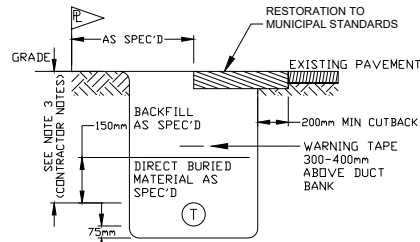
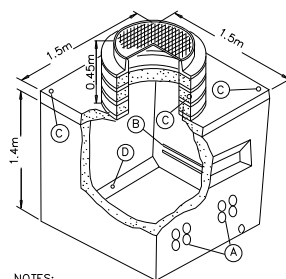


LOCATION MAP



TYPICAL TRENCH BACKFILL DETAILS
N.T.S.



- NOTES:**
- GROUT ALL JOINTS, DUCTS, AND DRAIN ENTRANCES.
 - VAULT TO BE SET ON 150mm OF -20mm MULCH OR SAND, IN WET CONDITIONS 150mm DRAIN ROCK.
 - C/W UNISTRUT INSTALLED
 - ADD CONCRETE EXTENSION RINGS AS REQ'D.
- A. 4-100mm TERMINATORS
B. 41mm x 22mm UNISTRUT
C. 19mm LIFTING INSERT (4) TOP & BASE
D. 25mm PULLING INSERT (2) EACH SIDE

1.5x1.5 MH DETAIL
N.T.S.

DISCLAIMER:

- THE DRAWING IS PROJECT SPECIFIC AND PROPERTY OF TELUS, THE DRAWING SHALL NOT BE USED WITHOUT THE CONSENT OF TELUS.
- LTS DOES NOT ASSUME RESPONSIBILITY FOR THE ACCURACY OF THE CONTENTS WHETHER SHOWN OR OMITTED FROM THIS DRAWING BEYOND THE REQUIREMENTS LISTED IN APPROVING AUTHORITY REQUIREMENTS.
- THIS DRAWING SHALL BE USED IN CONJUNCTION WITH IFC DRAWINGS. CONSTRUCTION SHALL VERIFY COMPLETENESS OF ALL POWER UTILITY AND TELUS MAKE READY BEFORE LASHING NEW CABLES.

CONSTRUCTION NOTES:

- ALL WORKMANSHIP MUST BE IN ACCORDANCE WITH THE APPLICABLE EDITION OF THE TELUS OUTSIDE PLANT PRACTICE & STANDARDS (TOPPS).
- ALL STRANDS TO CONFORM TO CSA GRADE 1300.
- ALL STRANDS INSTALLED MUST BE SIZE 8 (8.4MM DIAMETER) UNLESS NOTED.
- ALL DOWN GUYS INSTALLED MUST BE SIZE 10 (10.7MM DIAMETER) W/ JOHNNY BALL STRAIN INSULATOR UNLESS NOTED.
- ALL ANCHORS INSTALLED MUST BE 25MM (1 IN) ROD, 0.25 SQ-M (400 SQ IN) CROSS-PLATE WITH MINIMUM SHAFT CAPACITY OF 160 KN (36M) UNLESS NOTED.
- FOR SINGLE GUY ATTACHMENTS ONLY, CROSS-PLATE ANCHORS MAY BE SUBSTITUTED WITH PISA 25MM (1 IN) ROD, (10 IN) DOUBLE HELIX GUARD WITH MINIMUM SHAFT CAPACITY OF 138 KN (31 M).
- YELLOW DOWNHAUL GUARDS SHALL BE INSTALLED AS PER TOPPS 1.1.1.11, JUB024.
- POLE LINE EXTENSION BOLT STRAP TO CONFORM TO TOPPS 1.1.2.4.5
- ATTACHING GUYS (POLE AND RODS) TO CONFORM TO TOPPS 1.1.1.4

