



National Kaohsiung  
CENTER FOR THE ARTS

WEI WU YING 衛武營

衛武營 國家藝術文化中心

國家表演藝術中心 National Performing Arts Center

歌劇院

OPERA HOUSE

技術製作資訊

Production Technical Information



## Table of Contents

0 General Information	1
0-1 National Kaohsiung Center for the Arts (WEIWUYING)	1
0-2 Opera House	1
0-3 Traffic Information	2
0-4 Contact Information	2
0-5 Stage door	2
0-6 Auditorium / Seating	3
0-7 Plan	5
0-8 Section	7
1 Stage	8
1-1 Stage	8
1-2 Elevation Platform	錯誤! 尚未定義書籤。
1-3 Fly	13
1-4 Hoisting	15
1-5 Curtain and Others	16
1-6 Fly Bar List	17
2 Lighting	19
2-1 Lighting instrument	19
2-2 Accessories	20
2-3 Lighting Circuit	23
2-4 Portable Lift	30
2-5 Additional Power Supply	30
2-6 House Light / Working Light / Blackout	30
3 Audio/Video-Systems	31
3-1 Audio Facilities	31
3-2 Control Room	31
3-3 Stage Manager' s Console	31
3-4 Machine Room	31
3-5 Microphone	32
3-6 Communications	32
3-7 Locations of Communications	33
3-8 Stage Cameras and Video Surveillance Systems	34
3-9 Paging Systems	34
3-10 Projector	35
3-11 Projector connections	35
4 Backstage	36
4-1 Dressing Room and Green Room	36
4-2 Orchestra Facilities	36
4-3 Pianos (shared between four theatres)	36
4-4 Loading Dock / Scenery Shipping Path / Loading Flow	37
4-5 Other Facilities	39

Last updated:2019/03/05

## 0 General Information

### 0-1 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 include 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.

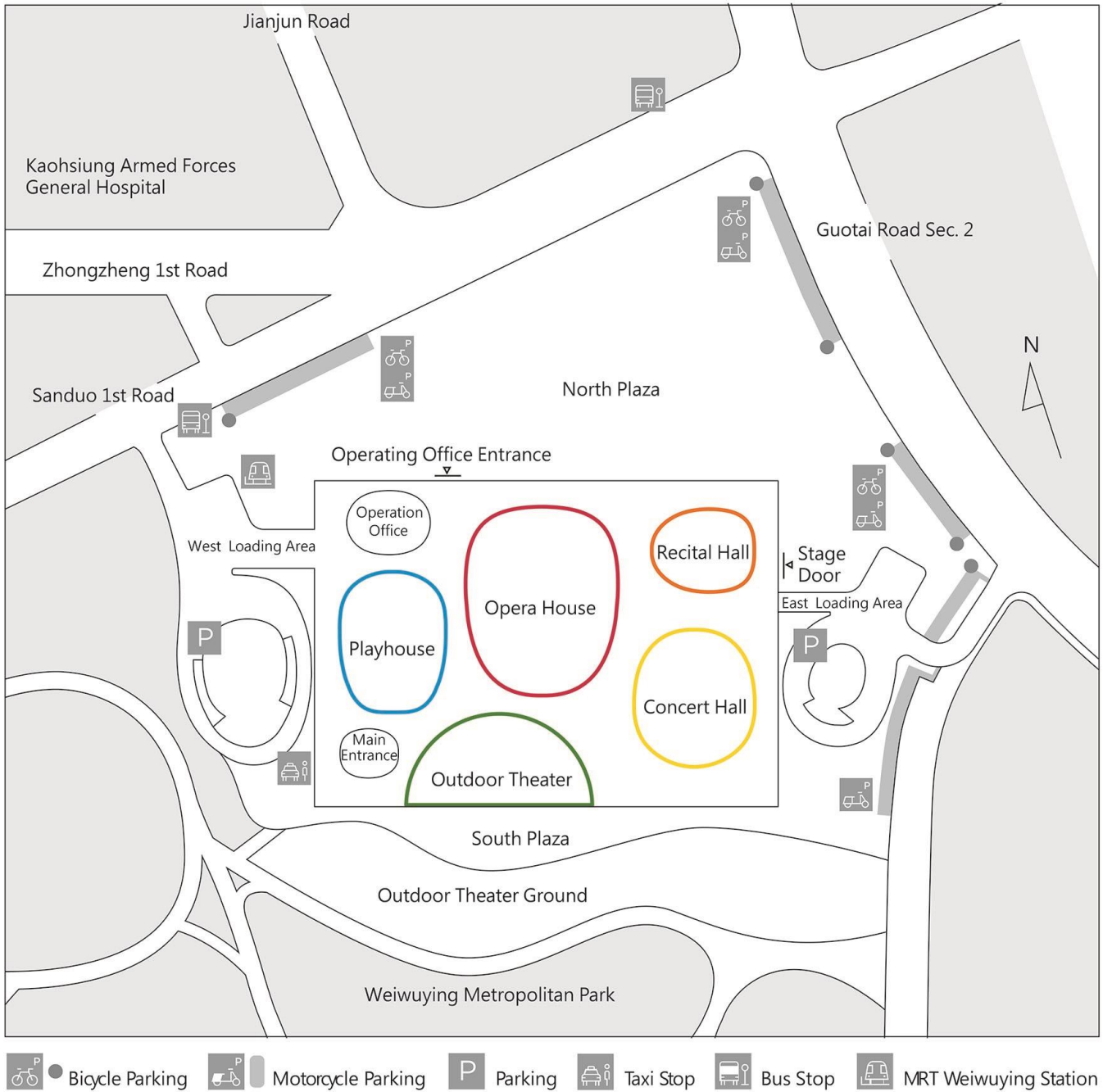


### 0-2 Opera House

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.



**0-3 Traffic Information**



**0-4 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

**0-5 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.



0-6 Auditorium / Seating

觀眾席次

Area	Capacities
1F	558 seats (include 2 working seats)
1F Pit area	110 seats (Row P1~P4)
1F Box	16 seats
1F Wheelchairs	14 seats
2F	526 seats
2F Control Area Elevation Platform	16 seats (Row QQ,~RR, No.1~8)
3F	534 seats
4F	462 seats
Total Capacity	2236 seats

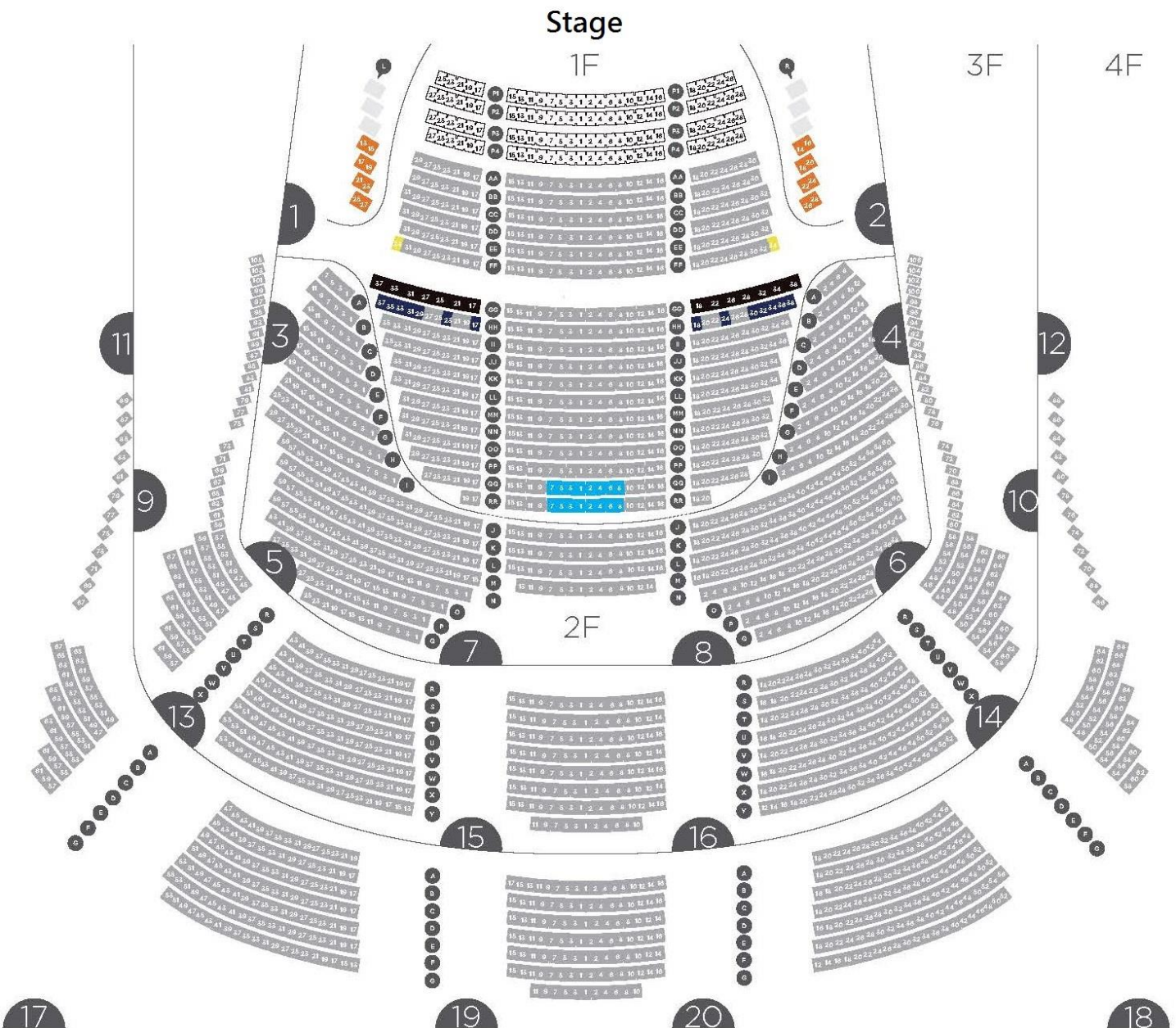


Figure 0.1- Opera House Seating plan

**Opera House Set Up Equipment Recommended Seat**

<b>Set Up Equipment Seat</b>	<b>Reserved Seat</b>	<b>Notes</b>
1st Floor RR row Seat 1、2	1st Floor QQ row Seat 1、2 1st Floor RR row Seat 3、4	
1st Floor RR row Seat 19	1st Floor QQ row Seat 19、21、23、25、27	
1st Floor RR row Seat 20	1st Floor QQ row Seat 20、22、24、26、28	
2nd Floor A row Seat 7	2nd Floor A row Seat 5 2nd Floor B row Seat 7、9、11	
2nd Floor A row Seat 8	2nd Floor A row Seat 6 2nd Floor B row Seat 8、10、12	
2nd Floor M row Seat 1、2	1st Floor L row Seat 1、2 1st Floor M row Seat 3、4	°

