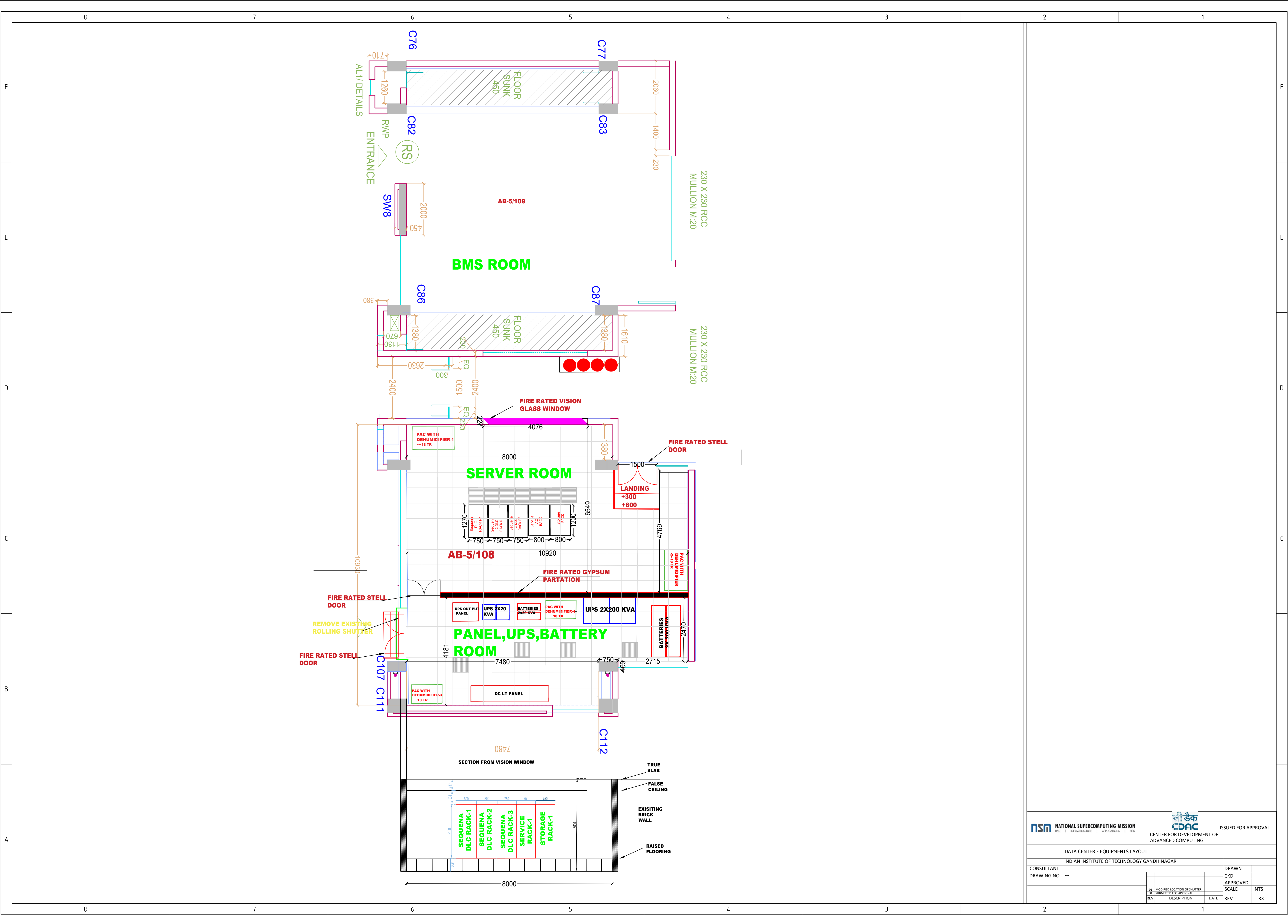
