



National Kaohsiung  
CENTER<sub>FOR THE</sub> ARTs

WEI WU YING 

衛武營 國家藝術文化中心

國家表演藝術中心 National Performing Arts Center

OPERA HOUSE

Technical Information

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Last updated : 2025/9/28

## 1 General Information

### 1-1 National Kaohsiung Center for the Arts (WEIWUYING)

CENTER FOR THE ARTS, ARTS FOR THE PEOPLE, National Kaohsiung Center for the Arts will become one of the important theatre complexes of the international art field. It includes four performance blocks, the 2,260-seat Opera House, the 2,000-seat Concert Hall, the 1,254-seat Play House and the 470-seat Recital Hall.

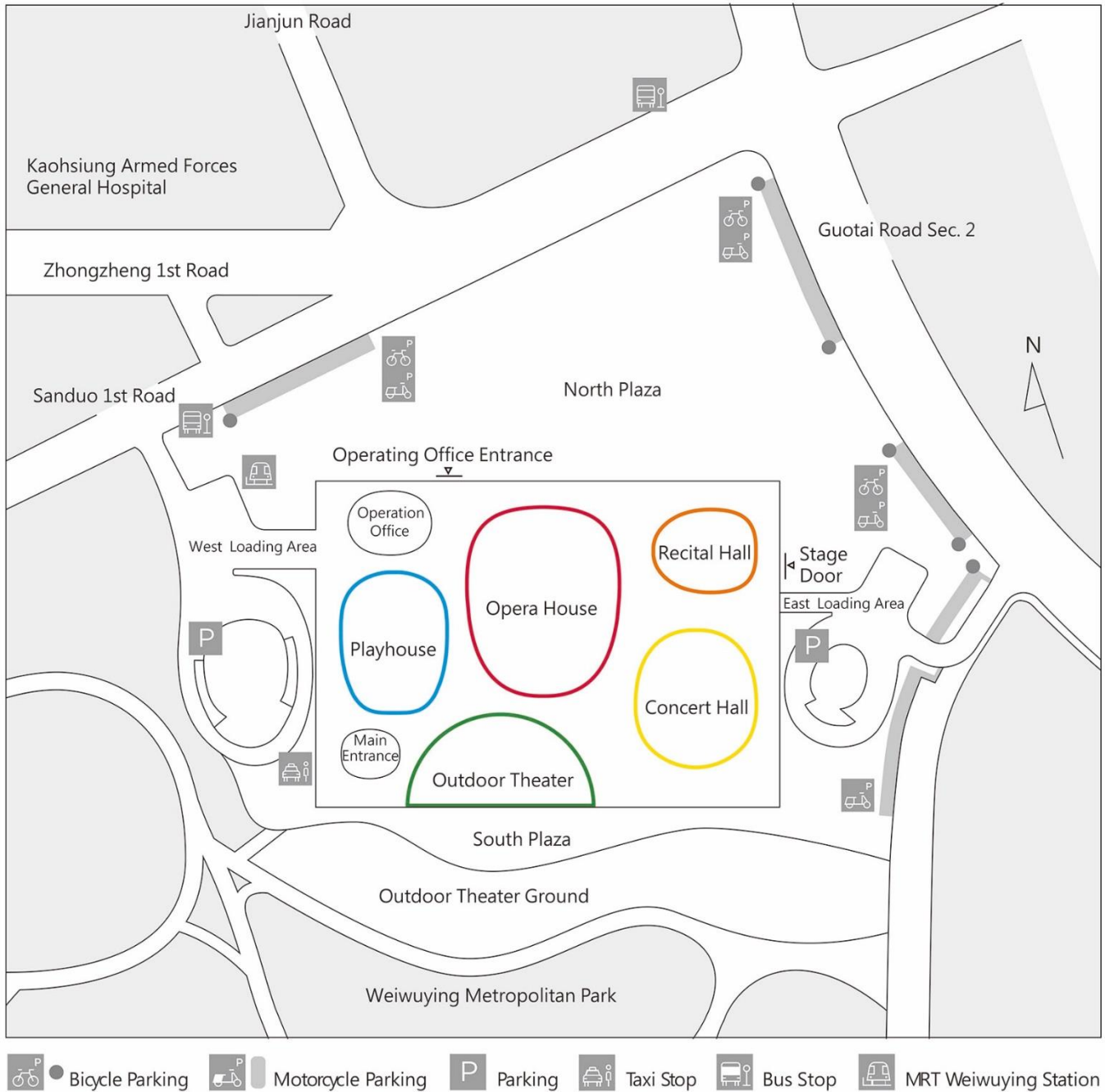


### 1-2 Opera House

The Opera House is a large-scale stage mainly used for operas, major drama productions, dances, and interdisciplinary performances. It is the largest such facility in Taiwan. The mechanical equipment of the stage is fully automated, whereas the seats are arranged in a horseshoe shape. The Opera House is the first opera house in Taiwan to have a mainframe computer aiding the operation.



### 1-3 Traffic Information



### 1-4 Contact Information

#### National Kaohsiung Center for the Arts (Weiwuying)

No.1, Sanduo 1st Rd., Fengshan Dist.,  
Kaohsiung City 83075, Taiwan

**+886 7-262-6666**

[service@npac-weiwuying.org](mailto:service@npac-weiwuying.org)

### 1-5 Stage door

Ground floor access is from the north and east side of building. Enter from Operating office entrance on Sanduo 1st Road or Stage Door on Guotai Road.

Basement Level 1 access is from Sanduo 1st Road entrance for Opera House and Playhouse ,Guotai Road entrance for Concert Hall and Recital Hall.

Working pass will be required for entry.

## 1-6 Auditorium / Seating

Seating Capacity : 2236 seats

House Seats : 1887 seats (1F/ 542 seats 、2F/ 520 seats 、3F/ 484 seats 、4F/ 341 seats)

Wheelchairs Seats : 14 seats

Companion Seats : 14 seats

Orchestra Pit Seats : 110 seats (Row P1~P4)

Control Area Seats : 16 seats (Row L~M, NO.1~8)

Reserved Seats for Tech Table : 4 seats

Reserved Seats for FOH : 6 seats

Obstructed View Seats : 111 seats ( Non-ticketing )

Partial View Seats : 74 seats ( Tickets can be sold, and "Partial View" must be marked )

Reserved Seats

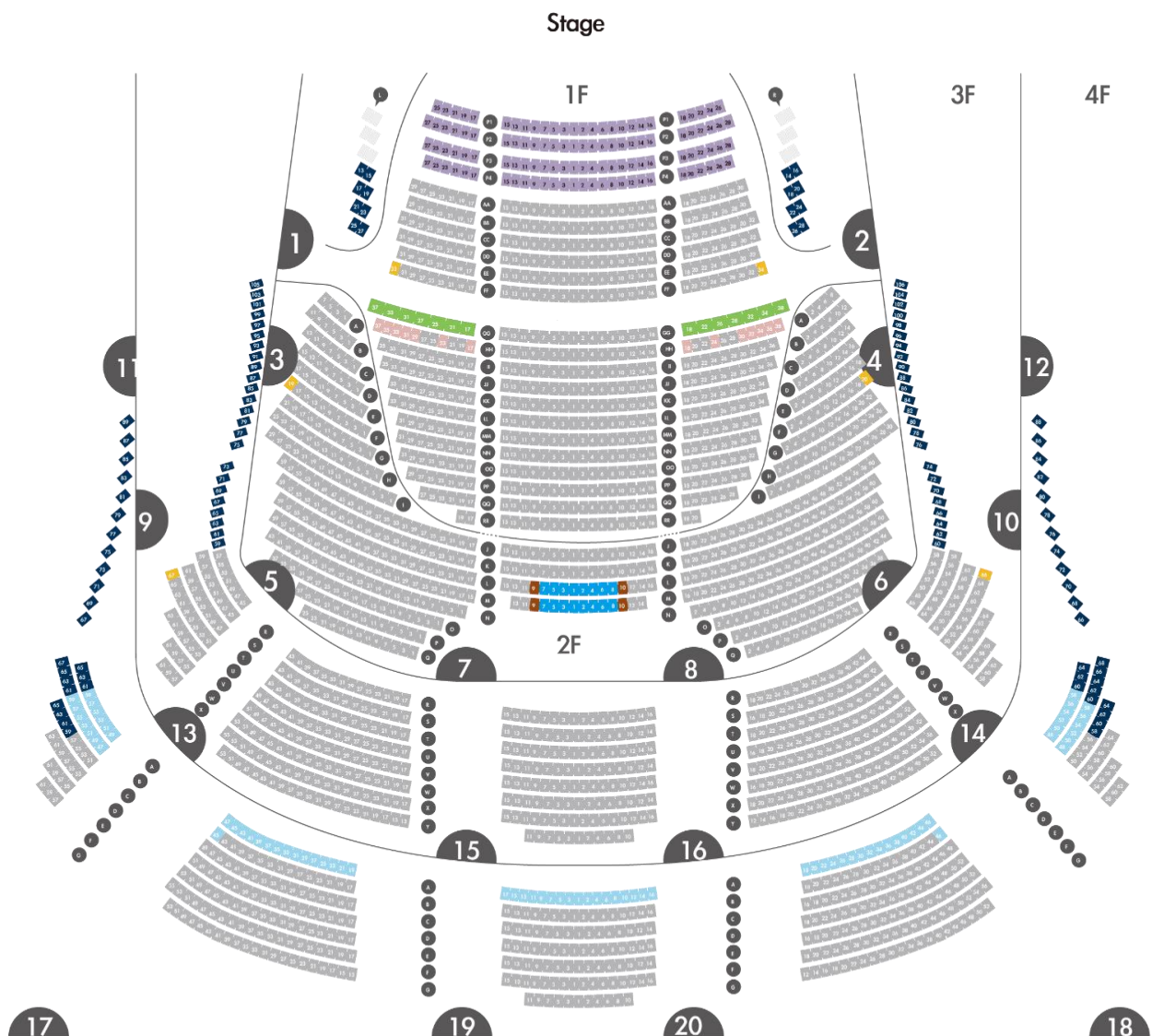


Figure 1.1- Opera House Seating plan

Opera House Set Up Equipment Recommended Seat

| Set Up Equipment Seat                                | Reserved Seat                                          | Notes                               |
|------------------------------------------------------|--------------------------------------------------------|-------------------------------------|
| 1st Floor RR row Seat 1、2                            | 1st Floor QQ row Seat 1、2<br>1st Floor RR row Seat 3、4 | For Photo Shooting & Video Shooting |
| 1st Floor RR row Seat 19                             | 1st Floor QQ row Seat 19、21、23、25、27                   | For Photo Shooting & Video Shooting |
| 1st Floor RR row Seat 20                             | 1st Floor QQ row Seat 20、22、24、26、28                   | For Photo Shooting & Video Shooting |
| 1st Floor L、R Box Seat                               | Not selling seats                                      | For Photo Shooting & Video Shooting |
| 2nd Floor A row Seat 7                               | 2nd Floor A row Seat 5<br>2nd Floor B row Seat 7、9、11  | For Video Shooting                  |
| 2nd Floor A row Seat 8                               | 2nd Floor A row Seat 6<br>2nd Floor B row Seat 8、10、12 | For Video Shooting                  |
| 2nd Floor M row Seat 1、2                             | 1st Floor L row Seat 1、2<br>1st Floor M row Seat 3、4   | For Video Shooting                  |
| Set Up Control Area                                  | Reserved Seat                                          | Notes                               |
| 2nd Floor L row Seat 1~8<br>2nd Floor M row Seat 1~8 | 2nd Floor L row Seat 9、10<br>2nd Floor M row Seat 9、10 |                                     |

1-7 Plan

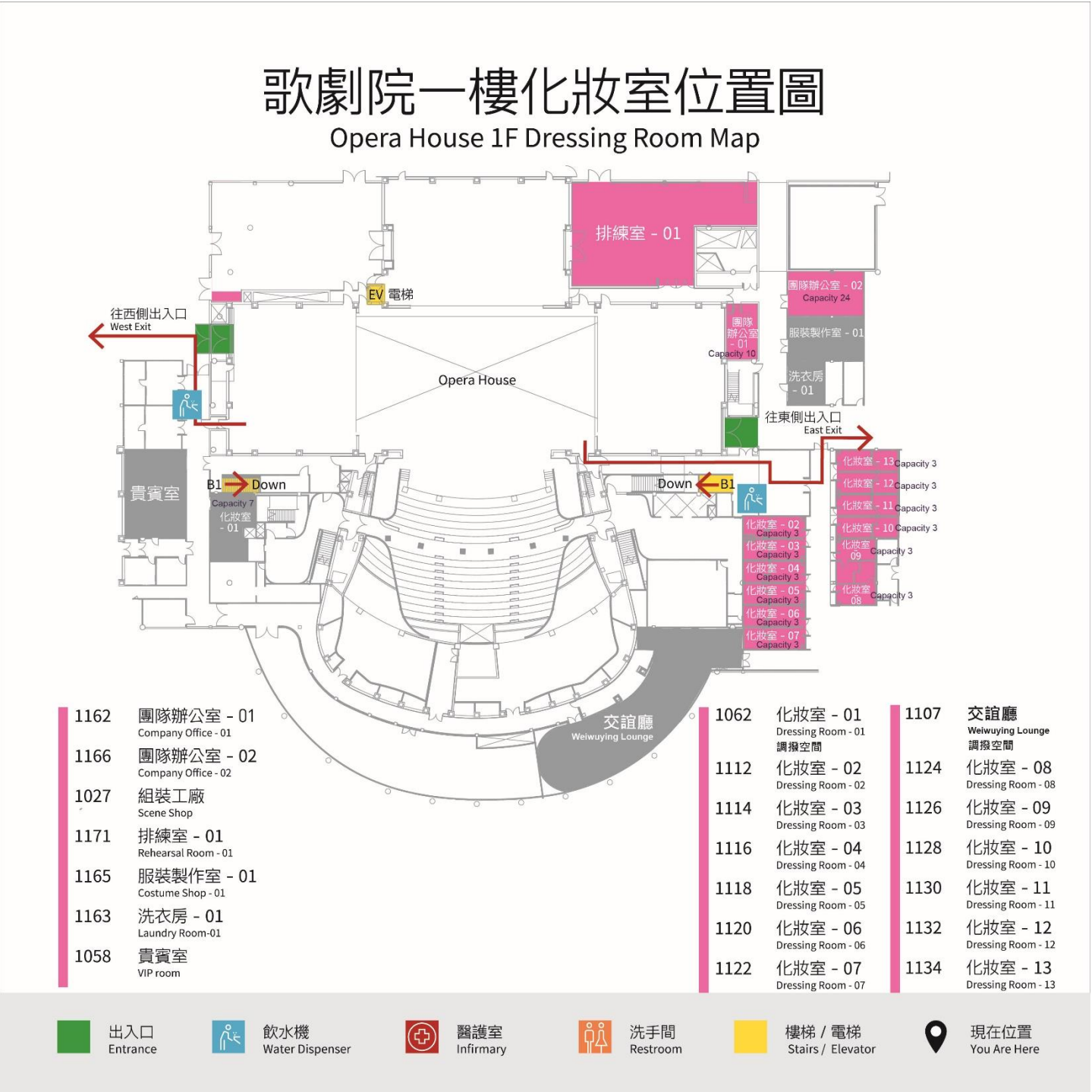


Figure 1.2- Opera House 1F Plan

# 歌劇院地下一樓化妝室位置圖

## Opera House B1F Dressing Room Map

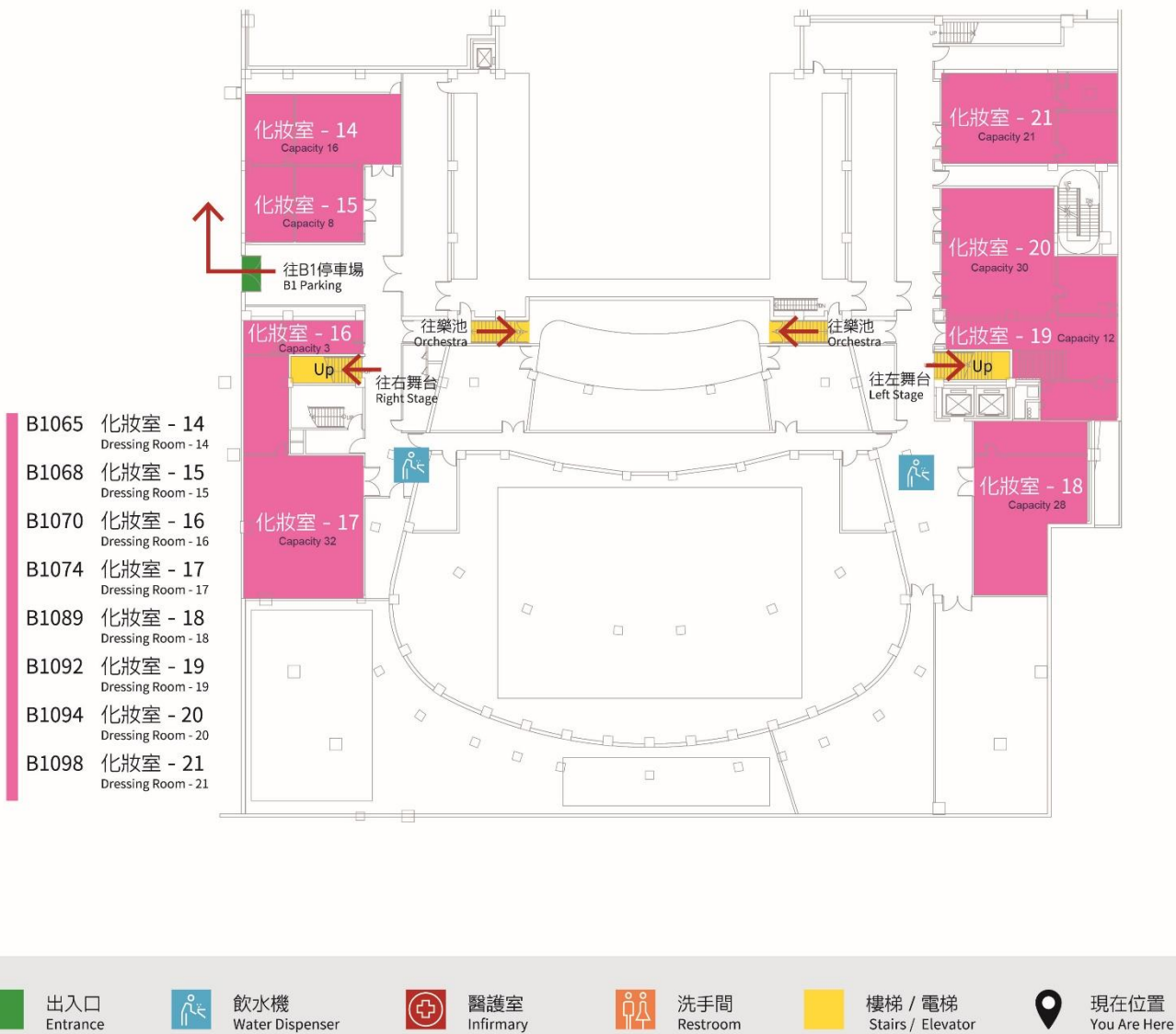


Figure 1.3- Opera House B1F Plan

1-8 Section

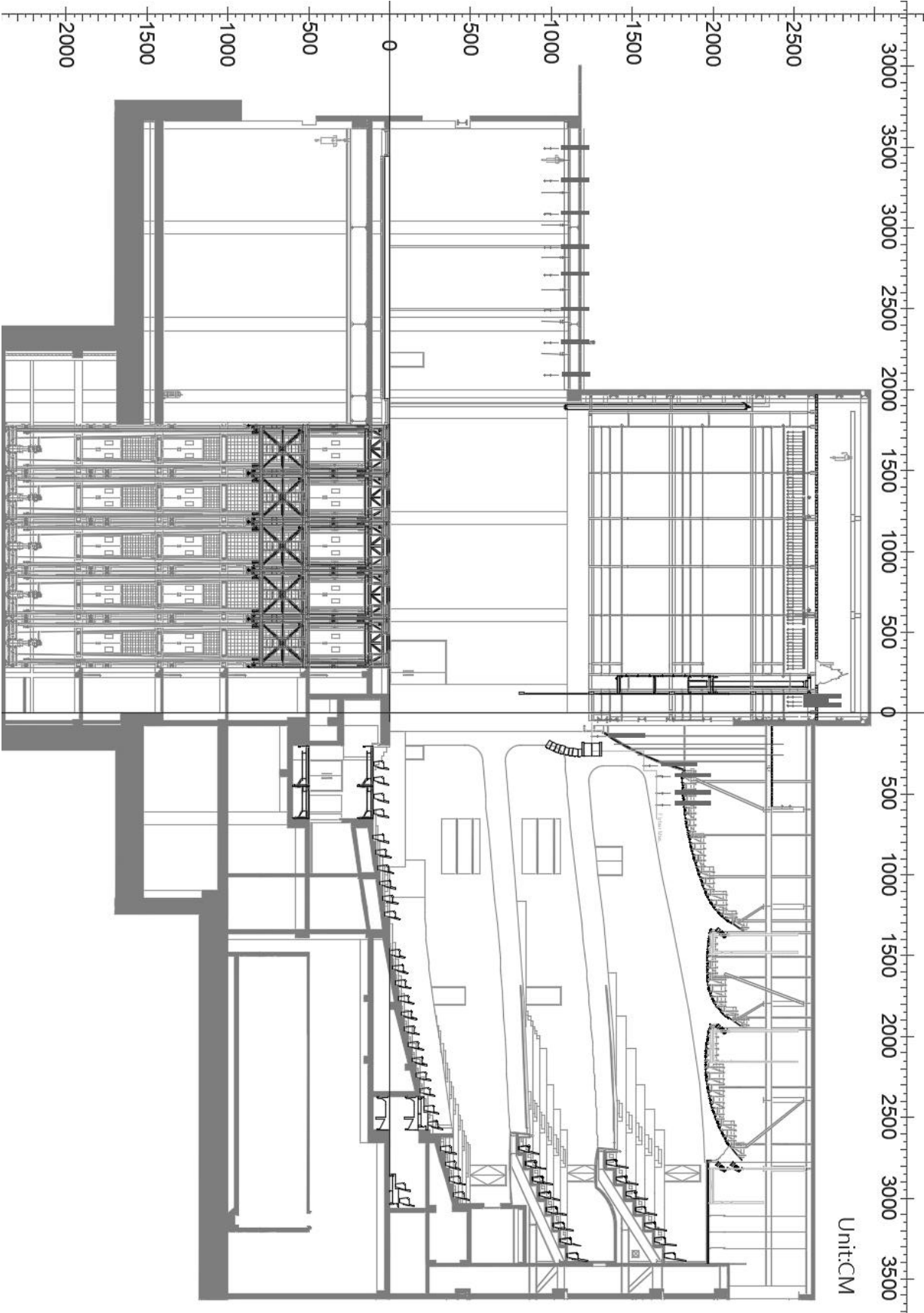


Figure 1.4 Opera House Section

## 2 Stage

### 2-1 Stage

#### 2-1-1 Floor

Black painted composite wood stage floor, the production scenery can secure to the deck by screws but no nails in part of stage area.  
Please contact the technical service for more detail.

#### 2-1-2 False proscenium

The False proscenium consists of movable tormentor and liftable light bridge.

Building Proscenium size: 20m (width) x 12.6m (height)

Movable tormentor opening: 12m to 20m

Lighting bridge elevation: +0.05m to +11.2m

Apron to PL: 1.2m

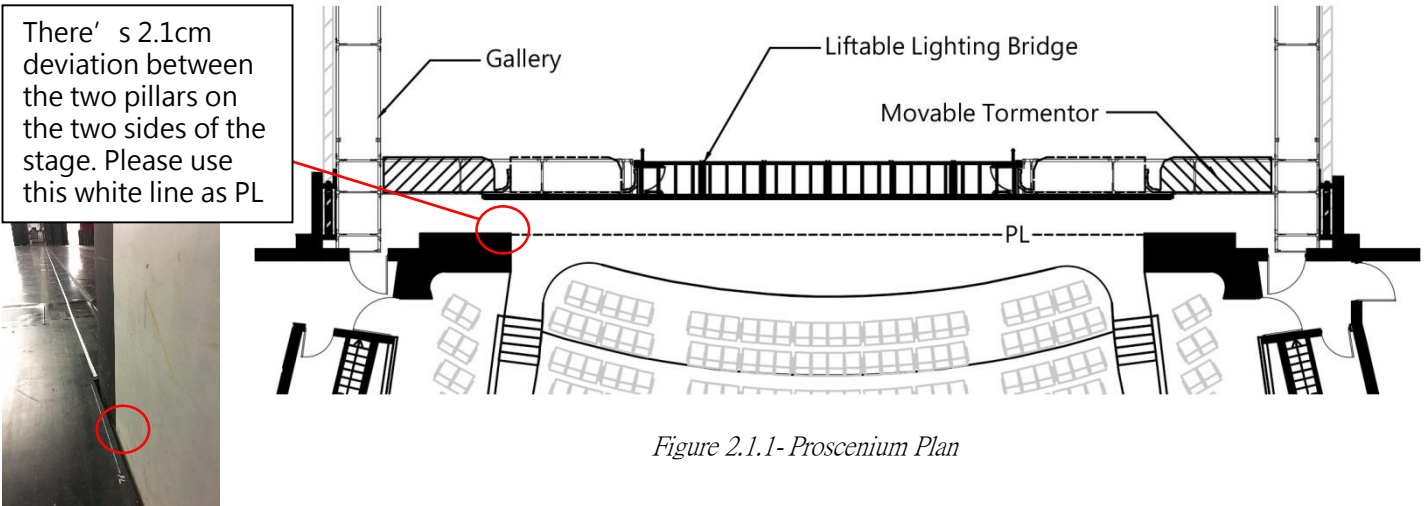


Figure 2.1.1- Proscenium Plan

#### 2-1-3 Stage Dimensions

Main stage: 31.9m (width) x 19.2m (depth) x 25.8 (height) (From stage floor to underside of grid)

Rear stage: 24m (width) x 16.5m (depth) x 11m (height)

Side stage: 17.1m (width) x 19.2m (depth) x 10.7 (height)