0-7 Plan

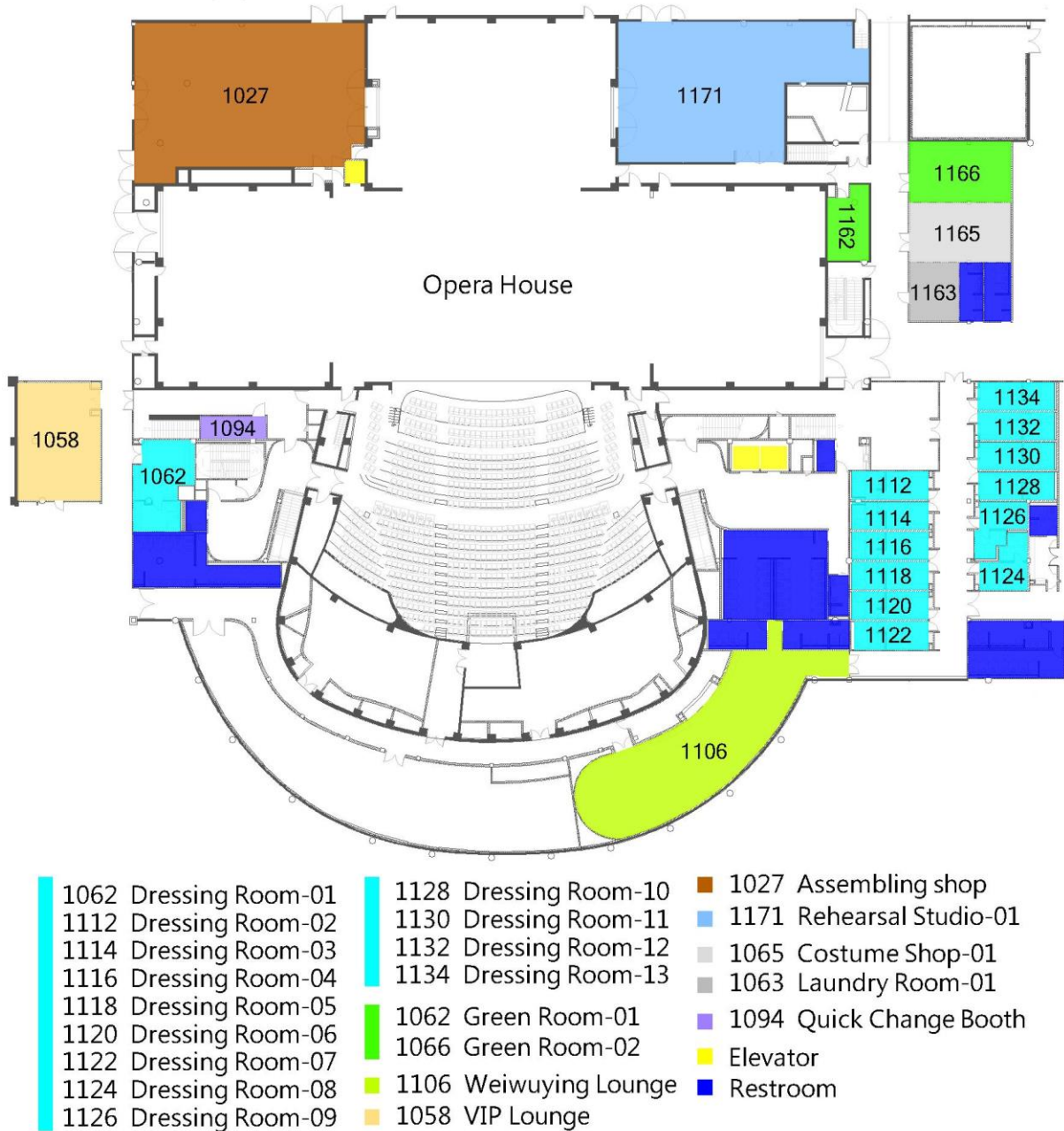
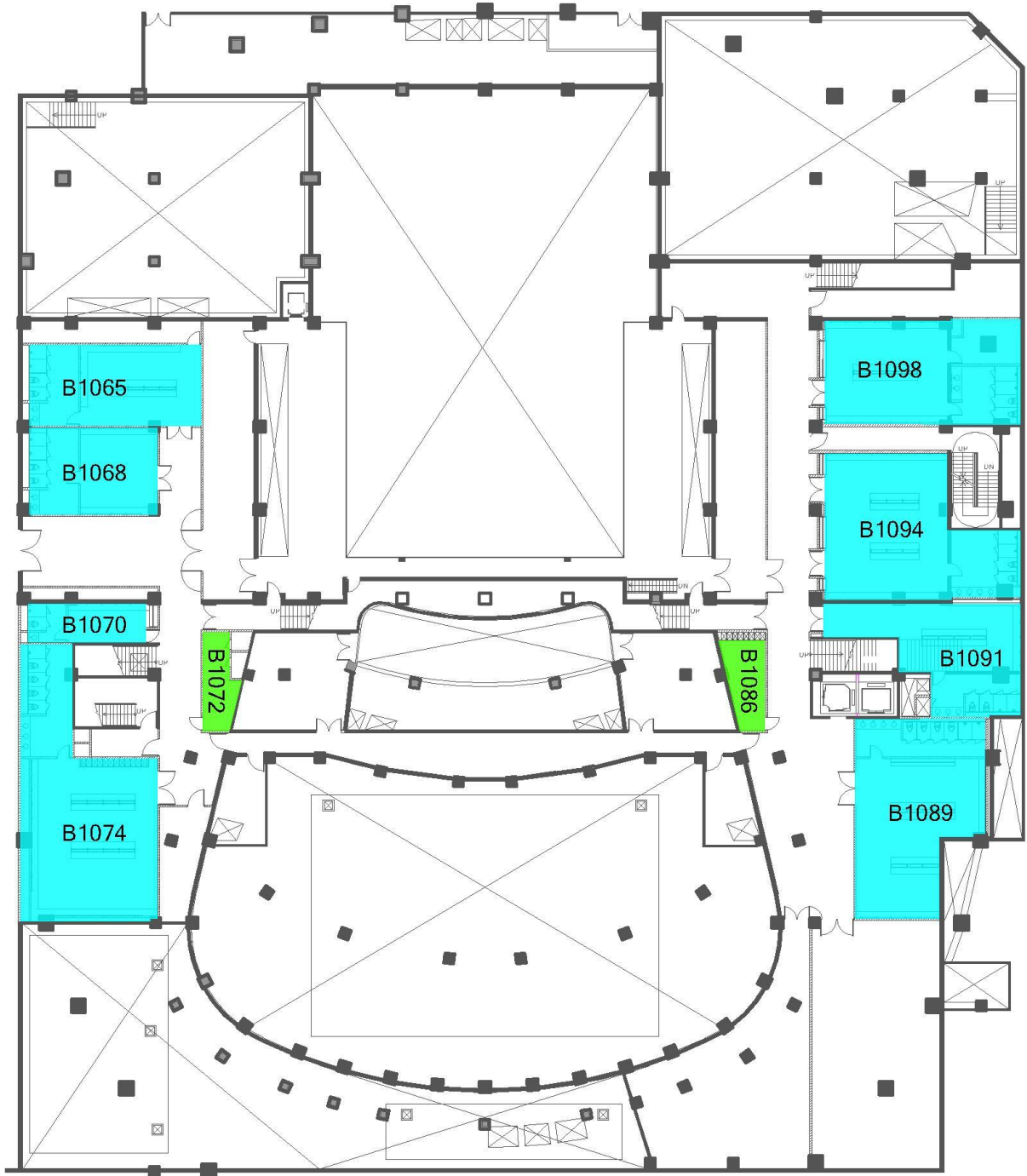


Figure 0.2- Opera House Plan





- |                        |                        |                       |
|------------------------|------------------------|-----------------------|
| B1065 Dressing Room-14 | B1089 Dressing Room-18 | B1072 Usher's room-03 |
| B1068 Dressing Room-15 | B1092 Dressing Room-19 | B1086 Usher's room-04 |
| B1070 Dressing Room-16 | B1094 Dressing Room-20 |                       |
| B1074 Dressing Room-17 | B1098 Dressing Room-21 |                       |

Figure 0.3- Opera House B1 Plan

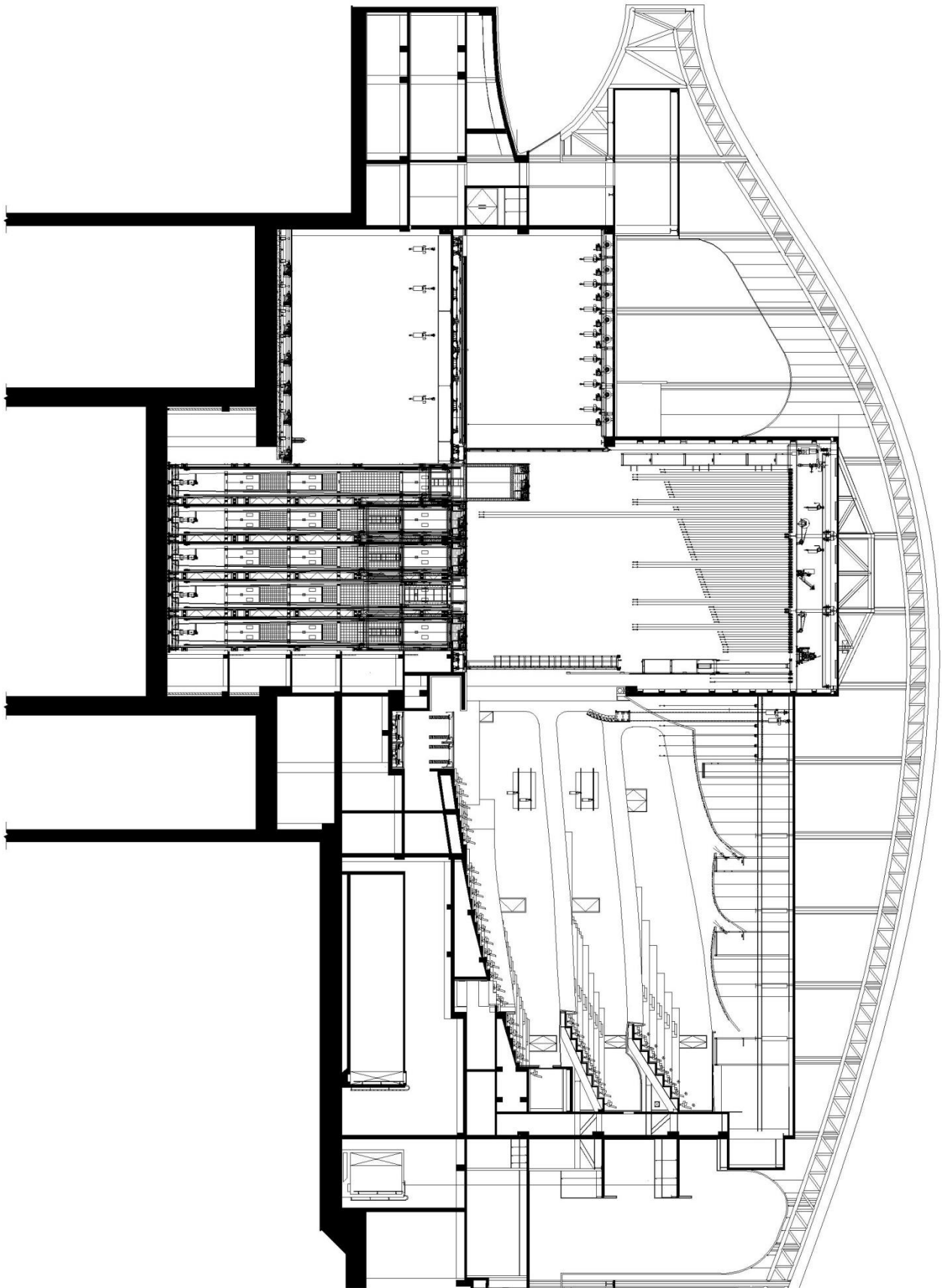


Figure 0.4 Opera House Section

# 1 Stage

## 1-1 Stage

### 1-1-1 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.

### 1-1-2 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 +13m

Apron to PL: 1.2m

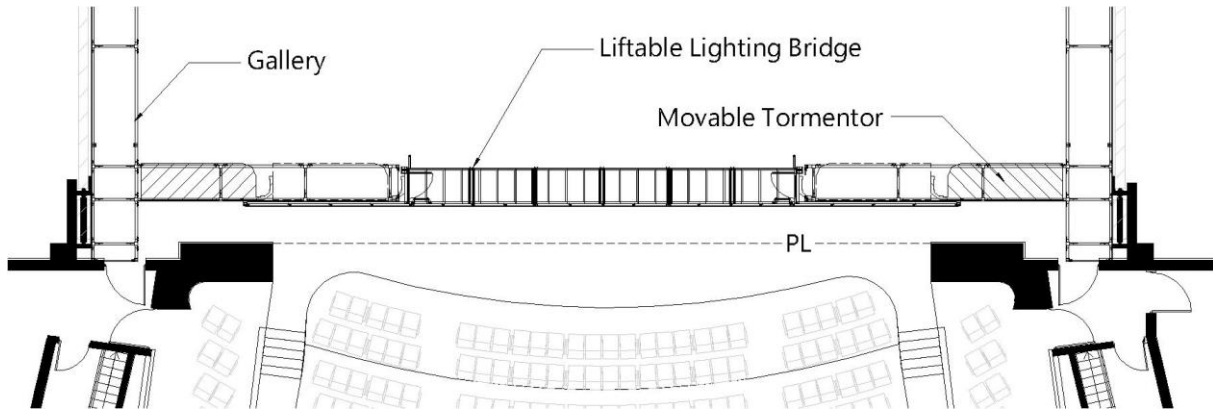


Figure 1.1.1- Proscenium Plan

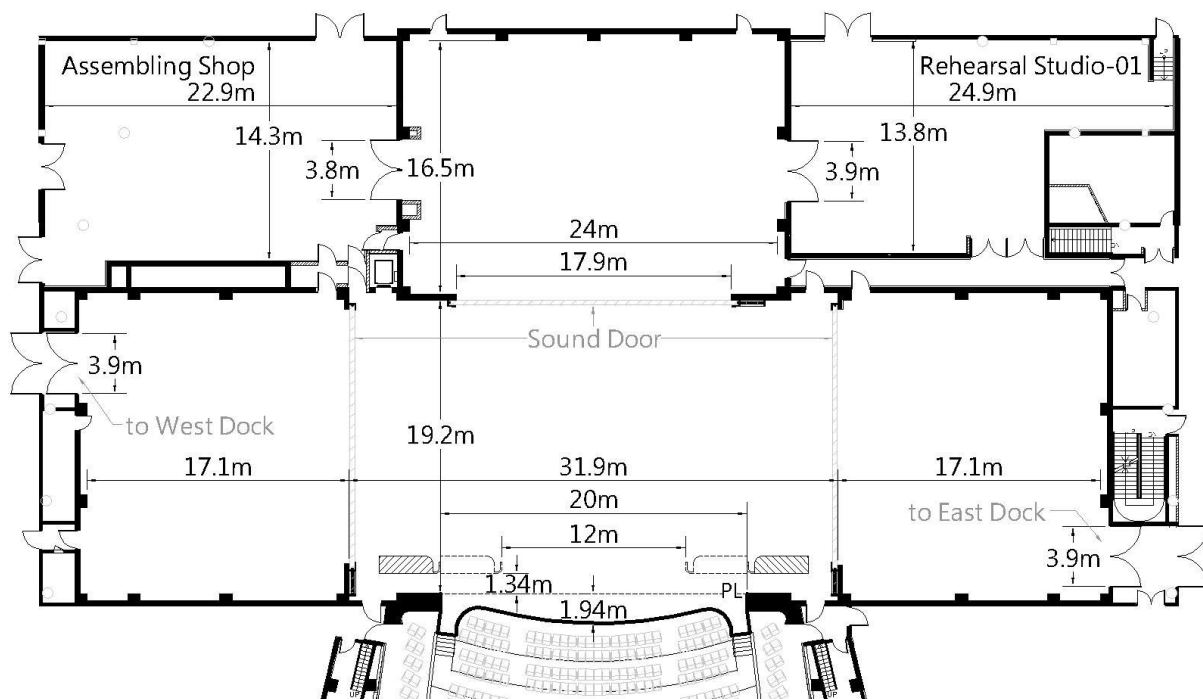
### 1-1-3 Stage Dimensions

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 16.6m (depth) x 11m (height)

Side stage: 16.8m (width) x 19.2m (depth) x 10.7 (height)

