



CARLSON FAMILY STAGE TECHNICAL & PRODUCTION SPECS

Last Updated Mar 24, 2020

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CARLSON FAMILY STAGE AT NORTHROP

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CONTACTS

NORTHROP

Director	Kari Schloner Director of Northrop 612-625-0796 kschlone@umn.edu
Production & Stage	Justin Burke Technical Director 612-626-8245 burke018@umn.edu
Audience Services	David Russell Audience Services Manager 612-301-1960 dwrussel@umn.edu
Marketing	Cari Hatcher Director of Marketing & Public Relations 612-625-6003 chatcher@umn.edu
Programming	Kristen Brogdon Director of Programming 612-626-8711 kbrogdon@umn.edu
Phone Email Web Mailing Address	612-625-6600 northrop@umn.edu northrop.umn.edu 84 Church Street SE Suite 90 Minneapolis, MN 55455
Social	Facebook, Twitter, Instagram, YouTube: @northropumn
Northrop Loading Dock Delivery Address	73 Pleasant Street SE Minneapolis, MN 55455

TICKET OFFICE

Ticketing	Holly Radis-McCluskey Director of U of M Tickets & Events 612-625-0509 radis001@umn.edu
Box Office Phone Fax Email	612-624-2345 612-625-4008 umntix@umn.edu

SURDYK'S CAFÉ

Catering	Eric Neseth Surdyk's Event Coordinator 612-331-3938 (office) eneseth@surdyks.com
Café, Concessions & Merchandise Sales	Dane Lund Surdyk's Café General Manager 612-624-5685 (office) dlund@surdyks.com
Website	surdykscatering.com/northrop

UNIVERSITY CONTACTS

First Aid	EMS 612-626-1312 umems@umn.edu dem.umn.edu/umems
Motorist Assistance Program (MAP)	612-626-7275
Campus Security Monitor Escort Service	612-624-WALK
University Parking and Transportation Services	612-626-7275 umn.edu/pts parking@umn.edu

SEATING

Carlson Family Stage at Northrop can seat a maximum total of 2,706 people.

Orchestra (G)	744 fixed (10 wheelchair) + 16 loose	760 seats
Orchestra Circle (1)	386 fixed (0 wheelchair) + 14 loose	400 seats
Presidents Circle (2)	357 fixed (0 possible wheelchair) + 46 loose	403 seats
Scholars Circle (3)	433 fixed (2 possible wheelchair*) + 46 loose	481 seats
Gallery Circle (4)	622 fixed (2 possible wheelchair*) + 28 loose	652 seats

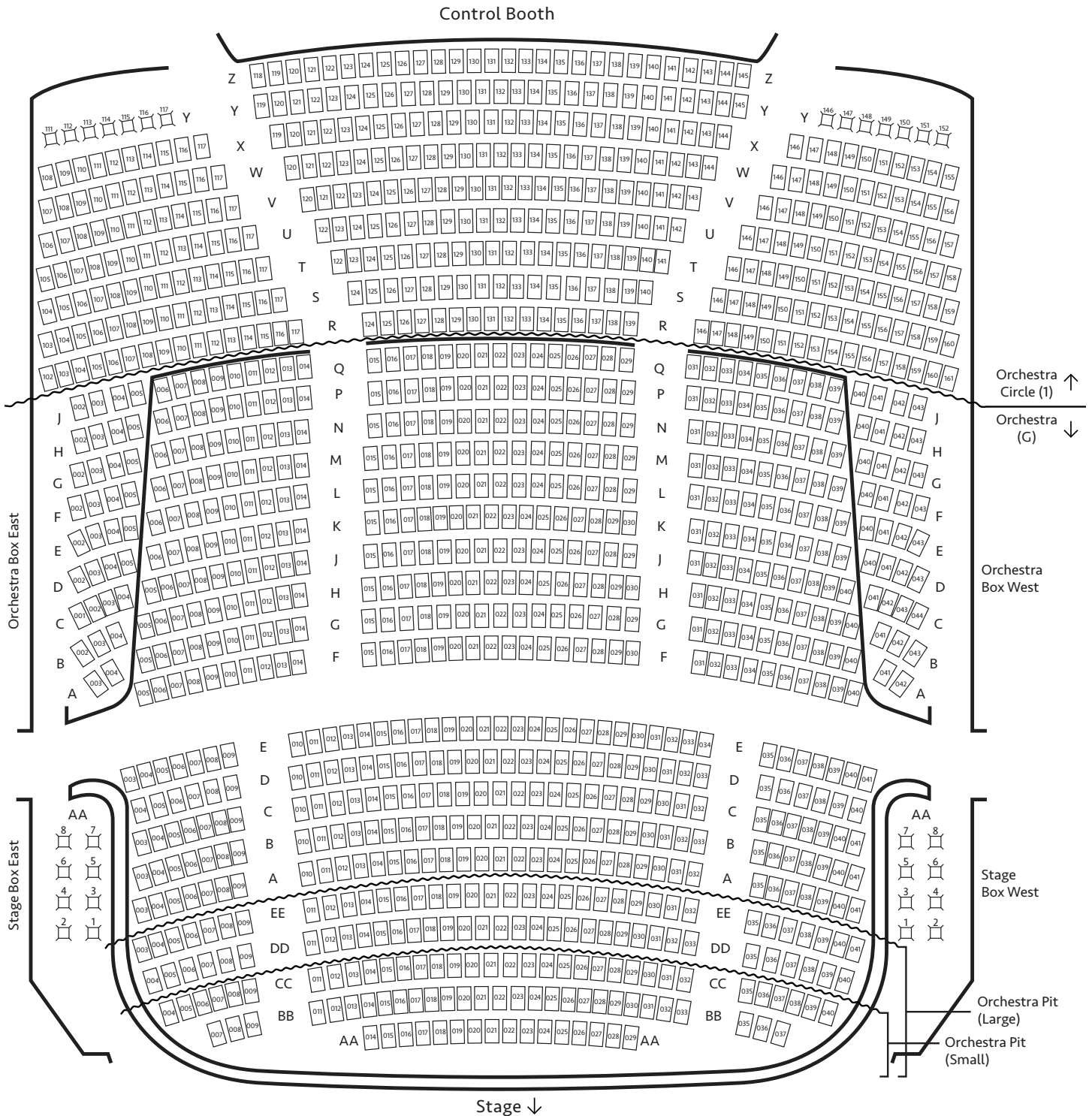
*Two wheelchair seats or two loose seats can be removed to accomodate one wheelchair.

The following features would require seats to be removed from the Orchestra Level:

Orchestra Pit (Large/Full)	Accommodates up to 68 musicians	150 seats
Orchestra Pit (Small)	Accommodates up to 36 musicians	79 seats
Mixing/Sound Position		30-40 seats

Mix Position seating will need to be removed before or during Load In labor calls. Approximate time to remove is 45 minutes with 4 stagehands.

ORCHESTRA (G) & ORCHESTRA CIRCLE (1)

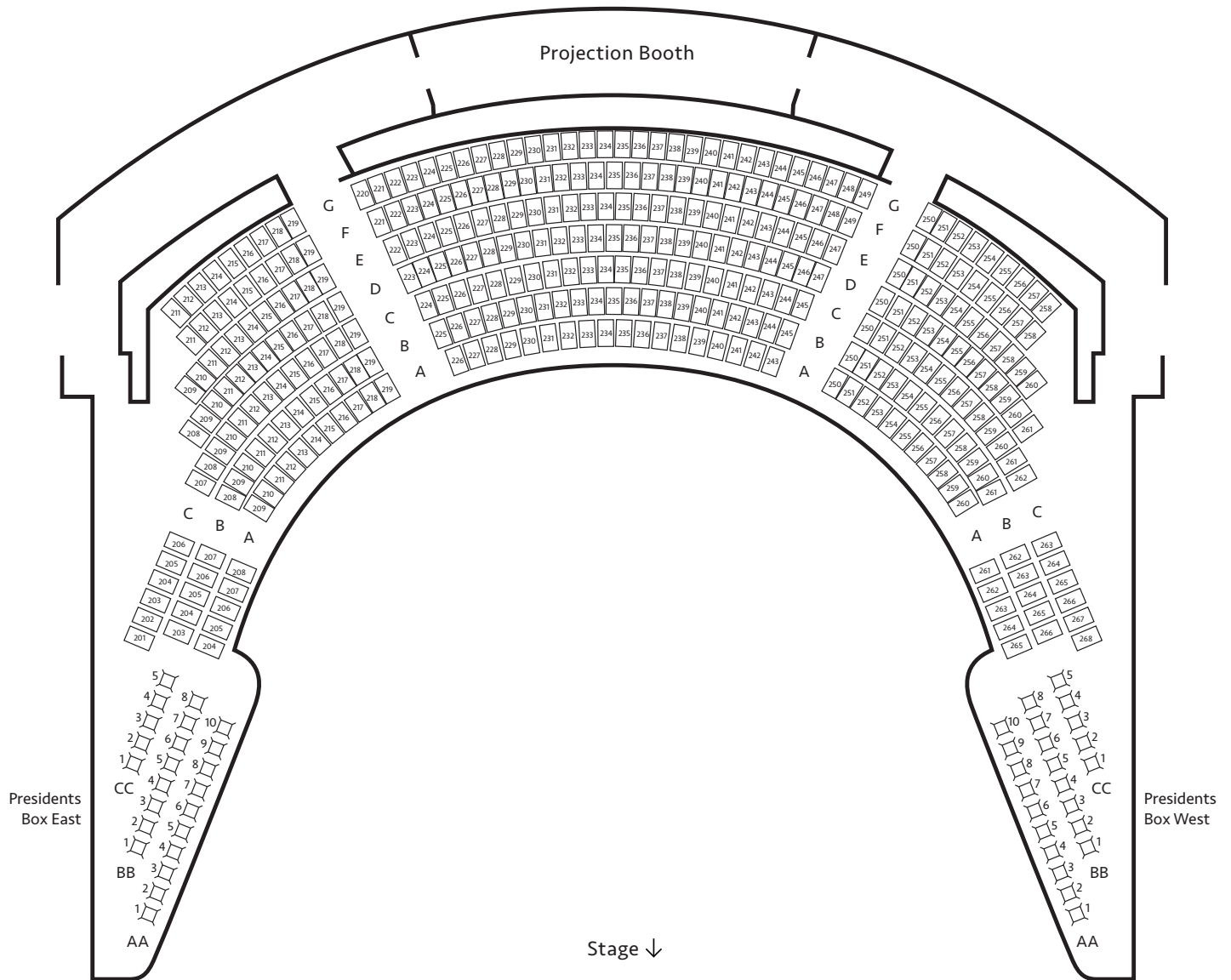


□ = Loose chair



Seats 004 and 040 of row CC have limited leg room.
Rows A and DD may have limited leg room depending
on the configuration of the pit for a performance.

