

Mechanical, Electrical, Plumbing, Fire Protection

Byron Carlyle Theater
500 71st Street
Miami Beach, Florida 33141

Mechanical, Electrical, Plumbing
And Fire Protection Systems
Condition Report

Prepared For:

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May 6, 2021

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INTRODUCTION

Byron Carlyle Theater located in Miami Beach was originally built in the late 1960's as a two-theater cinema. In the 1970's the east side cinema was converted into two individual theaters with another renovation in the 1980's splitting the west side theater into five. In 2011 the east theater was renovated into a playhouse. This is its current configuration. In addition to the renovations noted the playhouse and theaters have undergone other renovations including architectural upgrades along with mechanical, electrical, and plumbing upgrades and equipment replacement and modifications.

Based on the anticipated use, and the deteriorated state of the building and systems, two renovation options here being considered as well as the option of building replacement.

Option 1 would consist of a Multi-Use Theater + Tenant Space. This would include a complete renovation of the building while leaving the West Theater as a warm lit shell, ready for tenant build-out.

Option 2 would consist of a Multi-Use Theater + Cultural Center. This would include a complete renovation of the building, and converting the West Theater into a two-level Cultural Center with a new second floor structure within the existing building envelope, new stairs, elevator and new windows along the north elevation.

The following is an evaluation of and recommendations for each of the building systems. Rough preliminary cost are also provided in this report for each of the two renovation options.

ELECTRICAL POWER SYSTEMS

1. The electrical service for this facility is provided by Florida Power and Light Company with the medium voltage service originating from a utility pole on the southeast corner of 71st Street and Byron Avenue. From this utility pole, Florida Power and Light Company cables run underground terminating in a transformer vault dedicated to their equipment located in the southeast corner of the building. Transformers within this vault provide the theater with a 120-208 volt, three phase source of power. Adjacent to the vault is the building main electrical room containing the electrical service mains and distribution panels which in turn supply various electrical panels throughout the building. A large portion of this equipment is original to the facility. There are various branch circuit panels within different areas of the building. Some of the panels are from the original installation and others have been added over the years as part of the various renovations and upgrades.
2. The apparent problems with the electrical power system installation starts with the fact that the transformer vault and main electrical room are located below FEMA base flood elevations. Given the extent of renovation anticipated the electrical equipment will have to be brought up to current code including installation above the base flood elevation. Relocating the existing electrical equipment to meet these code requirements is not warranted given the age and condition of the equipment along with position of the equipment within the building.
3. The best approach for this building with regards to the electrical power systems would be to completely replace the entire electrical power system. This would include modifying the transformer vault and main electrical rooms so that they are above base flood elevations. The main electrical room should be placed adjacent to or above the transformer vault, allowing for the cables related to the electrical service mains to be passed through the wall for floor that separates the two rooms. The electrical service mains would be arranged as follows to serve the buildings loads:
 - a. East side mechanical equipment.
 - b. East side theater lighting and power loads.
 - c. East side theater audio loads via an isolation transformer to mitigate any electrical related noise to this system.
 - d. West side loads metered separately from the three loads noted above allowing for this space to be sub-let to another tenant. If multiple tenants are anticipated a meter center with multiple meters could be used in lieu of a single electrical service main.

LIGHTING SYSTEMS

1. Exterior building lighting around the building is in moderate condition with most of the lamp sources being incandescent, compact fluorescent and high intensity discharge.
2. Building parking lot lighting is not served from the building as it appears the parking is either on the street or in the 14-space city owned parking lot located to the south of the property.
3. Interior lighting is of various generations of mostly incandescent and fluorescent lamp sources with some LED sourced fixtures added during the more recent remodels.
4. Emergency lighting observed was mostly wall mounted individual battery lighting units.
5. The existing lighting systems should all be replaced in their entirety with the following suggestions:
 - a. Exterior lighting utilizing LED sources with a style to complement the architectural features of building. This lighting could include soffit down lights, architectural styled wall sconces, color changing facade or building wall accent lighting.
 - b. Interior lighting should also use LED source fixtures with occupancy sensor controls in order to comply with code mandated energy regulations.
 - c. Theater house lighting again would utilize LED source fixtures. These fixtures would have dimming capabilities to allow for lower levels of illumination during theatrical performances.
 - d. Emergency lighting would remain with battery back-up; however, consideration should be for these batteries to be included within the light fixtures themselves in lieu of individual battery lighting units. This approach allows for better illumination levels when the fixtures are in emergency mode and eliminates wall mounted units that may affect the architectural look of the facility. A larger inverter/battery system could be considered for the emergency lighting in the theater.

THEATRICAL LIGHTING SYSTEMS

1. The theatrical lighting system equipment appears to be original to the playhouse conversion and is in poor condition. The dimming equipment is not of current type and most likely not supported with replacement parts or components. This equipment predates the use of LED type theatrical lighting fixtures. The theatrical lighting that remains in place is mostly incandescent type.
2. Upgrades to the theatrical lighting system and light fixtures is warranted due to the existing systems condition. New dimming equipment compatible with LED lighting along with LED lighting fixtures would be the most logical choice as this is what is used in theaters constructed most recently. In addition these systems are more energy efficient than systems of the past.

FIRE ALARM SYSTEM

1. The building is protected throughout by addressable fire alarm system with voice evacuation capabilities which is required by code for "Places of Assembly". The fire alarm equipment is currently not in a fully operational condition and salvaging and or upgrading the system as it stands is not warranted.
2. Installation of a new fire alarm system would be needed no matter the extent of the building renovation. This system would be an addressable type and include the following features as mandated by code for this occupancy type.
 - a. Main fire alarm panel with amplifiers and voice capabilities.
 - b. Audible (speaker) annunciating devices.
 - c. Visual (strobe lights) annunciating devices.
 - d. Manual (pull stations) initiating devices.
 - e. Automatic (heat detectors, smoke detectors, flow and tamper switches) devices.
 - f. Interface with theater sound systems.
 - g. Air conditioning system shut down functions.
 - h. Hardline and or cellular dialer to off-site monitoring agency.

MECHANICAL - HVAC SYSTEM

1. The building is conditioned using multiple roof top mounted packaged, air cooled, direct expansion air conditioners serving the auditorium and theaters. The lobby are is conditioned using a direct expansion spilt system with the condensing unit on the roof and air handler within the space. Under the principles of vapor compression refrigeration, the equipment uses a refrigerant system involving a compressor, a condenser, an expansion device and an evaporator to absorb heat from one place and release it to another.

The units, capacities and date of manufacture are as follows.