Figure 1.1.2-Stage Plan



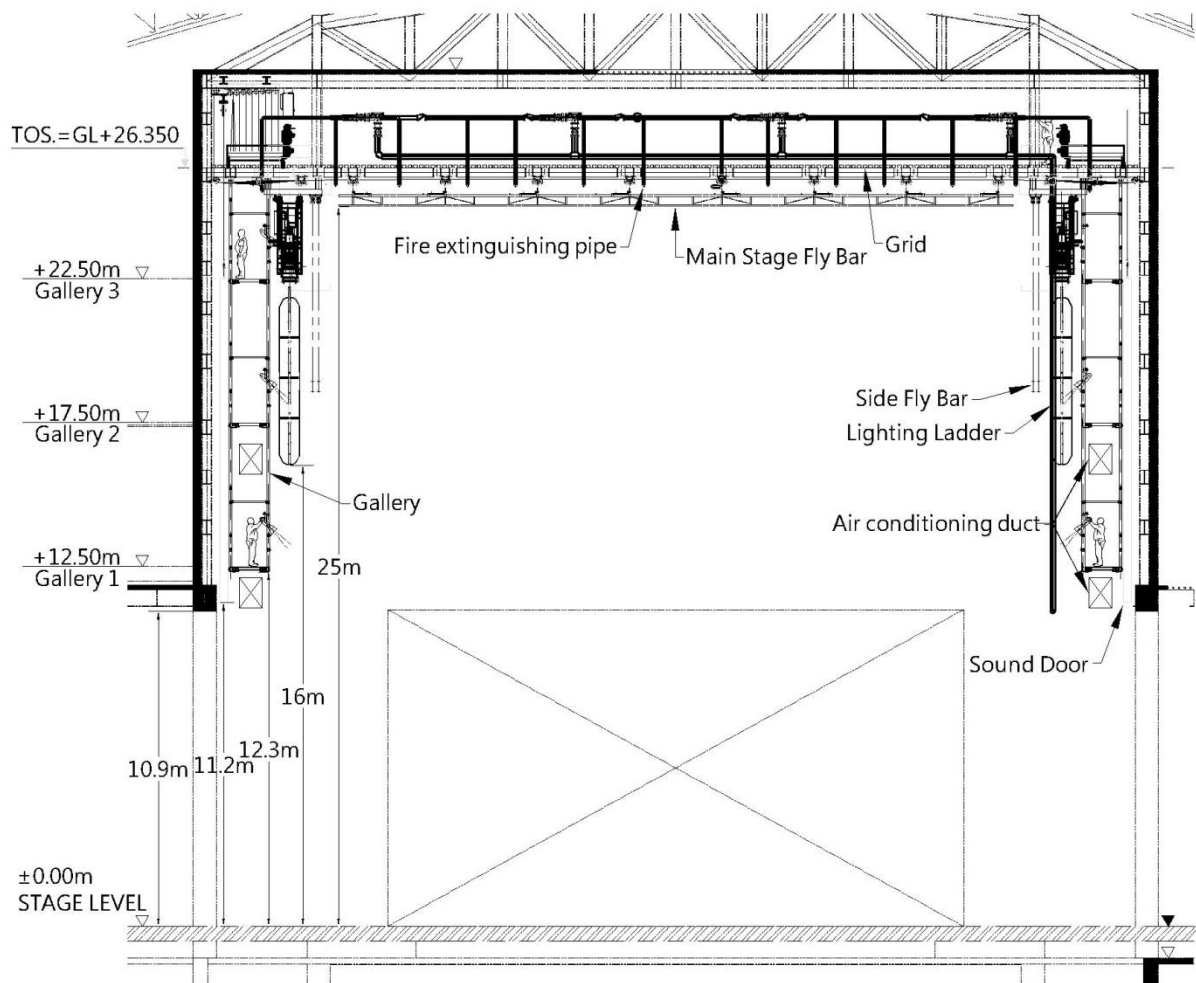


Figure 1.1.3-Stage Elevation

#### 1-1-4 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.

#### 1-1-5 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)

**1-2 Stage Mechanical**

**1-2-1 Orchestra Pit Elevation Platform**

Amount: 2 rows, arc shape platform

No.1, 18.5m (width) x 2.5m (depth), 43.2 m<sup>2</sup>

No.2, 18.5m (width) x 2.1m (depth), 37.5m<sup>2</sup>

Elevation: -5m to ±0m (stage surface)

Capacity

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

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

Speed : 6m/min

*Important: No staff riding when orchestra pit lifting, please enter and exit from the entrance of orchestra pit.*

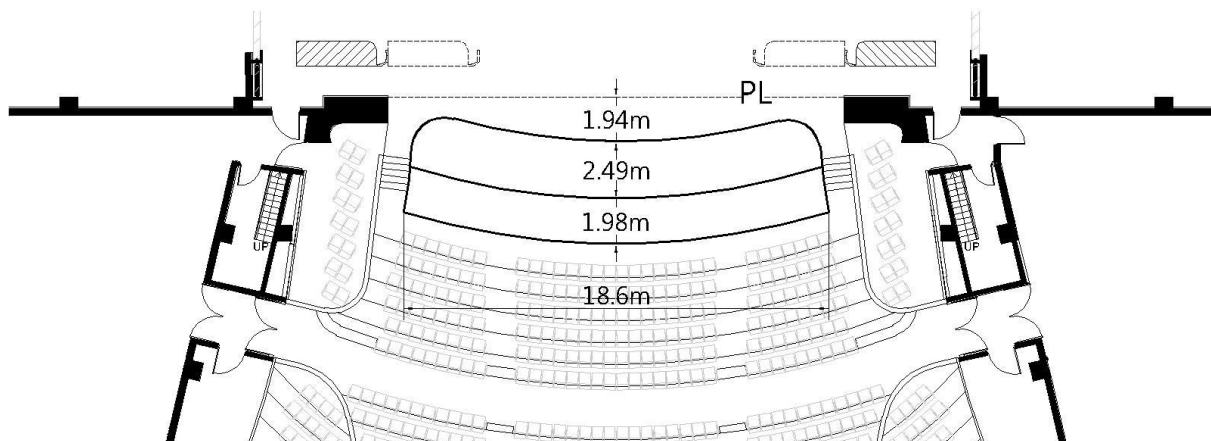


Figure 1.2.1.1- Orchestra Pit Elevation Platform location plan

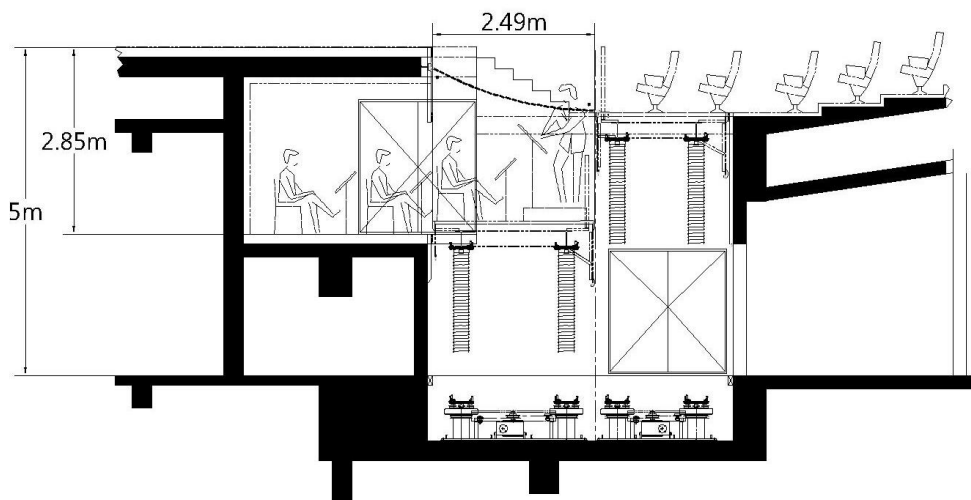


Figure 1.2.1.2- Orchestra Pit Section



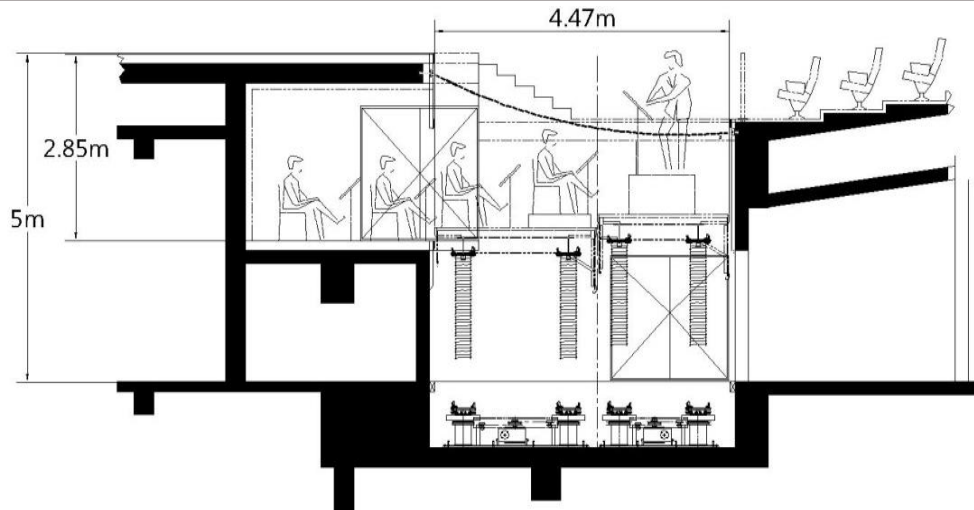


Figure 1.2.1.3- Orchestra Pit Section

1-2-2 Auditorium Control Area Elevation Platform

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

For large equipment, please enter the platform from B1 floor.

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

Elevation: -4m (B1) to 2.8m

Capacity

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

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

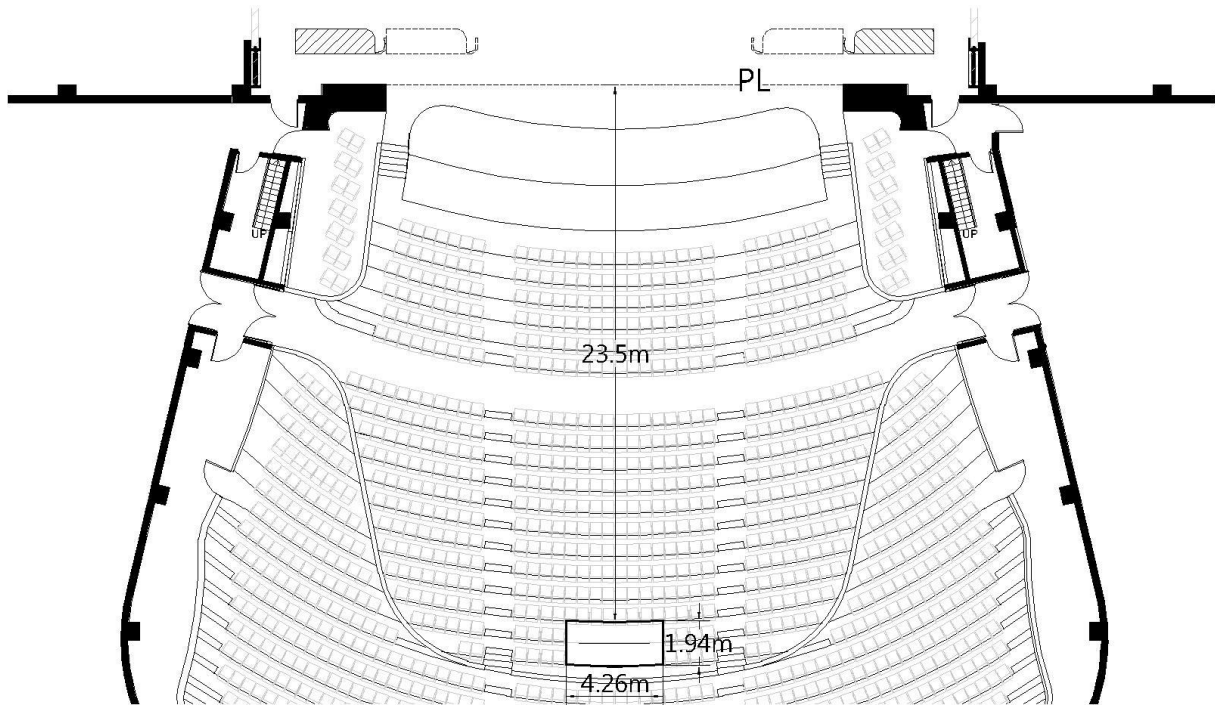


Figure 1.2.2.1- Auditorium Control Area Elevation Platform location plan

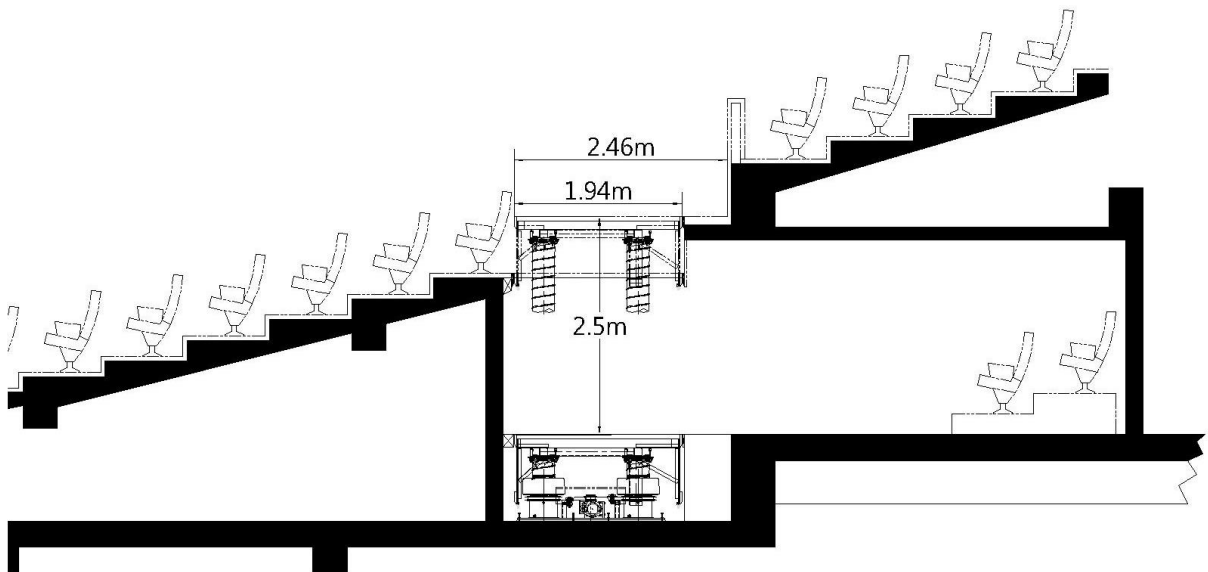


Figure 1.2.2.2- Auditorium Control Area Elevation Platform location plan

## 1-3 Fly

### 1-3 Controller

Wagner Biro CAT190 x 2, CAT192 x 1, CAT120R x 2

### 1-3-1 Fly bars

24m (length), 4.8cm (diameter), +0.5cm to 24.6m, 74sets

### 1-3-2 House Curtain

guillotine / traveller , 27m (length)