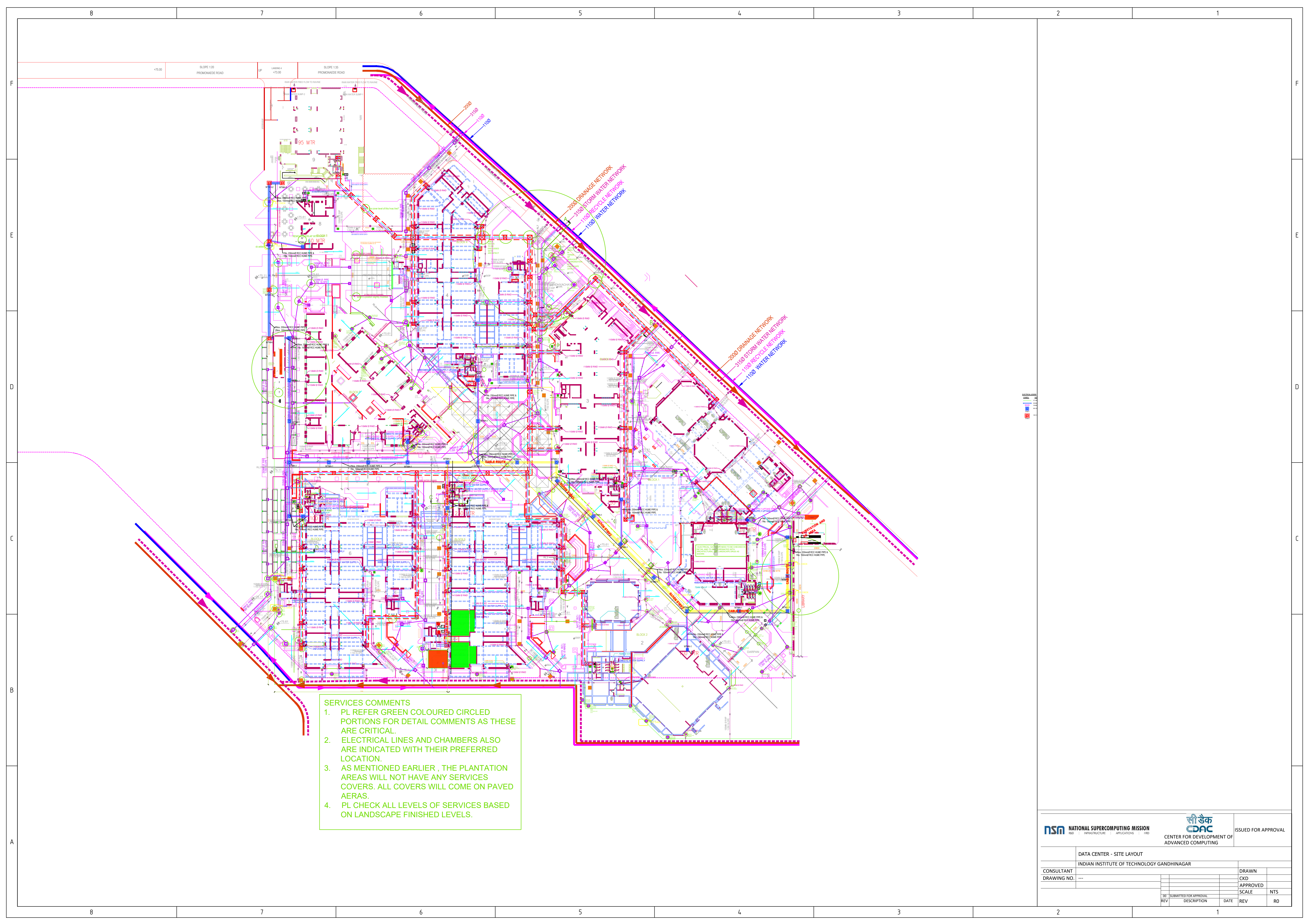




