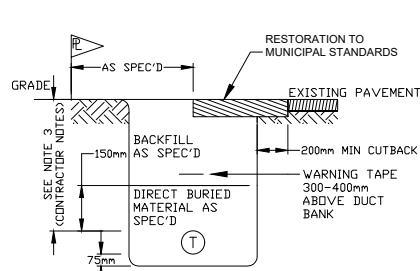
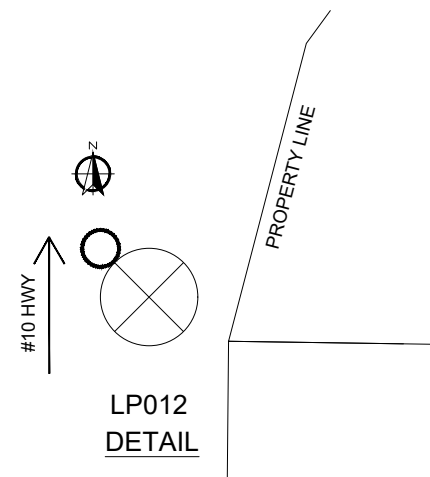


LOCATION MAP

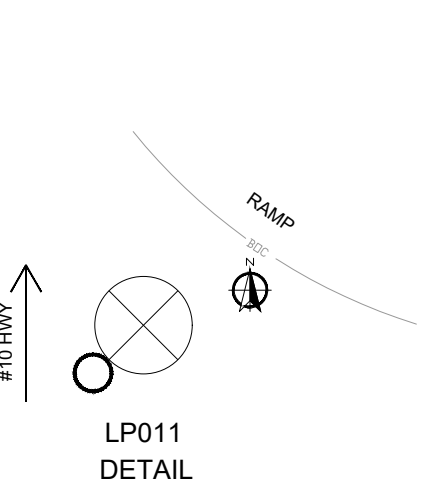


TYPICAL TRENCH BACKFILL DETAILS

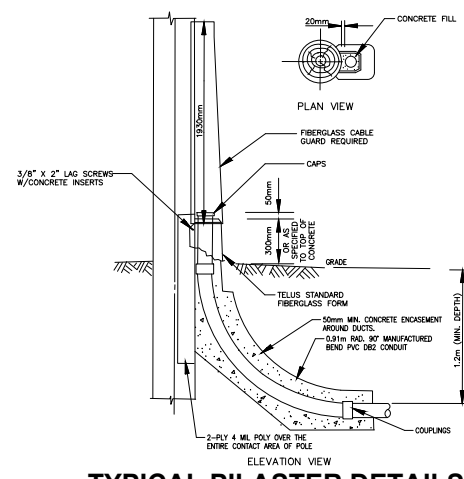
N.T.S.



LP012 DETAIL



LP011 DETAIL



TYPICAL PILASTER DETAILS

N.T.S.

- 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, (14 IN) SINGLE OR (10 IN) DOUBLE HELIX ANCHOR WITH MINIMUM SHAFT CAPACITY OF 138 KN (31 M).
 - ALL NEW ANCHOR(S) SHAFT RODS MUST BE MIN. 1 IN IN DIAMETER OR LARGER, UNLESS OTHERWISE NOTED.
 - 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
 - MINIMUM HORIZONTAL SEPARATION FROM POLE AND ADJACENT ANCHOR SHALL BE 1.5M

- ADDITIONAL NOTES:**
- THIS DRAWING MIGHT NOT ACCURATELY DEPICT ALL EXISTING UNDERGROUND INFRASTRUCTURES. ALL EXISTING UTILITIES TO BE LOCATED PRIOR TO CONSTRUCTION. CONTACT LTS ENGINEERING FOR CHANGES TO THE APPROVED PLACEMENT.
 - GUY WIRES, ANCHORS, PUSH BRACES/POLES OR OTHER SIMILAR APPURTENANCES MUST NOT BE PLACED WITHIN THE 3.0M CLEAR ZONE, OR WITHIN MEDIANS, TRAFFIC ISLANDS OR OTHER PROHIBITED OR UNSUITABLE LOCATIONS WITHIN THE HIGHWAY ROW AS OUTLINED IN BC MOTI UTILITY POLICY MANUAL

