

## Implement CCTV Camera to CIPM Colombo Study center

### Requirements from the supplier

No	Description	Qty
1	Indoor IP Camera	50
2	NVR	01
3	LED Monitor	01
4	Installation/ Cabling /Any other Materials	N/A

### Indoor IP Camera

No	Location	Qty
1	Cafeteria	04
2	2 <sup>nd</sup> Floor	10
3	3 <sup>rd</sup> Floor	12
4	4 <sup>th</sup> Floor	11
5	6 <sup>th</sup> Floor	13
<b>Total Indoor IP Camera</b>		<b>50</b>

## New Camera Specifications

### Indoor IP Camera

No.	Description	Required Specification
1	Model	Specify
2	Manufacturer	Specify
3	Country of Origin	Specify
4	Warranty and Service	2 years
5	Image Sensor	1/1.8" 4Megapixel progressive scan CMOS
6	Effective Pixels	2688(H) x 1520(V)
7	RAM/ROM	512MB/128MB
8	Scanning System	Progressive
9	Electronic Shutter Speed	Auto/Manual, 1/3~1/100000s
10	Minimum Illumination	0.0016Lux/F1.6 ( Color,1/3s,30IRE) 0.015Lux/F1.6 ( Color,1/30s,30IRE) 0Lux/F1.6(IR on)
11	IR Distance	Distance up to 51m (167ft)
12	IR On/Off Control	Auto/ Manual
13	IR LEDs	2
14	Lens Type	Fixed
15	Mount Type	Board-in
16	Focal Length	2.8mm,3.6mm,6.0mm
17	Max. Aperture	F1.6
18	Angle of View	H: 113°, V:60°/H: 89°, V:48°/H: 56°, V:31°
19	Aperture Type	Fixed
20	Close Focus Distance	1.3m(4.27ft)/1.9m(6.23ft)/3.8m(12.47ft)

21	Pan/Tilt/Rotation Range	Pan:0°~360°; Tilt:0°~78°; Rotation:0°~360°
	Face Capture	Supported
22	Perimeter Protection	Tripwire, Intrusion (Human & Vehicle classification)
23	People Counting	Support Line crossing/Region/Queueing people counting, Support 4 Accesses independent detection,4 area independent detection
24	Event Trigger	Motion detection, Video tampering, Scene changing, Network disconnection, IP address conflict, Illegal Access, Storage anomaly
25	General Intelligence	Object Abandoned/Missing
26	Compression	H.265+/H.265/H.264+/H.264/H.264B/H.264H/ MJPEG (sub stream)
27	Streaming Capability	3 Streams
28	Resolution	2688×1520/2304×1296/1080P(1920×1080)/ 1.3M(1280×960)/720P (1280×720)/ D1(704×576/704×480)/VGA(640×480) /CIF(352×288/352×240)
29	Frame Rate	Main Stream: 2688×1520(1~25/30fps) Sub Stream: D1(1~25/30fps) Third Stream: 1080P(1~11fps)
30	Bit Rate Control	CBR/VBR
31	Bit Rate	H.264: 32~ 8192Kbps/H.265: 19~ 8192kbps
32	Day/Night	Auto (ICR) / Color / B/W
33	BLC Mode	BLC / HLC / WDR (120dB)
34	White Balance	Auto/Natural/Street Lamp/Outdoor/Manual
35	Gain Control	Auto/Manual
36	Noise Reduction	3D DNR
37	Motion Detection	Off / On (4 Zone, Rectangle)
38	Region of Interest	Off / On (4 Zone)
39	Smart IR	Support
40	Defog	Support
41	Flip	0°/90°/180°/270°
42	Audio Interface	Built-in MIC
43	Power Supply	DC12V(±30%), PoE(802.3af)(Class 0)
44	Power Consumption	DC12V:2.1W 6.2W(IR on) PoE:2.6W 7.2W(IR on)
45	Operating Conditions	30° C ~ +60° C (-22° F ~ +140° F) / 10%RH~95% RH.
46	Storage Conditions	5° C ~ +40° C (+41° F ~ +104° F) (daily temperature difference within 15° C/59° F) / 10%RH~95% RH
47	Ingress Protection	IP67
48	Casing	Metal
49	Mirror	Off / On
50	Privacy Masking	Off / On (4 Area, Rectangle)
51	Compression	G.711a/G.711Mu/G.726/AAC/G.723
52	Ethernet	RJ-45 (10/100Base-T)
53	Protocol	HTTP; TCP; ARP; RTSP; RTP; UDP; RTCP; SMTP; FTP; DHCP; DNS; DDNS; PPPoE; IPv4/v6; SNMP;QoS; UPnP;NTP
54	Interoperability	ONVIF (Profile S/Profile G), CGI, Milstone, Genetec,P2P
55	Streaming Method	Unicast / Multicast
56	Edge Storage	NAS FTP Micro SD card 256GB
57	Web Viewer	IE(versions newer than IE8), Chrome, Firefox, Safari(versions newer than Safari 12)
58	Management Software	Smart PSS, DSS, P2P
59	Smart Phone	iOS, Android

