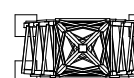


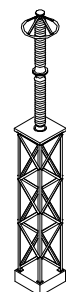
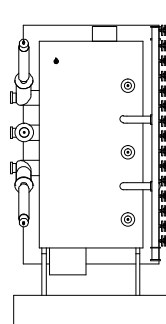
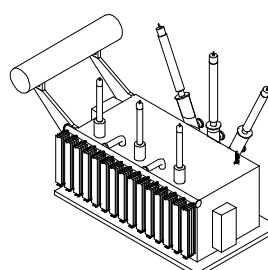


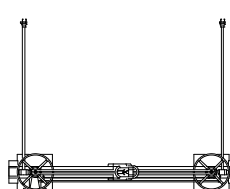
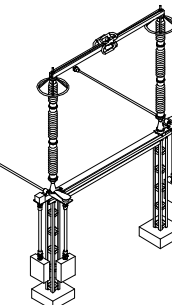

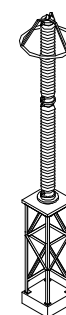
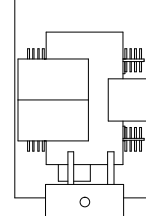
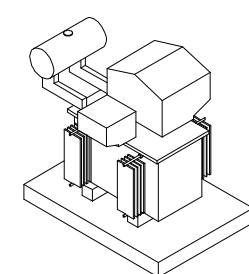
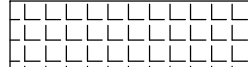

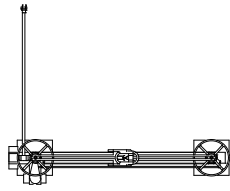
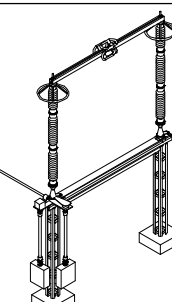

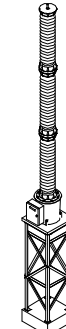



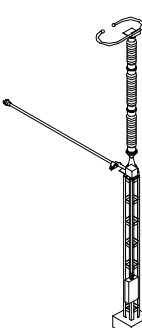

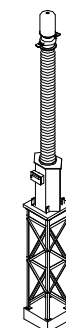
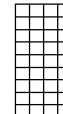

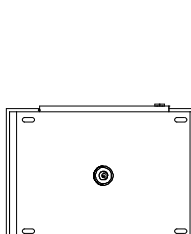
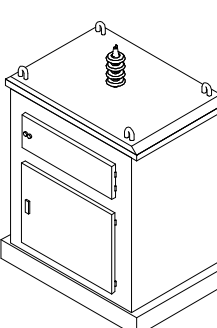

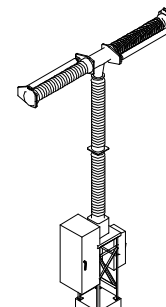
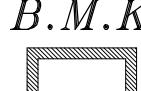