Distance to PL: 0.6m

### 1-3-3 Side Fly Bar ( 2 on both side )

14.8m (length), 4.8cm (diameter), +0.05m to 24.6m, 4 sets

Distance to CL: 12.4m / 12.6m

### 1-3-4 Stage Front Fly Bar

27m (length), 4.8cm (diameter), +0.05m to 25m, 2 sets

Distance to PL: 0.25m / 0.95m

### Safe load

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

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

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

### 1-3-5 Rear Stage Fly Bar (load 500kg)

21m (length), 4.8cm (diameter), +0.5m to 12m, 8 sets

Lifting speed : 1.2 m/s

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

### Safe load

1.2 M/ S<sup>2</sup> : 500 kg

### 1-3-6 Auditorium Fly Bar

20m (length), 4.8cm (diameter), +0.05m to 22.5m, 5 sets

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

### Safe load

0.5 M/ S<sup>2</sup> : 1,000 kg

2.0 M/ S<sup>2</sup> : 350 kg

### 1-3-7 Lighting Ladder ( 6 on both side stage )

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

Distance to CL: 13.4m

### Safe load

0.5 M/S<sup>2</sup> : 750 kg

1.0 M/S<sup>2</sup> : 500 kg

2.0 M/S<sup>2</sup> : 350 kg

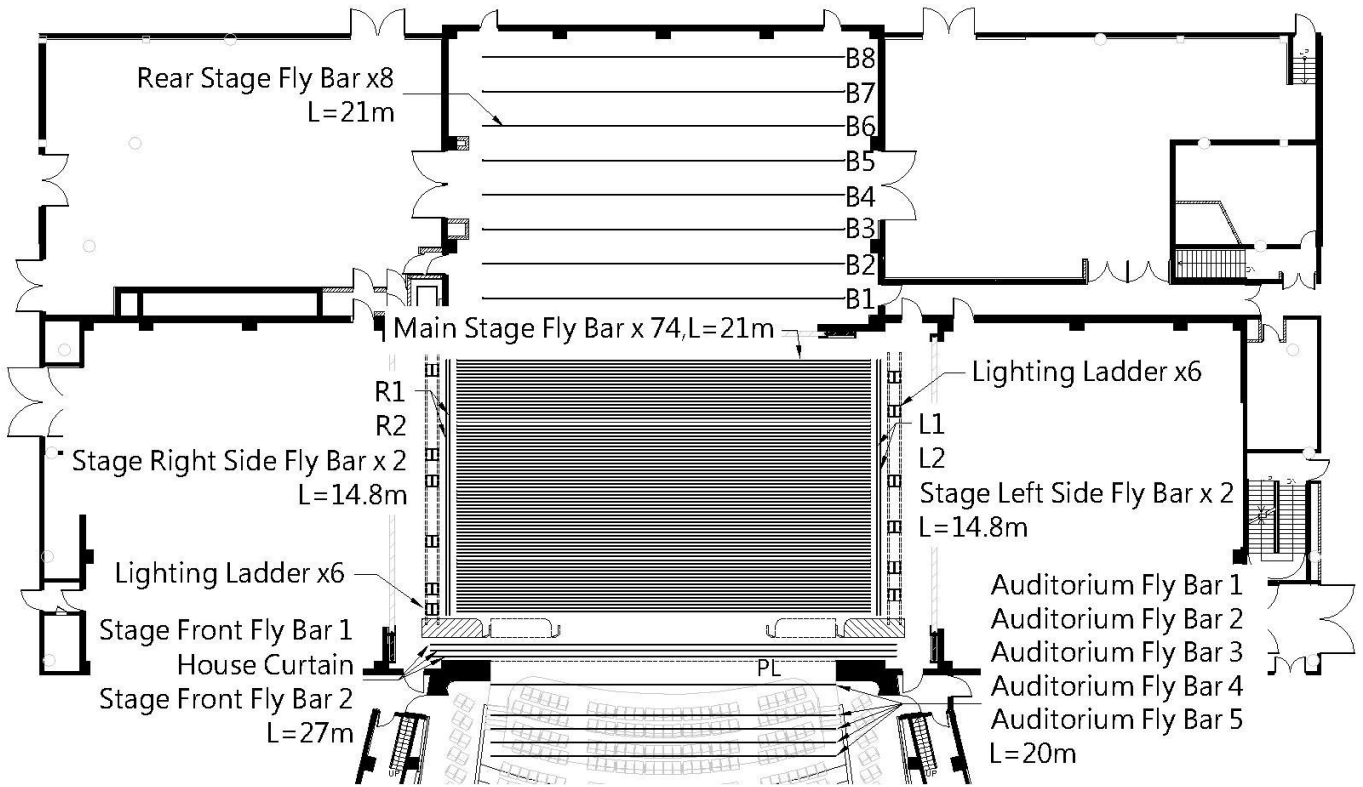


Figure 1.3- Rigging Plan

## 1-4 Hoisting

### 1-4-1 Point Hoist (load 250kg)

8 sets, winch line length 31.2m, lifting speed: 0 to 1.8m/s

Operation range: available for using on grid area. Boundless except for Fly Bars operation space.

### 1-4-2 Chain Hoist with Trolley (load 1000kg, fixed speed: 9.6m/min)

Grid: 12 sets, operation length 30m (Boundless except for Fly Bars operation space)

Side stage: 8 sets, operation length 12m

Rear stage: 14 sets, operation length 12m

### 1-4-3 Chain Hoist for House Speakers (load 1000kg, fixed speed: 9.6m/min)

Speakers on both sides of the auditorium are fixed in the suspended hall

4 sets, operation length 30m, lifting speed: 9.6m/min

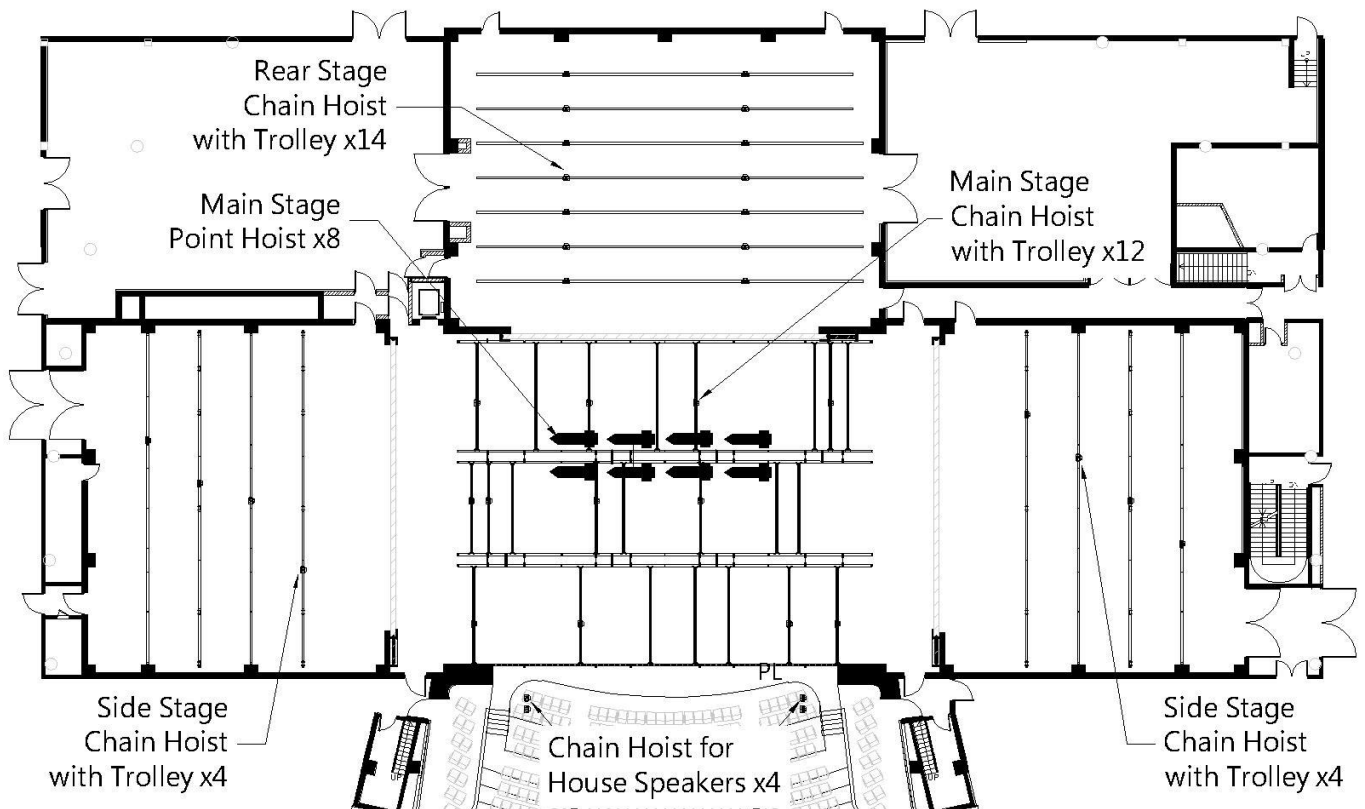


Figure 1.4.1- Hoisting plan



**1-5 Curtain and Others**

Item Number	Product Name	Quantity	Notes (Unit: Meter)
01	House Curtain	1 pair	13 x 12.9 ShowTex –Paris CS(Black)
02	Border	6	4.5 × 24 ShowTex –Bellini
03	Border	6	3 × 24 ShowTex –Bellini
04	Leg	12	12 × 4.5 ShowTex –Bellini
05	Leg	12	12 × 3 ShowTex –Bellini
06	Tab	10	12.3 × 3 ShowTex –Bellini
07	White Scrim	1	11.5 × 24 ShowTex –GobelinTulle (sharks tooth 06 point)
08	Black Scrim	1	11.5 × 24 ShowTex – Carre' Tulle (sharks tooth 08 point)
09	Black Scrim	1	11.5 × 24 ShowTex –Tulle Aymond (Vision Gauze)
10	Cyclorama (Rear Projection Screen)	1	11.5 × 24 ShowTex – Retro Screen Grey plus
11	Cotton Cyclorama	1	11.5 × 24 ShowTex –Cyclo 270
12	Black Backdrop	1	12 × 22 ShowTex –Bellini
13	Wooden Floor 2m*1m	152pc	1.Shared with Playhouse 2.Area (installation area adjustable) 20m x 16m, built-up, portable with latch, wooden plywood with high density mitigation block, 3.7 cm (depth),point load 1000kg, average shock-absorbing ability 65 %
14	Wooden Floor 1m*1m	16pc	
15	Black Dance Floor For Wooden Floor only	8 rolls	1.Shared with Playhouse 2.20m (length) x 2m (width) x 2mm (depth)
16	Black and Gray Dance Floor	21 rolls	1.Shared with Playhouse 2.20m (length) x 2m (width) x 1.7mm (depth)
17	Black and White Dance Floor	20 rolls	1.Shared with Playhouse 2.24m (length) x 1m (width) x 1.8mm (depth)
18	Black and Gray Dance Floor	21 rolls	1.Shared with Playhouse 2.22m (length) x 0.95m (width) x 1.8mm (depth)

## 1-6 Fly Bar List

Bar Number	Distance to PL	Content	Size( length) unit=cm	Note
	-555	Auditorium Fly Bar #5	2000	
	-475	Auditorium Fly Bar #4	2000	
	-395	Auditorium Fly Bar #3	2000	
	-315	Auditorium Fly Bar #2	2000	
	-140	Auditorium Fly Bar #1	2000	
0	0	Plaster Line		
	25	Stage Front Fly Bar #1	2700	
	60	House Curtain (Black color)	2700(1300hx1290w*2)	guillotine / traveller
	95	Stage Front Fly Bar #2	2700	
1	285		2400	
2	305		2400	
3	325		2400	
4	345		2400	
5	365		2400	
6	385		2400	
7	405		2400	
8	425		2400	
9	445		2400	
10	465		2400	
11	485		2400	
12	505		2400	
13	525		2400	
14	545		2400	
15	565		2400	
16	585		2400	
17	605		2400	
18	625		2400	
19	645		2400	
20	665		2400	
21	685		2400	
22	705		2400	
23	725		2400	
24	745		2400	
25	765		2400	
26	785		2400	
27	805		2400	
28	825		2400	
29	845		2400	
30	865		2400	
31	885		2400	
32	905		2400	
33	925		2400	
34	945		2400	
35	965		2400	
36	985		2400	
37	1005		2400	
38	1025		2400	
39	1045		2400	
40	1065		2400	
41	1085		2400	
42	1105		2400	
43	1125		2400	
44	1145		2400	
45	1165		2400	
46	1185		2400	
47	1205		2400	