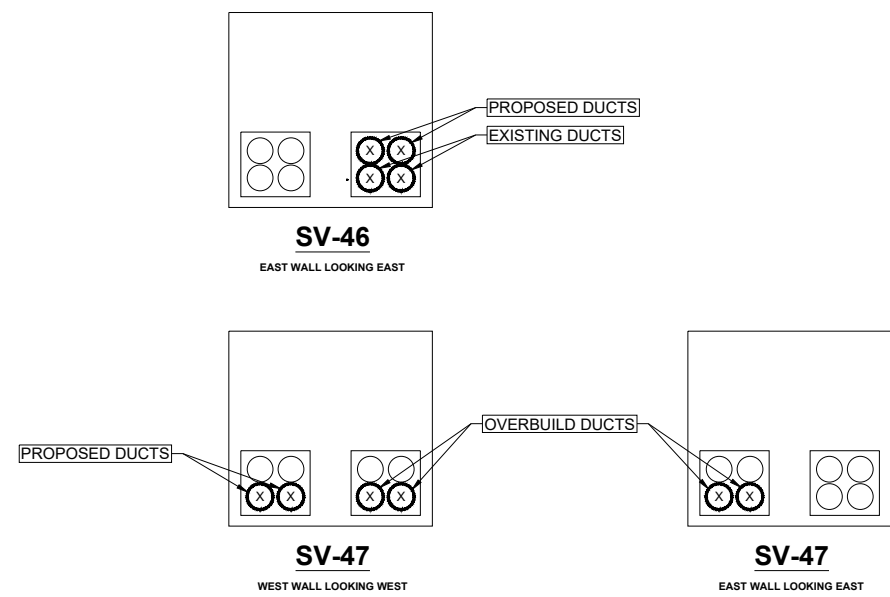
LEGEND

- PROPOSED SERVICE BOX / FDH
- PROPOSED MANHOLE
- PROPOSED SERVICE VAULT
- PROPOSED PEDESTAL
- PROPOSED CONDUIT (OPEN TRENCH)
- PROPOSED CONDUIT (DIRECTIONAL DRILL)
- PROPOSED DROP CONDUIT
- WATER MAIN
- SEWER MAIN
- SANITARY MAIN
- STORM MAIN
- GAS MAIN
- TEL DUCTS
- CATV DUCTS
- POWER DUCTS
- PIPELINE
- STREETLIGHT
- ABANDONED UTILITY
- EDGE OF PAVEMENT
- BACK OF CURB
- POLE (W/ ANCHOR)

CONSTRUCTION NOTES

- ELEVATIONS REFER TO _____ DATUM.
- CONDUIT GRADE ON PROFILE IS APPROXIMATE ONLY. FINISHED GRADE WILL BE SUBJECT TO LOCATION OF EXISTING UNDERGROUND UTILITIES.
- MINIMUM COVER CONDUIT **1.5m** ALL SECTIONS EXCEPT WHERE OTHERWISE NOTED. MANHOLE ROOF **0.46m**
- ALL DUCTS TO BE 100mm P.V.C. DB II (ORANGE) UNLESS OTHERWISE NOTED.
- ALL MANUFACTURED BENDS TO BE **0.91m** RADIUS UNLESS OTHERWISE NOTED.
- ALL CONCRETE PILASTERS TO BE **0.30m** ABOVE GRADE UNLESS OTHERWISE NOTED.
- CONTRACTOR IS TO PROVE THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES AND SERVICES AFFECTED BY CONSTRUCTION BY M-SCOPE, HAND EXCAVATION OR BC ONE CALL.
- FOR CABLE TROUBLE OR REPAIR INFORMATION, CONTACT TELUS AT 611.
- TEMPORARY/PERMANENT RESTORATION IN ALL PAVED/SIDEWALK AREAS TO BE DONE IN ACCORDANCE WITH ALL APPROVING AUTHORITIES SPECIFICATIONS AND APPROVAL.
- PERMANENT SIDEWALK AND CURB REPAIRS TO BE DONE BY **CONTRACTOR**. PERMANENT ROAD REPAIRS TO BE DONE BY **CONTRACTOR**.
- PERMANENT BOULEVARD RESTORATION TO BE DONE BY CONTRACTOR.
- ALL LANDSCAPE RESTORATION IN LAWN BOULEVARDS MUST BE DONE BY USING SUITABLE GRASS SOD.
- CONTRACTOR TO CONTACT THE APPROPRIATE GAS COMPANY RECORDS DEPARTMENT 24 HOURS PRIOR TO STARTING WORK.
- CONTRACTOR TO CONTACT THE CITY/MUNICIPAL WORKS INSPECTOR 48 HOURS PRIOR TO STARTING WORK.
- CONTRACTOR TO CALL BC ONE CALL (FOR BC) OR AB ONE CALL (FOR ALBERTA) 48 HOURS PRIOR TO DIGGING.
- ALL BACKFILL MATERIAL AND COMPACTION TO BE IN ACCORDANCE WITH ALL APPROVING AUTHORITIES SPECIFICATIONS.
- ALL DIRECT BURIED SYSTEMS 2-WAY AND LARGER TO BE BUNDLED AND STRAPPED.
- TELUS CONTRACTOR TO SUPPLY AND PLACE AN ENCLOSED PLYWOOD BOX OVER SAC PAD DUCTS AND SECURED TO FRAME.
- BREAK OUT EXISTING CONCRETE ENCASED DUCTS: ANY JACK-HAMMERING OR USE OF POWER TOOLS TO BE CARRIED OUT BY CONTRACTOR. ALL HAND STRIPPING OF DUCTS, BREAKING OF DUCTS AND/OR HANDLING OF CABLES TO BE DONE BY TELUS FORCES.
- EXISTING CONDUIT TO BE RELOCATED IF REQUIRED TO ENSURE SPECIFIED ENTRANCE LOCATIONS INTO MANHOLE/VAULT. CONTRACTOR TO PROVIDE EXCAVATION, BACK-FILLING AND RESTORATION IF RELOCATION BECOMES NECESSARY.
- ORANGE TELUS MARKER TAPE TO BE PLACED ON CENTERLINE OF DUCT BANK @ 300mm BELOW FINAL GRADE.
- CONTACT TELUS 10 DAYS BEFORE PROJECT START TO ARRANGE PICKUP LOCATION OF TELUS SUPPLIED MATERIAL. BC: KATHY MIDWOOD (Kathy.Midwood@Telus.com) at 604-453-2037
- SUBGRADE & DIRECT BURIED MATERIAL WHERE APPLICABLE SHALL BE 20mm MINUS CRUSHED AGGREGATE.
- BACKFILL MATERIAL SHALL BE:
IN ROADWAYS/TRAVELLED AREAS **20mm MINUS**
IN SIDEWALK/TRAVELLED AREAS **20mm MINUS**
IN BOULEVARD/UNTRAVELLED AREAS **20mm MINUS**
- CONTRACTOR TO PULL IN A TELUS SUPPLIED MEASURING TAPE THRU ONE DUCT IN EACH RUN AFTER MANDRELLING, LOCATION TO BE DETERMINED BY TELUS.
- MINIMUM SEPARATION FROM ALL UTILITIES TO BE 300mm.
- ALL DIMENSIONS IN mm UNLESS OTHERWISE NOTED