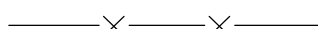


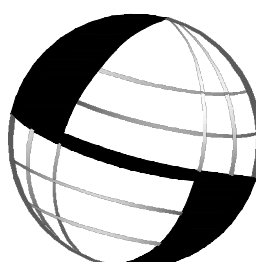



	1	2	3	4	5	6	7	8
A	LEGEND							
	 		 		 		 	
	 		 		 		 	
B	 		 		 			
	 		 		 			
C	 		 		 			
					 			
D	MINIMUM AIR CLEARANCES							
	MINIMUM AIR CLEARANCES				400kV			
	RATED LIGHTNING IMPULSE WITHSTAND VOLTAGE				1425 KV			
	RATED SWITCHING IMPULSE WITHSTAND VOLTAGE (PHASE-EARTH)				1050 KV			
	RATED SWITCHING IMPULSE WITHSTAND VOLTAGE (PHASE-PHASE)				1550 KV			
	BASIC VALUE (NON-FLASHOVER DISTANCE, INCLUDING SAFETY-MARGIN)				3.05m +10%			
	MINIMUM CLEARANCE BETWEEN LOWEST LIVE PART AND GROUND (TOTAL SAFETY ZONE)				5.73m			
	CLEARANCE BETWEEN GROUND AND THE INSULATOR'S BASE				2.5m			
	VERTICAL CLEARANCE WORKING ZONE				4.48m			
	HORIZONTAL CLEARANCE WORKING ZONE				4.98m			
	CLEARANCE OF CONDUCTORS ABOVE THE MAIN ROADS				13m			
	PHASE SPACING OF RIGID BUSBAR (CENTER LINE TO CENTER LINE)				6.5m			
	PHASE SPACING OF OVERSPAN (CENTER LINE TO CENTER LINE)				7.5m			
	PHASE SPACING OF FLEXIBLE CONDUCTOR BETWEEN EQUIPMENT (CENTER LINE TO CENTER LINE)				6.5m			
	POWER FREQUENCY WITHSTAND VOLTAGE				520kV			
	VERTICAL CLEARANCE BETWEEN LIVE CONDUCTOR AND SHIELD				7m			
	ABBREVIATION							
	ABBR.		EQUIPMENT					
	CB		CIRCUIT BREAKER					
	CT		CURRENT TRANSFORMER					
	CVT		CAPACITIVE VOLTAGE TRANSFORMER					
	DS		DISCONNECTING SWITCH					
	DSE		DISCONNECTING SWITCH WITH EARTHING SWITCH					
	EM		EARTH MAT					
	ES		EARTH SWITCH					
	GA		GANTRY TOWER					
	LA		LIGHTNING ARRESTER					
	BMK		BAY MARSHALLING KIOSK					
	PI		POST INSULATOR					
	SC		SURGE COUNTER					
	SI		STRING INSULATOR					
	TW		TOWER					
	MH		MANHOLE					
	NOTE:							
	1- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.							
	2- 400kV SWITCHYARD LAYOUT PLAN & SECTION ARE TYPICAL REPRESENTATION & PRELIMINARY.							
	3- ALL CLEARANCES ARE AS PER IEC GUIDELINES.							
	4- LOCATION OF BAY MARSHALLING KIOSK MARSHALLING HOUSE SHOWN IN DRAWING ARE TENTATIVE AND SHALL BE SUITABLY LOCATED CONSIDERING ACTUAL SITE CONDITION.							
	5- ALL THE EQUIPMENT & BUSES IN THE SOW WILL BE PROTECTED FROM LIGHTNING STRIKE BY MEANS OF SHIELD WIRE.							
	6- TOP OF PLINTH FOR EQUIPMENT IN SOW WILL BE 300mm.							
	7- FINISHED GRAVEL LEVEL (F.G.R.L) IS GRAVEL TOP WITH GRAVEL (40mm. JELLY) THICKNESS OF 100mm. ABOVE FINISHED GROUND LEVEL (FGL).							
	8- DISCONNECTOR SWITCH WILL HAVE MECHANICAL AND ELECTRICAL INTERLOCK WITH THE RELEVANT EARTH SWITCH.							
	9- THIS IS CONCEPTUAL DRAWING FOR TENDER PURPOSE. HOWEVER IT IS MANDATORY TO FOLLOW THE REQUIREMENT OF KETRACO STANDARD.							
	10- ALL CABLE TRENCHES' SIZES AND ROUTES ARE TENTATIVE AND SUBJECTED TO CABLE TRENCH LAYOUT & DETAIL DOCUMENT AND CLIENT/ CONSULTANT'S APPROVAL.							
	11- THE LIGHTNING PROTECTION IS INDICATIVE ONLY AND THE CONTRACTOR SHALL PROVIDE CALCULATIONS.							
	12- THE LIGHTNING AND POWER FREQUENCY WITHSTAND VOLTAGE WILL BE GUIDED BY AN INSULATION COORDINATION STUDY IN ACCORDANCE TO IEC.							
	13- CALCULATION OF SAG FOR OVER SPAN NEEDS TO BE PROVIDED BY EPC CONTRACTOR IN DETAIL DESIGN STAGE SUBJECTED TO CLIENT/ CONSULTANT APPROVAL.							
F	PREPARED BY:							
	 				DESIGNED BY		KBN	SIGNATURE
					DRAWN BY		AZM	
	B FOR TENDER PURPOSE		BLD	AZM	BDA	JVN	05.28.2022	CHECKED BY
	A ACC. TO CLIENT COMMENTS DATED:02.13.2021		KBN	AZM	ATO	JVN	03.01.2021	APPROVED BY
	O FIRST ISSUE		KBN	AZM	ATO	JVN	11.28.2020	DATE: 11.28.2020
	REV DESCRIPTION		DESIGN	DRAW	HEAD	APPR.	DATE	SCALE: — SIZE: A1
					PROJECT:			
					DWG. TITLE:			
					CLIENT:			
					GENERAL LAYOUT DRAWING			
					GENERAL NOTES & LEGENDS OF 400KV EQUIPMENT			
					DWG. NO.: MT-TLD-KETCO-5393-DD-01-PG-073 SHEET: 3 OF: 14			
					KIMUKA 400/220KV SUBSTATION			
					 THE WORLD BANK IBRD . IDA   WORLD BANK GROUP			
	1	2	3	4	5	6	7	8