Open Tender No: IITPKD/ADMN/011/2018
AV equipment for transit campus

Date : 24.05.2018
Due Date : 05/06/18 02:00 pm

CORRIGENDUM

Based on the Pre-bid meeting following changes made in the tender document as per request of vendors. Mainly some references of specific products were removed. Additional changes made are given below.

Part A

Standard Projector 5000 Lumens

1. Lamp hour: from 10,000 to 5000 hours
2. Features are made optional
3. All Interface made into 1 no.

Standard Projector 6500 Lumens

1. Lamp hour: 3000 to 4000 hours
2. Features are made optional
3. All Interface made into 1 no.
4. Contrast Ratio from 50000 to 5000

Short throw Projector 6500 Lumens

1. Lamp hour: 10000 to 5000 hours
2. All Interface made into optional
3. Contrast Ratio from 14000 to 3000

High Definition Display

1. Features are removed
2. Displayport made as optional

Portable Active Speaker

1. Audio input 2 or 4 channel Mic and Line In

Part B

Wireless Chairman Delegate Unit
Specific Product specification removed and changed to Generic

Registrar, IIT Palakkad

AV Specifications for IIT Palakkad

Part A

Tender specification for the Design, Supply, Installation, Testing & Commissioning of Projectors and PA Systems at IIT Palakkad Transit campus (Location Pudussery) to meet all its requirements like Video Conferencing, Board meeting, Interactive sessions etc.: Installation of Audio console to existing VC polycom group 700 in Auditorium IIT Palakkad Temporary campus (Ahalia integrated campus kozhipara), Installation existing VC polycom group 700 with 75 inch LED TV onto trolley and Installation of Audio console to existing PA/VC system at IIT Palakkad Temporary campus Auditorium (Location Ahalia integrated campus Kozhipara).

I. Standard Projector – 14 Nos. Barco/Christie/Epson/ LG/Panasonic/Sony or Equivalent

Location 40 seater classroom 7nos., 80 seater classroom and labs 5nos.

S.No	Specification	
1	**Technology**	3 LCD Technology
2	**Lumens**	5,000 Lumen
3	**Resolution**	WXGA, 1280 x 800, 16:10
4	**Aspect Ratio**	16:10
5	**Contrast Ratio**	15,000 : 1
6	**Light source**	Lamp
7	**Lamp**	5000 Hours standard mode
8	**Keystone Correction**	Auto vertical: ± 30 °, Auto horizontal ± 20 °
9	**Colour Processing**	10 Bits / Deep Colour or better
10	**Features***	JPEG Viewer, MHL audio/video interface, PC Free, Slideshow, Split-Screen-Function, Wireless LAN Capable.
11	**Interfaces**	HDMI (1) ; RGB (1); Audio In (1) ; USB (1)* ; LAN (1)

II. Standard Projector – 2 Nos. Barco/Christie/Epson/ LG/Panasonic/Sony or Equivalent

Location 120 seater classroom

S.No	Specification	
1	**Technology**	3 LCD Technology
2	**Lumens**	6,500 Lumens
3	**Resolution**	WXGA, 1280 x 800, 16:10
4	**Aspect Ratio**	16:10
5	**Contrast Ratio**	5000 : 1
6	**Light source**	Lamp
7	**Lamp**	3000 to 4,000 Hours or higher in standard mode
8	**Keystone Correction**	Auto vertical: ± 30 °, Auto horizontal ± 20 °
9	**Colour Processing**	10 Bits / Deep Colour or better

10	**Features***	JPEG Viewer, MHL audio/video interface, PC Free, Slideshow, Split-Screen-Function, Wireless LAN Capable.
11	**Interfaces**	HDMI (1) ; RGB (1); Audio In (1) ; USB (1)* ; LAN (1)
12	**Accessory**	Power cable, Remote control incl. batteries, Software (CD), User Manual (CD-ROM)

III. Short Throw Interactive Projector – 1 No. Barco/Christie/Epson/ LG/Panasonic/Sony or Equivalent
Location Conference room

S.No	Specification	
1	Projection System	3LCD Technology – Ultra Short Throw Interactive
2	Colour Light Output	3,200 lumen
3	Resolution	WXGA, 1280 x 800, 16:10
4	Contrast Ratio	3,000 : 1
5	Lamp	5,000 hour or higher in standard mode
6	Keystone Correction	Manual vertical: ± 3 °, Manual horizontal ± 3 °
7	Colour Reproduction	Upto 1.07 billion colours
8	Zoom	Digital, Factor: 1 - 1.35
9	Focus	Manual
10	Interfaces	USB 2.0 Type A, USB 2.0 Type B, RS-232C, Ethernet interface (100 Base-TX / 10 Base-T), Wireless LAN IEEE 802.11b/g/n (optional), VGA in , HDMI in,, Stereo mini jack audio in

Note : Including Wall mount kit
> Projection area size is 6 x 4 feet

IV. Projector Ceiling Mount Kit - 15 Nos.
Height (3ft to 6ft Adjustable)
Location 40 seater classroom 7nos., 80 seater classroom, 120 seater classroom and labs 5nos.

V. Projection Screen – 15 Nos.
Location 40 seater classroom 7nos., 80 seater classroom, 120 seater classroom and labs 5nos.

S.No	Description	Specification Parameter
1	Type	Electric Screen
2	Size	123 to 128 Inch
3	Ratio	16 : 10

VI. **Magnetic Ceramic White board 1nos.**
Location Conference room

- 16 feet × 4 feet
- Matte finish for display and writing
- Tray for pen and felt eraser

Fixing should done by vendor.