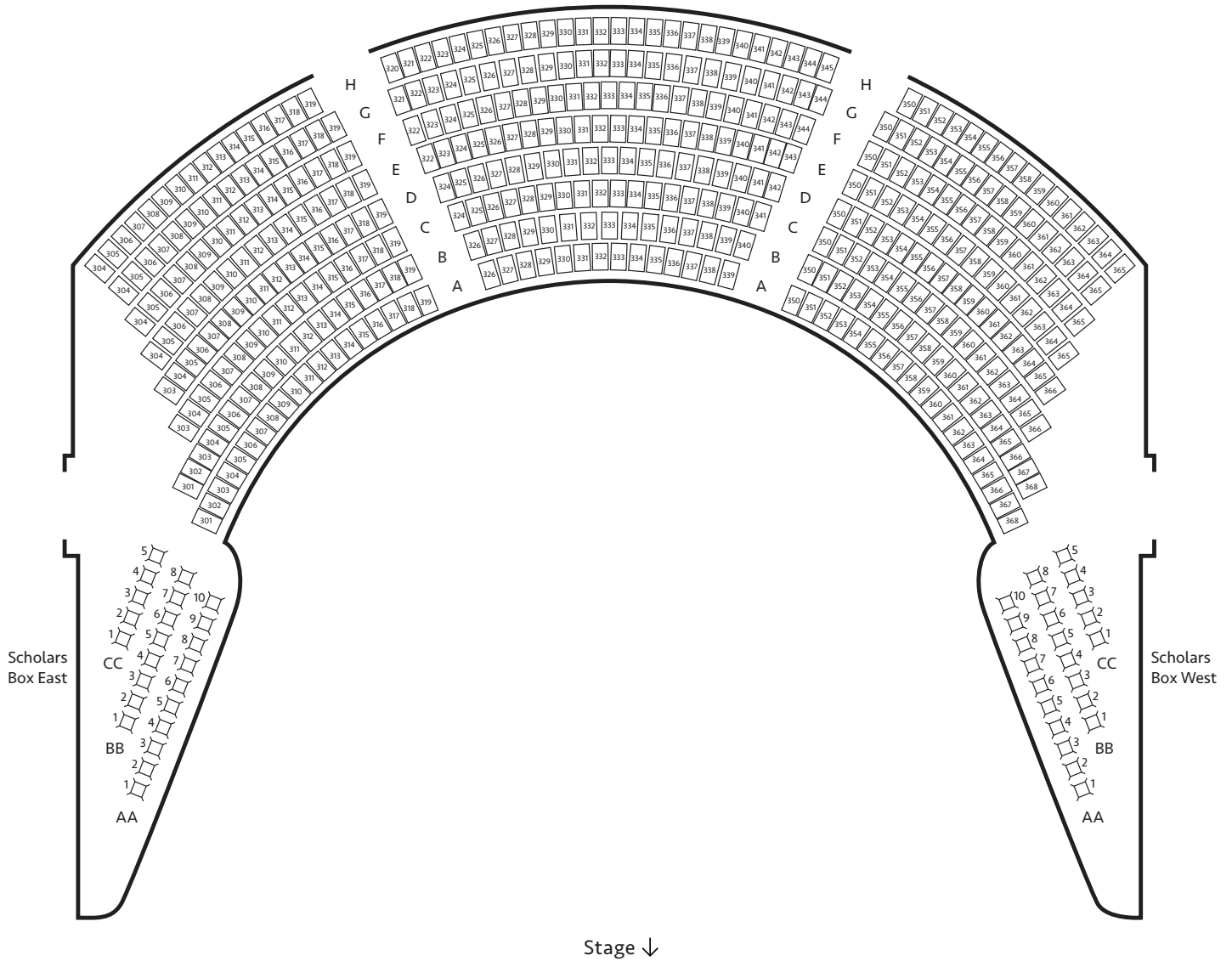
PRESIDENTS CIRCLE (2)



□ = Loose chair



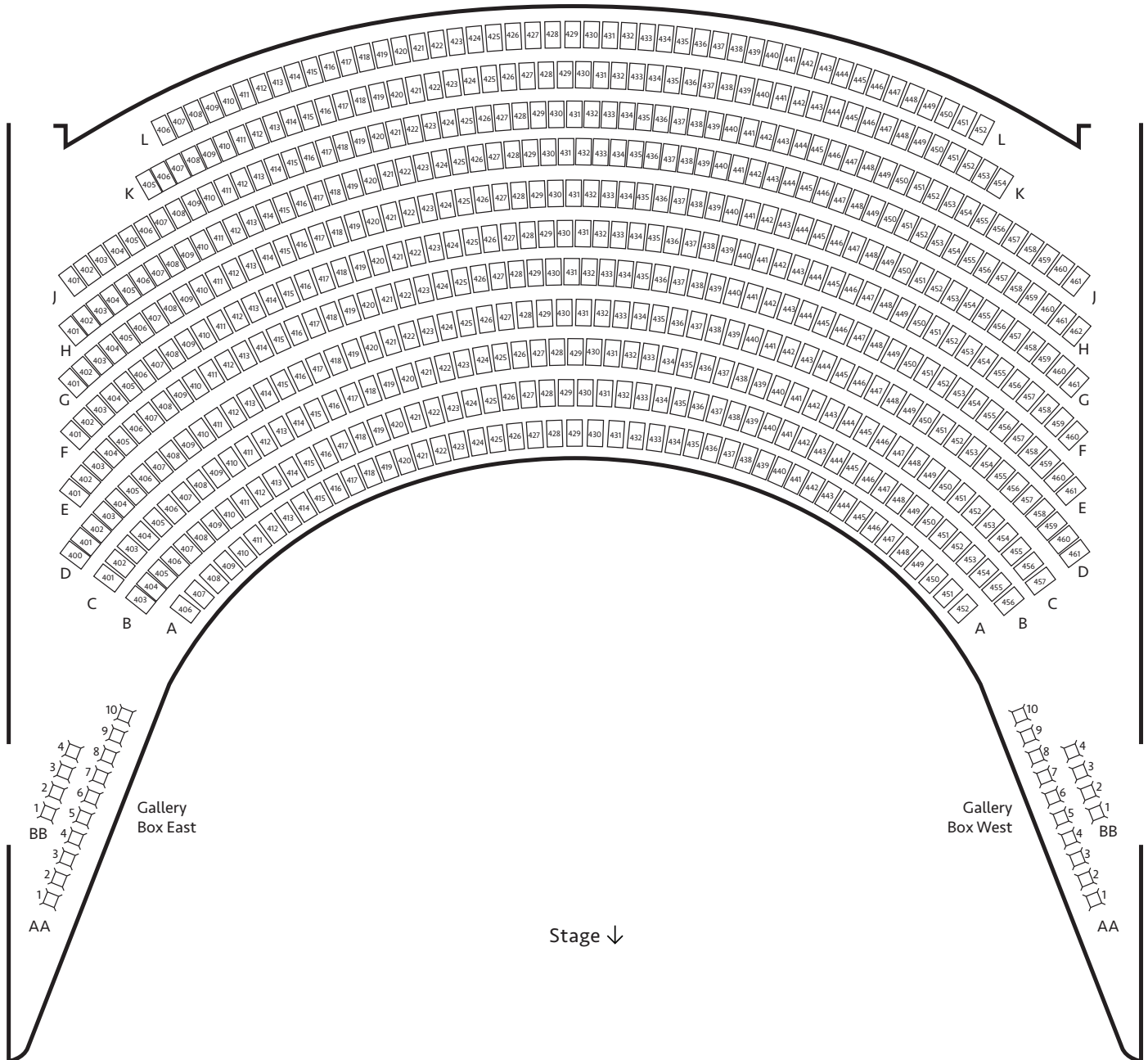
SCHOLARS CIRCLE (3)



□ = Loose chair



GALLERY CIRCLE (4)



