



FRANCIS MARION UNIVERSITY

PERFORMING ARTS CENTER

Technical Information Packet

Mainstage Theatre

as of July 1, 2019

FMU Performing Arts Center
201 South Dargan Street
Florence, SC 29506

(843) 661-1720 (Main)
(843) 661-4444 (Tickets)
(843) 661-7736 (Fax)

www.fmupac.org

Office Hours:
M-F, 9am – 5pm (Mid Aug – Mid May)
M-Th, 8:30am – 5:15pm (Summer)




Table of Contents

| Section | Description | Page |
|---------|---|------|
| 1 | General Information (Administration, Contact Info, Emergency Numbers) | 3 |
| 2 | Area Information (Nearby Hotels, Restaurants, Banks, Medical Services, etc.) | 3 |
| 3 | Driving Information (Directions, Mileage from nearby cities, Loading Information) | 5 |
| 4 | Company Management (Production Office, Crew Info, and Loading Area) | 6 |
| 5 | Carpentry & Stage Details (Stage Dimensions, Orchestra Shell, Rigging, Soft goods, etc.) | 7 |
| 6 | Lighting Info & Inventory (Control, Dimming, Fixtures, accessories) | 10 |
| 7 | Sound Info & Inventory (Speaker facing, Intercom & Paging, System Control, etc.) | 12 |
| 8 | Miscellaneous Info (Video, Platforms, Music, Dance Floor, etc.) | 15 |
| 9 | Wardrobe Info (Work Room, Laundry, Dressing Rooms, etc.) | 16 |
| A | Appendix A – Driving Map | 18 |
| B | Appendix B – PAC 1st Floor Map | 19 |
| C | Appendix C – PAC 2nd Floor Map | 20 |
| D | Appendix D – Line Set Schedule | 21 |

1. GENERAL INFORMATION

Administration:

A.T. (Bud) Simmons

Director

O: 843-661-1720

F: 843-661-7736

BSimmons@fmarion.edu

Kimberly Harwell

Ticketing Services

O: 843-661-1896

F: 843-661-7736

KHarwell@fmarion.edu

Vacant

Technical Supervisor

O: 843-661-1881

Kate Glass

Event Supervisor

O: 843-661-1880

C: 843-472-8159

kate.glass@marion.edu

General Contact:

Physical Address 201 South Dargan Street, Florence, SC 29506

Campus/Billing Address PO BOX 100547, Florence, SC 29502

Main Office Phone (843) 661-1720

Box Office Phone (843) 661-4444

Web <http://www.fmupac.org>

Email fmupac@fmarion.edu

Emergency:

EMERGENCIES on campus (PAC) from any PAC phone – 1109

EMERGENCIES off campus - 911

Campus Police

Main Dispatch

(843) 661-1109

4822 E Palmetto St.

Distance: 6.1 mi.

Emergency Room

McLeod Health

(843) 777-2000

555 E Cheves St.

Distance: 0.2 mi.

Dentist

Dr. John Bruce

(843) 667-0645

521 Dargan St.

Distance: 0.4 mi.

PT/Sports Therapy

McLeod Sports Medicine

(843) 777-5139

2439 Willwood Dr

Distance: 3.42 mi.

2. AREA INFORMATION

Hotels

Hyatt Place Florence

(843) 662-7066

100 E Evans St.

Distance: 0.25 mi.

Holiday Inn Express

(843) 432-1500

3440 W. Radio Drive

Distance: 4.87 mi.

Hotel Florence

(843) 629-0100

126 W. Evans Street

Distance: 0.3 mi.

Ramada

(843) 665-4555

1819 W. Lucas Street

Distance: 3.09 mi.

Spring Hill Suites

(843) 468-2800

2670 Hospitality Blvd.

Distance: 4.5 mi.

Restaurants (*serves adult beverages)

Apple Annie's Deli & Pub*

(843) 669-6247

1720 West Palmetto St

Distance: 2.16 mi.

Long Grain Cafe

(843) 413-1300

160 West Palmetto Street

Distance: 2 blocks

Wholly Smokin' BBQ*

(843) 407-7545

150 South Dargan St

Distance: 1 block

The Drive-In

(843) 669-5141

135 East Palmetto St

Distance: 1 block

Dolca Vita Cafe*

(843) 407-5365

160 South Dargan St

Distance: 0.1 mi..

Town Hall*

(843) 472-5203

101 West Evans Street

Distance: 0.3 mi.

Tubb's Shrimp and Fish Co.*

(843) 799-5579

1500 2nd Loop Road

Distance: 3.8 mi.

Red Bone Alley*

(843) 673-0035

1903 West Palmetto St

Distance: 2.33 mi.

Local Motive Brewing*

(843) 702-0410

123 North Dargan St

Distance: 0.2 mi.

BirdsNest Eats + Ales*

(843) 799-1757

166 South Dargan St

Distance: 0.14 mi.

Soule' Cafe*

(803) 768-5330

103 South Irby St

Distance: 0.2 mi.

El Agave*

(843) 472-5268

147 West Evans St

Distance: 0.3 mi.

Thai House 2*

C (843) 662-5777

168 South Dargan St

Distance: 1 block

Townhouse

(843) 669-5083

317 South Irby St

Distance: 2 blocks

Venus Pancake House

(843) 669-9977

471 West Palmetto St

Distance: 0.5 mi.

Victors*

(843) 665-0846

126 West Evans St

Distance: 0.03 mi.

All Medical Services

Emergency Chiropractor

Advantage Health & Wellness
(843) 669-1010
507 West Palmetto St
Distance: 0.2 mi.

Hospital

McLeod Health
(843) 777-2000
555 East Cheves St
Distance: 0.34 mi.

Massage

Avalon Therapeutic Massage
(843) 678-9902
514 West Palmetto St
Distance: 0.66 mi.

McLeod Sports Medicine

Valencia Oxendine-Rose
(843) 777-6356
Email: Voxendinerose
@mcleodhealth.org

McLeod Sports Medicine

Ericka Rowe, PT, ATC
(843) 536-5176
Email: epjrowe@yahoo.com

McLeod Sports Medicine

Melissa Sanchez
(719) 859-3323
Email: mjfranke24@gmail.com

Optometrist

Harrington Vision Center
(843) 678-9929
181 West Cheves St
Distance: 1 block

Pharmacy

CVS
(843) 665-4475
733 South Irby St
Distance: 1.31 mi.

Spa Services

The Spa at Hotel Florence
(843) 407-9494
140 West Evans St
Distance: 1 block

Urgent Care

(M-F 8am-8pm / Sat-Sun 9am-4pm)

McLeod Urgent Care
(843) 777-6870
3015 West Palmetto St
Distance: 4.63 mi.

Other Area Services

Airport

Florence Regional Airport
(843) 669-5001
2100 Terminal Dr
www.florencesairport.com

Auto Service

Creel Tire and Auto Care
(843) 662-5238
725 South Irby St
Distance: 0.82 mi.

Bank

Wells Fargo
(843) 664-4093
408 South Irby St
Distance: 0.4 mi

Beauty Supply

Sally's Beauty Supply
(843) 667-0939
1567 West Palmetto St
Distance: 1.83 mi.

Bus Station

Greyhound
(843) 662-8407
611 South Irby St
Distance: 0.59 mi.

Dry Cleaners

White Swan Cleaners
(843) 669-0841
310 North Irby St
Distance: 0.6 mi. mi.

FedEX

(800) 463-3339
709 West Lucas St
Distance: 1.64 mi.

Florist

Consider the Lilies
(843) 472-5202
184 West Evans St
Distance: 0.34 mi.

Grocers

Harris Teeter
(843) 678-9525
1930 West Palmetto St
Distance: 2.3 mi.

Grocers

Piggly Wiggly
(843) 662-5605
221 Cherokee Road
Distance: 1 mi.