VII. **High Definition Display – 2 Nos. Christie/LG/Panasonic/Samsung or Equivalent**
Location Boardroom and Director Office

S.No	Description	Specification Parameter
1	Size	75 Inch
2	Type	LED
3	Resolution	3,840 x 2,160 (UHD)
4	Brightness	350cd/m2
5	Interface	DP* , HDMI, RS232C / RJ45, USB*
6	Speakers	10W + 10W DP, Audio

VIII. **Document Camera 1 No.**
Key Features
Full HD 1080p output resolution
High speed 25 to 30fps dynamic image
VGA and HDMI output
Professional 2x sensor zoom
Superior sensor delivery and crystal-clear image quality
Built-in microphone
One-Touch synchronous audio/ video recording
Built-in SD card slot- supports SDHC and SDXC; expandable to 64GB
Jointless, highly flexible gooseneck
Plug-and-Play design
Auto tune function: unique image optimization
Support PC Windows 10, 8, 7, XP, Vista, Mac OS, Linux*

IX. HDMI Matrix Switcher – 1 Nos. Crestron / Extron / Lightware or equivalent

Location 120 seater classroom

Matrix Switcher with De-Embedder	4 X 4 Matrix Switcher with supporting minimum data rates of 12 Gbps, Switcher shall support minimum resolution of 4096x2160 with 30Hz and color space of 4:4:4. Audio de-embedding feature can be either inbuilt to the Matrix or external hardware to achieve the functionality, Scaler is required to convert VGA signal to HDMI, the scaling function can be inbuilt to matrix switcher or an external device can be provided for scaling function, control system and its user interface to control the AV devices in the room with Volume knob which can be part of the matrix or external unit

X. Multiformat Interface for Presentation 16 Nos. Crestron / Extron / Lightware or equivalent

Location 40 seater classroom 7nos., 80 seater classroom, labs 7 nos, Conference room, and Boardroom

Multiformat Interface for Presentation		
Sl. No.	Specification	
1	Meeting Space Collaboration System	Multiformat switcher for HDMI and VGA sources and associated digital and analog audio, plus signal extension over shielded CATx cable, Inbuilt or external unit supporting embedding analog stereo audio signals onto the digital video output signal, multiple embedded audio formats and also have an option for de-embedding audio. Scaling functionality to be achieved using an external or an Inbuilt scaler in Switcher or external device. Provides customisable Automatic switching of inputs at the switcher. Control processor to control the displays and other AV devices to be considered

XI. Wireless Lapel Microphone Transmitter – 3 Nos. AKG/Beyerdynamic / Sennheiser / Shure or equivalent

Location: 80 seater classroom and 120 seater classroom

S.No	Specification	
1	Microphone	Condenser
2	Carrier frequency range	500 - 865 MHz
3	Modulation	FM
4	Audio bandwidth	40 - 20,000 Hz
5	T.H.D. at 1 kHz	typ. 0.8% or better
6	Signal/noise ratio	typ. 105 dB(A) or better
7	RF output	10 mW or better
Wireless Lapel Microphone Receiver		
1	Carrier frequency range	500 - 865 MHz
2	Modulation	FM
3	Audio bandwidth	40 - 20,000 Hz
4	T.H.D. at 1 kHz	typ. 0.8% or better
5	Signal/noise ratio	typ. 105 dB(A) or better
6	Squelch threshold	.-100 to -70 dBm adjustable
7	Audio outputs	Balanced XLR and unbalanced 1/4" (6.3 mm) jack: adjustable from mic to line level. Output level at rated deviation: 500 mV rms

XII. Wireless Headworn Microphone Transmitter – 3 Nos. AKG/Beyerdynamic / Sennheiser / Shure or equivalent

Location 80 seater classroom and 120 seater classroom

S.No	Specification	
1	Microphone	Condenser
2	Carrier frequency range	500 - 865 MHz
3	Modulation	FM
4	Audio bandwidth	40 - 20,000 Hz
5	T.H.D. at 1 kHz	typ. 0.8% or better
6	Signal/noise ratio	typ. 105 dB(A) or better
7	RF output	10 mW or better
Wireless Lapel Microphone Receiver		
1	Carrier frequency range	500 - 865 MHz
2	Modulation	FM
3	Audio bandwidth	40 - 20,000 Hz
4	T.H.D. at 1 kHz	typ. 0.8% or better
5	Signal/noise ratio	typ. 105 dB(A) or better

6	Squelch threshold	.-100 to -70 dBm adjustable
7	Audio outputs	Balanced XLR and unbalanced 1/4" (6.3 mm) jack: adjustable from mic to line level. Output level at rated deviation: 500 mV rms

XIII. 12 Channel Audio Analog Mixer – 3 Nos. Behringer/Soundcraft/Yamaha or Equivalent Location 80 seater classroom Transit campus Pudussery and 80 seater 2 nos. at Temporary campus Ahalia

S.No	Specification
1	12-Channel Mixing Console: Max. 6 Mic / 12 Line Inputs (4 mono + 4 stereo) / 2 GROUP Buses + 1 Stereo Bus / 2 AUX
2	12-Channel Mixing Console
3	Max. 6 Mic / 12 Line Inputs (4 mono + 4 stereo)
4	2 GROUP Buses + 1 Stereo Bus
5	2 AUX
6	+48V phantom power
7	XLR balanced outputs

XIV. 16 Channel Audio Analog Mixer – 2 Nos. Behringer/Soundcraft/Yamaha or Equivalent Location 120 seater classroom at Transit Campus Pudussery and Auditorium at Temporary campus Ahaila

S.No	Specification
1	16-Channel Mixing Console: Max. 6 Mic / 12 Line Inputs (4 mono + 4 stereo) / 4 GROUP Buses + 1 Stereo Bus / 4 AUX
2	16-Channel Mixing Console
3	Max. 8 Mic / 12 Line Inputs (4 mono + 4 stereo)
4	2 GROUP Buses + 1 Stereo Bus
5	2 AUX
6	+48V phantom power
7	XLR balanced outputs

XV. Portable Active Speakers – 2 Nos. Behringer/JBL/Yamaha or equivalent

S.No	Description	Specification Parameter
1	Amplifier	Class D
2	Audio Inputs	2 or 4 channel, Mic and line
3	Output Power	300W