<u>Unit tag</u>	<u>Area Served</u>	<u>Location</u>	<u>Cooling Capacity</u>	<u>Manuf. Date</u>
RTU-1	South Auditorium	Roof	20 tons	1/2012
RTU-2	North Auditorium	Roof	20 tons	1/2012
RTU-3	Back Stage	Roof	12.5 tons	1/2012
RTU-4	Common Areas	Roof	3 tons	1/2012
RTU	West Theaters	Roof	15 tons	11/1986
RTU	West Theaters	Roof	15 tons	11/1986
RTU	West Theaters	Roof	15 tons	11/1986
CU-1	Lobby Areas	Roof	15 tons	5/2011
CU-2		Roof	2.5 tins	10/2010

2. The roof mounted equipment is located in a coastal environment and exposed to salt laden air. The units on the roof are extremely deteriorated. The newer roof top air conditioning equipment has a manufacture date of 2012 and has been in place for approximately 9 years. All the equipment has reached or exceeded the expected useful life for the environment they have been installed.

Due to the proximity to salt water of the Atlantic Ocean and Intracoastal Waterway, it is anticipated that equipment deteriorates at an accelerated rate than would be expected in area with less harsh conditions. The salt laden air is extremely corrosive, and will rapidly deteriorate materials that are not properly treated and maintained. Air cooled condensers are even more susceptible to the accelerated corrosion due to the large volume of salt laden air that passes through them.

When air cooled condensers are installed, a rigorous maintenance schedule that includes washing down the coils on a regular basis will slow down the corrosion process, but the

life expectancy for any coil under these conditions is usually around 10 years with the proper maintenance. The lack of proper maintenance has contributed to the deteriorated condition of the coils.

3. The older equipment with manufacture dates of 11/1986 are not functional. The state of deterioration is such that the frame and coils are missing sections that have deteriorated to the point of disintegration.
4. The newer equipment evaporator coils, fans and frame are still in fairly good condition; however, the condenser coils in particular are deteriorated past the useful life. The newer equipment will be failing within the near future.
5. The systems have been in the state of abandonment for some time. As a result the non-functional equipment and water intrusion from a compromised roof the humidity levels within the space are elevated contributing to mold growth in several areas. The ductwork in particular has been affected and may be compromised by mold.
6. Ductwork exposed on the roof is showing sign of deterioration from corrosion. Several sections appear to have been compromised allowing water to enter the duct system. The air distribution ductwork has been compromised and should be removed.
7. The installed air conditioning units are conventional light commercial air conditioning systems. The units have the capability of handling up to 25% of the total air flow as outside air. Recent developments due to the potential of air borne pathogen transmission indoors has led to new published guidelines from several sources.

In April of 2020, the American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) published a position paper on infectious aerosols. The position paper indicates that design teams for facilities of all types should follow, as a minimum, the latest published standards and guidelines. The position document indicates that the following modifications to building HVAC system operation should be considered:

- a. Increase outdoor air ventilation as indoor and outdoor conditions permit. This will drastically improve the dilution of contaminants.
- b. Improve central air and other HVAC filtration to MERV-13 or highest level achievable.

Specific to performing arts centers, Actor's Equity Association has also established guidelines to ensure their members' safety with procedures to support safe and healthy theatre productions. Among the requirements established Actor's Equity is the increased ventilation rate. This is established by increasing the outside air introduced in the space.

At a minimum the requirement calls for 30% outside air with increased filtration efficiency or 40% with regular filtration.

The existing equipment, even if it were functional, does not have the capabilities to meet the guidelines for increased ventilation.

8. New equipment and air distribution system is required to provide a safe comfortable environment. The equipment will need to have the capabilities to handle the increased outdoor air volumes to maintain adequate ventilation rates to achieve proper dilution of the contaminants and pathogens in the space to achieve a safe environments for the occupants.

PLUMBING SYSTEM

1. The building is served from public water and sewer.
2. Water enters the building on the south side with a 2-inch diameter water service through a backflow preventer. The water piping is copper and in good condition. The water is distributed throughout the building to several restroom locations.
3. The restrooms appear to have been updated during the 2011 renovation. The fixtures are dated and with a few exception are in good condition. However, the fixture count for the occupancy falls short of the current code requirements.
4. The sanitary drainage waste and vent system material is a combination of PVC and cast iron pipe. The sections of pipe that were visible appear to be in good condition. However, scoping of the system should be performed to confirm pipe condition before reinstalling fixture and putting into operation.
5. The sanitary waste discharges to a wet-well lift station within the building. The effluent is pumped from the lift station to public sewer system. The pumping is old and should be upgraded replacing the pumps and controls to ensure continued operation after renovations are completed.
6. Modification of the plumbing fixture layout and count will be needed to meet current building code and ADA requirements. Both renovation options will require modifications to the existing restrooms and/or additional restrooms.
7. The roof is a low slope roof with roof drains and emergency overflow scuppers along the parapet wall. The roof drains are in fair condition. However, the roof is need of replacement and the drains should also be replaced simultaneously. The roof drainage piping runs concealed in the ceiling interstitial space and was not accessible for inspection. The material is more likely than not cast iron for the older sections or PVC for the remodeled sections of the building. Regardless of the material present it should be replaced. Cast iron is more likely than not deteriorated based on the age, and the PVC is not desirable in a theater environment due to the noise transmission to the space associated with water flow in the pipes.
8. Air conditioning condensate from the roof top units drains via PVC pipe on roof and discharges onto the roof drains. The piping is not properly supported and should be replaced when roof is replaced.

FIRE PROTECTION SYSTEM

1. The building is currently protected by a wet pipe fire suppression system.
2. The water supply enters the building along the south side through a 4-inch fire riser with a siamese fire department connection on Byron Avenue.
3. The wet pipe system provides full coverage to all areas of the building. Any modifications to the building will require modification and update of the fire suppression system.
4. There is a mix of semi-recessed pendant, pendent, recessed covered, and upright heads throughout the facility.
5. Due to the age of the building and state of deterioration, replacement of the sprinkler heads should be budgeted. During the planned renovation, a detailed evaluation of the system should be performed to ensure all areas of the building are provided with full coverage.
6. Both renovation options will require upgrade of the fire protection system. Available street water supply pressure should be sufficient to serve the building without augmentation. Fire pumps are not anticipated.

ROUGH COSTS FOR ELECTRICAL RENOVATIONS

Item	Option 1	Option 2
Electrical switchgear and panels	85,000.00	85,000.00
General lighting	87,000.00	110,00.00
General electrical, (receptacle, etc)	28,000.00	40,000.00
Mechanical equipment connections	38,000.00	50,000.00
Theater lighting system	225,000.00	225,000.00
Theater audio system	150,000.00	150,000.00
Fire alarm system	100,000.00	100,000.00
Labor	655,000.00	936,000.00
Site supervision	94,640.00	135,200.00
Project supervision	48,300.00	69,000.00
Sub-total	\$1,510,940.00	1,900,200.00
Sub-contractor markup and profit	377,735.00	475,000.00
Sub-total	\$1,888,675.00	2,375,200.00
Permit fees	37,774.00	47,504.00
Bond	94,443.00	118,760.00
Sub-contractor total	\$2,020,882.00	2,541,464.00
General contractor markup and profit	202,088.00	254,146.00
Total	\$2,222,970.00	2,796,610.00
Florida Power and Light Upgrade Costs (If vault is relocated or elevation raised)	45,000.00	45,000.00

