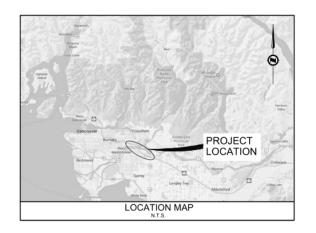
		DRAWING INDEX					
SEGMENT	SHEET No.	SHEET TITLE	REV	DESCRIPITION			
	000	COVER SHEET	-	-			
C0	001	LOCATION MAP, KEY PLANS AND DRAWING INDEX	0	IFP			
	002	LEGEND	0	IFP			
	101	PLAN	0				
	201-202	PROFILES	0	1			
C1	301	TYPICAL SECTION	0	IFP			
	401	GEOMETRICS AND LANING	0				
	601	ACCESS MANAGEMENT PLAN	0				
C2 -	101-102	PLANS	0	- IFP			
	201-202	PROFILES	0				
	301-303	TYPICAL SECTIONS	0				
	351-352	DETAILS	0				
	401-402	GEOMETRICS AND LANING	0				
	601-602	ACCESS MANAGEMENT PLANS	0				
	101-102	PLANS	0				
Ī	301-303	TYPICAL SECTIONS	0	IFP			
C3	351-352	DETAILS	0				
	401-402	GEOMETRICS AND LANING	0				
	601-602	ACCESS MANAGEMENT PLANS	0	1			
	101-102	PLAN	0				
	201-202	PROFILES	0	1			
C3.1	301-302	TYPICAL SECTION		IFP			
	401-402	GEOMETRICS AND LANING	0				
	601-602	ACCESS MANAGEMENT PLAN	0				
	101-102	PLANS	0				
	201-204	PROFILES	0	IFP			
	301-302	TYPICAL SECTIONS	0				
C4	321	DETAILS	0				
	401-402	GEOMETRICS AND LANING	0	1			
	601-602	ACCESS MANAGEMENT PLANS	0	1			
C5	601-602	ACCESS MANAGEMENT PLANS	0	IFP			
	101-102	PLANS	0				
	301	TYPICAL SECTIONS	0	IFP			
C6	401-402	GEOMETRICS AND LANING	0				
	601-602	ACCESS MANAGEMENT PLANS	0				
C9	601	ACCESS MANAGEMENT PLAN	0	IFP			
	101	PLAN	0				
C10	301	TYPICAL SECTION	0	IFP			
	351	CRASH ATTENUATOR DETAIL	0				
	601	ACCESS MANAGEMENT PLAN	0				
	101-102	PLANS	0				
	201-202	PROFILE		1			
C11	301	TYPICAL SECTION	0	IFP			
İ	601-602	ACCESS MANAGEMENT PLANS	0				
C12	601	ACCESS MANAGEMENT PLAN	0	IFP			
C13	601	ACCESS MANAGEMENT PLAN	0	IFP			
C14	601-603	ACCESS MANAGEMENT PLANS	0	IFP			



