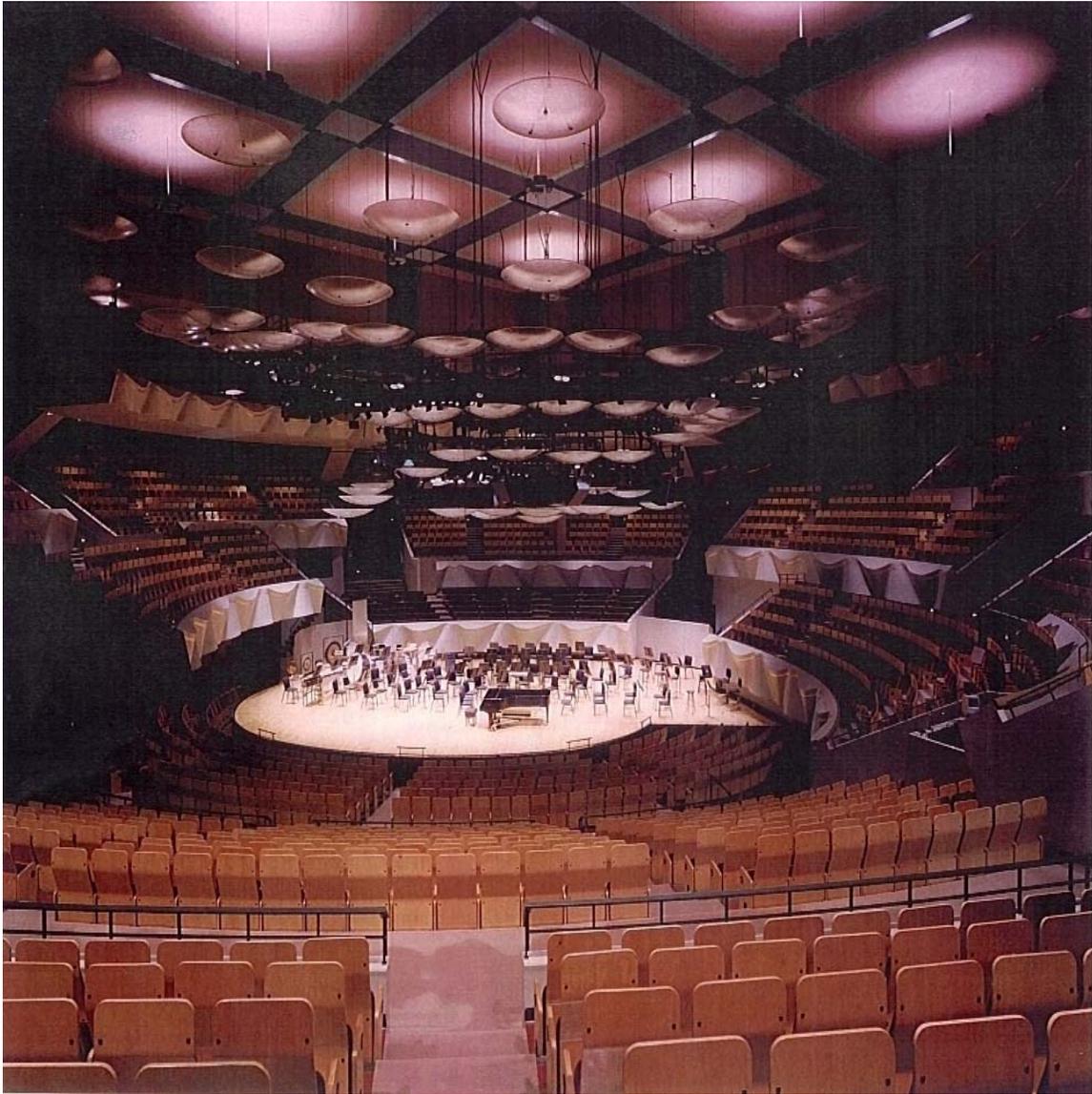


# Boettcher Concert Hall

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## Venue & Technical Guide



# The Boettcher Concert Hall

**The Boettcher Concert Hall** is the nation's first symphony hall in-the-round, designed to place the audience close to the stage in a unique environment – 80% of the seats are within 65 feet of the stage, There are no true vertical or horizontal surfaces inside Boettcher Concert Hall; the walls are canted at a slight angle to disperse sound and prevent flutter echoes. On each curved surface of the hall is a wave-like band, approximately four feet high, technically called an undulating acoustical fascia. These facias diffuse, reflect and channel sound throughout the venue. The seats in Boettcher are custom-designed, made from steam-bent wood with their backs varying in height from 42 inches to 48 inches. In 2008 The Boettcher Concert Hall will celebrate its 30<sup>th</sup> Anniversary.