XVI. Rechargeable Battery with charger - Camelion/Panasonic/Sony or equivalent

- Rechargeable Battery 1.5AA,2400mAH X2 - 16nos.
- Charger for above - 8 nos

XVII. Wall mountable Active Speakers – 10 Nos. Behringer/JBL/Yamaha or equivalent
Location 80 seater classroom and 120 seater

S.No	Description	Specification Parameter
1	Amplifier	Class D
2	Audio Inputs	XLR, phone 6.35 mm
3	Output Power	200W

XVIII. Specification for Podium 1 No.
Location 120 seater Classroom

SL No.	Description
1	Full Height Wooden Lectern with Gooseneck Microphone
2	Product Dimensions: 46" H x 23" W x 16" D
3	Material: Scratch Resistant High-Pressure-Laminate

Gooseneck Microphone for Podium AKG / Sennheiser / Shure or Equivalent

SL No.	Description
1	Audio frequency bandwidth 20 - 20000 Hz
2	Recommended load impedance 2000 Ohms
3	Type Balanced XLR
4	Gender Male
5	Contacts 3-pin
6	Voltage 9 to 52 V
7	Current 3.5 mA

XIX. Rack for mounting AV equipment with accessories 15 Nos.

- 9U standard, front glass door with features
- Minimum 2 numbers of fans
- Power sockets with light indicators (PDU)
- Tray for receivers

XX. **Universal Trolley stand for holding up to 80 inch Display and VC codec 2 No. Location Boardroom and Director office**

- Adjustable height minimum 165cm
- Adjustable base for codec 30cm X 20cm
- Lockable caster wheels fitted on steel frame
- 3 Power socket and 10 meter cable with 15 amp plug

XXI. **Cables and Connectors Crestron/Extron/Kramer or equivalent** as per actuals in size and quantity

Proven reputed brand with lifetime warranty to be quoted

The length as mentioned below and numbers may be quoted in units.

- High Quality branded Cables, Patch Cords & Accessories
- High standard quality HDMI
- High standard quality Projector Communication Cable
- High standard quality Video 3' Composite out to projector cable
- High standard quality Male to Male VGA Cable
- High standard quality CAT5 RJ45 Male to Male
- High standard quality Male to Male VGA with Audio Cables
- High standard quality Male to Male VGA with Audio Cables
- High standard quality Power, Switcher Communications and Volume Control Cable

Sl. No.	Items	Specification
1	HDMI Cables	35'/12' / 6' / 3' all are 4K Cables
2	VGA Cables	12' / 6' all are 4K cables
3	Bulk Cables	AUDIO / SPEAKER / Shielded Twisted Pair
4	Bulk Connectors	Branded Connectors for project as per site.

HDMI Transmitters and Receivers to be considered for projectors if cable run is beyond 35ft.

Conector - 20 Nos. Each

- High standard Mini Displayport to HDMI connectors
- High standard Displayport to HDMI connectors
- High standard C type USB to HDMI Connectors

XXII. HDMI Audio De-embedder – 9 Nos. Crestron/Extron/Kramer or equivalent

Location 40 seater classroom 7 nos., 80 seater classroom and 120 seater

S.No	Description	Specification Parameter
1	Connectors - Input	1 x HDMI Type A Female (Black)
2	Connectors – Output	1 x HDMI Type A Female (Black) 1 x Toslink (Black) 1 x RCA (Orange) 2 X RCA (Red / White)
3	Video Resolution	Up to 1920 x 1080

This is not required if de-embedder is inbuilt in the item no. IX and X

HDMI Audio De-embedder (if the Matrix/Switcher doesn't have it inbuilt)

Should support the same resolution supported by the Matrix/Switcher used in the system

For the Digital Applications the de-embedded audio is made available on S/PDIF outputs in its native two-channel or multi-channel Dolby® Digital or DTS format.

For analog audio applications, the de-embedded signal is made available as line level stereo audio

XXIII. VGA-HDMI Scaler: – 15 Nos. Crestron/Extron/Kramer or equivalent

This is not required if scalar is inbuilt in the item no. IX and X

VGA-HDMI Scaler:

shall support video processing with the ability to scale RGB, signals to a common high resolution output.

Shall accept and output signals up to 1920x1200, including 1080p/60 and 2K.

The scaler should feature HDMI audio embedding

Scaler shall provide gain and attenuation adjustments at analog audio input.

XXIV. Installations and integration for all Rooms as mentioned above.

Note :

- All rooms will be connected to existing Polycom Group 700 as when required by IIT Palakkad, Hence Vendor should give the provision for connecting Audio and Video cables for all rooms.
- Items mentioned with star symbol (*) is optional.

Part B

Wireless Chairman and Delegate unit

Beyerdynamic/Bosch/Sennheiser or equivalent

Location Conference room

Sl. No.	Description	Specification
Control Unit		
1	Unit Supported	Wireless Digital Conference Unit Shall be able to control and power at least 150 units , this shall be possible by Serve Unit as a Master /Slave or Power supply unit
	Interface	Must have LCD display to allow easy access of the system
	Frequency Range	2.4 to 5.8 or Better
4	Features	Open Media Control Protocol over Ethernet, USB Conference recording optional
5	Microphone Modes	Direct Access , FIFO , Request , Push to Talk
6	Spares parts and Service	OEM/Dealer Should have availability for Repairing , Spares part for Conference System After Installation and commissioning the System
Wireless Delegate Unit 12 No		
7	Microphone	Should be with gooseneck microphone length 300mm or better , polar pattern :-Super Cardioid or Cardioid or better
8	Button	Microphone Mute ON/OFF
9	Features	High-performance loudspeakers, Convenient cabling via RJ45 sockets

10	RFI	Microphone Should be Interface less from mobile or any other electronic devices
Wireless Chairman Unit 1 No		
11	Microphone	Should be with gooseneck microphone length 300mm or better , polar pattern :- Super Cardioid or Cardioid or better
12	Button	Microphone Mute ON/OFF
13	Features	High-performance loudspeakers, Convenient cabling via RJ45 sockets
14	RFI	Microphone Should be Interface less from mobile or any other electronic devices
Charging Unit		
15	Power Supply	"Modular charging and transport case for 10 microphone units, simultaneous charging of all batteries

- **Note :** Polycom Group 700 audio should be integrated with Chairman and delegate unit for receiving/ transmitting far and near audio.
- Items mentioned with star symbol (*) is optional.