ROUGH COSTS FOR MECHANICAL RENOVATIONS

Item	Option 1	Option 2
Equipment replacement to meet current code, standards, and guidelines.	380,000.00	450,000.00
New air distribution system	90,000.00	110,000.00
Controls – Energy management system	30,000.00	40,000.00
Sub-total	500,000.00	600,000.00
Sub-contractor markup and profit	50,000.00	60,000.00
Sub-total	550,000.00	660,000.00
Permit fees	11,000.00	15,000.00
Bond	27,500.00	30,000.00
Sub-contractor total	588,500.00	705,000.00
General contractor markup and profit	58,850.00	70,500.00
Total	\$647,350.00	\$775,500.00

ROUGH COSTS FOR PLUMBING RENOVATIONS

Item	Option 1	Option 2
Plumbing fixture, piping & labor	127,500.00	158,000.00
Roof and condensate drainage replacement	30,000.00	30,000.00
Lift station replacement	25,000.00	25,000.00
Sub-total	182,500.00	213,000.00
Sub-contractor markup and profit	18,250.00	21,300.00
Sub-total	200,750.00	234,300.00
Permit fees	4,000.00	4,700.00
Bond	10,000.00	11,700.00
Sub-contractor total	214,750.00	250,700.00
General contractor markup and profit	21,480.00	25,700.00
Total	\$236,230.00	\$276,400.00

ROUGH COSTS FOR FIRE PROTECTION RENOVATIONS

Item	Option 1	Option 2
Fire Sprinklers – Wet pipe system	38,250.00	47,500.00
Sub-contractor markup and profit	3,825.00	4,750.00
Sub-total	42,075.00	52,250.00
Permit fees	850.00	1,050.00
Bond	2,100.00	2,600.00
Sub-contractor total	45,025.00	55,900.00
General contractor markup and profit	4,500.00	5,590.00
Total	\$49,525.00	\$61,490.00

PICTURES



Building Entrance



Building North Exterior



Florida Power and Light Utility Pole at Northeast Corner of Building



Florida Power and Light Transformer Vault on East Side of Building



Electrical Utility Meter on Southeast Corner of Building



Entrance to Main Electrical Room



Electrical Service Mains



Electrical Distribution Panels



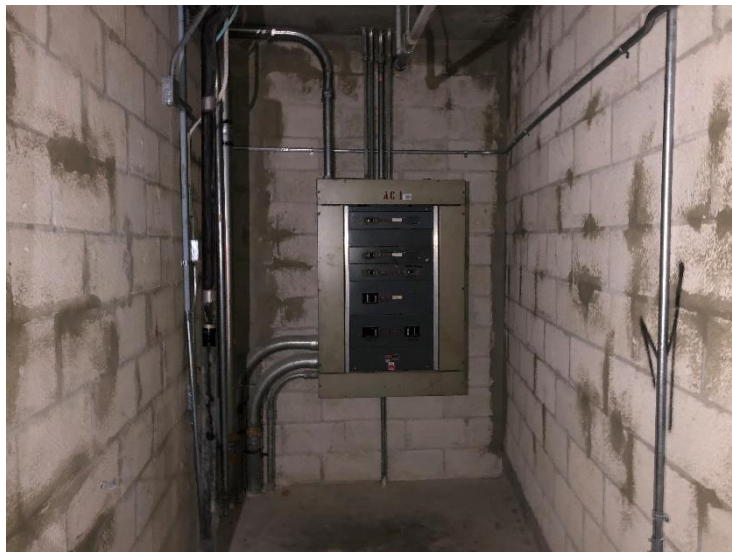
Typical Electrical Equipment in Projection Booths



Typical Electrical Equipment in Projection Booths



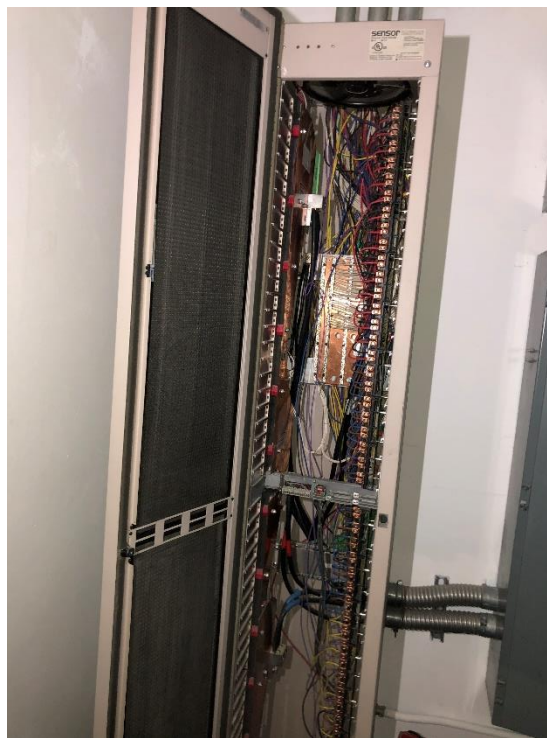
Electrical Distribution Panel for Air Conditioning Equipment



Electrical Distribution Panel



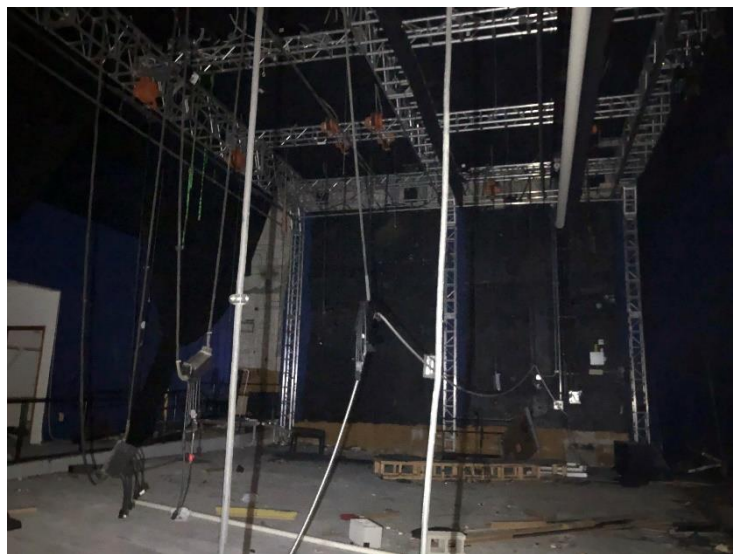
Electrical Disconnect and Wireway for Stage Dimming Equipment