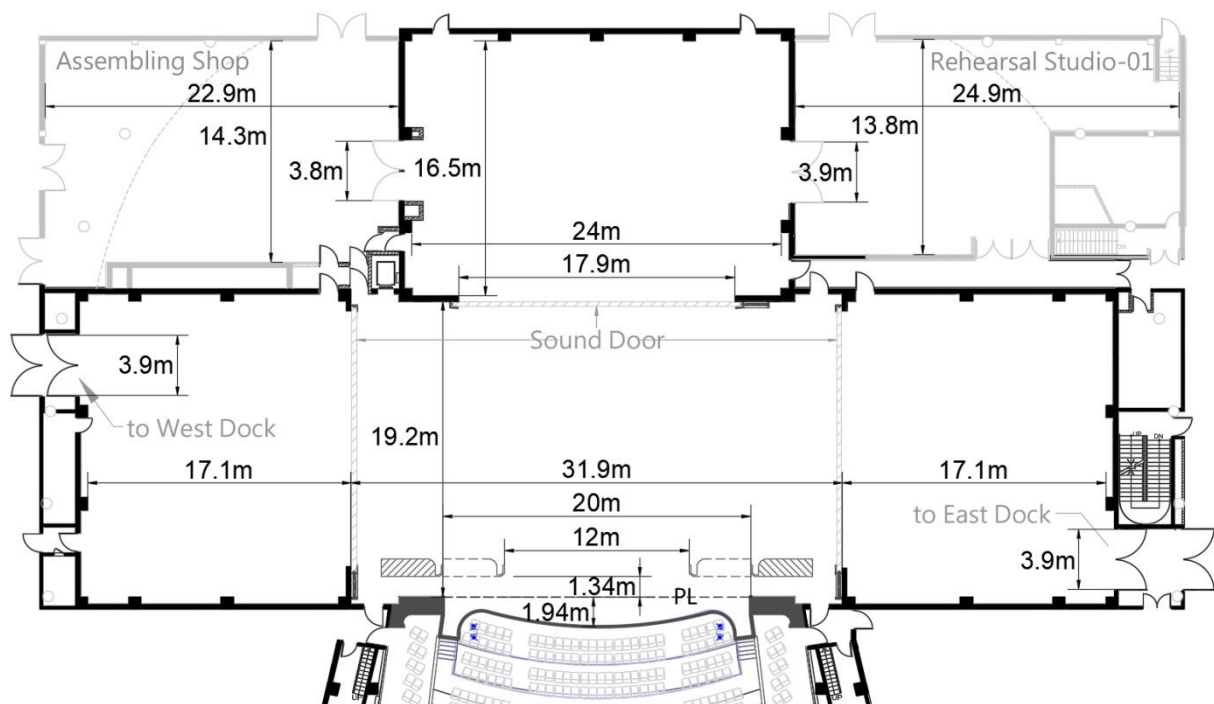


Figure 2.1.2-Stage Plan

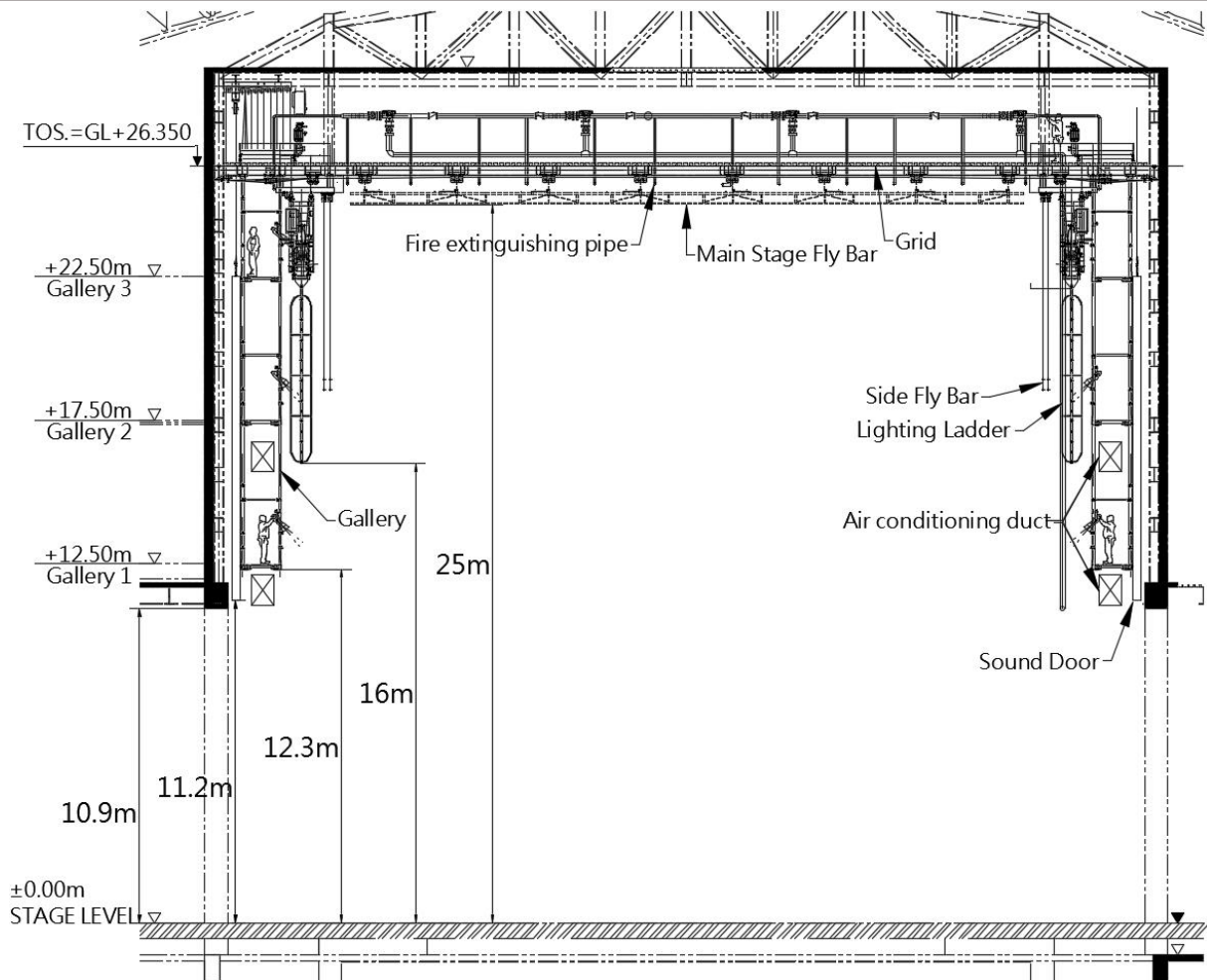


Figure 2.1.3-Stage Elevation

#### 2-1-4 Sound Door

There are three stage sound door between main stage, side stage and rear stage, which can be adjusted according to the performance requirements.

#### 2-1-5 Rehearsal studio -01

There is a separate rehearsal studio connected to the rear stage area.

Size : 24.9 m (width) x 13.8 m (depth) x 10.4 m (height)

Door size(to rear stage) : 4 m (width) x 3.4 m (height)

2-2 Elevation Platform

2-2-1 Main stage elevator (MSE)

Amount: 5 units  
Size: 16 meters (width) x 2.99 meters (depth)  
Speed: 0.1 m/s  
Distance between Upper and Lower Decks: 5 meters  
Locking positions:

| Locking positions |       |
|-------------------|-------|
| Stage Area        | +5m   |
| Stage Area        | 0m    |
| Stage Area        | -0.3m |
| B2F               | -10m  |
| B3F               | -14m  |

※ It is recommended not to move the main stage elevator during performances.

Capacity: (Per set):  
Static load: 500 kg/m², 24 tons in total.  
Dynamic load: 250 kg/m², 12 tons in total.

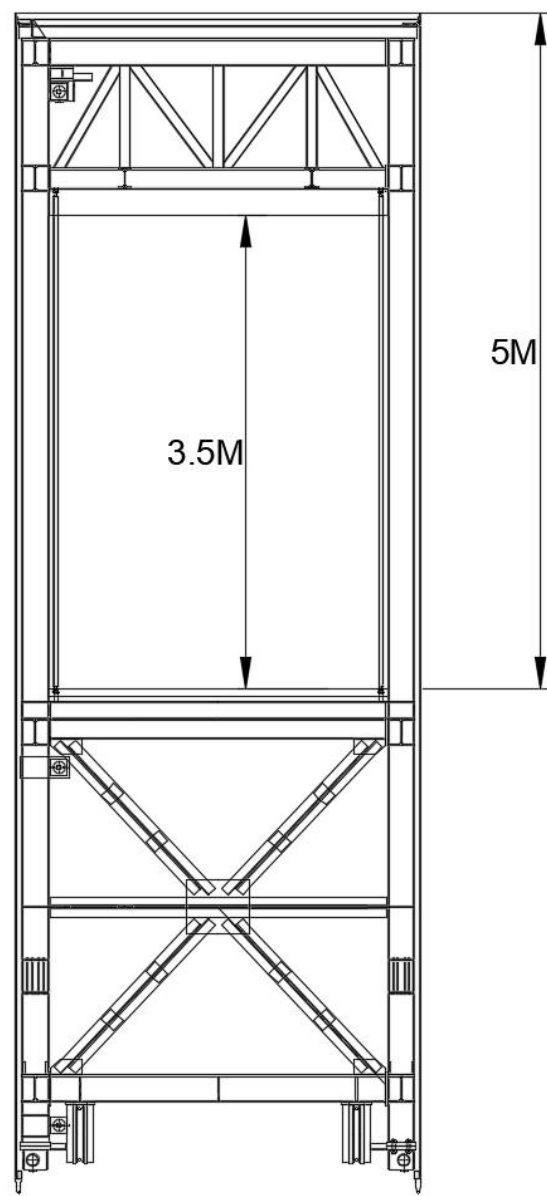


Figure 2.2.1 - Main stage elevator (MSE) (Single Set)

**2-2-2 Trap Door**

All Controlled by C.A.T. system, capable of individual or group operation.

Size: 1 meters (width) x 1 meters (depth)

Quantity: 11 panels per Main stage elevator.

**Capacity:**

**Static load:** 250 kg/m<sup>2</sup>

**Dynamic load:** 50 kg/m<sup>2</sup>

※ No trap lifting equipment is provided.

※ Actual dimensions may vary and should be measured on-site.

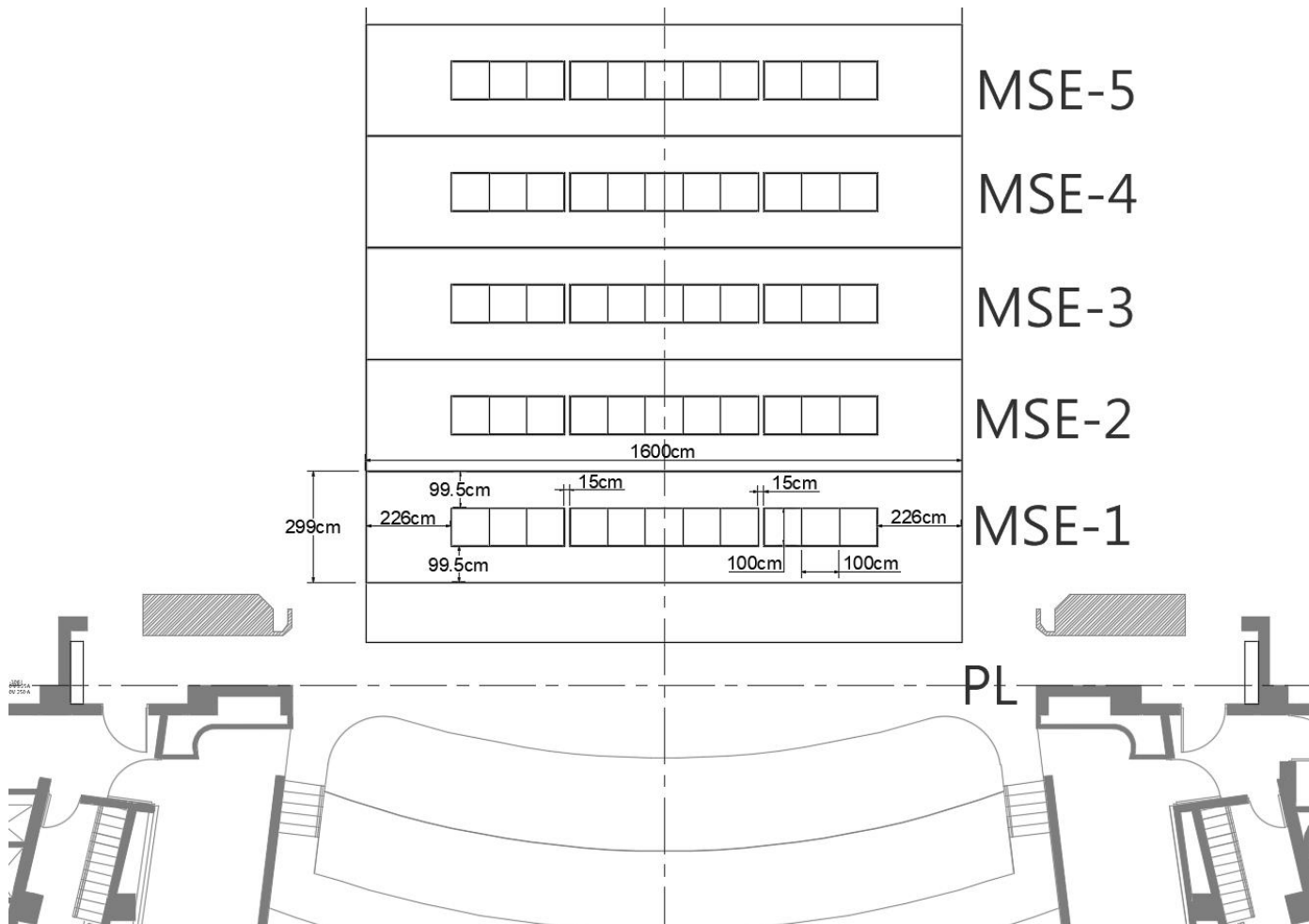


Figure 2.2.2- Trap Doors

**2-2-3 Orchestra Pit**

Amount: 2 sets, curve shape platform

Size: OP1, 18.6m (width) x 2.49m (depth), 43.2 m<sup>2</sup>

OP2, 18.6m (width) x 1.98m (depth), 37.5m<sup>2</sup>

Elevation: -5m to ±0m (stage level)

Capacity:

Static load: 750kg/ m<sup>2</sup>

Dynamic load: 500kg/ m<sup>2</sup>

Speed: 0.1m/ sec

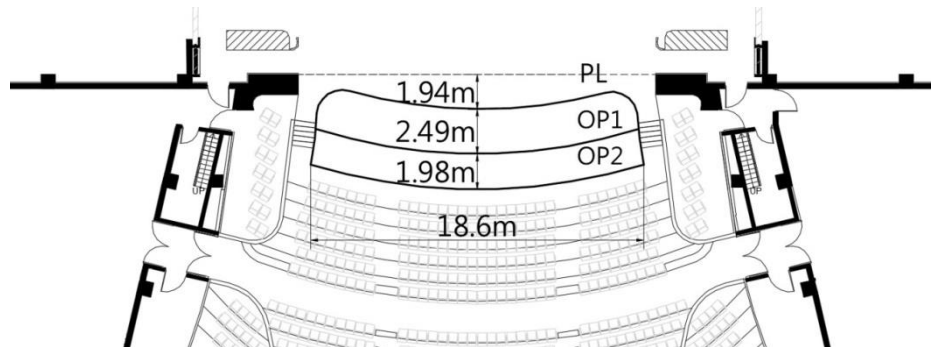


Figure 2.2.3.1- Orchestra Pit

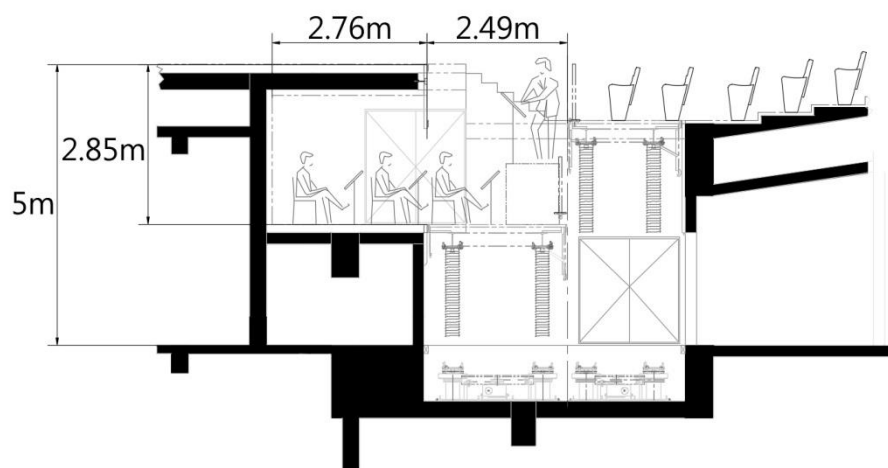


Figure 2.2.3.2- Section of Orchestra Pit

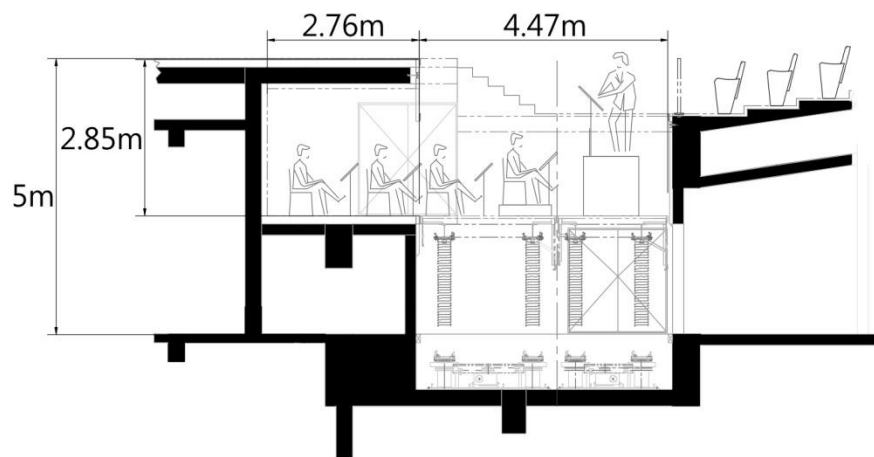


Figure 2.2.3.3- Section of Orchestra Pit

**2-2-4 Auditorium Mixing Deck**

Size: 4.2m (width) x 1.9m (depth), 8 m<sup>2</sup>

Elevation: -0.012m (B1) to 1.85m

Capacity

Dead load: 500kg/ m<sup>2</sup>

Static load: 250kg/ m<sup>2</sup>

Load in from stage level (1F)

Row QQ ~RR, No.1~8, 16 Seats reserved

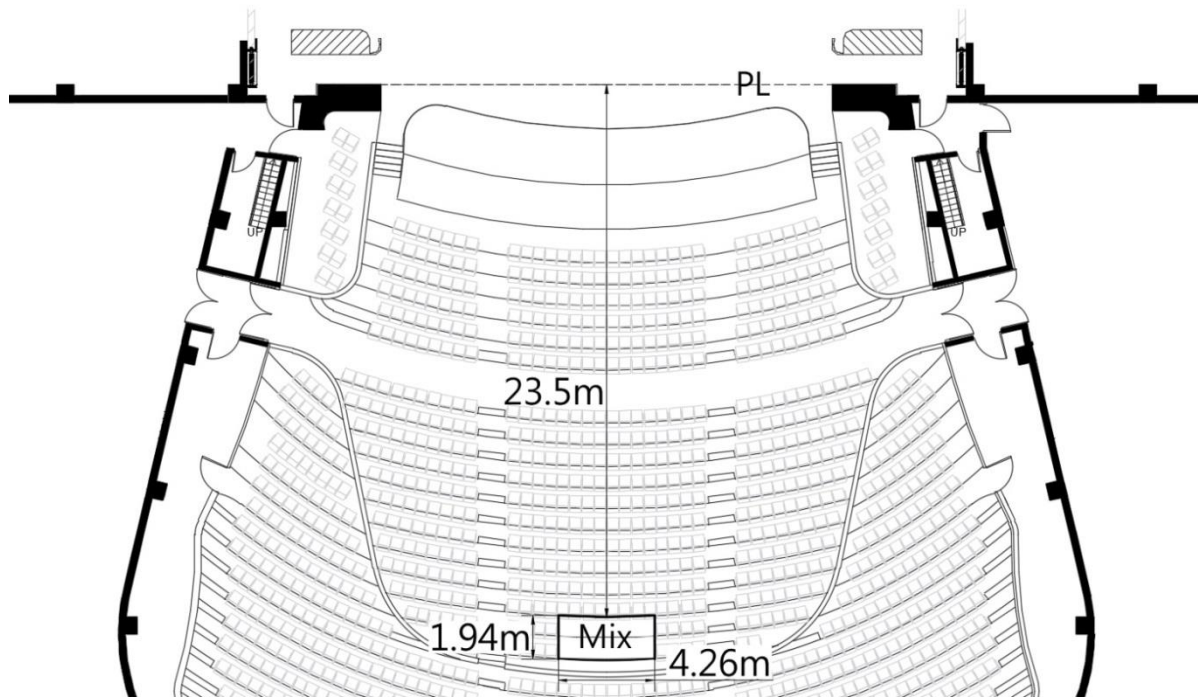


Figure 2.2.4.1- Auditorium Mixing Deck

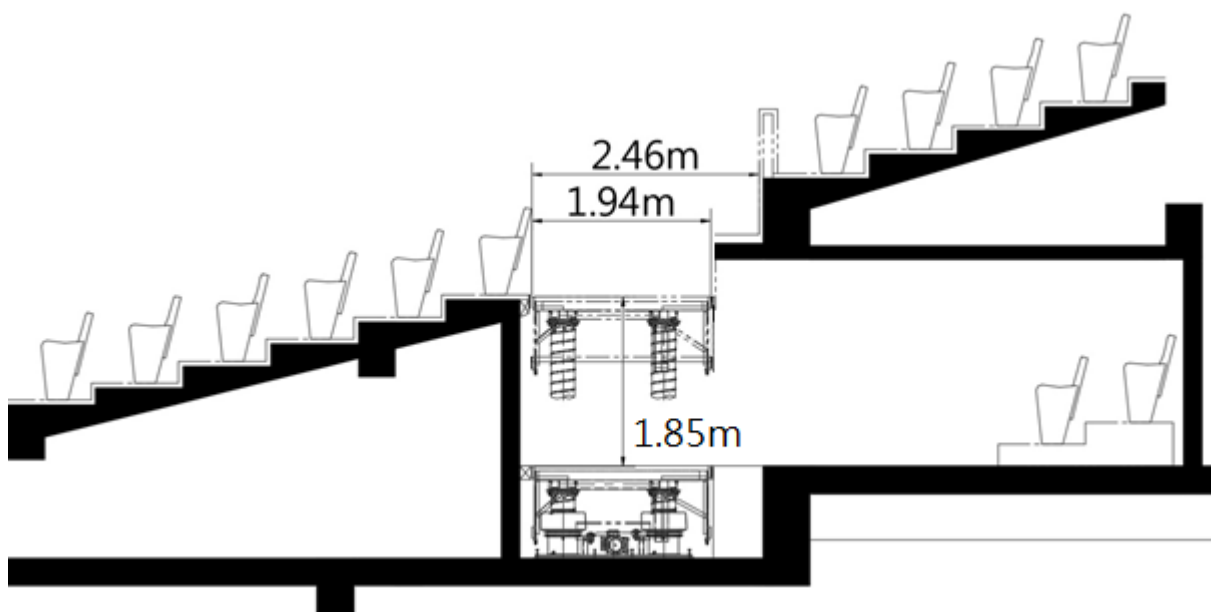


Figure 2.2.4.2- Auditorium Mixing Deck

2-3 Revolving Stage Wagon

2-3-1 Revolving Stage Wagon

Size: 16 meters(width) x 15 meters (depth), 0.3 meters (height)

Revolving Size: 14 m (diameter)

Maximum Rotation Speed: 8.2 degrees per second

Positioning: Free run, with a minimum rotation of > 1 degree

Rotation Directions: Clockwise and Reverse

Positions:

| Distance to PL |              |
|----------------|--------------|
| Position1      | 1.14 meters  |
| Position 2     | 2.74 meters  |
| Position 3     | 19.45 meters |

※ It is recommended not to move the whole wagon during performances.

Note: The compensating platform should not have any load during the lifting process.

Capacity of the wagon:

Static load: 500 kg/m², 24 tons in total.

Dynamic load: 100 kg/m², 12 tons in total.

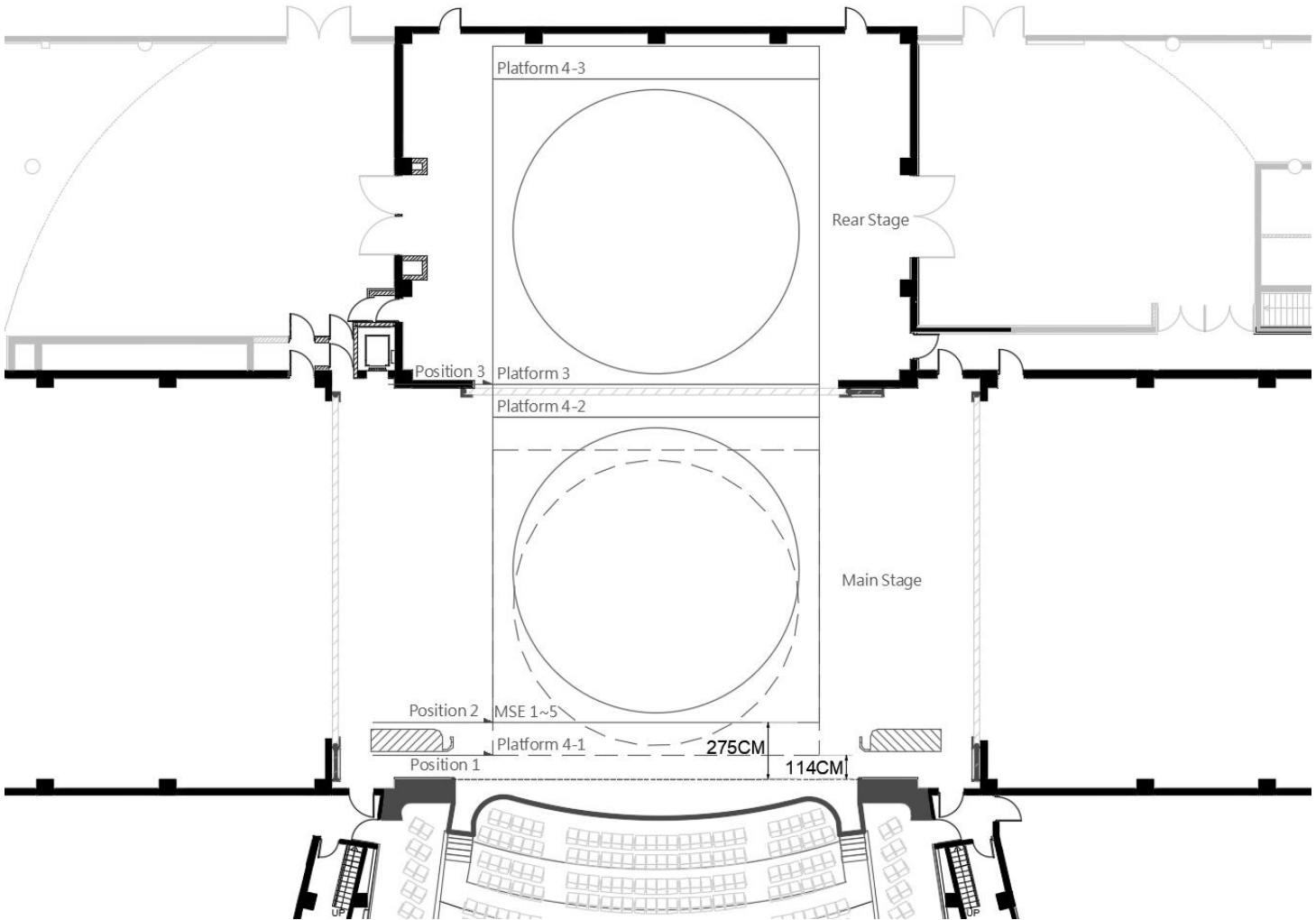


Figure 2.3.1 - Revolving Stage Wagon

## 2-4 Fly Bars

### 2-4-1 Controller

Manufactory by Waagner Biro, CAT190 x 2, CAT192 x 2, CAT120R x 2

### 2-4-2 Main Stage Fly bars

24m (length), 4.8cm (diameter), 74 sets

Fly space from +0.05m to 24.55m

**Maximum load** (in different speed)

0.5 m/s<sup>2</sup> : 750kg

1.0 m/s<sup>2</sup> : 500kg

1.8 m/s<sup>2</sup> : 350kg

### 2-4-3 House Curtain

Guillotine, 13m (height) x 12.9m (width) x2

Distance to PL: 0.6m

**Maximum load** (in different speed)

0.5 m/s<sup>2</sup> : 750kg

1.0 m/s<sup>2</sup> : 500kg

2.4 m/s<sup>2</sup> : 350kg

### 2-4-4 Side Fly Bar (2 on both side)

14.8m (length), 4.8cm (diameter), 4 sets

Fly space from +0.05m to 24.6m

Distance to CL: 12.4m and 12.6m each

**Maximum load** (in different speed)

0.5 m/s<sup>2</sup> : 750kg

1.0 m/s<sup>2</sup> : 500kg

1.8 m/s<sup>2</sup> : 350kg

### 2-4-5 Gauze Bar

27m (length), 4.8cm (diameter), 2 sets

Fly space from +0.05m to 24.6m

Distance to PL: 0.25m and 0.95m each

**Maximum load** (in different speed)

0.5 m/s<sup>2</sup> : 750kg

1.0 m/s<sup>2</sup> : 500kg

2.4 m/s<sup>2</sup> : 350kg

### 2-4-6 Rear Stage Drum Fly Bar

21m (length), 4.8cm (diameter), 8 sets

Fly space from +0.05m to 9.6m

Distance to PL: 21.05m / 23.05m / 25.05m / 27.05m / 29.05m / 31.05m / 33.05m / 35.05m