60	Certifications	CE-LVD: EN60950-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC:47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07
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### **NVR – Network Video Recorder**

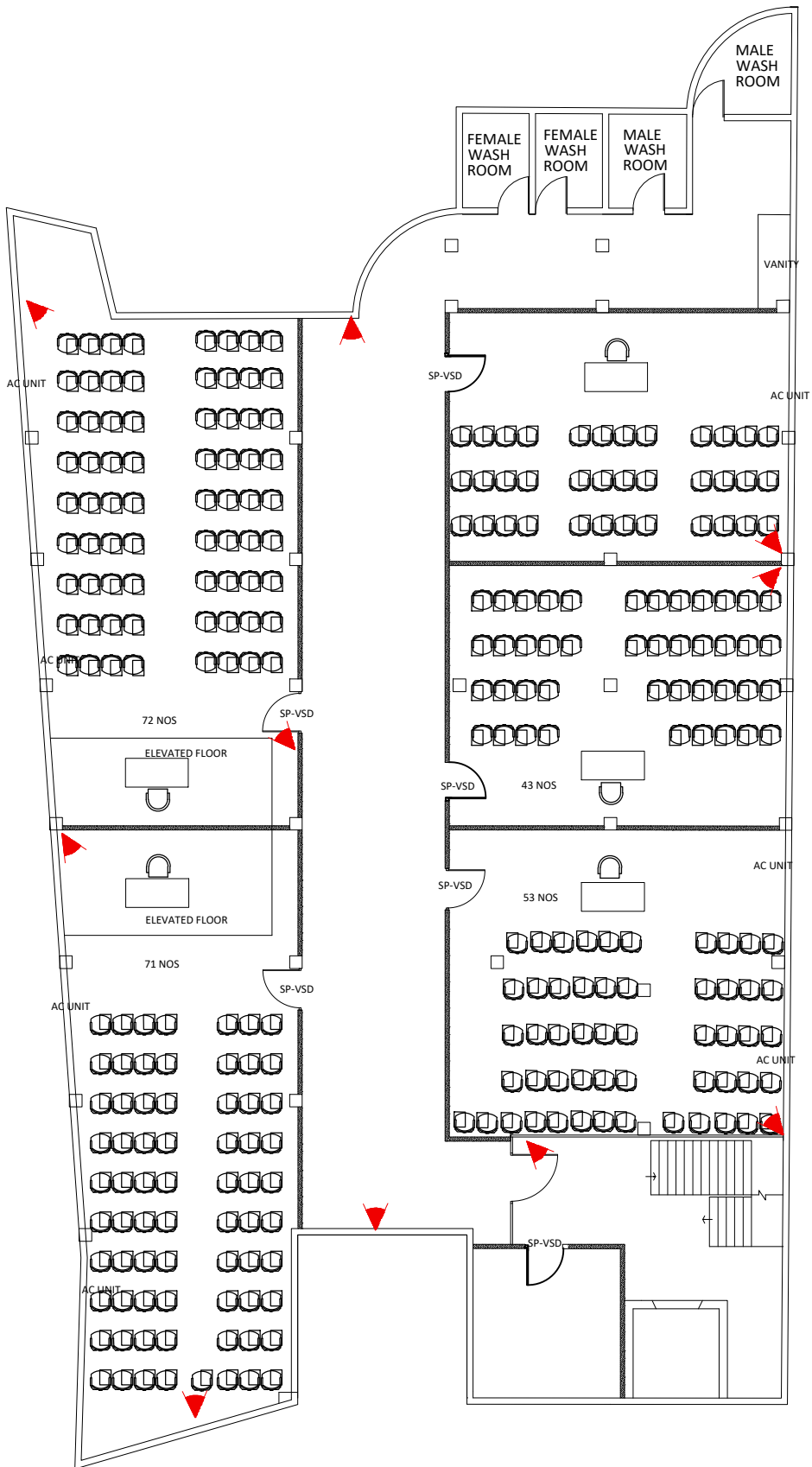
<b>No.</b>	<b>Description</b>	<b>Required Specification</b>
1	Model	Specify
2	Manufacturer	Specify
3	Country of Origin	Specify
4	Warranty and Service	2 years
5	Main Processor	Intel Quad-core Processor
6	Operating System	Embedded LINUX
7	IP Camera Input	64/128 Channel
8	Two-way Talk	1 Channel Input, 1 Channel Output, RCA
9	Interface	2 HDMI (up to 3840 x 2160, Different Source), 1 VGA
10	Resolution	3840 × 2160, 1920 × 1080 , 1280 × 1024, 1280 × 720 , 1024 × 768
11	Multi-screen Display	1st Screen: 1/4/8/9/16/25/36 2nd Screen: 1/4/8/9/16
12	OSD	Camera title, Time, Video loss, Camera lock, Motion detection, Recording
13	Compression	H.265/H.264/MJPEG
14	Resolution	12MP, 8MP, 6MP, 5MP, 4MP, 3MP, 1080P, 1.3MP, 720P etc.
15	Record Rate	384Mbps
16	Bit Rate	16Kbps ~ 20Mbps Per Channel
17	Record Mode	Manual, Schedule (Regular, MD (Motion Detection), Alarm, IVS), Holiday, Stop
18	Record Interval	1 ~ 120 min (default: 60 min), Pre-record: 1 ~ 30 sec, Post-record: 10 ~ 300 sec
19	Trigger Events	Recording, PTZ, Tour, Alarm Out, Video Push, Email, FTP, Snapshot, Buzzer and Screen Tips
20	Video Detection	Motion Detection, MD Zones: 396 (22 × 18), Video Loss and Tampering
21	Alarm input	16 Channel, Low Level Effective, Green Terminal Interface
22	Relay Output	8 Channel, NO/NC Programmable, Green Terminal Interface
23	Tracking Trigger Event	Zoom, Tracking, Recording, Preset, Snapshot, Alarm, etc.
24	Playback	128 Mbps in Raid 5 Mode; 64 Mbps in single HDD Mode
25	Search Mode	Time /Date, Alarm, MD and Exact Search (accurate to second)