Terms and Conditions:

- Vendor have to provide schematic diagram with measurement for each room.
- All tools/ ladder for erection should be brought by the vendor/contractor.
- No damage should be done to the floor or walls for laying the cables,. Reversible changes are allowed.
- No cable should be exposed in moving space of the floor.
- All materials used should be of good quality.
- *All standard accessories to be supplied (Example Remote, Wall mount bracket for speakers/Display, Power cord etc.)*
- *Installation includes Electrical wiring with fire retardant cables and power points for equipment in all rooms. IIT Palakkad will only provide UPS power point , Vendor have to draw cables to the required equipment using casing / caping/ piping.*
- *3 Years onsite Warranty should be clearly mentioned (Proof has to be submitted at the time of installation).*
- *The product should match each and every specifications mentioned. The specification has to be mentioned clearly in the technical bid.*
- ***Compliance sheet for the specification & OEM Brochure has to be attached along with Technical bid. Vendor has to fill the compliance sheet and mention page number or reference number in OEM brochure. Unfilled / partial filled sheets lead to disqualification.***
- *Vendor has to highlight the specification in the OEM brochure.*
- *The entire work has to be completed within 4 weeks from the date of receipt of Supply/Work Order.*
- *Those who have done similar kind of installation (both audio & video integration) for Classroom/Boardroom will be preferred. Proof (Purchase Order/Performance Certificate) has to be attached.*
- *The bidder should have been in AV system integration with at least 3 Years Experience. Proof should be attached in the technical bid.*
- *Payment will be given after successful installation & configuration.*
- **Replacement or standby equipment should be installed within 24 hours after registration of faulty equipment during the warranty period.**
- Vendor should provide acceptance letter for above mentioned terms & conditions.

Who can participate in the bid?

Only those bidders fulfilling the following criteria should respond to the tender.

1. The bidder should be either an Original Equipment Manufacturer (OEM) of AV Equipment or should be an authorized representative (provide documentary proof) of an OEM.

2. The bidder should be a company registered under the Companies Act, 1956/2013 OR a Limited Liability Partnership /a registered partnership firm OR a sole-proprietorship entity. Appropriate Registration incorporation certificate must be submitted.

3. The bidder must have a registered office in Karnataka/Tamil Nadu/Telangana/Andhra Pradesh/Maharashtra or Kerala. Certificate of registration for the offices to be provided.

4. The bidder must also have a service center in Karnataka/Tamil Nadu/ Telangana/Andhra Pradesh or Kerala. Certificate of registration for the centers to be provided. Details about scope of service activities provided by the service centres must be provided. The contact details of the service engineers must be provided.

5. The bidder must be in existence in the business of supplying AV Equipment for a minimum period of 5 previous financial years. Documentary evidences of experience must be provided.

6. The bidder should have implemented orders of AV Equipment with accessories worth exceeding INR **50 Lakhs** during previous three financial years (01 April 2014 – 31 March 2017). Copies of the most recent purchase orders and certificates of successful implementation must be included. Copies of financial statements or evidence of turnover must be furnished.

7. The bidder should have documentary evidence of having supplied at least 1 No. of AV Equipment with accessories to a Centrally Funded Technical Institution (e.g., IIT, NIT, IISc, IISER, etc.) in the recent past. The bidder must provide a certificate of satisfactory performance of the supplied equipment from the institute to which they have recently supplied. Contact details of the faculty-in-charge of the installed setup must also be provided.

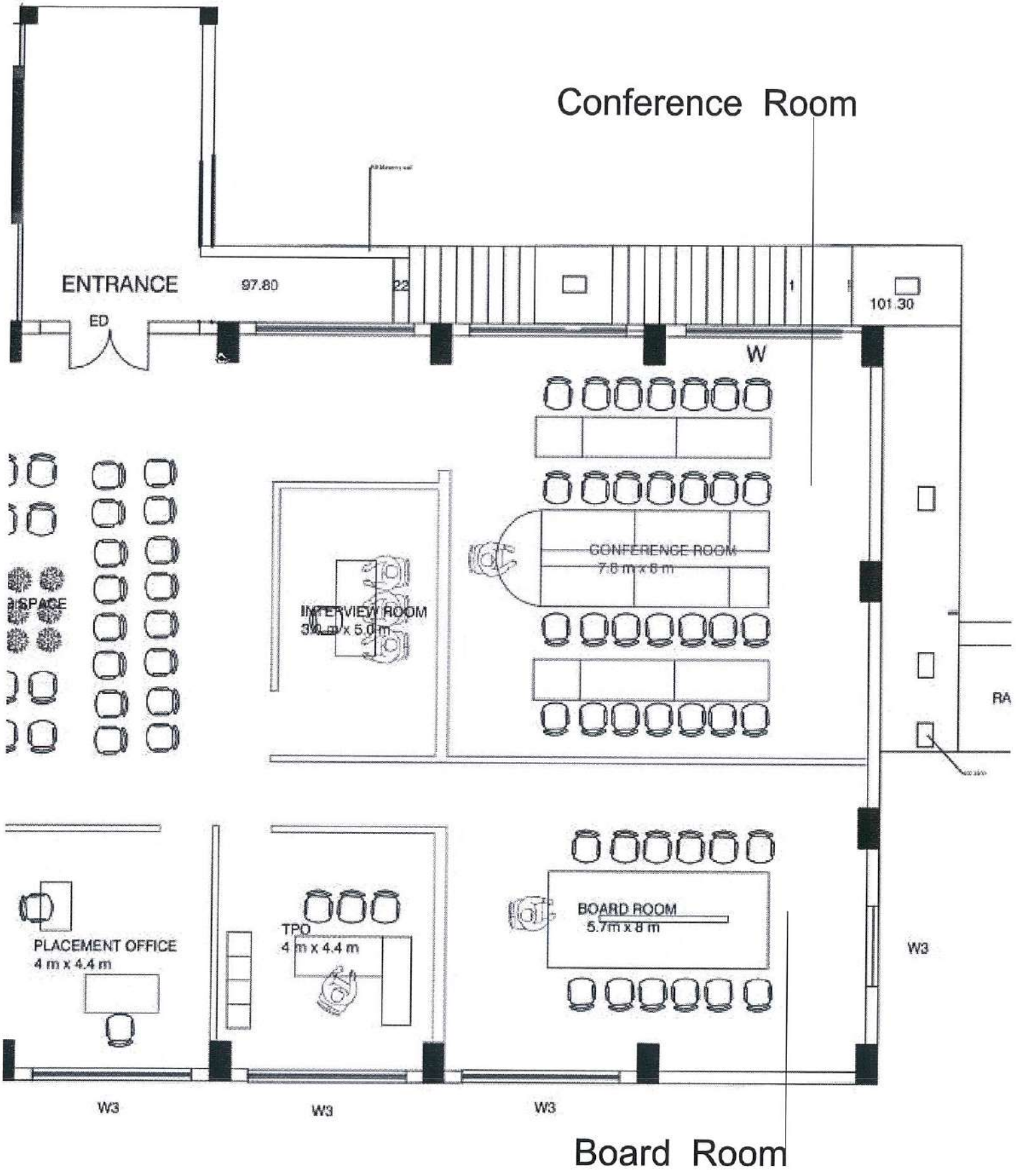
8. Compliance sheet for the technical specification and OEM Brochure have to be attached along with the Technical bid. Vendor has to fill the compliance sheet and mention page number or reference number in OEM brochure. Unfilled / partially filled sheets lead to disqualification.