Grocers

Food Lion
(843) 661-0964
350 North Cashua Dr
Distance: 2.5 mi.

Health Club

Fitness Forum
(843) 661-3800
120 East Elm St
Distance: 0.3 mi.

Hardware

Ace Hardware
(843) 669-6393
155 South Cashua Dr
Distance: 2.4 mi

Hardware

Lowe's Home Improvement
(843) 292-0643
1701 Freedom Blvd
Distance: 2.8 mi.

Hardware

Lowe's Home Improvement
(843) 413-9276
2301 David McLeod Blvd
Distance: 3.4 mi

Hardware

Home Depot
(843) 661-2597
3051 West Radio Drive
Distance: 4.8 mi

Post Office

United States Postal Service
(843) 679-2465
1901 West Evans St
Distance: 2.80 mi.

Shoe Repair

C W Shoe Repair
(843) 676-0921
1927 West Palmetto St
Distance: 2.44 mi.

Train

Amtrak Station
(843) 413-6105
805 East Day St
Distance: 0.74 mi.

WalMart

(843) 292-0862
2014 South Irby St
Distance: 2.87 mi.

3. Driving/Travel Information

Directions to the PAC (Directions provided are ideal for truck and trailer navigation)

From Northern Points (Fayetteville NC, Raleigh, NC)

- Take I-95 South to Exit 169 for TV Road (toward Quinby/Florence); Turn LEFT at bottom of ramp
- TV Road becomes N. Irby St.; Turn LEFT on W. Cheves St.
- Parking Lot and Loading Dock will be on your immediate RIGHT.

From Southern Points (Charleston SC, Savannah GA)

- Take I-95 North to Exit 157 to merge onto US-76 E./W. Palmetto Street (toward Florence)
- Turn LEFT onto S. Irby Street; Take the first RIGHT onto W. Cheves St.
- Parking Lot and Loading Dock will be on your immediate RIGHT.

From Western Points (Atlanta GA, Columbia SC)

- Take I-20 East; Continue straight, I-20 E. becomes I-20 BUS E.; Continue straight, I-20 BUS E. becomes David H. McLeod Blvd.
- At forced turn (dead end), Turn LEFT on W. Palmetto St
- Turn LEFT onto S. Irby Street; Take the first RIGHT onto W. Cheves St.
- Parking Lot and Loading Dock will be on your immediate RIGHT.

From Eastern Points (Wilmington NC, Myrtle Beach SC)

- Call for individualized directions. Multiple routes are available depending on your specific origin and vehicle of choice.

Parking: You will be provided specific parking instructions during advance calls. Most buses and trucks will be permitted to park directly in the loading bay. Loading bay allows room for a total of two semi-trucks and one bus. Additional bus parking is available in the lot beside the building. Additional parking available for non-commercial vehicles across the street in public city parking garage (no fees or permits required). Lot is accessible from Irby St or Dargan St. between Cheves St. and Evans St. (see map in Appendix A)

Approximate Driving Times and Mileage (from nearby cities)

| | | | | | |
|---------------------|---------|--------|-----------------------|---------|--------|
| Atlanta, GA..... | 290 mi. | 5h 00m | Fayetteville, NC..... | 85 mi. | 1h 35m |
| Charlotte, NC..... | 103 mi. | 2h 15m | Raleigh, NC..... | 147 mi. | 2h 30m |
| Charleston, SC..... | 135 mi. | 2h 15m | Savannah, GA..... | 178 mi. | 3h 00m |
| Columbia, SC..... | 80 mi. | 1h 25m | Wilmington, NC..... | 115 mi. | 2h 15m |

Travel by Air

Florence Regional Airport

2100 Terminal Dr.
Florence, SC
Airlines: American Airlines

Rental Cars: Enterprise, Hertz, Avis,
Budget

Travel to PAC: 6 mins; 2.6 miles

Myrtle Beach Int'l Airport

1100 Jetport Rd
Myrtle Beach, SC
Airlines: Delta, United, American,
Spirit, etc.

Rental Cars: Enterprise, Hertz, Avis,
etc.

Travel to PAC: 1h 30m; 68.3 miles

Charlotte Douglas Int'l Airport

5501 Josh Birmingham Pkwy
Charlotte, NC
Airlines: Delta, United, American, etc.

Rental Cars: Enterprise, Hertz, Avis, etc.

Travel to PAC: 2h 23m; 110 mi.

Columbia Metropolitan Airport

3000 Aviation Way
West Columbia, SC
Airlines: Delta, United, American, etc.
Rental Cars: Enterprise, Hertz, Avis, etc.

Travel to PAC: 1h 26min, 90 miles

4. Company Management

Production Office

First floor private office in Support Wing (see 1st Floor Map in Appendix B), located within 30' of loading bay and within 75' of stage entrance. Office is equipped with VoIP telephone with multiple lines*, as well as both wired** and wireless network access.

*Note: You must dial "9" for an outside line.

**Note: the use of wired network access requires MAC address authentication through Campus IT for each primary machine to be connected.

Green Room

Located on Second Floor of Support Wing (Dressing Room area, see 2nd Floor Map in Appendix C). Green room is accessible either by elevator or two stairwells. Seating for 10, including small pub table, and equipped with Convection Microwave, Refrigerator/Freezer, and Hot/Cold Sink. The 2nd Floor Green Room and Dressing Room hallway is also furnished with three (3) lounge areas that include soft seating (6-10 seats per area) and side tables for company use.

Stage Manager's Console

Portable Rack as well as Installed Rack on Stage Left with 4-Channel intercom and backstage paging abilities. Portable rack can be connected either Stage Right, Stage Left, in the control booth, or in the FOH mix position. A cable tether of up to 75' is available for position flexibility. (Refer to Sound Info & Inventory section for full details on Page 14)

Rehearsal Rooms

Rehearsal spaces are only available by special request, and must be negotiated prior to contract signing. (Fees may apply)

Medium Practice Room (2nd Floor, Academic Wing): Sprung hardwood floor, Acoustic Wall treatment (2 sides), Glass "Curtain" Wall (2 sides), Sound-Absorbent Tile Ceiling. **Dimensions: 24'6"W x 22'5"D**

Small Practice Room (2nd Floor, Academic Wing): Sound Isolated, Carpet Floor. **Dimensions: 8'4"W x 7'11"D**

Black Box Theatre (1st Floor, Support Wing): Sprung hardwood floor, acoustically treated environment (separate tech packet available for additional details). **Dimensions: 34'W x 39'D**

Crews

Paid Student Staff and Professional, Non-Union personnel.

Handicapped Access

All levels of the PAC are accessible by elevator, with the exception of grid and catwalk areas. All dressing rooms and facility restrooms are wheelchair accessible and ADA compliant.

General Policies

- House traditionally opens 30 minutes prior to curtain time, unless otherwise specified.
- Smoking is PROHIBITED on all University owned and leased property.
- The stage crew is to be released from work ONLY by the PAC's technical staff.
- There will be a designated lead flyman for each event. No other personnel, either local or touring, shall use the counterweight system without this individual's direct knowledge and consent.

5. Carpentry & Stage Details

Load-In Area

Loading Dock: The PAC does not have a standard loading dock configuration. The loading bay is at ground level/stage level, and entry is granted through a pair of vertical rolling doors. Hydraulic scissor lift platforms are embedded in the concrete of the loading bay, in front of each roll-up door, to move materials to and from truck bed height. Each scissor lift platform has portable safety rails that must be utilized when used in excess of 30" above ground level. There will be designated lift operators for each event, and only those operators will be permitted to operate lift controls.

Loading Door Opening: 8'-7"H x 8'-7"W **Scissor Lift Platforms:** 8'D x 8'W x 60"H **Scissor Lift Capacity:** 5,000 lbs max

From the loading bay, all equipment is moved in a straight path onto Stage Left through two sets of swinging "elephant" doors.