Stage Dimming Equipment



Stage Dimming Equipment



Stage Rigging



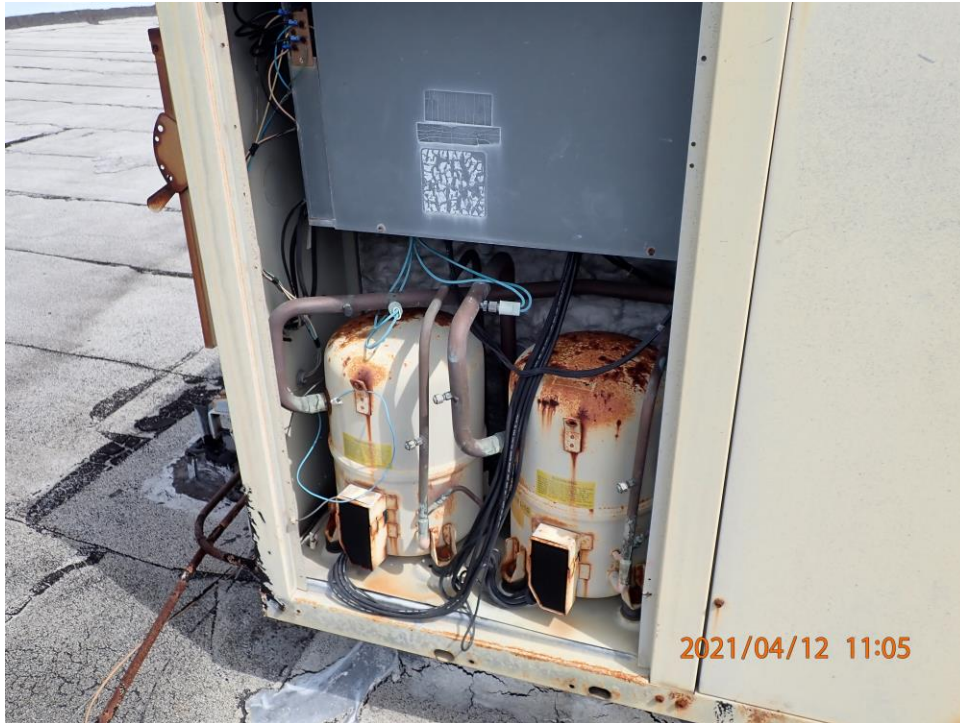
Stage View from Balcony



Fire Alarm Equipment



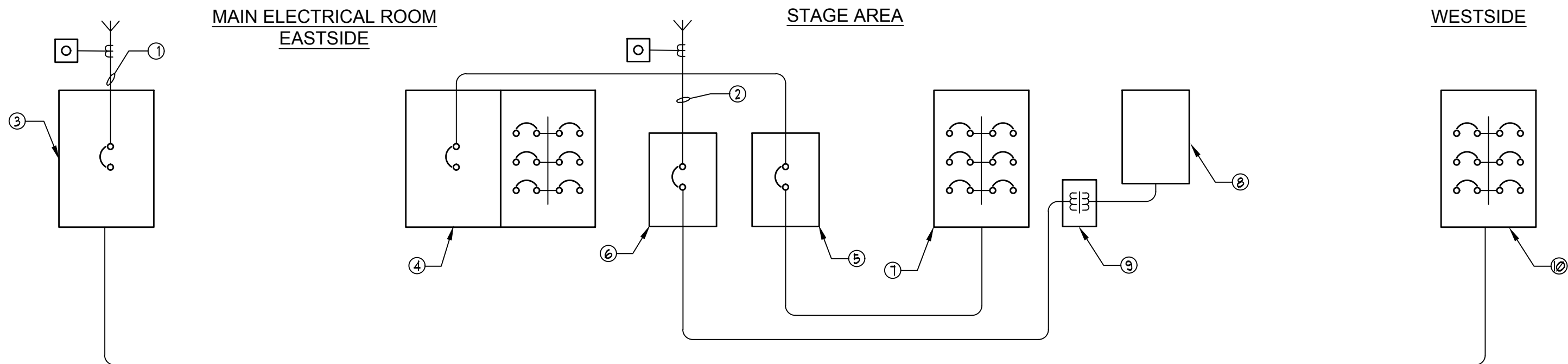
Fire Alarm Equipment



Roof Top Air Conditioning Unit.



Condenser Coil on RTU



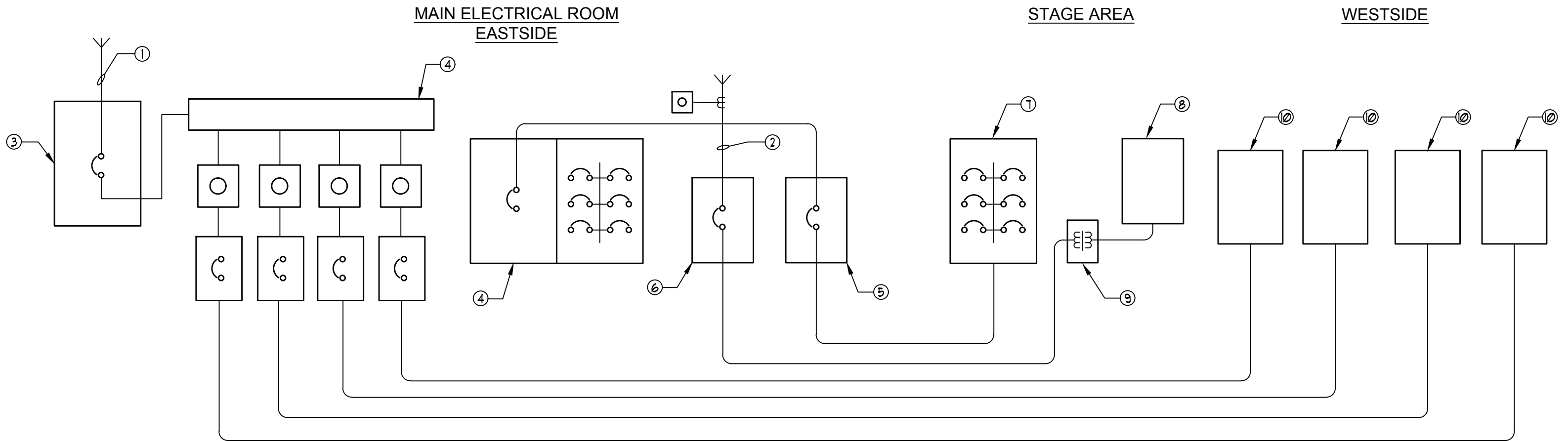
**ALTERNATE ELECTRICAL RISER - MAJOR EQUIPMENT
SINGLE WESTSIDE TENANT**

N.T.S.

KEY NOTES

- ① FPL VAULT STAB AND METER NUMBER ONE.
- ② FPL VAULT STAB AND METER NUMBER TWO.
- ③ ELECTRICAL SERVICE MAIN # 1 OF 4.
SERVES BUILDING WESTSIDE TENANT.
- ④ ELECTRICAL SERVICE MAIN # 2 OF 4 AND DISTRIBUTION PANEL.
SERVES BUILDING EASTSIDE.
- ⑤ ELECTRICAL SERVICE MAIN # 3 OF 4.
SERVES STAGE AREA AND EQUIPMENT.
- ⑥ ELECTRICAL SERVICE MAIN # 4 OF 4.
SERVES THEATER AUDIO SYSTEM.
- ⑦ STAGE AREA DISTRIBUTION PANEL.
- ⑧ STAGE AREA AUDIO SYSTEM PANEL.
- ⑨ ISOLATION TRANSFORMER FOR STAGE AREA AUDIO SYSTEM.
- ⑩ WESTSIDE DISTRIBUTION PANEL.

