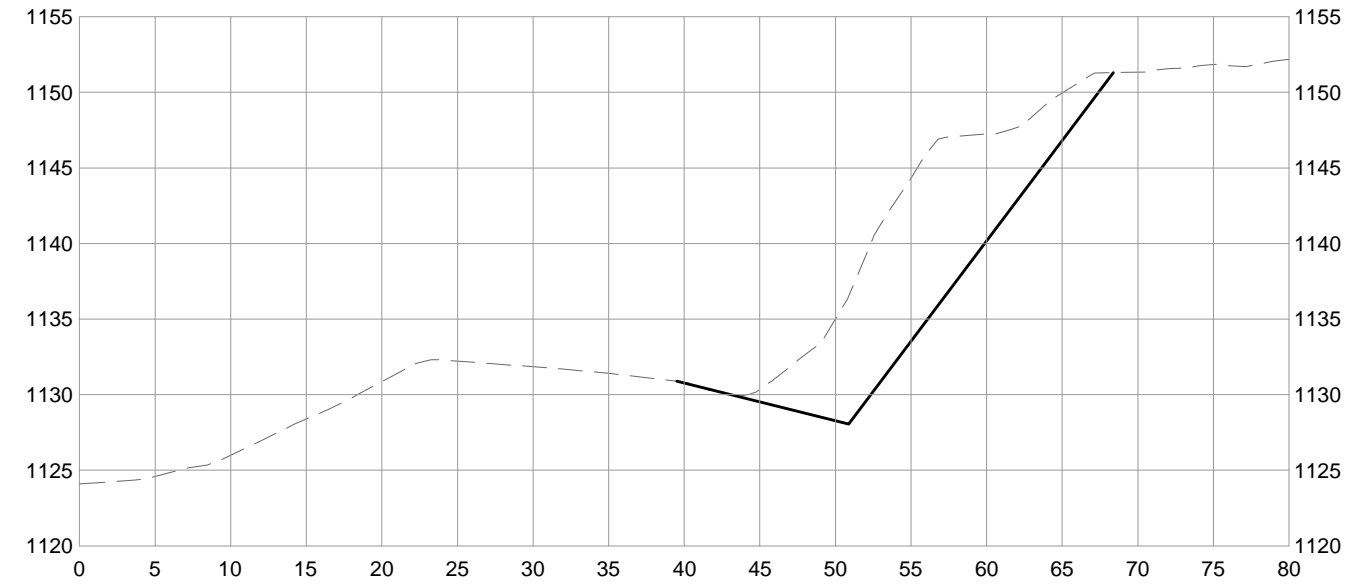
051:50025m

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| Revision/ | Date/Date | Description/Description | DES | DWN | CHK |
| Project title/Titre du projet | | | | | |
| YOHO NATIONAL PARK BRITISH COLUMBIA | | | | | |
| KM 88 TO 91 AND KM 114 TO 128 TRANS-CANADA HIGHWAY SLOPE REPROFILING | | | | | |
| Designed by/Concept par A. FRAPPELL / E. YANG | | | | | |
| Drawn by/Dessine par T. TAKEDA | | | | | |
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| Client/client | | | | | |
| PARKS CANADA AGENCY | | | | | |
| Drawing title/Titre du dessin | | | | | |
| PHYLLITE ROCK SLOPE CROSS SECTIONS STA. 124+293 TO 124+360 | | | | | |
| Project No./No. du projet | | Sheet/ Feuille | | Revision no./ La Révision no. | |
| V13403095-01 | | 2015-02-4012 | | 00 | |

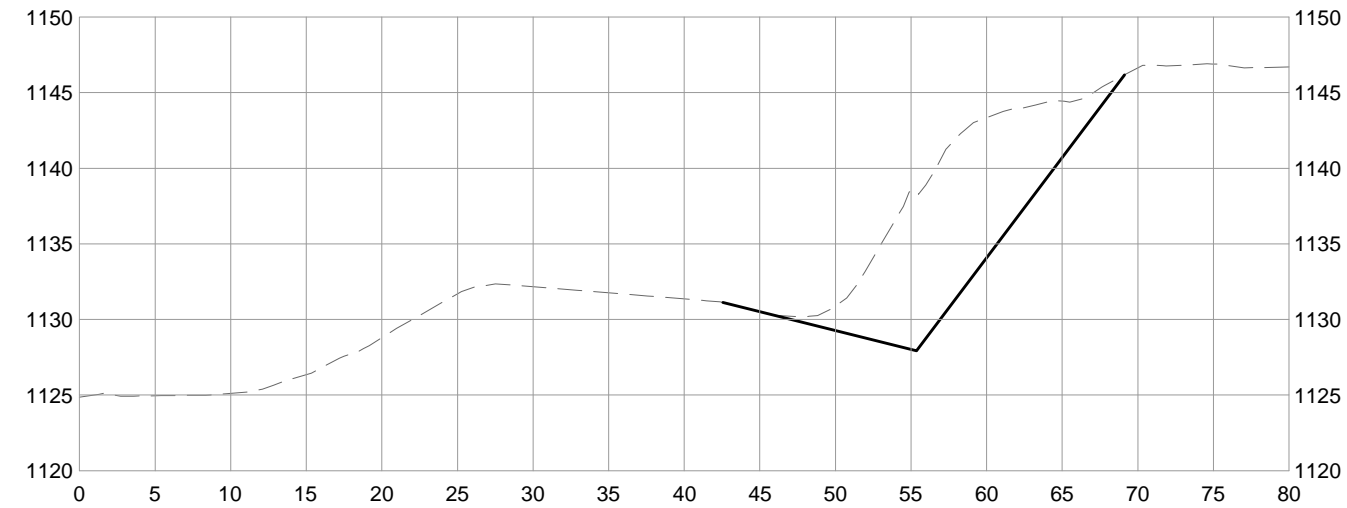


Q:\Vancouver\Transportation\V331\Projects\134\03095-600 PCA 88-9\km\CADD\Sheets\2015-02-4013 SERIES - CROSS SECTIONS.dwg [2015-02-4013] April 24, 2015 - 4:33:53 pm (BY: DEEPWELL, ANDREW)