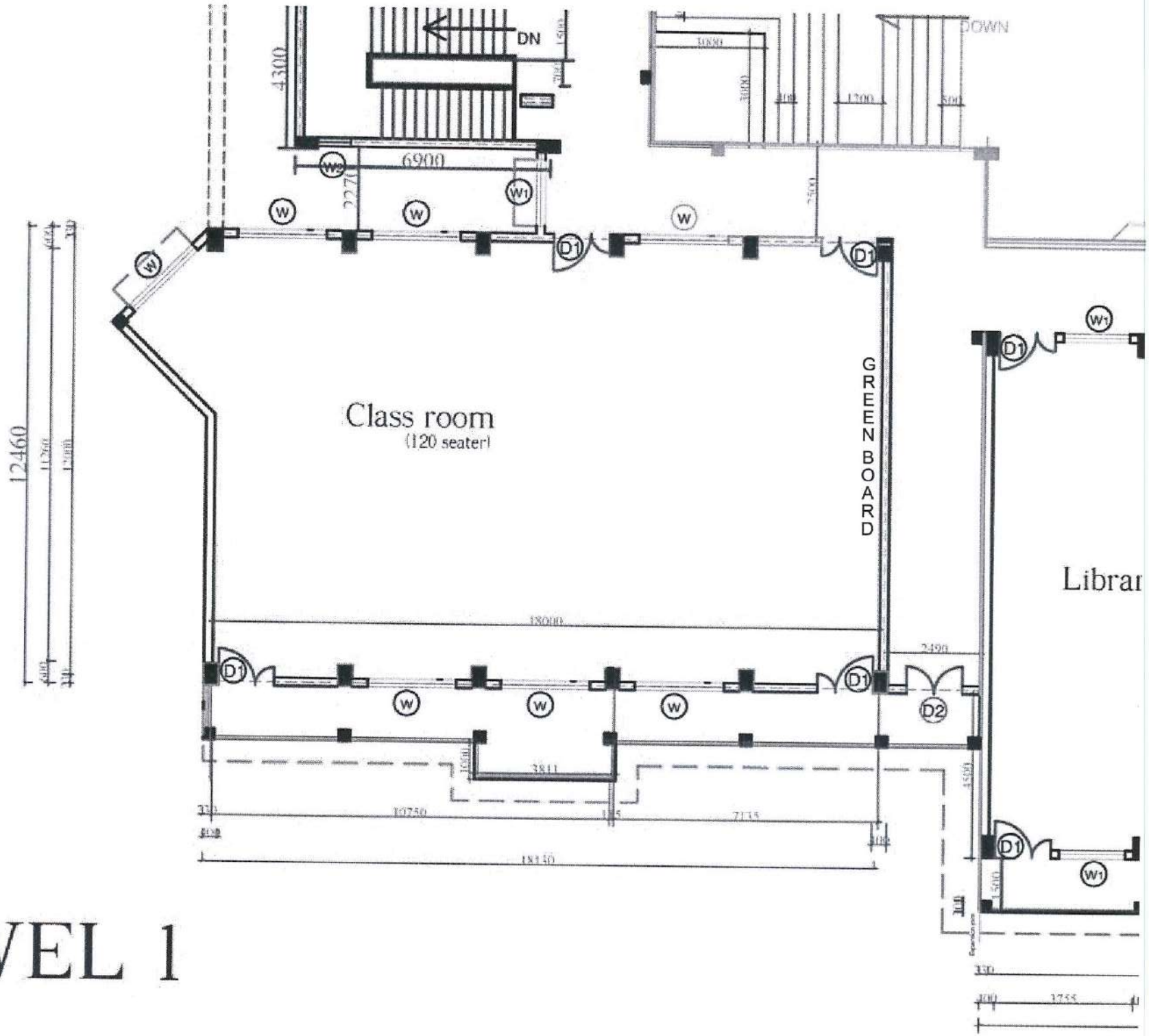
9. The bidder must provide detailed specification of each equipment/item. Model numbers, data sheets and brochures must be included for all equipment quoted, system and all accessories. Specifications corresponding to quoted model number must be available publicly via OEM's website for scrutiny. If not, bid can be disqualified on technical grounds.