Maximum speed/load : 0.2 M/ S : 300 kg

### 2-4-7 Auditorium Fly Bar

20m (length), 4.8cm (diameter), 5 sets

Fly space from

AFB01 +0.05m to 12.5m

AFB02 +0.0m to 15.7m

AFB03 +0.05m to 16.5m

AFB04 +0.05m to 16.5m

AFB05 +0.05m to 16.5m

Distance to PL: -1.40m / -3.15m / -3.95m / -4.75m / -5.55m

**Maximum load** (in different speed)

1 m/s<sup>2</sup> : 1,000 kg

1.8 m/s<sup>2</sup> : 350 kg

#### 2-4-8 Lighting Ladder (6 on both side stage)

Size: 6.2m (height) x 0.69m (width) x 0.72m(depth)

Distance to CL: 13.4m

**Maximum load** : 0.2 m/s<sup>2</sup> : 750kg

#### 2-4-9 Bar under Lighting Bridge

11.5 m (length), 4.8cm (diameter)

Fly space from +1.05m to 12.2 m

Capacity: Single point 45 kg, every meter 90 kg, total load 750 kg

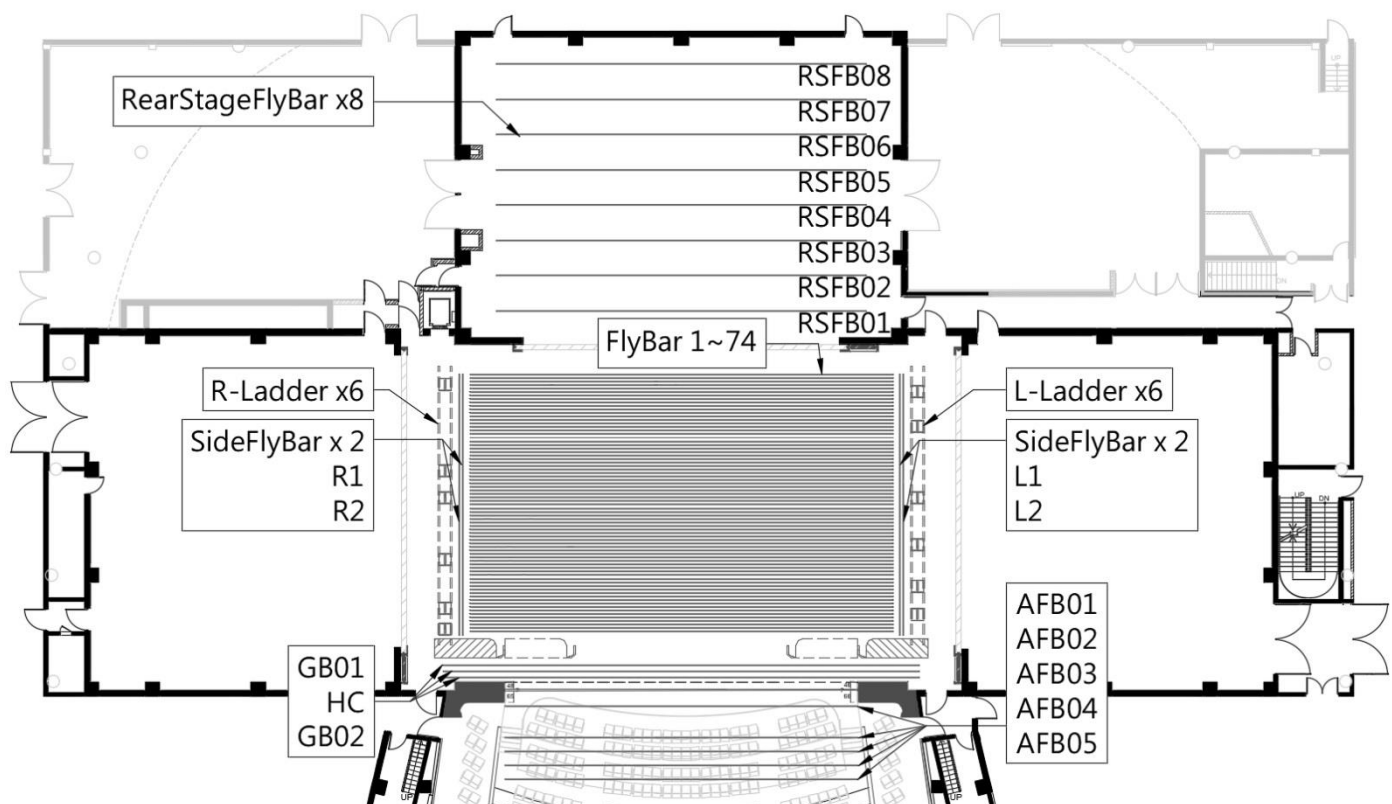
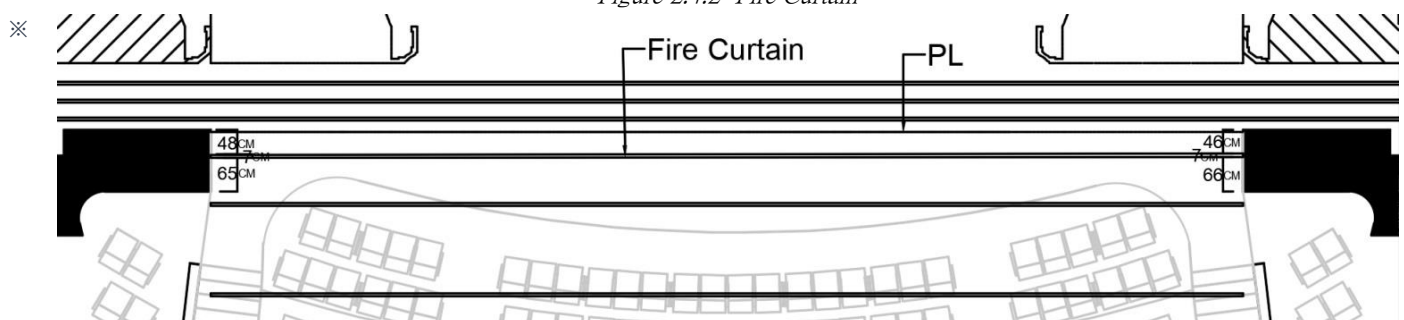


Figure 2.4.1- Rigging Plan

Figure 2.4.2- Fire Curtain



There should be no obstacles beneath the Fire Curtain

## 2-5 Hoist

### 2-5-1 Point Hoist

8 sets, wire length 31.2m  
 Maximum Load: 250 kg  
 Speed: 0 to 1.8m/s  
 Location: R2F(grid)

### 2-5-2 Chain Hoist (type C1)

Complies with safety standards BGV-C1, EN 61508, DIN 56950  
 Maximum Load: 1,000 kg  
 Speed: Fixed speed of 0.16 m/s  
 Location: Main stage area: 12 sets, length of chain: 30 meters, Rear Stage: 14 sets, length of chain: 10 meters

### 2-5-3 Chain Hoist (type D8 plus)

Complies with safety standards BGV-D8 Plus, EN 61508, DIN 56950  
 Maximum Load: 1,000 kg  
 Speed: Fixed speed of 0.16 m/s  
 Location: Stage Left/Right: 8 sets each, length of chain: 12 meters, Rear Lower Stage (B3F): 10 sets, length of chain: 10 meters

### 2-5-4 Chain Hoist (Speakers)

Complies with SGS RA/2016/90004C, RA/2016/90005C  
 Maximum load: 1,000 kg  
 Speed: Fixed speed of 0.06 m/s  
 Location: grid above the orchestra pit  
 ※ Not available for general use.

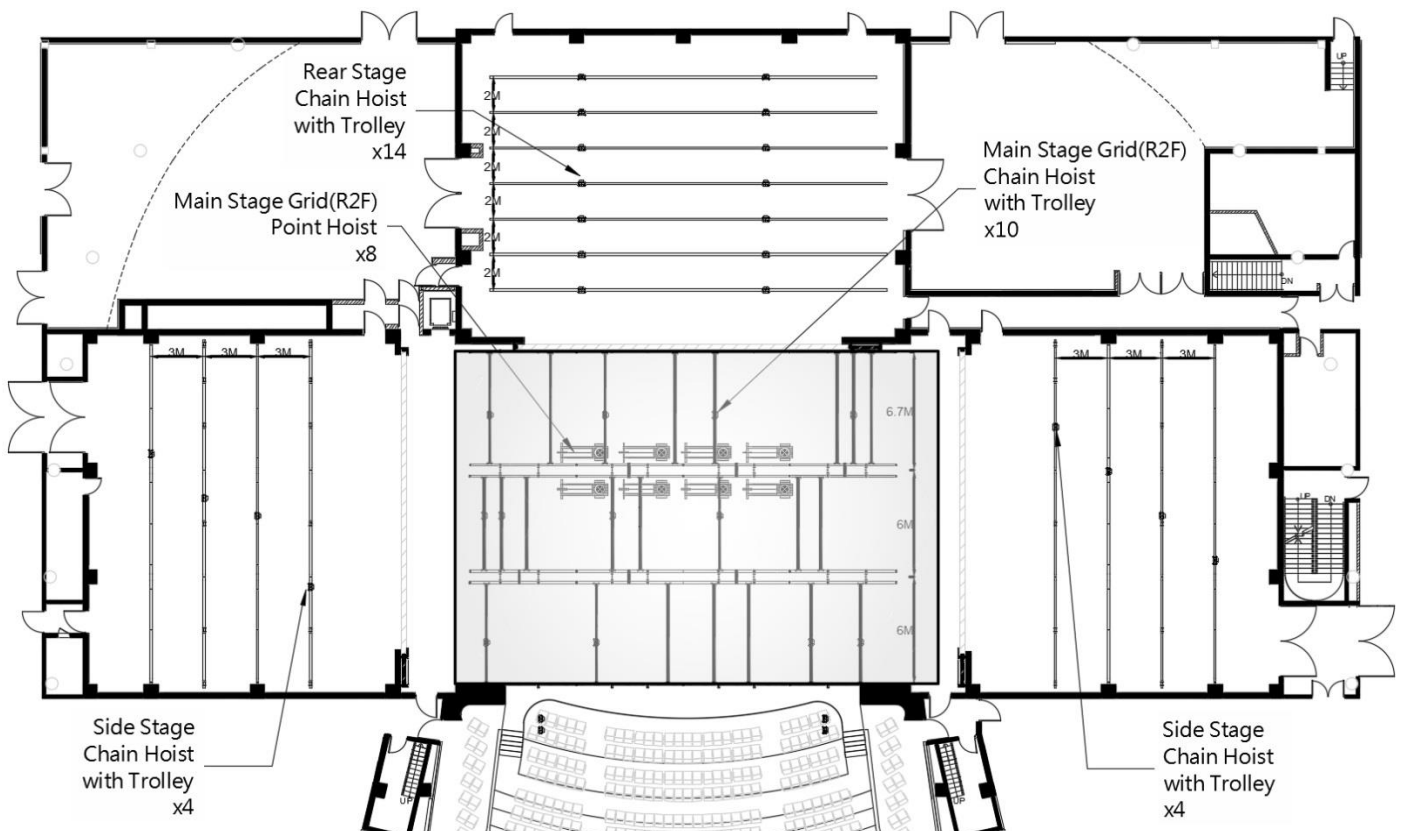


Figure 2.5.1- Hoist plan

Rear Stage Lower Level (B3F)  
Chain Hoist with Trolley x14

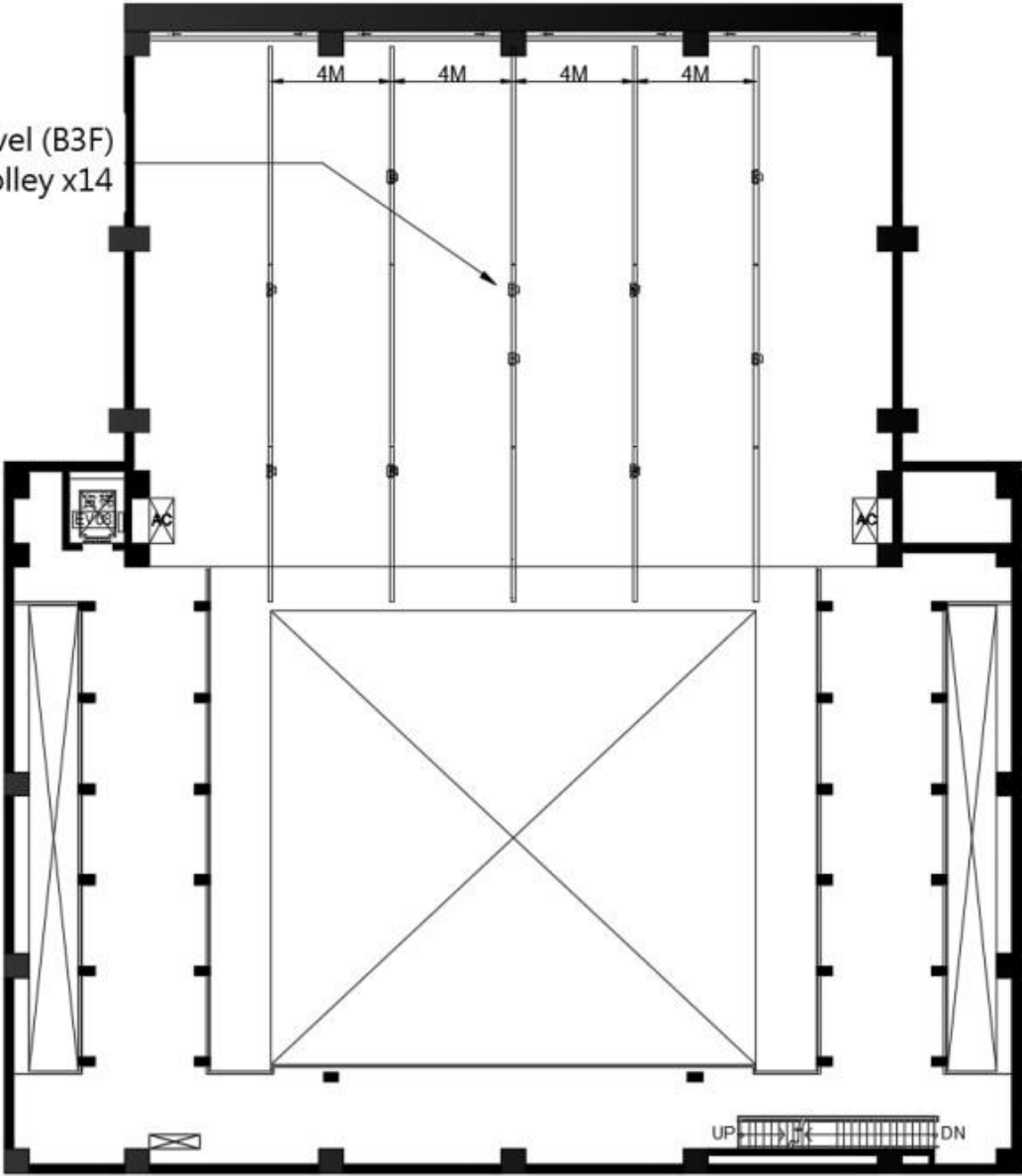


Figure 2.5.2- Hoist plan

## 2-6 Curtain and Others

| Item Number | Product Name                                 | Quantity | Notes (Unit: Meter)                                                                                                                                                                                                                       | Paid Item                                                                                                                                       |
|-------------|----------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 01          | House Curtain                                | 1 pair   | 13 x 12.9<br>ShowTex –Paris CS(Black)                                                                                                                                                                                                     |                                                                                                                                                 |
| 02          | Border                                       | 6 pcs    | 4.5 × 24<br>ShowTex –Bellini<br>※ basic setting: 6 pcs                                                                                                                                                                                    |                                                                                                                                                 |
| 03          | Border                                       | 3 pcs    | 3 × 24<br>ShowTex –Bellini                                                                                                                                                                                                                |                                                                                                                                                 |
| 04          | Leg                                          | 22 pcs   | 12 × 4.5<br>ShowTex –Bellini<br>※ basic setting: 12 pcs                                                                                                                                                                                   |                                                                                                                                                 |
| 05          | Leg                                          | 12 pcs   | 12 × 3<br>ShowTex –Bellini                                                                                                                                                                                                                |                                                                                                                                                 |
| 06          | Tab                                          | 10 pcs   | 12.3 × 3<br>ShowTex –Wool Serge Panne                                                                                                                                                                                                     |                                                                                                                                                 |
| 07          | Front and Rear Projection Screen             | 3 pcs    | 3 types of screen:<br>10.5 x 22<br>Black : ShowTex- RetroScreen Black x 1 pc<br>11.5 x 24<br>Grey : ShowTex- RetroScreen Grey plus x 1 pc<br>12.9 x 7<br>Grey : Gerriets t 21240000 x 1 pc, shared with Play House                        | *<br>The first piece is rent-free. The second piece will be charged. Please refer to the rate tables of National Kaohsiung Center for the Arts. |
| 08          | Scrim                                        | 3 pcs    | 10.5 x 24<br>ShowTex - Sharks Tooth Scrim 6 point. in White x 1 pc<br>10.5 x 24<br>ShowTex - Sharks Tooth Scrim 6 point. in Black x 1 pc<br>10.5 x 24<br>ShowTex - Sharks Tooth Scrim 8 point. in Black x 1 pc                            | *                                                                                                                                               |
| 09          | Cotton Cyclorama                             | 1 pc     | 11.5 × 24<br>ShowTex –Cyclo 270                                                                                                                                                                                                           |                                                                                                                                                 |
| 10          | Black Backdrop                               | 1 pc     | 12 × 22<br>ShowTex –Bellini                                                                                                                                                                                                               |                                                                                                                                                 |
|             |                                              | 2 pcs    | 12 × 12<br>ShowTex –Bellini                                                                                                                                                                                                               |                                                                                                                                                 |
| 11          | Wooden Sprung Floor<br>2m x 1m               | 152 pcs  | 1. Shared with Playhouse.<br>2. Total installation area (adjustable) 20m x 16m, built-up, portable with latch, wooden plywood with high density mitigation block, 3.9 cm (depth), point load 500kg, average shock-absorbing ability 65 %. |                                                                                                                                                 |
| 12          | Wooden Sprung Floor<br>1m x 1m               | 16 pcs   |                                                                                                                                                                                                                                           |                                                                                                                                                 |
| 13          | Black Dance Floor<br>(For Sprung Floor only) | 8 rolls  | Harlequin – Cascade, 20m (length) x 2m (width) x 2mm (depth), shared with Playhouse.                                                                                                                                                      |                                                                                                                                                 |
| 14          | Black and Grey Dance Floor                   | 24 rolls | 20m (length) x 1m (width) x 1.8mm (depth).<br>Exclusive to the Opera House.                                                                                                                                                               |                                                                                                                                                 |
| 15          | Black and Gray Dance Floor                   | 18 rolls | 20m (length) x 2m (width) x 1.7mm (depth).<br>Shared with Playhouse.                                                                                                                                                                      |                                                                                                                                                 |
| 16          | Hydraulic Lift Platform (for Orchestra Pit)  | 1 pc     | 1. 1.8 m (length) x 0.9 m (width), Elevation : 1 m-1.5 m<br>2. .Shared with Playhouse.                                                                                                                                                    | *                                                                                                                                               |

Items with \* mark are charged items. Please refer to the rate tables on [web link](#)

[www.npac-weiwuying.org/service/venue-hire?lang=en#regulation](http://www.npac-weiwuying.org/service/venue-hire?lang=en#regulation)

2-7 Fly Bar List

| Bar Number                                                                                                 | Distance to PL | Content                     | Length ( cm ) | Bar Number          | Distance to PL | Content | Length ( cm ) |
|------------------------------------------------------------------------------------------------------------|----------------|-----------------------------|---------------|---------------------|----------------|---------|---------------|
| FLYBARS_AUDITORIUM / High Limitation : AFB01-12.5m 、 AFB02-15.7m 、 AFB03~5-16.5m    Low Limitation : 1.25m |                |                             |               |                     |                |         |               |
| AFB05                                                                                                      | -565           |                             | 2000          |                     |                |         |               |
| AFB04                                                                                                      | -495           |                             | 2000          |                     |                |         |               |
| AFB03                                                                                                      | -390           |                             | 2000          |                     |                |         |               |
| AFB02                                                                                                      | -325           |                             | 2000          |                     |                |         |               |
| AFB01                                                                                                      | -145           |                             | 2000          |                     |                |         |               |
| P L                                                                                                        |                |                             |               |                     |                |         |               |
| GAUZE_BARS                                                                                                 |                |                             |               |                     |                |         |               |
| GB02                                                                                                       | 45             |                             | 2700          |                     |                |         |               |
| HC                                                                                                         | 60             | HOUSE_CURTAIN<br>Guillotine | 2700          | (1300 h x 1290w *2) |                |         |               |
| GB01                                                                                                       | 95             |                             | 2700          |                     |                |         |               |
| FLYBARS_STAGE. / High Limitation : 24.6m    Low Limitation : 1.25m                                         |                |                             |               |                     |                |         |               |
| FB01                                                                                                       | 275            |                             | 2400          | FB38                | 1015           |         | 2400          |
| FB02                                                                                                       | 295            |                             | 2400          | FB39                | 1035           |         | 2400          |
| FB03                                                                                                       | 315            |                             | 2400          | FB40                | 1055           |         | 2400          |
| FB04                                                                                                       | 335            |                             | 2400          | FB41                | 1075           |         | 2400          |
| FB05                                                                                                       | 355            |                             | 2400          | FB42                | 1095           |         | 2400          |
| FB06                                                                                                       | 375            |                             | 2400          | FB43                | 1115           |         | 2400          |
| FB07                                                                                                       | 395            |                             | 2400          | FB44                | 1135           |         | 2400          |
| FB08                                                                                                       | 415            |                             | 2400          | FB45                | 1155           |         | 2400          |
| FB09                                                                                                       | 435            |                             | 2400          | FB46                | 1175           |         | 2400          |
| FB10                                                                                                       | 455            |                             | 2400          | FB47                | 1195           |         | 2400          |
| FB11                                                                                                       | 475            |                             | 2400          | FB48                | 1215           |         | 2400          |
| FB12                                                                                                       | 495            |                             | 2400          | FB49                | 1235           |         | 2400          |
| FB13                                                                                                       | 515            |                             | 2400          | FB50                | 1255           |         | 2400          |
| FB14                                                                                                       | 535            |                             | 2400          | FB51                | 1275           |         | 2400          |
| FB15                                                                                                       | 555            |                             | 2400          | FB52                | 1295           |         | 2400          |
| FB16                                                                                                       | 575            |                             | 2400          | FB53                | 1315           |         | 2400          |
| FB17                                                                                                       | 595            |                             | 2400          | FB54                | 1335           |         | 2400          |
| FB18                                                                                                       | 615            |                             | 2400          | FB55                | 1355           |         | 2400          |
| FB19                                                                                                       | 635            |                             | 2400          | FB56                | 1375           |         | 2400          |
| FB20                                                                                                       | 655            |                             | 2400          | FB57                | 1395           |         | 2400          |
| FB21                                                                                                       | 675            |                             | 2400          | FB58                | 1415           |         | 2400          |
| FB22                                                                                                       | 695            |                             | 2400          | FB59                | 1435           |         | 2400          |
| FB23                                                                                                       | 715            |                             | 2400          | FB60                | 1455           |         | 2400          |
| FB24                                                                                                       | 735            |                             | 2400          | FB61                | 1475           |         | 2400          |
| FB25                                                                                                       | 755            |                             | 2400          | FB62                | 1495           |         | 2400          |
| FB26                                                                                                       | 775            |                             | 2400          | FB63                | 1515           |         | 2400          |
| FB27                                                                                                       | 795            |                             | 2400          | FB64                | 1535           |         | 2400          |
| FB28                                                                                                       | 815            |                             | 2400          | FB65                | 1555           |         | 2400          |
| FB29                                                                                                       | 835            |                             | 2400          | FB66                | 1575           |         | 2400          |

|                                                               |      |  |      |       |      |  |      |
|---------------------------------------------------------------|------|--|------|-------|------|--|------|
| FB30                                                          | 855  |  | 2400 | FB67  | 1595 |  | 2400 |
| FB31                                                          | 875  |  | 2400 | FB68  | 1615 |  | 2400 |
| FB32                                                          | 895  |  | 2400 | FB69  | 1635 |  | 2400 |
| FB33                                                          | 915  |  | 2400 | FB70  | 1655 |  | 2400 |
| FB34                                                          | 935  |  | 2400 | FB71  | 1675 |  | 2400 |
| FB35                                                          | 955  |  | 2400 | FB72  | 1695 |  | 2400 |
| FB36                                                          | 975  |  | 2400 | FB73  | 1715 |  | 2400 |
| FB37                                                          | 995  |  | 2400 | FB74  | 1735 |  | 2400 |
| FLYBARS_SIDE / High Limitation : 24.6m Low Limitation : 1.25m |      |  |      |       |      |  |      |
| SFB01                                                         | 1240 |  | 1480 | SFB03 | 1240 |  | 1480 |
| SFB02                                                         | 1260 |  | 1480 | SFB04 | 1260 |  | 1480 |
| FLYBARS_REAR / High Limitation : 12m Low Limitation : 1.25m   |      |  |      |       |      |  |      |
| FBR01                                                         | 2090 |  | 2100 | FBR05 | 2875 |  | 2100 |
| FBR02                                                         | 2290 |  | 2100 | FBR06 | 3090 |  | 2100 |
| FBR03                                                         | 2490 |  | 2100 | FBR07 | 3290 |  | 2100 |
| FBR04                                                         | 2710 |  | 2100 | FBR08 | 3490 |  | 2100 |

## 3 Lighting

### 3-1 Lighting instrument

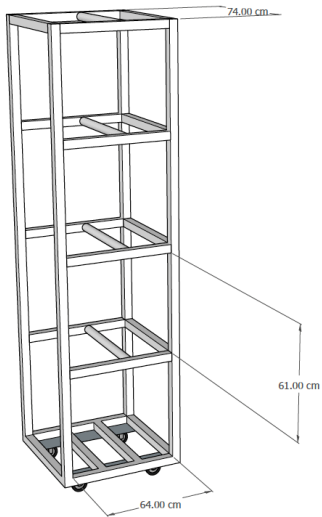
| Item                                     | Position                | Model                                       | Specifications                 | Quantity | Frame Size           | Note                                              | Paid Item |
|------------------------------------------|-------------------------|---------------------------------------------|--------------------------------|----------|----------------------|---------------------------------------------------|-----------|
| Lighting Console                         | Control Booth           | GrandMA 2 Light                             |                                | 1        |                      |                                                   |           |
|                                          | Auditorium              |                                             |                                | 1        |                      |                                                   |           |
| Dimmer System                            |                         | State Automation Solution                   | 220V<br>3kW/Circuit            | 1008ch   |                      |                                                   |           |
|                                          |                         |                                             | 220V<br>5kW/ Circuit           | 48ch     |                      |                                                   |           |
| Ellipsoidal Reflector Spotlight          | Catwalk 1               | Selecon SPX 5°                              | 220V/800W                      | 16       | 24.5x24.5cm          |                                                   |           |
|                                          |                         | ETC Source Four 10°                         | 220V/750W                      | 20       | 30.5x30.5cm          |                                                   |           |
|                                          | Catwalk 2               | Selecon SPX 5°                              | 220V/800W                      | 16       | 24.5x24.5cm          |                                                   |           |
|                                          |                         | ETC Source Four 10°                         | 220V/750W                      | 20       | 30.5x30.5cm          |                                                   |           |
|                                          | Catwalk 3               | Selecon SPX 5°                              | 220V/800W                      | 8        | 24.5x24.5cm          |                                                   |           |
|                                          |                         | ETC Source Four 10°                         | 220V/750W                      | 20       | 30.5x30.5cm          |                                                   |           |
|                                          | 2F Lighting Box (SL/SR) | Selecon SPX 15°-35°                         | 220V/800W                      | 12/12    | 15.8x15.8cm          |                                                   |           |
|                                          | 3F Lighting Box (SL/SR) | Selecon SPX 14°                             | 220V/800W                      | 12/12    |                      |                                                   |           |
|                                          | Storage                 | Strand Leko Lite 10°                        | 220V/800W                      | 10       | 30.5x30.5cm          |                                                   |           |
|                                          |                         | Selecon SPX 14°                             |                                | 15       | 15.8x15.8cm          |                                                   |           |
|                                          |                         | Selecon SPX 19°                             |                                | 80       |                      |                                                   |           |
|                                          |                         | Selecon SPX 26°                             |                                | 70       |                      |                                                   |           |
|                                          |                         | Selecon SPX 36°                             |                                | 50       |                      |                                                   |           |
|                                          |                         | Selecon SPX 15°-35°                         |                                | 5        |                      |                                                   |           |
|                                          |                         | ETC Source Four 50°                         | 220V/750W                      | 20       | 15.9x15.9cm          |                                                   |           |
|                                          | Side Tower              | Selecon SPX 26°+15°-35°                     | 220V/800W                      | 1+1      | 15.8x15.8cm          | 10 Sets                                           |           |
| 2KW Fresnel Spotlight 8"                 | Storage                 | Selecon Arena Theatre 8" Fresnel 7°-60°     | 220V/2kW                       | 80       | 24.5x24.5cm          |                                                   |           |
| Parabolic Aluminized Reflector Spotlight |                         | PAR 64-Kupo PL-64LB                         | 220V/1kW                       | 96       | 25.4x25.4cm          | Lamp :<br>W x16 、<br>M x32 、<br>N x32 、<br>VN x16 |           |
| CYC Light                                |                         | Selecon Aurora 4-Cell Linear CYC            | 220V/1kW                       | 12       | 30.5x31.5cm          |                                                   |           |
| Ground Row                               |                         | Selecon Aurora 3-Cell Linear GroundRow      |                                | 12       |                      |                                                   |           |
| Long Throw Follow Spot                   | Catwalk 3               | Lycian M2 Model 2060 2.5                    | 220V/2.5kW                     | 3        |                      |                                                   |           |
| HMI Fresnel Spotlight 12"                | Storage                 | ARRI D40 HMI Fresnel                        | 220V/4kW                       | 6        | With Douser (Note 1) | If Strip manual needed, please contact TC Team.   | *         |
| Strip Light                              |                         | Selecon PL TR2 RGB 18 Striplights           | 110-220V/<br>2.5A-1.3A<br>280W | 12       |                      |                                                   | *         |
| Fog Machine                              |                         | Antari F-5D                                 | 220V/3.6A<br>810W              | 4        |                      |                                                   | *         |
| Haze Machine                             |                         | Antari HZ-500                               | 220V/2A<br>480W                | 4        |                      |                                                   | *         |
| Effect Fan                               |                         | Antari AF-4                                 | 220V/0.48A<br>115W             | 8        |                      |                                                   | *         |
| Kupo kupole extends                      |                         | Extends from 210cm to 370cm.Max weight 12Kg |                                | 1        |                      |                                                   | *         |

Items with \* mark are paid items. Please refer to the rate tables of National Kaohsiung Center for the Arts.