 NATIONAL SUPERCOMPUTING MISSION BDO INFRASTRUCTURE APPLICATIONS HRD		 CDAC CENTER FOR DEVELOPMENT OF ADVANCED COMPUTING		ISSUED FOR APPROVAL	
DATA CENTER - EQUIPMENTS LAYOUT					
INDIAN INSTITUTE OF TECHNOLOGY GANDHINAGAR					
CONSULTANT DRAWING NO.	---			DRAWN	
				CKD	
				APPROVED	
				SCALE	NTS
		01: MODIFIED LOCATION OF SHUTTER OR SUBMITTED FOR APPROVAL	DATE	REV	R3



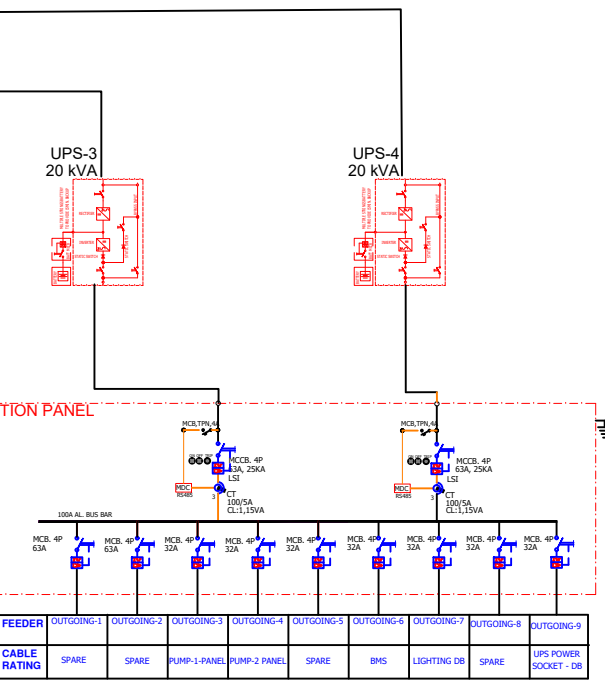
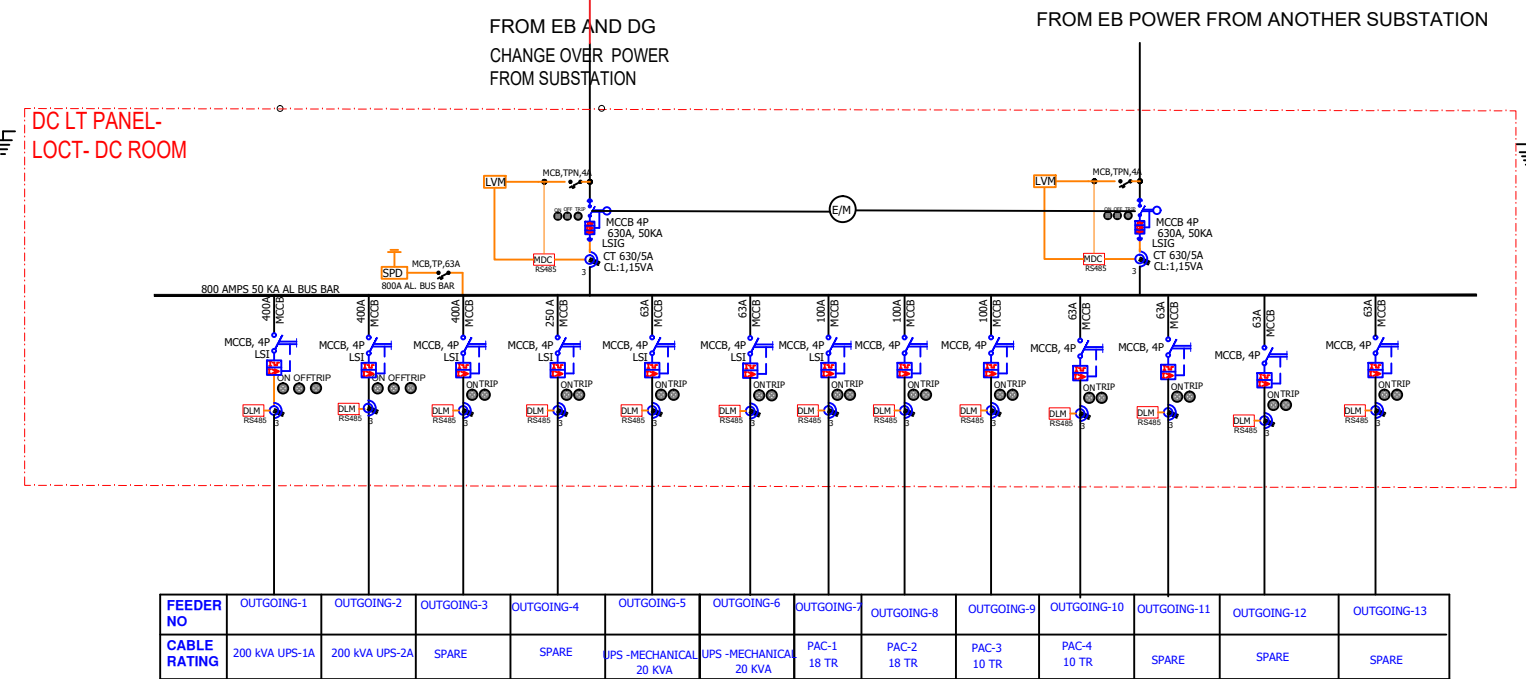
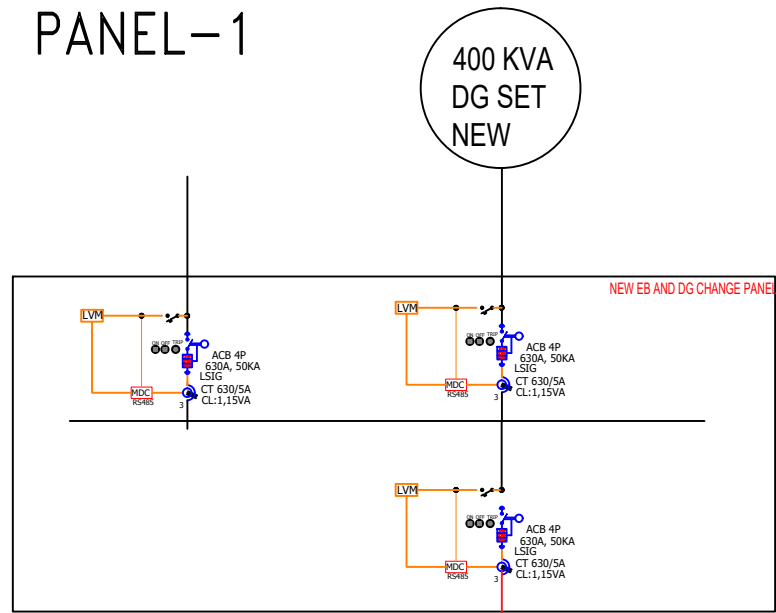
SERVICES COMMENTS