-Hallway and swinging door clearance at minimum opening is: 11'-6"W x 19'H

-Distance from Loading Bay to Stage Floor: 57'-6"

-See 1st Floor Map in Appendix B

Elevator: A passenger elevator is available for access to Basement Level (Orchestra Pit) and Second (2nd) Floor (dressing rooms, green room, wardrobe).

Door Opening: 7'-0"H x 4'-0"W **Car Dimensions:** 7'-11.75"D x 5'-8"W **Elevator Capacity:** 4,500 lbs. max

Shore Power: One (1) Disconnect @ 120/208V, 5-wire, Three Phase, 60A per leg. (company must provide bare-end tails) Loading dock area only

Stage Area & Dimensions

Proscenium Opening: 38'H x 58'W – The proscenium is a non-cased opening of plastered drywall, and is framed in by a decorative drapery portal on the Auditorium side of the wall. The portal does not obstruct operation of any onstage line sets or scenery.

Stage Floor: 100'W x 44'D – Stage floor is a five-layer maple sprung-type dance floor, painted with Rosco Tough Prime Flat Black. Dimensions are listed from Stage Left Wall to Stage Right wall for Width, and from Plaster Line (PL) to back wall for depth. Please refer to sections below for locking rail and other obstruction clearances.

Performance Area: 77'-3"W x 39'-4"D – Performance area is defined as stage floor area that is free of vertical obstruction from floor to grid. The defined width is the total clearance between overhead pin rails (or other limiting structures), and the defined depth is from plaster line to front edge of upstage Orchestra Shell and overhead duct work obstructions. *Note: The performance area width is not symmetric across the stage Center Line (CL). See Wing Space below for side to side clearances.*

Front Apron: 9'-10"D x 58'W – Front apron depth is measured from plaster line to downstage edge, and width is defined by proscenium opening. Apron curve is on a 53'-8" radius across the center line.

Wing Space: 21'W x 31'-8"D x 19'H (Stage Left) and 17'W x 38'D x 24'H (Stage Right) – These dimensions are listed at the minimum clearance points. Stage Left wing space width is measured from proscenium edge to offstage wall, and the depth is measured from plaster line to upstage vertical beam that supports the stairs to pin rail and grid. Stage Right wing space width is measured from proscenium edge to locking rail, and the depth is measured from plaster line to upstage spiral stairs to pin rail & grid. Vertical clearances are measured to the underside of the pin rail walkways.

Grid Height: 73' from stage floor to top of the grid floor. The grid floor is constructed of 3"x1.75" Welded Steel Channel Grating, on 5" centers, providing a 2" gap between bars. The grid is vertically supported in 10'-9" intervals by 12"x24" I-beams. Total weight not to exceed 2000 lbs max per point (see page 9). 1 Ton per 10 square feet or 290,250 lbs.

Orchestra Pit/Lift: 7'D x 53'W (lift only) or 15'-2"D x 53'W₁ x 43'-9"W₂ – By default, the pit lift is positioned at house floor level and accommodates removable auditorium seating. Dependent on production needs, the seating may be removed and the pit used at either stage level (apron extension) or at pit level (orchestra pit). Orchestra pit floor is 9'-4" below top edge of stage floor.

Lifting capacity: 50 psf

Static position capacity: 125 psf

Travel speed: 12 fpm

Orchestra Shell: 41'-2"D x 55'-7"W₁ x 34' W₂ – The Orchestra Shell is a permanent structure suspended within a steel frame, and moves on and off stage via a gantry crane mechanism. The shell moves from an upstage docking area behind the stage, all the way downstage to the middle of the proscenium wall break. The gantry crane does not use a guided track, but instead rolls on top of a steel plate that is embedded flush into the stage floor. When the shell is not used on stage, the steel plates DO NOT cause obstruction or trip hazards for any activity on stage.

Orchestra Shell Dock: 61'W x 41'D – The shell docking area is an open cavity behind the main stage floor. When the shell is positioned within the dock, the shell's cavity offers approx. 1845 sq/ft for temporary storage of cases and equipment.

Stage Floor Height: 3'-3" (above House Floor), 0'-0" (at FOH mix position level)

Control Booths: The control booth is located at rear of house main level. It is divided into two rooms - house left is the sound mix position, with patch bay and mixing board, and house right is the lighting control booth with lighting console and stage manager front of house station.

FOH Mix Position: This mix position is located at rear of orchestra seating section, house center. This position may accommodate the lighting console, sound board, effects rack, and stage manager station. The use of this position should be cleared during contract negotiations, as there are restrictions.

House Draperies (Soft Goods)

House Curtain: 62'W x 26'H Split Traveler*, comprised of two (2) panels, each 34'W x 26'H; 100% fullness, 22oz. Gold Synthetic Velour (IFR) with Lining (IFR)

House Border: 62'W x 16'H; 100% fullness, 22oz. Gold Synthetic Velour (IFR) with Lining (IFR)

Legs: 5 pairs – 15'W x 26'H, 0% Fullness, 25oz. Black Cotton Velour (FR)

Borders: 6 each – 64'W x 8'H, 0% Fullness, 25oz. Black Cotton Velour (FR)

Full Stage: 50'W x 26'H Split Traveler*, comprised of two (2) panels, each 28'W x 26'H; 50% fullness, 25oz. Black Cotton Velour (FR)

Scrim (Black): 1 each – 55'W x 26'H, Flat, Seamless Black Sharkstooth (FR), Weighted Pipe Bottom, tie grommets on all sides

Scrim (White): 1 each – 55'W x 26'H, Flat, Seamless White Leno (FR), Weighted Pipe Bottom, tie grommets on all sides

Cyclorama: 1 each – 55'W x 26'H, Flat, Seamless White Muslin, Weighted Pipe Bottom

**All traveler draperies are operated by manual hand lines, located on Stage Right*

Acoustic Draperies: Twelve (12) sections of Acoustic Draperies are available in the house for audible manipulation. Draperies are suspended from fixed traveler tracks in the auditorium and are controlled electric winches, with the exception of the Orchestra Pit draperies, which are manually deployed. *For additional info, refer to Sound Info & Inventory on Page 12.*

Additional Draperies Available: Upstage blackout curtain is 25 oz. black velour (FR) 45' wide by 19' high.

Line Set Data

Line Plot: See Appendix D

Battens: 45 pipe battens manufactured from 1-1/2" (2" OD) Schedule40 steel pipe with double-reinforced joints, 60' in length, and 1" Sch40 (1-1/2" OD) 4' loop-end extensions on both ends. Each batten is suspended by 7 cable points, and can support a uniform load of 1,500#. Full batten travel distance is 65' (4' above stage floor, and 4' below grid). Electric battens utilize permanent raceways. Refer to "Lighting Positions" on Page 10 for additional info. All battens are roughly 8" apart.

Purchase Type: 45 single purchase, J Track guided counterweight sets.

Arbor Capacity: Each arbor can support a maximum load of 1,300#, which includes pipe weight.

Available Weight: 53,800# of total loading weight is available between the loading gallery, mid rail, and the deck. Weight is available in 4"Wx1"H Steel Bricks @ 14.2# each (43,000# total), and 4"Wx2"H Steel Bricks @ 28.4# each (10,800# total). Available weight is in addition to pipe weight.

Locking Rail: One at Stage Right, at Stage Level

Loading Gallery: Stage Right, 66' above stage floor, accessible by Spiral Stairs (from floor to mid rail) and staggered Straight Ladders (Mid rail to Loading Gallery)

Additional Rigging Info

Mid Rails/Pin Rails: Mid Rail catwalks are Stage Left and Right, 36' above stage floor. Stage Left is accessible via stairs and Stage Right accessible via spiral stairs. Pin rails are located Stage Right and Stage Left at the Mid Rail level and at the Locking Rail on Stage Right (Floor level)

Spot Lines: 4 permanent spot lines are available on Stage Left and are positioned to drop between the pin rail and end of battens. Each line is equipped with 200' of 5/8" poly braided hand rope (see attached Line Plot for spot line placement). Ropes are available for all blocks as needed. Two additional blocks with ropes are not hung, but are available for flexible positions.