Note 1\_Brand : Teclumen

Model : Lite dim DMX dia 380mm

**3-2 Accessories**

| Item                      | Specifications                                                                                                 | Size                                      | Quantity |
|---------------------------|----------------------------------------------------------------------------------------------------------------|-------------------------------------------|----------|
| Barn Door                 | 2kW Fresnel                                                                                                    |                                           | 40       |
| Iris                      | For Selecon Ellipsoidal Reflector Spotlight                                                                    |                                           | 80       |
| Gobo Holder               | For Selecon Ellipsoidal Reflector Spotlight                                                                    | B Size                                    | 100      |
|                           | For ETC Source Four Ellipsoidal Reflector spotlight                                                            | A Size                                    | 30       |
| Power Distribution Box    | 8CIR CEE Form Female Plug<br> |                                           | 60       |
| Multi-Cable               | 16pin Multi-Cable<br>Harting Connector                                                                         | 5m                                        | 20       |
|                           |                                                                                                                | 10m                                       | 15       |
|                           |                                                                                                                | 15m                                       | 10       |
| Ex-Cable                  | CEE16A                                                                                                         | 1.5m                                      | 60       |
|                           |                                                                                                                | 2m                                        | 55       |
|                           |                                                                                                                | 3m                                        | 80       |
|                           |                                                                                                                | 5m                                        | 70       |
|                           |                                                                                                                | 10m                                       | 50       |
|                           |                                                                                                                | 15m                                       | 45       |
|                           |                                                                                                                | 20m                                       | 20       |
| Y-Cord                    | CEE16A Parallel Cord                                                                                           |                                           | 80       |
| Adapter Cable             | CEE 16A(M) To Stage-Pin(F)                                                                                     |                                           | 50       |
| Boom Base                 | Boom Base & Pipe                                                                                               | Boom Base : 45cm(W)x60cm(L)<br>Pipe:300cm | 12       |
| Portable Side Light Tower |                             | 74cm(W)x74cm(L)x280cm(H)                  | 16       |



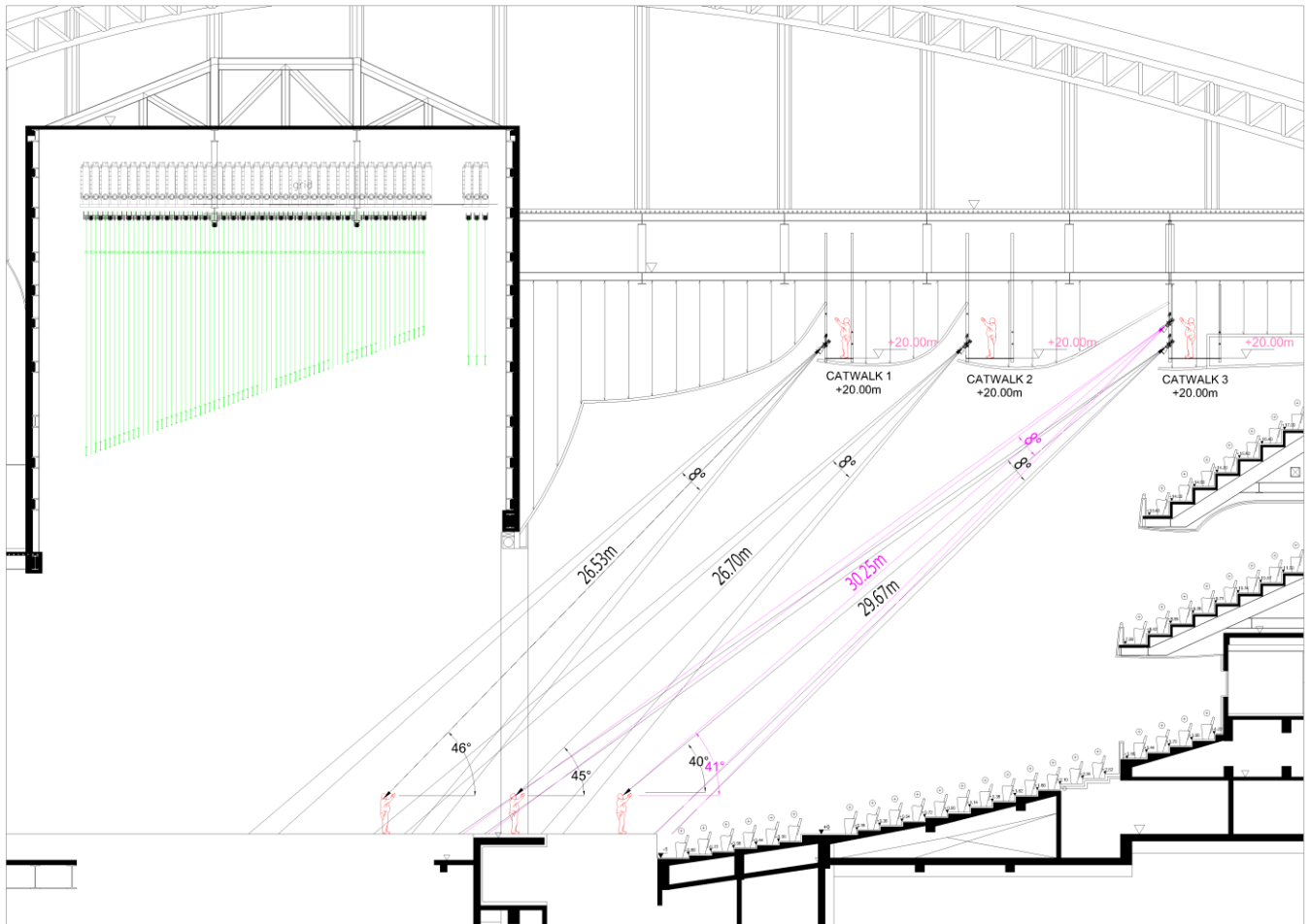


Figure 3.2.2- Lighting Section

### 3-3 Lighting DMX system

Please patch all additional fixtures from (5)001,thanks.

| Item     | Position          | Model                  | Quantity | Note                                   | Paid Item |
|----------|-------------------|------------------------|----------|----------------------------------------|-----------|
| Node     | Grid              | MA3 4Port              | 2        |                                        |           |
|          | DL Stage/DR Stage |                        | 1/1      |                                        |           |
|          | OrchestraGrid     | MA3 2Port              | 1        |                                        |           |
|          | UL Stage/UR Stage |                        | 1/1      |                                        |           |
|          | Portable          | MA2 2Port              | 7        |                                        |           |
| Isolator | Grid              | Chauvet RDMX Splitter8 | 4        | All isolators are 2 in 4 out (default) |           |
|          | OrchestraGrid     |                        | 1        |                                        |           |
| NPU      | Control Booth     | MA                     | 1        |                                        |           |

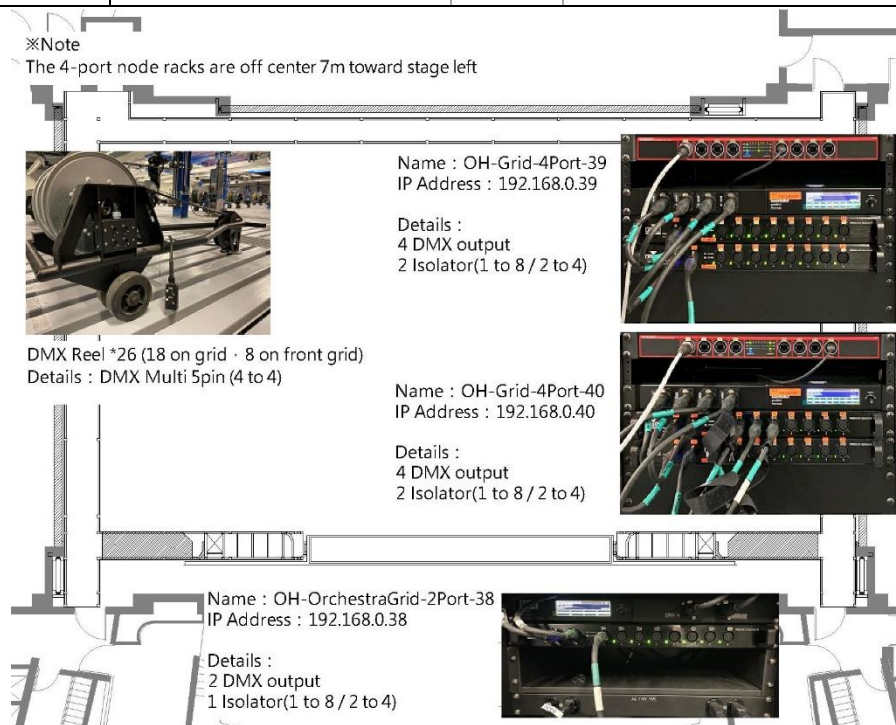


Figure 3.3.1- Grid Area Node Position Layout

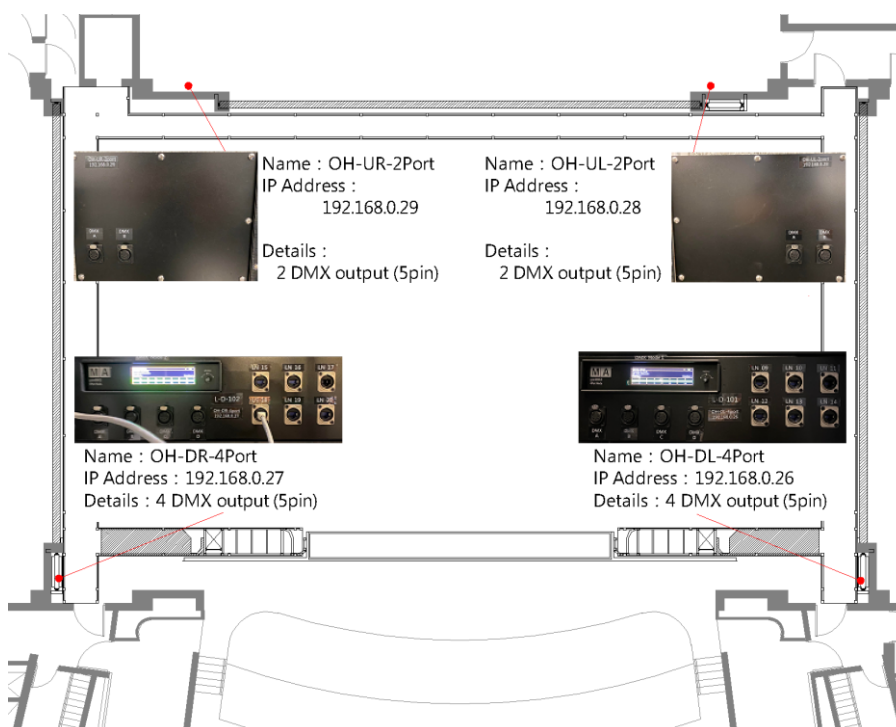


Figure 3.3.2- Stage Area Node Position Layout

### 3-4 Lighting Circuit

#### 3-4-1 Stage area

| Area and Position           | Connector                                                              | Dimmer Circuit No.                                     | Load | Network Circuit No. |
|-----------------------------|------------------------------------------------------------------------|--------------------------------------------------------|------|---------------------|
| Orchestra Pit Lift 1        | CEE 16A                                                                | 001 ~ 004                                              | 3kW  | LN01 ~ 02           |
|                             |                                                                        | 009 ~ 012                                              |      | LN05 ~ 06           |
| Orchestra Pit Lift 2        | CEE 16A                                                                | 005 ~ 008                                              | 3kW  | LN03 ~ 04           |
|                             |                                                                        | 013 ~ 016                                              |      | LN07 ~ 08           |
| Down Stage/L                | Harting(8 circuits)                                                    | 017 ~ 024                                              | 3kW  | LN09 ~ 14           |
|                             |                                                                        | 025 ~ 032                                              |      |                     |
| Down Stage/R                | Harting(8 circuits)                                                    | 033 ~ 040                                              | 3kW  | LN15 ~ 20           |
|                             |                                                                        | 041 ~ 048                                              |      |                     |
| Floor/L                     | Harting(1~6 circuits)<br>CEE 16A (7~8 circuits)<br>(1 outputs/circuit) | 049 ~ 056                                              | 3kW  | LN21 ~ 22           |
|                             |                                                                        | 065 ~ 072                                              |      | LN25 ~ 26           |
|                             |                                                                        | 081 ~ 088                                              |      | LN29 ~ 30           |
|                             |                                                                        | 097 ~ 104 (104 is also use for circuit in Follow Room) |      | LN33 ~ 34           |
|                             |                                                                        | 113 ~ 120                                              |      | LN37 ~ 38           |
| Floor/R                     | Harting(1~6 circuits)<br>CEE 16A (7~8 circuits)<br>(1 outputs/circuit) | 057 ~ 064                                              | 3kW  | LN23 ~ 24           |
|                             |                                                                        | 073 ~ 080                                              |      | LN27 ~ 28           |
|                             |                                                                        | 089 ~ 096                                              |      | LN31 ~ 32           |
|                             |                                                                        | 105 ~ 112 (112 is also use for circuit in Follow Room) |      | LN35 ~ 36           |
|                             |                                                                        | 121 ~ 128                                              |      | LN39 ~ 40           |
| Stage Lift 1                | Harting(8 circuits)                                                    | 129 ~ 136                                              | 3kW  | LN41 ~ 42           |
| Stage Lift 2                | Harting(8 circuits)                                                    | 137 ~ 144                                              | 3kW  | LN43 ~ 44           |
| Stage Lift 3                | Harting(8 circuits)                                                    | 145 ~ 152                                              | 3kW  | LN45 ~ 46           |
| Stage Lift 4                | Harting(8 circuits)                                                    | 153 ~ 160                                              | 3kW  | LN47 ~ 48           |
| Stage Lift 5                | Harting(8 circuits)                                                    | 161 ~ 168                                              | 3kW  | LN49 ~ 50           |
| Rear Stage/L                | Harting(8 circuits)                                                    | 169 ~ 176                                              | 3kW  | LN51 ~ 52           |
|                             |                                                                        | 177 ~ 184                                              |      |                     |
|                             |                                                                        | 201 ~ 208                                              |      | LN55 ~ 56           |
|                             |                                                                        | 209 ~ 216                                              |      |                     |
| Rear Stage/R                | Harting(8 circuits)                                                    | 185 ~ 192                                              | 3kW  | LN53 ~ 54           |
|                             |                                                                        | 193 ~ 200                                              |      |                     |
|                             |                                                                        | 217 ~ 224                                              |      | LN57 ~ 58           |
|                             |                                                                        | 225 ~ 232                                              |      |                     |
| Above Rear Stage Cable Reel | Harting(8 circuits)                                                    | 233 ~ 240                                              | 3kW  | LN61 ~ 62           |
|                             |                                                                        | 241 ~ 248                                              |      | LN63 ~ 64           |
|                             |                                                                        | 249 ~ 256                                              |      | LN65 ~ 66           |
|                             |                                                                        | 257 ~ 264                                              |      | LN67 ~ 68           |
|                             |                                                                        | 265 ~ 272                                              |      | LN69 ~ 70           |
|                             |                                                                        | 273 ~ 280                                              |      | LN71 ~ 72           |
|                             |                                                                        | 281 ~ 288                                              |      | LN73 ~ 74           |
|                             |                                                                        | 289 ~ 296                                              |      | LN75 ~ 76           |
| Movable Tormentor Stage/L   | CEE 16A<br>(2 outputs/circuit)                                         | 297 ~ 300                                              | 3kW  |                     |
|                             |                                                                        | 301 ~ 304                                              |      | LN77 ~ 78           |
|                             |                                                                        | 305 ~ 308                                              |      |                     |
|                             |                                                                        | 309 ~ 312                                              |      |                     |
| Movable Tormentor Stage/R   | CEE 16A<br>(2 outputs/circuit)                                         | 313 ~ 316                                              | 3kW  |                     |
|                             |                                                                        | 317 ~ 320                                              |      | LN79 ~ 80           |
|                             |                                                                        | 321 ~ 324                                              |      |                     |
|                             |                                                                        | 325 ~ 328                                              |      |                     |
| Rear Stage Backwall         | Harting(8 circuits)                                                    | 329 ~ 336                                              | 3kW  |                     |
| Up Lighting Bridge          | CEE 16A<br>(2 outputs/circuit)                                         | 369 ~ 372                                              | 3kW  |                     |
|                             |                                                                        | 373 ~ 376                                              |      |                     |
|                             |                                                                        | 377 ~ 380                                              |      |                     |
|                             |                                                                        | 381 ~ 384                                              |      |                     |
|                             |                                                                        | 385 ~ 388                                              |      | LN101 ~ 104         |
|                             |                                                                        | 389 ~ 392                                              |      |                     |

|                        |                                |           |     |             |
|------------------------|--------------------------------|-----------|-----|-------------|
| Down Lighting Bridge   | CEE 16A<br>(2 outputs/circuit) | 393 ~ 396 | 3kW |             |
|                        |                                | 397 ~ 400 |     |             |
|                        |                                | 401 ~ 404 |     | LN105 ~ 106 |
|                        |                                | 405 ~ 408 |     |             |
|                        |                                | 409 ~ 412 |     | LN107 ~ 108 |
|                        |                                | 413 ~ 416 |     |             |
| 3F- Gallery S.L        | CEE 16A                        | 473 ~ 476 | 3kW |             |
|                        |                                | 477 ~ 480 |     | LN117 ~ 118 |
|                        |                                | 481 ~ 484 |     |             |
|                        |                                | 485 ~ 488 |     |             |
| 3F- Gallery S.R        | CEE 16A                        | 489 ~ 492 | 3kW |             |
|                        |                                | 493 ~ 496 |     | LN119 ~ 120 |
|                        |                                | 497 ~ 500 |     |             |
|                        |                                | 501 ~ 504 |     |             |
| 3F- Gallery Rear Stage | CEE 16A                        | 505 ~ 508 | 3kW | LN121 ~ 122 |
|                        |                                | 509 ~ 512 |     |             |
| 4F- Gallery S.L        | CEE 16A                        | 513 ~ 516 | 3kW |             |
|                        |                                | 517 ~ 520 |     | LN127 ~ 128 |
| 4F- Gallery S.R        | CEE 16A                        | 521 ~ 524 | 3kW |             |
|                        |                                | 525 ~ 528 |     | LN129 ~ 130 |
| 4F- Gallery Rear Stage | CEE 16A                        | 529 ~ 532 | 3kW | LN131 ~ 132 |
|                        |                                | 533 ~ 536 |     |             |
| Stage/L Ladder1        | CEE 16A                        | 561 ~ 568 | 3kW | LN139 ~ 140 |
| Stage/L Ladder2        |                                | 569 ~ 576 |     | LN141 ~ 142 |
| Stage/L Ladder3        |                                | 577 ~ 584 |     | LN143 ~ 144 |
| Stage/L Ladder4        |                                | 585 ~ 592 |     | LN145 ~ 146 |
| Stage/L Ladder5        |                                | 593 ~ 600 |     | LN147 ~ 148 |
| Stage/L Ladder6        |                                | 601 ~ 608 |     | LN149 ~ 150 |
| Stage/R Ladder1        |                                | 633 ~ 640 |     | LN151 ~ 152 |
| Stage/R Ladder2        |                                | 641 ~ 648 |     | LN153 ~ 154 |
| Stage/R Ladder3        |                                | 649 ~ 656 |     | LN155 ~ 156 |
| Stage/R Ladder4        |                                | 609 ~ 616 |     | LN157 ~ 158 |
| Stage/R Ladder5        |                                | 617 ~ 624 |     | LN159 ~ 160 |
| Stage/R Ladder6        |                                | 625 ~ 632 |     | LN161 ~ 162 |
| Cyclorama              | Harting(8 circuits)            | 753 ~ 760 | 3kW |             |
|                        |                                | 761 ~ 768 |     | LN179 ~ 180 |
|                        |                                | 769 ~ 776 |     |             |
| Stage Grid Area        | Harting(8 circuits)            | 777 ~ 784 | 3kW | LN181 ~ 182 |
|                        |                                | 785 ~ 792 |     |             |
|                        |                                | 793 ~ 800 |     | LN183 ~ 184 |
|                        |                                | 801 ~ 808 |     |             |
|                        |                                | 809 ~ 816 |     | LN185 ~ 186 |
|                        |                                | 817 ~ 824 |     |             |
|                        |                                | 825 ~ 832 |     | LN187 ~ 188 |
|                        |                                | 833 ~ 840 |     |             |
|                        |                                | 841 ~ 848 |     | LN189 ~ 190 |
|                        |                                | 849 ~ 856 |     |             |
|                        |                                | 857 ~ 864 |     | LN191 ~ 192 |
|                        |                                | 865 ~ 872 |     |             |
|                        |                                | 873 ~ 880 |     | LN193 ~ 194 |
|                        |                                | 881 ~ 888 |     |             |
|                        |                                | 889 ~ 896 |     | LN195 ~ 196 |
|                        |                                | 897 ~ 904 |     |             |
|                        |                                | 905 ~ 912 |     | LN197 ~ 198 |
|                        |                                | 913 ~ 920 |     |             |
|                        |                                | 921 ~ 928 |     | LN199 ~ 200 |
|                        |                                | 929 ~ 936 |     |             |
|                        |                                | 937 ~ 944 |     | LN201 ~ 202 |
|                        |                                | 945 ~ 952 |     |             |
|                        |                                | 953 ~ 960 |     | LN203 ~ 204 |

|                      |                     |             |     |            |
|----------------------|---------------------|-------------|-----|------------|
|                      |                     | 961 ~ 968   |     |            |
| Auditorium Fly Bar1  | Harting(8 circuits) | 969 ~ 976   | 3kW | LN205~ 206 |
| Auditorium Fly Bar2  |                     | 977 ~ 984   |     | LN207~ 208 |
| Auditorium Fly Bar3  |                     | 985 ~ 992   |     | LN209~ 210 |
| Auditorium Fly Bar4  |                     | 993 ~ 1000  |     | LN211~ 212 |
| Auditorium Fly Bar5  |                     | 1001 ~ 1008 |     | LN213~ 214 |
| Down Stage/L         | CEE 32A             | 1011 ~ 1014 | 5kW |            |
| Down Stage/R         | CEE 32A             | 1017 ~ 1020 | 5kW |            |
| Rear Stage/L         | CEE 32A             | 1023 ~ 1026 | 5kW |            |
|                      |                     | 1035 ~ 1038 |     |            |
| Rear Stage/R         | CEE 32A             | 1029 ~ 1032 | 5kW |            |
|                      |                     | 1041 ~ 1044 |     |            |
| Rear Stage Backwall  | CEE 32A             | 1045 ~ 1050 | 5kW | LN59~ 60   |
| Down Lighting Bridge | CEE 32A             | 1051 ~ 1056 | 5kW |            |
| 3F- Gallery S.L      | CEE 32A             | 1009 ~ 1010 | 5kW |            |
|                      |                     | 1021 ~ 1022 |     |            |
|                      |                     | 1033 ~ 1034 |     |            |
| 3F- Gallery S.R      | CEE 32A             | 1015 ~ 1016 | 5kW |            |
|                      |                     | 1027 ~ 1028 |     |            |
|                      |                     | 1039 ~ 1040 |     |            |

Ca =CEE 16A  
Cb =CEE 32A  
H =Harting(8 路)

