



Adrienne Arsht Center

John S. and James L. Knight Concert Hall Technical Specifications



Courtesy of Arsht Center

Address & Telephone Information

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Miami, FL 33132

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Production Department

Director of Production	Christy Havard	914-419-9646 chavard@arshtcenter.org
Production Manager	Kristen Pieski	330-524-6683 kpieski@arshtcenter.org

House Crew

Head Carpenter	Fred Schwendel	786-468-2411 fshwendel@arshtcenter.org
Head Electrician	Chad Eaton	786-575-9829 ceaton@arshtcenter.org
Head Audio	Travis Bell	954-540-7790 Tbell@arshtcenter.org

John S. and James L. Knight Concert Hall

The John S. and James L. Knight Concert Hall (KCH) may be acoustician Russell Johnson's most complete vision, hosting a variable acoustic system including a $\frac{3}{4}$ round reverb chamber and an adjustable spiral shaped canopy. The KCH is closed off from the outer reverb chamber by 84 large doors and a system of drapes which can be adjusted to control the dynamics of the room. This design, along with isolation channels throughout the building, ensures the hall is completely removed from ambient sound and vibration. The KCH is acoustically adaptable to any kind of performance, from a small chamber ensemble to a full orchestra, or from spoken word to jazz.

The stage is in the shape of a shallow half circle with a mean radius of 44'. There are two lifts. The inner, the piano lift, is an 18' wide by 9' deep ellipse evenly inset between the stage and the outer pit. The area of the outer stage extension measures 63'10" wide by 8'1" deep at center and increases to 13' deep off stage. When lowered to orchestra pit position, the area is 63'10" wide by 27' deep.

Suspended above the stage is an acoustical canopy in three units. Each section moves independently to further tune the hall. The preset positions are designed for the specific nature of the performance. The canopy also houses 93 moving lighting instruments which comprise most of the hall's concert lighting.

**** Please reference:** [Concert Hall Stage With Dimensions](#)

Labor

The Center holds a collective bargaining agreement with the International Alliance of Theatrical Stage Employees (I.A.T.S.E). KCH Department Heads (3) and any additional stagehands called to work in the theater are members of I.A.T.S.E. Local 500. House equipment, including but not limited to personnel lifts, lighting consoles, sound consoles, stage lifts, and canopies, will be operated by an Arsht Center Department Head or a stagehand designated by the venue Steward.

Fire Safety

City of Miami Fire

City of Miami Fire Rescue Inspectors are contracted for any performance or event that uses open flame, smoke, haze or pyrotechnic effects. **Fire Watch requests should be provided as part of the advance, and should be submitted to Production *no later than 2 weeks before the date of the event.***

Seating

The Knight Concert Hall has a seating capacity of 2,166 distributed among an Orchestra level and three tiers, including 200 choral seats up stage that may be used for seating.