26	Playback Function	Play, Pause, Stop, Rewind, Fast play, Slow Play, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Shuffle, Backup Selection, Digital Zoom
27	Backup Mode	USB Device/Network/eSATA Device
28	Third-party Support	Dahua, Arecont Vision, AXIS, Bosch, Brickcom, Canon, CP Plus, Dynacolor, Honeywell, Panasonic, Pelco, Samsung, Sanyo, Sony, Videotec, Vivotek, and more
29	Interface	2 RJ-45 Ports (10/100/1000Mbps)
30	Ethernet Port	2 Ethernet Ports Joint Working or 2 Independent 1000Mbps Ethernet Ports
31	Network Function	HTTP, HTTPS, TCP/IP, IPv4/IPv6, UPnP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPoE, DDNS, FTP, Alarm Server, IP Search (Support any IP camera, DVR, NVS, etc.)
32	Smart Phone	iPhone, iPad, Android
33	Interoperability	ONVIF 2.4, CGI Conformant
34	Internal HDD	8 SATA III Ports, Up to 8 TB capacity for each HDD
35	Backup time	30 Days
36	USB	4 USB Ports
37	Power Supply	AC100V ~ 240V, 50 ~ 60 Hz
38	Power Consumption	<20W (Without HDD)
39	Operating Conditions	10°C ~ +55°C (+14°F ~ +131°F), 86 ~ 106kpa
40	Storage Conditions	20°C ~ +70°C (-4°F ~ +158°F), 0 ~ 90% RH
41	Certifications	EN55022, EN55024, EN50130-4, EN60950-1 Part 15 Subpart B, ANSI C63.4-2014 UL 60950-1 and CAN/CSA C22.2 No.60950-1