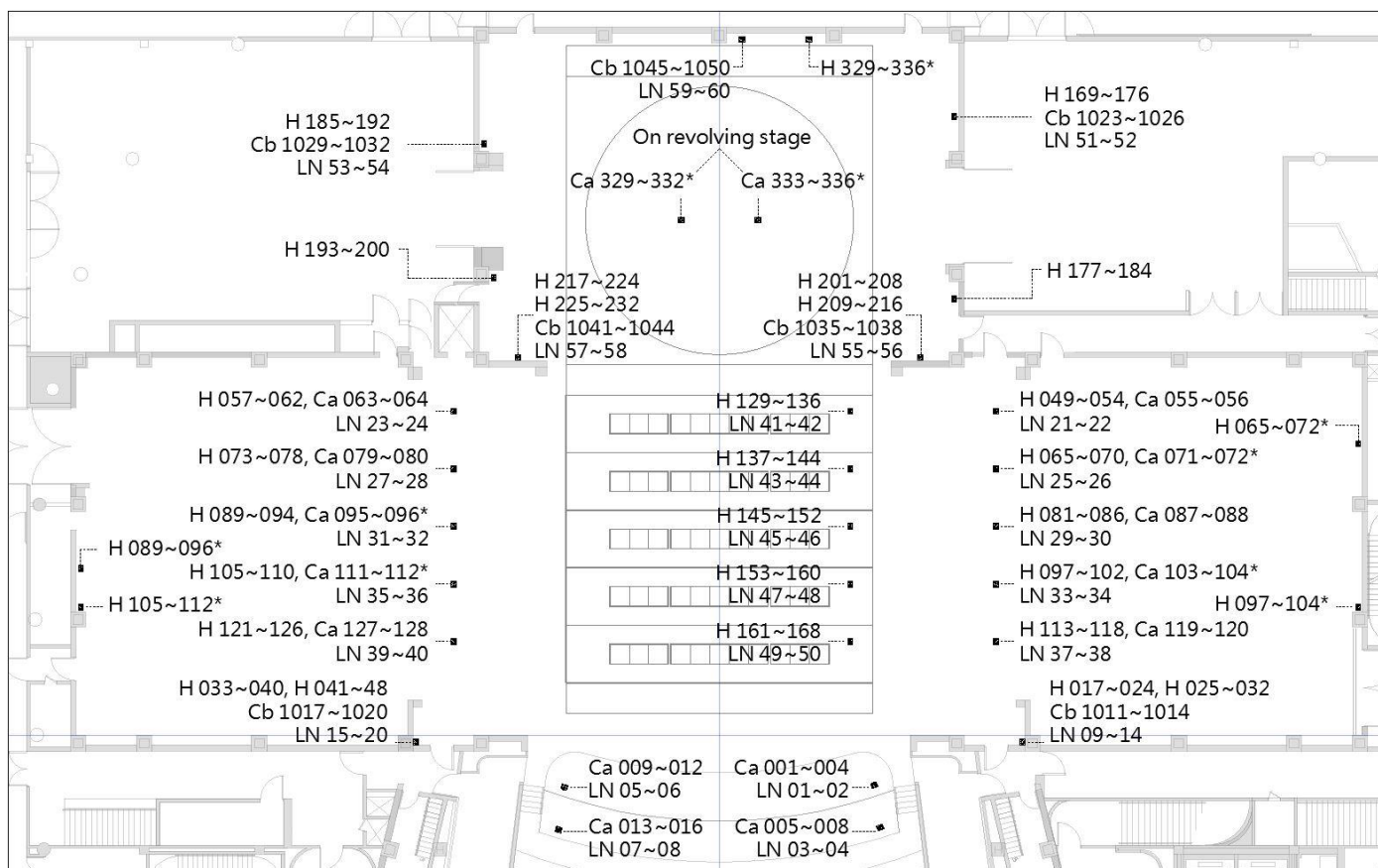


Figure 3.4.1.1- First Floor Lighting Circuit Layout

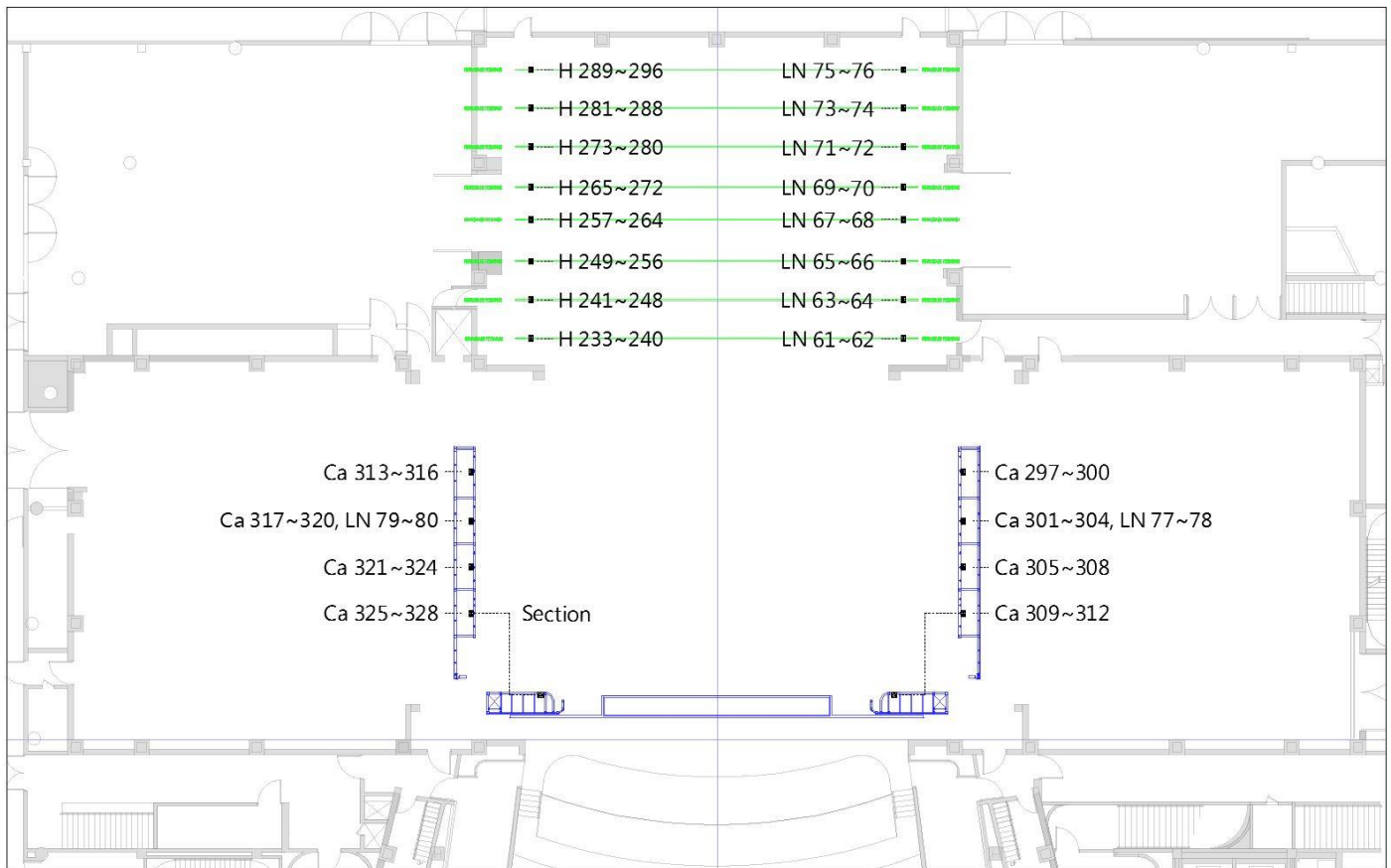


Figure 3.4.1.2- Above Rear Stage Cable Reel and Tormentor Lighting Circuit Layout

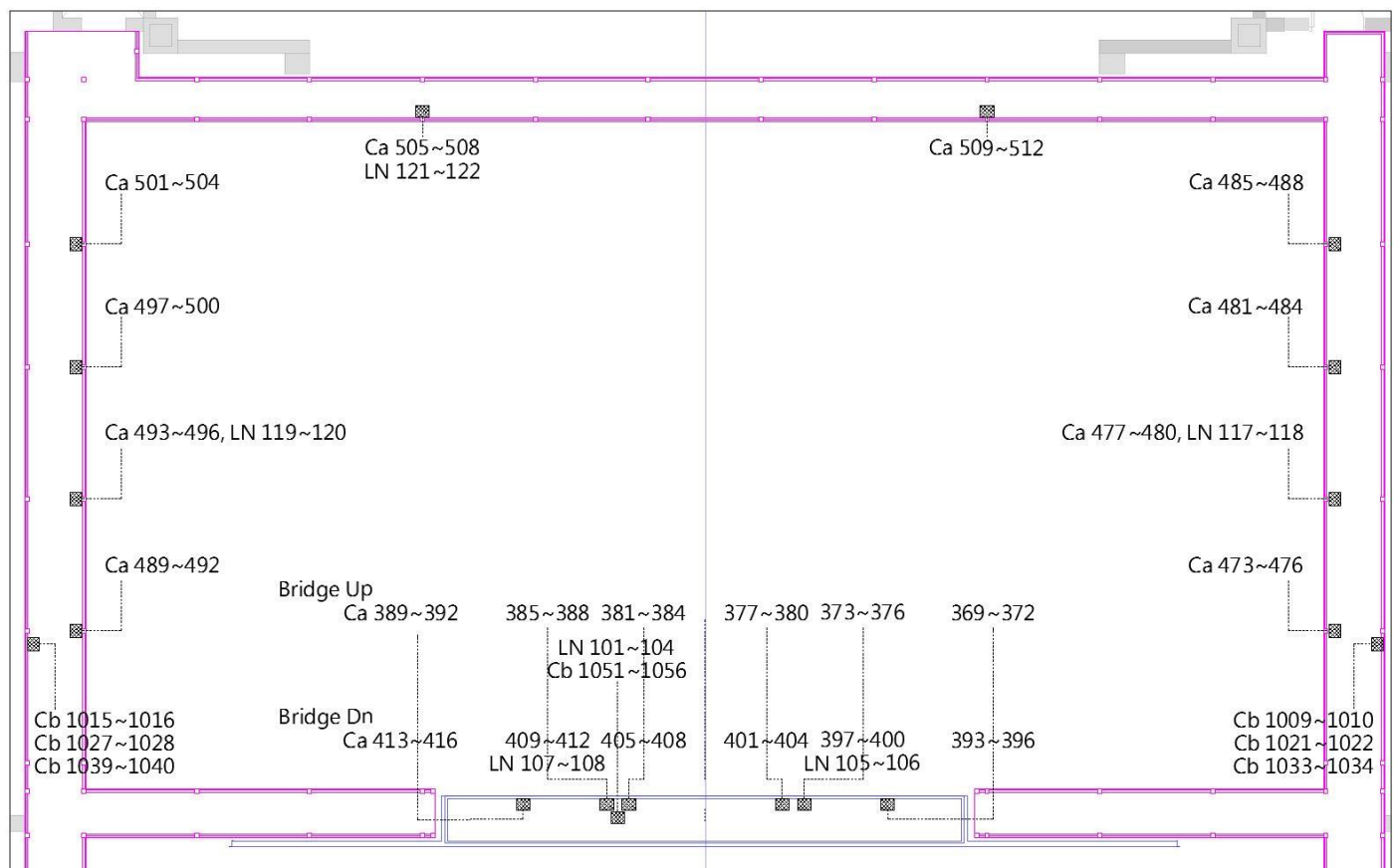


Figure 3.4.1.3- The Third Floor Gallery and Lighting Bridge Circuit Layout

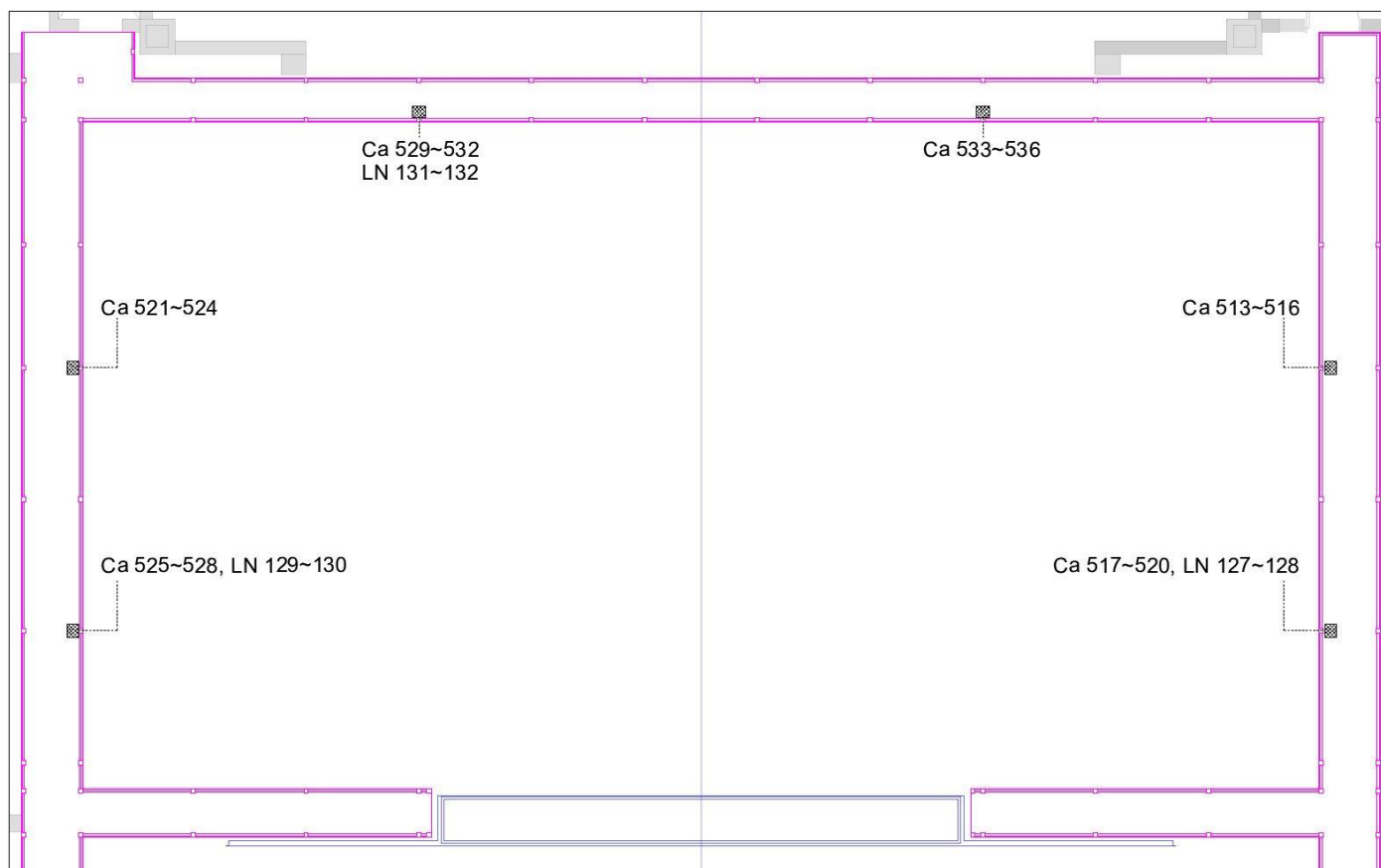


Figure 3.4.1.4- The Fourth Floor Gallery Lighting Circuit Layout

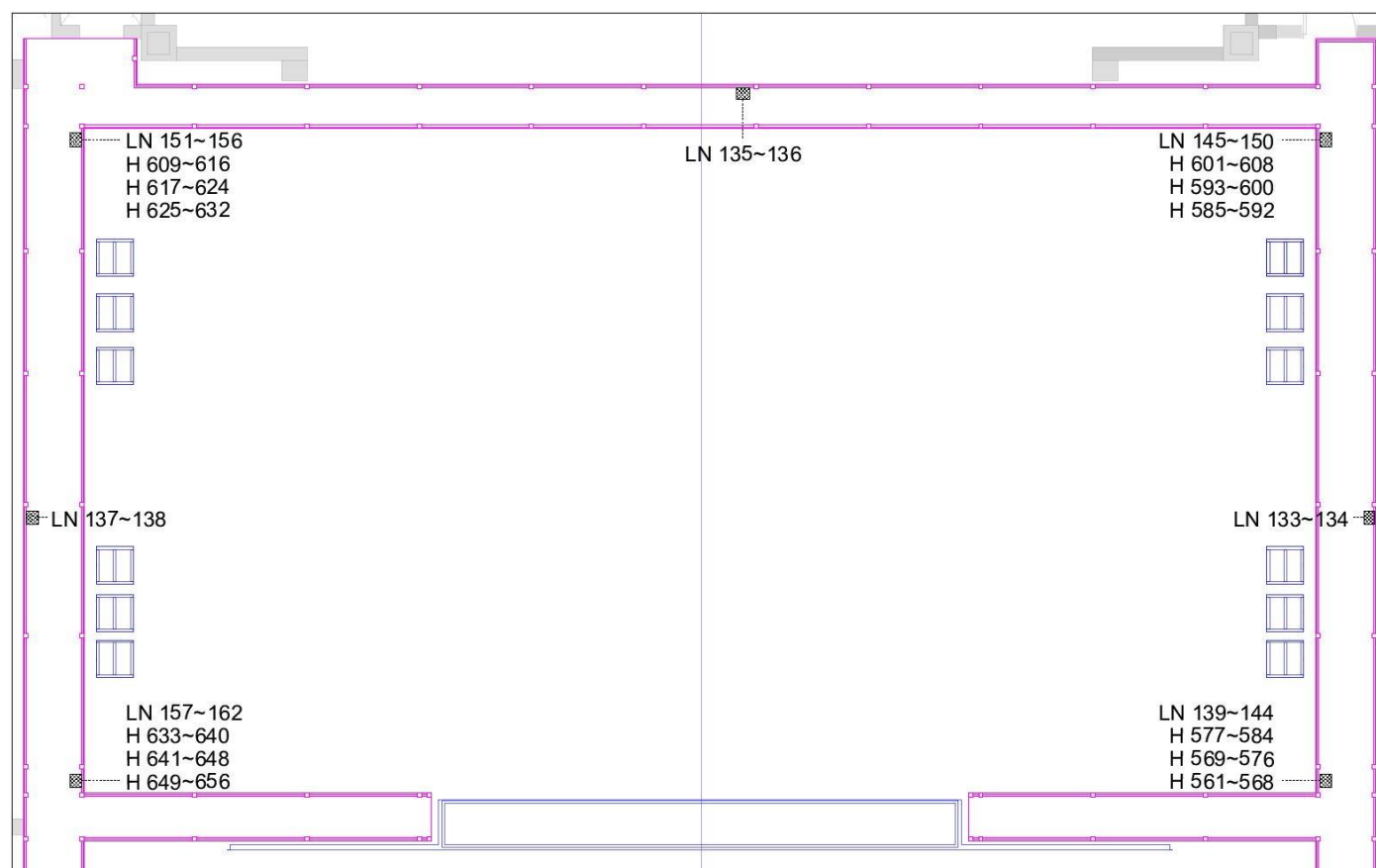


Figure 3.4.1.5- R1F Gallery (For Ladder) Lighting Circuit Layout

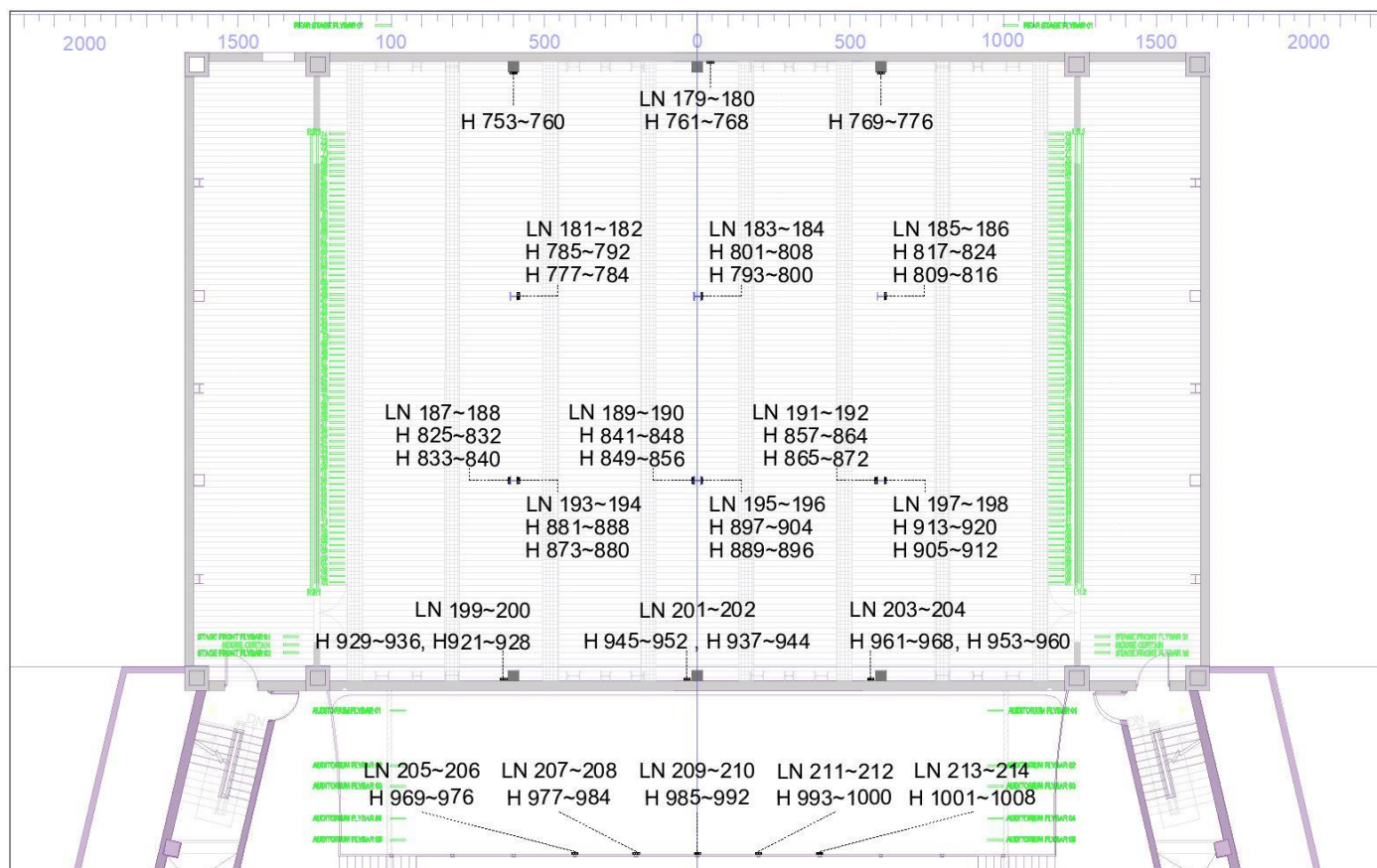


Figure 3.4.1.6- Grid Area (R1+R2) Lighting Circuit Layout

## 3-4-2 Front of House

| Area and Position  | Connector                      | Dimmer Circuit No. | Load | Network Circuit No. |
|--------------------|--------------------------------|--------------------|------|---------------------|
| 2F-Lighting Box/L  | CEE 16A<br>(2 outputs/circuit) | 337 ~ 340          | 3kW  | LN85 ~ 86           |
|                    |                                | 341 ~ 344          |      |                     |
|                    |                                | 345 ~ 348          |      |                     |
|                    |                                | 349 ~ 352          |      |                     |
| 2F- Lighting Box/R | CEE 16A<br>(2 outputs/circuit) | 353 ~ 356          | 3kW  | LN87 ~ 88           |
|                    |                                | 357 ~ 360          |      |                     |
|                    |                                | 361 ~ 364          |      |                     |
|                    |                                | 365 ~ 368          |      |                     |
| 3F- Lighting Box/L | CEE 16A<br>(2 outputs/circuit) | 417 ~ 420          | 3kW  | LN109 ~ 110         |
|                    |                                | 421 ~ 424          |      |                     |
|                    |                                | 425 ~ 428          |      |                     |
|                    |                                | 429 ~ 432          |      |                     |
| 3F- Lighting Box/R | CEE 16A<br>(2 outputs/circuit) | 433 ~ 436          | 3kW  | LN111 ~ 112         |
|                    |                                | 437 ~ 440          |      |                     |
|                    |                                | 441 ~ 444          |      |                     |
|                    |                                | 445 ~ 448          |      |                     |
| 3F-Balcony Rail    | CEE 16A                        | 449 ~ 451          | 3kW  | LN115 ~ 116         |
|                    |                                | 452 ~ 454          |      |                     |
|                    |                                | 455 ~ 457          |      |                     |
|                    |                                | 458 ~ 460          |      |                     |
|                    |                                | 461 ~ 463          |      | LN113 ~ 114         |
|                    |                                | 464 ~ 466          |      |                     |
|                    |                                | 467 ~ 469          |      |                     |
|                    |                                | 470 ~ 472          |      |                     |
| 4F-Balcony Rail    | CEE 16A                        | 537 ~ 539          | 3kW  | LN125 ~ 126         |
|                    |                                | 540 ~ 542          |      |                     |
|                    |                                | 543 ~ 545          |      |                     |
|                    |                                | 546 ~ 548          |      |                     |

|              |                                |           |     |             |
|--------------|--------------------------------|-----------|-----|-------------|
|              |                                | 549 ~ 551 |     |             |
|              |                                | 552 ~ 554 |     |             |
|              |                                | 555 ~ 557 |     |             |
|              |                                | 558 ~ 560 |     | LN123 ~ 124 |
| 1st. Catwalk | CEE 16A<br>(2 outputs/circuit) | 657 ~ 660 | 3kW |             |
|              |                                | 661 ~ 664 |     |             |
|              |                                | 665 ~ 668 |     | LN163 ~ 164 |
|              |                                | 669 ~ 672 |     |             |
|              |                                | 673 ~ 676 |     |             |
|              |                                | 677 ~ 680 |     |             |
|              |                                | 681 ~ 684 |     | LN165 ~ 166 |
|              |                                | 685 ~ 688 |     |             |
| 2nd. Catwalk | CEE 16A<br>(2 outputs/circuit) | 689 ~ 692 | 3kW |             |
|              |                                | 693 ~ 696 |     |             |
|              |                                | 697 ~ 700 |     | LN167 ~ 168 |
|              |                                | 701 ~ 704 |     |             |
|              |                                | 705 ~ 708 |     |             |
|              |                                | 709 ~ 712 |     |             |
|              |                                | 713 ~ 716 |     | LN169 ~ 170 |
|              |                                | 717 ~ 720 |     |             |
| 3rd. Catwalk | CEE 16A<br>(2 outputs/circuit) | 721 ~ 724 | 3kW |             |
|              |                                | 725 ~ 728 |     |             |
|              |                                | 729 ~ 732 |     | LN171 ~ 172 |
|              |                                | 733 ~ 736 |     |             |
|              |                                | 737 ~ 740 |     |             |
|              |                                | 741 ~ 744 |     | LN173 ~ 174 |
|              |                                | 745 ~ 748 |     |             |
|              |                                | 749 ~ 752 |     |             |