10. Service and warranty for a minimum period of three years for the equipment must be provided. AMC for additional three years must be quoted separately.

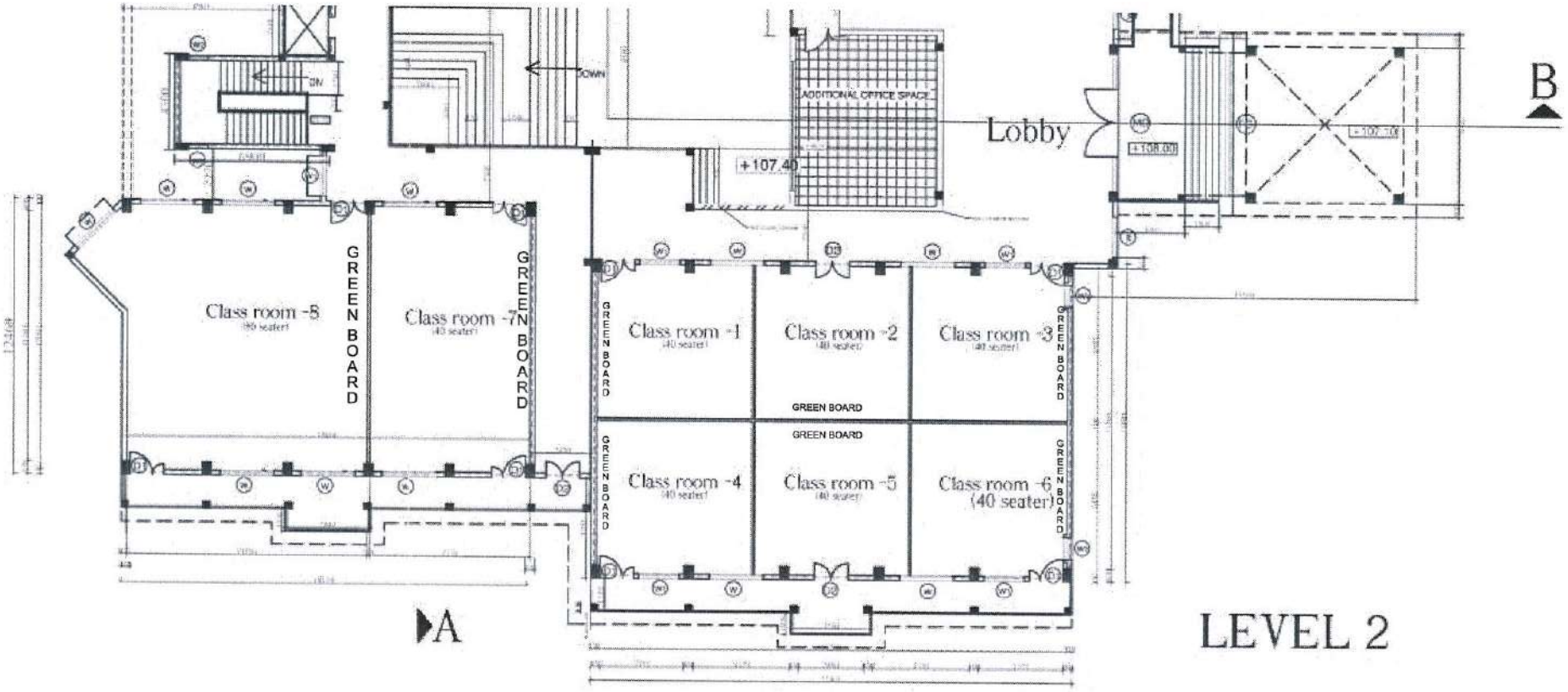
11. Bidder should provide performance certificate of any 3 AV installations work of high value which they have done in last three year.

12. The bidder should have experience in installation of IP based HD video conferencing. Proof has to be provided with Technical bid