124+400



124+380



Client/client

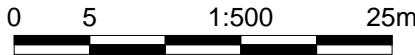


Parks Canada
Agency

L'Agence Parcs
Canada



ISSUED FOR TENDER



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| 00 | 24/04/15 | ISSUED FOR TENDER | AF/ | TT | AF |
| Revision/ Revision | Date/Date | Description/Description | DES | DWN | CHK |

Project title/Titre du projet

YOHO NATIONAL PARK
BRITISH COLUMBIA

KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par

A. FRAPPELL / E. YANG

Drawn by/Dessine par

T. TAKEDA

Client/client

PARKS CANADA AGENCY

Drawing title/Titre du dessin

PHYLLITE ROCK SLOPE
CROSS SECTIONS
STA. 124+380 TO 124+400

Project No./No. du projet

V13403095-01

Sheet/ Feuille

2015-02-4013

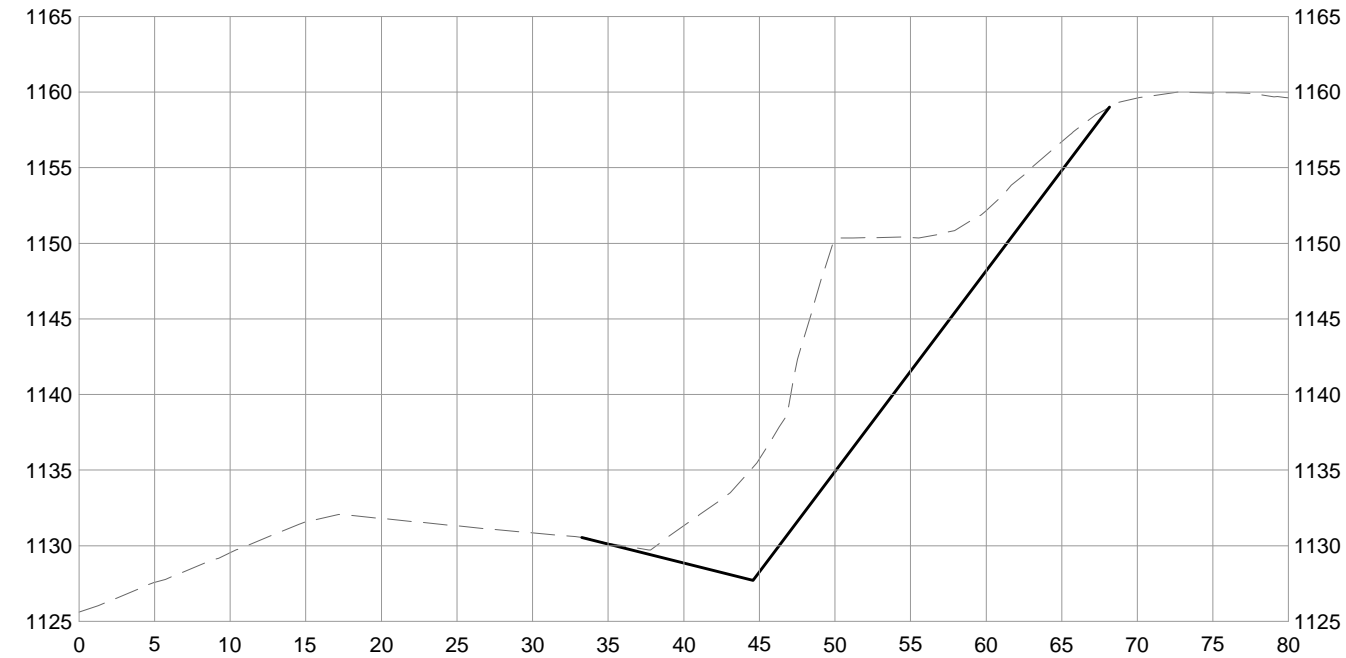
Revision no./
La Révision no.