1. PL REFER GREEN COLOURED CIRCLED PORTIONS FOR DETAIL COMMENTS AS THESE ARE CRITICAL.
2. ELECTRICAL LINES AND CHAMBERS ALSO ARE INDICATED WITH THEIR PREFERRED LOCATION.
3. AS MENTIONED EARLIER , THE PLANTATION AREAS WILL NOT HAVE ANY SERVICES COVERS. ALL COVERS WILL COME ON PAVED AERAS.
4. PL CHECK ALL LEVELS OF SERVICES BASED ON LANDSCAPE FINISHED LEVELS.

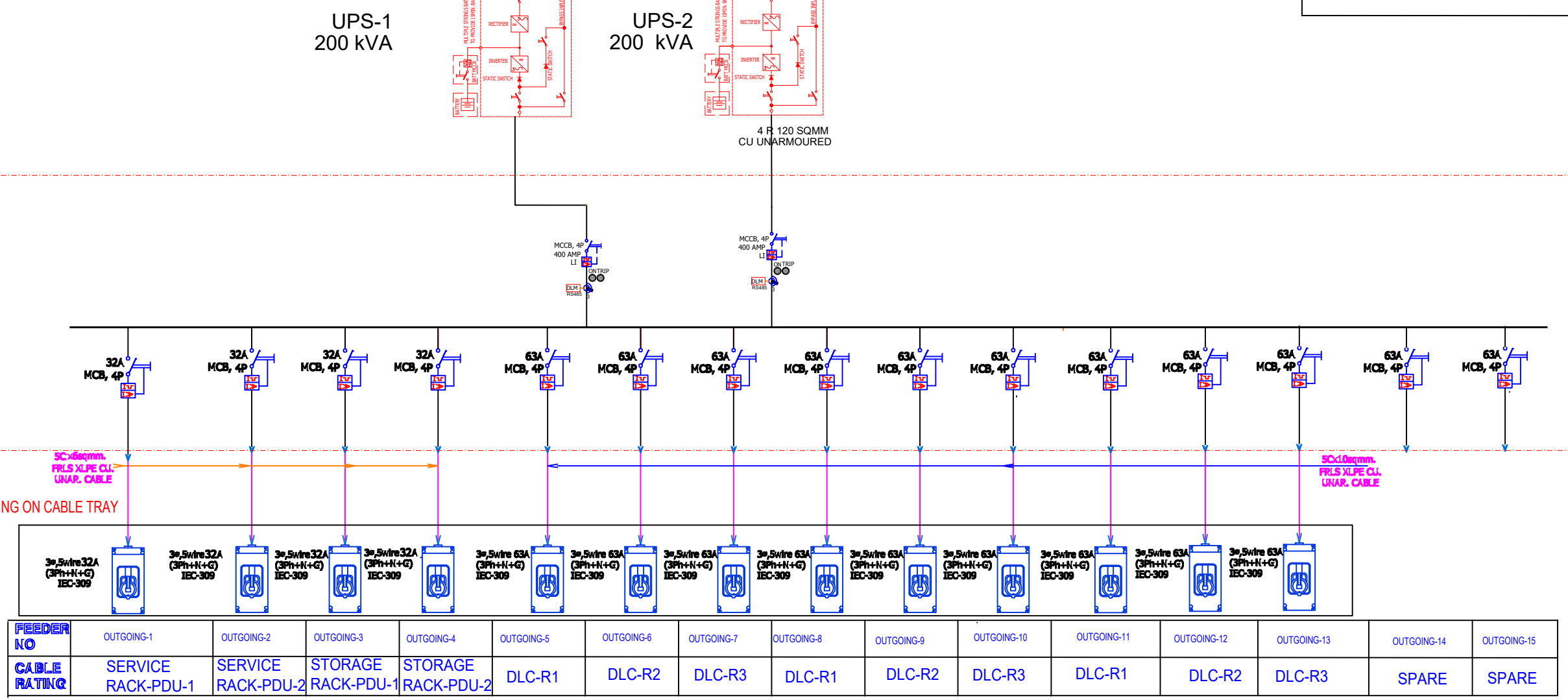
 NATIONAL SUPERCOMPUTING MISSION R&D INFRASTRUCTURE APPLICATIONS HRD		 CDAC CENTER FOR DEVELOPMENT OF ADVANCED COMPUTING		ISSUED FOR APPROVAL		
		DATA CENTER - SITE LAYOUT				
		INDIAN INSTITUTE OF TECHNOLOGY GANDHINAGAR				
CONSULTANT					DRAWN	
DRAWING NO. ---					CKD	
					APPROVED	
					SCALE	NTS
		00 SUBMITTED FOR APPROVAL				
		REV	DESCRIPTION	DATE	REV	RO

