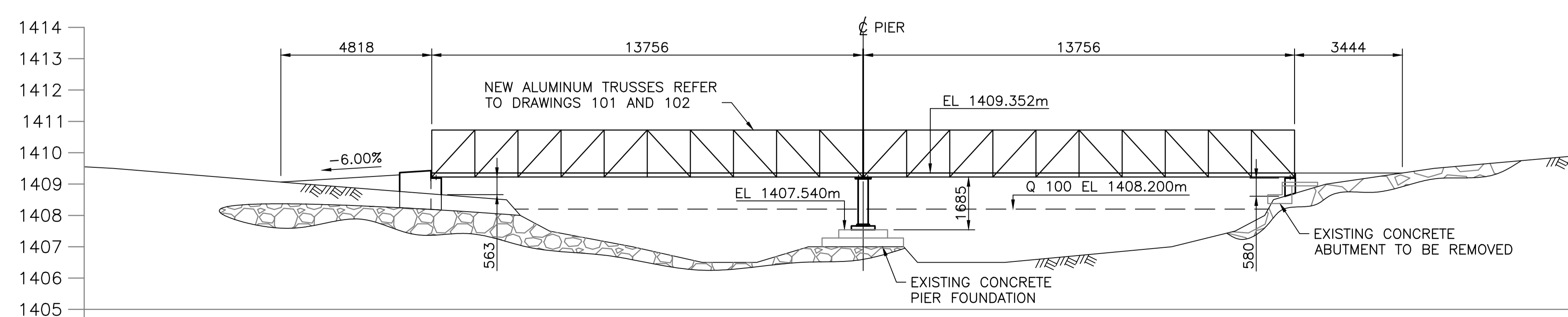


PLAN
1:100



ELEVATION
1:100

GENERAL

1. ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE
2. SITE ACCESS RESTRICTED TO SIDE BY SIDE QUAD ATV, MINI-EXCAVATOR OR HELICOPTER
3. SUPERSTRUCTURE DETAILS REFER TO DRAWINGS 101 AND 102 PREPARED BY McELHANNEY CONSULTING SERVICES.

SCOPE OF WORK:

1. CONSTRUCTION OF NEW CONCRETE ABUTMENTS AND STRUCTURAL STEEL PIER WITH CONCRETE FOUNDATIONS. ALL FOUNDATIONS TO BE DOWELLED INTO EXISTING BEDROCK.
2. FABRICATION AND INSTALLATION OF ALUMINUM TRUSS BRIDGE SPANS.
3. CONSTRUCTION OF APPROACH RAMP AND REALIGNMENT OF APPROACH TRAILS.
4. DEMOLITION AND REMOVAL OF EXISTING ABUTMENTS INCLUDING NORTH ABUTMENT CURRENTLY LOCATED DOWNSTREAM.

DESIGN

1. DESIGN STANDARDS:
 - 1.1 CAN/CSA-S6-10 CANADIAN HIGHWAY BRIDGE DESIGN CODE
 - 1.2 PARKS CANADA DIRECTIVE FOR DESIGN, CONSTRUCTION, AND INSPECTION OF VEHICULAR AND PEDESTRIAN BRDGES, JANUARY 2008: PEDESTRIAN BRIDGE CLASS B
2. DESIGN LOADS
 - 2.1 LIVE LOADS:
 - PEDESTRIAN LOADING: 4.0 kPa
 - SNOW LOADING: 3.5 kPa
 - RAIN LOAD: 0.1 kPa
 - VEHICLE LOADING: 318 Kg SNOWMOBILE DISTRIBUTED OVER A 0.6 m X 1.5 m FOOTPRINT WITH A 126 Kg TRACKSET ATTACHED
 - RAILING LOADING: UNIFORM LOAD OF 1.20 kN/m APPLIED Laterally and vertically simultaneously
 - 2.2 GEOMETRIC REQUIREMENTS
 - MINIMUM BRIDGE CLEAR WIDTH: 1.83 m
 - MINIMUM RAILING HEIGHT: 1.37 m
 - MAXIMUM LONGITUDINAL GRADIENT OF APPROACH RAMP: 6%
 - 2.3 HYDRAULIC REQUIREMENTS
 - MINIMUM FREEBOARD OF 1.0 m ABOVE Q100 FLOOD LEVEL
 - EL: 1408.200 m