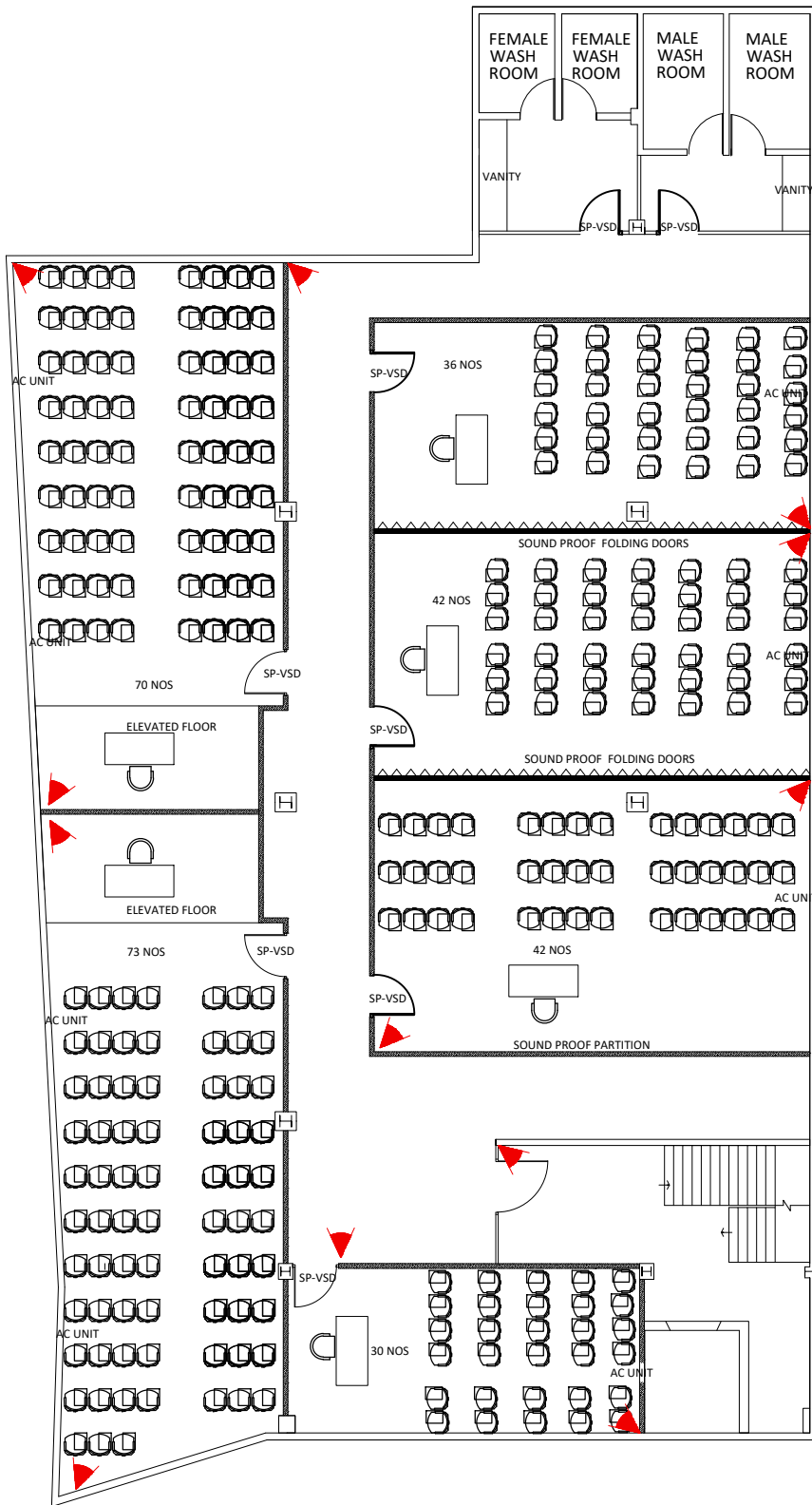
### **LED Monitor**

No.	Description	Required Specification
1	Model	Specify
2	Manufacturer	Specify
3	Country of Origin	Specify
4	Warranty and Service	2 years
5	Screen Size	43"
6	Aspect Ratio	16:09
7	Resolution	3840×2160 (UHD)
8	Backlight	LED
9	Brightness/Luminance	350cd/m <sup>2</sup>
10	Contrast	5000:01:00
11	Display Color	1.07B(10bit)
12	Viewing Angle(H/V)	178°(H)/178°(V)