□ = Loose chair

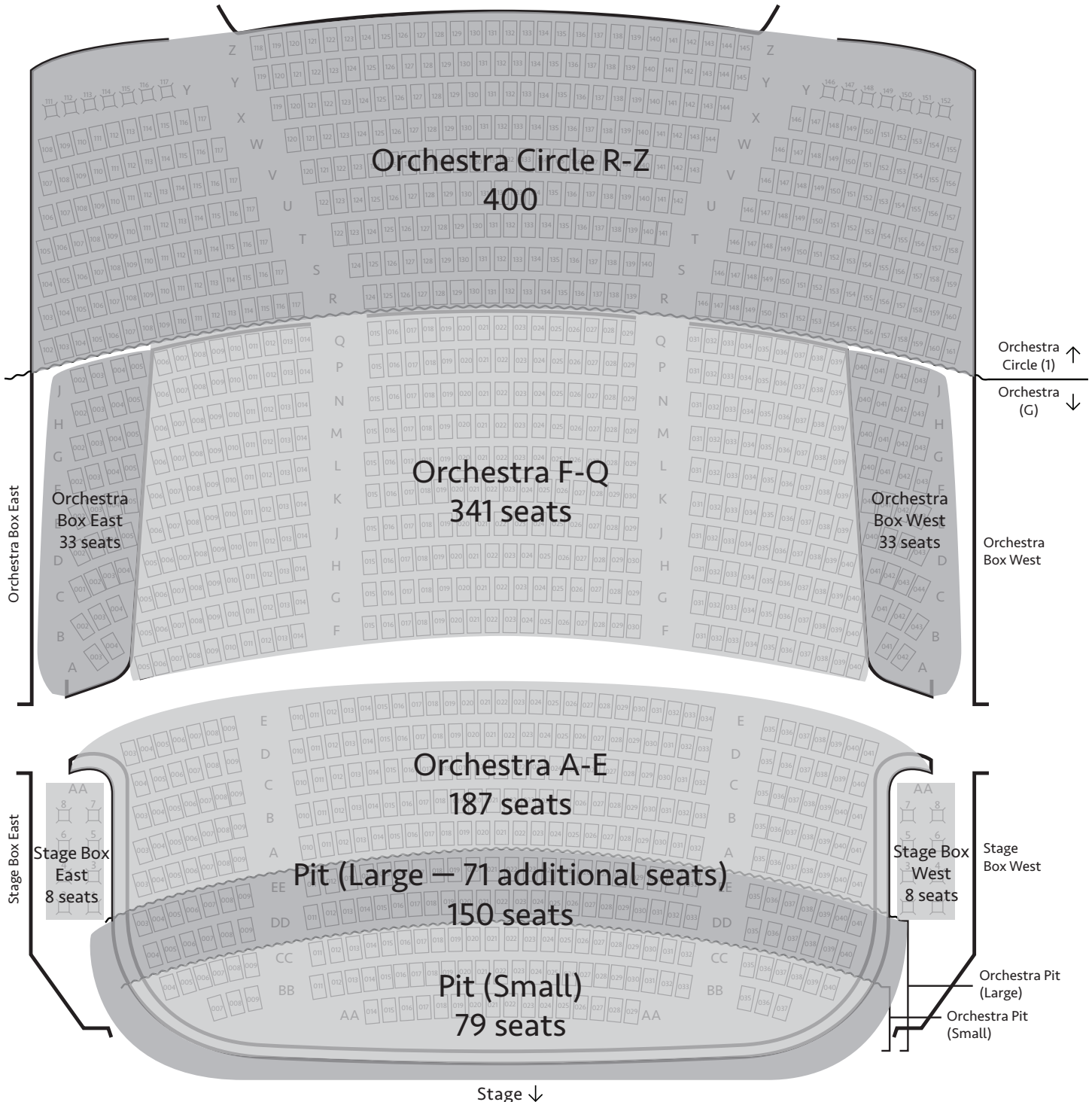
S
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N

Row L of Gallery Circle is best for patrons 5 foot 6 inches or taller for the best possible viewing experience. Seat bottoms in Row L are thicker to maintain sightlines.

ORCHESTRA (G) & ORCHESTRA CIRCLE (1)

Total Capacity: 1,160 seats

Control Booth

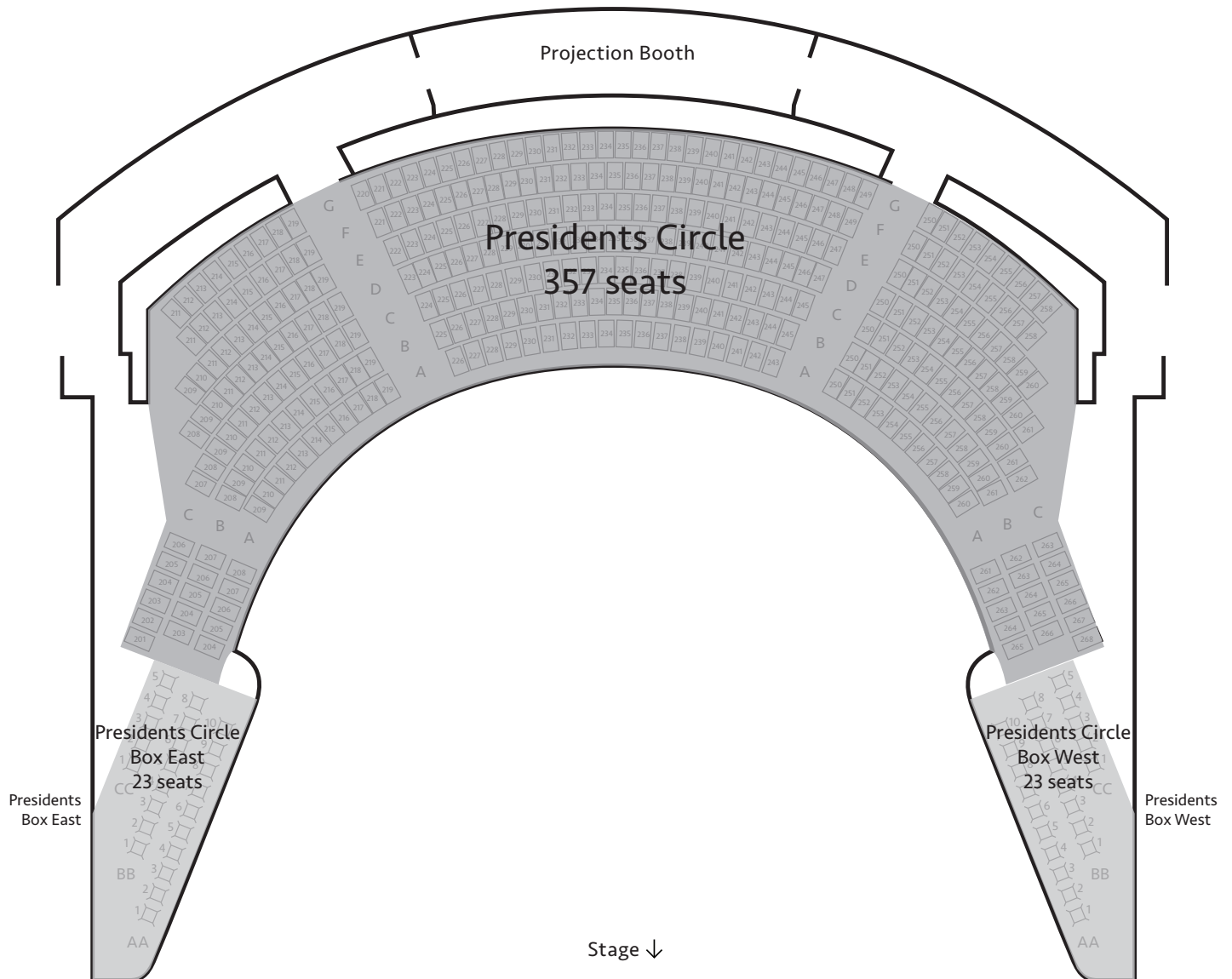


□ = Loose chair

S
E ⊕ W
N

PRESIDENTS CIRCLE (2)