NOTES:
The panels will be built to relevant IEC specification
Unless otherwise stated and or where applicable :
Construction :
1. The panels will be dust and vermin proof with gaskets of the doors installed on the panel and not on door. The compartmentalized construction is required with extendable bus bars. The entire assembly must go through 7 tank process and will be oven baked.
2. Outdoor installation will be with IP55 enclosure
3. Bus bars will be tinned copper with current density of not more than 800A / Sq. inches.
4. Base frame of atleast 4" made out of steel sections is to be provided.
5. Panel will have
Top Entry Bottom Entry
Floor Mounted Installation/Wall Mounted Installation
6. Bus bar system supports will be CPRI or equal test laboratory approved.
7. All panel compartments shall have identification etched on Aluminum strip.
8. All MCCB will have each MCCB identification
9. Stands should be provided for the installation of switch board matching to height of the false floor.
10. All VFDs shall have an active-front-end design
11. All UPSs shall have an active-front-end design
12. KVAR Requirement for each transformer is 400 KVAR steps size should be appropriate considering data centre application & to maintain p.f. 98 to unity.
Components :
1. MCCBs will be atleast 35 kA or as specified in SLD.
2. MCCBs will be atleast 10 kA short circuit withstand of the curve to suit discrimination
3. ALL protections will be coordinated
4. The range of the instruments be such that the readings will shown the mid-range of the instrument.
5. The load manager will be installed with communication port and wireless or similar graphic GS based software.
6. All ACBs will be draw out type with static relays provided for over-current, earth fault.
7. For DG set protection restricted earth fault protection is required. MCCB to have following :
Shunt trip, fault indications, Electronics trip mechanism.
8. All Panel Should Have Tuss Protection
Cables :
1. All doors will have flying earth.
2. Copper earth bus is to be installed.
3. Where applicable UPS system, VS system and Power earth shall be separate. All the earth bus installed on suitable insulators
Drawings and Tests :
1. Shop drawings are required to be submitted for the review and approval
2. Test certificate for all components and the panel's routine tests are required to be provided in triplicate
3. Panel is required to be tested at site and works