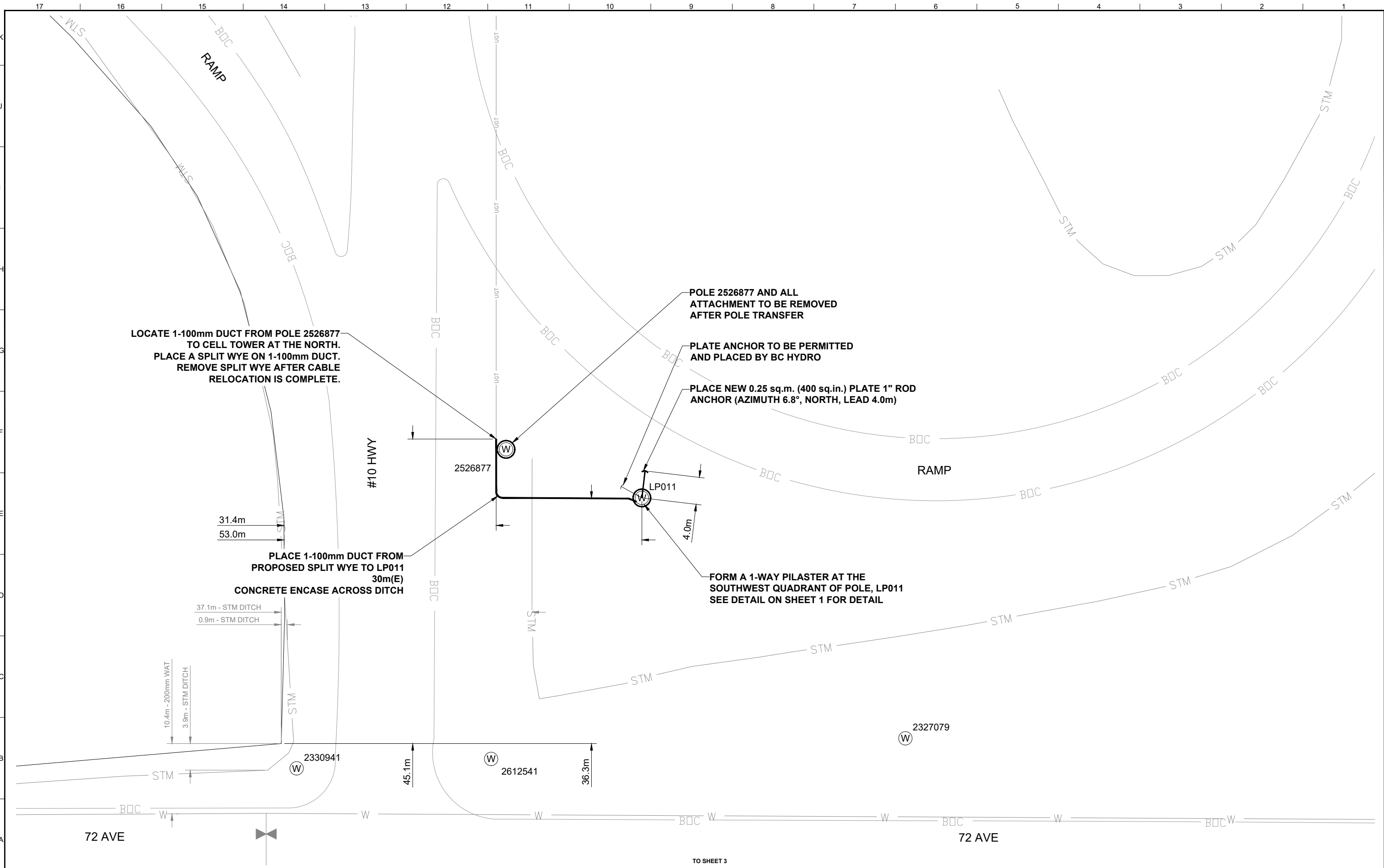
- DISCLAIMER:**
- THE DRAWING IS PROJECT SPECIFIC AND PROPERTY OF TELUS, THE DRAWING SHALL NOT BE USED WITHOUT THE CONSENT OF TELUS.
 - LTS DOES NOT ASSUME RESPONSIBILITY FOR THE ACCURACY OF THE CONTENTS WHETHER SHOWN OR OMITTED FROM THIS DRAWING BEYOND THE REQUIREMENTS LISTED IN APPROVING AUTHORITY 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.
 - POLE PLANT SHOWN FOR INFORMATION PURPOSES ONLY. THE UNDERSIGNED AND TELUS DO NOT TAKE RESPONSIBILITY FOR THE POLE UTILITY DESIGN/PERMIT.