13	Response Time	8.5(GTG) ms
14	Refresh Rate	60Hz
15	Input	HDMI 2.0×2, USB 3.0×1, USB 2.0×1, Audio×1
16	Output	Headphone Jack×1, RJ45×1 Speaker
17	RAM	1GB
18	Internal Storage	8GB
19	Power Supply	AC100~240V (+/-10%), 50/60 Hz

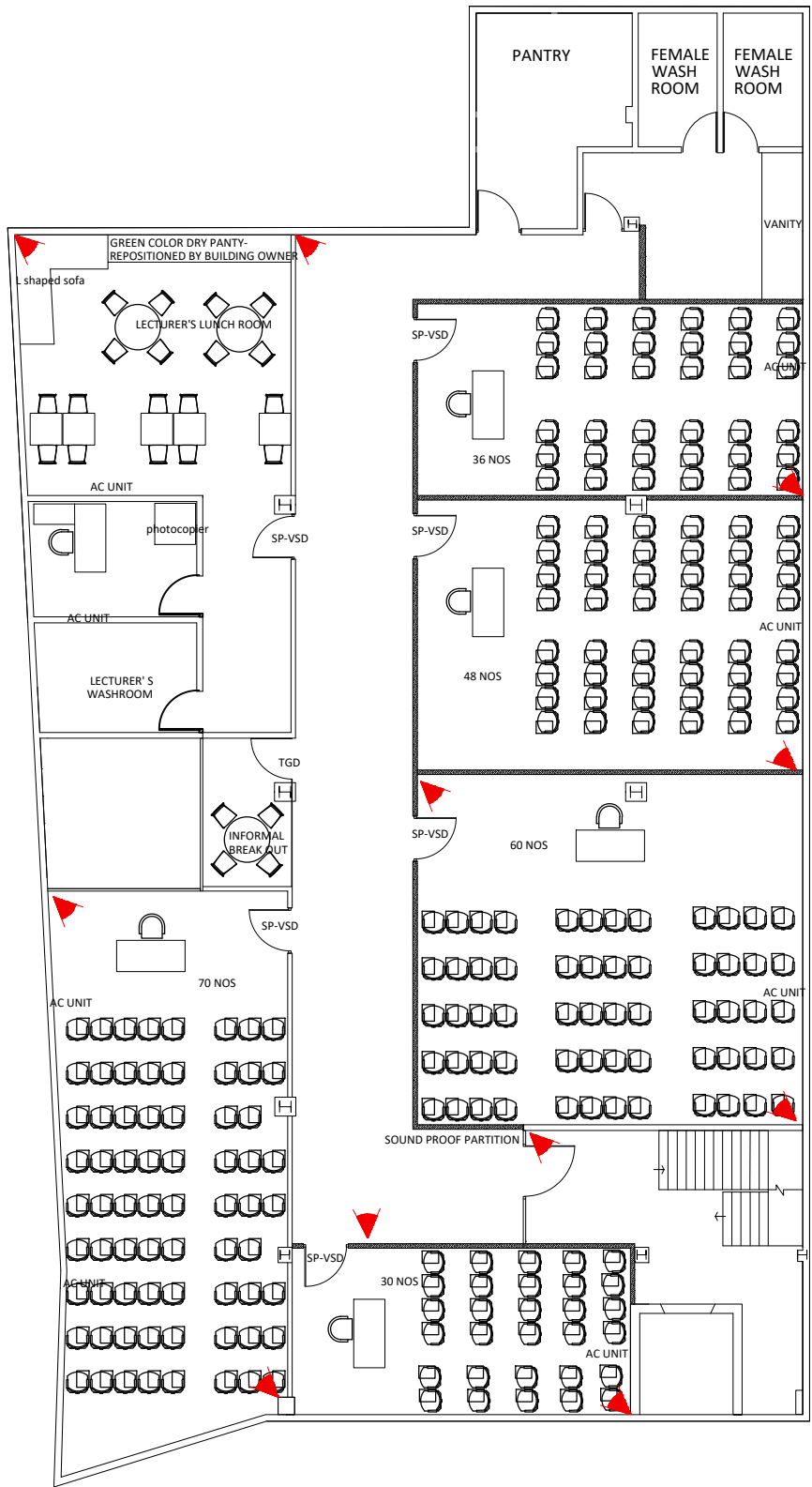
20	Consumption (Standard)	120W
21	Consumption (Standby)	≤0.5W
22	Type	Internal
23	Work Environment	Temperature :5°C~40°C (41°F~104°F) Humidity :20%~80%
24	Certifications	CE/FCC