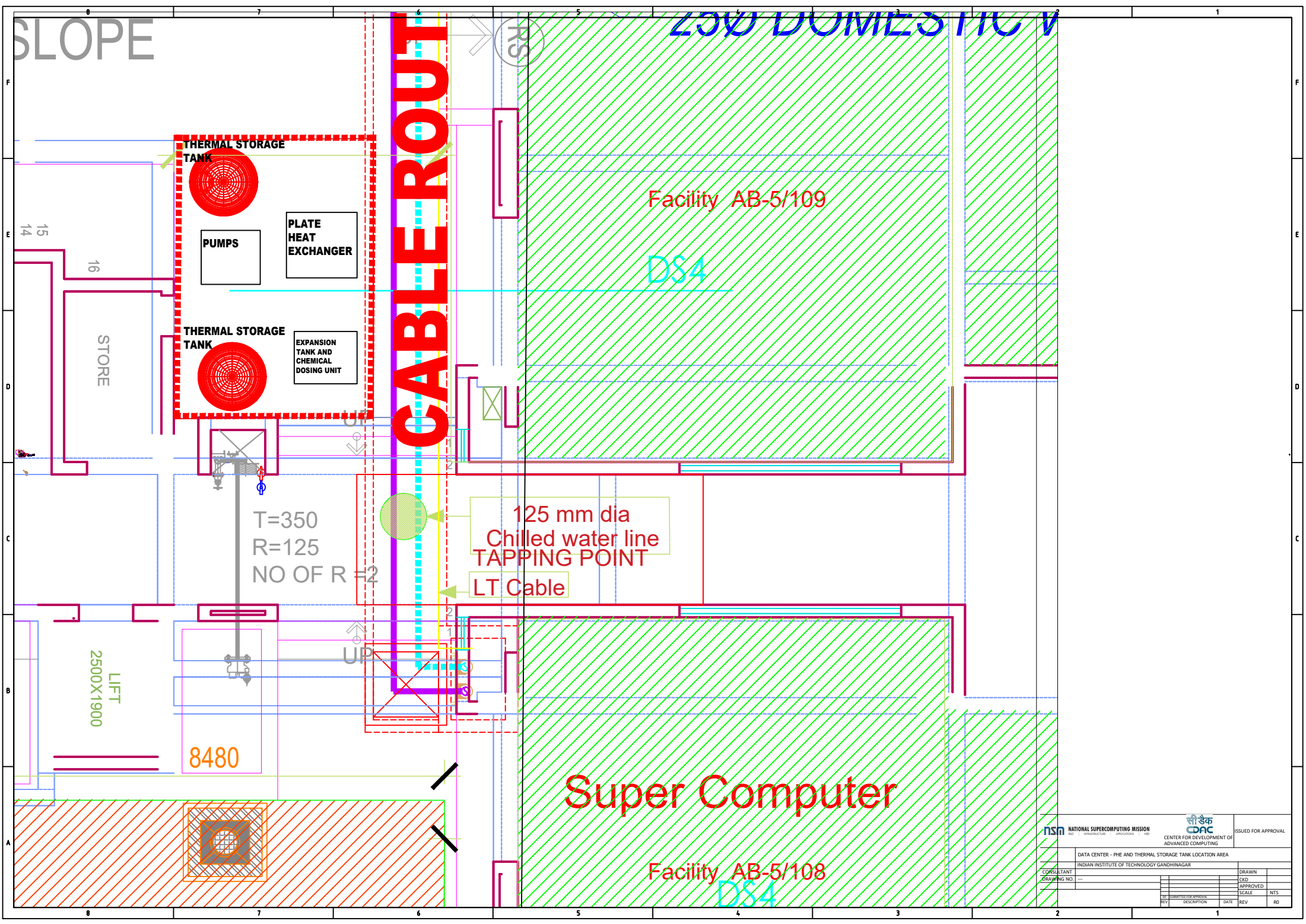
FROM MAIN LT PANEL-1
SECTION I



LEGENDS	
	ONAN 11kV/432V STEPODOWN TRANSFORMER
	AIR COOLED K-20 400/400V ISOLATION TRANSFORMER
	ELECTRICALLY OPERATED DRAWOUT (EDD) TYPE ACB WITH O/L & S/C RELEASE (LSIG)
	ELECTRICALLY OPERATED DRAWOUT (EDD) TYPE ACB WITH O/L & S/C & E/F RELEASE (LSIG)
	MANUALLY OPERATED DRAWOUT (MDO) TYPE ACB WITH O/L & S/C RELEASE (LSI)
	MANUALLY OPERATED DRAWOUT (MDO) TYPE ACB WITH O/L & S/C & E/F RELEASE (LSIG)
	MANUALLY OPERATED DRAWOUT (MDO) TYPE MCCB WITH O/L & S/C RELEASE (LSI)
	MANUALLY OPERATED DRAWOUT (MDO) TYPE MCCB WITH O/L & S/C & E/F RELEASE (LSIG)
	MANUALLY OPERATED FIXED TYPE MCCB WITH O/L & S/C RELEASE (LSI)
	MANUALLY OPERATED FIXED TYPE MCCB WITH O/L & S/C & E/F RELEASE (LSIG)
	MOTOR PROTECTION CIRCUIT BREAKER (MPCB)
	MINATURE CIRCUIT BREAKER (MCB)
	RESIDUAL CURRENT CIRCUIT BREAKER (RCCB)
	LOAD BREAK SWITCH
	CHANGEOVER SWITCH
	CURRENT TRANSFORMER (CT) RESIN CAST
