The room has been described as "live (as in loud) and dry." RT-60 is <1 second. The auditorium ceiling is lath/plaster; orchestra level side wall surfaces are hardwood diffusers, while rear walls and the entire floor are carpeted.

A. SOUND REINFORCEMENT

> The House Sound Console is located on the House Right side of the auditorium in an open box, immediately in front of the Mezzanine.

B. SIGNAL ROUTING/CONSOLES

> The Sound System is configured with BSS Soundweb which provides distribution of signals to House Right, House Left speaker arrays, House Center cluster, and delayed 4 ½" ceiling speakers distributed in all Balcony and under-balcony areas. House program also feeds desired Lobby, Front of House, and selected backstage areas. A Stage Manager Audio Routing Panel routes Show Mic, Board Mix, Aux Program, and Paging to twelve (12) backstage zones.

Distributed 4 ½" speakers are mounted in the apron of the stage and provide front fill. A portable JBL Custom shop (UCF2521) system with Crown Power is optionally available for front fill.

1. HOUSE SOUND CONSOLE

The House Sound Console is a Soundcraft Vi7000 with 96 inputs. Stage box is located stage left.

> Normal output distribution is as follows:
> LEFT MAIN OUT to House Left Array
> RIGHT MAIN OUT to House Right Array
> CENTER MAIN OUT to House Center Cluster
> Matrix 28 Subwoofers
> Matrix 29 House Program & HOH
> Matrix 30 Front Fill
> Matrix 31-32 Patch Panel

2. PORTABLE SOUND CONSOLES

> (1) Yamaha O2R96 with meter bridge
> (1) Mackie ONYX 1220

3. MICROPHONE SPLITTERS

> Forty-eight Jensen microphone splitters provide transformer isolated splits of all main sound console inputs to the stage monitor console (split B and split C (second monitor console, OB Van, etc.) There are ground lifts on B and C outputs.

4. HOUSE SPEAKER SYSTEMS

> The House Speaker System consists of a Center Cluster and Subwoofer, located above the proscenium at House Center (in the first ceiling panel), and Left & Right Arrays located at the midpoint of the side walls flanking the proscenium. Center cluster is installed in half-space.
> a. AMPLIFIERS
> > (14) Crown I-Tech 5000

(8) Crown I-Tech 9000
(1) Crown I-Tech 12000
(3) Crown 8-300N

b. SPEAKERS - CENTER CLUSTER

The Center Cluster consists of:

(3) JBL 2450J (with Aquaplas dusted domes)/2382 high frequency assemblies. Each high frequency assembly is separately powered with a Crown I-Tech 4000 amplifier channel.

(2) JBL 2123H, 10" speakers. Each is powered separately by a Crown I-Tech 4000 channel.

(4) JBL 2225H, 15" speakers, each powered by a Crown I-Tech 4000 channel.

(3) JBL VERTEC VT 4880 subwoofers, powered by (1) Crown I-Tech 12000. Crossover frequencies are 27 Hz to 75 Hz for the subwoofer.

c. RIGHT & LEFT LINE ARRAYS

Identical right and left line arrays each consist of eight (8) JBL VERTEC VT-4888 powered with two (2) Crown I-Tech 4000s for highs, two Crown I-Tech 4000s for mids, and four (4) Crown I-Tech 6000s for lows.

All three arrays are controlled by integral DSP in each I-Tech. Modified JBL presets are utilized.

d. DELAY SPEAKERS

The delay speakers are ceiling mounted JBL 8110 4 ½" speakers. There are ten (10) delay zones, each with no more than 10 ms. variation within any zone. The feed to delay speakers is derived from the signal to the center cluster. Use of line arrays has minimized use of delay speakers.

Soundweb controls Balcony, Mezzanine, and under-Balcony delay zones. All power amp inputs to delay speakers are accessible via the patch bay and can be used for effects.

5. STAGE MONITOR SYSTEM

(1) - Midas H3000 with 44 inputs plus 4 stereo returns.
There are two power supplies for this console.
(1) – Soundcraft Vi600 with 96 inputs, 48 outputs & 4 DSP cards
(6) - JBL SP 212A Sound Power slant Monitors (12" x 1")
(16) - JBL VRX915M Monitors (12" x 1.5")
(1) - Lexicon 960SL Reverb Unit with LARC
(2) - JBL TTM149 High Power (Custom Shop) (14" x 1")
(2) - JBL CSR4718x-58 Sub Woofers
(2) - JBL Powered EON-15-G2 (15")
(2) - JBL EON-10-G2 (10")
(2) - Custom JBL tri-amp Side Fill Monitors (2 x 2225, 2 x 2123, 1 x 2445)
(4) - Fostex SPA-11 amplified Speakers
(6) - Galaxy PA5X140 (Hot Spot)
(1) - tc D-TWO Delay Unit

(7) - BSS FCS 960 (Two-Channel) Graphic Equalizers
(2) - BSS DPR 901 II Dynamic EQ
(11) - Crown I-Tech 5000 Power Amplifiers
(2) - Crown I-Tech 9000 Power Amplifiers
(1) - Crown I-Tech 12000 Power Amplifiers
(3) - BSS 504 GATES   (4 PER UNIT)
(8) - DBX 160A COMPRESSORS
(1) - DBX 900 Main Frames equipped with:
      (6) - DBX 904 Gates
      (2) - DBX 902 De-esser
      (2) - DBX 905 Parametric Equalizer
Multi-pin connector for Monitor Board located DSL.