Total Capacity: 403 seats

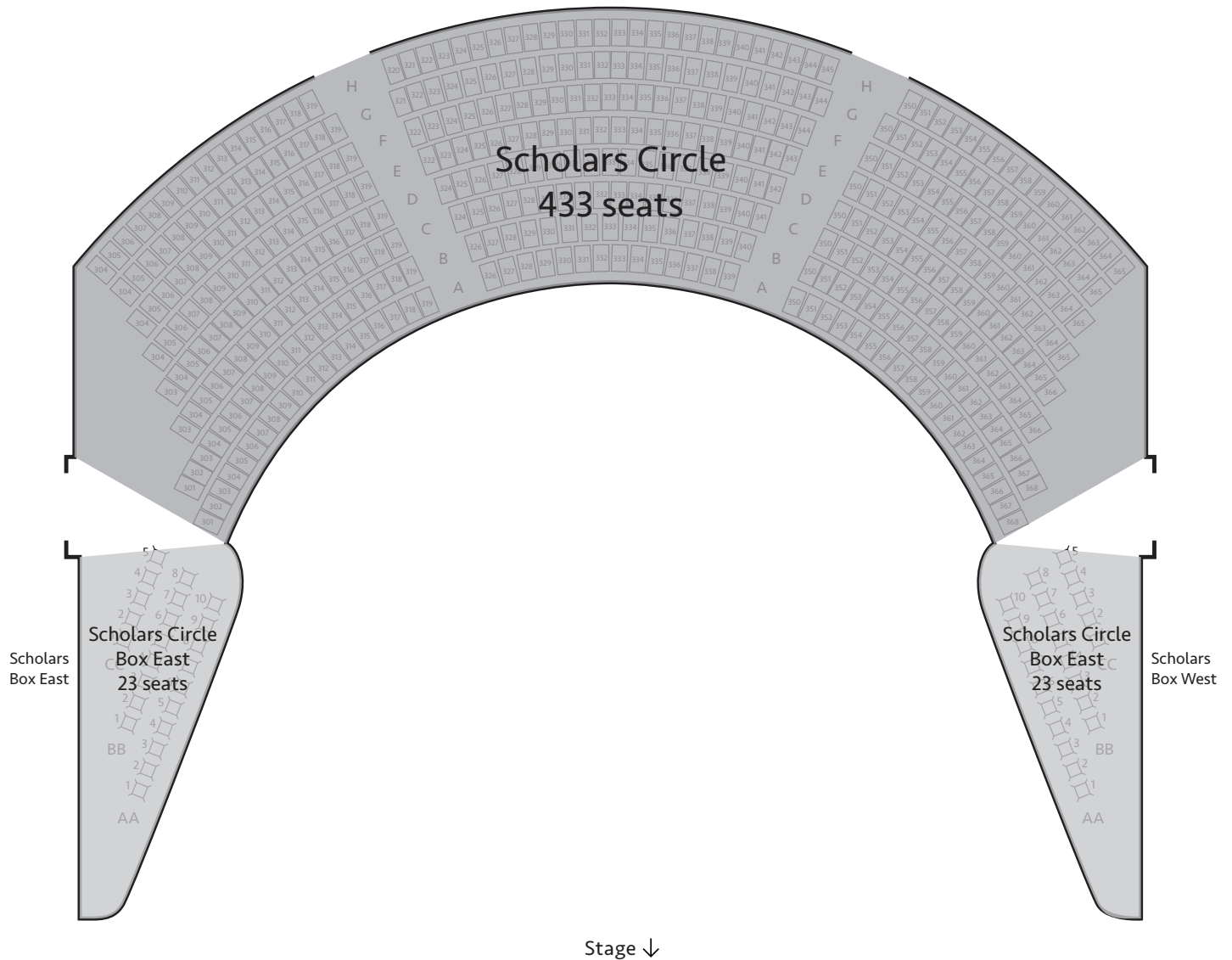


□ = Loose chair



SCHOLARS CIRCLE (3)

Total Capacity: 479 seats

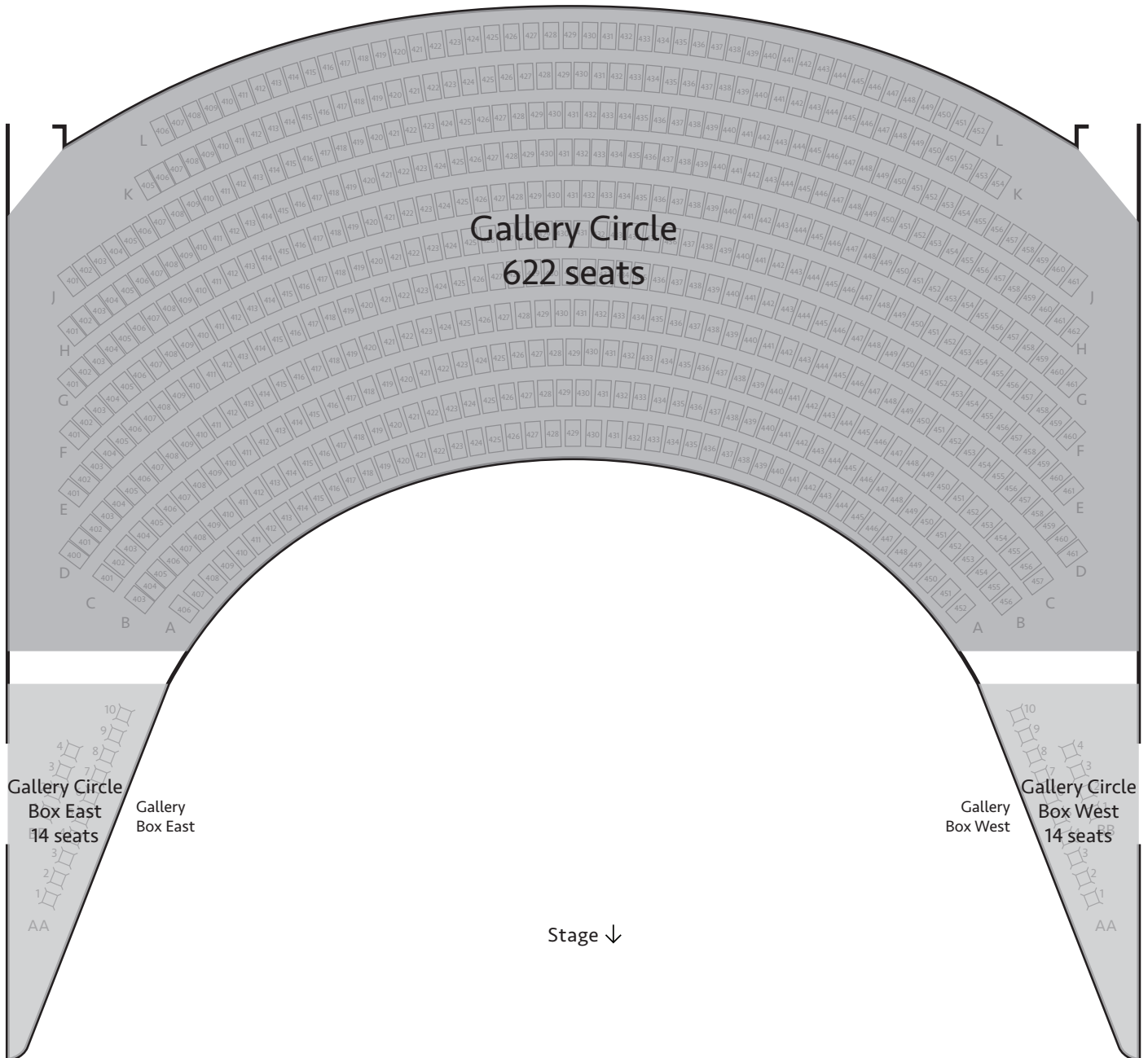


□ = Loose chair



GALLERY CIRCLE (4)

Total Capacity: 650 seats



□ = Loose chair



STAGE SPECIFICATIONS

STAGE & PROSCENIUM

Stage Depth (Plaster line to back wall)	39'6"	12.0 m
Additional Upstage Deadhang Space	17'3"	5.3 m
Stage Width (Loading door to locking rail)	97'	29.6 m
Proscenium Width	60'	18.3 m
Proscenium Height (Maximum)	43'5"	13.2 m
Proscenium Height (Minimum)	33'5"	10.2 m

ORCHESTRA PIT (Small)

Length	68'	20.7 m
Width on Center	16'2"	4.9 m
Width at Ends	10'11"	3.3 m
Pit Floor to Stage	7'9"	2.4 m
Square Footage	971'	296.0 m

ORCHESTRA PIT (Large)

Length	72'3"	22.0 m
Width on Center	22'8"	6.9 m
Width at Ends	17'8"	5.4 m
Pit Floor to Stage	7'9"	2.4 m
Square Footage	1,430'	435.9 m

LOADING DOCK

Truck Access	2 bays with levelers & seals at stage level (Nominal 40' travel distance to stage door, 90' to center of stage)
Stage Loading Door	10' (3.0 m) Width 20' (6.1 m) Height

BACKSTAGE SPECIFICATIONS

DANCE FLOOR

(for Stage and Rehearsal Room)

Harlequin Liberty Latchloc Sprung Floor System

Harlequin Reversible Marley Floor

PODIUMS

Large

41" h, 56" w, 24.5" d (104 cm h, 142 cm w, 62 cm d)

Small

45" h, 26.5" w, 21" d (114 cm h, 67 cm w, 53 cm d)

PIANOS

Essex Upright	1
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Steinway Grand Model D	1
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LAUNDRY