Ministry of Transportation and Infrastructure

TRANS MOUNTAIN EXPANSION PROJECT

TEMPORARY ACCESS DESIGN





LEGEND

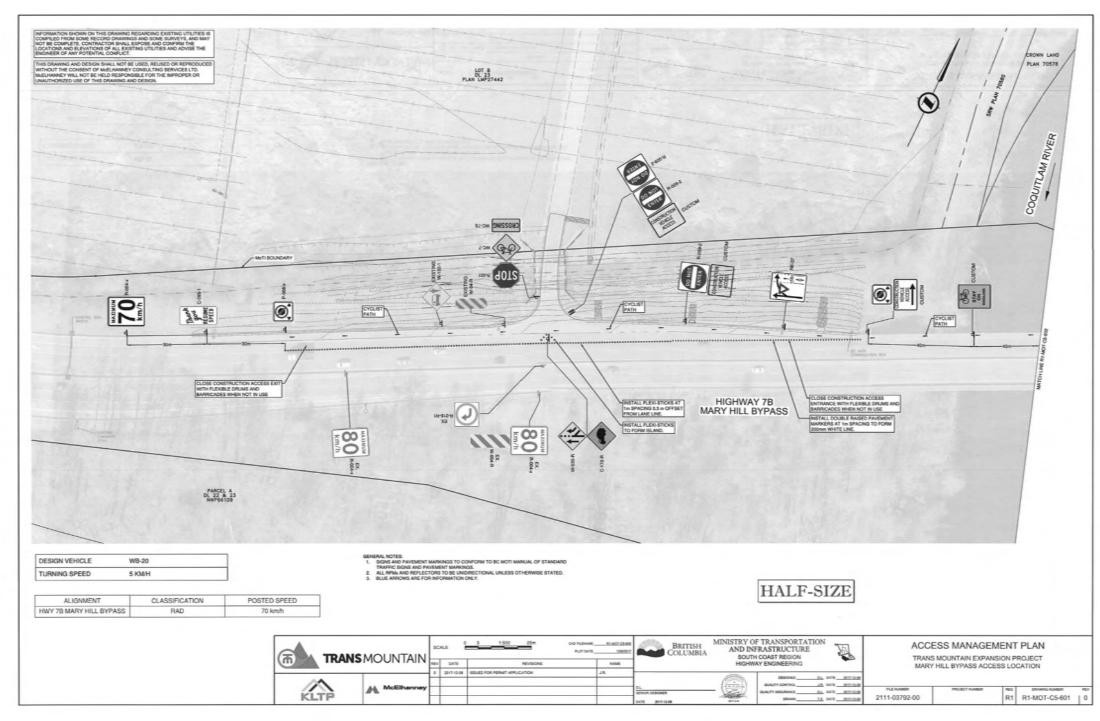
EXISTING PROPOSED LINETYPES PROPERTY LINE LINETYPES SECTION BOUNDARY EASEMENT BOUNDARY FENCE . . . CONCRETE BARRIER CL. & GR. EDGE OF PAVEMENT CLEARING & GRUBBING . RETAINING WALL . . SHOULDER EDGE PAINTLINE DASHED . . DITCH . PAINTLINE DECEL/ACCEL . . SWALE. PAINTLINE DOUBLE YELLOW . TOP OF BANK BOTTOM OF BANK . SWALE. PIPELINE CENTRELINE . . WATER EDGE . TEMPORARY WORK SPACE (1. v ROW) EXISTING CONTOURS MAJOR TEMPORARY WORK SPACE (4. x TWS WITHIN ROAD ALLOWANCE) EXISTING CONTOURS MINOR . . TEMPORARY WORK SPACE (2. x TWS) . . MoTI BOUNDARY TEMPORARY WORK SPACE (3. x ETWS) . FTG BOUNDARY UTILITY SYMBOLS POWER POLE. . . . UTILITY POLE . TELEPHONE BOOTH . UNDERGROUND MARKER ASPHALT SPILLWAY DETAIL SYMBOLS CULVERT DETAIL SYMBOLS RIP-RAP
 BOARD SIGN
 0