ONECALL TICKET NO: 20234202180



GENERAL NOTES		REFERENCE DRAWINGS		REVISIONS		DES		CHK		
ALL HYDROVAC SLURRY MUST BE PROPERLY DISPOSED AT A PROVINCIAL APPROVED FACILITY. RECORD KEEPING INCLUDING THE HYDROVAC OPERATOR NAME, DATE, LOCATION WHERE THE MATERIAL WAS EXTRACTED AND DISPOSED AND AMOUNT AND CONTENT OF SLURRY, MUST BE MAINTAINED AND MADE AVAILABLE ON REQUEST.		DRAWING #	TITLE	REV	DATE	DESCRIPTION	DES	CHK		
		R1-1013-800	HWY DESIGN AND GEOMATICS ENGINEERING	0	2024-02-13	ISSUED FOR PERMIT CONSTRUCTION	ER	JB		
				1	2024-05-21	UPDATED DEPTH NOTE	ER	JB		

CONTACT INFORMATION			
TELUS DESIGN SPECIALIST		SITE CONTACT	
JASON NG 236-989-7065 JASON.NG2@TELUS.COM	JACK CHEN JACK.CHEN@GOV.BC.CA 250-889-1638		
DESIGNER		SENIOR DESIGNER	
EZEKIEL RAI 775-945-3384 EZEKIEL.RAI@LEDCOR.COM	JOHN BARRON 604-699-2649 JOHN.BARRON@LEDCOR.COM		
PREPARED FOR	PREPARED BY	IN PARTNERSHIP WITH	
TELUS	LEDCOR		

BC GROWTH AND SUSTAINMENT				
PERMIT DESIGN FOR THE DUCT RELOCATION/REBUILD HWY 1 EAST OF FRASER HWY, CITY OF ABBOTSFORD				
MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE				
N.T.S.				
DRAWING #	2919225_U	JIRA ID	GS-11041	SHEET: 1
PROJECT #	P-2023290.01	COID	FTLY	TOTAL SHEETS: 4
				REVISION: 1

CONSTRUCTION NOTES:

1. MAINTAIN 1.0m SEPARATION FROM EXISTING ALIGNMENT AT DIRECTIONAL DRILL LOCATIONS.
2. THERE IS A GRADE CHANGE DUE TO TRANSCANADA HWY IMPROVEMENT PROJECT. CONTRACTOR TO ENSURE THAT THE THE MINIMUM COVERAGE IS OBTAINED FROM THE PROPOSED GRADE LEVEL.
3. CONTRACTOR TO REFER TO THE LATEST VERSION OF HIGHWAY DESIGN AND GEOMATICS ENGINEERING DRAWING, R1-1013-800, AND ENSURE THAT THE DEPTH OF THE PROPOSED DUCTS IS ATLEAST 1.5m.