MATERIALS

1. ALL CONCRETE PRODUCTS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 30 MPa AT 28 DAYS.
2. CONCRETE CONSTRUCTION AND MATERIALS TO CONFORM TO CSA STANDARDS A23.1 AND A23.3
3. REINFORCING STEEL SHALL CONFORM TO CSA G30.18 GRADE 400W. WELDED WIRE REINFORCEMENT SHALL CONFORM TO ASTM A 1064.
4. ROCK DOWELS SHALL BE DYWIDAG THREADBAR RESIN ANCHORED ROCK BOLTS OR ALTERNATIVE APPROVED BY DEPARTMENTAL REPRESENTATIVE.
5. TRUSS ANCHOR BOLTS SHALL BE STAINLESS STEEL 19 DIA CONFORMING TO ASTM FS93 (AISI 304/316)
6. ALL STRUCTURAL STEEL SHALL CONFORM TO G40.21M GRADE 300A UNLESS NOTED OTHERWISE
7. GROUT SHALL BE NON-SHRINK CEMENTITIOUS GROUT WITH MINIMUM COMPRESSIVE STRENGTH 20MPa AT 48 HOURS AND 45MPa AT 28 DAYS.
8. RUBBER MATTING SHALL BE ECOFLEX INDUSTRIAL MATTING 1.18m x 3.05m x 25.4mm THICK MATTING OR SIMILAR APPROVED.
9. STEEL PIPE SHALL CONFORM TO ASTM-A252 GRADE 2.

CONSTRUCTION

1. EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 20mm UNLESS NOTED OTHERWISE
2. CONCRETE COVER: CLEAR COVER TO REINFORCING STEEL SHALL BE 70mm UNLESS NOTED OTHERWISE
3. REINFORCING LAP SPLICES SHALL BE AS A MINIMUM: 10M - 400mm
4. CONCRETE FINISH:

ABUTMENT BEARING SEATS	TROWELED FINISH
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5. DEPTH TO BEDROCK AT NORTH ABUTMENT IS APPROXIMATE ONLY. VERTICAL STIRRUP LAP LENGTHS CAN BE INCREASED TO ACCOMMODATE A REDUCED ABUTMENT HEIGHT.
6. ROCK DOWELS AT NORTH ABUTMENT TO BE WITHIN 100mm ± 100mm OF LOCATION SHOWN. ROCK DOWELS AT SOUTH ABUTMENT TO BE WITHIN 10mm± OF LOCATION SHOWN. ROCK DOWELS AT PIER TO BE WITHIN 50mm±.

SURVEY CONTROL AND EXISTING SITE CONDITIONS

1. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SURVEY CONTROL AND ENSURING ANCHOR BOLT LOCATIONS WITHIN REQUIRED TOLERANCES FOR TRUSS INSTALLATIONS.
2. ROCK OUTCROP ELEVATIONS ARE APPROXIMATE ONLY AND DO NOT ACCOUNT FOR LOCALIZED DEPRESSIONS AND PROTRUSIONS. CONTRACTOR TO CONFIRM SUBSTRUCTURE LOCATIONS AND ACCOUNT FOR SUCH VARIATIONS DURING CONSTRUCTION.

ISSUED FOR TENDER
NOT FOR CONSTRUCTION

DO NOT SCALE DRAWINGS

A	ISSUED FOR TENDER	13 SEP 30
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Revision/Revision	Description/Description	Date/Date

Client/client	Parks Canada Agency	L'Agence Parcs Canada
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Project title/Titre du projet
SPRAY RIVER END OF LOOP BRIDGE REPLACEMENT
BANFF NATIONAL PARK, ALBERTA

Approved by/Approuvé par	DPG
Designed by/Concept par	BRCN
Drawn by/Dessiné par	KAM
PWGSC Project Manager/Administrateur de Projets TPSCG	

PWGSC, Architectural and Engineering Resources Manager/Ressources Architectural et de Directeur d'ingénierie, TPSCG
Client/client

Drawing title/Titre du dessin
GENERAL ARRANGEMENT AND GENERAL NOTES

Project No./No. du projet	Sheet/Fauille	Revision no./La Révision no.
5P421-14-0252	002 OF 005	A