Byron Carlyle Theater
500 71st Street
Miami Beach, Florida 33141
May 6th, 2021



PARTIAL ELECTRICAL RISER - MAJOR EQUIPMENT
N.T.S. MULTIPLE WESTSIDE TENANT

KEY NOTES

- ① FPL VAULT STAB NUMBER ONE.
- ② FPL VAULT STAB AND METER NUMBER TWO.
- ③ ELECTRICAL SERVICE MAIN # 1 OF 4.
SERVES BUILDING WESTSIDE TENANT METERS.
- ④ ELECTRICAL SERVICE MAIN # 2 OF 4 AND DISTRIBUTION PANEL.
SERVES BUILDING EASTSIDE.
- ⑤ ELECTRICAL SERVICE MAIN # 3 OF 4.
SERVES STAGE AREA AND EQUIPMENT.
- ⑥ ELECTRICAL SERVICE MAIN # 4 OF 4.
SERVES THEATER AUDIO SYSTEM.
- ⑦ STAGE AREA DISTRIBUTION PANEL.
- ⑧ STAGE AREA AUDIO SYSTEM PANEL.
- ⑨ ISOLATION TRANSFORMER FOR STAGE AREA AUDIO SYSTEM.
- ⑩ WESTSIDE TENANT PANELS

Byron Carlyle Theater
 500 71st Street
 Miami Beach, Florida 33141
 May 6th, 2021

Theatrical Consulting, Acoustics, Audio, Lighting



EDWARD DUGGER + ASSOCIATES, P.A.
CONSULTANTS IN ARCHITECTURAL ACOUSTICS

Byron Carlyle Theater Study

500 71st Street in Miami Beach

6 May 2021

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PROJECT DESCRIPTION AND EXISTING CONDITION

Designed by architect Herbert Mathes and opened in 1968 as a ‘twin’ theater containing both 590- (Byron) and 993-seat (Carlyle) movie venues, the Byron Carlyle is an iconic part of Miami Beach’s storied history. The venue’s opening attracted stars such as Jackie Gleason with its ultra-modern design and amenities, setting new standards for audience experience and expectations. The theater was renovated multiple times through the 1970’s and 1980’s to arrive at a final 7-venue multiplex configuration with a shell of approximately 28,000 gsf.

Following a 2011 renovation into a 304-seat theatrical configuration, the Byron Carlyle served as home for the Stage Door Theater Company until 2014. The venue operated as O Cinema Miami Beach until shuttering in 2019. The building today sits closed to the public.

In 2021, ED+A was engaged with MC Harry Associates to assess the existing condition of the theater, and to make recommendations as to the performance technical and acoustical aspects of the renovation or new (re) construction.



Project example - Rinker Playhouse / Raymond F. Kravis Center, West Palm Beach, Florida

SUGGESTED PROGRAM

The current multiplex configuration is well past its prime and not appropriate for simple reconfiguration as a 21st century venue serving community-focused groups; a more comprehensive effort will be necessary. However, there are elements of the building's core architecture that allow for the strategic re-insertion of a new facility into the bones of the old.

We suggest a **300-seat multi-use theater** would serve the neighborhood's diverse and varied community-focused performing, literary, and visual artists / educators. Strategic insertion such a venue and its ancillary spaces could be accomplished within the **footprint of the East Theater**, taking advantage of the high ceiling and some existing walls / roof and clearing the lightweight interior.

Though the exact constituent makeup has yet to be determined, this approach would serve a wide range of user and audience experiences including:

- Musical or Dance rehearsal, instruction and performance in a range of styles, serving kids, teens, and adult / student audiences.
- Theatrical presentations
- Lectures, conferences, and community presentations, either in partnership with local educational institutions or stand-alone (TED-style) events
- Film / movie / television screenings of local artists and producers
- Catered banquet / dining events
- Fitness or exercise classes
- Gallery space for visual art presentations / exhibitions
- Administrative and office space serving cultural facilities.

The attached program (ED+A Architectural Program Draft, 4/25/2021) details 'typical' program, square footage, and volumetric information for those components of a facility that could support these goals.

The **West Theater**, currently partitioned into 5 separate spaces, has had its full technical / projection infrastructure removed (as well as finish treatments, seating, etc.) As with the East Theater, simple reconfiguration is impractical and an outdated project approach.

The shell space of this portion of the building has a **wider range of possibilities**, including:

- Construction of a second, similarly sized 250 +/- seat theater and associated backstage areas
- Configuration as a 9,000 +/- gsf program block for tenant fit-out
- Incorporation of an additional rehearsal / theater support space
- Development of community classrooms
- An art gallery / artist studios
- Administrative or Maker Space



Project example - Rinker Playhouse / Raymond F. Kravis Center, West Palm Beach, Florida

MULTI-USE THEATER

Narrative Description

As the heart of the new facility, a new 300-seat venue will be designed with flexibility in mind. Its use will vary from day-to-day to serve a variety of program groups; simplicity of setup and reconfiguration will be key to a highly functional and quick turn-over process. The ability to easily accommodate a wide range of use will be a key aspect to the design, with excellent sightlines, circulation, and easy access goals for all events.

The basis of the theater is a rectilinear space inserted into the existing building volume. As the room height and footprint are largely dictated by the existing building layout, our suggested concept incorporates a roughly 60' x 80' open plan dimension, with a ceiling height of 28'.

A flat floor and modular seating system are complimented by a simple overhead pipe grid at the 20' to 24' elevation. All rigging in the venue will be manual, not motorized. Unistrut attachment points for incorporating lighting, scenic elements, projection equipment, etc. will be incorporated into the walls of the room. Depending upon design direction, overhead sound reflectors may be required to support onstage events.

Through manipulation of the stage and audience / seating platform zones, a variety of configurations will allow optimal sightlines and intimacy between audience and performer. (These are described below and in the subsequent pages). Movable banks of retractable / operable riser seating will constitute the majority of the seating area, with supplementary stacking or folding chairs used as appropriate.

The floor will be constructed using a resilient support system capable of easily supporting dance and theatrical movement, with a high performance Plyron (hardboard laminated to plywood) sheet above a wood sleeper system that incorporates insulation for sound and thermal functions. (Given concerns of water drainage, a pit or trappable floor would be difficult and is not advised.)

Room shaping and materiality will be critical to supporting acoustical performance. Walls will consist of sealed, split-faced CMU (approximately 40% of wall area) alternating with fixed absorptive panels (60%) and slightly tilted wall surfaces to prevent parallelism and avoid 'flutter' echoes. Fully retractable acoustic curtains will be incorporated to adjust reverberation. These will typically be exposed for drama, speech, and amplified music and retracted for non-amplified music.