CONNECT PROPOSED 2-100mm DUCTS TO EXISTING SV-46
CAUTION: LIVE CABLES IN DUCTS
TELUS CONTRACTOR TO ADJUST
THE HEIGHT OF SV-45 TO MATCH
THE NEW GRADE.

30700-30734

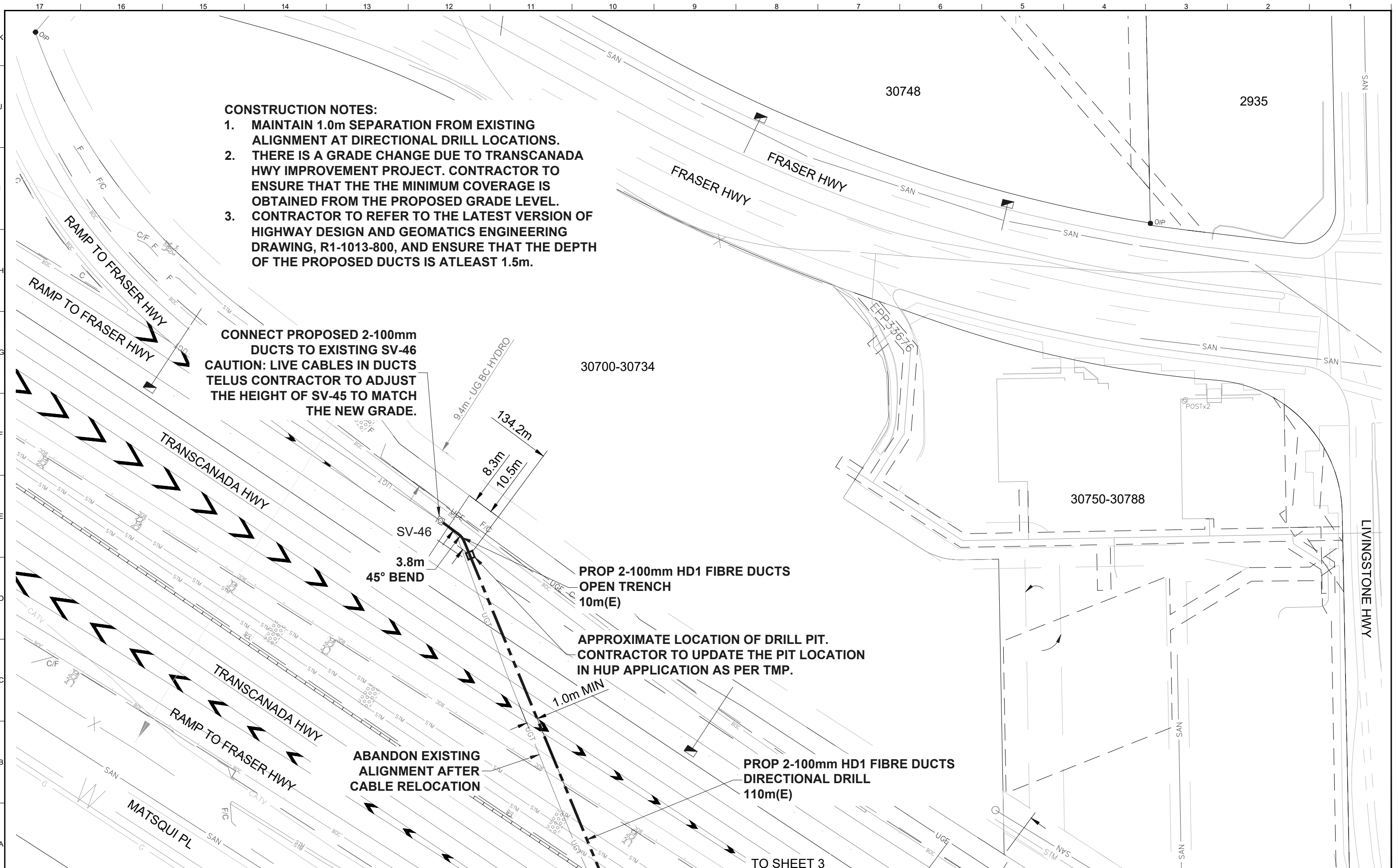
PROP 2-100mm HD1 FIBRE DUCTS
OPEN TRENCH
10m(E)

APPROXIMATE LOCATION OF DRILL PIT.
CONTRACTOR TO UPDATE THE PIT LOCATION
IN HUP APPLICATION AS PER TMP.