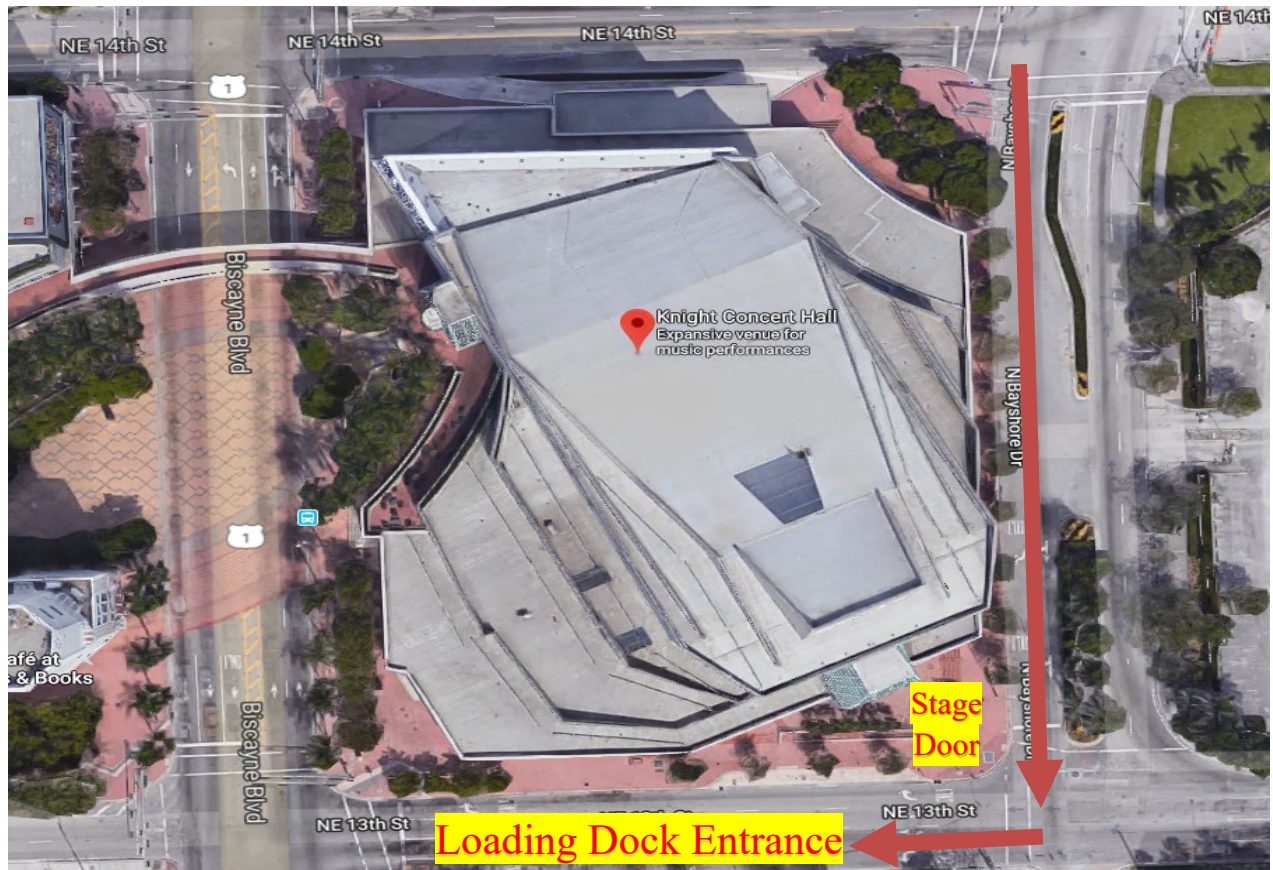
Orchestra Pit	95
Orchestra Main	467
Orchestra Circle	432
Box Tier	100
Second Tier	334
Third Tier	489
Choral Risers	128
<u>Choral Wagons</u>	<u>72</u>
Grand Total	2167