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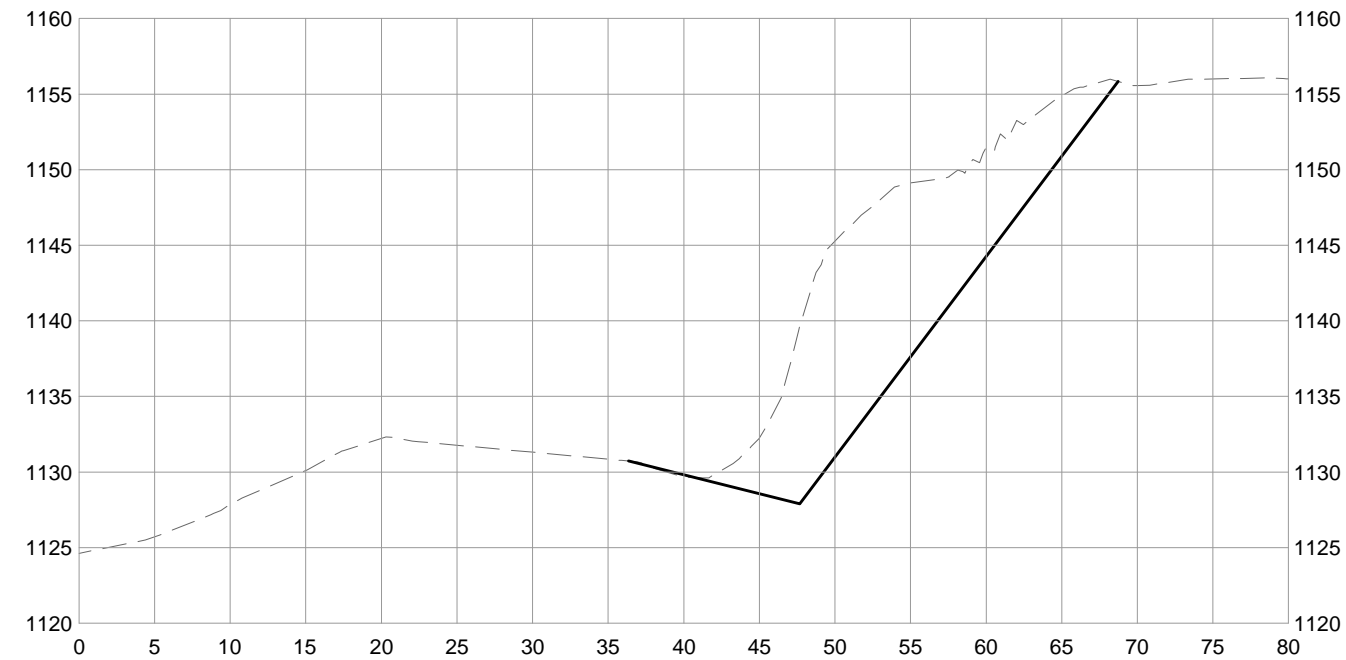


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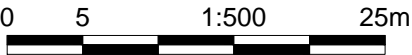
124+440



124+420



ISSUED FOR TENDER



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| 00 | 24/04/15 | ISSUED FOR TENDER | AF/ | TT | AF |
| Revision/ Revision | Date/Date | Description/Description | DES | DWN | CHK |