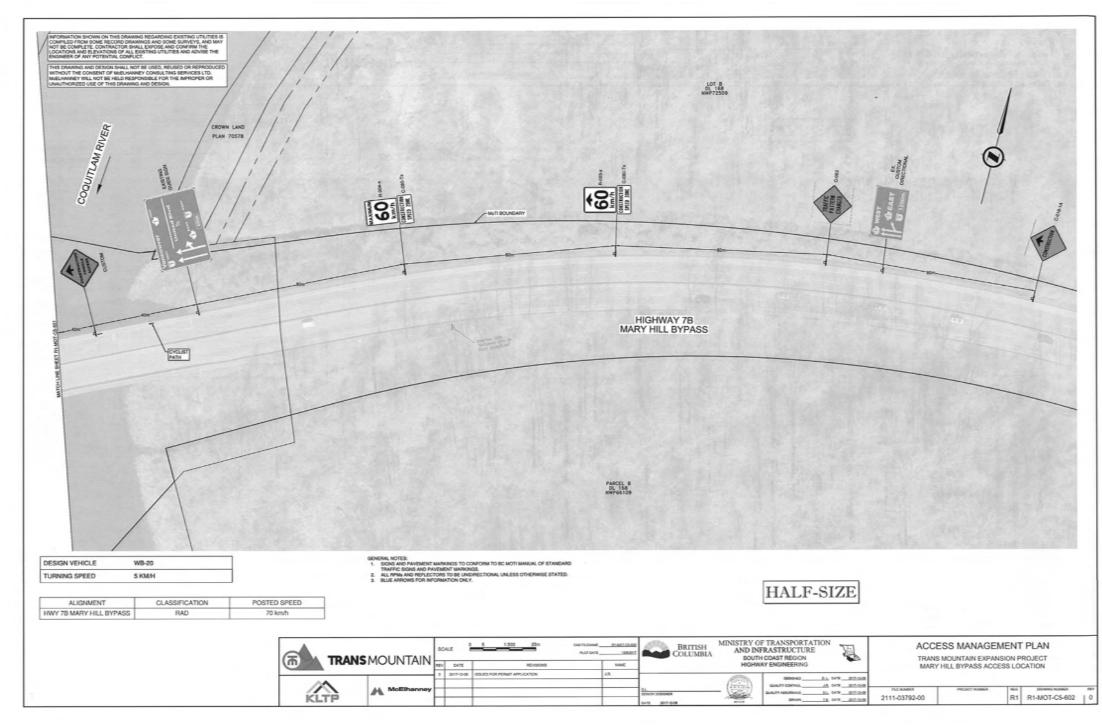
 STD. DAVIT POLE WITH SIGN
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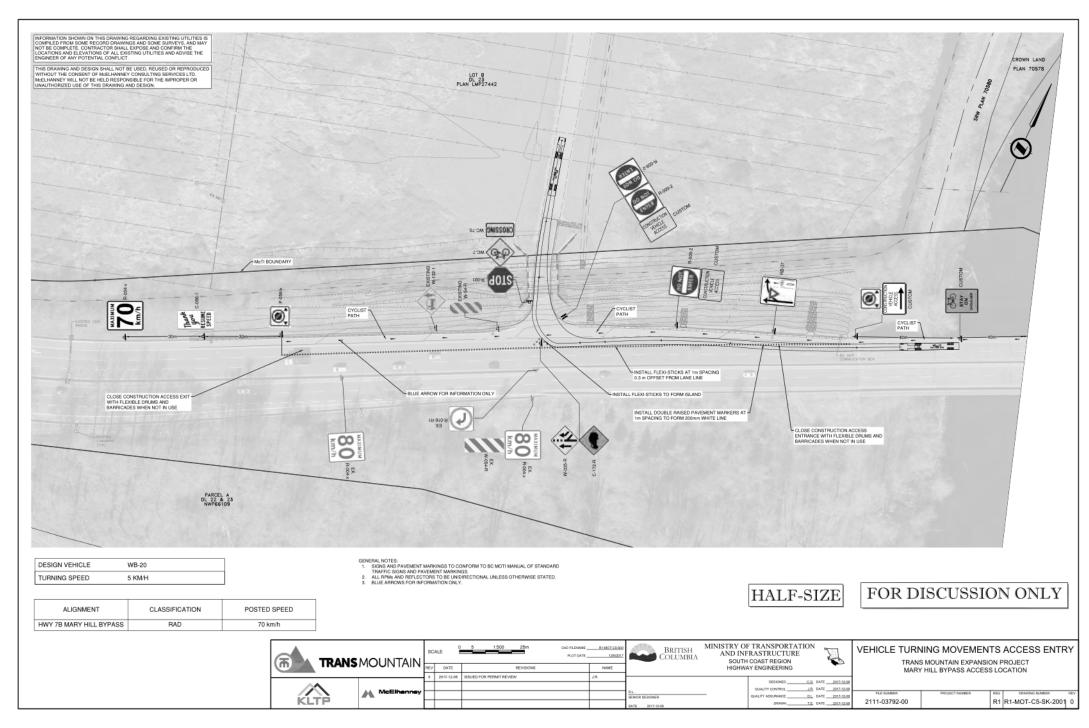
 POST
 0
 SPLASHPAD DRAINAGE SYMBOLS MANHOLE. . ROAD PATTERNS ASPHALT PAVEMENT (FULL-DEPTH PAVEMENT). CATCH BASIN CULIVERT IN ASPHALT PAVEMENT (MILL & OVERLAY) . PAVEMENT REMOVAL