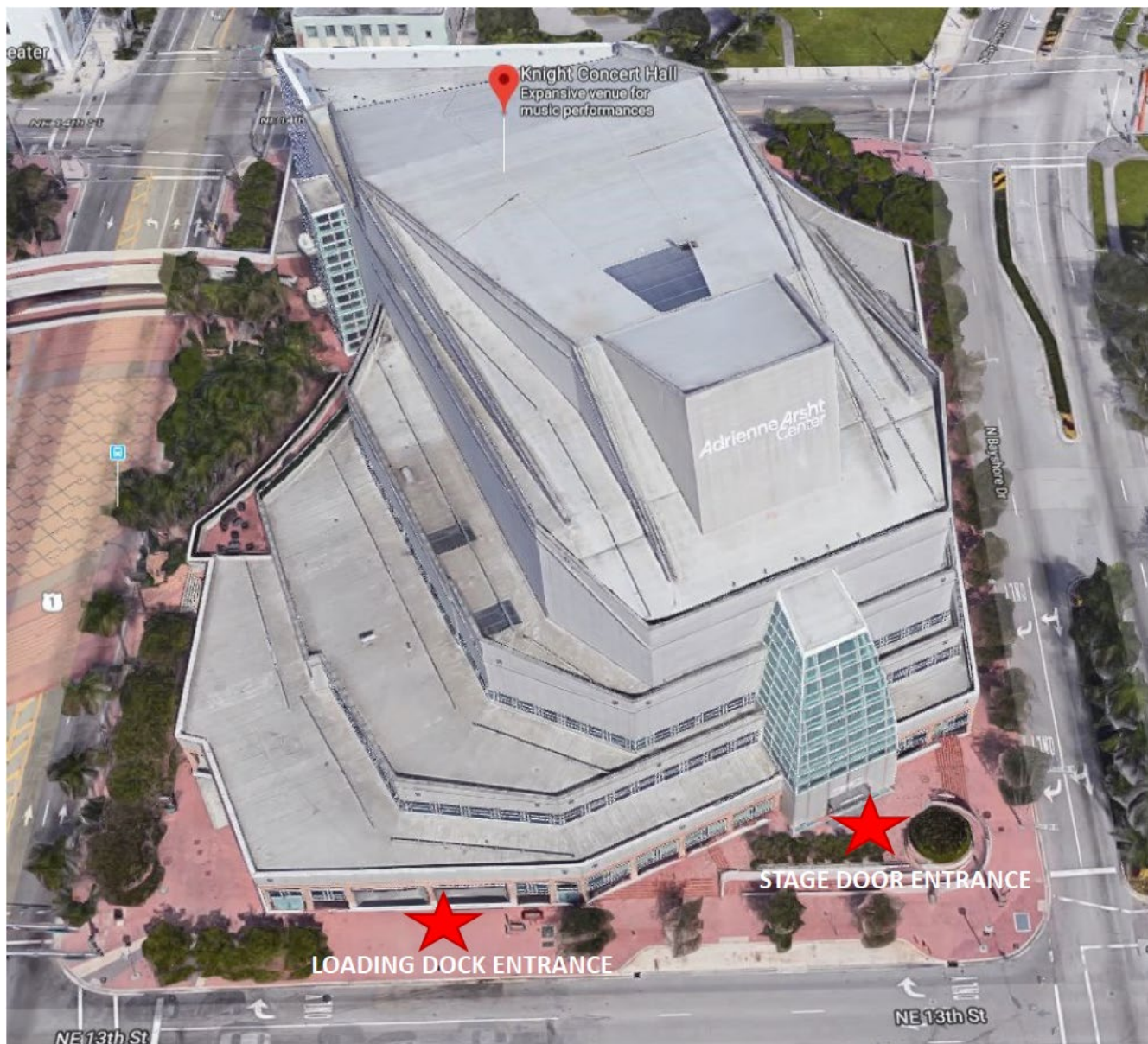
Loading Dock

The loading dock is located on Northeast 13th street between Biscayne Blvd. and North Bayshore Drive. The dock has three bays and can accommodate two full-size 53' trailers (cabs do not fit inside the gate). The full

area of the dock is sheltered from the weather. There is a direct push from each bay onto the stage. Backstage head clearance is 6' 9". All props/set pieces must clear 6' 9" standing or laying.

[KCH 53' Truck Parking Directions](#)





The Stage Door is located at the intersection of North Bayshore Dr. and Northeast 13th Street. For safety and security of guests and staff, anyone working or visiting the Knight Concert Hall is required to check in with Security at this entrance, without exception. Those not having proper identification and authorization will be denied entry and asked to leave.

Swanee and Paul DiMare Stage

The KCH stage is symmetrical about the centerline.

Dimensions

Stage depth:	44' -6"
Stage width:	79'
Piano Lift:	18' wide x 9' deep (elliptical)
Pit size large configuration	63'10" wide x 27' deep
DCS to Follow Spot Booth:	117'
DCS to Projection Booth:	100'
DCS to Sound and Light Booth	104'4"
DCS to FOH lighting cove at center	97'10"
DCS to FOH lighting cove near	88'10"
Stage elevation from Orchestra floor	3'6"
House mix positions to stage:	66'7"
Backstage minimum clearance	6'9"

The Knight Concert Hall stage has two staging elements that can be configured to provide the best use of space and acoustic reinforcement:

[KCH Orchestra Pallet Layout](#) which can be deployed to create a multi-tiered playing space, adjustable to a variety of configurations according to the needs of the orchestra.

[KCH Pallet & Choral Riser Info](#). Positioned along the back curvature of the stage to create a more intimate playing area. Both architectural elements are time and labor intensive to reconfigure.

Any changes to the positioning or configuration of these elements must be discussed ahead of time and taken into consideration in both the production schedule and budget.