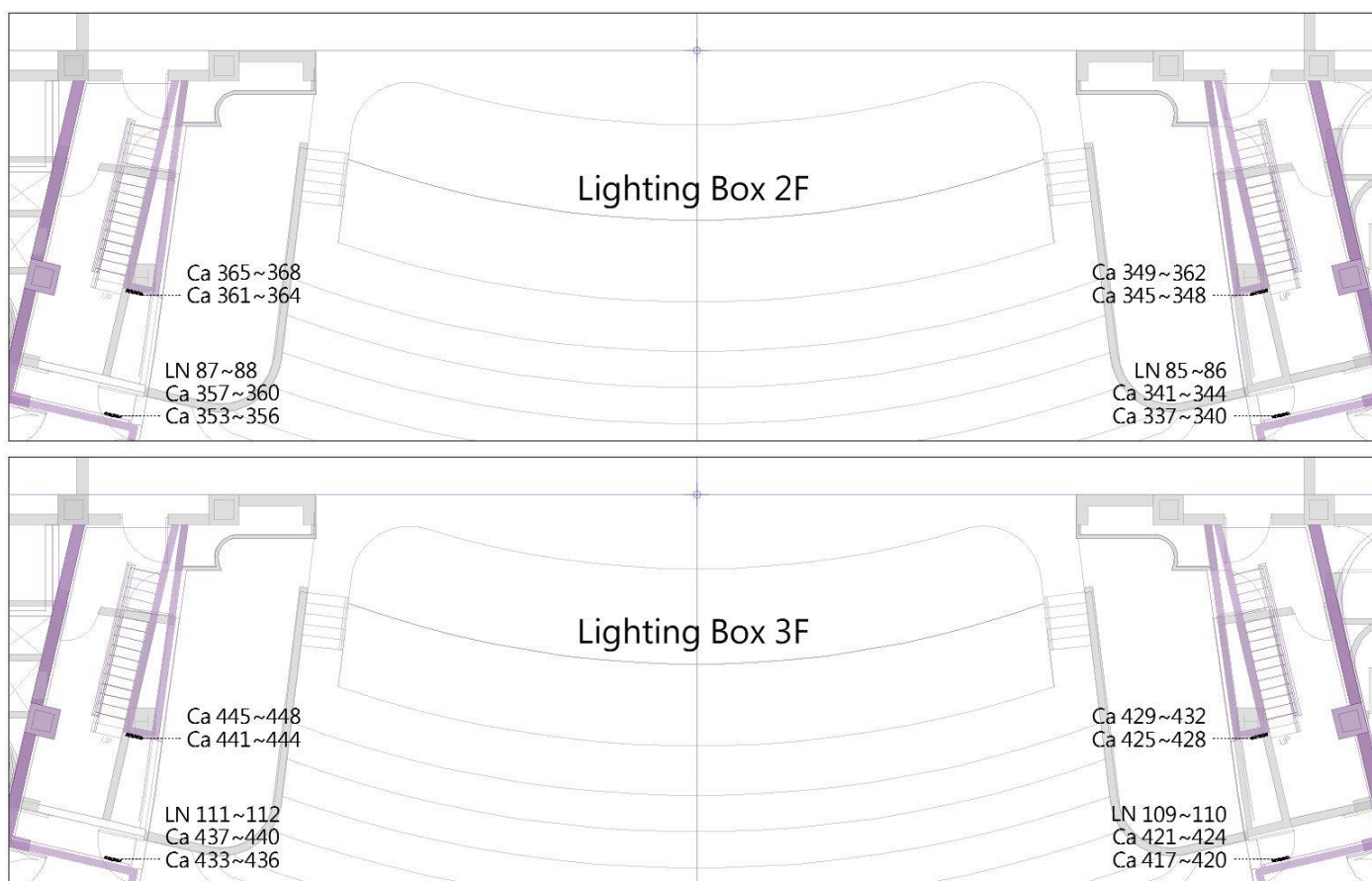


Figure 3.4.2.1- Lighting Box Lighting Circuit Layout

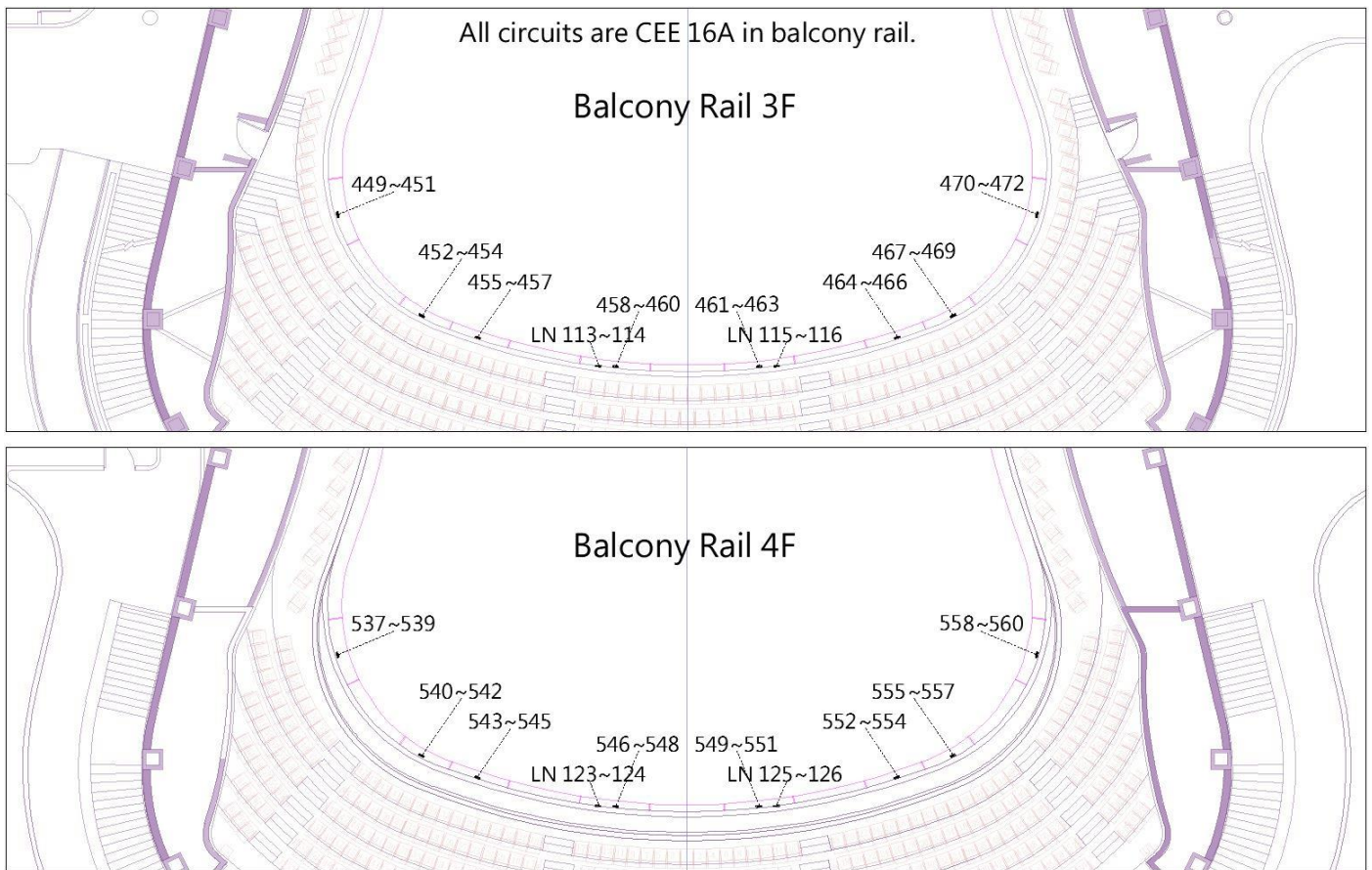


Figure 3.4.2.2- Balcony Rail Lighting Circuit Layout

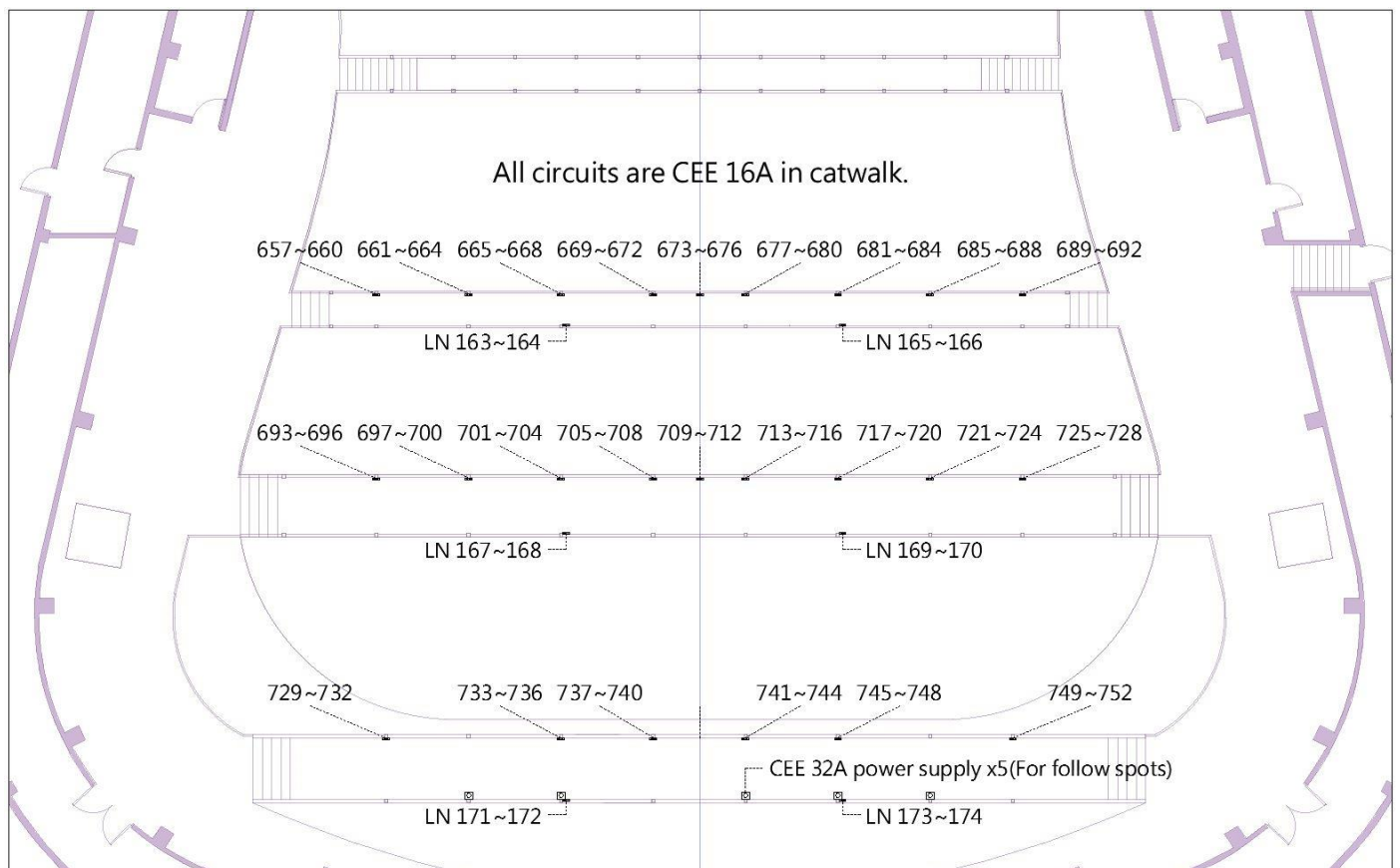


Figure 3.4.2.3- Catwalk Lighting Circuit Layout

3-5 Portable Lift

Brand and Model: Snorkel UL-40 (Battery Power Supply)  
Maximum height: 12.1m  
Maximum weight: 136kg  
Quantity: 2

3-6 Additional Power Supply

| Function  | Position                           | Specifications                            | Quantity  |
|-----------|------------------------------------|-------------------------------------------|-----------|
| Stage     | Down Stage Left / Right            | 3ø4W+G 380V/220V /60Hz (CEE 125A/3P+N+PE) | 3 / 3     |
| Light     |                                    | 3ø4W+G 208V/120V /60Hz (Camlock 250A)     | 3 / 3     |
| Sound     |                                    | 3ø4W+G 208V/120V /60Hz (Camlock 100A)     | 1 / 1     |
| Stage     | Up Stage Left / Right / Rear Stage | 3ø4W+G 380V/220V /60Hz (CEE 125A/3P+N+PE) | 2 / 2 / 2 |
| Light     |                                    | 3ø4W+G 208V/120V /60Hz (Camlock 250A)     | 2 / 2 / 2 |
| Projector | Rear Stage(Right)                  | 220V/60Hz (CEE 32A)                       | 1         |



Figure 3.6- Additional Power Supply

3-7 Working Light / Auditorium light

Work lights

Work lights provided white and blue light mode, and the control switch is located on the stage manager’ s Desk.  
Lighting area: Stage, Rear Stage lower floor, Stage Traps room, Main Stage Elevation Platform double-deck level (include machine pit), Orchestra Pit, Gallery, Lighting Box, Lighting Bridge, Stage Grid area, Cat walk and Auditorium control Elevation Platform machine pit.

Auditorium lights

Auditorium lights consists houselights and step lights, which can be separately controlled and dimmed. The control panel is located on the stage manager’ s Desk and lighting control room.

## 4 Audio/Video-Systems

### 4-1 Audio Facilities

| Item                                  | Quantity | Brand and Model                                                                                                                                                                                 | Paid Item                     |
|---------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Digital I/O fiber module              | 2        | Studer D21M                                                                                                                                                                                     |                               |
| Stereo audio converter                | 1        | Whirlwind PcUSB 2-Channel<br>USB Direct Box                                                                                                                                                     |                               |
| Array main speaker                    | 2        | Kling & Freitag SEQUENZA 10W*10<br>Kling & Freitag SEQUENZA 10B*2                                                                                                                               |                               |
| Left and right channel speakers       | 2        | Kling & Freitag SEQUENZA 10W*3<br>Kling & Freitag SEQUENZA 10B*1                                                                                                                                |                               |
| Digital speaker                       | 6        | Renkus-Heinz ICONYX IC16/8RII                                                                                                                                                                   |                               |
| Movable speaker                       | 2        | Kling & Freitag CA1515-9                                                                                                                                                                        |                               |
| Movable Subwoofer                     | 2        | Kling & Freitag SWi118E<br>LabGruppen PLM10000Q                                                                                                                                                 |                               |
| Stage front speaker                   | 12       | Renkus-Heinz CFX 41                                                                                                                                                                             |                               |
| Auxiliary speaker 1F                  | 46       | Soundtube CM600i                                                                                                                                                                                |                               |
| Auxiliary speaker 2F                  | 52       | Soundtube CM600i                                                                                                                                                                                |                               |
| 12" Active Stage Monitor Speaker      | 2        | Renkus-Heinz PN121/9                                                                                                                                                                            |                               |
| 15" Active Stage Monitor Speaker      | 2        | Renkus-Heinz PN151/9                                                                                                                                                                            |                               |
| Digital Mixer                         | 1        | Soundcraft Vi4                                                                                                                                                                                  | *                             |
| 12" Active Stage Monitor Speaker      | 12       | Renkus-Heinz PN121M/12                                                                                                                                                                          | *                             |
| 6.5" Active Monitor Speaker           | 8        | Renkus-Heinz PN61                                                                                                                                                                               | *                             |
| Dual Channel Equalizer                | 6        | BSS FCS960                                                                                                                                                                                      | *                             |
| Mixing console                        | 1        | Midas M32R LIVE<br>Stage Box : Midas DL16<br>Comes with RJ-45 cable                                                                                                                             | *<br>(Shared with four halls) |
| Wireless PA equipment<br>MIPRO MA-708 | 4        | MIPRO MA-708<br>(Recommended for indoor use)                                                                                                                                                    | *<br>(Shared with four halls) |
| Wireless PA equipment<br>MIPRO MA-808 | 2        | MIPRO MA-808                                                                                                                                                                                    | *<br>(Shared with four halls) |
| Wireless PA equipment<br>MIPRO MA-828 | 2        | MIPRO MA-828                                                                                                                                                                                    | *<br>(Shared with four halls) |
| Mixing console Combo                  | 3        | Mixer: YAMAHA DM3 Standard<br>Handheld Wireless Microphone :<br>Mipro ACT-747 x1 、ACT-700H x 4<br>Speaker : Renkus-Heinz PN61 x 2<br>Including assembly and disassembly and execution manpower. | *<br>(Shared with four halls) |
| Mixing console                        | 1        | Midas heritage D HD96-24-CC-TP<br>Stage Box : Midas DL231                                                                                                                                       | *<br>(Shared with four halls) |
| Signal Splitters                      | 1        | Midas DL431                                                                                                                                                                                     | *<br>(Shared with four halls) |

Items with \* mark are paid items. Please refer to the rate tables of National Kaohsiung Center for the Arts.