Bar Number	Distance to PL	Content	Size( length) unit=cm	Note
48	1225		2400	
49	1245		2400	
50	1265		2400	
51	1285		2400	
52	1305		2400	
53	1325		2400	
54	1345		2400	
55	1365		2400	
56	1385		2400	
57	1405		2400	
58	1425		2400	
59	1445		2400	
60	1465		2400	
61	1485		2400	
62	1505		2400	
63	1525		2400	
64	1545		2400	
65	1565		2400	
66	1585		2400	
67	1605		2400	
68	1625		2400	
69	1645		2400	
70	1665		2400	
71	1685		2400	
72	1705		2400	
73	1725		2400	
74	1745		2400	
	2105	Rear Stage Fly Bar #1	2100	
	2305	Rear Stage Fly Bar #2	2100	
	2505	Rear Stage Fly Bar #3	2100	
	2705	Rear Stage Fly Bar #4	2100	
	2905	Rear Stage Fly Bar #5	2100	
	3105	Rear Stage Fly Bar #6	2100	
	3305	Rear Stage Fly Bar #7	2100	
	3505	Rear Stage Fly Bar #8	2100	
Bar Number	Distance to CL	Content	Size( length) unit=cm	Note
	1240	Side Fly Bar #1	1480	
	1260	Side Fly Bar #2	1480	
	1240	Side Fly Bar #1	1480	
	1260	Side Fly Bar #2	1480	

## 2 Lighting

### 2-1 Lighting instrument

*Important : control signal were the network system.*






Item	Model Number	Position	Specifications	Quantity	Frame Size	Paid Item
Lighting Control Console	GrandMA 2 Light	Control Booth		1		
		Auditorium		1		
Dimmer System	State Automation Solution		220V 3kW/Circuit	1008ch		
			220V 5kW/ Circuit	48ch		
Ellipsoidal Reflector Spotlight	Selecon SPX 5°	1st. Catwalk	750W	14	245x245mm	
		2nd. Catwalk		14		
		3rd. Catwalk		12		
	Strand Leko Lite 10°	1st. Catwalk		24	305x305mm	
		2nd. Catwalk		24		
		3rd. Catwalk		10		
	Selecon SPX 14°	Lighting Box2/L		6/6	158x158mm	
		Lighting Box2/R		6/6		
	Selecon SPX 15°-35°	Lighting Box1/L		6/6		
		Lighting Box1/R		6/6		
	Strand Leko Lite 10°			10	305x305mm	
	Selecon SPX 14°			15	158x158mm	
	Selecon SPX 19°			80		
	Selecon SPX 26°			80		
	Selecon SPX 36°			50		
Selecon SPX 15°-35°		5				
2KW Fresnel Spotlight 8"	Selecon Arena Theatre 8" Fresnel 7°-60°		2kW	80	245x245mm	
HMI Fresnel Spotlight 12"	ARRI D40 HMI Fresnel		4kW	6		*
Parabolic Aluminized Reflector Spotlight	Kupo PL-64LB	Lamp : W x 20 · M x 50 · VN x 30	1kW	100	254x254mm	
Cyc Light	Selecon Aurora CYC		1kW	12	305x315mm	
Ground Row	Selecon Aurora GroundRow		1kW	12		
Strip Light	Selecon PL TR2 RGB Striplights			12		*
Long Throw Follow Spot	Lycian M2 Model 2060 2.5	3rd. Catwalk	2.5kW	3		
Fog Machine	Antari F-5D			4		*
Haze Machine	Antari HZ-500			4		*
Effect Fan	Antari AF-4			4		*

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

**2-2 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
Power Distribution Box	8CIR CEE Form Female Plug 		60
Multi-Cable	16pin Multi-Cable	5m	40
		10m	40
		15m	30
Ex-Cable	CEE16A	1.5m	80
		2m	100
		3m	80
		5m	70
		10m	50
		15m	50
Y-Cord	CEE16A Parallel Cord		100
Portable Sidelight Tower		640(w)x960(L)x3500(H)mm	16



Key	Legend	Quantity	Brand and Model
	Ellipsoidal 5°	40	Philips Selecon SPX 5°
	Ellipsoidal 10°	58	STRAND LEKO LITE 10°
	Ellipsoidal 14°	24	Philips Selecon SPX 14°
	Ellipsoidal 15°-30°	24	Philips Selecon SPX 15°-30°
	2.5kw Long Throw Followspot	3	Lycian M2 Model 2060 2.5

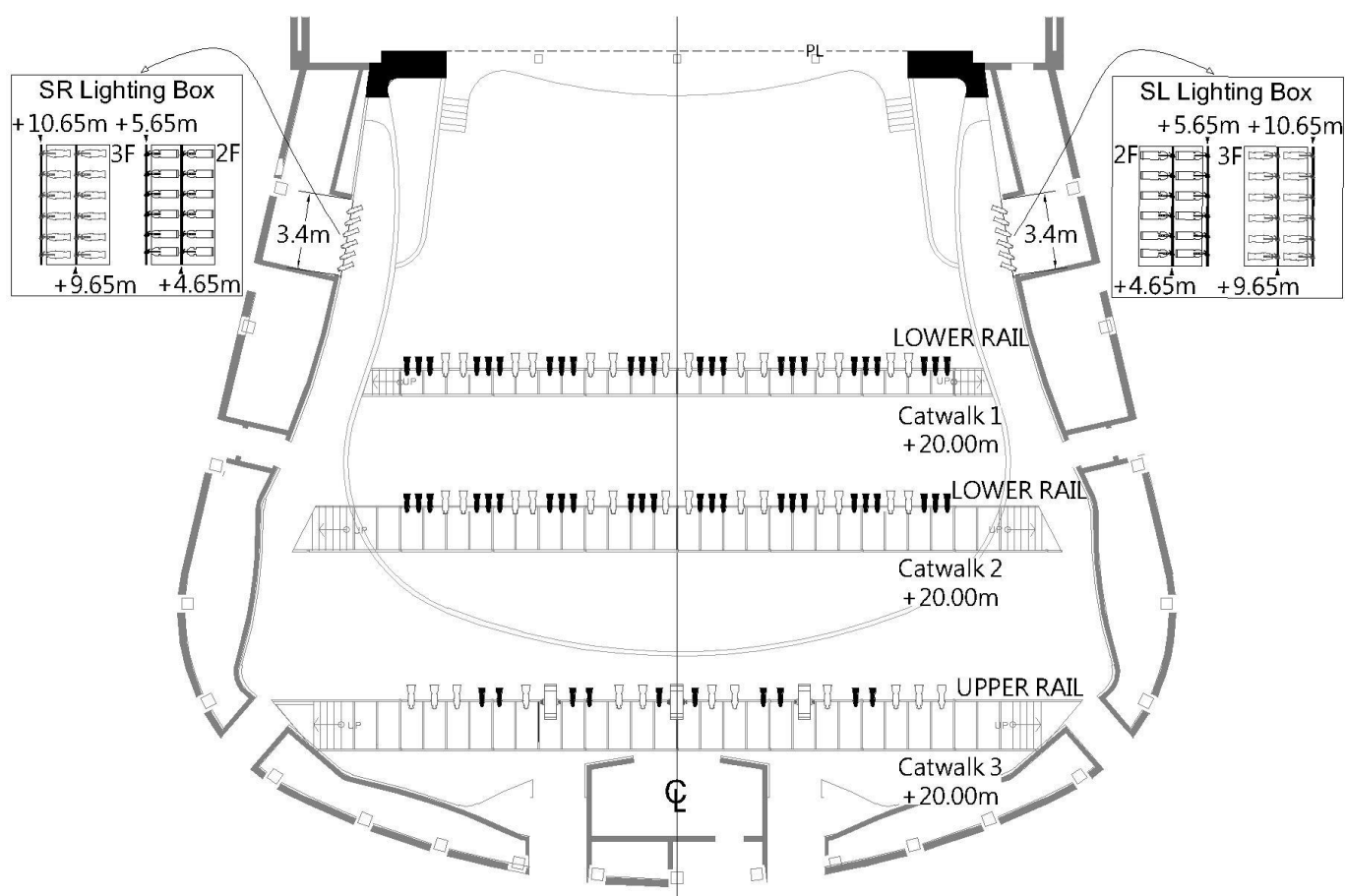


Figure2.1-FOH Lighting Plot

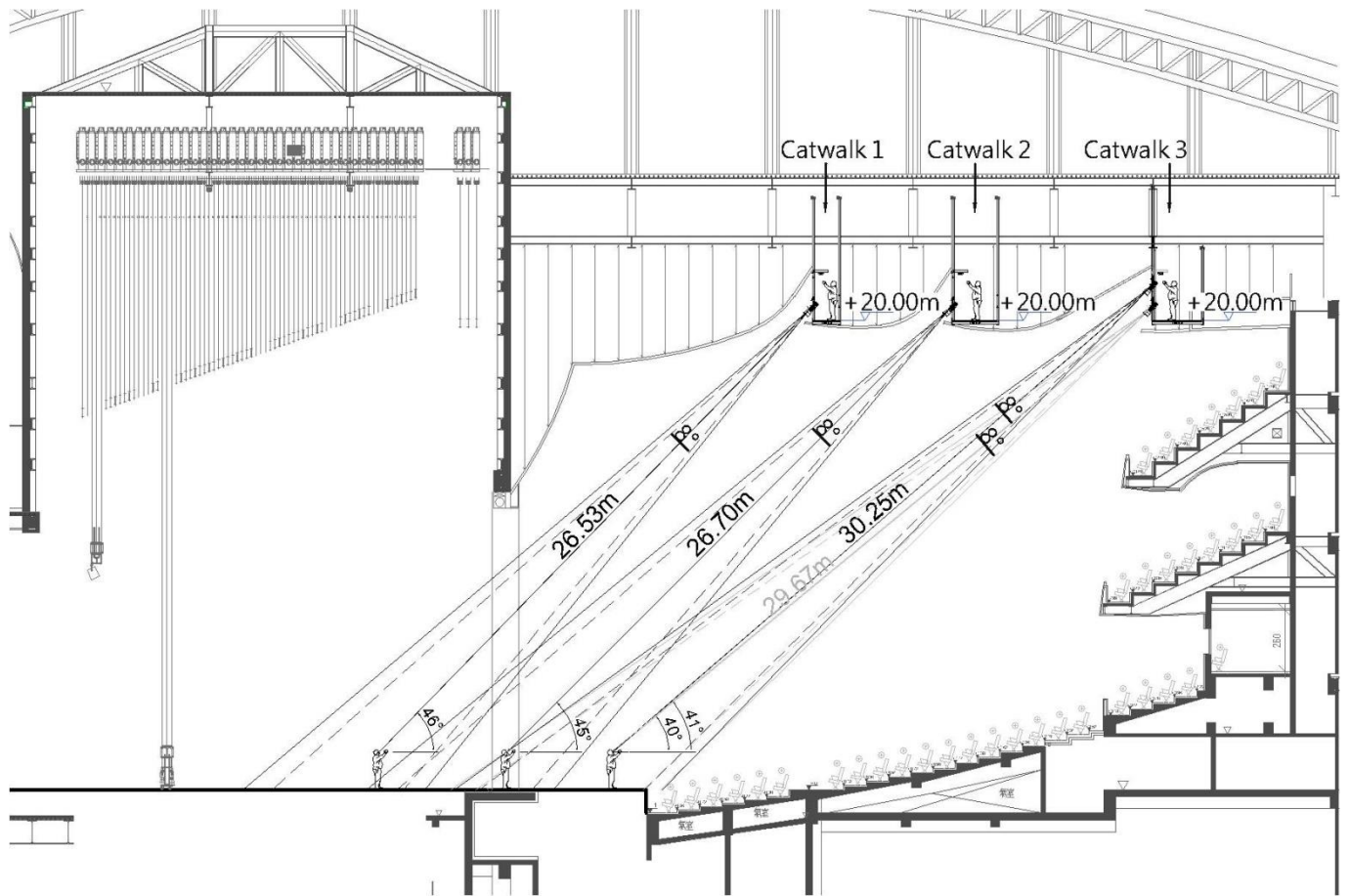


Figure 2.2- Lighting Section

**2-3 Lighting Circuit****2-3-1 Stage area**

Area and Position	Dimmer Circuit No.	Load	Network Circuit No.
Down Stage/L	017 ~ 024	3kW	LN09 ~ 14
	025 ~ 032		
Down Stage/R	033 ~ 040	3kW	LN15 ~ 20
	041 ~ 048		
Floor/L	049 ~ 056	3kW	LN21 ~ 22
	065 ~ 072		LN25 ~ 26
	081 ~ 088	3kW	LN29 ~ 30
	097 ~ 104		LN33 ~ 34
	113 ~ 120	3kW	LN37 ~ 38
Floor/R	057 ~ 064	3kW	LN23 ~ 24
	073 ~ 080		LN27 ~ 28
	089 ~ 096	3kW	LN31 ~ 32
	105 ~ 112		LN35 ~ 36
	121 ~ 128	3kW	LN39 ~ 40
Stage Lift 1	129 ~ 136	3kW	LN41 ~ 42
Stage Lift 2	137 ~ 144	3kW	LN43 ~ 44
Stage Lift 3	145 ~ 152	3kW	LN45 ~ 46
Stage Lift 4	153 ~ 160	3kW	LN47 ~ 48
Stage Lift 5	161 ~ 168	3kW	LN49 ~ 50
Rear Stage/L	169 ~ 176	3kW	LN51 ~ 52
	177 ~ 184		
	201 ~ 208	3kW	LN55 ~ 56
	209 ~ 216		
Rear Stage/R	185 ~ 192	3kW	LN53 ~ 54
	193 ~ 200		
	217 ~ 224	3kW	LN57 ~ 58
	225 ~ 232		
Above Rear Stage Cable Reel	233 ~ 240	3kW	LN61 ~ 62
	241 ~ 248	3kW	LN63 ~ 64
	249 ~ 256	3kW	LN65 ~ 66
	257 ~ 264	3kW	LN67 ~ 68
	265 ~ 272	3kW	LN69 ~ 70
	273 ~ 280	3kW	LN71 ~ 72
	281 ~ 288	3kW	LN73 ~ 74
	289 ~ 296	3kW	LN75 ~ 76
Adjustable Proscenium Stage/L	297 ~ 300	3kW	
	301 ~ 304		LN77 ~ 78
	305 ~ 308		
	309 ~ 312		
Adjustable Proscenium Stage/R	313 ~ 316	3kW	
	317 ~ 320		LN79 ~ 80
	321 ~ 324		
	325 ~ 328		
Rear Stage Backwall	329 ~ 332	3kW	
	333 ~ 336		
Down Lighting Bridge	369 ~ 372	3kW	
	373 ~ 376		
	377 ~ 380		
	381 ~ 384		
	385 ~ 388		LN101 ~ 104
	389 ~ 392		
Up Lighting Bridge	393 ~ 396	3kW	
	397 ~ 400		
	401 ~ 404		LN105 ~ 106
	405 ~ 408		
	409 ~ 412		LN107 ~ 108
	413 ~ 416		