Grid Pipe: Grid floor is fully open and accessible for spot points to suspend chain motors or pick lines. A total of 30 grid pipes are available for points, made from 3" Schedule 80 steel and cut to ~4' lengths. Maximum load for a single pipe point is 2000 lbs. Total grid weight is 290,250 lbs.

Carpentry Support Areas

Stage Crossover: Crossover depth is determined by which of the most-upstage draperies is used. In stock configuration, unobstructed path clearance is 3'-6" behind Cyclorama (line set #42) and in front of Orchestra Shell walls.

Stage Access: Access from support areas is only available Stage Left via Personnel Door or Loading Doors. Access from House is available both Stage right and Stage Left, via small staircase and offstage doors. A single portable stair unit is available for direct access from the house floor to stage floor, and may only be positioned to the far left or far right sides of the apron (no center).

Shop Area: Located Stage Left through the loading doors and a rolling overhead door (12'Wx16'H). Some wood working tools are available, but arrangements must be made in advance for extensive use of shop area for construction (beyond basic repairs).

Storage: Items can be stored in Scene Shop or Black Box Theatre with arrangements in advance. See "Orchestra Shell" Info on Page 8 for common storage availability.

6. Lighting Information & Inventory

Power & Dimming

Company Switches: 3 disconnects for Lighting and motor power, each @ 120/208V (meters at 121/209), 3 phase, 6-wire (double neutral; Ground/Neutral Reversed), 400A/leg, located on the Upstage Left wall. Camloc #2 and lugs are both available for connection. These disconnects utilize dual-redundancy breakers, fed directly from facility main bus panel. Primary breaker is SquareD heat-trip, with a +25A spike threshold. Sound Company power is on an isolated system, separate from lighting power. See "Sound Information & Inventory" on Page 13 for additional info.

Dimmers: 358 ETC Sensor (CEM+) Dimmer channels at 2.4kW per dimmer, and 26 ETC Sensor Relay Channels at 2.4kW per relay, all enclosed in ETC SR48+ Series racks. 22 of these dimmers are dedicated to house and running lights, and all remaining dimmers and relays are available for general use. Dimmer control available on sACN/DMX Universe 1.

Relays: 96 Motorized Relay Circuits, 20A each, enclosed in two ETC Smart Switch SS-40SP series Wall Panels. 25 of these relays are dedicated to facility work and running lights, and the remaining 71 are available for general use. The circuits for these relays are interspersed at ALL stage electric positions. Relay control available on sACN/DMX Universe 1.

Circuits: All circuits are 2.4kW with Stage Pin 2P&G connectors; 18 at FOH1, 36 at FOH2, 24 at FOH3, 15 at Balcony Rail, 33 at Stage Elec1, 26 at each Stage Elec2 thru Elec4, 33 at Stage Elec5, 6 at each Stage Level Box (DSL, DSR, USL, USR), 4 at each Under Balc (HL & HR), 9 at each House Boom1 (HL & HR), 9 at each House Boom2 (HL & HR); 4 Socapex drops (6 circuits each) available from each Stage Mid Rail (SL & SR), each equipped with stage pin breakout tails; Other circuits dispersed around Stage and House areas. All circuit panels contain at least 1-3 relay channels, and all others dimming channels.

Control

Dimmer/Relay Control: Control protocol is available on Streaming ACN (sACN) compliant Ethernet, available at all areas of stage and control positions. Standard 5-pin DMX control connection is available via ETC Net3 2-port Portable Network Nodes. Up to 15 universes of DMX control is available: Universe 1 is for installed dimming and relays, Universe 2 is connected to LED Cyc light units (see below), and Universe 16 is reserved for Acoustic Drapery automation control. A true 5-pin DMX control input (non-sACN) is available in the dimmer room, located through the scene shop Stage Left.

House Lights: Control is available through touch screen preset panels, or via DMX Universe 1. An installed touch panel is available Downstage Left, and two portable touch panels are available for the Control Booth, FOH mix position, or other stage and house areas. Touch panel has presets for House Full, Half, Glow, and Off, as well as individual zone controls for Work and Running Lights.

Console: ETC Ion, 1500 channels, with 2x20 fader wing (mounted left of main controller), Dual LCD touch-screen monitors, mouse and keyboard. Console is connected via sACN network and has two DMX 5-pin out ports available. Console is configured on a mobile workstation, and may be placed at any FOH or stage position that has available network input.

Positions

Front of House Positions: 1st Pipe, 76'-7" Throw at 33 degrees (farthest from stage)

2nd Pipe, 57'-10" Throw at 52 degrees

3rd Pipe, 49'-5" Throw at 83 degrees (closest to stage)

Balcony Rail, 72'-3" Throw at 9 degrees

House Boom1, 49' Throw at 32-50 vertical degrees, 43.5 horizontal degrees (farthest from stage)

House Boom2, 34' Throw at 10-55 vertical degrees, 78 horizontal degrees

Under Balcony1-2, 40' Throw at 6 vertical degrees, 40-52 horizontal degrees

On Stage Positions: Permanent Raceway Electrics are positioned on Line Set Battens #5, #13, #22, #31, and #40. Typical house trim to bottom of electrics pipe is 26' (Standard) and 22' (Low)

Follow Spot Booth: 78' Throw at 30 degrees; Accessible from Catwalks

Other Positions: See Light Plot in attached drawing packet.

Equipment Inventory & General Info

TOTAL Instrument Inventory Available:

| | | | |
|----|---------------------------|----|--|
| 37 | ETC Source4 – 14° | 40 | ETC Source4 PARNel |
| 17 | ETC Source4 – 19° | 10 | ETC Source4 PAR (4 lens set) |
| 45 | ETC Source4 – 26° | 9 | ETC Selador Lustr 63 LED Strip Lights |
| 30 | ETC Source4 – 36° | 7 | Altman Star Par (4 lens set) (non-work lights) |
| 1 | ETC Source4 – 15/30° Zoom | 2 | Lycian M2 1200W Follow Spots |
| | | 20 | Elation LED Pars (RGBA Mixing) |

Note: All instruments are supplied with color frames and safety cables

Accessories Inventory:

| | | | |
|-----|--|----|---|
| 6 | City Theatrical STEEL Gobo Holder for Sc4 - Size A | 2 | City Theatrical Sc4 Iris |
| 144 | City Theatrical STEEL Gobo Holder for Sc4 - Size B | 20 | City Theatrical PAR/Nel 7.5" Top Hats |
| 2 | City Theatrical GLASS Iris Slot Gobo Holder Sc4 - Size A | 10 | City Theatrical PAR/Nel 7.5" Barn doors |
| 2 | City Theatrical GLASS Gobo Holder for Sc4 - Size B | 22 | Light Source "Mega Baby" 24" Side Arm w/tee |
| 166 | 7.5" Extra Gel Frames for PAR/Nel and 14deg Fixtures | 8 | 10' Boom & Base, 1-1/2" Sch40, Ring Top, 50# Base |
| 125 | 6.25" Extra Gel Frames for Source4 ERS Fixtures | 6 | 9"x12" Wooden Base Plates |

Instrument Inventory as Assigned

FOH Cove Instruments:

- 37 ETC Source4 – 14°, 750W, Stage Pin 2P&G, Color Cut Size: 7.5"
- 7 Altman Star Par – NSP, MFL, & WFL, 575W, Stage Pin 2P&G, Color Cut Size: 10"

FOH Boom Instruments:

- 12 ETC Source4 – 19°, 750W, Stage Pin 2P&G, Color Cut Size: 6.25"
- 4 ETC Source4 – 36°, 750W, Stage Pin 2P&G, Color Cut Size: 6.25"

Balcony Rail Instruments:

- 4 ETC Source4 – 19°, 750W, Stage Pin 2P&G, Color Cut Size: 6.25"
- 1 ETC Source4 – 15/30° Zoom, 750W, Stage Pin 2P&G, Color Cut Size: 6.25"

Stage Overhead Instruments:

- 40 ETC Source4 PARNels – 575W, Stage Pin 2P&G, Color Cut Size: 7.5"
- 16 ETC Source4 – 36°, 750W, Stage Pin 2P&G, Color Cut Size: 6.25"
- 8 ETC Source4 – 26°, 750W, Stage Pin 2P&G, Color Cut Size: 6.25"
- 9 ETC Selador Lustr 63 LED Strip – 750W, Stage pin 2P&G

Orchestra Shell Instruments:

- 34 ETC Source4 PARNels – 575W, Stage Pin 2P&G, Color Cut Size: 7.5", Top Hats on all; PERMANENTLY INSTALLED

Additional Inventory:

- 1 ETC Source4 – 19°, 750W, Stage Pin 2P&G, Color Cut Size: 6.25"
- 37 ETC Source4 – 26°, 750W, Stage Pin 2P&G, Color Cut Size: 6.25"
- 10 ETC Source4 PAR (4 lens set) – 575W, Stage Pin 2P&G, Color Cut Size: 7.5"

Cable: Power - 1,500'+ in 5', 10', 25', and 50' lengths, 12/3 SOOW, stage pin 2P&G; 24 stage pin two-fers; various Edison and Twist Lock adaptors; Data - 900' in 10', 25', 30', and 50' lengths, DMX 5-Pin and Cat5e Ethercon, various 3/5 pin adaptors

Power Distribution: 2 sets of #2 AWG Camloc feeder and 1 LEX "Pagoda" 3-phase distro box with 15 Edison duplex circuits available

Personnel Lift: 1 Genie AWP-36S Bucket Lift, 4 out riggers, 36' Platform Height

Light Plot: House is hung with Repertory plot; See Light Plot in attached drawing packet for additional info. (Vectorworks available by request)

7. Sound Information & Inventory

Speaker System

Main Speakers: Primary audio reinforcement is provided by a Center Line Array cluster of 8 Meyer M'Elodie boxes, wired in pairs for signal processing. The center cluster is supplemented by side fill speakers, consisting of 2 Meyer CQ-2 (Top) and 2 Meyer CQ-1 (Bottom) boxes, which are aimed primarily toward the side box seating areas. These speaker clusters are processed in a Left/Center/Right (LCR) configuration. See section for Main Speaker Processor below for signal variation options.

Front Fills: A row of EAW UB12se compact speakers are embedded behind the front lip of the stage for front rows fill. An independent signal feed is available for these speakers.

Under Balcony: A series of Community Cloud 6 ceiling speakers are utilized to fill in under the main balcony lip. An independent signal feed is available for these speakers.

Subwoofers: A pair of Meyer USW-1P compact subs sit on the deck just inside the proscenium wall. An independent signal feed is available for these speakers.

Main Speaker Processor: Primary system processing is achieved through a Meyer Galileo 616 (6x16). The primary LCR input is routed and processed to feed all installed speakers, subs, and backstage program feeds. The processor has preset settings to allow a standard L/R Stereo signal input to route appropriately left and right, and then sums those signals to send to the center speaker positions. The processor inputs can also be bypassed to take independent feeds from Company mixer to independently feed subs, front fills, under balcony, and program feeds. All signal I/O is balanced analog.

Amplifiers: Auxiliary amp channels are available for additional speakers or monitors. Eight channels of signal are supplied from Lab Gruppen C16:4 amps, patchable within the amp room to speaker output jacks on stage and in house areas.

Additional Auxiliary Speakers:

| | | | |
|---|---------------------------------------|---|---|
| 2 | Meyer UPA-1P Full Range 2-way Speaker | 6 | EAW sm129zi 12" Wedge Monitor |
| 2 | Meyer UPA-2P Full Range 2-way Speaker | 4 | EAW JF80z Bi-Amp Compact Fill Speaker |
| 8 | Meyer UPM-1P Front Fill Speaker | 2 | EAW UB12SI Compact Wall-Mount Speaker |
| 2 | Meyer UMS-1P Ultra Compact Subwoofer | 2 | Community I/O5B Compact Surface-mount Spkrs |

FOH Mixing

House Console: Yamaha LS9-32 digital mixer is configured with 40 analog inputs, 20 analog outputs, and 8 channels of ADAT optical I/O. Onboard processing includes up to 64 mono input channels, 4 stereo input, 16 mixes, 8 matrix, and 8 "virtual" rack units (multi effects and graphic EQ).

Playback/Record: One each Denon DN-C630 CD Player, Marantz CDR-633 Pro CD Recorder. Both CD Player/Record decks and iPod dock are mounted in FOH rack detailed below.

FOH Outboard Rack: (1) Yamaha SPX-2000 Digital Stereo Effects, (1) Klark Teknik Square One 8-Ch Analog Dynamics unit; both connect via analog XLR. In extenuating cases these can connect via ADAT converter to the console.

Graphic EQ Rack: Four channels of 31-band analog graphic EQ are available via two Ashly MQX-2310 units. These are mounted inside a portable ATA rack that can be used at any position. Connections via XLR, terminal, or Insert loop.

Reference Monitors: Two KRK Rokit 6 reference monitors are available for control room mixing.

Microphones and Accessories

Microphone Inventory:

| | | | |
|---|--|---|-------------------------------------|
| 7 | Shure SM58-LC Dynamic Microphone | 2 | Sennheiser MD-421 II Dynamic Mic |
| 3 | Shure Beta 58A Dynamic Vocal Microphone | 1 | Shure KSM 141 Condenser Mic |
| 2 | Shure SM58-S Dynamic Microphone (w/switch) | 2 | Radial J48 Active Direct Box |
| 6 | Shure ULXP24 58 wireless systems handheld G band | 3 | Whirlwind Director Direct Box |
| 3 | Shure Beta57 Dynamic Microphone | 1 | Matchbox HD 2-way Impedance Matcher |
| 8 | Audio Technica U851R Boundary Condenser Mic | | |
| 8 | Audio Technica U853A Hanging Condenser Mic (PERMANENT HANG IN SHELL) | | |

Direct Box Inventory:

Microphone Stands: (12) K&M Black Tripod w/Ext Boom; (8) Atlas Straight Round Base; (4) Atlas 5" Desktop

General Info

Company Power: 2 disconnects for Sound, each @ 120/208V (meters at 121/209), 3 phase, 5-wire (Ground/Neutral Reversed), 100A/leg, located (1) on the Stage Left wall and (1) at FOH3 catwalk. Camloc #2 available for connection. These disconnects utilize dual-redundancy breakers, fed directly from primary bus panels. ALL sound system power and company switch is on an isolated ground system, completely separate from lighting power. Dedicated Edison duplex outlets are available for sound around stage, control areas, and house.

Wiring/Infrastructure: Audio Signal – A Audio infrastructure allows for 76 isolated input channels of audio to pass from the stage to either the control booth or FOH Mix position. Output returns are landed in the control booth on TT/Bantam patch bays to be assigned as needed. Analog XLR fan-outs are available at both ends for I/O connection. Company may patch directly in to multi-connector with Amphenol MP-41 type connectors. Patch panels are available at all sides of stage (DSL, DSR, USL, USR), and at many positions throughout the stage and house areas. Bi-sex tie lines are also available at all panels and are patched from the control booth. *All audio infrastructure (except intercom) is wired with Canare Star-Quad dual twisted pair for maximum interference rejection.*

Amp Signal – Two-conductor 12 AWG speaker lines are located at all panel positions, terminating in the Amp Room NL4 patch bay.