Additional Scenery:

6 [Wooden Leg Panels](#)

- (2) 12' x 46.6"
- (4) 9'10.5" x 46.5"

Overhead Canopy

Due to the weight limitations of the canopy, there is a very limited amount of overhead rigging that can be done. **Any rigged elements must be discussed ahead of time, and weight calculations are done prior to hanging.**

Electrical Information

Show Power Distribution

Loading Dock	1 - 400A, 1 - 200A and 1 - 100A 5-wire disconnects
Stage Left	1 - 60A isolated for sound, 5-wire disconnect
Upstage Left	1 - 100A, 5-wire disconnect
Back wall	1 - 400A, 5-wire disconnect
Stage Right	1 - 100A, 5-wire disconnect
Basement	1 - 200A isolated for sound, 5-wire disconnect
Center Box Tier 1	2 - L6-30 Receptacles (for projection)

Lighting Information

Overhead lighting plot consists of approximately 93 automated fixtures arranged in concentric half circles radiating upstage from the center speaker cluster. Plot must be used as hung. Due to rigging limitations, it is cost prohibitive to alter the hang of the overhead acoustic canopy. **Please specify if your production will require a lighting designer or if additional time is needed for show specific cueing.** Additionally, there are several conventional units to be used from the FOH cove and balcony hanging positions.

**** Please Contact a Production TD for the Knight Concert Hall Section and Light Plot details**

Lighting Equipment

- Lighting Console is a Grand MA3 Light (4096 parameters).
- Backup Console consists of a Grand MA3 RPU with a NPU.
- Wireless handheld remote via Apple iPad running Grand MA3 Application.
- House Lights, Work Lights, and non-dims run off the separate Paradigm control system with local button controls and touchscreens on stage left, stage right, and at FOH booth position.
- DMX 8 port at lighting booth location to accommodate inputs and outputs. Also, any MA3 Nodes can be converted on various locations to accommodate 2 DMX inputs.
- Dimmers: 311 [Strand CD-80](#) 2.4k dimmers plus 1 Strand CD-80 6k dimmer

Fixtures:

16	ETC Source 4 10° @ 750w
24	ETC Source 4 15°/30° Zoom @ 750w
8	ETC Source 4 25°/50° Zoom @ 750w
13	HES Solaframe 1000
10	HES Solaframe 3000 Ultrabright
2	Lycian SuperStar 1285 1400 LED Follow Spot

- 4 HES Quads
- 81 HES Solaframe Theatre Ultrabright
- 8 HES Turbo Ray

Audio Information

Mix Position

The Front of House sound mix position is 9' deep x 8' wide—can be expanded to 16' wide—and is located 66'-7" from the plaster line. *If your production requires the **Expanded Position**, advance notice must be given, in writing, to allow for seat removal and adjustment in ticket sales.*

Sound Control Room

- 1 Meyer Galileo Galaxy 816-AES3
- 1 L'Acoustics P1
- Mic / Line Level Patch-bay
- Double-paned windows can open to the house

Consoles

FOH: Yamaha Rivage PM7

- Console Capacity: Up to 80 inputs total (28 of those inputs will not be sent to the monitor/split console)
 - 1 HY256-TL (Twinlane, Multi-Mode Fiber)
 - 1 HY144-D-SRC (Dante)
- 1 RPio622
 - HY256-TL
 - 5 RY16-ML-SILK (80 Channels)
 - 1 RY16-DA

MONITORS: Yamaha CL5

- Console Capacity: 64 inputs total (Inputs 53-64 can be used for click tracks, band talkback, or any other signals that only need to remain on stage and not sent to FOH)
- 2 Rio3224-D2

<u>Mains L & R</u>		<u>Center Cluster</u>	
14	L'Acoustics Kara II Line Array	10	L'Acoustics Kiva II Line Array
3	L'Acoustics KS28 Subs (Cardioid Configuration)	3	L'Acoustics SB15P (Cardioid Configuration)

<u>Front Fills</u>		<u>Side Fills</u>	
10	L'acoustics 5XT	2	L'Acoustics X8 (Orchestra Level)
		4	L'Acoustics X12 (Box Tiers 1, 2)