	POTENTIAL TRANSFORMER (PT)
	DIGITAL LOAD MONITOR - FPM4M
	INTEGRATED BASIC POWER & ENERGY PARAMETERS
	MAXIMUM DEMAND CONTROLLER - EMS400
	BASIC ENERGY METER - AXW4WH
	LINE VOLTAGE MONITOR & CONTROL FOR OVER, UNDER VOLTAGE, PHASE PHASE & PHASE REVERSAL PROTECTION
	ON-OFF-TRIP INDICATING LAMPS
	R,Y,B (RED,YELLOW,BLUE) INDICATING LAMPS
	TRANSIENT VOLTAGE SURGE SUPPRESSOR
	AUTO MANUAL SELECTOR SWITCH
	ALARM - HOOTER / BUZZER
	TRANSFORMER
	MAIN SWITCH BOARD
	MOTOR CONTROL CENTRE
	12 ANNUNCIATION PANEL WITH HOOTER
	TNC SWITCH WITH SPRING RETURN TO NEUTRAL AUTO / MANUAL SELECTOR SWITCH
	ONAN 11kV/432V STEPODOWN TRANSFORMER WITH OLTC
	AIR COOLED K-20 400/400V ISOLATION TRANSFORMER
	UNINTERRUPTED POWER SUPPLY (UPS)
	MOTORISED LOAD BREAK CHANGEOVER SWITCH (ATS)
	ATS
ABBREVIATIONS	
LSIG	1: OVER CURRENT WITH TIMER DELAY 2: SHORT CIRCUIT CURRENT WITH TIMER DELAY 3: CONTINUOUS SHORT CIRCUIT 4: GROUND FAULT CURRENT WITH TIME DELAY