ABANDON EXISTING
ALIGNMENT AFTER
CABLE RELOCATION

PROP 2-100mm HD1 FIBRE DUCTS
DIRECTIONAL DRILL
110m(E)

TO SHEET 3



GENERAL NOTES
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REFERENCE DRAWINGS	
DRAWING # R1-1013-800	TITLE HWY DESIGN AND GEOMATICS ENGINEERING

REVISIONS				
REV	DATE	DESCRIPTION	DES	CHK
0	2024-02-13	ISSUED FOR PERMIT CONSTRUCTION	ER	JB
1	2024-05-21	UPDATED DEPTH NOTE	ER	JB

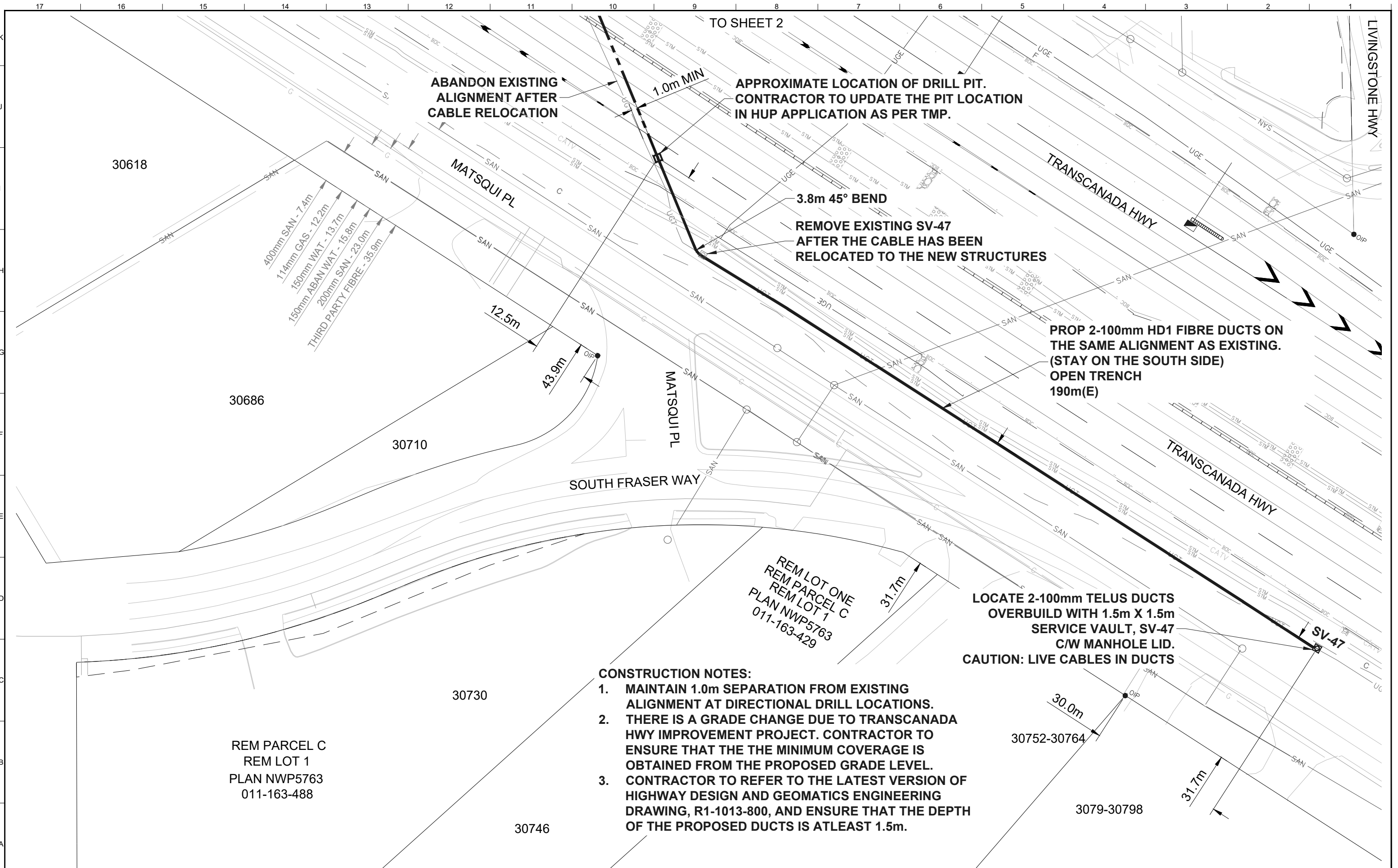
BC ONE CALL
CALL BEFORE YOU DIG
1-800-464-8888
OR BY CELLULAR 1888
VANCOUVER AREA
257-1940

