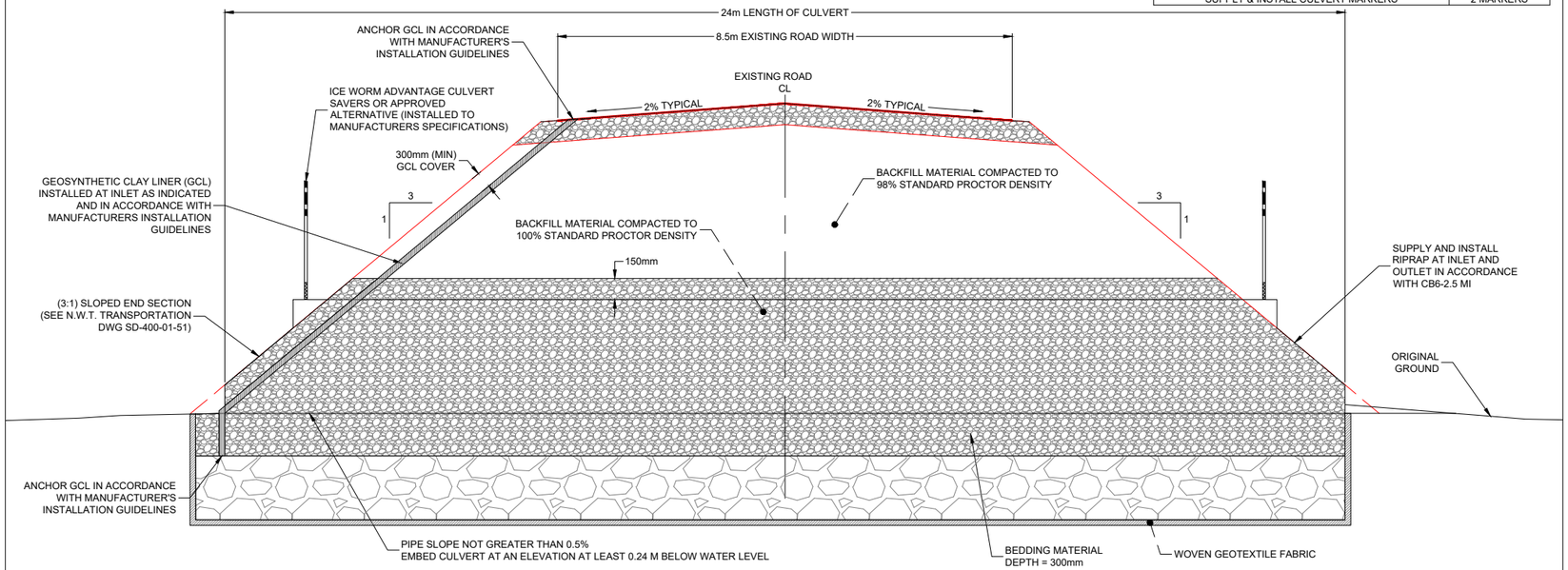
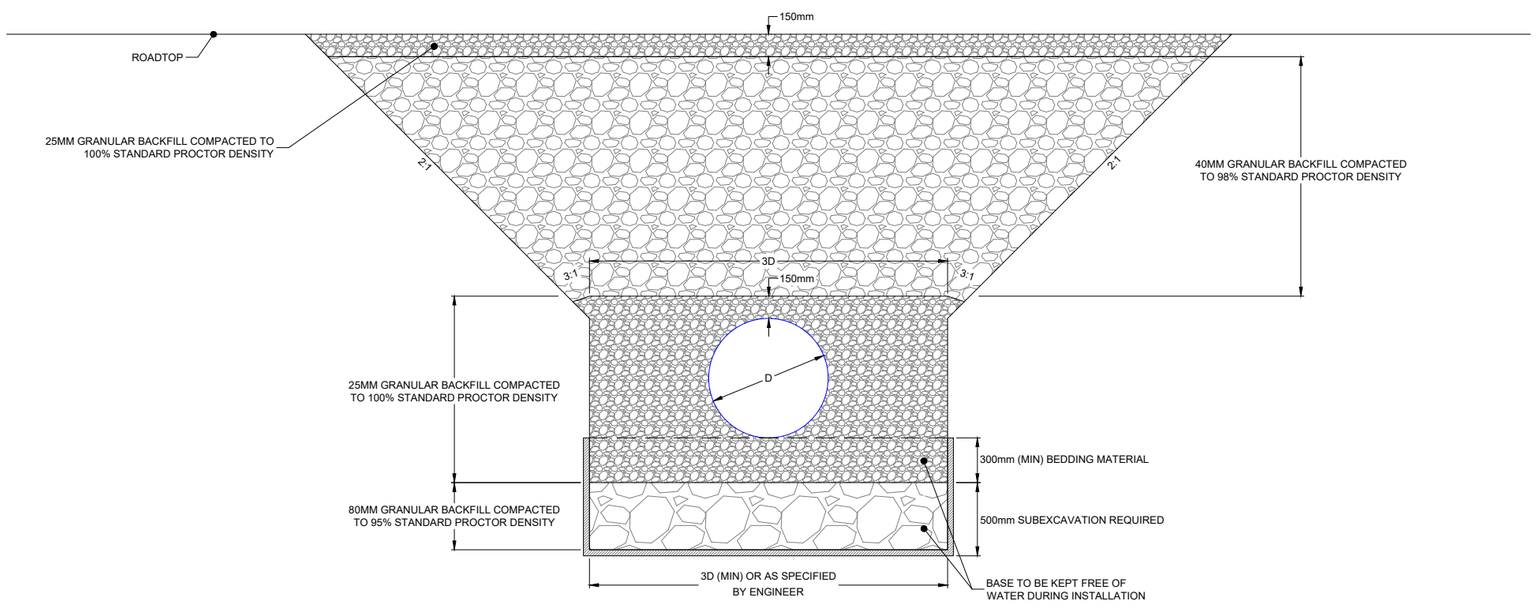
ESTIMATED QUANTITIES