Note -

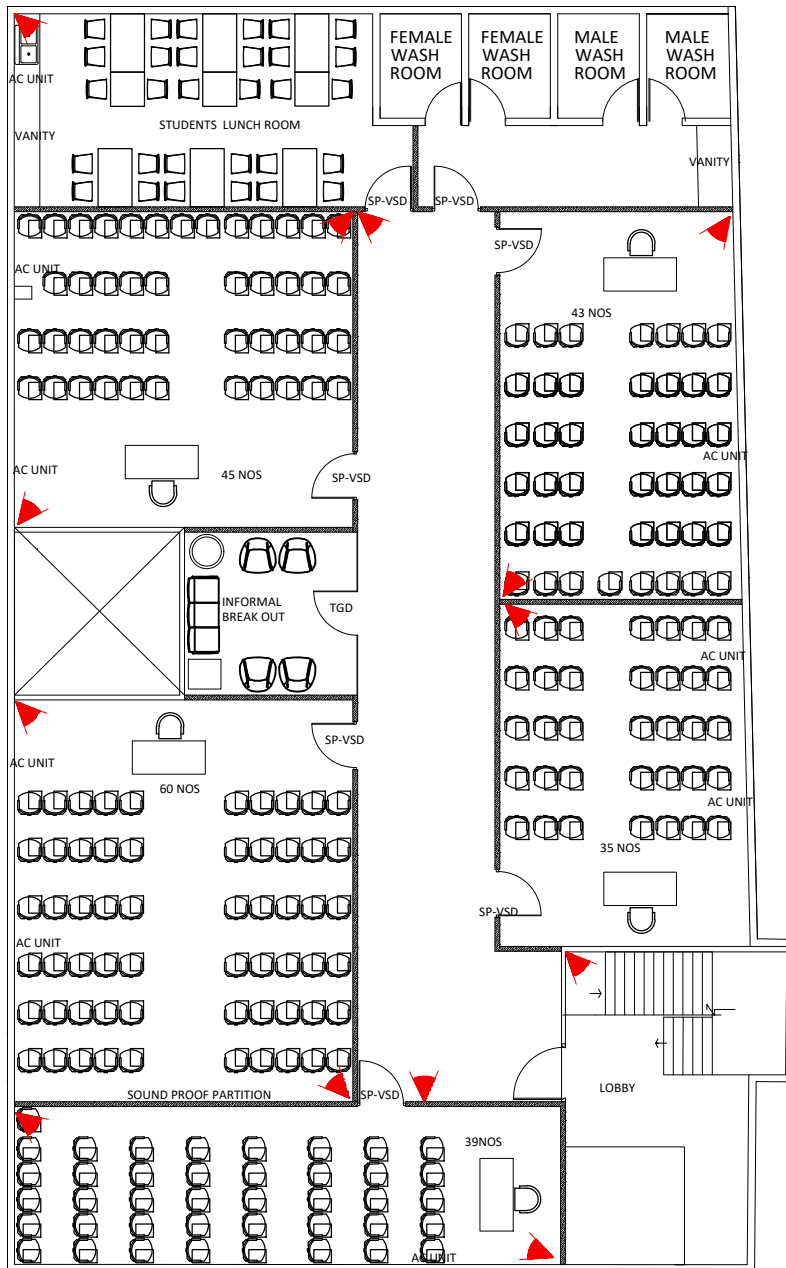


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