Project title/Titre du projet

YOHO NATIONAL PARK
BRITISH COLUMBIA

KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par
A. FRAPPELL / E. YANG

Drawn by/Dessine par
T. TAKEDA

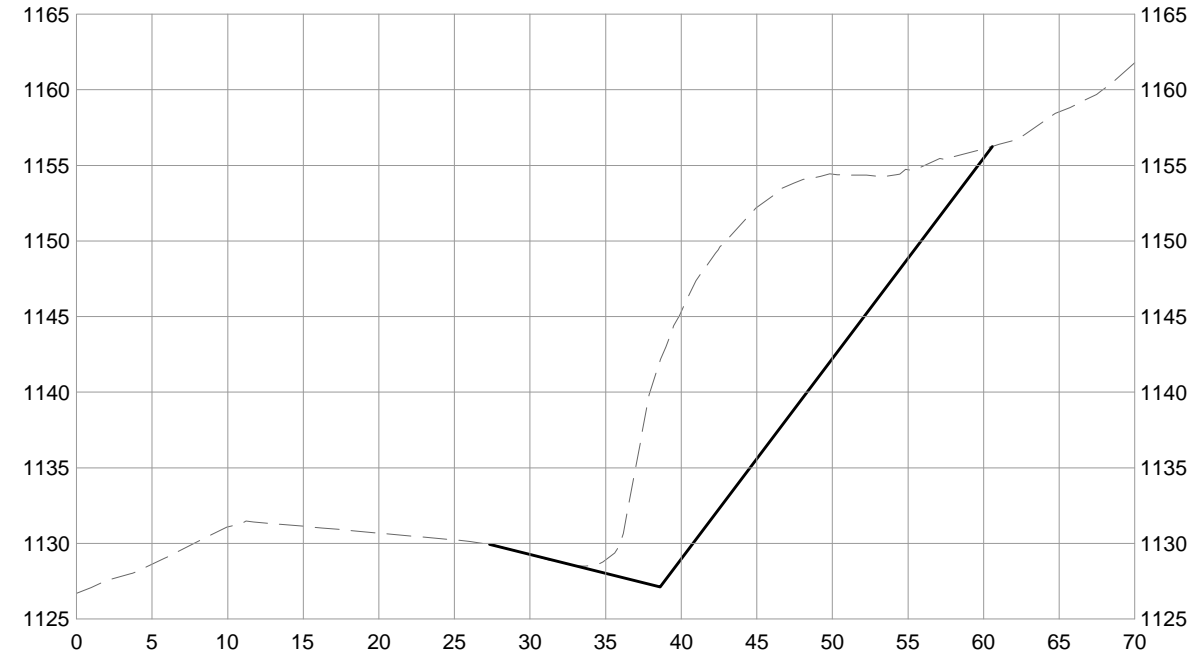
Drawing title/Titre du dessin

PHYLLITE ROCK SLOPE
CROSS SECTIONS
STA. 124+420 TO 124+440

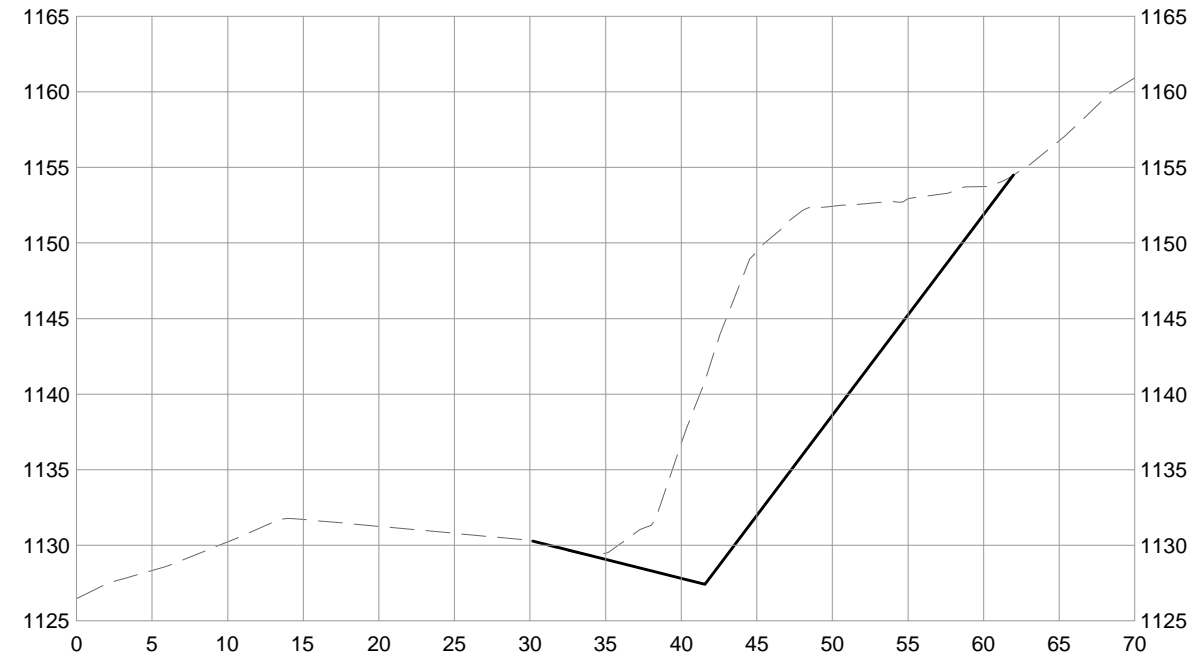


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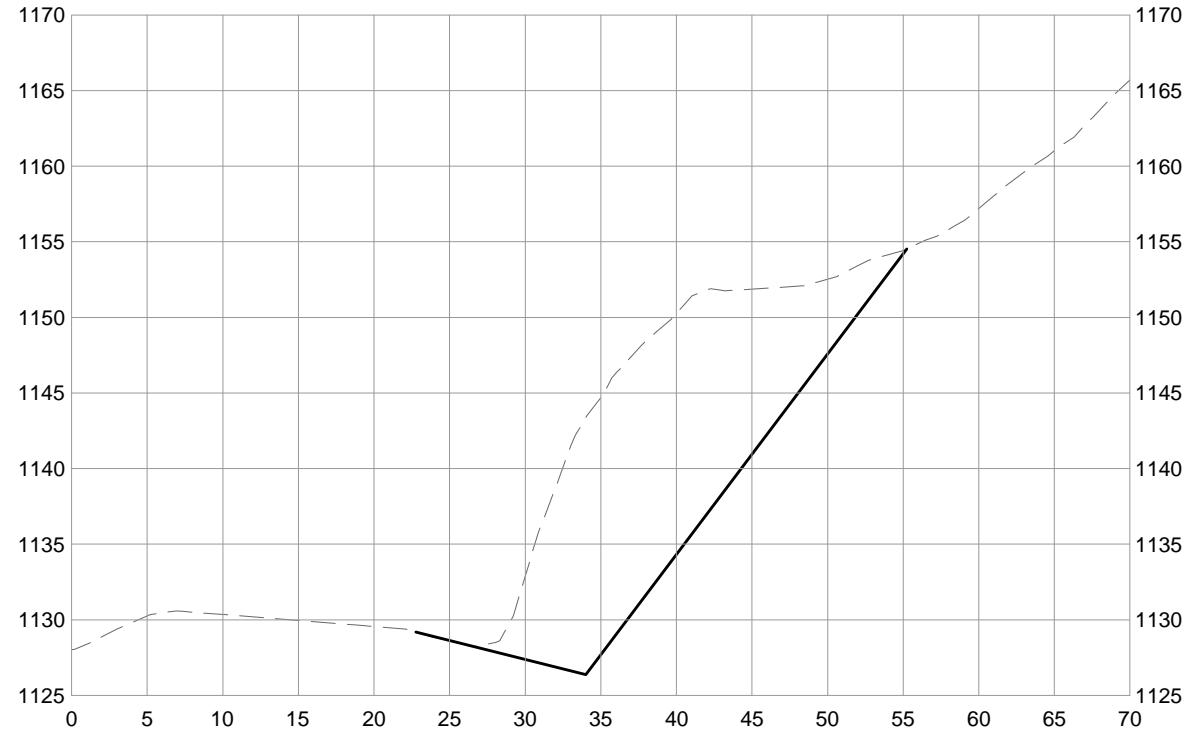
124+480