Video – High-bandwidth coaxial connections also available for use with Digital Audio Snake systems or digital/analog video systems. BNC connectors are located all primary patch panels, are patched in the control booth, and utilize Belden 1694A Low Loss Serial Digital Coax.

Network – All-purpose network infrastructure available, utilizing UTP Cat6 wiring, and two 16-channel 10/100/1000 Gigabit unmanaged switches.

Control Locations: Sound Booth control is located behind the orchestra level seating, 89' from the stage Plaster Line. Company snake run is 160' from booth to downstage left through 10" diameter pipe.

18'Wx7'D – The FOH House Mix position*, used primarily by touring companies, is located in the center of the orchestra level seating area. Seats are removable so that solid tables and racks can be placed with generous working space around. Company snake run approximately 120' to downstage left through 10" diameter pipe. This position is not located under the balcony.

**Note: All equipment used at FOH MUST not be stacked or obstruct higher than 36" above floor for sightline clearance. NO EXCEPTIONS, unless otherwise negotiated within contract.*

Assistive Listening System (ALS): Listen Technologies 4 channel Infrared (IR) Transmitter/Receiver system is utilized. There are four emitters installed in the house that face FOH.

Stage Manager's Rack: Portable ATA Rack is available for use by Company Stage Manager. This rack may be operated from DSL, DSR, FOH Mix Position, or Control Booth. Either 15' or 75' tethers are available for position flexibility. This rack contains a Four Channel Intercom Base Station, Paging Mic, All-Purpose Audio Monitor, Rack Light, and Tie Lines for Audio, Video, Intercom, Cue Light, and Network.

Intercom / Cue Light: 4 Channel hard wired Clear-Com Party Line system available at all positions of stage, house, and support areas. System utilizes Clear Com PS-704 Power Supplies, which can be bypassed for use by company equipment. XLR 3-pin cue light bus is available, but no equipment is provided for this system. Single channel RS-601 belt packs, Single Muff CC-95 headsets, Dual Muff CC-220 Headsets, Flashers, and Desktop Speaker Stations are available. Stage manager's rack is equipped with RM-704 Base Stations with panel mic or headset capabilities.

Paging/Backstage program: Audio program and paging capabilities available for all backstage areas and dressing rooms. Each backstage area has independent volume control and source selection switch (Main Stage or Black Box). Program signal may be received from a stereo room mic (mounted in catwalks) or from audio mixer feeds. Paging stations are located at Stage Left Audio Rack, Portable Stage Manager's Rack, and House Manager's Office. Program and paging feeds may be patched from Company sources as needed.

8. Miscellaneous Information

Video Projection:

- (1) Sony VPL-FZH120L – 3LCD 12K lumen projector equipped with Sony VPLL- 4008 short throw lens (1.00:1). Aspect Ratio 16:10. Inputs include VGA, DVI-D, HDMI, and Component.
- (1) 12'-3" x 21' Da-Lite rear projection screen rigged to fly for 12k projector.

- (1) Sony VPL-FH30 – 4.3k lumen projector, zoom range x1.6, throw ratio 1.4 to 2.3.
- (1) 7'6" x 10" Da-Lite rear projection screen for 4.3k projector.

Projection equipment subject to availability. Minimum of two weeks' notice required to reserve projectors.

Pianos:

- (1) Steinway Model D 9' Grand Piano
- (1) Steinway Model M 5'7" Grand Piano

Platforms:

- (20) StageRight 4'x8' stage risers. Risers are double sided with black hard surface and grey carpet. Limited supply of legs is available to raise risers 8", 16", 24", and 32". Assorted black skirting is available.

Musical equipment:

- (75) Wenger musician chairs with (75) music stands
 - (1) Wenger 2 step podium with conductor's music stand
 - (7) bar stool (non-padded)
- Items are subject to availability

Lecterns:

- (3) Lecterns of various sizes. Subject to availability.
 - Small: with Francis Marion University seal, dark wood
 - Medium: with FMU PAC logo, light wood
 - Large: with Francis Marion University seal, dark wood

Dance Floor:

- (6) pieces of Harlequin Dance Floor – black/grey (two weeks' notice required if needed. Additional charges apply).

Pipe and Drape:

- Limited supply of black drapery and piping available for various uses.

9. Wardrobe Area Information

The first floor is the stage level. There is one 5 person dressing room down the hall from the stage entrance. There is an elevator or stairs which lead to the second floor. The second floor support wing contains the wardrobe work area, maintenance area and laundry facility. In this wing are the star dressing room, (2) 4 Person dressing rooms, (2) 10 Person Dressing rooms. The green room, also in this wing, has several love seats, a table with 4 chairs, sink, refrigerator w/ ice maker and a microwave. There are 3 open seating arrangements with loveseats and end tables for the performer lounge areas.

Wardrobe Work Area:

- *3 Standard double wall outlets
- *14'x12' dimensions

Wardrobe Maintenance:

- *Ample counter space with 2 standard double wall outlets and sink
- *3 Standard double wall outlets
- *2 Rowenta steamers
- *2 Ironing Boards
- *2 Rowenta Irons
- *10 Total Z Racks (4 in Wardrobe Maintenance, 2 in each 10 Person Dressing Room, 1 in each 4 Person Dressing Room)
- *17'x10' dimensions
- *Stage Monitor

Laundry Room:

- *2 Whirlpool Duet 27" Front-Load Washers
- *2 Whirlpool Duet 27" Front-Load Electric Dryers
- *Counter space with sink
- *Shelves
- *Working Space 12'x4 ½'

Dressing Rooms:

Star Dressing Room:

- *Located on the second floor
- *Private bathroom with shower
- *2 Fully lit makeup stations with electrical outlets
- *Full length mirror
- *Couch and loveseat
- *Built in costume storage area
- *14'x12' dimensions
- *Stage monitor

4 Person Dressing Room:

- *(2) 4 person dressing rooms located on the second floor
- *Private bathroom with shower
- *4 Fully lit make up stations with electrical outlets
- *Full length mirror
- *Built in shelves above makeup stations
- *14'x11' dimensions
- *Stage monitor