LEGEND

	PROPOSED SERVICE BOX / FDH
	PROPOSED MANHOLE
	PROPOSED SERVICE VAULT
	PROPOSED PEDESTAL
	PROPOSED CONDUIT (OPEN TRENCH)
	PROPOSED CONDUIT (DIRECTIONAL DRILL)
	PROPOSED DROP CONDUIT
	W WATER MAIN
	S SEWER MAIN
	SAN SANITARY MAIN
	STM STORM MAIN
	G GAS MAIN
	UGT TEL DUCTS
	CATV CATV DUCTS
	UGE POWER DUCTS
	P PIPELINE
	SL STREETLIGHT
	OP ABANDONED UTILITY
	EDP EDGE OF PAVEMENT
	BDC 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.
 - MIN. DEPTH OF COVER AS-PER AUTHORITY REQUIREMENTS OR CSA 22.3 #7, WHICHEVER MORE CONSERVATIVE. 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, CURB, BOULEVARD, AND ROAD REPAIRS TO BE DONE BY CONTRACTOR, UNLESS OTHERWISE REQUIRED BY AUTHORITY.
 - 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 CONTRACTOR.
 - 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 AS-PER AUTHORITY REQUIREMENTS OR CSA 22.3 #7, WHICHEVER MORE CONSERVATIVE.
 - ALL DIMENSIONS IN mm UNLESS OTHERWISE NOTED
- ONECALL TICKET NO: 20232411255