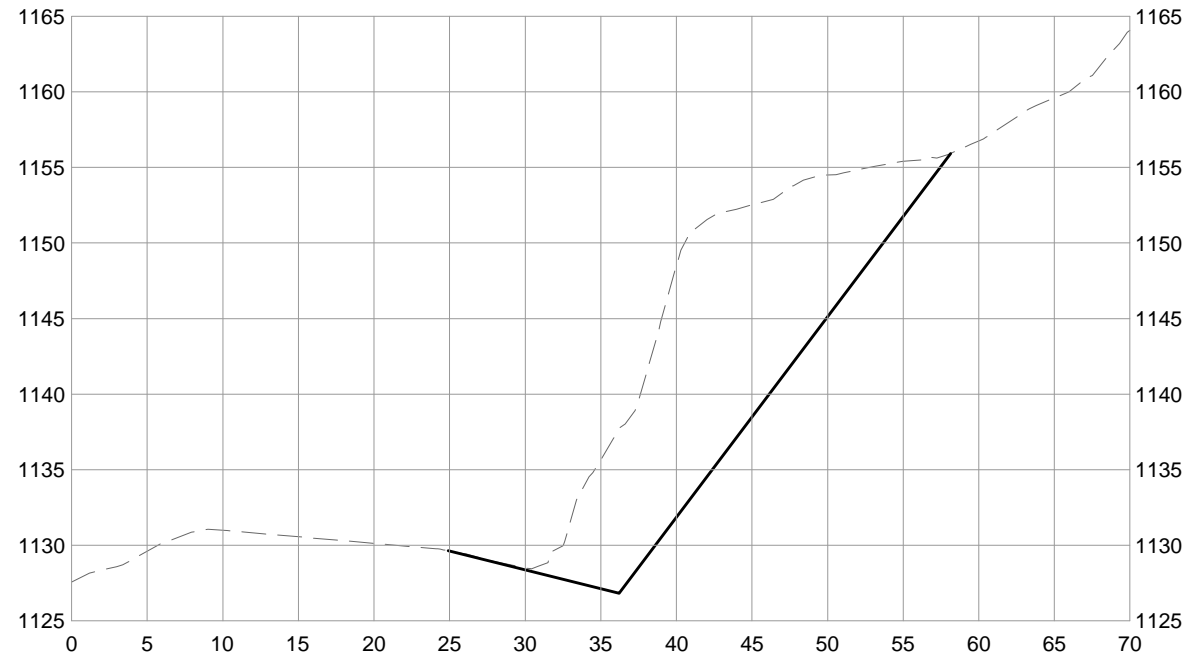
124+460




124+520




124+500



Client/client

 Parks Canada Agency

L'Agence Parcs Canada



ISSUED FOR TENDER

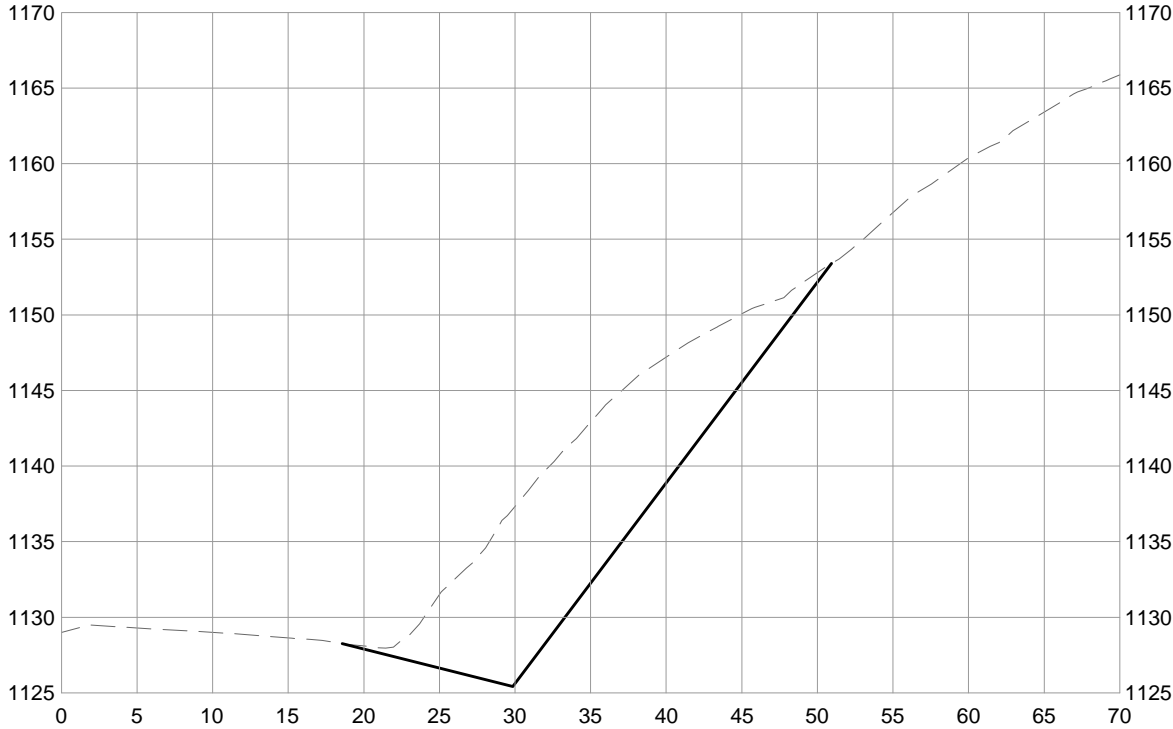
051:50025m

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| Revision/ | Date/Date | Description/Description | DES | DWN | CHK |
| Project title/Titre du projet | | | | | |
| YOHO NATIONAL PARK BRITISH COLUMBIA | | | | | |
| KM 88 TO 91 AND KM 114 TO 128 TRANS-CANADA HIGHWAY SLOPE REPROFILING | | | | | |