3 Floor- Gallery S.L.	473 ~ 476	3kW	
	477 ~ 480		LN117 ~ 118
	481 ~ 484		
	485 ~ 488		
3 Floor- Gallery S.R.	489 ~ 492	3kW	
	493 ~ 496		LN119 ~ 120
	497 ~ 500		
	501 ~ 504		
3 Floor- Gallery Rear Stage	505 ~ 508	3kW	LN121 ~ 122
	509 ~ 512		
4 Floor- Gallery S.L.	513 ~ 516	3kW	
	517 ~ 520		LN127 ~ 128
4 Floor- Gallery S.R.	521 ~ 524	3kW	
	525 ~ 528		LN129 ~ 130
4 Floor- Gallery Rear Stage	529 ~ 532	3kW	LN131 ~ 132
	533 ~ 536		
Stage/L Ladder1	561 ~ 568	3kW	LN139 ~ 140
Stage/L Ladder2	569 ~ 576	3kW	LN141 ~ 142
Stage/L Ladder3	577 ~ 584	3kW	LN143~ 144
Stage/L Ladder4	585 ~ 592	3kW	LN145~ 146
Stage/L Ladder5	593 ~ 600	3kW	LN147~ 148
Stage/L Ladder6	601 ~ 608	3kW	LN149~ 150
Stage/R Ladder1	609 ~ 616	3kW	LN151~ 152
Stage/R Ladder2	617 ~ 624	3kW	LN153~ 154
Stage/R Ladder3	625 ~ 632	3kW	LN155~ 156
Stage/R Ladder4	633 ~ 640	3kW	LN157~ 158
Stage/R Ladder5	641 ~ 648	3kW	LN159~ 160
Stage/R Ladder6	649 ~ 656	3kW	LN161~ 162
Cyclorama	753 ~ 760	3kW	
	761 ~ 768		LN179~ 180
	769 ~ 776		
Stage Grid Area	777 ~ 784	3kW	LN181~ 182
	785 ~ 792		
	793 ~ 800	3kW	LN183~ 184
	801 ~ 808		
	809 ~ 816	3kW	LN185~ 186
	817 ~ 824		
	825 ~ 832	3kW	LN187~ 188
	833 ~ 840		
	841 ~ 848	3kW	LN189~ 190
	849 ~ 856		
	857 ~ 864	3kW	LN191~ 192
	865 ~ 872		
	873 ~ 880	3kW	LN193~ 194
	881 ~ 888		
	889 ~ 896	3kW	LN195~ 196
	897 ~ 904		
	905 ~ 912	3kW	LN197~ 198
	913 ~ 920		
	921 ~ 928	3kW	LN199~ 200
	929 ~ 936		
937 ~ 944	3kW	LN201~ 202	
945 ~ 952			
953 ~ 960	3kW	LN203~ 204	
961 ~ 968			
Auditorium Fly Bar1	969 ~ 976	3kW	LN205~ 206
Auditorium Fly Bar2	977 ~ 984	3kW	LN207~ 208
Auditorium Fly Bar3	985 ~ 992	3kW	LN209~ 210
Auditorium Fly Bar4	993 ~ 1000	3kW	LN211~ 212
Auditorium Fly Bar5	1001 ~ 1008	3kW	LN213~ 214

Down Stage/L	1009 ~ 1014	5kW	
Down Stage/R	1015 ~ 1020	5kW	
Rear Stage/L	1021 ~ 1026	5kW	
	1033 ~ 1038	5kW	
Rear Stage/R	1027 ~ 1032	5kW	
	1039 ~ 1044	5kW	
Rear Stage Backwall	1045 ~ 1050	5kW	LN59~ 60
Down Lighting Bridge	1051 ~ 1056	5kW	




KEY		Circuit Box
		Net Port
		5K Circuit



Figure 2.3.1.1- First Floor Lighting Circuit Layout

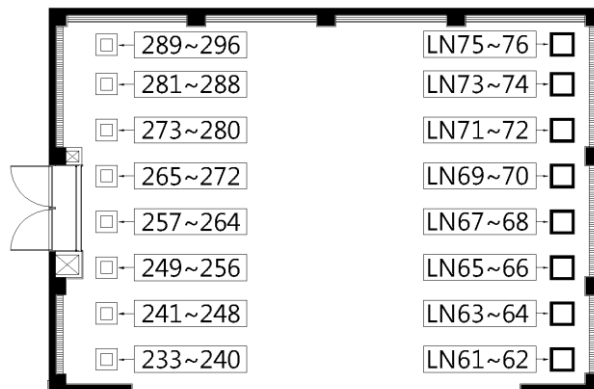


Figure 2.3.1.2- Above Rear Stage Cable Reel Lighting Circuit Layout

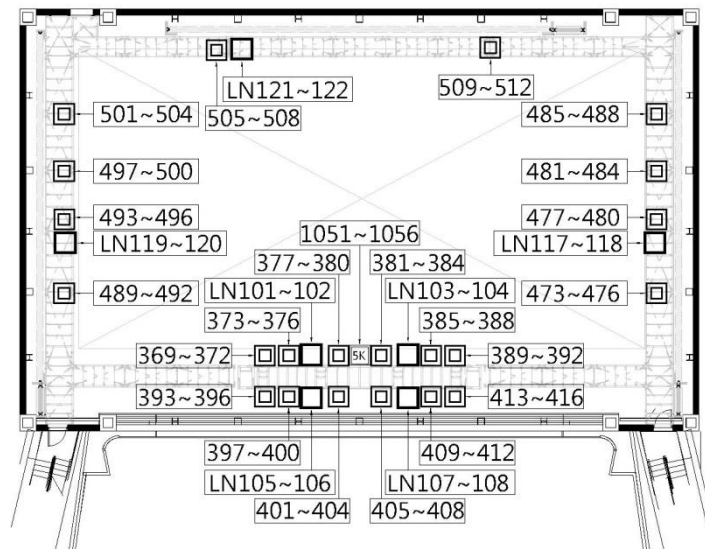


Figure 2.3.1.3- The Third Floor Gallery and Lighting Bridge Circuit Layout

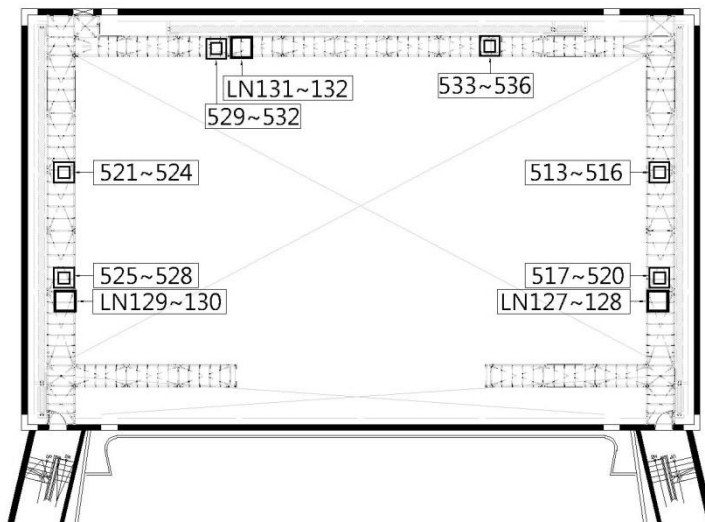


Figure 2.3.1.4- The Fourth Floor Gallery Lighting Circuit Layout

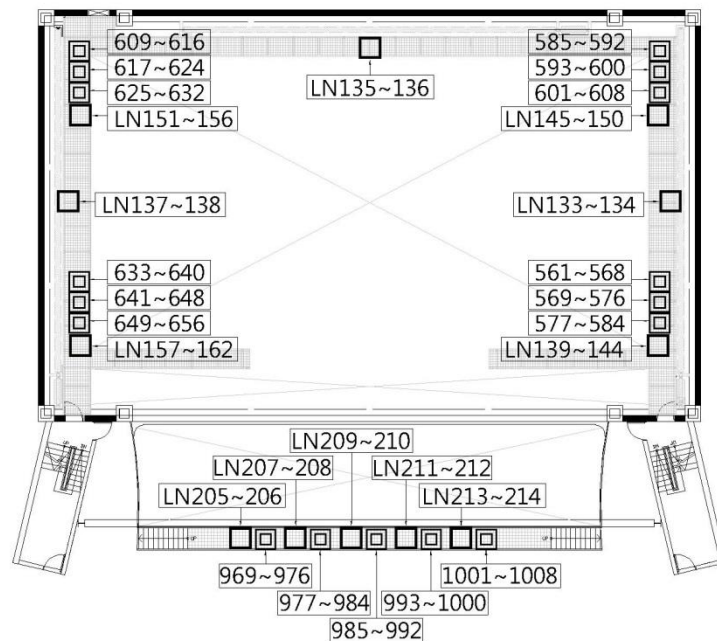


Figure 2.3.1.5-Orchestra Pit Overhead and R1F Gallery Lighting Circuit Layout

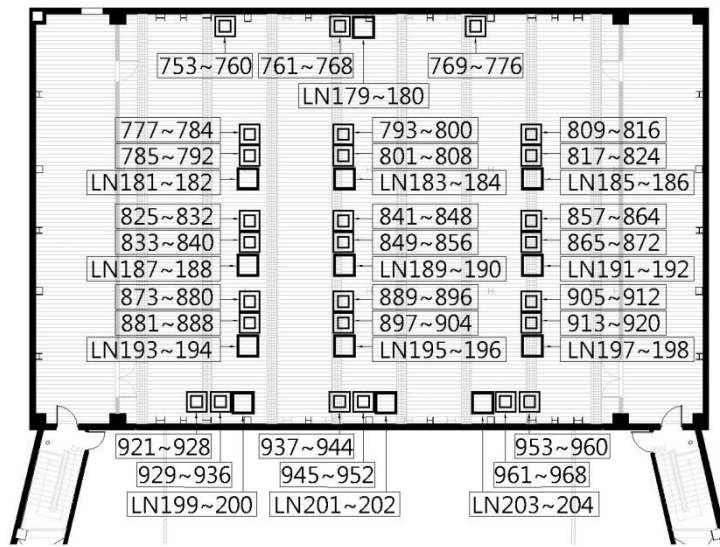


Figure 2.3.1.6- Grid Area Lighting Circuit Layout

2-3-2 Front of House

Area and Position	Dimmer Circuit No.	Load	Network Circuit No.
Orchestra Pit Lift 1	001 ~ 004	3kW	LN01 ~ 02
	005 ~ 008		LN03 ~ 04
Orchestra Pit Lift 2	009 ~ 012	3kW	LN05 ~ 06
	013 ~ 016		LN07 ~ 08
2 Floor-Lighting Box/L	337 ~ 340	3kW	LN85 ~ 86
	341 ~ 344		
	345 ~ 348		
	349 ~ 352		
2 Floor- Lighting Box/R	353 ~ 356	3kW	LN87 ~ 88
	357 ~ 360		
	361 ~ 364		
	365 ~ 368		
3 Floor- Lighting Box/L	417~ 420	3kW	LN109 ~ 110
	421~ 424		
	425~ 428		
	429 ~ 432		
3 Floor- Lighting Box/R	433 ~ 436	3kW	LN111 ~ 112
	437 ~ 440		
	441 ~ 444		
	445 ~ 448		
2 Floor-Balcony Rail	449 ~ 451	3kW	
	452 ~ 454		
	455 ~ 457		
	458 ~ 460		LN115 ~ 116
	461 ~ 463		
	464 ~ 466		
	467 ~ 469		
470 ~ 472	LN113 ~ 114		
3 Floor-Balcony Rail	537 ~ 539	3kW	
	540 ~ 542		
	543 ~ 545		
	546 ~ 548		LN125 ~ 126
	549 ~ 551		
	552 ~ 554		
	555 ~ 557		
558 ~ 560	LN123 ~ 124		



1st. Catwalk	657 ~ 660	3kW	
	661 ~ 664		
	665 ~ 668		LN163 ~ 164
	669 ~ 672		
	673 ~ 676		
	677 ~ 680		
	681 ~ 684		LN165 ~ 166
	685 ~ 688		
	689 ~ 692		
2nd. Catwalk	693 ~ 696	3kW	
	697 ~ 700		
	701 ~ 704		LN167 ~ 168
	705 ~ 708		
	709 ~ 712		
	713 ~ 716		
	717 ~ 720		LN169 ~ 170
	721 ~ 724		
	725 ~ 728		
3rd. Catwalk	729 ~ 732	3kW	
	733 ~ 736		LN171 ~ 172
	737 ~ 740		
	741 ~ 744		
	745 ~ 748		LN173 ~ 174
	749 ~ 752		