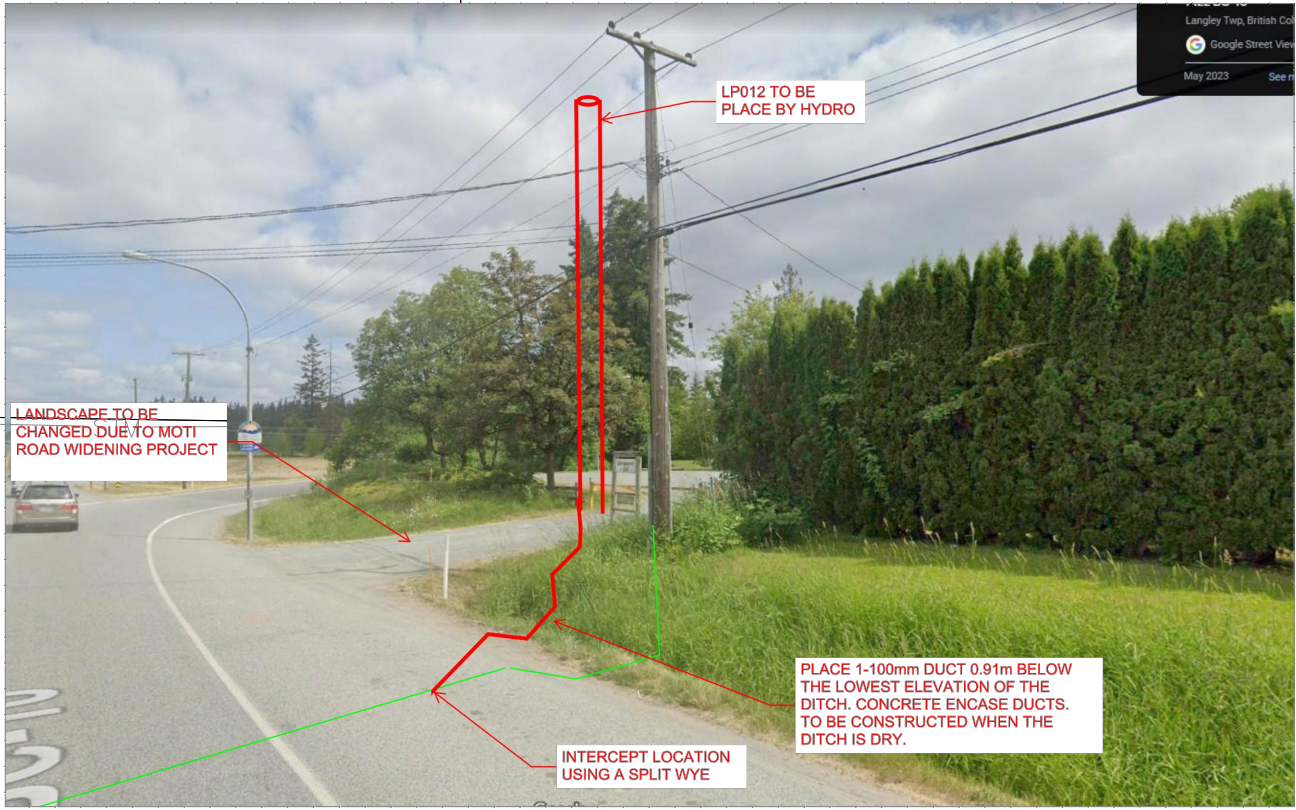
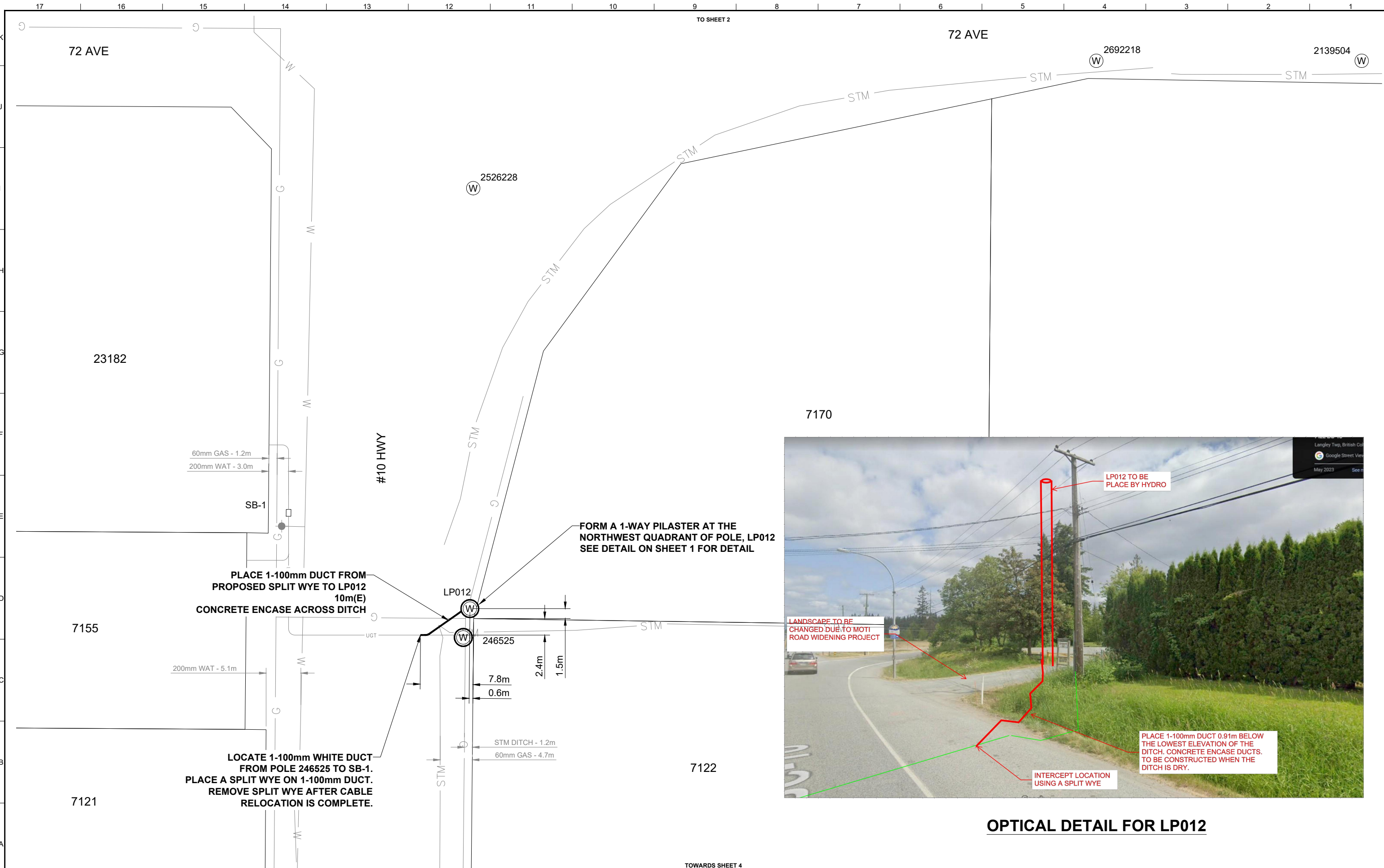
	GENERAL NOTES	REFERENCE DRAWINGS		REVISIONS				BC ONE CALL	CONTACT INFORMATION		BC GROWTH AND SUSTAINMENT					
	ALL HYDROVAC SLURRY MUST BE PROPERLY DISPOSED AT A PROVINCIAL APPROVED FACILITY. RECORD KEEPING INCLUDING THE HYDROVAC OPERATOR NAME, DATE, LOCATION WHERE THE MATERIAL WAS EXTRACTED AND DISPOSED AND AMOUNT AND CONTENT OF SLURRY, MUST BE MAINTAINED AND MADE AVAILABLE ON REQUEST.	DRAWING #	TITLE	REV	DATE	DESCRIPTION	DES	CHK	CALL BEFORE YOU DIG 1-800-464-6886 OR BY CELLULAR 4888 VANCOUVER AREA 257-1940	TELUS DESIGN SPECIALIST	SITE CONTACT	PERMIT DESIGN FOR POLE LINE REBUILD TRANSCANADA HWY AND 232ND ST, TOWNSHIP OF LANGLEY FORT LANGLEY NTS				
			0	2023-10-03	ISSUED FOR PERMIT APPLICATION	ER	FLD	CALL AT LEAST 2 FULL DAYS BEFORE YOU PLAN TO DIG	JASON NG 236 989-7065 JASON.NG2@TELUS.COM	JAMES NORRIS 778-945-6056 JNORRIS@BINNIE.COM	DRAWING #	2907018_U1	JIRA ID	GS-106747	SHEET: 1	DATE: 2023-10-26
			1	2023-10-25	ADDED OPTICAL DETAIL FOR LP012	ER	FLD	CONSTRUCTION NOTE: - ALL EXISTING UTILITIES TO BE LOCATED PRIOR TO CONSTRUCTION - CONTACT LTS ENGINEERING FOR CHANGES TO THE APPROVED DRAWING. (LTS@TELUSAUDDESIGN@LEDCOR.COM)	DESIGNER	SENIOR DESIGNER	PROJECT #	P2023290.01	COID	FTLY	TOTAL SHEETS: 4	REVISION: 1
									PREPARED FOR	PREPARED BY	IN PARTNERSHIP WITH					
									TELUS	LEDCOR						