Washers	2
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Dryers	2
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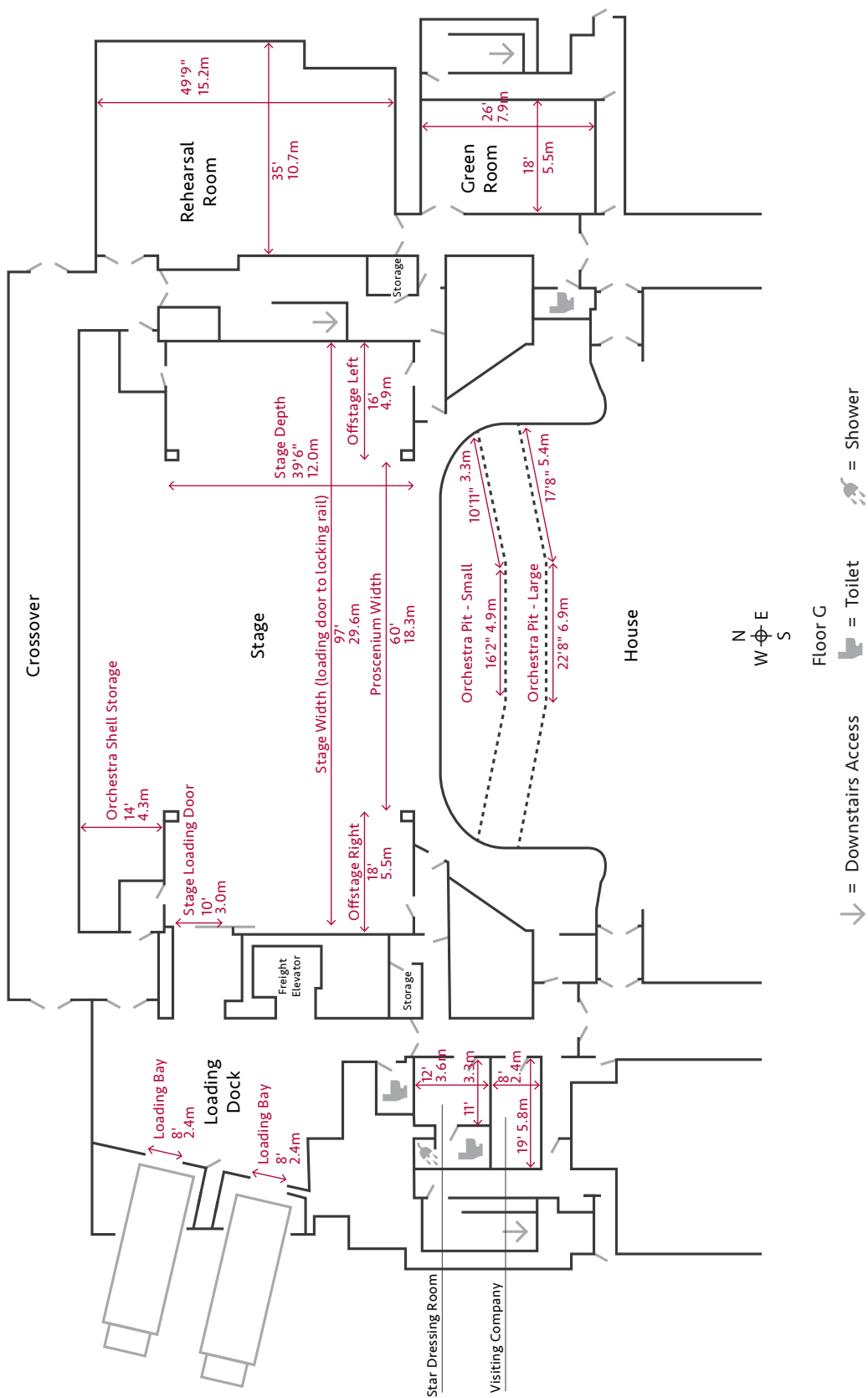
Garment Racks	12
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Steamers	2
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Irons	4
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Ironing Boards	4
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NORTHROP BACKSTAGE
GROUND LEVEL



BACKSTAGE ARTIST FACILITIES

GROUND LEVEL

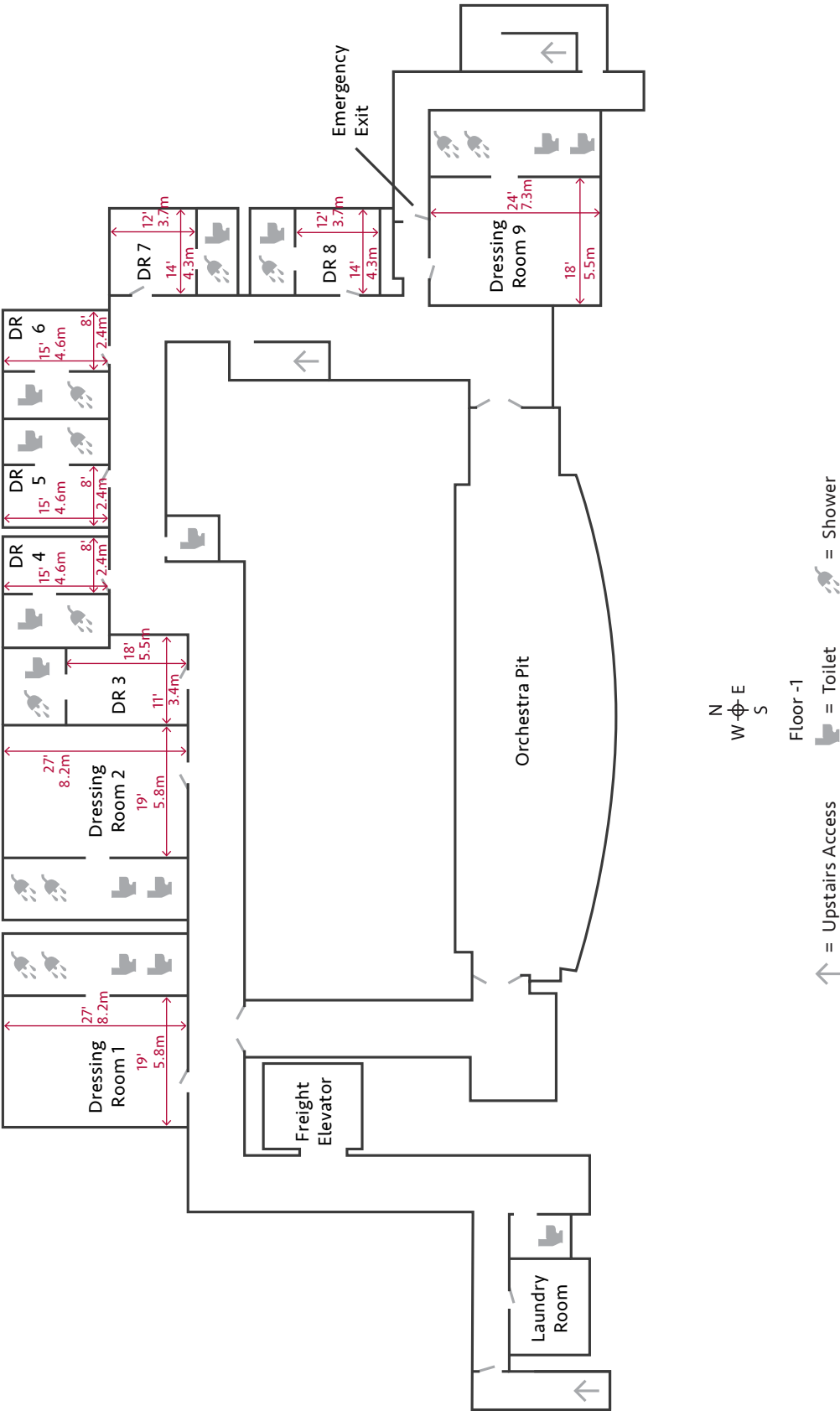
	Dimensions			
Rehearsal Room	49'9" x 35'	15.2 m x 10.7 m		
Green Room	26' x 18'	7.9 m x 5.5 m	Makeup Stations	Showers
Star Dressing Room	12' x 11'	3.7 m x 3.4 m	1	1

LOWER LEVEL

Dressing Rooms

1	27' x 19'	8.2 m x 5.8 m	18	2
2	27' x 19'	8.2 m x 5.8 m	19	2
3	18' x 11'	5.5 m x 3.4 m	1	1
4	15' x 8'	4.6 m x 2.4 m	4	1
5	15' x 8'	4.6 m x 2.4 m	4	1
6	15' x 8'	4.6 m x 2.4 m	4	1
7	14' x 12'	4.3 m x 3.7 m	2	1
8	14' x 12'	4.3 m x 3.7 m	2	1
9	24' x 18'	7.3 m x 5.5 m	18	2