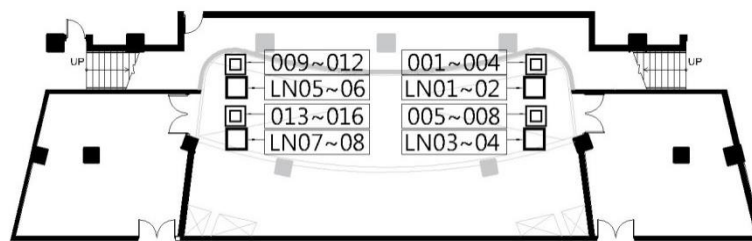


Figure 2.3.2.1- Orchestra Pit Lighting Circuit Layout

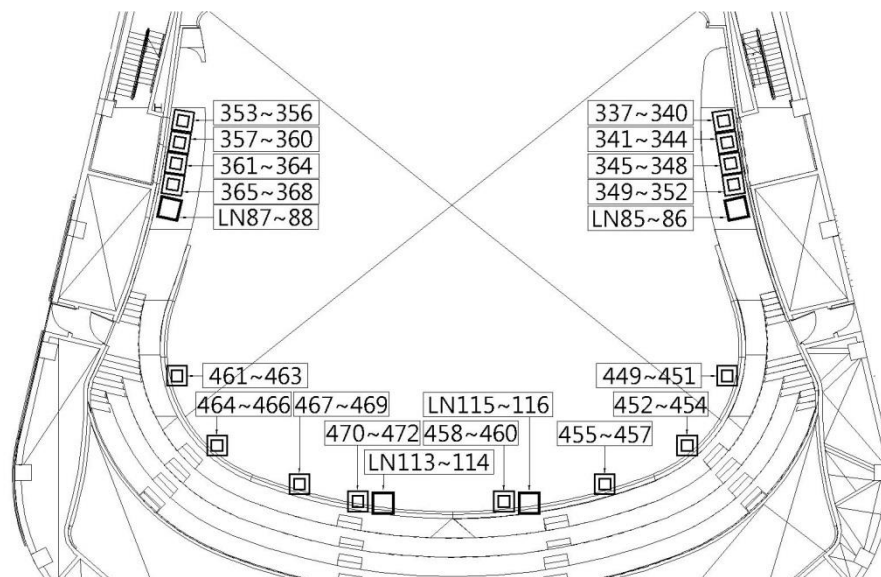


Figure 2.3.2.2- The Second Floor Apron and Lighting Box Lighting Circuit Layout

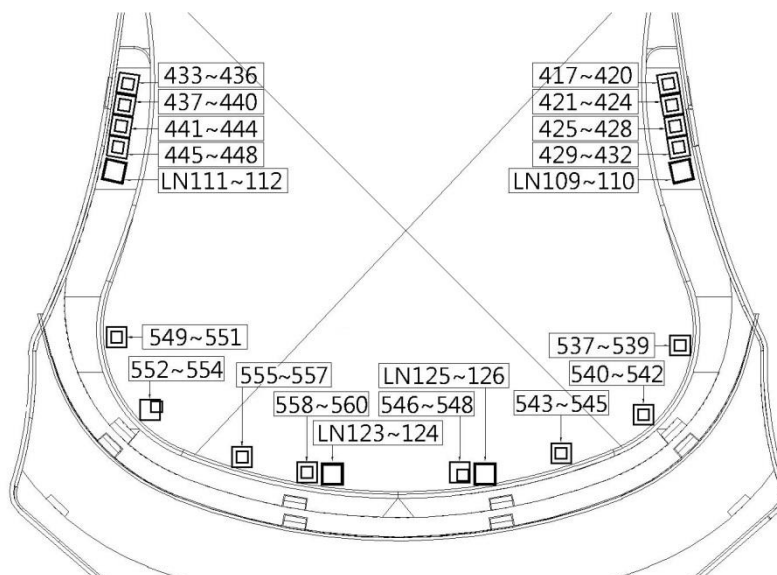


Figure 2.3.2.3- The Third Floor Apron and Lighting Box Lighting Circuit Layout

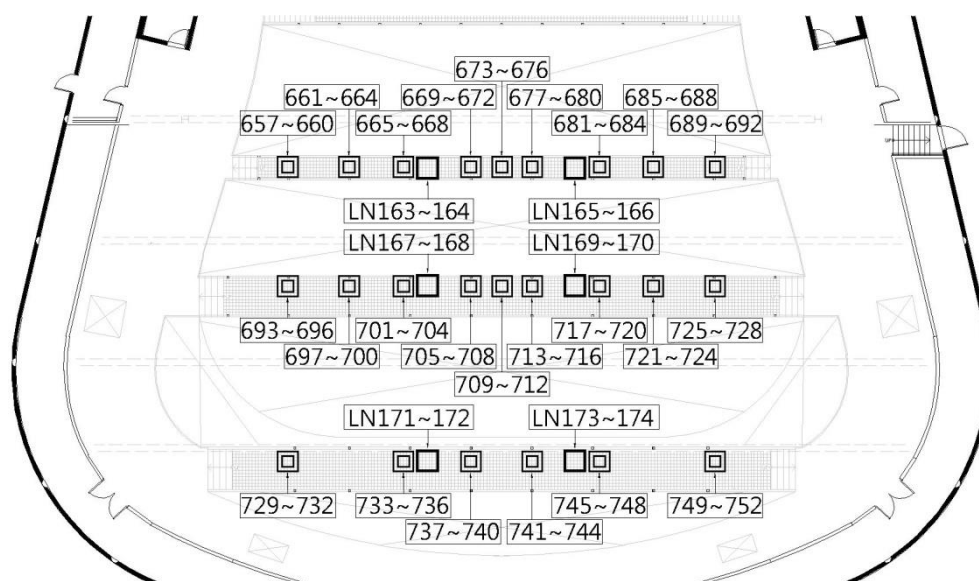


Figure 2.3.2.4- Catwalk Lighting Circuit Layout

**2-4 Portable Lift**

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

**2-5 Additional Power Supply**

Function	Position	Specifications	Quantity
Stage	Down Stage Left / Right	3φ4W+G 380V/220V /60Hz (CEE 125A/3P+N+PE)	3 / 3
Light		3φ4W+G 220V/120V /60Hz (Camlock 250A)	3 / 3
Sound		3φ4W+G 220V/120V /60Hz (Camlock 100A)	1 / 1
Stage	Up Stage Left / Right / Rear Stage	3φ4W+G 380V/220V /60Hz (CEE 125A/3P+N+PE)	2 / 2 / 2
Light		3φ4W+G 220V/120V /60Hz (Camlock 250A)	2 / 2 / 2



Figure 2.6 - Additional Power Supply

**2-6 Working Light / Auditorium light / Blackout**

**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.

**Blackout**

In accordance with government Fire Services Act, there are many of emergency lights in the venue. We cannot extinguish the emergency lighting for any performance, there will be the minimal lighting levels in the auditorium and backstage areas.

## 3 Audio/Video-Systems

### 3-1 Audio Facilities

Item	Quantity	Brand and Model	Paid Item
Digital mixer (movable)	1	Soundcraft Vi4	*
Array main speaker	2	Kling & Freitag SEQUENZA 10W*8 Kling & Freitag SEQUENZA 10B*2	
Left and right channel speakers	2	Kling & Freitag SEQUENZA 10B*1 Kling & Freitag SEQUENZA 10W*3	
Digital speaker	6	Renkus-Heinz ICONYX IC16/8RII	
Movable speaker	2	Kling & Freitag CA1515-9	
Movable Subwoofer	2	Kling & Freitag SWi118E 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	
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	*
Digital I/O fiber module	2	Studer D21M	

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

### 3-2 Control Room

Item	Quantity	Brand and Model	Paid Item
Master Digital Mixer	1	Studer Vista 9 M2 QS	
Digital I/O fiber module	1	Studer D21m	
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.

### 3-3 Stage Manager' s Console

The stage manager' s console is equipped with a near-field monitor speaker, stage video monitors ,synchronous show screens with lighting and flying system controller ,communication system and live announcements to individual space in backstage.

### 3-4 Machine Room

Item	Quantity	Brand and Model	Note
Digital Audio Management Platform	1	Studer D21M (Studer Score Live)	
Audio Control Manager Switch	1	HP 1410-8	
Digital I/O fiber module	1	Studer D21M	

**3-5 Microphone**

Item	Quantity	Brand and Model	Paid Item
Voice coil microphone	6	Audio Technica AE4100	*
Condenser microphone	4	Audio Technica AE5400	*
Voice coil microphone	12	Audio Technica ATM250	*
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	
Microphone stand	16	K&M 210/6	
Microphone stand	16	K&M 210/8	
Microphone stand	8	K&M 259	

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

**3-6 Communications**

Item	Quantity	Brand and Model	Paid Item
Intercom host machine ( Matrix 32 x 32 )	1	Clear-Com Eclipse HX-Delta	
Phone interface	1	Clear-Com TEL-14	
System interface	1	Clear-Com Helixnet HMS-4X	
Double circuit intercom	16	Clear-Com Helixnet HBP-2X	
Fixed intercom microphone/ speak	1	Clear-Com V12PDXY 110 / 340 Clear-Com V12PDDXY 110 / 340	
Single-ear headset	16	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 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.*

### 3-7 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
45	Lighting box (2042)	
46	Lighting box (2042A)	
47	Audience area (control table elevating platform)	
48	Event Light Bridge	
49	3F	Event Light Bridge
50		Left working gallery
51		Right working gallery
52		Upper working gallery
53		Stage Area Right Working Corridor 4th Floor
54	4F	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

### 3-8 Stage Cameras and Video Surveillance Systems

Stage monitors are installed in right and left stage entrances, first, second, and third floor lobbies, master and secondary control rooms, dressing rooms and green rooms.

Item	Quantity	Brand and Model	Paid Item
Camera ( 2/3 inch 3CCD )	1	Panasonic AW-HE870 Panasonic LZ20M85G	
Remote control	1	Panasonic AW-RP50	
Switcher	1	Panasonic AW-RP120	
Camera	2	Panasonic AW-HE60SN	
Infrared camera	1	Ricoh STG-4 Pentax TS15ZAME	
Switcher	2	Ricoh STG-4	
Mixer circuit	Circuit / Show		*
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.

### 3-9 Paging Systems

#### Backstage Paging Systems

There are four venues individually Backstage Paging Systems in National Kaohsiung Center for the Arts. For Opera House paging available to all dressing rooms, green rooms, office and passage, it can also available paging to separately 13 zones. The Paging and Program position is located on the stage manager' s console.

Zone 1 : B1072 Usher' s room-03 、 B1086 Usher' s room -04 、 1162 Green Room-01 、 1166 Green Room -02

Zone 2 : Corridor (1136 、 1169 、 1164)

Zone 3 : Corridor (B1079 、 B1085 、 B1101)

Zone 4 : B1089 Dressing Room-18 、 B1092 Dressing Room -19 、 B1094 Dressing Room -20 、 B1098 Dressing Room -21

Zone 5 : B1065 Dressing Room -14 、 B1068 Dressing Room -15 、 B1070 Dressing Room -16 、 B1074 Dressing Room -17

Zone 6 : 1094 Quick Change Booth

Zone 7 : 1112 Dressing Room -02 、 1114 Dressing Room -03 、 1116 Dressing Room -04 、 1118 Dressing Room -05

1120 Dressing Room -06 、 1122 Dressing Room -07 、 1137 Waiting Area

Zone C : Corridor (B1063 、 B1015 、 B1013) 、 B1011 Air Lock 、 B1010 Parking L0t Foyer

Zone D : Corridor (1053 、 1100) 、 1062 Dressing Room -01 、 1093 Waiting Area

Zone E : Public Toilet (1138 、 1139) 、 Corridor (1225 、 1109)

Zone X : 1124 Dressing Room -08 、 1126 Dressing Room -09

Zone Y : 1128 Dressing Room -10 、 1130 Dressing Room -11

Zone Z : 1132 Dressing Room -12 、 1134 Dressing Room -13



**3-10 Projector**

Name of Item	Quantity	Brand and Model	Paid Item
20000 Ansi Projector	2	Digital Projection Titan Super Quad 1080p 3D	*
0.67:1 fixed HB Lens	2	105-607 1.1m-10m	
1.87-2.56:1 zoom HB Lens	2	105-611 4m-24m	
2.56-4.16:1 zoom HB Lens	2	105-612 9.1m-45m	
HD switching effect machine	1	Analogway ste100	*

※With projector scaffolding of back projection.