TO SHEET 3

	GENERAL NOTES		REFERENCE DRAWINGS		REVISIONS				CONTACT INFORMATION		BC GROWTH AND SUSTAINMENT					
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					0	2023-10-03	ISSUED FOR PERMIT APPLICATION	ER	FLD	JASON NG 236 989-7065 JASON.NG2@TELUS.COM	JAMES NORRIS 778-845-6056 JNORRIS@BINNIE.COM		1:500 (m) 0 5 10 15 20			
				1	2023-10-25	ADDED OPTICAL DETAIL FOR LP012	ER	FLD	DESIGNER	SENIOR DESIGNER		DRAWING # 2907018_U1 JIRA ID GS-106747 SHEET: 2 DATE: 2023-10-26				
									EZEKIEL RAI 778-845-3384 EZEKIEL.RAI@LEDCOR.COM	FAYE LIMBO DE JESUS 604-699-2730 FAYE.LIMBODEJESUS@LEDCOR.COM		PROJECT # P2023290.01 COID FTLY TOTAL SHEETS: 4 REVISION: 1				
									PREPARED FOR	PREPARED BY	IN PARTNERSHIP WITH					

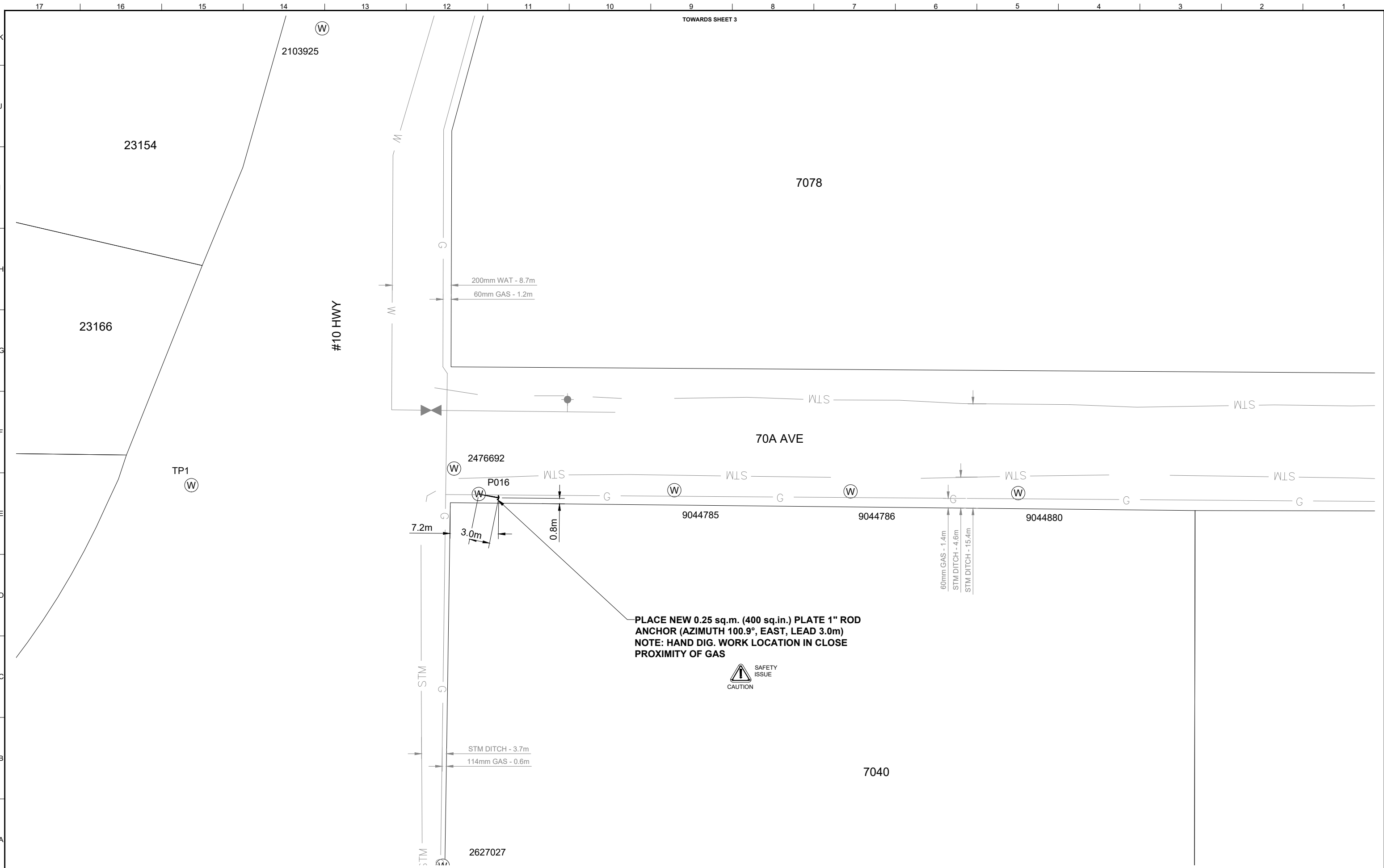
THE WORKS PROPOSED ON THIS DRAWING SHALL AT ALL TIMES REMAIN THE PROPERTY OF TELUS. ALL CONSTRUCTION, INSTALLATION AND TESTING TO BE PERFORMED IN ACCORDANCE WITH RELEVANT TELUS OUTSIDE PLANT STANDARDS AND PRACTICES IN EFFECT ON DATE OF STATEMENT OF WORK OR AGREED TO THEREAFTER.