The theater will be isolated from adjacent spaces by vestibules and sound-blocking doors, helping to prevent acoustic or light intrusion into the performance area from lobby, backstage / loading, or other building zones. An oversize door joins the loading zone to the main theater volume.

Architectural enhancements to the roof of the space via inner layers of isolated construction may prove necessary to protect against environmental noise, though these incur a significant cost. A careful cost-benefit analysis of protection against environmental noise sources (helicopters, airplanes, heavy construction, etc.) will be required. Within the volume of the room, a monolithic plane with significant (50%+) areas of absorptive material will be required.

Sophisticated LED performance lighting will be integrated into the room, incorporating control systems, dimming, pluggable devices / movable instruments and accessories, and controlled from a rear-of-house lighting booth (as well as in house control point) that enjoys an unobstructed view of the stage regardless of the stage / seating condition.

A state-of-the-art Audio-Video system supporting computer-projected imagery, musical, speech, and video reinforcement / recording, on-site audio mixing and playback, technical / production intercom and lobby paging will be an integral part of the room's technical infrastructure. These systems will be controlled either at AV control at the upper rear of the room, or via portable tablet-based mixing / control devices.

AV elements within the space itself will be suspended from the room's pipe grid and associated overhead technical infrastructure. Line arrays should be considered. Exact location and extent of coverage of sound system elements will be developed as part of the design process, though for all configurations audio and video recording of events will be supported for later mixing, editing, streaming, etc.

Anticipated functions are as follows:

Theatrical / Dance Instruction / Performance

The multi-use theater will be designed to allow for a wide range of performances to be installed, accessed, and manipulated. End or Thrust Stage configurations are available by arrangement of the retractable riser seating and audience zones, with complementary lighting, sound, and technical elements supporting such performances. More experimental seating can utilize the flat floor to arrive at an assortment of audience formations.

Conference / Lecture

This configuration will support a range of educational, community, and artistic presentations, using the room's technical lighting, video, and audio infrastructure to facilitate event production. Lectures, local community talks, dramatic readings, and other functions will be an important part of the room's configuration, extending functionality to a wide range of users and events.

Depending upon anticipated event attendance, the room can utilize either its full 300-seat capacity (similar to theatrical performance mode) or more free-form seating / audience configurations.

Film / Video

Similar in configuration to Conference mode, this configuration would draw upon AV projection infrastructure potentially in concert with lectures and / or panel discussions to allow filmmakers to discuss their work before, during, and after presentation.

This configuration is envisioned as a space allowing viewing and connection with artists both presenting and discussing work in an intimate screening space. First-run "Blockbuster" movies could possibly be supported, though these would require technical infrastructure and ticketing beyond the currently envisioned scope.

Musical Rehearsal / Performance

The room's natural support of music will invite a range of artists and ensembles in either rehearsal or performance. These might include the range of musical ensembles (salsa, rock-and-roll, electronic, jazz, etc.), orchestra and band, small rehearsals, youth orchestra, chamber music, etc. Both performance and educational focus, either stand-alone or drawing upon the space's technical infrastructure, will be supported.

Banquet / Reception

With a fully flat floor and riser seating struck to storage, a 120+ person seated dining events and 200+ person 'cocktail party' mode (and their extensive variations) will be possible. These configurations can easily support a variety of functions, including exhibitions which extend to the gallery/lobby area in the front of the building. Food service will be fully catered as extensive kitchen and food preparation areas are not part of the program.

Fitness / Exercise

An important part of community participation, public gathering and exercise classes might include a combination of yoga, exercise classes, Tai Chi or movement practice, or other events. These would center upon the individual, and not upon free-weight or machine-related events requiring extensive storage or configuration of the room for exercise bikes, spinning machines, etc.

Gallery / Art Exhibition

The multi-use theater will serve dual functions as a both a visual arts presentation and mixing / gathering space, with events possibly extending into the lobby for public, non-controlled or ticketed access. Temporary walls or screens, either free-standing or suspended from the pipe grid, will provide mounting for visual arts display, free / open floor area for sculptural pieces, and displayed / projected multimedia imagery will be supported. Small-scale performances may also enjoy using the lobby zone for pre- or post-event presentation in concert with events in the main multi-use theater. Secure, off-hours access will help the lobby function as an extended hour gathering space and may help increase utilization.

Architectural Criteria

Primary Uses:

Music, drama, dance, speech, lecture, rehearsal, gallery, banquet, exhibition, fitness.

Reverberation time:

.9 to 1.2 seconds

Background noise:

RC 15-20

Volume:

Dimensions - Approx. 60' x 80' x 28'

Walls:

Walls will be split-face masonry ("Split") attached to the existing walls with voids filled completely with block filler. CMU / Split should be integrally colored and sealed with a clear sealer, painted, skim-coated with plaster, or covered with panels as desired by the architect.

Applied diffusive panels and 2" thick fabric-wrapped glass fiber panels will be required across approximately 50% of the wall area.

If weight or cost will not allow the use of Split, stud walls with a minimum of 3 layers of 5/8" Type X gypsum will be required.

All wall, floor, and ceiling penetrations for ductwork, conduit, and piping should be permanently sealed with acoustically rated sealant. Thru-wall penetrations will be limited to the corridor walls only.

Adjustable Acoustics:

Variable acoustic elements consisting of manually operable curtains will be integrated into the walls of the room. Elements can stack in corners (into pockets) and be operated manually by a pull rope or walk-along rod.

Ceiling / Roof:

Lightweight concrete topping on metal roof deck and insulation supported by roof trusses is existing.

Roof/Ceiling Construction may require an inner stud construction to help isolate exterior noise. (3 layers of 5/8" Type X gypsum)

A reflector array will be located 20 to 24 feet above finished floor, either as a fixed element or adjustable element.

Areas of the ceiling will be treated with sound-absorptive materials to control reflection over 50 to 70% of the roof area – exact extent TBD. Material may be fiberglass panels (FWAP), mineral fiber tile (Tectum) or spray-applied, sound-absorptive treatment.

Stage Flooring

The floor in a Multi-Use Theater needs to serve a wide variety of functions while still being easy to maintain. It will be constructed using a resilient support system capable of easily supporting dance and theatrical movement, with a high performance Plyron (hardboard laminated to plywood) sheet above a wood sleeper system that incorporates insulation for sound and thermal functions.

Recess the whole room floor slab to accommodate the finished floor assembly.

Seating:

Fixed and loose upholstered seating and retractable.

Mechanical / Electrical / Plumbing:

No mechanical equipment immediately adjacent to performance space. No rooftop or suspended AHUs and exhaust fans. Round ductwork should be utilized if located within the acoustic volume of the theater.

No direct openings to other rooms except for storage related to the performance space.

Plumbing of adjacent bathrooms must not be attached to mass wall of performance space. There should be no roof drains located within the theater volume.

LED lighting only for house lighting in the theater and immediately adjacent spaces, such as vestibules.