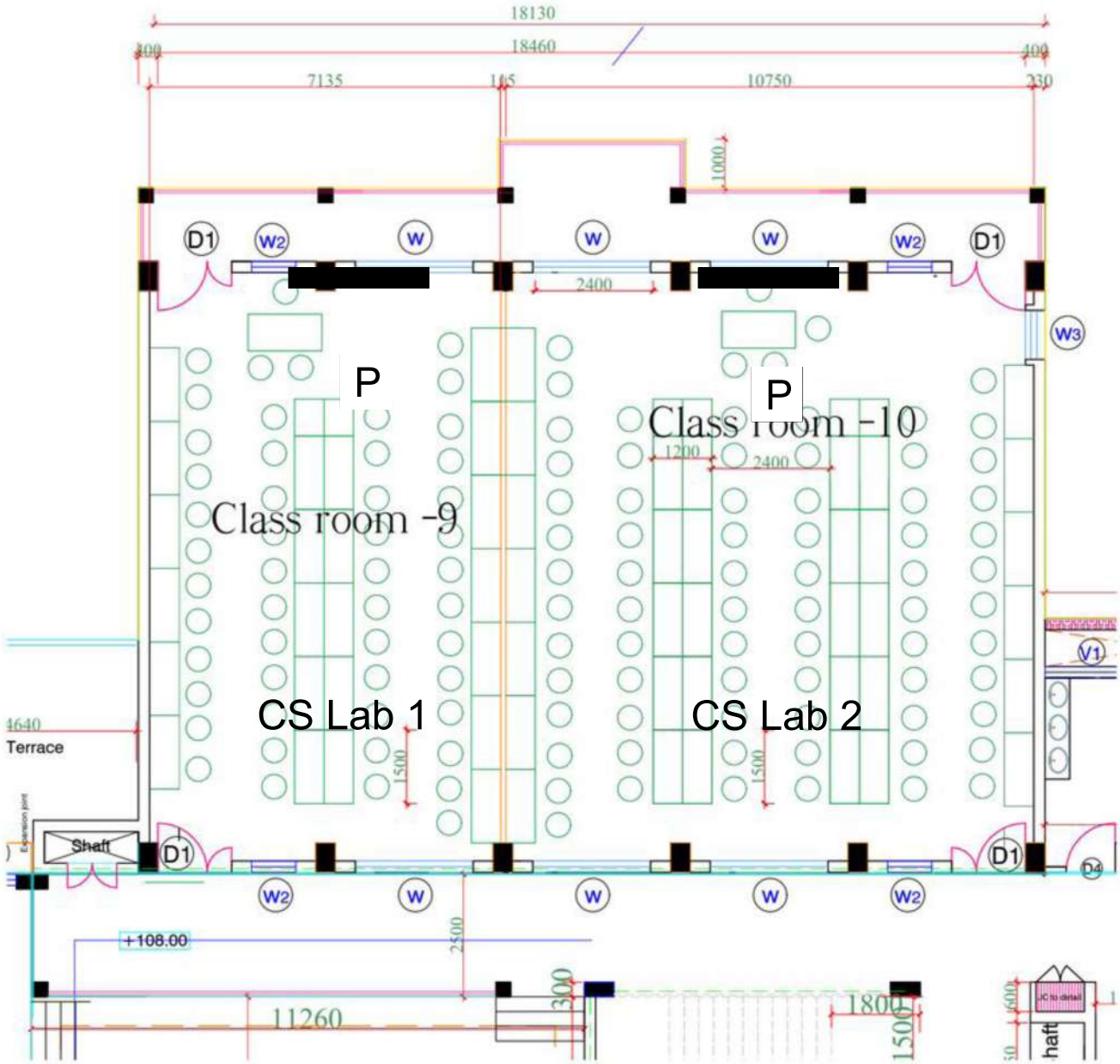

Conference Room
ENTRANCE
97.80
22
1
101.30
ED
W
SPACE
INTERVIEW ROOM
3.0 m x 5.0 m
CONFERENCE ROOM
7.6 m x 8 m
RA
PLACEMENT OFFICE
4 m x 4.4 m
TPO
4 m x 4.4 m
BOARD ROOM
5.7m x 8 m
W3
W3
W3
W3
Board Room


DN
DOWN
4300
6900
2270
12460
Class room
(120 seater)
GREEN BOARD
Librar
18000
2490
3811
10750
7135
18130
W
W1
W2
D1
D2

LEVEL 1

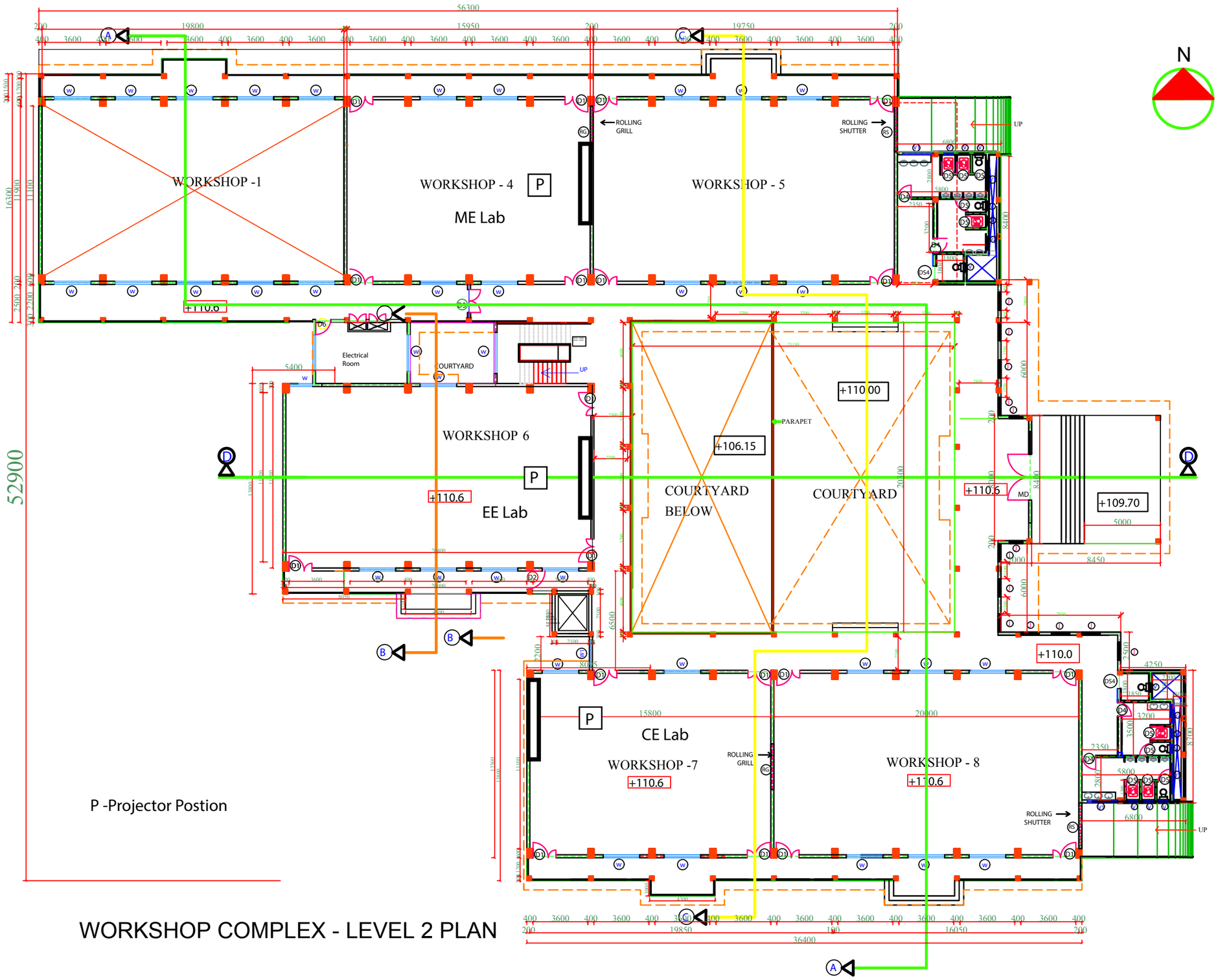

Class room -8
(40 seater)
Class room -7
(40 seater)
GREEN BOARD
GREEN BOARD
Class room -1
(40 seater)
Class room -2
(40 seater)
Class room -3
(40 seater)
GREEN BOARD
GREEN BOARD
GREEN BOARD
GREEN BOARD
Class room -4
(40 seater)
Class room -5
(40 seater)
Class room -6
(40 seater)
GREEN BOARD
ADDITIONAL OFFICE SPACE
Lobby
+107.40
+108.00
A
B