NORTHROP BACKSTAGE LOWER LEVEL

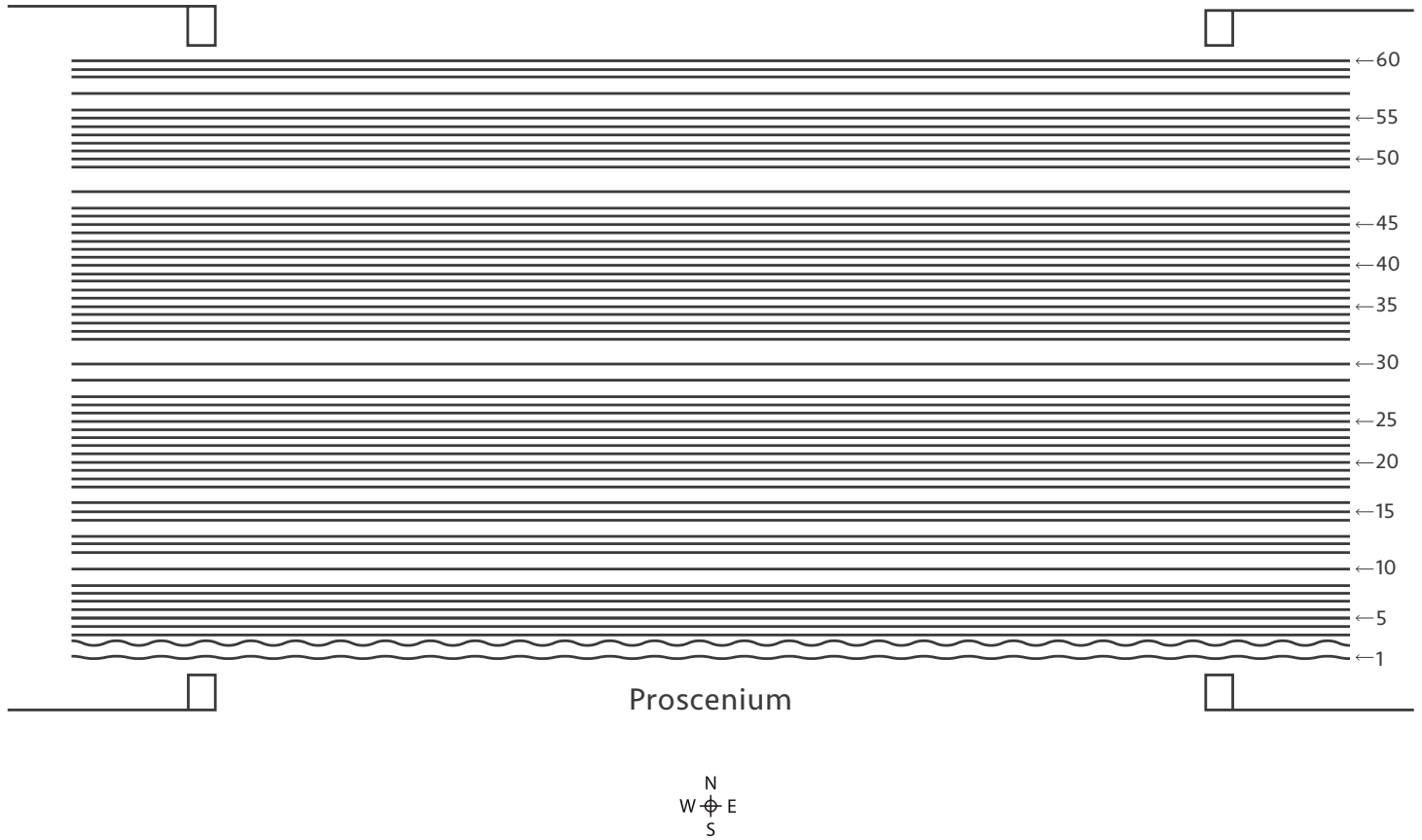


LINESET SCHEDULE

	40'	12.19 m	Back Wall		26	17'4"	5.28 m	
60	38'10"	11.83 m			25	16'10"	5.13 m	
59	38'4"	11.68 m			24	16'4"	4.97 m	
58	37'10"	11.63 m			23	15'10"	4.82 m	
57	36'10"	11.22 m			22	15'4"	4.67 m	
56	35'10"	10.92 m			21	14'10"	4.52 m	
55	35'4"	10.76 m			20	14'4"	4.36 m	
54	34'10"	10.61 m			19	13'10"	4.21 m	
53	34'4"	10.46 m			18	13'4"	4.06 m	
52	33'10"	10.31 m			17	12'10"	3.91 m	
51	33'4"	10.16 m			16	11'10"	3.60 m	
50	32'10"	10.00 m			15	11'4"	3.45 m	
49	32'4"	9.85 m			14	10'10"	3.30 m	
48	30'10"	9.39 m	Orch. Ceiling N/A		13	9'10"	2.99 m	
47	29'10"	9.09 m			12	9'4"	2.84 m	
46	29'4"	8.94 m			11	8'10"	2.69 m	
45	28'10"	8.78 m			10	7'10"	2.38 m	Orch. Ceiling N/A
44	28'4"	8.63 m			9	6'10"	2.08 m	
43	27'10"	8.48 m			8	6'4"	1.93 m	
42	27'4"	8.33 m			7	5'10"	1.77 m	
41	26'10"	8.17 m			6	5'4"	1.63 m	
40	26'4"	8.02 m			5	4'10"	1.47 m	
39	25'10"	7.87 m			4	4'4"	1.32 m	
38	25'4"	7.72 m			3	3'10"	1.16 m	1st G.P. Lineset (limited use)
37	24'10"	7.56 m			2	3'4"	1.01 m	Main Curtain
36	24'4"	7.41 m	Mid Stage Traveler N/A		1	2'4"	0.71 m	Teaser
35	23'10"	7.26 m						Fire Curtain
34	23'4"	7.11 m			0	0'	0 m	Plaster Line
33	22'10"	6.95 m						
32	22'4"	6.80 m	Projection screen (moveable)					
31	21'10"	6.65 m	Screen surround (moveable)					
30	20'4"	6.19 m						
29	19'4"	5.89 m	Orch. Ceiling N/A					
28	18'4"	5.58 m						
27	17'10"	5.43 m						

Proscenium Opening	60' (18.3 m)
High Trim	68'7" (20.9 m)
Arbor Cap	2,070 lbs (939 kg)
Pipe Length	78' (23.7 m)

LINESET SCHEDULE



SOFT GOODS

	QUANTITY	WIDTH x HEIGHT	
House Curtain (Maroon)	1 pair	40' x 33'2"	12.2 m x 10.1 m
Valance (Maroon)	1	78' x 26'2"	23.8 m x 8.0 m
Legs	5 pairs	20' x 30'	6.1 m x 9.1 m
Borders	6	78' x 12'	23.8 m x 3.7 m
Scrim (Black & White)	2	78' x 25'	23.8 m x 7.6 m
Mid-Stage Traveler	1 pair	78' x 24'5"	23.8 m x 7.4 m
Side Tabs (Stage Right)	4	12' x 20'	3.7 m x 6.1 m
Side Tabs (Stage Left)	4	12' x 30'	3.7 m x 9.1 m
Plastic Cyc	1	78' x 25'	23.8 m x 7.6 m
Fabric Cyc	1	78' x 25'	23.8 m x 7.6 m
Full Blackout	1	78' x 30'	23.8 m x 9.1 m
Split Blackout	1	78' x 30'	23.8 m x 9.1 m

RIGGING

Battens	58 (Ladder battens)	
Batten Length	78'	23.77 m
In Trim	3'10"	1.17 m
Out Trim	68'7"	20.90 m
Batten Locations	75 (17 obstructed/not installed)	
Clearance between Battens	6"	0.15 m
Lineset Live Capacity	2,070 lbs	938.94 kg
Grid Height (From Stage)	71'	21.64 m

Rear stage allows for dead hang rigging from 6 rigging beams 10' (3.05 m) on center.
Rear stage rigging height is 32'(9.75 m) and depth of 14' (4.3 m).

PROSCENIUM ARCH

There are 25 rigging points, each 35-38.5 inches (88.9-97.8 cm) apart.

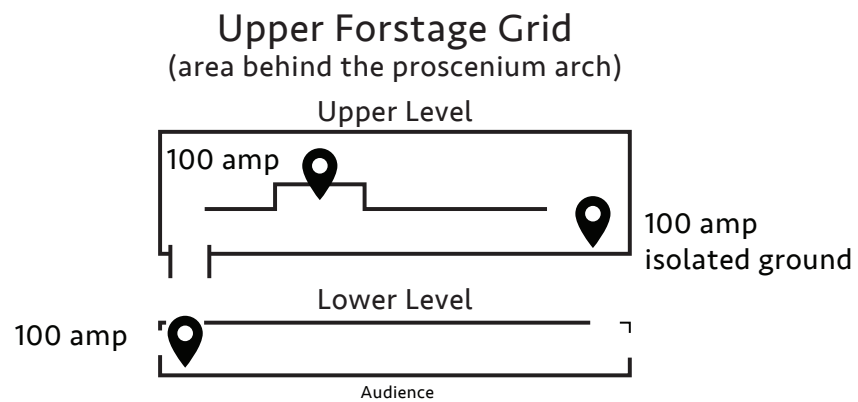
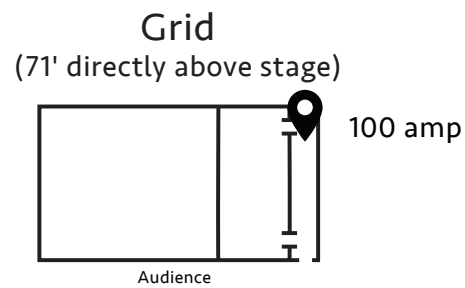
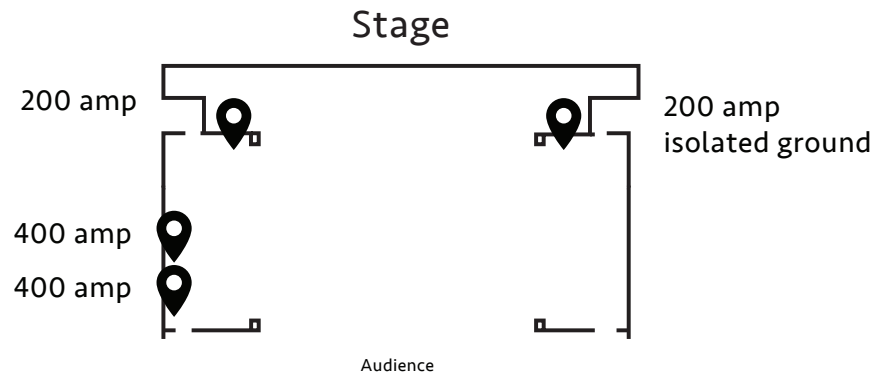


Photo by Patrick O'Leary

DISCONNECTS

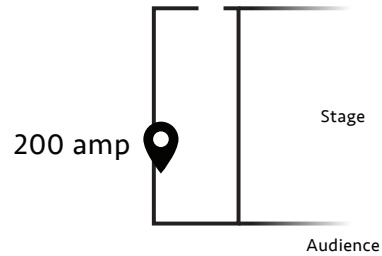
Upstage Left (isolated ground)	200 amp 208 volt 3 phase
Upstage Right	200 amp 208 volt 3 phase
Downstage Right	400 amp 208 volt 3 phase
Downstage Right	400 amp 208 volt 3 phase
Stage Left Gallery	200 amp 208 volt 3 phase
Rehearsal Room	200 amp 208 volt 3 phase
Loading Dock (shore power isolated ground)	100 amp 208 volt 3 phase
Loading Dock (shore power isolated ground)	100 amp 208 volt 3 phase
Upper Forestage Grid (isolated ground)	100 amp 208 volt 3 phase
Upper Forestage Grid	100 amp 208 volt 3 phase
Grid	100 amp 208 volt 3 phase