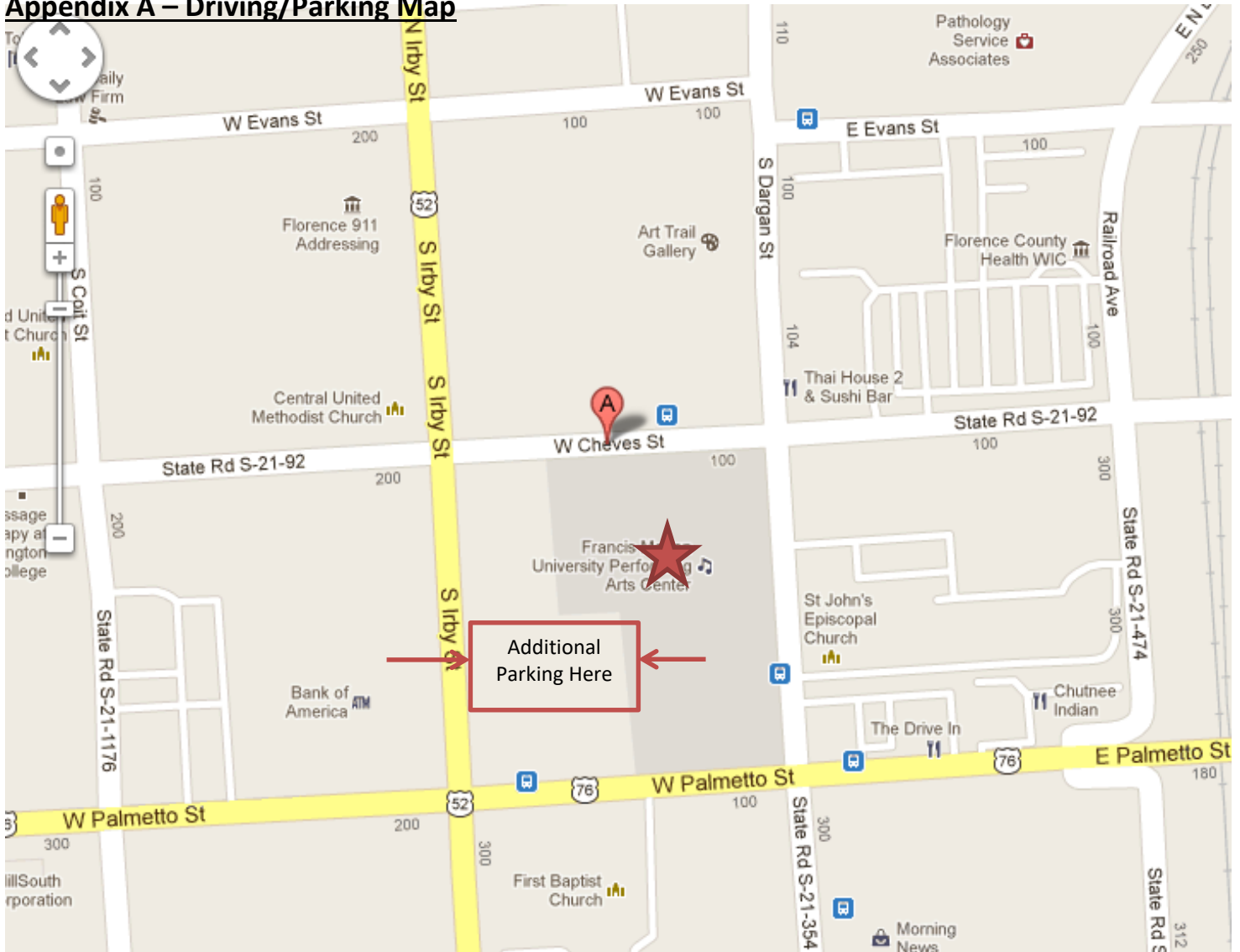
10 Person Dressing Room:

- * (2) 10 person dressing rooms located on the second floor
- * Private bathroom with separate room for shower
- * 10 Fully lit make up stations with electrical outlets
- * Full length mirror
- * Built in shelves above makeup stations
- * 34'x9' dimensions
- * Stage monitor

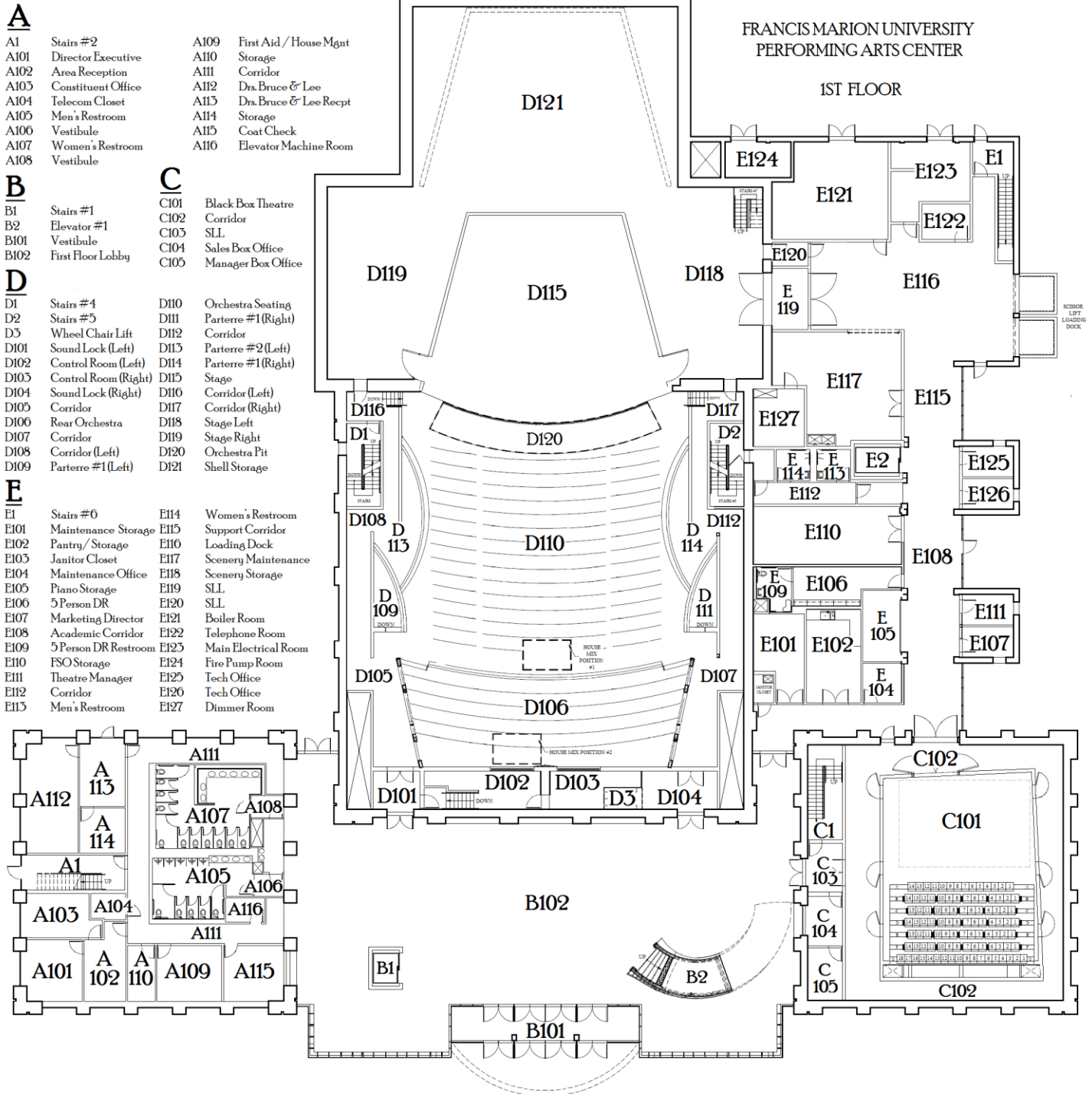
5 Person Dressing Room:

- * (1) 5 person dressing room located on the first floor
- * Private bathroom with shower
- * 5 Fully lit make up stations with electrical outlets
- * Full length mirror
- * Built in shelves above makeup stations
- * 15'x9' dimensions
- * Stage monitor