LEVEL 2



Layout of computer labs

P - Projector Postion



N

NOTE:

- ALL DIMENSIONS ARE IN MM .
- DRAWING NOT TO BE MEASURED,ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.
- ANY DISCREPANCIES SHALL BE BROUGHT TO THE NOTICE OF THE CHIEF ARCHITECT OF THIS OFFICE

BRIEF SPECIFICATION:

SUPER STRUCTURE :

LGSS STRUCTURE WITH 200 MM THICK WALL WITH CEMENT BOARD PANEL WITH SUITABLE INSULATION

ALL EXTERNAL FINISHES:

ANTI FUNGAL EXTERNAL ACRYLIC PAINT DESIGN/ COLOR AS APPROVED BY CA(SR).

ALL INTERNAL FINISHES:

SYNTHETIC ACRYLIC EMULSION.

DOORS, WINDOWS AND VENTILATORS:

ANODIZED ALUMINUM WINDOWS,VENTILATORS DOORS.

ROOFING:

STEEL TRUSS ROOF AS PER STRUCTURAL DESIGN WITH GALVALNUM SHEET ROOFING WITH TILE PATTERN

FLOORING:

a) INDUSTRIAL HEAVY DUTY RUGGED FINISH FOR LOBBY. CORRIDOR& STAIRCASE(COLOUR AS SPECIFIED)
b) HEAVY DUTY CEMENT CONCRETE FLOORING FOR WORKSHOP HALLS, ELECTRICAL ROOM & STORE
c) DESIGNER CEMENT CONCRETE TILES FOR THE COURTYARDS.
d) ANTI-SKID CERAMIC TILES FOR THE TOILETS.
e) GLAZED TILE DADO UPTO 2100MM FOR TOILETS.

FALSE CEILING:

FALSE CEILING 600 X 600 HEAT INSULATING AND ACOUSTIC TILE

HANDRAILS

STAINLESS STEEL HANDRAILS AND BALUSTERS FOR ALL STAIRCASES.
M.S. HANDRAILS AND BALUSTERS FOR CORRIDORS

SCHEDULE OF JOINERY

NO.	TYPE	DESCRIPTION	SIZE IN MM
1	MD	HEAVY DUTY ANODIZED ALUMINUM GLAZED DOOR	6000X2100
2	D1	ANODIZED ALUMINUM GLAZED DOOR	1500X2100
3	D3	ANODIZED ALUMINUM GLAZED DOOR	1500X2100
4	D2	ANODIZED ALUMINUM GLAZED DOOR	1200X2100
5	D4	ANODIZED ALUMINUM GLAZED DOOR	900X2100
6	DS4	ANODIZED ALUMINUM GLAZED SLIDING DOOR	900X2100
7	D5	SOLID FRP DOOR	800X2100
8	W	ANODIZED ALUMINUM GLAZED WINDOW	2400X1500
9	W1	ANODIZED ALUMINUM GLAZED WINDOW	1800X1500
10	V	ANODIZED ALUMINUM GLAZED VENTILATOR	600X600
11	V1	ANODIZED ALUMINUM GLAZED VENTILATOR	2000X600
12	V2	ANODIZED ALUMINUM GLAZED VENTILATOR	1200X600
13	J	SELF CLEANSING RCC/TERROCOTTA JALLI	1200X1800
14	RG	ANTI CORROSIVE ROLLING GRILL	3000X3000
15	RG1	ANTI CORROSIVE ROLLING GRILL	3600X6000

Revision Note dated 10.4.17:

1. Workshop No.1 is made double-storeyed and the plinth level is modified to +107.3 to avoid rock cutting.
2. Workshop No.1 is shifted by 8 m towards service road to avoid rock cutting at top level as per decision on site meeting on 7.4.17.
3. Workshop No. 2 & 6 shifted by 4 m towards service road to avoid rock cutting as per decision on site meeting on 7.4.17.
4. The plinth level of Level 1 is modified to +106.6 instead of +106.0 and the plinth level of level 2 is modified to 110.6 from 110.0 to avoid rock cutting.
5. Corresponding changes are made in increasing courtyard size.
6. Workshop No. 7 are decreased to 4 bays and Workshop 5 & 8 are increased to 5 bays
6. Building profile is modified in the front due to shifting of right side toilet to the back.
7. There is an increase of one bay area (4m x 16.3) .

????? ????????(?.??),?????? – CHIEF ARCHITECT(SR), CHENNAI
'G' WING , THIRD FLOOR, RAJAJI BHAVAN, BESANT NAGAR, CHENNAI-90.

DRG. NO . CA (SR)/KL-4/ IIT-P/EX/67 — ?????? REV :1

SCALE: 1: 100	PROPOSED CONVENTION COMPLEX for IIT- PALAKKAD
DATE : DEC 2016	
FILE NO:	WORKSHOP COMPLEX
DEALT : Annie Madonna J	LEVEL- 2 PLAN

????? ?????????	?????? ?????	S.ABDUL SALEEEM
SHANTHI RAMALINGAM	MANJULA INIAN	CHIEF ARCHITECT
TECHNICAL OFFICER	ARCHITECT	