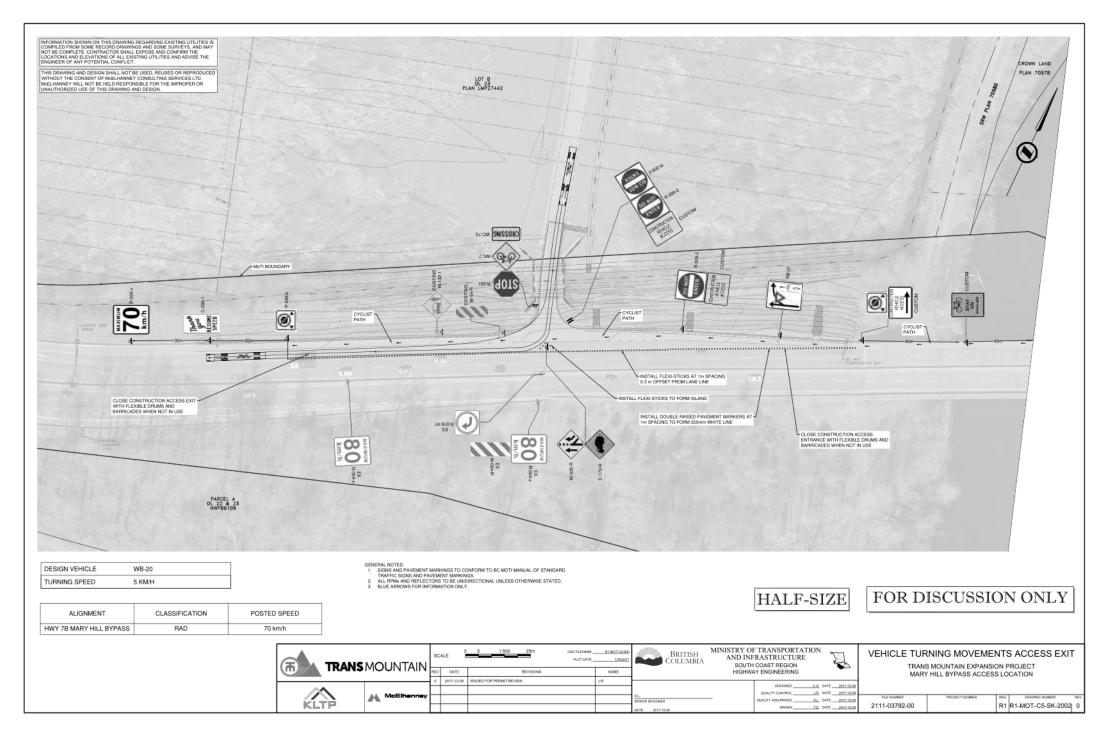
FOR DISCUSSION ONLY

TRANS MOUNTAIN	REV	DATE	CAD FLENAME. PLOT DATE. REVISIONS	03792-M07-C0-902 1279-2317 NAME	COLUMBIA AND	OF TRANS INFRASTRI UTH COAST R HWAY ENGINE	REGION	LEGEND S MOUNTAIN EXPANSION		
KLTP McElhanney	0	2017-12-16	ISSUED FOR PERMIT APPLICATION	J.R.	J.R. SENDER DES IGNER DATE 20 17-12-15	QUALITY CO		PROJECT NUMBER	REG DRIVENG NUMBER R1 R1-MOT-C0-002	REV









A2. ALL CHAINAGES ARE HORIZONTAL ALL ELEVATIONS ARE GEODETIC.

ALL WORK IN CLOSE PROXIMITY TO POWER LINES MAY BE SUBJECT ELECTROSTATIC INDUCED VOLTAGES. CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING AND IMPLEMENTING MINIGATION PEROEDURES. CONTRACTOR SHALL IMPLEMENT THESE PRECAUTIONS AS WELL AS THOSE SPECIFIED BY TRANS MOUNTAIN REPRESENTATIVE. A4.