CALL AT LEAST 2 FULL
DAYS BEFORE YOU PLAN
TO DIG

CONSTRUCTION NOTE:
* ALL EXISTING UTILITIES TO BE
LOCATED PRIOR TO CONSTRUCTION
* CONTACT LTS ENGINEERING FOR
CHANGES TO THE APPROVED
DRAWING.
(LTS@TELUSBAUDSIGN@LEDCOR.COM)

CONTACT INFORMATION		
TELUS DESIGN SPECIALIST	SITE CONTACT	
JASON NG 236-989-7065 JASON.NG2@TELUS.COM	JACK CHEN JACK.CHEN@GOV.BC.CA 250-889-1638	
DESIGNER	SENIOR DESIGNER	
EZEKIEL RAI 178-945-3384 EZEKIEL.RAI@LEDCOR.COM	JOHN BARRON 604-699-2649 JOHN.BARRON@LEDCOR.COM	
PREPARED FOR	PREPARED BY	IN PARTNERSHIP WITH
TELUS	LEDCOR	

BC GROWTH AND SUSTAINMENT				
PERMIT DESIGN FOR THE DUCT RELOCATION/REBUILD HWY 1 EAST OF FRASER HWY, CITY OF ABBOTSFORD MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE				
1:1000 (m)				
0 10 20 30 40				
DRAWING #	2919225_U	JIRA ID	GS-111041	SHEET: 2
PROJECT #	P-2023290.01	COID	FTLY	TOTAL SHEETS: 4
				REVISION: 1
				DATE: 2024-05-21



ABANDON EXISTING ALIGNMENT AFTER CABLE RELOCATION

APPROXIMATE LOCATION OF DRILL PIT. CONTRACTOR TO UPDATE THE PIT LOCATION IN HUP APPLICATION AS PER TMP.

**3.8m 45° BEND
REMOVE EXISTING SV-47 AFTER THE CABLE HAS BEEN RELOCATED TO THE NEW STRUCTURES**

PROP 2-100mm HD1 FIBRE DUCTS ON THE SAME ALIGNMENT AS EXISTING. (STAY ON THE SOUTH SIDE) OPEN TRENCH 190m(E)

LOCATE 2-100mm TELUS DUCTS OVERBUILD WITH 1.5m X 1.5m SERVICE VAULT, SV-47 C/W MANHOLE LID. CAUTION: LIVE CABLES IN DUCTS

CONSTRUCTION NOTES:

- 1. MAINTAIN 1.0m SEPARATION FROM EXISTING ALIGNMENT AT DIRECTIONAL DRILL LOCATIONS.**
- 2. THERE IS A GRADE CHANGE DUE TO TRANSCANADA HWY IMPROVEMENT PROJECT. CONTRACTOR TO ENSURE THAT THE THE MINIMUM COVERAGE IS OBTAINED FROM THE PROPOSED GRADE LEVEL.**
- 3. CONTRACTOR TO REFER TO THE LATEST VERSION OF HIGHWAY DESIGN AND GEOMATICS ENGINEERING DRAWING, R1-1013-800, AND ENSURE THAT THE DEPTH OF THE PROPOSED DUCTS IS ATLEAST 1.5m.**

REM PARCEL C
REM LOT 1
PLAN NWP5763
011-163-488

REM LOT ONE
REM PARCEL C
REM LOT 1
PLAN NWP5763
011-163-429

GENERAL NOTES

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DRAWING #	TITLE	REV	DATE	DESCRIPTION	DES	CHK
R1-1013-800	HWY DESIGN AND GEOMATICS ENGINEERING	0	2024-02-13	ISSUED FOR PERMIT CONSTRUCTION	ER	JB
		1	2024-05-21	UPDATED DEPTH NOTE	ER	JB