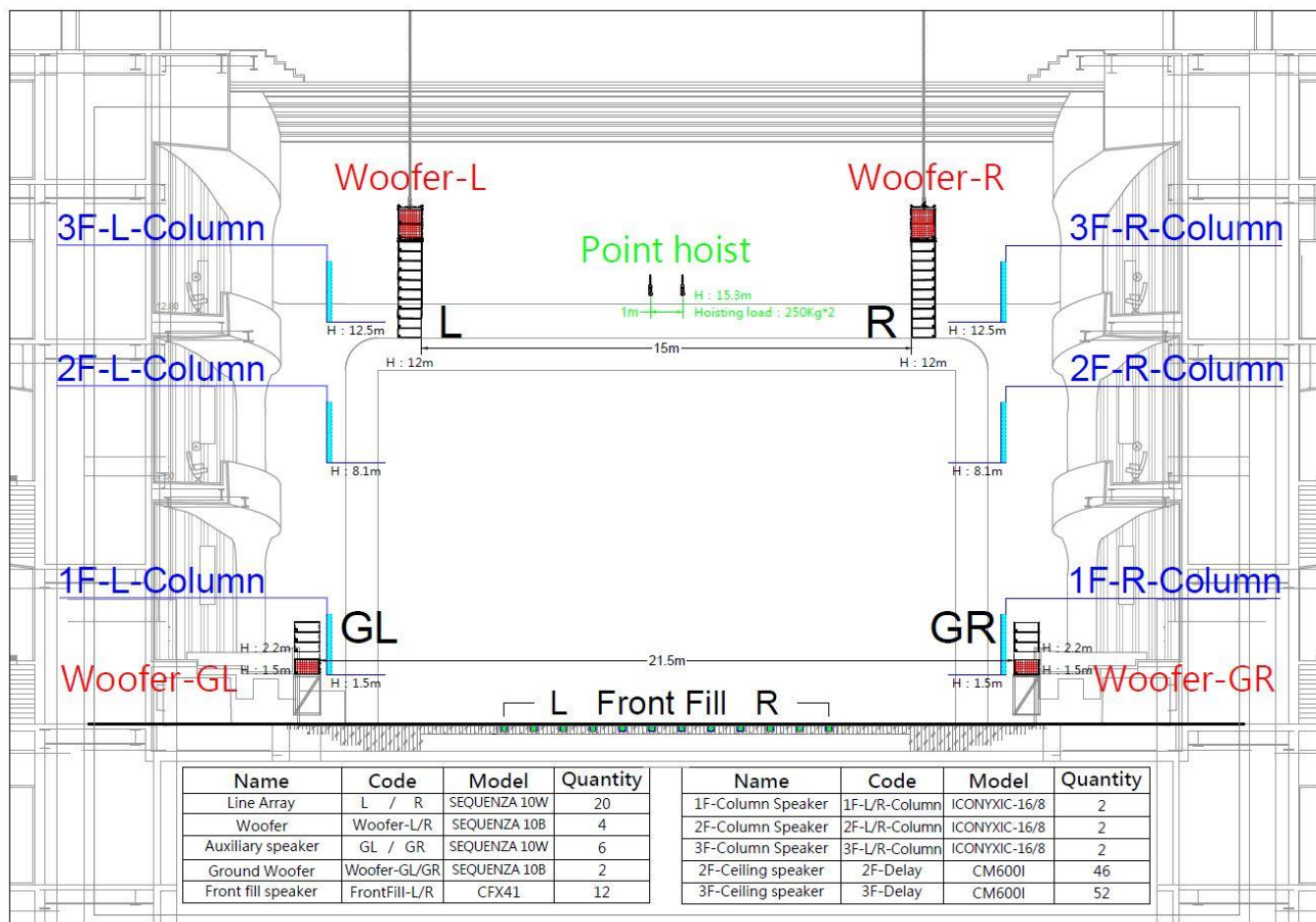


Figure 4-1.1- Speaker elevation diagram

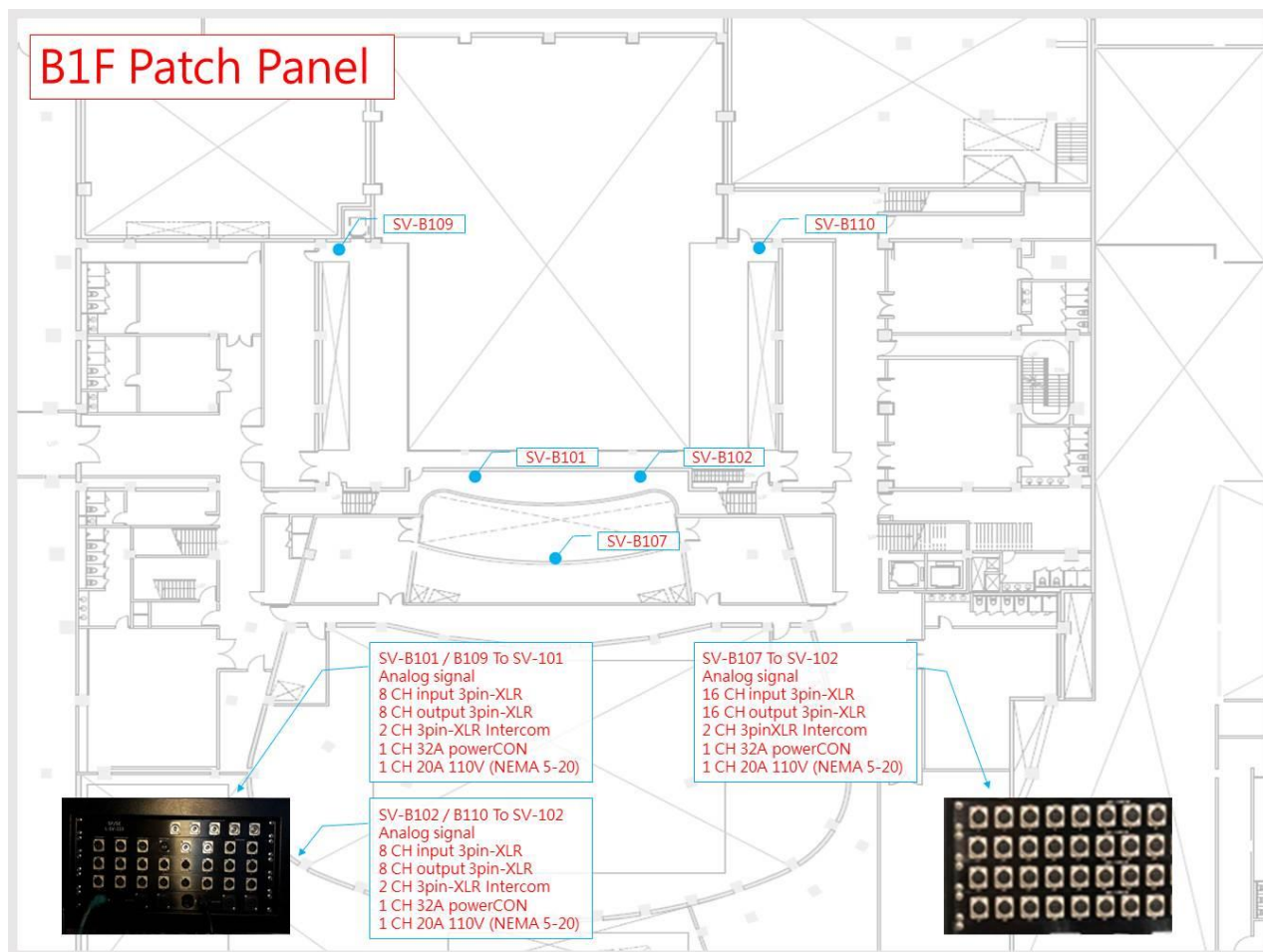


Figure 4-1.2- B1F Audio system channel diagram

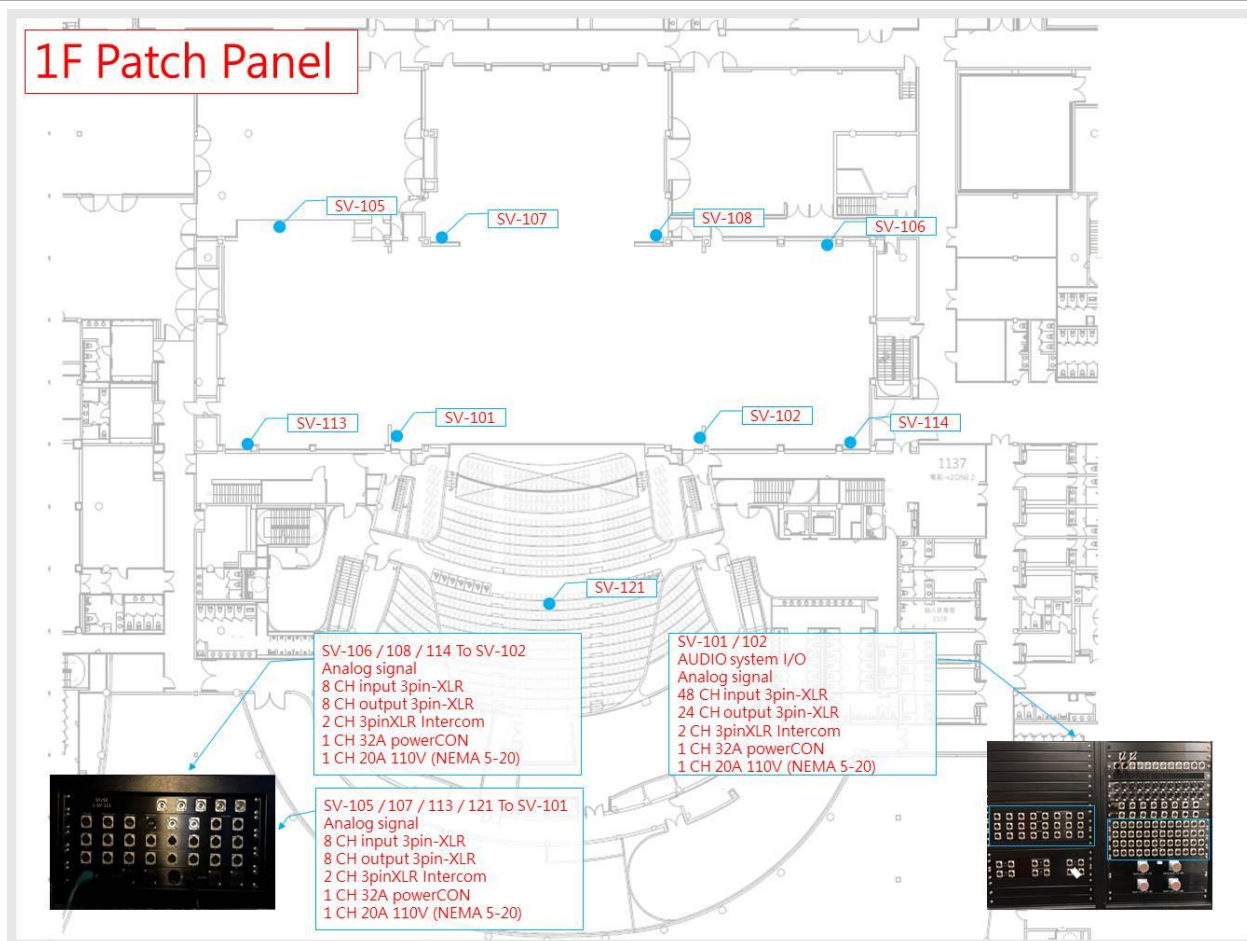


Figure 4-1.3- 1F Audio system channel diagram

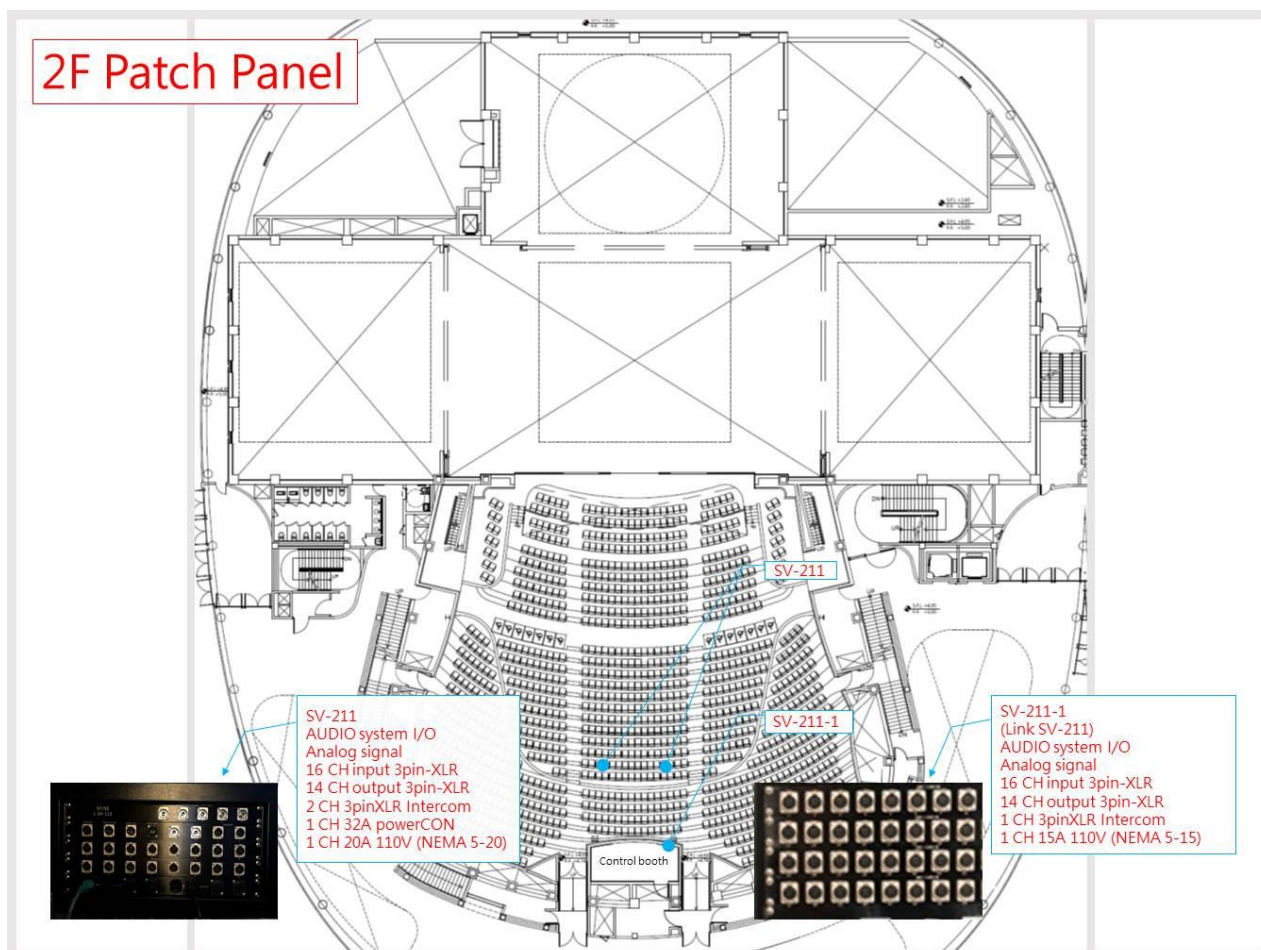


Figure 4-1.4- 2F Audio system channel diagram

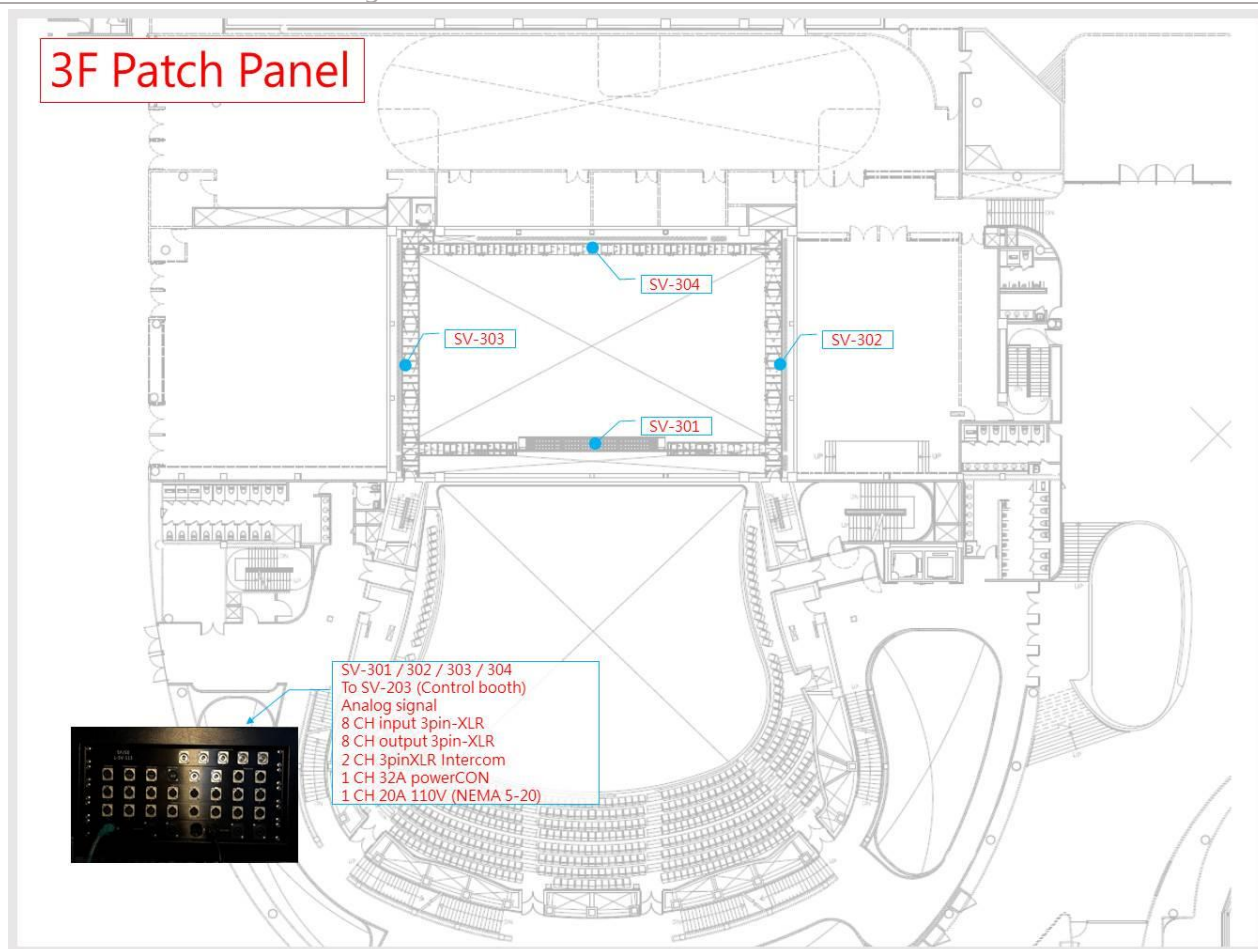


Figure 4-1.5- 3F Audio system channel diagram

## Optical Fiber : Point-to-Point Channel Diagram

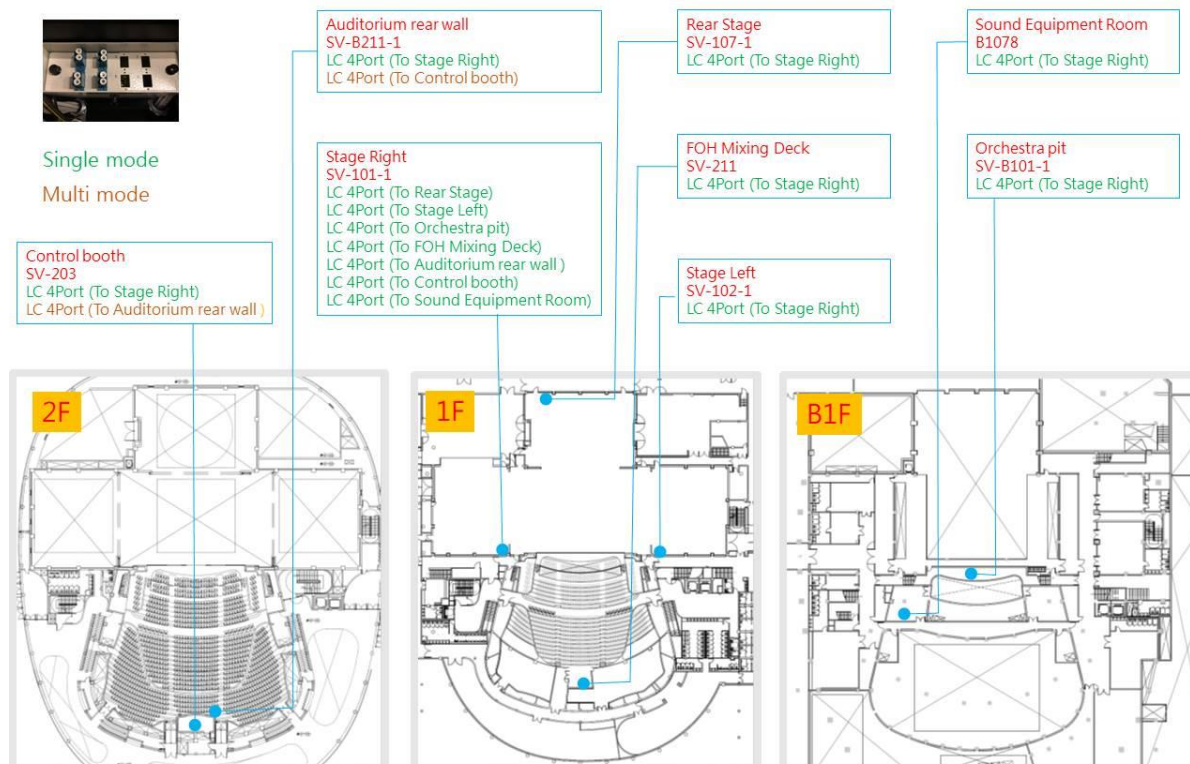


Figure 4-1.6- Optical fiber point-to-point channel diagram

## Point-to-Point Channel Diagram

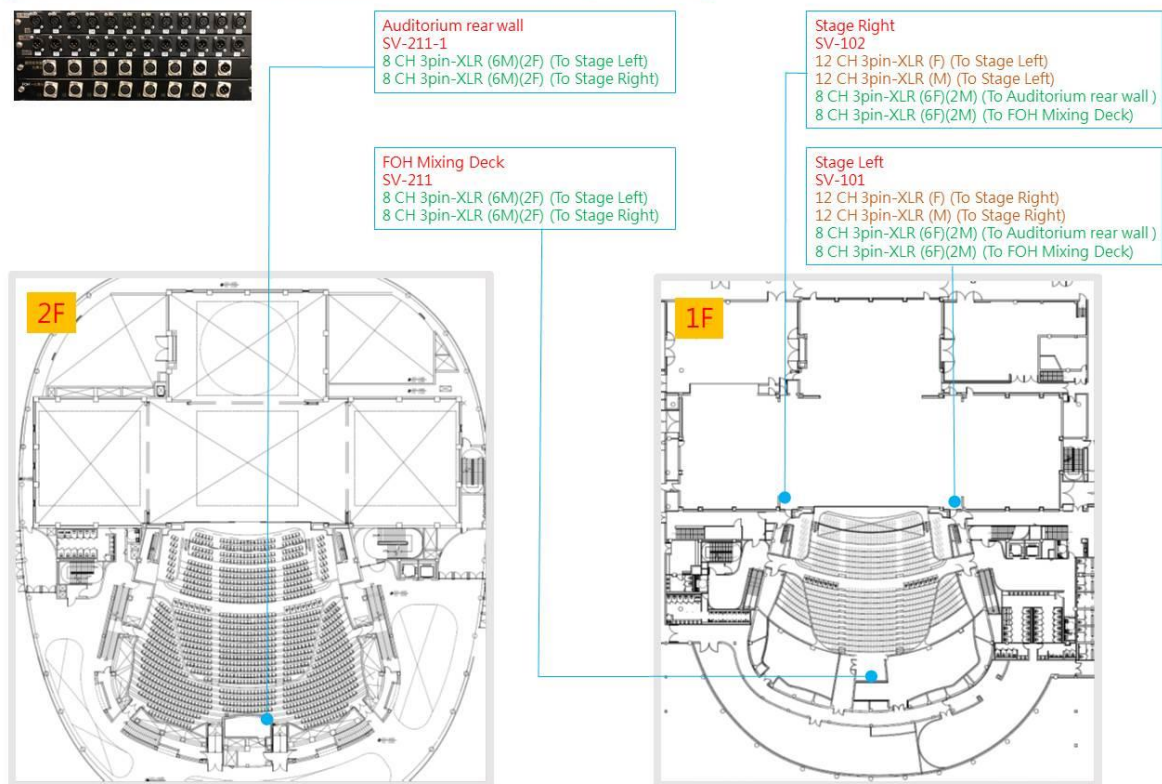


Figure 4-1.7- Signal point-to-point channel diagram

## RJ45 : Point-to-Point Channel Diagram

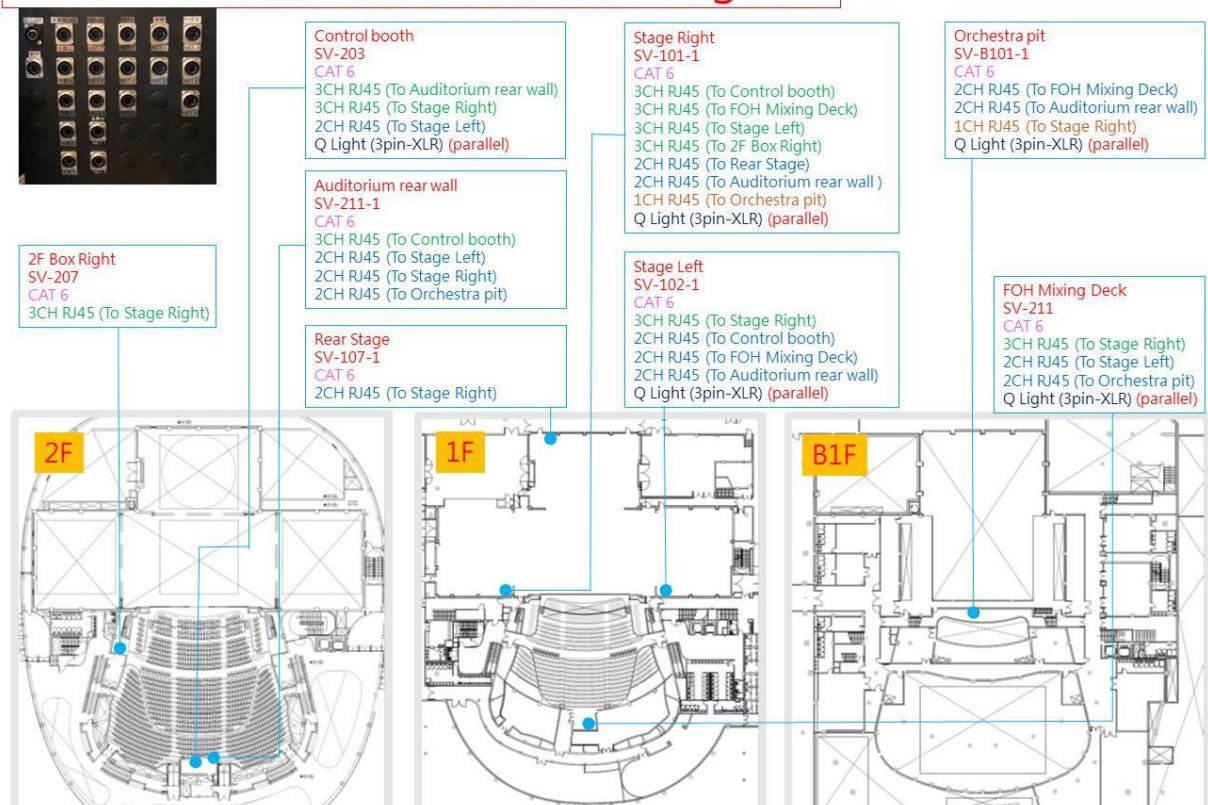


Figure 4-1.8- RJ45 point-to-point channel diagram

## 4-2 Control Room

| Item                                                            | Quantity | Brand and Model             | Paid Item |
|-----------------------------------------------------------------|----------|-----------------------------|-----------|
| Master Digital Mixer<br>( Control Room standard configuration ) | 1        | Studer Vista X              |           |
| Digital I/O fiber module                                        | 1        | Studer D21m / D23m          |           |
| CD Player                                                       | 1        | Tascam CD-500B              | *         |
| CD-R Play                                                       | 1        | Tascam CD-RW 901 MKII       | *         |
| Dual channel digital effects                                    | 3        | Eventide Eclipse V4         |           |
| Multi-track recording equipment                                 | 1        | JoeCo BBR1D+2.5" USB 1TB HD | *         |
| Dual-track disk recorder                                        | 1        | Tascam DA 3000              | *         |
| Active monitor speakers                                         | 2        | Dynaudio BM12 MkIII         |           |

Items with \* mark are paid items. Please refer to the rate tables of National Kaohsiung Center for the Arts.

## 4-3 Stage Manager' s Console

The stage manager desk equips with a live sound monitor, video monitors, synchronous show screens with lighting and fly, communication system and paging system.

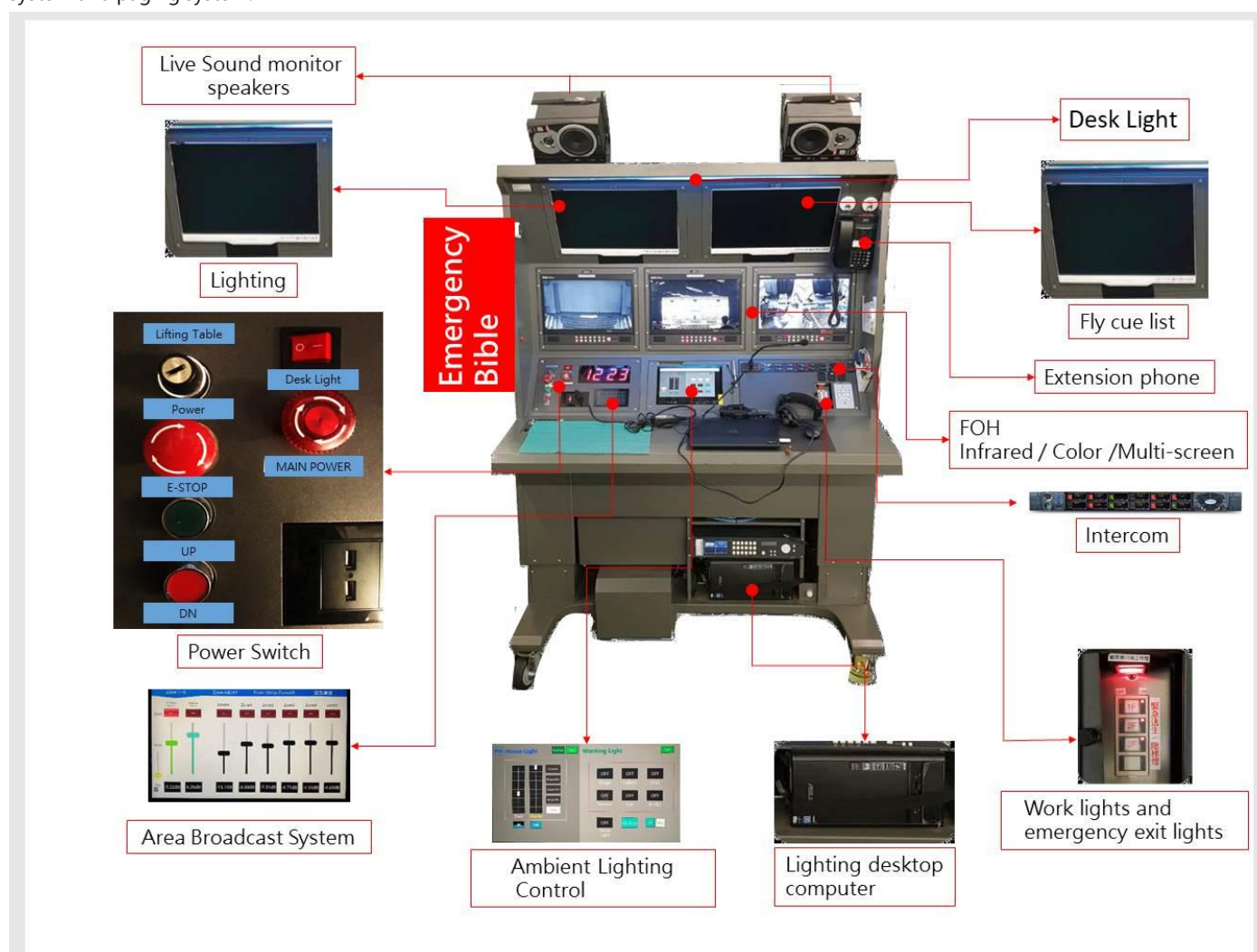


Figure 4-3.1- Stage Manager Desk

**4-4 Microphone**

| Item                                                           | Quantity | Brand and Model                                                                                                                                                                                                                                                                                             | Paid Item |
|----------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| Voice coil microphone<br>Audio Technica AE4100                 | 6        | Audio Technica AE4100                                                                                                                                                                                                                                                                                       | *         |
| Voice coil microphone<br>Audio Technica ATM250                 | 12       | Audio Technica ATM250                                                                                                                                                                                                                                                                                       | *         |
| Condenser microphone                                           | 4        | Audio Technica AE5400                                                                                                                                                                                                                                                                                       | *         |
| Cardioid condenser microphone                                  | 8        | Audio Technica AT4021                                                                                                                                                                                                                                                                                       | *         |
| Gradient Condenser Microphone                                  | 4        | Audio Technica BP4073                                                                                                                                                                                                                                                                                       | *         |
| Cardioid Condenser Boundary Microphone                         | 4        | Audio Technica U851R                                                                                                                                                                                                                                                                                        | *         |
| Stage reception Microphone                                     | 2        | DPA 4017B / DPA UA 0836 Holders                                                                                                                                                                                                                                                                             |           |
| Hypercardioid Condenser microphone                             | 8        | AKG CK63-ULS+C480B                                                                                                                                                                                                                                                                                          | *         |
| Cardioid condenser microphone                                  | 8        | AKG CK61-ULS+C480B                                                                                                                                                                                                                                                                                          | *         |
| Wireless microphone                                            | 8        | Sennheiser SKM500G3+MME865                                                                                                                                                                                                                                                                                  | *         |
| Mini wireless microphone                                       | 16       | Sennheiser SK500G3+MKE2                                                                                                                                                                                                                                                                                     | *         |
| Single channel wireless microphone receiver                    | 24       | Sennheiser EW500G3                                                                                                                                                                                                                                                                                          |           |
| wireless microphone wave antenna                               | 2        | Sennheiser AD3700                                                                                                                                                                                                                                                                                           |           |
| Wave antenna distributor                                       | 3        | Sennheiser ASA1                                                                                                                                                                                                                                                                                             |           |
| Condenser microphone<br>Neumann U87 Ai Studio Set              | 1        | Neumann U87 Ai Studio Set<br>Accessories : EA 87 / WS 87                                                                                                                                                                                                                                                    | *         |
| Condenser microphone<br>Neumann KM184                          | 8        | Neumann KM184<br>Accessories : SG 21 bk / WNS 100                                                                                                                                                                                                                                                           | *         |
| Condenser microphone<br>DPA 2011C/MMP-C                        | 4        | DPA 2011C/MMP-C                                                                                                                                                                                                                                                                                             | *         |
| Condenser microphone<br>DPA 4099-DC-1(For Loud SPL)/DAD6001-BC | 8        | DPA 4099-DC-1(For Loud SPL)/DAD6001-BC<br>Accessories :<br>1. Double Bass(BC4099)*2<br>2. Cello(CC4099)*2<br>3. Piano(PC4099)*2<br>4. Clamp(CM4099)*2<br>5. Guitar(GC4099)*4<br>6. Sax and Trumpet(STC4099)*2<br>7. MIC Stand(MS4099)*1<br>8. Microphone Clip(UC4099)*2<br>9. Violin and Mandolin(VC4099)*8 | *         |

Items with \* mark are paid items. Please refer to the rate tables of National Kaohsiung Center for the Arts.

**4-5 Communications**

| Item                                     | Quantity | Brand and Model                                                                                | Paid Item |
|------------------------------------------|----------|------------------------------------------------------------------------------------------------|-----------|
| Intercom host machine ( Matrix 32 x 32 ) | 1        | Clear-Com Eclipse HX-Delta                                                                     |           |
| System interface                         | 1        | Clear-Com Helixnet HMS-4X                                                                      |           |
| Double circuit intercom                  | 12       | Clear-Com Helixnet HBP-2X                                                                      |           |
| Fixed intercom microphone/ speak         | 1        | Clear-Com V12PDXY 110 / 340<br>Clear-Com V12PDDXY 110 / 340                                    |           |
| Single-ear headset                       | 12       | Clear-Com CC-300                                                                               |           |
| Double -ear headset                      | 4        | Clear-Com CC-400                                                                               |           |
| Telephone intercom                       | 2        | Clear-Com HS-6                                                                                 |           |
| Digital Wireless Intercom set            | 12       | 1. Portable wireless sub-station / Clear-Com FS-BP<br>2. Single-ear headset / Clear-Com CC-300 | *         |

Items with \* mark are paid items. Please refer to the rate tables of National Kaohsiung Center for the Arts.

## 4-6 Locations of Communications

Each floor is paired with intercom system, 70 units in total.

| No. | Floor | Location                                          |
|-----|-------|---------------------------------------------------|
| 1   | B3F   | Right rear lower stage (B301)                     |
| 2   |       | Left rear lower stage (B301)                      |
| 3   |       | Right front B3 side gallery (B302)                |
| 4   |       | Left front B3 side gallery (B302)                 |
| 5   | B1F   | Below Orchestra (right)                           |
| 6   |       | Below Orchestra (left)                            |
| 7   |       | Below Orchestra (middle)                          |
| 8   |       | Orchestra                                         |
| 9   |       | Command Lounge (B1070)                            |
| 10  |       | Main stage right upper stage (side gallery B1082) |
| 11  |       | Main stage left upper stage (side gallery B1082)  |
| 12  |       | B1F audio equipment room                          |
| 13  |       | Main Stage Lower Right Stage (side gallery B1082) |
| 14  |       | Main Stage Lower left Stage (side gallery B1082)  |
| 15  | 1F    | Down stage right                                  |
| 16  |       | Down stage left                                   |
| 17  |       | Right side upstage right                          |
| 18  |       | Left side upstage left                            |
| 19  |       | Upstage right                                     |
| 20  |       | Upstage left                                      |
| 21  |       | Backstage upstage right                           |
| 22  |       | Backstage upstage left                            |
| 23  |       | Stage right Downstairs                            |
| 24  |       | Stage left Downstairs                             |
| 25  |       | Stage right proscenium                            |
| 26  |       | Stage left proscenium                             |
| 27  |       | Auditorium under loop box                         |
| 28  |       | Rest preparation room 01 (1137)                   |
| 29  |       | Rest preparation room 02 (1093)                   |
| 30  |       | Dressing Room 01 (1134)                           |
| 31  |       | Dressing Room 02 (1132)                           |
| 32  |       | Dressing Room 03 (1130)                           |
| 33  |       | Dressing Room 04 (1128)                           |
| 34  |       | Dressing Room 05 (1126)                           |
| 35  |       | Dressing Room 06 (1124)                           |
| 36  |       | Dressing Room 07 (1112)                           |
| 37  |       | Dressing Room 08 (1114)                           |
| 38  |       | Dressing Room 09 (1116)                           |
| 39  |       | Dressing Room 10 (1118)                           |
| 40  |       | Dressing Room 11 (1120)                           |
| 41  |       | Dressing Room 12 (1122)                           |
| 42  |       | Loading Dock 01 (1010)                            |
| 43  |       | Control Room -under the table (2043)              |
| 44  | 2F    | Control room -cabinet(2043)                       |
| 45  |       | Lighting box (2042)                               |
| 46  |       | Lighting box (2042A)                              |
| 47  |       | Audience area (control table elevating platform)  |
| 48  | 3F    | Event Light Bridge                                |
| 49  |       | Event Light Bridge                                |
| 50  |       | Left working gallery                              |
| 51  |       | Right working gallery                             |
| 52  |       | Upper working gallery                             |
| 53  | 4F    | Stage Area Right Working Corridor 4th Floor       |
| 54  |       | Stage Area left Working Corridor 4th Floor        |
| 55  |       | Repair catwalk                                    |
| 56  | R1F   | Catwalk 1st                                       |

|    |     |                |
|----|-----|----------------|
| 57 |     | Catwalk 1st    |
| 58 |     | Catwalk 1st    |
| 59 |     | Catwalk 2st    |
| 60 |     | Catwalk 2st    |
| 61 |     | Catwalk 2st    |
| 62 |     | Catwalk 3st    |
| 63 |     | Catwalk 3st    |
| 64 |     | Catwalk 3st    |
| 65 |     | Amplifier room |
| 66 |     | Dimmer room    |
| 67 | R2F | Winch room     |
| 68 |     | Winch room     |
| 69 |     | Grid           |
| 70 |     | Grid           |

#### 4-7 Closed-Circuit Television (CCTV)

Monitors are installed in both side of stage, lobbies, control rooms, dressing rooms and green room.

| Item            | Quantity | Brand and Model                                                                   | Paid Item |
|-----------------|----------|-----------------------------------------------------------------------------------|-----------|
| Camera          | 1        | SONY ILME – FR7                                                                   |           |
| camera console  | 1        | Panasonic AW-RP120                                                                |           |
| Camera          | 1        | Panasonic AW-HE60SN (Bridge)                                                      |           |
| Infrared camera | 1        | AIDA GEN3G-200                                                                    |           |
| Video recording | Show     | Fixed camera for stage panoramic view recording, only suitable for archived copy. |           |

Items with \* mark are paid items. Please refer to the rate tables of National Kaohsiung Center for the Arts.