CONTRACTOR SHALL ENSURE THAT COPIES OF THE ENCROACHMENT PERMITS ARE KEPT ON SITE FOR THE FULL DURATION OF THE CONSTRUCTION ACTIVITIES.

CONTRACTOR SHALL ADHERE TO ALL REQUIREMENTS OF THE ENCROACHMENT PERMITS AND FOREIGN LINE PERMITS.

A7. BURIED FACILITIES ARE LOCATED ELECTRONICALLY, FIELD VERIFICATION REQUIRED PRIOR TO CONSTRUCTION

CONSTRUCTION NOTES

THE CONTRACTOR SHALL VERIFY ALL TOPOGRAPHICAL INFORMATION AND CONFIRM THE DEPTH AND LOCATION OF THE BURIED FACILITIES IN THE FIELD PRIOR TO CONSTRUCTION. INSTALL PIPELINE AS CLOSE AS PRACTICAL TO THE PROPOSED PIPELINE CENTRELINE AS SHOWN ON THE DRAWNG.

MINIMUM DEPTH OF COVER TO BE THE GREATER OF THIS DRAWING OR AS SPECIFIED IN THE ENCROACHMENT PERMITS. CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH CSA Z662 (CURRENT VERSION), CONTRACT DOCUMENTS, AND THE B4.

OBSTRUCTION STO CONSTRUCTION ACTIVITIES SHALL ONLY BE MOVED WITH PERMISSION OF THE OWNER OF THE OBSTRUCTIONS.

ANY DISTURBANCES TO THE SHOULDER AND DITCH SHALL BE RESTORED TO THE ORIGINAL CONDITION OR BETTER.

ROAD CROSSING DRAWINGS

C1. THE DEPICTION OF TRENCHES OR BORE PITS ON THE CROSSING DRAWINGS ARE INTENDED TO INDICATE:

i) PROXIMITY OF PLANNED TRENCHES OR BORE PITS WITH RESPECT TO RIGHT-OF-WAY BOUNDARIES AND THE ROADWAY STRUCTURE: AND

STRUCTURE; AND

B) PROXIMITY OF TRENCHES AND BORE PITS TO THIRD PARTY FACILITIES OR STRUCTURES ABOVE AND BELOW GROUND.

C2. THE TRENCH FACE PROFILE (VERTICAL/SLOPED) FACING TOWARD THE ROAD IS INTENDED TO INDICATE PROXIMITY OF A VERTICAL/SLOPED TRENCH CUT TO DEPTH WITH RESPECT TO THE ROAD STRUCTURE.

C3. CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE PIPELINE TRENCH CONFIGURATION TO SUIT THE ACTUAL GROUND. CONDITIONS ENCOUNTERED UNDER AGREEMENT OF BY TRANS MOUNTAIN'S GEOTECHNICAL ENGINEER WORKING ON BEHALF OF TRANS MOUNTAIN'S ENGINEER OF RECORD (EOR).

C4. TRENCH STABILITY AND SAFETY SHALL CONFORM TO WORKSAFE BC REGULATIONS AS A MINIMUM.

C5. AS A GENERAL RULE TRENCH EXCAVATION WORKS SHOULD STAY 2 m BACK FROM THE TOE OF A FILL SLOPE OR A DITCH

FORESLOPE AS INDICATED IN FIGURES (E) AND (F).

FORESLOPE AS INDICATED IN FIGURES (E) AND (F).

WHERE TRENCH EXCANATIONS ENCROCH INTO A DEFINED ROAD DITCH OR DITCH FORESLOPE, CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL TO DO SO FROM TRANS MOUNTAIN'S GEOTECHNICAL ENGINEER WORKING ON BEHAUF OF TRANS MOUNTAIN'S ECO, BASED ON THE CONTRACTOR PROPOSED TRENCH SLOPING AND SHORING WHERE APPLICABLE.

C7. WHERE ACTUAL ROAD DITCHES AND DITCH FORESLOPE ARE UNDESTRUCTION THAN THE PERSONNEL STAY 2 m BACK FROM THE THE EDGE OF THE TRAVELWAY UNLESS APPROVED IN WRITING BY TRANS MOUNTAIN'S GEOTECHNICAL ENGINEER WORKING ON BEHALF OF TRANS MOUNTAIN'S EOR.