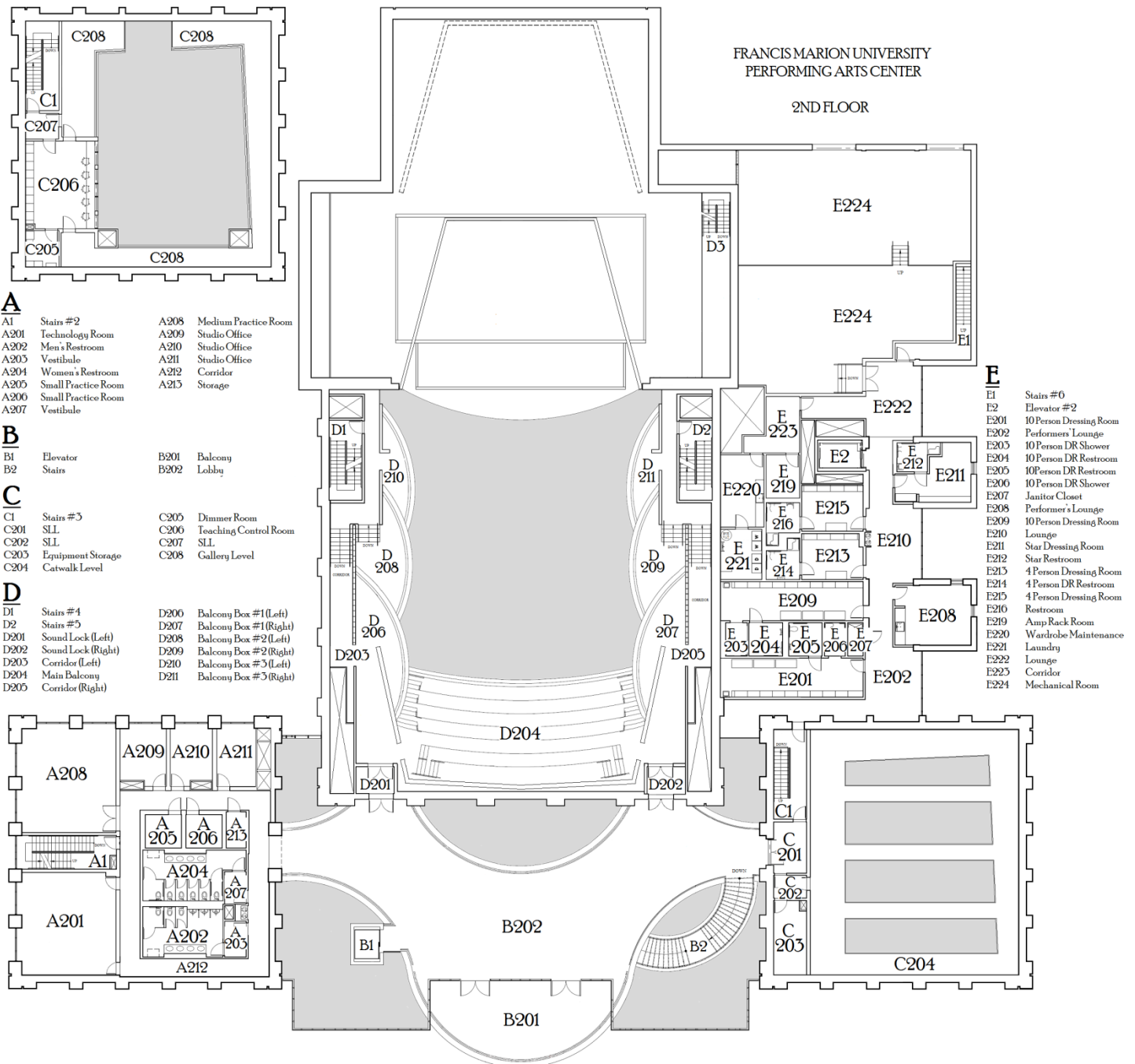
Appendix A – Driving/Parking Map



Appendix B – PAC 1st First Floor Map



Appendix C – PAC 2nd Floor Map



Appendix D – Line Set Schedule

| Francis Marion University PAC Lineset Schedule | | | | | | | | |
|--|------------------------|-----------------------|----------------|--------------------------|--------------|---------------------|------------|---|
| SHOW: | | | SHOW DATE: | | | | | |
| Lineset Number | Upstage of Plasterline | House Hang | Approx. Weight | Pipe Length (extendable) | SHOW HANG | Approx. Show Weight | Moving Y/N | Notes Grid Ht=73ft Max Arbor Cap.=1300# Travl Dist=65ft (4ft from deck/4ft from grid) |
| 1 | 0' 11" | Main Valance | 383.4# | 60ft (+8ft) | Main Valance | 383.4# | N | PERMANENT 100% Fullness |
| 2 | 1' 7" | Main Curtain | 1036.6# | 60ft (+8ft) | Main Curtain | 1036.6# | | PERMANENT 100% Fullness (guillo. or trav.) |
| 3 | 2' 3" | 1st Border | 85.2# | 60ft (+8ft) | | | | |
| 4 | 2' 11" | 1st Legs | 127.8# | 60ft (+8ft) | | | | |
| 5 | 4' 3" | 1st Electric | | 60ft (+8ft) | | | | PERMANENT RACEWAY |
| 6 | 5' 7" | | | 60ft (+8ft) | | | | |
| 7 | 7' 0" | | | 60ft (+8ft) | | | | |
| 8 | 7' 7" | | | 60ft (+8ft) | | | | |
| 9 | 8' 3" | | | 60ft (+8ft) | | | | |
| 10 | 8' 11" | | | 60ft (+8ft) | | | | |
| 11 | 9' 7" | 2nd Border | 85.2# | 60ft (+8ft) | | | | |
| 12 | 10' 3" | 2nd Legs | 127.8# | 60ft (+8ft) | | | | |
| 13 | 11' 7" | 2nd Electric | | 60ft (+8ft) | | | | PERMANENT RACEWAY |
| 14 | 12' 11" | | | 60ft (+8ft) | | | | |
| 15 | 13' 7" | | | 60ft (+8ft) | | | | |
| 16 | 14' 11" | | | 60ft (+8ft) | | | | |
| 17 | 15' 7" | | | 60ft (+8ft) | | | | |
| 18 | 16' 3" | | | 60ft (+8ft) | | | | |
| 19 | 16' 11" | 3rd Border | 85.2# | 60ft (+8ft) | | | | |
| 20 | 17' 7" | 3rd Legs | 127.8# | 60ft (+8ft) | | | | |
| 21 | 18' 3" | | | 60ft (+8ft) | | | | |
| 22 | 18' 11" | 3rd Electric | | 60ft (+8ft) | | | | PERMANENT RACEWAY |
| 23 | 20' 3" | | | 60ft (+8ft) | | | | |
| 24 | 20' 11" | | | 60ft (+8ft) | | | | |
| 25 | 22' 4" | | | 60ft (+8ft) | | | | |
| 26 | 22' 11" | | | 60ft (+8ft) | | | | |
| 27 | 23' 7" | | | 60ft (+8ft) | | | | |
| 28 | 24' 3" | 4th Border | 85.2# | 60ft (+8ft) | | | | |
| 29 | 24' 11" | 4th Legs/Midstg Trav. | 298.2# | 60ft (+8ft) | | | | PERMANENT TRACK |
| 30 | 25' 7" | | | 60ft (+8ft) | | | | |
| 31 | 26' 3" | 4th Electric | | 60ft (+8ft) | | | | PERMANENT RACEWAY |
| 32 | 27' 7" | | | 60ft (+8ft) | | | | |
| 33 | 28' 3" | | | 60ft (+8ft) | | | | |
| 34 | 28' 11" | | | 60ft (+8ft) | | | | |
| 35 | 30' 3" | 5th Border | 85.2# | 60ft (+8ft) | | | | |
| 36 | 30' 11" | 5th Legs | 127.8# | 60ft (+8ft) | | | | |
| 37 | 31' 7" | | | 60ft (+8ft) | | | | |
| 38 | 32' 3" | Scrim | 28.4# | 60ft (+8ft) | | | | Black |
| 39 | 32' 11" | | | 60ft (+8ft) | | | | |
| 40 | 33' 7" | 5th Electric | | 60ft (+8ft) | | | | PERMANENT RACEWAY Cyc Lights (LED) |
| 41 | 34' 11" | 6th Border | 85.2# | 60ft (+8ft) | | | | |
| 42 | 35' 7" | Cyclorama | 156.2# | 60ft (+8ft) | | | | |
| 43 | 36' 3" | | | 60ft (+8ft) | | | | |
| 44 | 37' 8" | | | 60ft (+8ft) | | | | |
| 45 | 38' 3" | | | 60ft (+8ft) | | | | |
| Orch. Shell | 39' 5" | ~ OBSTRUCTION ~ | | NO BATTEN | | | | PERMANENT |

(Microsoft Excel file available by request)