| Designed by/Concept par A. FRAPPELL / E. YANG | | | | | |
| Drawn by/Dessine par T. TAKEDA | | | | | |
| Client/client PARKS CANADA AGENCY | | | | | |
| Drawing title/Titre du dessin PHYLLITE ROCK SLOPE CROSS SECTIONS STA. 124+460 TO 124+520 | | | | | |
| Project No./No. du projet V13403095-01 | | Sheet/ Feuille 2015-02-4015 | | Revision no./ La Révision no. 00 | |

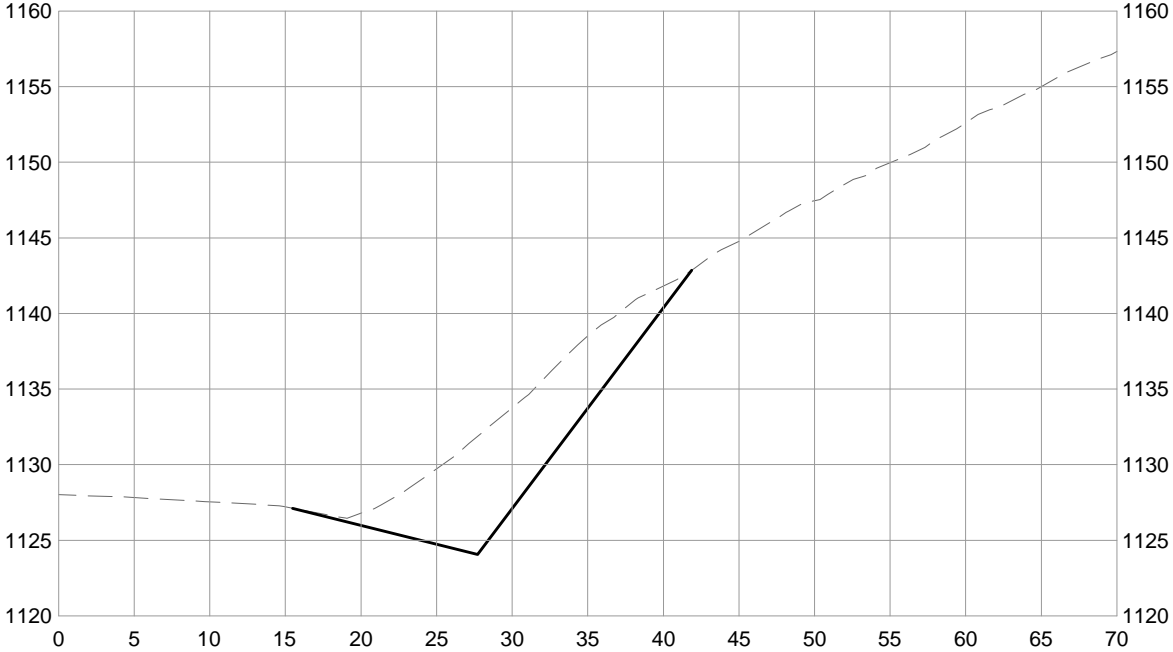


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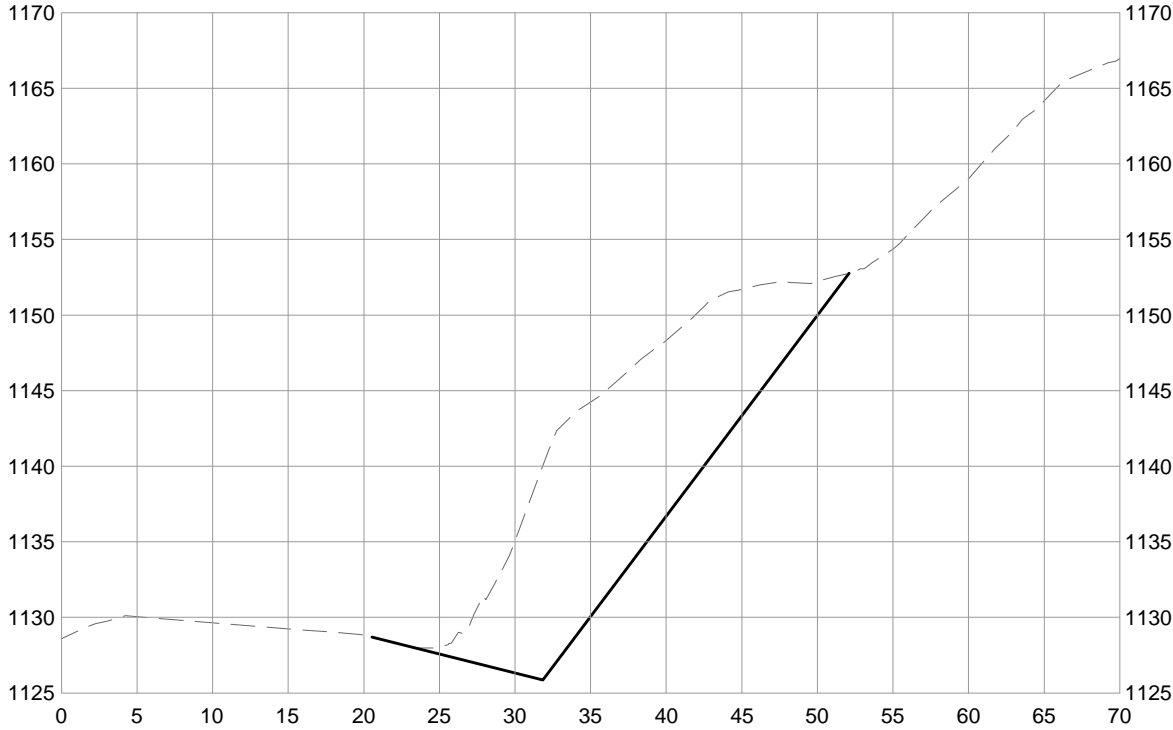
124+560