C8. WHERE TRENCH EXCAVATIONS ENCROACH INTO A FILL SLOPE, CONTRACTOR SHALL ASSESS THE NEED FOR APPLICATION OF SHORING TO THE TRENCH FACE BASED ON A COMBINED ASSESSMENT OF:

i) SOILS MATERIAL;

II) PROXIMITY TO THE TRAVELWAY AND ROAD CLASS: AND

iii) DEGREE OF AND STABILITY OF SLOPE.

WHERE THE FILL SLOPE IS EITHER INDICATING WATER SEEPAGE OR: i) OVER 22 DEGREES: AND

ii) MADE UP OF CLASS B MATERIAL OR LOOSE CLAY-SANDS; AND

II) MADE OF OF USES 5 MARIENIZ ON COOSE CLEFT-SHADS, AND III) TRENCH EXCANATION HAS ABILITY TO INITIATE MATERIAL SLUUCHING WHICH CAN MIGRATE BACK TO THE ROAD STRUCTURE, THE CONTRACTOR SHALL GISTAN WRITEN APPROVAL OF THEIR PLANNED TRENCH SLOPES, AND IF APPLICABLE SHORMS, FROM TRANS MOUNTAIN'S GEOTECHNICAL ENGINEER WORKING ON BEHALF OF TRANS MOUNTAIN'S EDIT.

C9. CONTRACTOR SHALL MAKE BEST EFFORTS TO LIMIT THE SIZE OF TRENCH EXCAVATIONS WHEN THE TRENCH LIMITS EXTEND INSIDE THE ROADWAY/ROAD PRISM (SEE FIGURE "E" AND "F" DEFINITIONS).

THE ROMOWAY/ROAD PRISM (SEE FIGURE "E" AND "F" DEFINITIONS).

TO WHERE SHORING IS REQUIRED ON THE TRENCH FACE OF SIDE WALLS TO PROTECT THE ROADBED AND ITS SUBSTRUCTURE FROM BE UNDERWIND, CONTRACTOR SHALL APPLY A METHOD OF SHORING, BRACING, SHEET PLUNG, UNDERPINNING OR OTHER METHOD DESIGNED BY THE CONTRACTOR'S SHORINGERING REPRESENTATIVE AND APPROVED BY TREAMS MOUNTAIN'S CORE NOTIFIES WORKING ON BEHALF OF TRANS MOUNTAIN'S EOR. OVER EXCAMED AREAS BETWEEN THE TERNCH SHORING AND THE RRADWAY SHALL BE TEMPORARLY BRACKFILLD AND COMPACTED WHERE PRACTICAL TO PREVENT DEVELOPMENT AND MIGRATION OF SLOUGHING MATERIAL TOWARDS THE ROADWAY.

SHALL BE TEMPORARLY SHORKFILLD AND COMPACTED WHERE PRACTICAL TO PREVENT DEVELOPMENT AND MIGRATION OF SLOUGHING MATERIAL TOWARDS THE ROADWAY.

SILL FOR CONSTRUCTION ACTURITIES INSIDE MOUT RIGHT—OF—WAY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING THE ASSOCIATED SHAFTLY PROCEDURES DESCRIBED IN THE TRAFFIC MANAGEMENT PLAN FOR MOIT ROAD CROSSINGS.

CZ. CONTRACTOR SHALL EINSIDE RED BUT CONTRACTOR SHALL BE ADEQUATELY PROTECTED WITH APPROVED FENCING, BARRICADES AND FLASHING LIGHTS (REFER TO TRAFFIC MANAGEMENT PLAN FOR MOIT ROAD CROSSINGS).

FENCING, BARRICADES AND FLASHING LIGHTS (REFER TO TRAFFIC MANAGEMENT PLAN FOR MOIT ROAD CROSSINGS).

C15. CONTRACTOR SHALL ENSURE PREPLIER CONSTRUCTION ACTIVITIES ON DOIT COMPROMISE THE EXISTING ROAD DRAINAGE STRUCTURE
OF CAUSE DAMINIO OF WATER.