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

**3-11 Projector connections**

Video & Computer			Communication & Control		
Type	Connector	Qty	Type	Connector	Qty
Qty DVI-D / DVI-A	DVI-I	1	3D Sync Out	BNC	1
HDMI 1.3	HDMI	1	3D Sync In	BNC	1
3G-SDI	BNC	1	LAN	RJ45	1
VGA/ Analog RGB	15-pin D-Sub	1	RS232	9-pin D Sub	1
Component Video	4 x BNC	1	Wired Remote In	3.5mm Stereo Jack	1
S-Video	4-pin Mini DIN	1	Wired Remote Out	3.5mm Stereo Jack	1
Composite Video	RCA	1	Update Port	RJ45	1
Composite Video	BNC	1	Service Port	USB Type B	1

## 4 Backstage

### 4-1 Dressing Room and Green Room

No.	Floor	Room No.	Name	Capacity	Notes
1	1	1062	Dressing room 01	7	Includes mirror, table and chair, toilet and shower.
2		1094	Quick change Booth	2	Includes dressing mirror, table and chair.
3		1112	Dressing room 02	3	Includes mirror, table and chairs, toilet and shower
4		1114	Dressing room 03	3	Includes mirror, table and chairs, toilet and shower
5		1116	Dressing room 04	3	Includes mirror, table and chairs, toilet and shower
6		1118	Dressing room 05	3	Includes mirror, table and chairs, toilet and shower
7		1120	Dressing room 06	3	Includes mirror, table and chairs, toilet and shower
8		1122	Dressing room 07	3	Includes mirror, table and chairs, toilet and shower
9		1124	Dressing room 08	3	Includes mirror, table and chairs, toilet and shower
10		1126	Dressing room 09	3	Includes mirror, table and chairs, toilet and shower
11		1128	Dressing room 10	3	Includes mirror, table and chairs, toilet and shower
12		1130	Dressing room 11	3	Includes mirror, table and chairs, toilet and shower
13		1132	Dressing room 12	3	Includes mirror, table and chairs, toilet and shower
14		1134	Dressing room 13	3	Includes mirror, table and chairs, toilet and shower
15		1162	Green room 01	15	Includes table and chairs.
16	1166	Green room 02	15	Includes table and chairs.	
17	B1	B1065	Dressing room 14	16	Includes mirror, table and chairs, toilet and shower
18		B1068	Dressing room 15	8	Includes mirror, table and chairs, toilet and shower
19		B1070	Dressing room 16	3	Includes mirror, table and chairs, toilet and shower
20		B1074	Dressing room 17	32	Includes mirror, table and chairs, toilet and shower
21		B1089	Dressing room 18	28	Includes mirror, table and chairs, toilet and shower
22		B1092	Dressing room 19	12	Includes mirror, table and chairs, toilet and shower
23		B1094	Dressing room 20	30	Includes mirror, table and chairs, toilet and shower
24		B1098	Dressing room 21	21	Includes mirror, table and chairs, toilet and shower

### 4-2 Orchestra Facilities

No.	Item	Quantity	Notes
1	Chair	60	
2	Ensemble stool	4	
3	Conductor' s chair	1	
4	Music stand	60	
5	Music stand light	60	White light, two brightness mode
6	Conductor' s podium	1	WENGER Base podium:1.09 x 0.97 x 0.15 m Upper podium:0.81 x 0.97 x 0.15 m
7	Conductor' s stand	1	WENGER Desk is 0.69(w)x0.51(d)m Desk height is adjustable from 0.76-1.2m
8	Percussion table stand	2	
9	Endpin stopper	3	
10	Acoustic shield	1	

### 4-3 Pianos (shared between four theatres)

No.	Item	Brand	Model Number	Quantity	Notes
1	Model-D 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	Celesta	Schiendmayer	5 ½ Octave Studio model	1	*
6	Harpsichord	J.C.NEUPERT	Hemsch	1	*

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

**Important :** Pianos shared with four venues ,booking in advance is required.

WeiWuYing's contract-signed piano technician must tune all pianos before performance.(Piano hire fees do not include tuning costs)

## 4-4 Loading Dock / Scenery Shipping Path / Loading Flow

### 4-4-1 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 4.38m (height)

Small loading dock: 3.5m (width) x 4.38m (height)

Loading clearance: 4.38m (height from floor to top)

3.8m (height from dock to ceiling)

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

Height from dock to floor: 0.98m

### 4-4-2 Handling equipment

Platform Trolley x20 (1.2m x2.4m)

2.5mt Electric Forklift x1

1.5mt Stand-Up Automatic Electric Forklift x1

3mt Manual Hydraulic Pallet Jack x2

### East Dock Handling equipment

The East Dock equipment is mainly used by Recital Hall and Concert Hall. In need, please requests in advance.

Platform Trolley (with handle)x10 (0.9m x1.8m)

1.5mt Stand-Up Automatic Electric Forklift x1

3mt Manual Hydraulic Pallet Jack x1

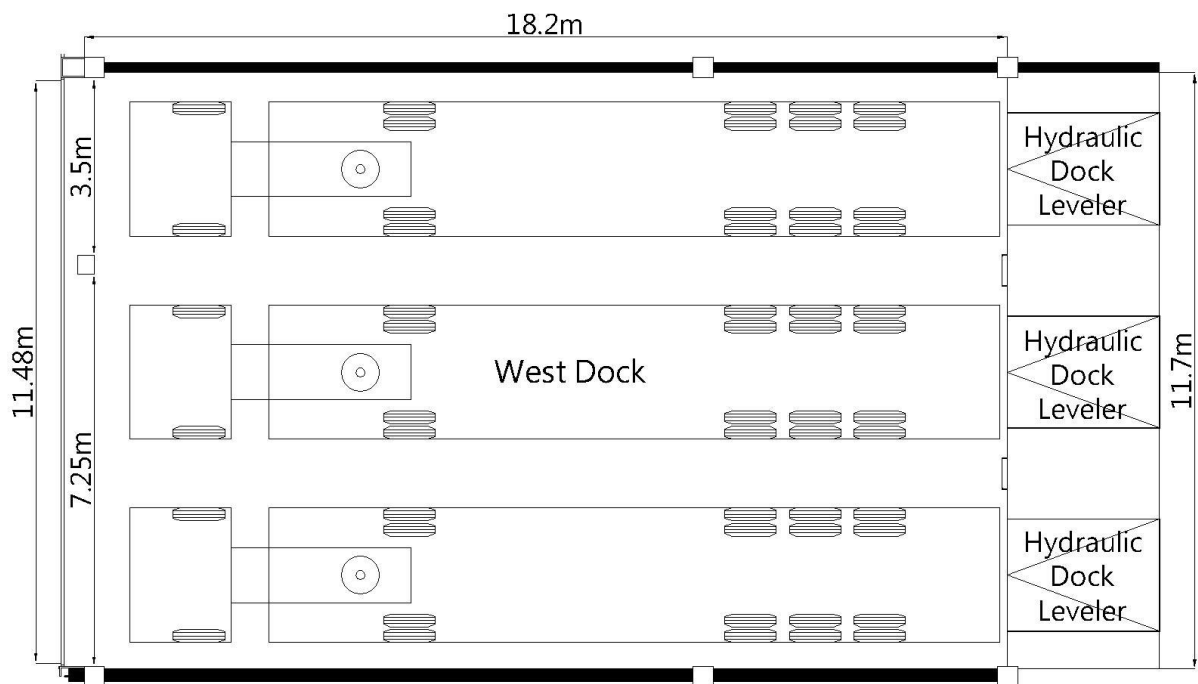


Figure 4.1 - West Loading Dock Plan

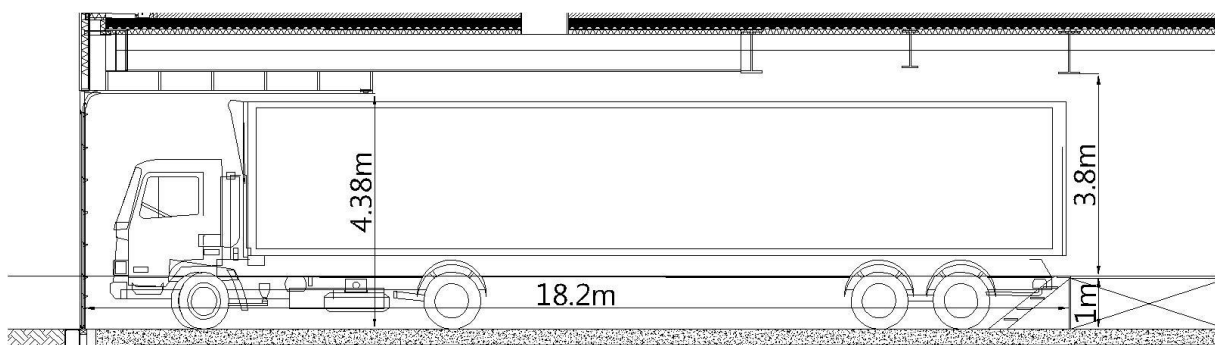


Figure 4.2 - West Loading Dock Section

4-4-3 Scenery Shipping Path / Loading Flow

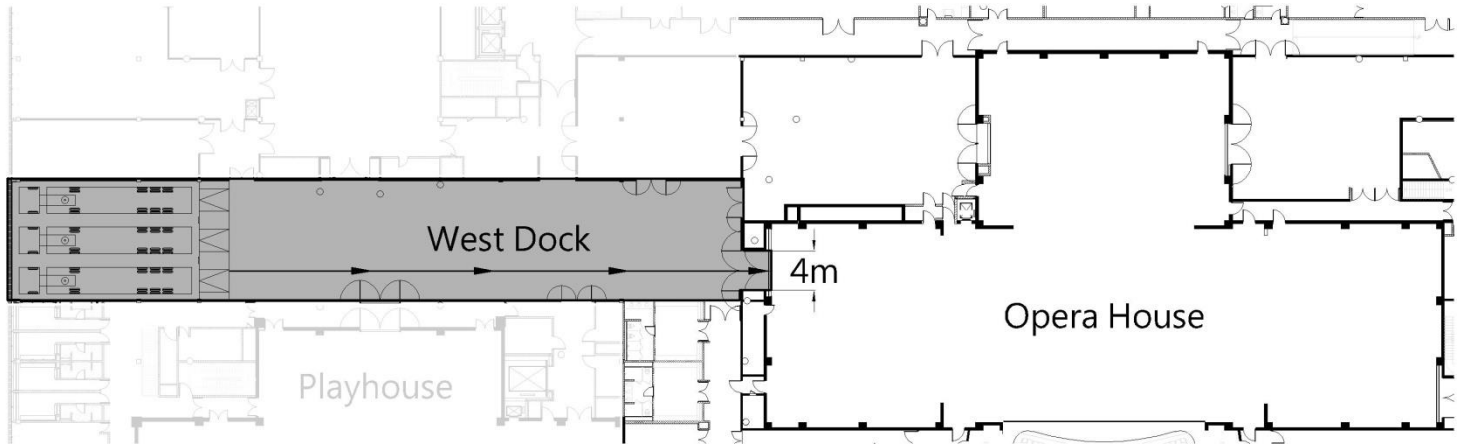


Figure 4.3- Loading Flow

4-4-4 Hydraulic Dock Leveler

Capacity: 22.6mt

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

Elevation: +/- 30.5cm

Quantity: 3

## 4-5 Other Facilities

### 4-5-1 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 (Length x Width x Height / m)	Notes
B313	Orchestra Studio	23.2×18.1×7.8	1. fixed auditorium< 84seats> 2. Grand Piano ,Chair , Ensemble stool 3. Wooden floor 4. Sound absorption curtain
B304	Chorus Rehearsal Room	17×11.2×8.8	1. Grand Piano ,Chair , Ensemble stool 2. Wooden floor 3. Sound absorption curtain
1171	Rehearsal Studio-01	13.1×21.5×11.7	1. Grand Piano 2. Wooden floor covered black color dance floor 3. Wall mount glassless mirrors x 1 side Opera House rehearsal room
1182	Rehearsal Studio-02	12.8×22.3×4	1. Wooden floor covered gray color dance floor 2. Sound absorption wall x 2 side 3. Wall mount glassless mirrors x 2 side
1184	Rehearsal Studio-03	12.8×22.3×4	1. Grand Piano 2. Wooden floor covered gray color dance floor 3. Sound absorption wall x 2 side 4. Wall mount glassless mirrors x 2 side
1186	Rehearsal Studio-04	12.8×22.3×4	1. Grand Piano 2. Wooden floor ,black color dance floor 3. Wall mount glassless mirrors x 2 side 4. Fixed Ballet barre on the single sided wall mirror x 2
		6.6×8.8 ×3	Rehearsal Studio-04 use only Green Room-01(With dressing room)
1192	Rehearsal Studio-05	12.8×22×4	1. Grand Piano 2. Wooden floor , black color dance floor 3. Wall mount glassless mirrors x 2 side 4. Fixed Ballet barre on the single sided wall mirror x 2
		6.6×8.8 ×3	Rehearsal Studio-05 use only Green Room-02(With dressing room)
B1111	Rehearsal Studio-06	8.5×9×2.7	1. Upright piano ,Chair , Music stand 2. Wooden floor 3. Sound absorption wall
B1112	Rehearsal Studio-07	6.3×5.2×2.7	1 Chair , Music stand 2. Wooden floor 3. Sound absorption wall
B1113	Rehearsal Studio-08	5.7×8.4×3.3	1. Chair , Music stand 2. Wooden floor 3. Sound absorption wall
B1114	Rehearsal Studio-09	5.7×5.6×3.3	1. Chair , Music stand 2. Wooden floor 3. Sound absorption wall
B1115	Rehearsal Studio-10	5.7×5.6×3.3	1. Chair , Music stand 2. Wooden floor 3. Sound absorption wall
B1116	Rehearsal Studio-11	5.7×5.6×3.3	1. Chair , Music stand 2. Wooden floor 3. Sound absorption wall

### 4-5-2 Carpentry Shop / Metal Shop / Costume Shop / Laundry Room

National Kaohsiung Center for the Arts is equipped with basic production facilities, include Carpentry Shop, Metal 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 (Length x Width x Height / m)	Notes
1002	Carpentry Shop	11.9×19.7×3	Basic wood crafts and electrical tools
1002A	Metal Shop	8.9×5.8×3	General welding facilities for repairs
1165	Costume Shop-01	5.9×10.2×3	Basic facilities for the maintenance of costume; Sewing machine, overlock machine and steam / iron equipment
1181	Costume Shop-02	5.8×11.8×3	
1163	Laundry Room-01	5.8×4.9×3	Washing machine, tumble dryers, sink and clothes folding table
B1019	Laundry Room-02	6×8.2×3	