REV	DATE	DESCRIPTION	DES	CHK
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1	2024-05-21	UPDATED DEPTH NOTE	ER	JB

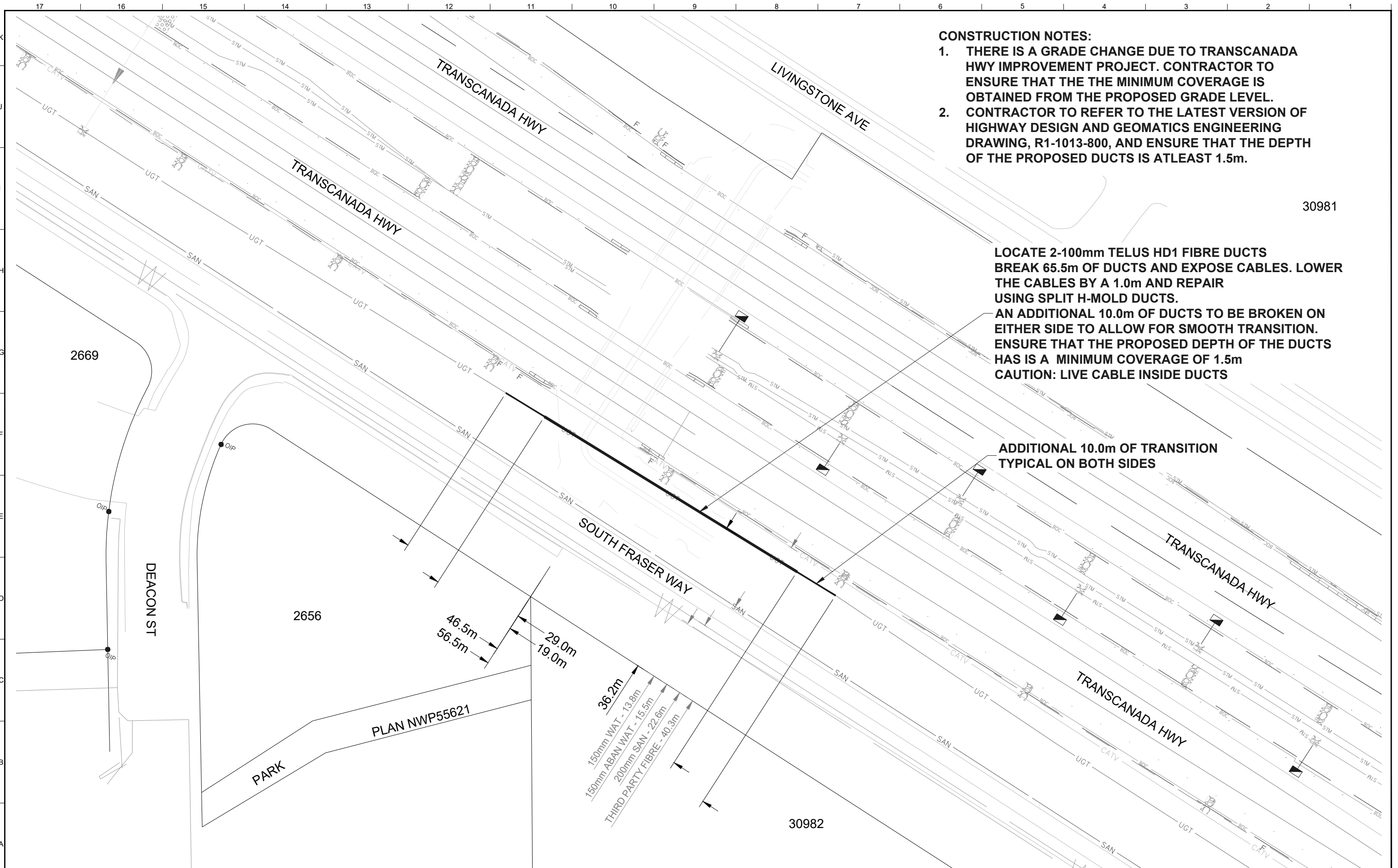
BC ONE CALL
CALL BEFORE YOU DIG
1-800-464-8888
OR BY CELLULAR 6886
VANCOUVER AREA
257-1940