ITEM	TOTAL QTY
COMMON EXCAVATION	250 M3
REMOVE & DISPOSE 600MM DIA. CSP	40 M
SUPPLY & INSTALL 1200MM DIA. CSP	24 M
25 MM GRANULAR BACKFILL	250 M3
40 MM GRANULAR BACKFILL	600 M3
80 MM GRANULAR BACKFILL	60 M3
WOVEN GEOTEXTILE	110 M2
NON-WOVEN GEOTEXTILE	20 M2
GEOSYNTHETIC CLAY LINER	175 M2
RIP-RAP (150MM - 300MM)	15 M3
SUPPLY & INSTALL BEAVER DECEIVER	1 UNIT
SUPPLY & INSTALL CULVERT MARKERS	2 MARKERS



SECTION VIEW

TYPICAL SECTION - REPLACEMENT CULVERT



SECTION VIEW: NTS

TYPICAL END SECTION - REPLACEMENT CULVERT

A0 1189 x 841

NOTES:

1. FOR ENVIRONMENTAL MITIGATION, REFER TO THE BASIC IMPACT ANALYSIS, BEST MANAGEMENT PRACTICES, AND THE CONTRACTOR'S ENVIRONMENTAL PROTECTION PLAN.
2. REFER TO THE CONTRACTOR'S QUALITY CONTROL PLAN (QCP) FOR ALL QUALITY CONTROL REQUIREMENTS.
3. A COMPLETE STRUCTURE IS REQUIRED AND CONSTRUCTION SHALL INCLUDE ALL MISCELLANEOUS COMPONENTS, MATERIALS, AND CONNECTING HARDWARE NECESSARY TO COMPLETE THE WORK.
4. DAMAGE TO THE GALVANIZED COATING CAUSED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED, AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.
5. REFERENCE STANDARD INSTALLATION INSTRUCTIONS PROVIDED BY THE MANUFACTURER.
6. THE SURVEY AND LAYOUT OF THE CSP CULVERTS IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL DESIGN DIMENSIONS AND TOLERANCES ARE TO BE VERIFIED FOR CONFORMITY WITH FIELD CONDITIONS BY THE CONTRACTOR PRIOR TO THE START OF INSTALLATION. THE CONTRACTOR MUST OBTAIN THE DEPARTMENTAL REPRESENTATIVE'S APPROVAL OF THE TRENCH LINE AND DEPTH PRIOR TO PLACING BEDDING MATERIAL OR PIPE.
7. REFER TO THE PIPE CULVERTS SECTION 33 42 13 FOR OTHER INSTALLATION REQUIREMENTS.
8. BACKFILLING MATERIAL TO BE FREE DRAINING GRANULAR MATERIAL THAT IS APPROVED BY THE DEPARTMENTAL REPRESENTATIVE PRIOR TO ALL BACKFILLING OPERATIONS.
9. VARIOUS CULVERTS AND CULVERT EXTENSIONS MAY NOT HAVE THE MINIMUM COVER SPECIFIED FOR THE CULVERT. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO THESE CULVERTS. ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED, AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.
10. EXCAVATION WIDTH TO BE THREE(3) TIMES PIPE DIAMETER.
11. RIPRAP DETAIL NOT SHOWN ON DRAWING. INSTALL HAND LAID RIPRAP AT THE CULVERT INLET AND OUTLET IN ACCORDANCE WITH ALBERTA TRANSPORTATION REFERENCE DRAWING NO.: CB6-2.5 MI.

No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé
3	21-02-09	ISSUED FOR CONSTRUCTION	JG	CC
2	21-01-29	ISSUED FOR REVIEW	JG	CC
1	21-01-15	ISSUED FOR REVIEW	JG	CC

Revision / Revision

Consultant's Name
Nom de l'expert-conseil

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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 Entretient 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

HAY CAMP ROAD CULVERT REPLACEMENT

WOOD BUFFALO NATIONAL PARK

Drawing title/Titre du dessin

TYPICAL SECTIONS

Surveyed by/Arpenté par	Drawn by/Dessiné par	Date/Date
	WSP	2021-02-09
Designed by/Concept par	Reviewed by/Revisé par	Scale/Échelle
WSP		

PWGSC Project Manager/Administrateur de Projets TPSGC

Client Acceptance/Acceptation du client — Park Responsible Officer/Agent Responsable

Approved by/Approuvé par — PWGSC Project Manager/Administrateur de Projets TPSGC

Project No./No. du projet: 201-11147-03

Asset No./No. du-bien

Sheet No./No. de la feuille: 101

Drawing Reference No./No. de référence du dessin