Backstage Paging Systems available for all dressing rooms, green rooms, Company office and Corridors, see next page.  
The Paging and Program position is located on the Stage Manager Desk.



**4-9 Projector**

| Name of                          | Quantity | Brand and Model                                                                 | Note                                          |
|----------------------------------|----------|---------------------------------------------------------------------------------|-----------------------------------------------|
| 20K                              | 2        | Digital Projection (Titan                                                       | *<br>Option 2                                 |
| Wide-angle lens (Fixed)          | 2        | 0.67:1 fixed HB Lens (For DP only)                                              |                                               |
| Standard lens                    | 2        | 1.87-2.56:1 zoom HB Lens (For DP only)                                          |                                               |
| Telephoto lens                   | 2        | 2.56-4.16:1 zoom HB Lens (For DP only)                                          |                                               |
| 5K Lumens LCD Projector          | 2        | NEC PE501XG<br>Including assembly and disassembly manpower, excluding execution | *<br>(Shared with four halls)<br>Option 1     |
| 5K Lumens Laser Projector        | 2        | Optoma ZU500USTe<br>Projection distance (45.7cm132 inches - 58.3cm155 inches)   | *<br>(Shared with four halls)<br>Option 2     |
| 6K Lumens Laser Projector        | 2        | Panasonic PT-VMZ60T · Wide-angle lens(Zoom)<br>Lens : throw ratio 1.09          | *<br>(Shared with four halls)<br>Option 2     |
| 10K Lumens Laser                 | 1        | Panasonic PT-RCQ10 · Normal lens (Zoom)<br>Lens : throw ratio                   | *<br>(Shared with four halls)<br>Option 2     |
| Dedicated Ultra Short Focus Lens | 1        | ET-DLE020 · Lens : throw ratio 0.28~0.299 : 1<br>(For Panasonic PT-RCQ10)       | *<br>(Shared with four halls)<br>Option 2     |
| 30K Lumens Laser Projector       | 2        | Panasonic PT-RQ35K with ET-D3LEW60 (0.991-1.18:1)<br>ET-D3LEW10 (1.35-1.84:1)   | *<br>(Shared with four halls)<br>Option 2 、 3 |
| 17.3 inches monitor              | 2        | Datavideo TLM-170L                                                              | *<br>(Shared with four halls)<br>Option 2     |
| Projection Screen                | 4        | Grandview X-Press Pull-UP 100-inch projection screen(W203cm*H152cm)             | *<br>(Shared with four halls)<br>Option 1     |

Items with \* mark are paid items. Please refer to the rate tables of National Kaohsiung Center for the Arts.

Option 1 : Setup and operating is not included !      Option 2 : Operating is not included !

Option 3 : Rental fee 50% off from second show.

**4-10 Subtitle**

| Name of Item                         | Quantity | Brand and Model                                                                                  | Paid Item     |
|--------------------------------------|----------|--------------------------------------------------------------------------------------------------|---------------|
| LCD Subtitle display screen(Group A) | 1 set    | 1. 12 Panasonic (TH-55LFV70W)<br>(W121.3 x H68.4 x D9.5 cm) 、<br>2. 2 Laptop<br>3. 1 Switcher    | *<br>Option 1 |
| LED Subtitle display screen(Group B) | 1 set    | 1. P2.604mm LED display 750*100cm<br>(1 cord) 250*150cm (2 cord)<br>2. 2 Laptop<br>3. 1 Switcher | *<br>Option 1 |
| LED Subtitle display screen(Group C) | 1 set    | 1. P2.604mm LED display 250*150cm<br>(2 cord)<br>2. 2 Laptop<br>3. 1 Switcher                    | *<br>Option 1 |
| LED Subtitle display screen(Group D) | 1 set    | 1. P2.604mm LED display 750*100cm<br>(1 cord)<br>2. 2 Laptop<br>3. 1 Switcher                    | *<br>Option 1 |

Items with \* mark are paid items. Please refer to the rate tables of National Kaohsiung Center for the Arts.

Option 1 : Operating is not included ! Rental fee 50% off from second show. Only for Opera House or Play House.

## 5 Backstage

### 5-1 Dressing Room and Company office

| No. | Floor | Room No. | Name              | Capacity | Notes                                                      |
|-----|-------|----------|-------------------|----------|------------------------------------------------------------|
| 1   | 1F    | 1112     | Dressing room 02  | 3        | Includes mirror, table, sofa and chairs, toilet and shower |
| 2   |       | 1114     | Dressing room 03  | 3        | Includes mirror, table, sofa and chairs, toilet and shower |
| 3   |       | 1116     | Dressing room 04  | 3        | Includes mirror, table, sofa and chairs, toilet and shower |
| 4   |       | 1118     | Dressing room 05  | 3        | Includes mirror, table, sofa and chairs, toilet and shower |
| 5   |       | 1120     | Dressing room 06  | 3        | Includes mirror, table, sofa and chairs, toilet and shower |
| 6   |       | 1122     | Dressing room 07  | 3        | Includes mirror, table, sofa and chairs, toilet and shower |
| 7   |       | 1124     | Dressing room 08  | 3        | Includes mirror, table, sofa and chairs, toilet and shower |
| 8   |       | 1126     | Dressing room 09  | 3        | Includes mirror, table, sofa and chairs, toilet and shower |
| 9   |       | 1128     | Dressing room 10  | 3        | Includes mirror, table, sofa and chairs, toilet and shower |
| 10  |       | 1130     | Dressing room 11  | 3        | Includes mirror, table, sofa and chairs, toilet and shower |
| 11  |       | 1132     | Dressing room 12  | 3        | Includes mirror, table, sofa and chairs, toilet and shower |
| 12  |       | 1134     | Dressing room 13  | 3        | Includes mirror, table, sofa and chairs, toilet and shower |
| 13  |       | 1162     | Company office 01 | 15       | Includes table and chairs.                                 |
| 14  |       | 1166     | Company office 02 | 15       | Includes table and chairs.                                 |
| 15  | B1F   | B1065    | Dressing room 14  | 16       | Includes mirror, table and chairs, toilet and shower       |
| 16  |       | B1068    | Dressing room 15  | 8        | Includes mirror, table and chairs, toilet and shower       |
| 17  |       | B1070    | Dressing room 16  | 3        | Includes mirror, table and chairs, toilet and shower       |
| 18  |       | B1074    | Dressing room 17  | 32       | Includes mirror, table and chairs, toilet and shower       |
| 19  |       | B1089    | Dressing room 18  | 28       | Includes mirror, table and chairs, toilet and shower       |
| 20  |       | B1092    | Dressing room 19  | 12       | Includes mirror, table and chairs, toilet and shower       |
| 21  |       | B1094    | Dressing room 20  | 30       | Includes mirror, table and chairs, toilet and shower       |
| 22  |       | B1098    | Dressing room 21  | 21       | Includes mirror, table and chairs, toilet and shower       |

### 5-2 Orchestra Facilities

| No. | Item                                  | Quantity |   | Notes                                |
|-----|---------------------------------------|----------|---|--------------------------------------|
| 1   | Chair                                 | 100      | * |                                      |
| 2   | Ensemble stool                        | 12       | * | Rotate : 6<br>Unable to rotate : 6   |
| 3   | Conductor' s chair                    | 1        |   |                                      |
| 4   | Music stand                           | 90       | * |                                      |
| 5   | Music stand light                     | 110      | * | White light, two brightness mode     |
| 6   | Conductor' s podium(single layer)     | 1        | * | WENGER<br>L 120cm x W 115cm x H 25cm |
| 7   | Conductor' s stand                    | 1        | * |                                      |
| 8   | Percussion table stand                | 4        | * |                                      |
| 9   | Endpin stopper                        | 10       | * |                                      |
| 10  | Acoustic shield                       | 5        | * |                                      |
| 11  | Music stand Tray                      | 10       | * |                                      |
| 12  | Solo Musician' s PODIUM 130*60*16(cm) | 2        | * |                                      |
|     | Solo Musician' s PODIUM 100*60*16(cm) | 10       | * |                                      |
|     | Solo Musician' s PODIUM 130*60*30(cm) | 2        | * |                                      |
|     | Solo Musician' s PODIUM 100*60*30(cm) | 8        | * |                                      |

Items with \* mark are shared with Playhouse

### 5-3 Pianos (shared between four theatres)

| No. | Item                     | Brand           | Model Number            | Quantity | Paid Item |
|-----|--------------------------|-----------------|-------------------------|----------|-----------|
| 1   | Model-D<br>Concert grand | Steinway & Sons | D-274                   | 3        | *         |
| 2   | Concert grand            | FAZIOLI         | F308                    | 1        | *         |
| 3   | Grand Piano              | YAMAHA          | C7XPE                   | 1        | *         |
| 4   | Grand Piano              | KAWAI           | SK-6L                   | 1        | *         |
| 5   | Harpsichord              | J.C.NEUPERT     | Hemsch                  | 1        | *         |
| 6   | Celesta                  | Schiendmayer    | 5 ½ Octave Studio model | 1        | *         |
| 7   | Upright Piano            | YAMAHA          | U3                      | 1        | *         |

*Items with \* mark are paid items. Please refer to the rate tables of National Kaohsiung Center for the Arts.*

***Important :***

1. *Pianos shared with four venues, booking in advance is required.*
2. *WeiWuYing's contract-signed piano technician must tune all pianos before performance.(Piano hire fees do not include tuning costs)*
3. *Extra material (any object touching the strings during the performance, including hands or palms) pianos are limited to YAMAHA C7XPE and KAWAI SK-6L, which should be restored and tuned by the venue's contracted tuner at the end of the performance (at the latest on the next day) at the expense of the applicant..*
4. *While WWY' s piano is in part of the performance, the Fog and Haze Machine can' t be used.*

**5-4 Loading Dock / Scenery Shipping Path / Loading Flow**

5-4-1

**※Notes for Container Transport:**

Due to the limitation of the slope at the entry of the loading dock, the minimum height of the trailer's low bed should be higher than 100cm. Also, if the company hires a 40' high-cube container, the bed rack should be within the height of 135~140cm to accommodate the height of loading gate.

**West Dock**

Opera House and Playhouse use the West Dock for loading and unloading. The dock is equipped with three hydraulic dock leveler that can be adjusted according to the required height.

**Dock Dimension**

Big loading dock: 7.25m (width) x 4.3m (height)

Small loading dock: 3.5m (width) x 4.3m (height)

Loading clearance: 4.3m height from floor to top (Truck height limit 4.2m)

3.7m height from dock to grid area

Stage entrance and exit: minimum 4m (width) x 3.4m (height)

Height from dock to floor: 1m

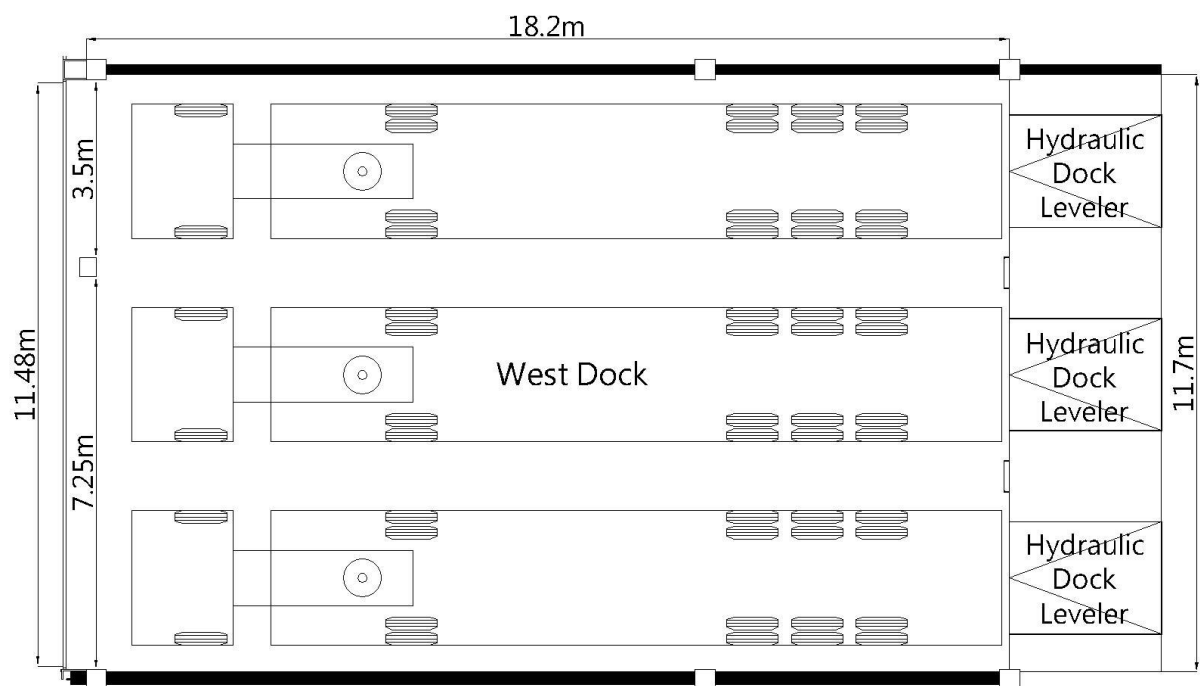
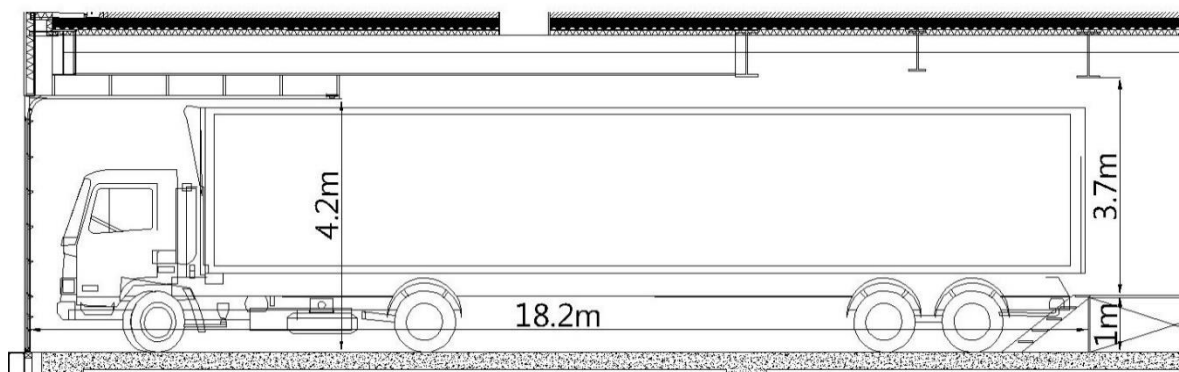


Figure 5.1 - West Loading Dock Plan

Figure 5.2 - West Loading Dock Section



### East Dock

Recital Hall and Concert Hall use the East Dock for loading and unloading. The dock is equipped with two hydraulic dock leveler that can be adjusted according to the required height.

### Dock Dimension

Dimension : 8.75m (width)

Clearance : 4.3m height from floor to top

3.8m height from dock to grid area (Truck height limit 4.2m)

Height from dock to floor: 0.98m

Stage entrance: minimum 1.95m (width) x 2.2m (height)

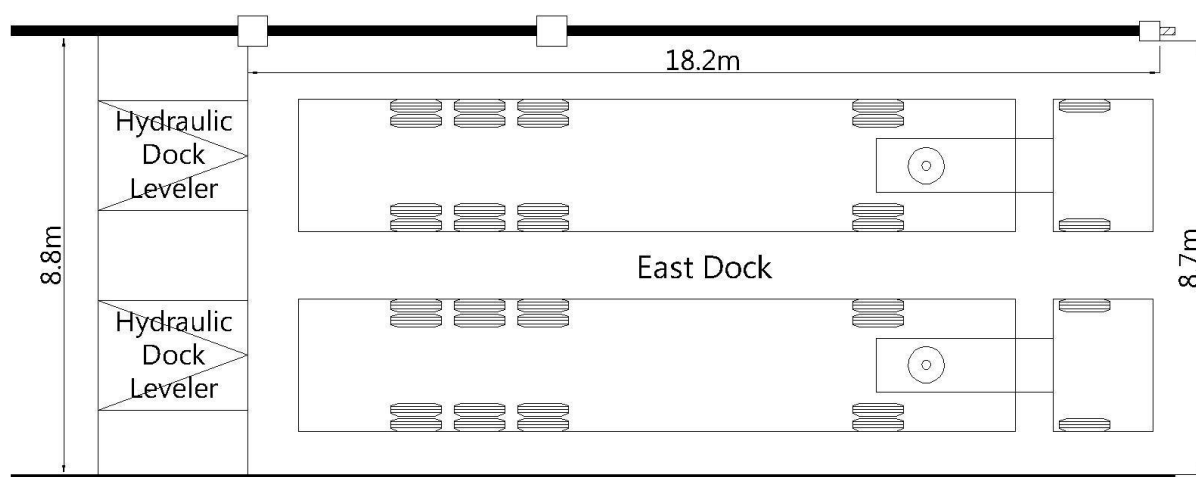


Figure 5.3- East Loading Dock Plan

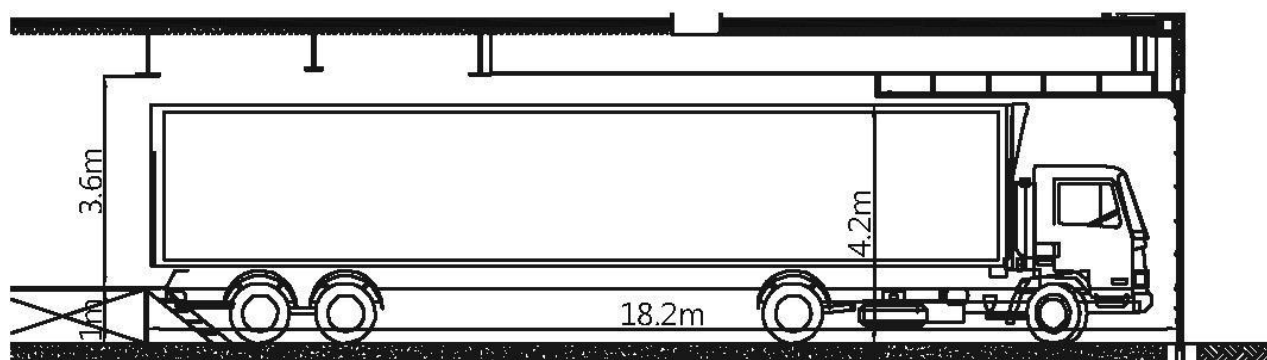


Figure 5.4- East Loading Dock Section

### 5-4-2 West Dock Handling equipment

2.5mt Electric Forklift x1

1.5mt Stand-Up Automatic Electric Forklift x1

Figure 5.5- West Loading Flow

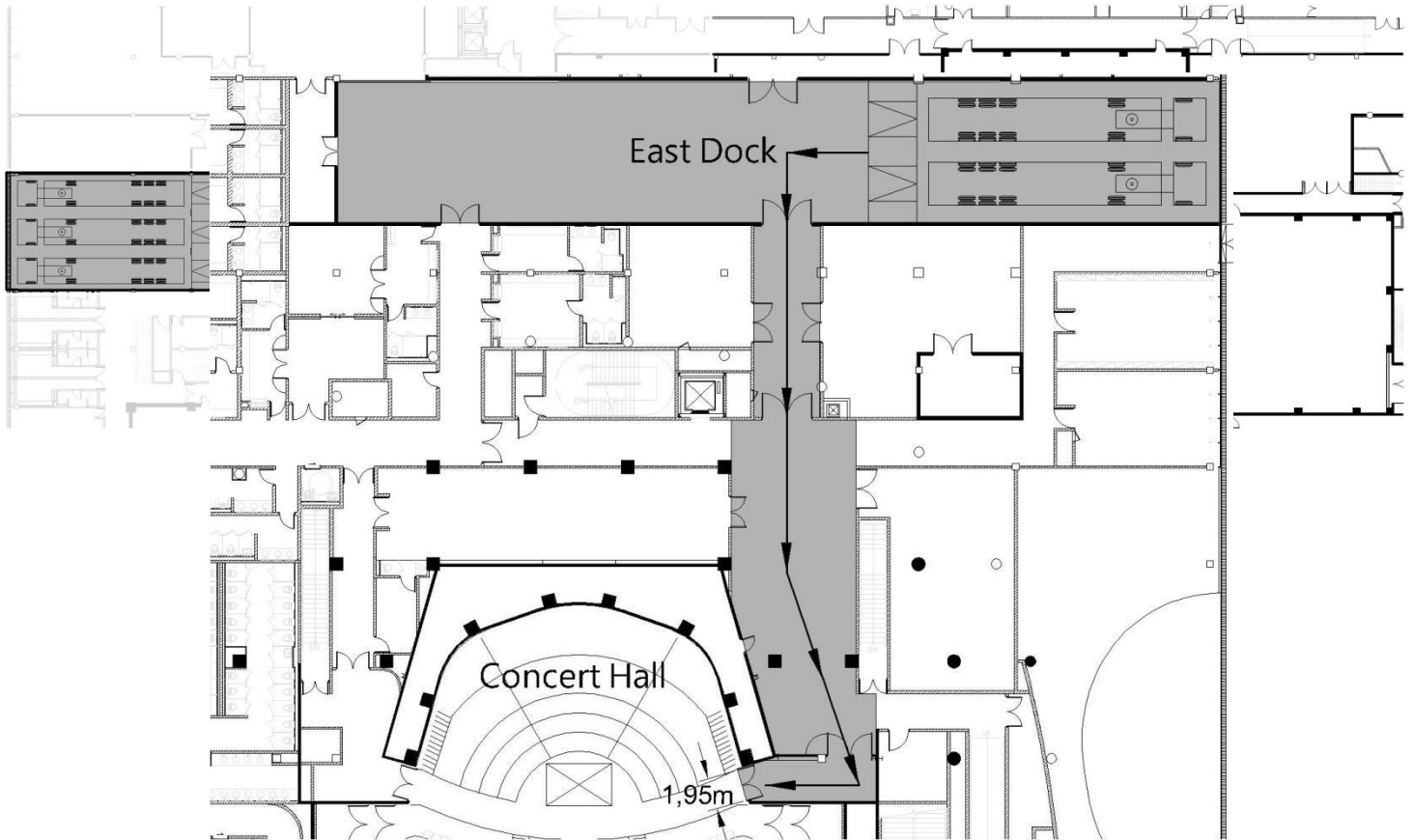


Figure 5.6- East Loading Flow

#### 5-4-4 Hydraulic Dock Leveler

Capacity: 22.6mt

Area: 198cm (width) x 221.9cm (length)

Elevation: +/- 30.5cm

West Dock Quantity: 3

East Dock Quantity: 2

## 5-5 Other Facilities

### 5-5-1 Rehearsal Rooms

Opera House provide a dedicated rehearsal studio connecting with rear stage. There are also 12 different function and accommodated rehearsal studios, these available for hire between four major theatres .Requests should be discussed well in advance to determine availability. The hire fees please refer to the rate tables of National Kaohsiung Center for the Arts.

| Room No. | Name                                                          | Dimension<br>(Length x Width x Height / m) | Notes                                                                                                                                                                      |
|----------|---------------------------------------------------------------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1171     | Rehearsal Studio-01<br>(Opera House exclusive rehearsal room) | 16.4x12.3x10.4                             | 1. Grand Piano 、Wooden floor covered black color dance floor 、Wall mount glassless mirrors x 1 side                                                                        |
|          |                                                               | Subsidiary space 6.9x5.3x3                 | 2. Capacity : 110                                                                                                                                                          |
| 1182     | Rehearsal Studio-02                                           | 11.4x10.8x3.8                              | 1. Wooden floor covered gray color dance floor 、Sound absorption wall x 2 side 、Wall mount glassless mirrors x 2 side<br>2. Capacity : 50                                  |
| 1184     | Rehearsal Studio-03                                           | 11.1x10.8x4                                | 1. Grand Piano 、Wooden floor covered gray color dance floor 、Sound absorption wall x 2 side 、Wall mount glassless mirrors x 2 side<br>2. Capacity : 50                     |
| 1186     | Rehearsal Studio-04                                           | 17.5x12.1x3.9                              | 1. Grand Piano 、Wooden floor ,black color dance floor 、Wall mount glassless mirrors x 2 side 、Fixed Ballet barre on the single sided wall mirror x 2<br>2. Capacity : 110  |
|          |                                                               | Subsidiary space 6.6x8.8 ×3                | Rehearsal Studio-04 use only<br>Green Room-01(With dressing room)                                                                                                          |
| 1192     | Rehearsal Studio-05                                           | 19.3x12.2x3.9                              | 1. Grand Piano 、Wooden floor , black color dance floor 、Wall mount glassless mirrors x 2 side 、Fixed Ballet barre on the single sided wall mirror x 2<br>2. Capacity : 110 |
|          |                                                               | Subsidiary space 6.6x8.8 ×3                | Rehearsal Studio-05 use only<br>Green Room-02(With dressing room)                                                                                                          |
| B1111    | Rehearsal Studio-06                                           | 8x7.4x2.3                                  | 1. Upright piano ,Chair , Music stand 、Wooden floor 、Sound absorption wall<br>2. Capacity : 25                                                                             |
| B1112    | Rehearsal Studio-07                                           | 5.2x4.4x2.3                                | 1 Chair , Music stand 、Wooden floor 、Sound absorption wall<br>2 Capacity : 10                                                                                              |
| B1113    | Rehearsal Studio-08                                           | 7.2x5x2.7                                  | 1. Chair , Music stand 、Wooden floor 、Sound absorption wall<br>2. Capacity : 15                                                                                            |
| B1114    | Rehearsal Studio-09                                           | 5.2x3.7x2.7                                | 1. Chair , Music stand 、Wooden floor 、Sound absorption wall<br>2. Capacity : 10                                                                                            |
| B1115    | Rehearsal Studio-10                                           | 5.2x4.1x2.7                                | 1. Chair , Music stand 、Wooden floor 、Sound absorption wall<br>2. Capacity : 10                                                                                            |
| B1116    | Rehearsal Studio-11                                           | 5.2 x 4.1 x 2.7                            | 1. Chair , Music stand 、Wooden floor 、Sound absorption wall<br>2. Capacity : 10                                                                                            |
| B304     | Chorus Rehearsal Room                                         | 15.9x9.9x8.8                               | 1. Grand Piano ,Chair , Ensemble stool 、Wooden floor 、Sound absorption curtain<br>2. Capacity : 80                                                                         |
| B313     | Orchestra Studio                                              | 18.7x14.3x7.8                              | 1. fixed auditorium< 84seats> 、Grand Piano ,Chair , Ensemble stool 、Wooden floor 、Sound absorption curtain<br>2. Capacity : 200                                            |

### 5-5-2 Carpentry Shop / Costume Shop / Laundry Room

National Kaohsiung Center for the Arts is equipped with basic production facilities, include Carpentry Shop, Costume Shop, and laundry rooms. The hire fees please refer to the rate tables of National Kaohsiung Center for the Arts.

| Room No. | Name            | Dimension<br>(Length x Width x Height / m) | Notes                                                                                                           |
|----------|-----------------|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| 1002     | Carpentry Shop  | 11.9x19.7x3                                | Basic wood crafts and electrical tools                                                                          |
| 1165     | Costume Shop-01 | 5.9x10.2x3                                 | Basic facilities for the maintenance of costume;<br>Sewing machine, overlock machine and steam / iron equipment |
| 1181     | Costume Shop-02 | 5.8x11.8x3                                 |                                                                                                                 |
| 1163     | Laundry Room-01 | 5.8x4.9x3                                  | Washing machine, tumble dryers, sink and clothes folding table                                                  |
| B1019    | Laundry Room-02 | 6x8.2x3                                    |                                                                                                                 |