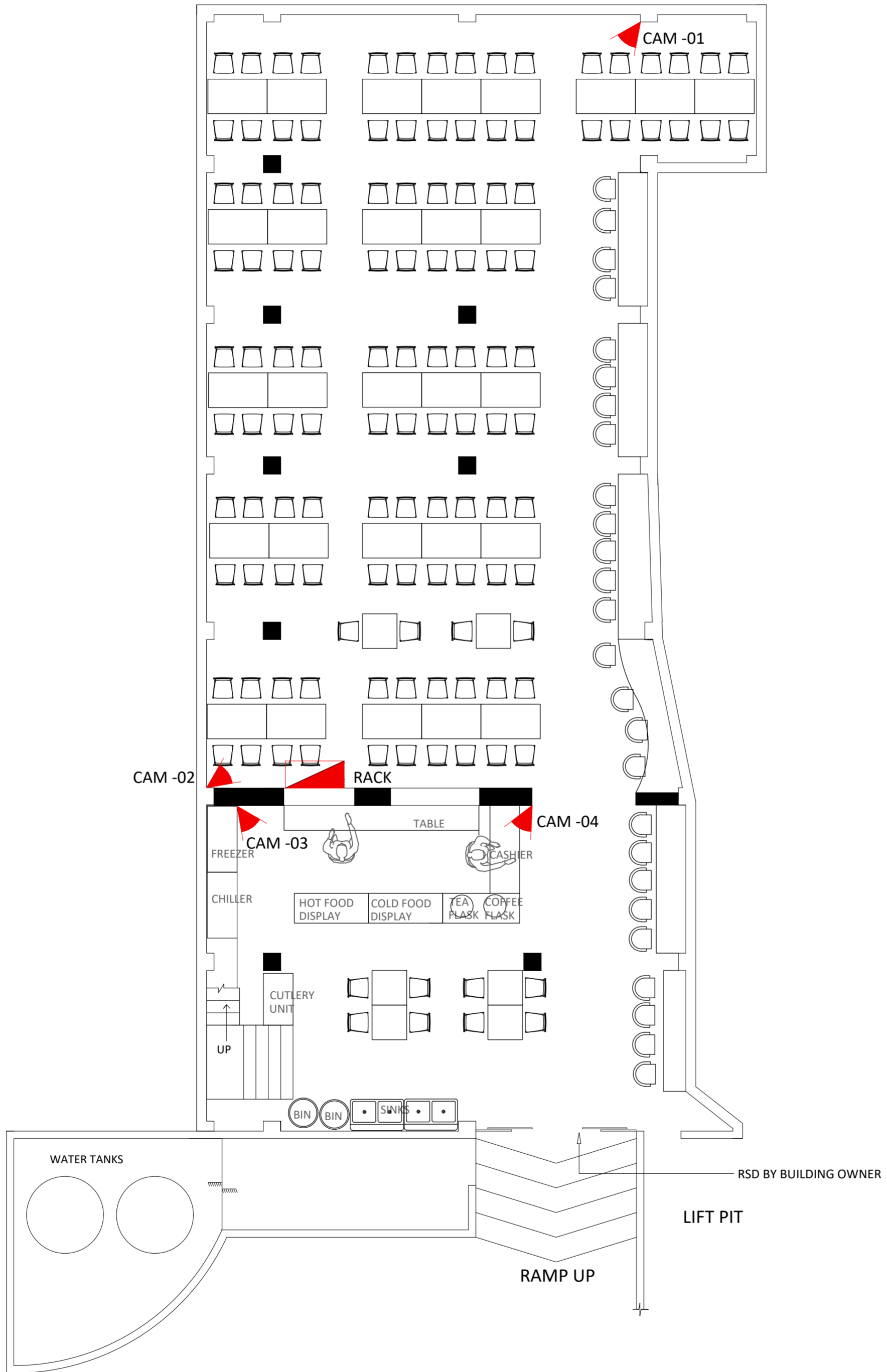


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