Performance Systems Criteria and Components

Theatrical and Performance Lighting (PL) systems requirements for the Multi-Use Theater encompass specialty equipment systems are described herein. Theatrical rigging, seating risers, and supporting power infrastructure are also included.

Performance Rigging – Estimated Cost = \$200,000

1. Provide a suspended grid of 1.5" standard (1.9" O.D.) Schedule 40 pipe arrayed across the entire room at a 5' x 5' horizontal spacing. Provide the pipe grid at a suggested height range of 20' to 24'. Allow enough room for the HVAC ductwork and AV and PL raceways and connection panels above the grid. The grid will provide hanging point for lighting, drapery, AV devices, and small scenery.

Since the original roof was not designed to carry these additional dead/live loads we suggest that a new steel frame system be added within the shell of Multi-Use Theater. The structural loads are listed below. There will be an opportunity to use this new steel frame to increase the wind load capacity for the existing theater shell, which has been identified as problematic in earlier structural studies.

2. Pipe grid shall be rated for 30 plf applied static load, or a non-concurrent 250# point load. The grid will not be designed for substantial dynamic loads.
3. Pipe grid shall be laterally braced to walls to prevent swaying or moving. This is typically done at the end of the pipes as they touch the walls.
4. The pipe grid and components shall be engineered by the performance contractor, whose engineer will provide signed and sealed drawings for review by the design team.
5. The pipe grid will remain free of conduit and wiring services, except for those performance circuits and low voltage devices from the lighting and sound system that serve its function. All conduit and infrastructure shall route to junction boxes from immediately above.
6. No services will be placed within 6" from the top of the pipe grid, including but not limited to, electrical, lighting fixtures, mechanical ducts, and sprinkler heads.
7. Provide Performance Lighting (PL) infrastructure as noted in that scope within this document. Audio Video (AV) infrastructure as noted in the AV document scope.

8. Provide loose equipment to clamp on to pipe grid for vertical or cross grid applications. Loose equipment shall include lengths of matching pipe, as well as 90-degree couplers.

Stage Drapery and Track

1. Provide perimeter hung theatrical drapery. The curtains will hang from the pipe grid.
2. Room drapery shall be of 25oz inherently flame-retardant velour (color to be selected by the architect) sewn 100% full and lined.
3. Hand operated tracks shall be provided for all draperies as noted on the drawings. Drapery track to be H&H 500 Series I-Style track or similar, color black.

Rehearsal Space Power and Data

1. Provide general purpose 20A rated electrical outlets at locations no more than 12'-0" from any point on the grid. Provide no more than 3 outlets per 20A circuit.
2. Provide building data connections adjacent to every outlet.

Performance Dimming and Controls – Estimated cost = \$300,000

1. Dimmers and Distribution
 - a. No installed dimmers are planned because anticipated fixtures will be self-dimming.
 - b. A small quantity of backpack dimmers shall be provided to allow the use of existing conventional lighting equipment where no installed dimmers are included. These are lower wattage portable dimmers that hang on the yoke of the fixture to be dimmed. They are powered from constant power, switched via a motorized breaker panel, and controlled via DMX control signal.
 - c. Circuit distribution shall be from motorized breaker panels via plug boxes with stage connectors (connector configuration to be developed with users.)
 - d. A total of no less than 50 performance circuits should be distributed in the room.
 - i. 40 circuits shall be evenly distributed on the pipe grid via junction boxes in groups of 2 or 3. Circuits shall be placed such that they are no further than 12' from any point on the pipe grid.

- ii. 10 circuits shall be evenly distributed at floor level, mounted at receptacle height in the wall. Circuits shall be in groups of 2 or 3.
- iii. Circuit boxes at pipe grid level shall be U-bolted upright on top of the pipe grid.

2. Control Console

- a. The PL control consoles shall be a small computerized lighting console. The console shall be ETC Element, or equal, and shall include a portable cart, 2 touchscreen monitors, and a remote focus device. The console shall be primarily located in the control booth but shall also be able to roll to floor level and plug into control distribution plates.

3. Architectural Lighting Control System

- a. A work and house light control system shall provide a basic level of control for the performance and audience areas. The architectural control shall include programmable light switch stations at entries for basic operation, and a touch panel for moderate preset controls for certain events not requiring the full capabilities of a control console.
- b. The architectural control system shall be engineered specifically for performance type fixtures and include native DMX-512 control for all control processes.
- c. The house lighting system to be integrated into the PL system using the ETC ArcSystem or equal. When the whole PL system is not being used and simple room lighting is needed, the system will be controlled with a push button panel system located at all entry doors, Control Room, and backstage access locations.
- d. Architectural control system shall be ETC Paradigm, or equal.

4. Control System

- a. The control system shall be a DMX driven system transported over Ethernet in a standards compliant format. The system shall utilize portable, user configurable nodes that accept and distribute DMX-512A information. These nodes shall be powered over the Ethernet cabling in a manner compliant with the IEEE Power Over Ethernet standard. Some devices in the system may be native to the Ethernet system, such as the architectural controller and the portable dimmers.

5. Control Distribution

- a. 1 dedicated lighting network port and 1 DMX output port are to be provided at one end of every other pipe at the pipe grid.

- b. 2 dedicated lighting network ports and 1 DMX output port are to be provided adjacent to each performance lighting circuit mounted at floor level.
 - c. 3 dedicated lighting network ports are to be provided in the control booth.
 - d. Control boxes at pipe grid level shall be U-bolted upright on top of the pipe grid.
6. Company Switch
- a. UL listed Company switches with connection provisions for cam-lok connectors and bare leads shall be provided for the Multi-Use Theater. We suggest a 400 amp 3-phase switch be provided for PL and a 100 amp 1-phase switch for AV (via a K-13 rated transformer to filter unwanted noises). These switches will include lock-out provisions and shunt trip breakers that de-energize the unit when live components are exposed.
 - b. Company switch shall be Union Connector, ETC, SSRC, or equal.
7. Emergency Lighting Transfer Switch and DMX Driven relay Cabinet
- a. If required due to a generator or inverter backup source, a code-compliant transfer switch shall be provided to transfer power supplied to selected hard wired architectural lighting fixtures from the normal feeds (via relays and dimmers) to constant emergency power sources.
 - b. For DMX controlled LED fixtures, if used for emergency egress, this system shall include a UL listed DMX bypass device to override the control signal to take fixture output to full.
 - c. Devices shall be ETC, Strand Phillips, or equal.
8. DMX Driven relay Cabinet
- a. A motorized breaker panelboard or DMX driven relay cabinet shall be provided for performance circuits at the pipe grid and the room to centrally power on and off performance equipment.
 - b. This is a panel board employing motorized breakers that will be controlled via DMX signals from the performance lighting control system.
 - c. Panels shall be ETC Sensor IQ, LynTec RCP Series or equal

Performance Lighting Instruments and Accessories – Estimated cost = \$200,000

This equipment encompasses the lights, cables, booms, and other portable equipment involved in placing lights on stage.