C. PORTABLE EQUIPMENT
  1. MICROPHONES
      (12) - AKG C-3000
      (6) - AKG C414B/ULS
      (5) - AKG-451 w/CK-1 capsule
      (6) - AKG-451B
      (2) - AKG D-112
      (2) - AKG CK33/GN50E PODIUM MICROPHONES
      (3) - Audio Technica AT-815R long shotgun
      (3) - Audio Technica AT-857AM podium microphone
      (6) - Audio Technica ATM33R
      (1) - Avalon U5 Active Direct Box
      (2) - Beyer C500
      (2) - BEYER M88
      (2) - C-Ducer CSX/6 Stereo Piano Pickup
      (12) - Countryman FET-85 Direct Box
      (8) - Countryman E6 for Sennheiser
      (8) - Crown PCC-160
      (4) - Crown PZM-6S
      (16) - DPA 4061String Mics
      (15) - DPA 4099 (for cello & bass)
      (4) - Electrovoice RE 16
      (4) - Electrovoice RE 20
      (6) - Neumann KM-84
      (6) - Neumann KM-184
      (2) - Neumann KSM 105
      (4) - Schoeps hypercardoid with collet cable
      (2) - Sennheiser 431 with switch
      (16) - Sennheiser 421
      (2) - Sennheiser MKE-II lavaliere microphones (XLR)
      (2) - Sennheiser 441
      (9) - Sennheiser E604
      (2) - Sennheiser E609S
      (4) - Shure SM-18B-CN

(2) - Shure Beta 52A
(8) - Shure Beta 56A
(8) - Shure Beta 57A
(8) - Shure SM-57CN
(8) - Shure SM-58CN
(8) - Shure Beta-58A
(8) - Shure Beta 58
(2) - Shure SM-58-S
(12) - Shure SM 81
(4) - Shure SM-85LC
(4) - Shure Beta 87A
(4) - Shure Beta 87C
(2) - Shure SM-91
(5) - Shure SM 98's
(6) - Shure SM-Beta 98S
(2) - Shure 55SH II
(7) - Shure KSM 32
(2) - Shure KSM 137
(1) - Shure Beta 27
(2) - Sony ECM-44B Lavaliere
(8) - Westcam (Jensen Transformer) Direct Box
(2) - Sennheiser SK-50 wireless transmitter
(1) - Sennheiser EM 3032 receivers
(12) - Sennheiser MKE-II lavaliere microphones
(4) - Sennheiser EM3532U Receivers
(4) - Sennheiser SKM5000 NBK (Neumann 105 capsule)
(8) - Sennheiser SK5012 with MKE II
(7) - Shure UR4D wireless receivers
(10) - UR2 Hand held with SM58, Beta 87A & Beta 58A or Beta 87

C capsules

(14) - UR1 body packs with MKE-2 mics

2. ACCESSORIES
Over 100 microphone stands plus assorted windscreens and adapters are available.
(1) - Ivie IE-30A Real Time Analyzer
(1) - Ivie IE-20B Noise Generator
SMAART on PCs at both House and Monitor Consoles
3. HOUSE EFFECTS & PROCESSING
(2) - Klark Teknik DN-360 two-channel graphic equalizers
(1) - TC Electronic M5000 Effects Processor (2 engines)
(1) - tc D-TWO Delay unit
(1) - tc 2290 Delay
(1) - EVENTIDE Eclipse
(1) - Aphex 300 Compellor

(2) - BSS 901 MULTIBAND DYNAMIC EQUALIZER
(3) - dbx 160SL Limiters
(1) - SUMMIT LABS DCL 200 VOCAL COMPRESSOR
(1) - SU1500 RM2U APC UPS for playback devices
(1) - GRACE 801PREAMP (SET OF 8)

4. PLAYBACK/RECORD DEVICES
    (1) - Alesis XT20 A-Dat
    (2) - Tascam RW2000 CD Recorder
    (1) - 360 Systems Instant Replay
    (2) - Sony MDSE 12 Mini Disk
    (4) - Denon DNC-635 CD/MP3 Player
5. PORTABLE PLAYBACK RACK (MONITOR SYSTEM or REMOTE)
    (1) - Denon DN 635 Compact Disc Player
    (1) Soundcraft 200B with eight (8) inputs
6. CABLES
We have sufficient microphone and speaker cable to do any normal show. All mic cables have three conductor XLR connectors. All speaker cables use Hubbel twist lock connectors, male on one end and female on the other. Cable accessories include:
    (6) - Wireworks MK-15 (15 pair) Snake Box and Pigtails
    (4) - Wireworks MK-15-25 multi-cable - 15 lines, 25'
    (2) - Wireworks MK-15-75 multi-cable - 15 lines, 75'
    (2) - Wireworks MK-6 (6 pair) Snake Box and Pigtails
    (4) - Wireworks MK-6-25 multi-cable - 6 lines, 25'
    (2) - Wireworks MK-6-75 multi-cable - 6 lines, 75'