C14. CONTRACTOR SHALL ENSURE THAT ALL PIPE INSTALLATION WORKS AFFECTING MOIT LANDS WILL BE UNDERTAKEN IN A MANNER THAT CONTROLS OF MINIMIZES EROSION, AND THE DISCHARGE OF SEDIMENT OR OTHER DELITEROUS SUBSTANCES, SUCH AS CAUSE FRAGMENTS ON TO THE ROAD SURFACE OR RING ON AN TRAFFIC WATERCOURSES, FOR REFERENCE READARDS SPECIFIC DRAINAGE, EROSION AND SEDIMENT CONTROL METHODS, REPER TO THE TIMP REPORT "DRAINAGE, EROSION AND SEDIMENT CONTROL METHODS, REPER TO THE TIMP REPORT "DRAINAGE, EROSION AND SEDIMENT."

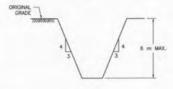
C15. CONTRACTOR SHALL AVOID STORAGE OF EXCAVATED MATERIALS WITHIN THE "CLEAR ZONE" OR ANY AREAS DEEMED UNSAFE BY TRANS MOUNTAIN'S GEOTECHNICAL ENGINEER WORKING ON BEHALF OF TRANS MOUNTAIN'S EOR. TRENCH WORKS OR STORAGE OF EXCAVATED MATERIALS WITHIN THE "CLEAR ZONE" REQUIRES INSTALLATION OF A DESIGNED TRAFFIC BARRIER FROM A MOTI APPROVED TRAFFIC MANAGEMENT PLAN.

C16. CONTRACTOR TO REFER TO THE TRAFFIC MANAGEMENT PLAN FOR GENERAL TRAFFIC SAFETY MEASURES AND ACCESS MANAGEMENT CONTROLS TO BE APPUED AT THE CROSSING.

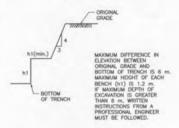
C17. REFER TO DRAWINGS M002—PT641701 AND M002—PT641801, M002—PT641901 AND M002—PT642001 FOR TYPICAL EXAMPLES OF SHORING TO BE APPLIED ON THE TRENCH FACE WHERE DIRECTED BY TRANS MOUNTAIN'S GEOTECHNICAL ENGINEER WORKING ON BEHALF OF TRANS MOUNTAIN'S EOR OR THE CROSSING PERMIT.

EXAMPLE FIGURES:

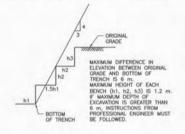
(A) BELL (IN HARD AND SOLID SOIL)



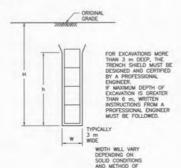
(B) SIMPLE BENCH (IN HARD AND SOLID SOIL)

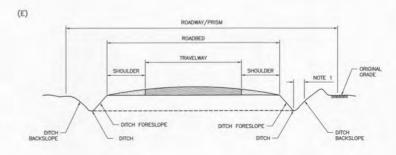


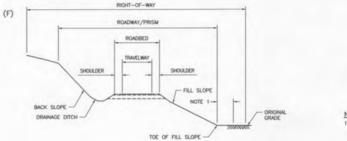
(C) MULTIPLE BENCH (IN HARD AND SOLID SOIL)



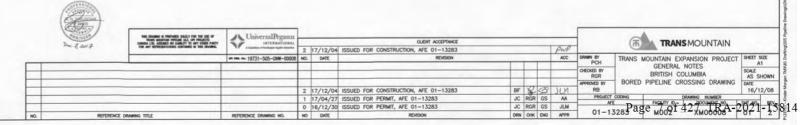








NOTES 1. TRENCH EXCAVATION SHOULD BE KEPT 2 m BACK FROM THE TOE WHERE PRACTICAL



Page 1 of 1 BGC-01237



To:

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Att. of:	KMC: Richard Morrissey, Brian UPI: Jim Murphy, Wilbert Ramin KLTP: Warren Connacher, Rod Y Doyle, Tyler Kehler Copies: KMC Doc Control, UPI D Control	rez, Ryan Solter, Aziz Aziz Vanwerkhoven, Grayson	Date:	04/19/2018
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