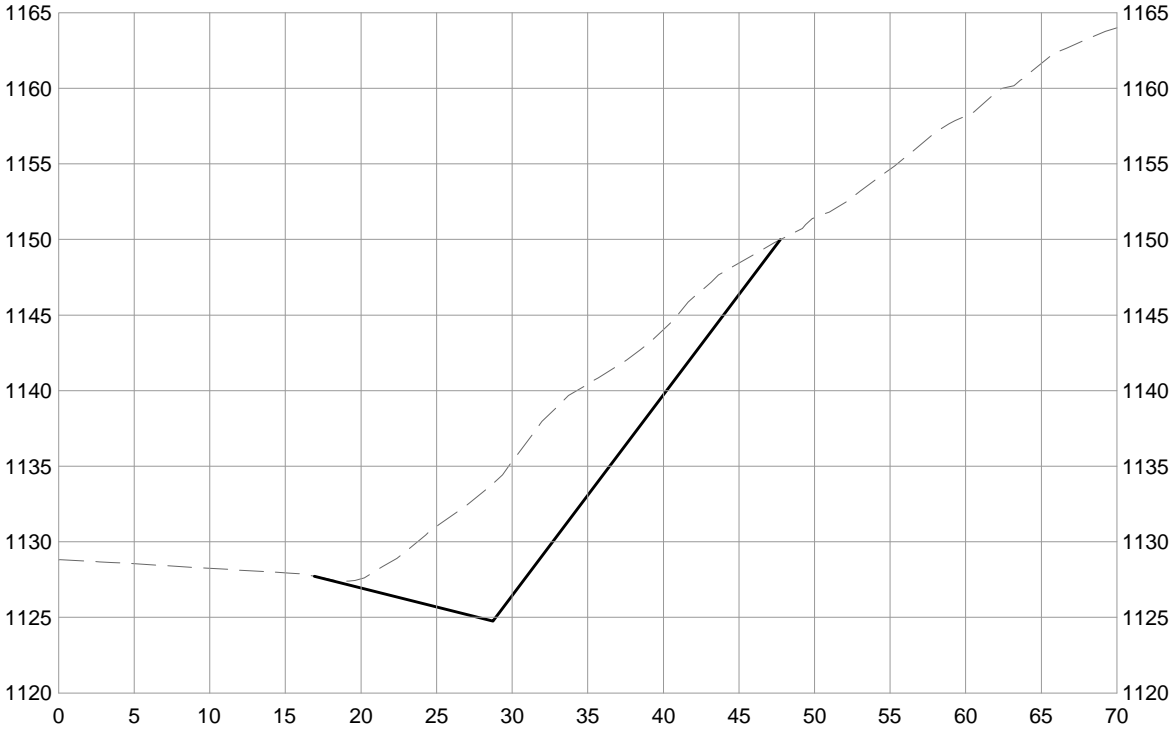
124+600



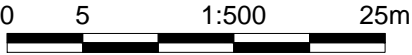
124+540



124+580



ISSUED FOR TENDER



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| Revision/ | Date/Date | Description/Description | DES | DWN | CHK |
| Revision | | | | | |

Project title/Titre du projet

YOHO NATIONAL PARK
BRITISH COLUMBIA

KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par
A. FRAPPELL / E. YANG

Drawn by/Dessine par
T. TAKEDA

Client/client

PARKS CANADA AGENCY

Drawing title/Titre du dessin

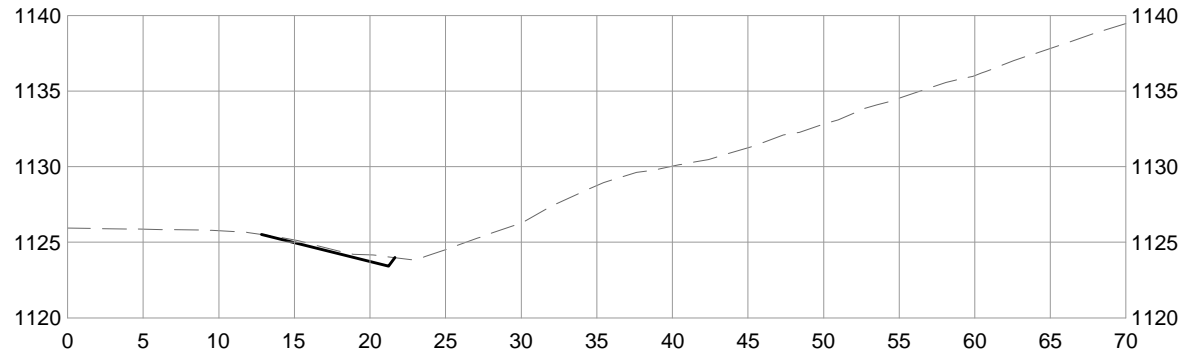
PHYLLITE ROCK SLOPE
CROSS SECTIONS
STA. 124+540 TO 124+600