DISCONNECT LOCATIONS

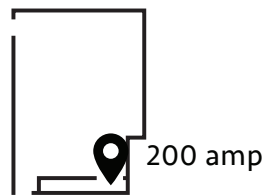


DISCONNECT LOCATIONS

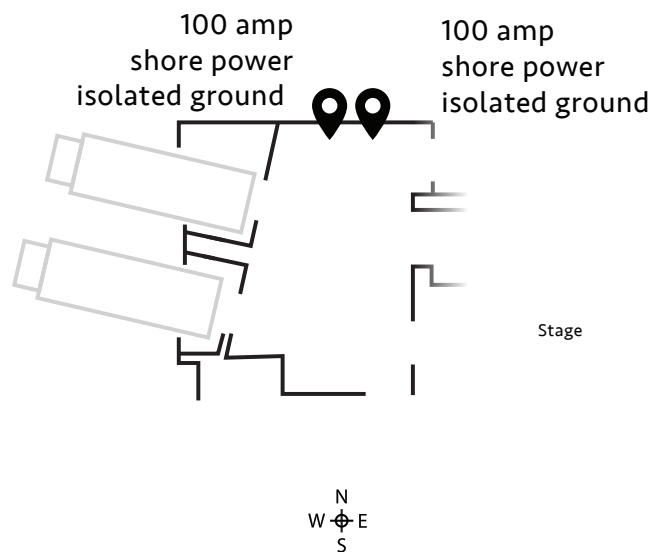
Stage Right Gallery
(above stage right)



Rehearsal Room



Loading Dock



LIGHTING

CONSOLE

ETC Eos Ti – 4000 Channel
(Capable of Mid-House Tech Table)

CONTROL/DMX

ETC Net3
12 – Two Port Gateways (DMX in or out)
In-House Power on Universes 1 and 2

DIMMERS

(ETC Sensor)

Type	Quantity
2.4k Performance	506
6.0k Performance	16
120v Non-Dim	48
208v Non-Dim	48

LIGHTING INVENTORY

TYPE QUANTITY

Some additional Source Four barrels available upon request.

Source Four 5° 750 Watt 36

Source Four 10° 750 Watt 36

Source Four 14° 750 Watt 6

Source Four 19° 750 Watt 84

Source Four 26° 750 Watt 92

Source Four 36° 750 Watt 82

Source Four 50° 750 Watt 27

Source Four PAR 575 Watt 8

Birdies 12

Cyc Lights, 1 cell 16
(Focusing, 1000 or 1500 watts)

Cyc Lights, 3 cell 14
(Aurora, 1000 watts per cell)

Ground Row, 3 cell 12
(Aurora, 1000 watts per cell)

8" Selecon Fresnel 2KW 42

PAR 64 1k 80
(75 lamps each of VNSP, NSP, MFL, and WFL)

MAC Encore Performance, CLD 8
(Hung on Mid Balcony Rail)

Elation Fuze Profile 2

Followspots 4
(3K Lycian)

ACCESSORIES

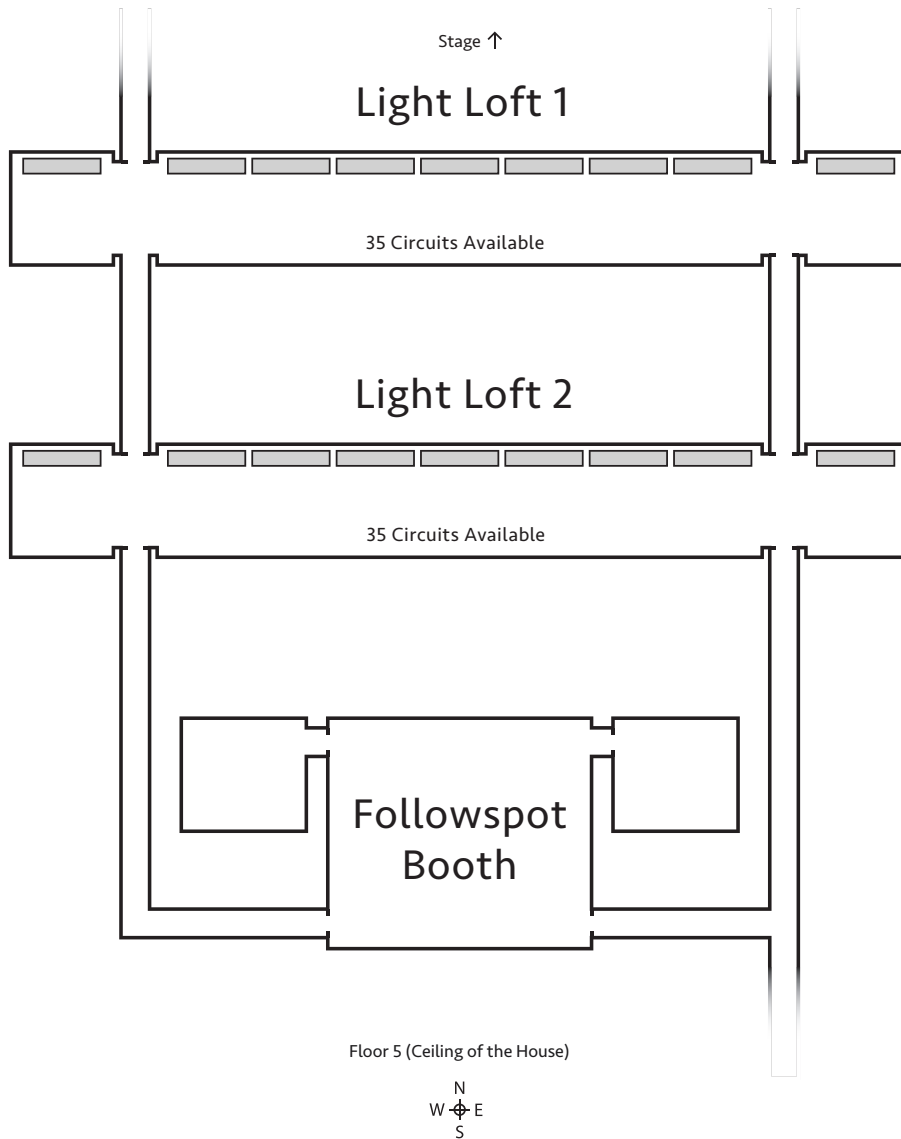
Top Hats, half hats, barn doors, drop-in irises, and donuts available upon request.

BOOMS

10 - 10ft threaded schedule 40 pipe with base

10 - 20ft threaded schedule 40 pipe with base and top pick

STAGE PIN CONNECTIONS



PRESIDENTS CIRCLE BALCONY (2)

18 circuits available

SCHOLARS CIRCLE BALCONY (3)

18 circuits available

GALLERY CIRCLE BALCONY (4)