**Seating Capacity: 2,679** Orchestra: 823 / Parquet: 147 / Dress Circles: 254 / Mezzanines (8): 1,146 / Rings: 264 / Pit Seats: 45

**Stage:** The 2,400 square foot stage has 18 removable traps and can accommodate up to 120 musicians for large symphonic performances. Between the Orchestra seats and stage is one lift, 15' x 60', with another lift adjacent to the musicians entrance 20' x 15'. These lifts can be lowered to provide an Orchestra pit for 80 musicians, and can also be raised to the stage level to provide 1,260 square feet of additional stage area. When the Orchestra pit is elevated and not in use, an additional 45 seats can be added.

**Traps:** The center and other sections of the stage floor are equipped with 4' x 8' traps. The trap room floor is 10'6" below the stage level

**Acoustics:** The concert hall has many acoustical features. The acoustical moat, located underneath the stage is essential in the surround design, it acts as a reverberate chamber for low frequency sound. The Canopy features 108 circular discs which is the primary device for distribution of sound to the musicians as well as the audience. These discs effect certain lighting positions on the catwalks and ring hangers.

**Dressing Rooms:** There are five "Star Dressing Rooms" with restroom and shower facilities. There are also two studios with adjoining restrooms and showers. The facility also has two large "Chorus Rooms" able to seat 200 also with adjoining showers and restrooms. There is one "Company Manager" office and three "Practice Rooms" available.



**Stage Door:** The Stage Door is located at 950 13<sup>th</sup> Street.

**Loading Dock:** Located in the lower level of the Concert Hall in the alley running southwest from 13<sup>th</sup> Street. The Dock can facilitate a truck or trailer up to 53 feet in length.

**Fly Pipe:** One Electrically operated 63 foot fly pipe is provided up stage for back lighting, back drops and banners. Capacity of the pipe is 1,500 pounds. The pipe stops at 2 feet above the stage level and flies in to four feet above the stage.

**Lighting:** The patch panel and company switch are located off Stage Right, adjacent to the Stage Managers position at Stage Level. The Control Console can be located in the hall at a location convenient to the event. The Orchestra Lights are a separate system for general illumination of the Orchestra.

### **Lighting System:**

Console: Strand

**Power:** There are two 400 AMP 3 Phase distribution boxes on Stage Right, a 200 AMP distribution box in the Pit and another in the attic-all with disconnect Posicam. In addition, 4 wire 120 volt is provided adjacent to the patch panel.

**Sound System:** Boettcher Concert Hall has an RT-60 (natural reverb) approaching 3 seconds. Because of the nature of the room, sound reinforcement is a tricky task. Boettcher has 2,800 seats which completely surrounds the stage. In addition, the stage is not symmetrical to the house. It is advised that the house sound system be used when reinforcement is needed. Altering the acoustic qualities of the Boettcher Concert Hall is made possible by motorized acoustical panels. In order to supply even sound coverage to this round Concert Hall, a computer is used to control the four full range speaker clusters. This sound system is based around a 32 channel Yamaha mixing console.

Sound house mix position is located just off center in the middle of the Orchestra section. Please note that if the tenant brings in an additional or a substitute console, the mix position will be located in the cross isle (center) of the second Orchestra section.

### FOH Processing

- 1 – Yamaha PM 3500-M, 48 Mono/4 Stereo inputs, 8 aux, 8 sub groups, 8 VCA's & 8 Matrix sends
- 2 - Beringer (Composer) MDX 2100 Expander/gate, Compressor, Limiter
- 2 - Lexicon PCM 80
- 1 - Klark Teknic DN 0 RTA with mic
- 1 - Denon DN 650 CD Player (wired remote available)

### Speaker System

- 8 – EAW KF-600 (Mains)
- 6 – EAW KF-691 (Mains)
- 2 – EAW JF-80 (Front fill)
- 8 – EAW SM-200ih (Monitors)

Note: Monitors are shared by all DPAC systems. Please call regarding availability.

### Amplifiers/System Processing

All systems are controlled by all DPAC systems. Please call regarding availability.

KF 600/691 Mains-high Crown CT 200  
Mains-low Crown MA 600

JF-80: Front Fills Crown MA-1200

8 SM-200ih: Monitor Wedges Crown MT-1200 (highs)  
Crown MT-2400 (lows)

System Limiting: Behringer Composer Limiter  
System Delay: Sound Web

Note: Passive Monitors outputs are located Stage Left, Center and Right. If bi-amp monitors are requested, a mobile amp rack which powers them will be located under the stage with access holes through Center and Downstage.