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| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
| V13403095-01 | 2015-02-4016 | 00 |

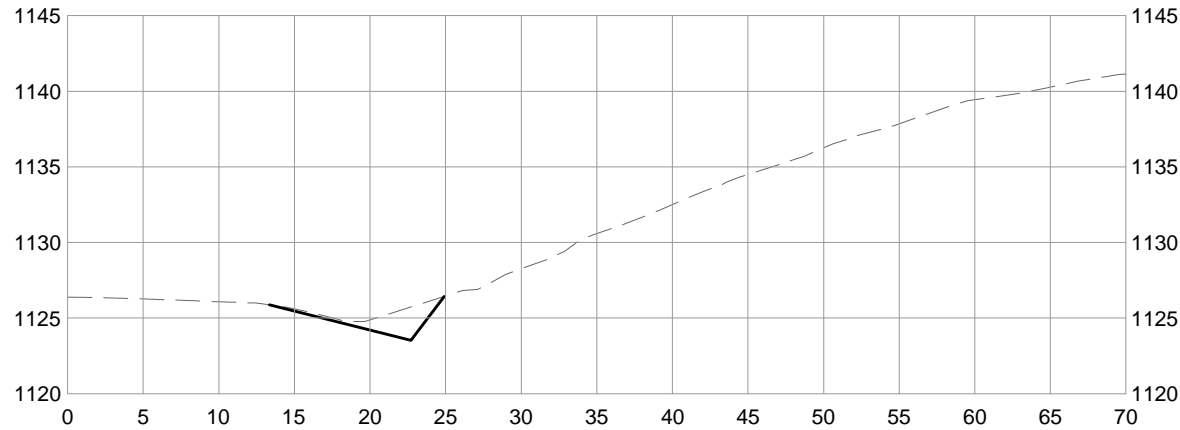


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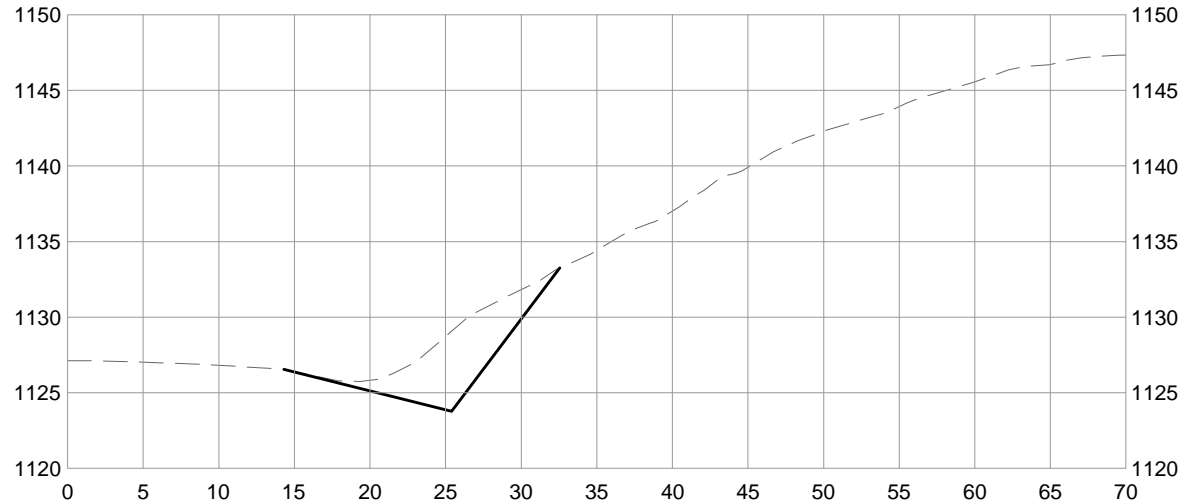
124+651.233



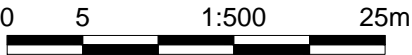
124+640



124+620



ISSUED FOR TENDER



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| Revision/ Revision | Date/Date | Description/Description | DES | DWN | CHK |

Project title/Titre du projet

YOHO NATIONAL PARK
BRITISH COLUMBIA

KM 88 TO 91 AND KM 114 TO 128
TRANS-CANADA HIGHWAY
SLOPE REPROFILING

Designed by/Concept par
A. FRAPPELL / E. YANG

Drawn by/Dessine par
T. TAKEDA

Client/client

PARKS CANADA AGENCY

Drawing title/Titre du dessin

PHYLLITE ROCK SLOPE
CROSS SECTIONS
STA. 124+620 TO 124+651.233

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| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
| V13403095-01 | 2015-02-4017 | 00 |