 NATIONAL SUPERCOMPUTING MISSION R&D INFRASTRUCTURE APPLICATIONS HRD		 CDAC CENTER FOR DEVELOPMENT OF ADVANCED COMPUTING		ISSUED FOR APPROVAL	
ELECTRICAL SLD -R3					
INDIAN INSTITUTE OF TECHNOLOGY GANDHINAGAR					
CONSULTANT					DRAWN
DRAWING NO. ---					CKD
	R3	CHANGES TO 400 KVA DG SET			APPROVED
					SCALE
	00	SUBMITTED FOR APPROVAL			NTS
REV	DESCRIPTION			DATE	REV
					R3



SLOPE

2500 DOMESTIC V

Facility AB-5/109

DS4

Super Computer

Facility AB-5/108

DS4

NATIONAL SUPERCOMPUTING MISSION		सि डी ई सी		ISSUED FOR APPROVAL	
INDIAN INSTITUTE OF TECHNOLOGY GANDHINAGAR		CENTER FOR DEVELOPMENT OF ADVANCED COMPUTING		DRAWN	
CONSULTANT		DATA CENTER - PHE AND THERMAL STORAGE TANK LOCATION AREA		CKD	
DRAWING NO. ---		INDIAN INSTITUTE OF TECHNOLOGY GANDHINAGAR		APPROVED	
				SCALE	
				NTS	
REV	DESCRIPTION	DATE	REV	DATE	RO

~~RCC HUME PIPE &
RCC HUME PIPE.~~

100MM Ø RWP
1:250 SLOPE

150MM Ø SWP
1:150 SLOPE

150MM Ø RWP

1:250 SLOPE

Proposed DG LOCATION-500 KVA
6000X2000



WTMMH-1

pl check the location of substation

pinth protection

4Nos. 230mmØ RCC HUME PIPE &
1No. 150mmØ RCC HUME PIPE.

1230

LDB

MAIN PANEL 3 & 4

APFCR-3

APFCR-4

EMERGENCY

EX LIGHTING

20800

 NATIONAL SUPERCOMPUTING MISSION R&D INFRASTRUCTURE APPLICATIONS HRD				ISSUED FOR APPROVAL	
		CENTER FOR DEVELOPMENT OF ADVANCED COMPUTING			
SITE -SUBSTATION , DG LOCATION AND PANEL LOCATION AREA					
INDIAN INSTITUTE OF TECHNOLOGY GANDHINAGAR					
CONSULTANT DRAWING NO. ---				DRAWN CKD	NTS
				APPROVED SCALE	
	01	ONLY CHANGE OVER PANEL			
	02	MODIFIED PANEL SIZE			
	03	SUBMITTED FOR APPROVAL			
REV	DESCRIPTION	DATE	REV	R2	