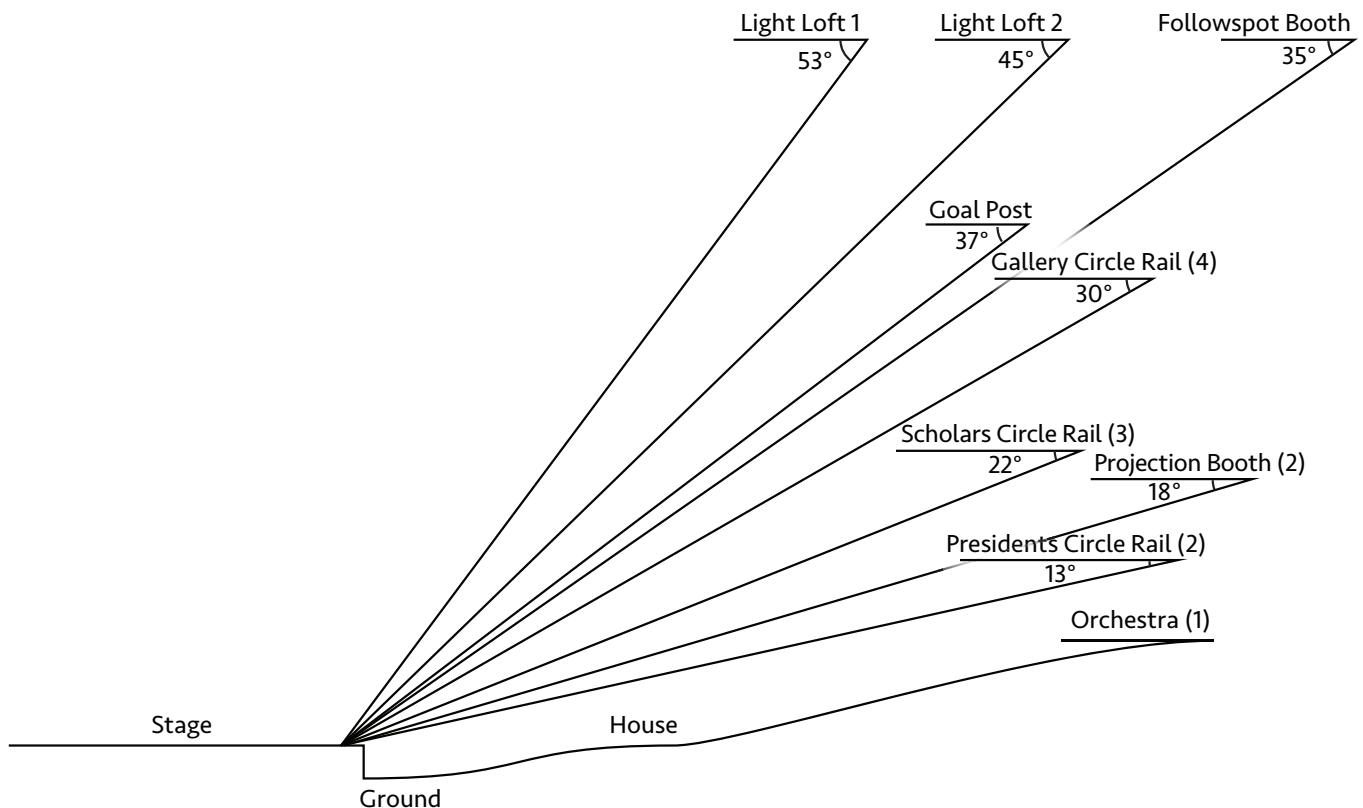
18 circuits available

12 circuits per Goal Post

LIGHTING ANGLES & DISTANCE TO STAGE

DISTANCE TO STAGE

Light Loft 1	98'	29.9 m
Light Loft 2	113'	34.4 m
Spot Booth	138'	42.0 m
Goal Post (4)	82'	25.0 m
Gallery Circle Rail (4)	104'	31.7 m
Scholars Circle Rail (3)	89'	27.1 m
Presidents Circle Rail (2)	84'	25.6 m
Projection Booth (2)	107'	32.61 m



SOUND

FRONT OF HOUSE SOUND CONSOLE

Digico SD9

LOUDSPEAKER SYSTEM

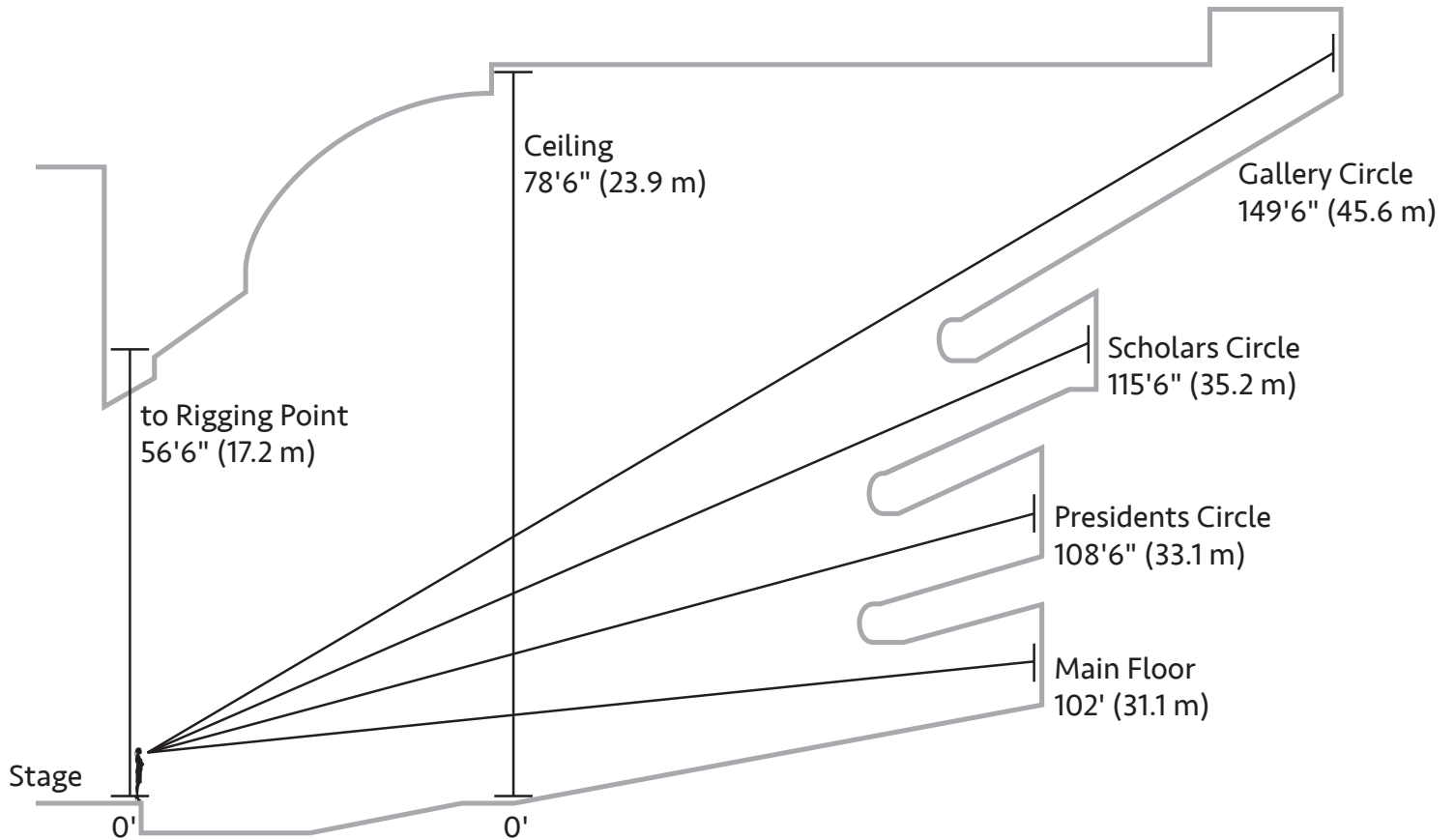
Type	Quantity
D&B Audiotechnik Vi8	20 (10 per side)
D&B Audiotechnik Vi12	4 (2 per side)
D&B Audiotechnik V Subs	8 (4 per side, flown)
D&B SL-GSUB	4 (2 per side)
D&B Yi12 (Center Array)	8
JBL Vertec 4886 (Balcony L/R/C)	15
Meyer UPQ-2P (Side fill)	4
D&B Audiotechnik E5 (main floor front fill)	8

AMPLIFIERS, PROCESSING, CONTROL

Type	Quantity
D&B Audiotechnik D20	9
D&B Audiotechnik D80	4
Clear Com System	

SOUND

THROW DISTANCES



VIDEO

PROJECTION

Barco HDX-W20 Flex 20,000 Lumen WUXGA DLP Projector
Barco TLD+ (1.2-1.6: 1), TLD+ (2.8-4.5: 1), and TLD+ (4.5-7.5: 1) Zoom Lenses
The Screen Works 12' x 21.25' Truss Frame Front or Rear Projection

CONTROL

Barco PDS-902 3G Presentation Switcher/Scaler

CAMERA, RECORDER, SIGNAL ROUTING

Sony BRCH700 HD 3CCDs P/T/Z Camera (FOH Position)
Sony RMBR300 Remote Control Unit
Sound Devices PIX270i Production Video/Audio Recorder
4x Decimator MD-HX, 1x Decimator MD-Cross Converters
BNC/HD-SDI, CAT5, and LC/Opticom Fiber connectivity in patch panels throughout the venue

PRESENTATION CONTROL

2x Macbook Pro Laptops, Keynote, and QLab 4
Perfect Cue Micro Slide Advance Remote
2x USB-C and 2x Thunderbolt/Mini-display HDMI Display Adapters

HOUSE FEATURES

STAGE & PROSCENIUM

Stage Depth (plaster line to back wall)	39'6"	12.0 m
Upstage Extension Depth	17'3"	5.3 m

HOUSE MIX POSITION

Depth	9'6"	2.9 m
Width	18'10"	5.7 m
Distance to Proscenium	68'	20.7 m

Cable Pass to control booth only

CONTROL BOOTH

Depth	9'7"	2.9 m
Width	37'	11.2 m
Height	9'	2.7 m
Throw Distance	105'	32.0 m

PROJECTION BOOTH

Depth	6'10"	2.1 m
Width	31'	9.4 m
Height	9'3"	2.8 m
Throw Distance	110'	33.5 m

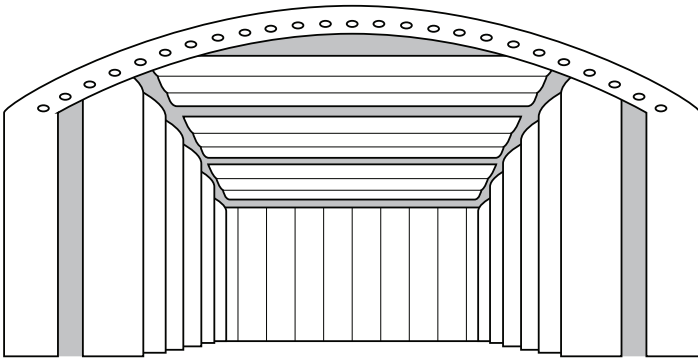
FOLLOW SPOT BOOTH

Depth	11'	3.3 m
Width	25' (7.6 m) window, 35' (10.7 m) room	
Height	8'11"	2.7 m
Throw Distance	140'	42.7 m
Follow Spots	4	

ORCHESTRA SHELL

Tower Count	10	
Tower Depth	5'	1.5 m
Tower Width (open)	12'4"	3.8 m
Tower Width (closed)	6'8"	2.0 m
Tower Height	25'9" to 43'6" (7.8 m x 13.3 m)	
Storage	Upstage Left & Upstage Right	
Orchestra Ceiling Count	3	
Orchestra Ceiling Depth	10'10"	3.3 m
Orchestra Ceiling Length	41'6" to 58'1" (12.6 m x 17.7 m)	

Large



Small