CALL AT LEAST 2 FULL DAYS BEFORE YOU PLAN TO DIG

CONSTRUCTION NOTE:
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CONTACT LTB ENGINEERING FOR CHANGES TO THE APPROVED DRAWING.
(LTSTELUSBADESIGN@LEDCOR.COM)

CONTACT INFORMATION	
TELUS DESIGN SPECIALIST JASON NG 236-989-7065 JASON.NG2@TELUS.COM	SITE CONTACT JACK CHEN JACK.CHEN@GOV.BC.CA 250-889-1638
DESIGNER EZEKIEL RAI 178-945-3384 EZEKIEL.RAI@LEDCOR.COM	SENIOR DESIGNER JOHN BARRON 604-699-2649 JOHN.BARRON@LEDCOR.COM
PREPARED FOR 	PREPARED BY

BC GROWTH AND SUSTAINMENT				
PERMIT DESIGN FOR THE DUCT RELOCATION/REBUILD HWY 1 EAST OF FRASER HWY, CITY OF ABBOTSFORD MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE				
1:1000 (m) 0 10 20 30 40				
DRAWING #	2919225_U	JIRA ID	GS-111041	SHEET: 3
PROJECT #	P-2023290.01	COID	FTLY	TOTAL SHEETS: 4
				REVISION: 1



- CONSTRUCTION NOTES:**
1. THERE IS A GRADE CHANGE DUE TO TRANSCANADA HWY IMPROVEMENT PROJECT. CONTRACTOR TO ENSURE THAT THE THE MINIMUM COVERAGE IS OBTAINED FROM THE PROPOSED GRADE LEVEL.
 2. CONTRACTOR TO REFER TO THE LATEST VERSION OF HIGHWAY DESIGN AND GEOMATICS ENGINEERING DRAWING, R1-1013-800, AND ENSURE THAT THE DEPTH OF THE PROPOSED DUCTS IS ATLEAST 1.5m.

LOCATE 2-100mm TELUS HD1 FIBRE DUCTS BREAK 65.5m OF DUCTS AND EXPOSE CABLES. LOWER THE CABLES BY A 1.0m AND REPAIR USING SPLIT H-MOLD DUCTS. AN ADDITIONAL 10.0m OF DUCTS TO BE BROKEN ON EITHER SIDE TO ALLOW FOR SMOOTH TRANSITION. ENSURE THAT THE PROPOSED DEPTH OF THE DUCTS HAS IS A MINIMUM COVERAGE OF 1.5m CAUTION: LIVE CABLE INSIDE DUCTS

ADDITIONAL 10.0m OF TRANSITION TYPICAL ON BOTH SIDES

30981

2669

2656

30982

DEACON ST

PARK

PLAN NWP55621

46.5m
56.5m

29.0m
19.0m

36.2m
150mm WAT - 13.8m
200mm SAN - 15.5m
THIRD PARTY FIBRE - 40.3m



GENERAL NOTES
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VANCOUVER AREA
257-1940

CALL AT LEAST 2 FULL DAYS BEFORE YOU PLAN TO DIG

CONSTRUCTION NOTE:
ALL EXISTING UTILITIES TO BE LOCATED PRIOR TO CONSTRUCTION
CONTACT L7S ENGINEERING FOR CHANGES TO THE APPROVED DRAWING
(L7STELUSBAUDSIGN@LEDCOR.COM)

CONTACT INFORMATION		SITE CONTACT	
TELUS DESIGN SPECIALIST		JACK CHEN	
JASON NG 236-989-7065 JASON.NG2@TELUS.COM		JACK.CHEN@GOV.BC.CA 250-889-1638	
DESIGNER		SENIOR DESIGNER	
EZEKIEL RAI 778-945-3384 EZEKIEL.RAI@LEDCOR.COM		JOHN BARRON 604-699-2649 JOHN.BARRON@LEDCOR.COM	
PREPARED FOR	PREPARED BY	IN PARTNERSHIP WITH	
TELUS	LEDCOR		

BC GROWTH AND SUSTAINMENT				
PERMIT DESIGN FOR THE DUCT RELOCATION/REBUILD HWY 1 EAST OF FRASER HWY, CITY OF ABBOTSFORD MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE				
1:1000 (m)				
0 10 20 30 40				
DRAWING #	2919225_U	JIRA ID	GS-111041	SHEET: 4
PROJECT #	P-2023290.01	COID	FTLY	TOTAL SHEETS: 4
		DATE:	2024-05-21	
		REVISION:	1	