Under Balcony Speakers

Tannoy 70v

Monitors

- 12 EAW SM200iH Passive Wedges
- 8 Crown Macro-Tech 2402 Power Amps
- 4 EAW NT26 Active Speaker
- 10 Shure P6HW wired IEM packs

On Stage Split

Whirlwind 52 Channel 3-Way Isolated Split

Microphones, Direct Inputs, RF

Manufacturer	Model	Quantity/Notes
Shure	BETA 58 (B58)	7
Shure	SM58	2
Shure	SM57	8
Shure	BETA 52 (B52)	1
Shure	BETA 91A	1
Shure	BETA 91	1
Shure	BETA 98	3
Shure	BETA 98A	3
Shure	SM81	2

Shure	SM181	4
Shure	KSM44	2
Shure	KSM313	4
Shure	AD2 Handheld	8 (Axient Digital)
Shure	AD1 Boddypack	18 (Axient Digital)
Shure	Axient 4-Channel Rx	5 receivers (20 channels)
Sennheiser	E604	1
Sennheiser	E904	3
Electro-Voice	RE20	1
Crown	PCC Boundary Mic	6
AKG	C414	1 stereo pair
DPA	4052	1 stereo pair (piano)
DPA	4066	6 (headset mics)
DPA	4099	3 (with instrument clips)
DPA	Microdot -> TA4F Adapter	3
DPA	Microdot -> XLR Adapter	5
DPA	2088RF Capsules	7
Earthworks	SR25 Drum Kit	1 set (3-pack)
Earthworks	M30	2
Schertler	Piano Pickup	1 pair
Astatic	VP1700 Choir Sticks	8
BSS	AC133	4 – Mono, Active DI
Whirlwind	Director	4 – Mono, Passive DI
Whirlwind	Direct 2	2 – Stereo, Passive D
Whirlwind	PCDI	2 – Stereo, Passive DI
Radial	JPC	1 – Stereo, Active DI
Radial	JD6	1 – 6-Channel, Passive DI
Various Stands, Cables, Sub-Snakes		

In-House Rentals (IEM System & Accessories)

Manufacturer	Model	Quantity/Notes
Shure	P10R+ Wireless Boddypack Receiver (G10 Band)	12 (for PSM1000)
Shure	P10T Dual Wireless In-Ear Transmitter	5 (for PSM1000)
Shure	AONIC 215 Earphones (Clear)	10
Shure	8-1 Antenna Combiner	1
Shure	4 x 1 Antenna Combiner	1
Shure	HA-8089 PWS Helical Antenna	2
Shure	50' Remote Antenna Extension Cable	2

Other

- 9 Clearsonic A2466x6 6-Panel Plexiglass Drum Baffles (12'W x 5.5'H)
- 2 Clearsonic A2466x5 5-Panel Plexiglas Drum Baffle (10'W x 5.5'H)
- 2 Clearsonic A1224x4 4-Panel Plexiglas Baffle (4'W x 2'H)

Dressing Rooms

- 1 Conductor Dressing Room (with private sink, toilet and shower)
- 5 Soloist Dressing Rooms (with private sink, toilet and shower)
- 1 Large Men's dressing Room (with sinks, toilets and showers)
- 1 Large Women's Dressing Room (with sinks, toilets and showers)
- 2 Choral Assembly Rooms (with sinks and toilets)
- 1 Performers Lounge
- 2 Visiting Company offices

**** Please refer to [Dressing Room Schedule](#) for assignment**

Other Spaces

Peacock Education Center	53' 0" D x 68' 0" W
*** PEC is shaped like a right trapezoid and can be split into 2 separate spaces	
	Space A: 55' 0" D x 33' 6" W (Angular)
	Space B: 53' 0" D x 33' 8" W (Rectangular)
Joyce and M. Anthony Burns Green Room	25' 0" D x 34' 0" W
Mrs. Paul J. Cejas Patrons Salon	39' 0" D x 34' 0" W

Bucket & Scissor Lifts

(These lifts are shared amongst all 3 stages on campus. If needed, please confirm scheduling and use with your Technical Director before load in begins.)

- 2 40' Genie AWP-40S Single Person lift
- 1 25' Genie GS-1930 Scissor lift
- 1 32' Sky Jack SJIII4632 Scissor lift
- 1 26' Sky Jack SJIII3226 Scissor lift