OPTICAL DETAIL FOR LP012

	GENERAL NOTES		REFERENCE DRAWINGS		REVISIONS				BC ONE CALL		CONTACT INFORMATION			BC GROWTH AND SUSTAINMENT								
	ALL HYDROVAC SLURRY MUST BE PROPERLY DISPOSED AT A PROVINCIALLY 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	CALL BEFORE YOU DIG 1-800-464-8888 OR BY CELLULAR 6886 VANCOUVER AREA 257-1940	TELUS DESIGN SPECIALIST	SITE CONTACT		PERMIT DESIGN FOR POLE LINE REBUILD TRANSCANADA HWY AND 232ND ST, TOWNSHIP OF LANGLEY FORT LANGLEY								
					0	2023-10-03	ISSUED FOR PERMIT APPLICATION	ER	FLD	CALL AT LEAST 2 FULL DAYS BEFORE YOU PLAN TO DIG	JASON NG 236 989-7065 JASON.NG2@TELUS.COM	JAMES NORRIS 778-845-6056 JNORRIS@BINWIE.COM		1:500 (m) 0 5 10 15 20								
					1	2023-10-25	ADDED OPTICAL DETAIL FOR LP012	ER	FLD	CONSTRUCTION NOTE: - ALL EXISTING UTILITIES TO BE LOCATED PRIOR TO CONSTRUCTION - CONTACT LTS ENGINEERING FOR CHANGES TO THE APPROVED DRAWING (LTS@TELUSBAUDSIGN@LEDCOR.COM)	DESIGNER		SENIOR DESIGNER		DRAWING #	2907018_U1	JIRA ID	GS-106747	SHEET: 3	DATE: 2023-10-26		
											PREPARED FOR		PREPARED BY		IN PARTNERSHIP WITH		PROJECT #	P2023290.01	COID	FTLY	TOTAL SHEETS: 4	REVISION: 1
											TELUS		LEDCOR									

THE WORKS PROPOSED ON THIS DRAWING SHALL AT ALL TIMES REMAIN THE PROPERTY OF TELUS. ALL CONSTRUCTION, INSTALLATION AND TESTING TO BE PERFORMED IN ACCORDANCE WITH RELEVANT TELUS OUTSIDE PLANT STANDARDS AND PRACTICES IN EFFECT ON DATE OF STATEMENT OF WORK OR AGREED TO THEREAFTER.



GENERAL NOTES
 ALL HYDROVAC SLURRY MUST BE PROPERLY DISPOSED AT A PROVINCIALLY 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
0	2023-10-03	ISSUED FOR PERMIT APPLICATION	ER	FLD
1	2023-10-25	ADDED OPTICAL DETAIL FOR LP012	ER	FLD

BC ONE CALL
 CALL BEFORE YOU DIG
 1-800-464-8888
 OR BY CELLULAR 1-888-257-1940
 VANCOUVER AREA

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

CONTACT INFORMATION		
TELUS DESIGN SPECIALIST		SITE CONTACT
JASON NG 236 989-7065 JASON.NG2@TELUS.COM	JAMES NORRIS 778-945-6056 J.NORRIS@9INWIE.COM	
DESIGNER		SENIOR DESIGNER
EZEKIEL RAI 778-945-3384 EZEKIEL.RAI@LEDCOR.COM		FAYE LIMBO DE JESUS 604-699-2730 FAYE.LIMBODEJESUS@LEDCOR.COM
PREPARED FOR	PREPARED BY	IN PARTNERSHIP WITH
TELUS	LEDCOR	

BC GROWTH AND SUSTAINMENT				
PERMIT DESIGN FOR POLE LINE REBUILD TRANSCANADA HWY AND 232ND ST, TOWNSHIP OF LANGLEY FORT LANGLEY				
1:500 (m)				
0 5 10 15 20				
DRAWING #	2907018_U1	JIRA ID	GS-106747	SHEET: 4
PROJECT #	P2023290.01	COID	FTLY	TOTAL SHEETS: 4
				REVISION: 1
				DATE: 2023-10-26