D. COMMUNICATIONS SYSTEMS
1. STAGE MANAGER CONSOLE
The Stage Manager Master Console is a portable desk on a 15' cable connected at the DSR proscenium wall. It contains a Clear Com V12RDX4 MASTER STATION, Backstage paging, two (2) switchable color Video Monitors, and Cue Light controller.

a. INTERCOM
A digital Clear-Com Intercom system with 20 dedicated circuits that can be patched to any of 6 communication Power Lines by means of an XLR patch bay. System Includes:
    (1) - Clear-Com Eclipse HX-Delta 32 Matrix Master Station
    (2) - Clear-Com V12RDX4 Master Stations (SM & FOH Audio)
    (24) – Clear-Com HBP-2X Belt packs
    (20) – Clear-Com CC300 Head sets
    (4) - Clear-Com CC400-X4 Double Ear Headset
    (8) – Clear-Com Freespeak II Digital wireless beltpacks.

(3) - Clear-Com HelixNet HMS4S Master Stations

   b. PAGE SYSTEM
Paging throughout all backstage and/or public areas of the theatre is made from the Stage Manager Console, through an RTS-802 Master Station. Each speaker in the backstage area has its own volume control. Paging overrides local volume control. A Stage Manager Routing Panel selects Show Mic, Board Mix, Aux Program, and Paging to 12 backstage zones. A portable Paging Microphone Box can be placed in several locations in the theater.
   2. HEARING IMPAIRED SYSTEM
         (1) - ListenTech LT800-72 Transmitter (72 MHz)
         (50) - ListenTech LR400 72 receivers
E. ROAD CONSOLE MIX POSITION
   Road audio mixing consoles are placed in the last three rows of the Orchestra, house right (seats must be removed.) 200 feet of snake is required, or in Box B opposite house mix.
F. VIDEO
   There are color video monitors of stage in all Backstage Offices, Green Room, Stage Door, Star Dressing Room 3, down stage right, down stage left, and on the main level of the Lobby. There is an infrared sensitive camera that enables production staff to view the stage during a blackout.
   Digital Cable TV (Time Warner) is available in the theatre.
   1. VIDEO CAMERAS
(1) – Sony PTZ 900 located on Mezzanine rail, with networked remote controller.
(1) - Ikegami ICD-4220 B/W camera,.0093fc. with Cosmicar auto iris zoom lens
         (8mm. to 48mm) permanently installed on Mezzanine rail.
         (1) - Panasonic WV-1854 Monochrome (infrared) Camera with auto iris lens (permanently installed at conductor position-orchestra pit.)
(2) - Pelco LL-27 infrared light source with medium flood lamp, (permanently installed in 1st AP.)
   2. VIDEO RECORDER
         (1) - SONY DVD Recorder
   3. PORTABLE VIDEO MONITORS
         (2) - Panasonic WV-5410 - 12" monochrome Video Monitors
         (2) - Panasonic 19" Receivers
G. PROJECTION EQUIPMENT
         (1) – Barco HDX W18 Projector
         (1) – Barco SXGA+4.5-7.5:1 Lens
         (1) – Barco SXGA+2.6-4.1:1 Lens
         (1) – Barco HB TDL+ZOOM HD 1.39-1.8:1Lens
         (1) – Stumpfl System 64 16 x 12 combo F/R screen
         (1) – Stumpfl Vario 22.3 x 12 Front screen
         (1) – Barco PDS-701 Switcher
         (1) – Barco PDS-902 3G Switcher
         (2) – Pioneer DVD V7400 DVD players

(1) – 6 Core Mac Pro w Playback Pro

PLAYBACK PRO FILE SPECIFICATIONS:
1920 x 1080 resolution or lower
Codecs: ApplePro Res 422 (standard) or H.264 encoded with variable bit
rate between 15-30 Mbps
Container: .mov

H. RADIO FREQUENCIES
The McCallum staff uses (14) walkie-talkies for production communication.
Frequencies are:
CH 1 469.825MHz   PL 123.0 Hz *Security/FOH
CH 2 464.825MHz   PL 123.0 Hz *main production channel
CH 3 461.9375MHz PL 123.0 Hz
CH 4 463.7000MHz PL 123.0 Hz
CH 5 468.7000MHz PL 123.0 Hz

Local high power DTV stations are;
CH 42   638-644 MHz
CH 46   662-668 MHz