1. LED Ellipsoidal Instruments
 - a. ETC Source4 LED Series 2 or Equal.
 - b. ETC Source4 LED Colorsource Spot or Equal.
2. LED Wash Instruments
 - a. ETC Selador Desire D40 or Equal.
 - b. ETC ColorSource PAR or Equal.
3. LED Followspots
 - a. Provide two Robert Juliat 600W followspot with floor stands or Equal.

Seating Systems – Estimated cost = \$600,000

1. Telescoping Seating Platforms
 - a. This system has integrated seats allowing the deployment of the majority of seating on a series of raised platforms for optimal sightlines. The system shall incorporate electro-mechanical actuation for extension and contraction of seating risers. Seats shall be manually raised and stored.
 - b. The system shall store in a maximum of a 5'-0" depth.
 - c. Seats shall be mounted on individual supports and shall not be ganged together.
 - d. The seating system shall include all railings and safety devices to conform with Florida Building Code.
 - e. Seating system shall be manufactured by Jezet Seating, Seda, or equal.
2. Portable Platforming System
 - a. A platforming system shall be provided for use in creating stepped audience seating at the sides and for smaller flexible configurations as shown on the drawings. The platform system may also be used to create a raised performance area in the room.

- b. This system shall include engineered platforms that utilize pipe legs and braces. Platforms shall be engineered for a 150 psf live load to ensure compliance also as a portable stage system.
 - c. Platforms system shall include a portable ADA accessible ramp system that elevates up to platform height.
 - d. Platform system shall include dedicated carts for platforms, and one dedicated cart for railings and accessories. All carts shall be able to roll through a standard 36" doorway.
 - e. Seating platforms shall be Wenger, Staging Concepts, Stageright or equal.
3. Loose Audience Seating
- a. A collection of loose chairs for flexible configurations for use on portable platforms. Chairs will link together to conform to code egress requirements.
 - b. Seats shall be Acton Stacker, Wenger Portable Audience Chair, or equal.

Riser Systems – Estimated cost = \$20,000

1. Choral Risers
- a. A standard riser system designed to accommodate a standing chorus. This system will include a modular railing system.
 - b. Risers shall be Wenger Signature Choral Risers or equal.

Stage and Support Equipment – Estimated cost = \$15,000

1. Telescoping Work Platform
- a. A telescopic personnel lift shall be provided to allow a technician access to the rigging pipes.
 - b. Lift shall allow a single person to safely reach the pipe grid in the multi-use theater.
 - c. Lift shall comply with all OSHA requirements.
 - d. Lift shall be Genie AWP series or equal.

Audio/Video Systems Criteria

The Audio / Video (AV) system for the Multi-Use Theater will need to be highly flexible to be able to easily adapt to the various users of the space without causing overly high crew time/costs. Based on preliminary discussions and our experiences with similar type venues we would suggest the AV system be able to handle the following:

1. Lecture (flat floor or telescopic seating) with one or multiple projection screens. Lectern with single presenter and/or with dais with multiple presenters. Wireless microphone for audience participation.
2. Round top table banquet with live band or lecturer with or without projected images. General paging capabilities. Wireless microphone for audience participation.
3. End or thrust stage for typical theatrical or musical presentations. Speakers hung from the pipe grid for general audio and musical content. Additional effects speakers could also be added from the ceiling or walls.
4. Large musical or dance rehearsals capable of archival recordings for music and playback for dance.
5. Yoga and fitness events or classes. General musical playback from pipe grid mounted speaker system.
6. Musical presentation. Will require a line array system hung from the pipe grid flanking both sides of the stage. A center cluster will also be suggested.
7. Theatrical presentations, including musicals. Will require a line array system hung from the pipe grid flanking both sides of the stage. A center cluster will also be suggested. Additional effects speakers could also be added from the ceiling or walls.
8. TED talks would be similar to a lecture but would require full complement of video cameras, switcher, and signal processing equipment for either a live feed or recorded for post processing.

AV System Components – Estimated cost = \$350,000

The following would be the type of equipment expected for the Multi-Use Theater:

Loudspeakers

A system of left and right horizontally arrayed self-powered speakers will cover all of the audience seating. Two subwoofers will be located directly above the line arrays. Very small front-fill stage lip speakers will be available to deploy when appropriate. Four self-powered effects speakers should be provided.

Monitor/Page speakers

Front-of-house flush ceiling and/or surface-mounted speakers to be located in public spaces, lobby, and corridors. These speakers can play background music, monitor theater audio and provide paging and notifications from the control booth. Back-of-house flush ceiling and/or surface-mounted speakers are provided for the back-of-house (green room/dressing rooms) show monitoring and paging.

Audio Mixing

A 32-fader, 64-channel digital mixer is normally located in the control booth but can be temporarily relocated in the theater. It can be remotely controlled via a wi-fi tablet (*iPad*) from anywhere in the theater. The mixer has the ability to auto-mix microphones when desired. Four 16-input, 8-output “stage boxes,” connect with two Ethernet-type cables (redundant *Dante*) and AC power cord. These are deployable at connection points around the perimeter of the stage.

Microphones

Sixteen channels of wireless microphones to be provided with 14 bodypack and 2 handheld microphones. The bodypack transmitters can use either the lapel-type miniature microphones or over-ear type microphones. Wired podium and stereo audience microphones to be provided as well as several general-purpose voice and instrument microphones and stands.

A compliment of instrument and drum mics would also be required.

Production Intercom

A two-channel intercom system is to be provided for communication between key production personnel. The main station would be located in the control booth. Additional intercom stations (flush wall-mounted speaker stations) would be potentially located in the green room, dressing rooms, and ticket office. Six belt pack/headsets would have multiple connection points throughout the production areas. The intercom main station also provides paging to the front and back of house independently.

Hearing Assistance

An FM radio-type hearing assistance system with the number of receivers based on the ADA required 4% of permanent seating. Earbuds and T-coil neck-loops for compatible hearing aids to be provided.

Video Camera System

Three small robotic HD video cameras to be positioned around the theater and controlled in the control room to provide show monitoring and IP streaming video for distribution throughout the facility (locations for LCD TVs to be determined). For larger events, a rental camera system with a broadcast-type truck would be used.

Video Projection

A large projection screen is provided for front or rear projection. A high definition and high light-output HD (4K) projector to be provided for images from the video cameras, a media player, and computers. Two secondary (2k) projectors to be provided for portable use during lectures or side screen setup.

Presentation System

An on-stage input for audio and video from a laptop computer (HDMI) to the projector and sound system to be provided for lecturer/presentation use. A lectern should also be provided.

ANCILLARY SPACE ARCHITECTURAL CRITERIA

Lobby / Front of House

A double height lobby is strongly preferred, to aid performance and general room acoustic ambiance.

Walls/Ceilings: Sound absorptive material (FWAP, TECTUM, Baswaphon, etc.) must be incorporated into the wall and ceiling finishes in this area to control overall reverberation. Exact materials and locations TBD as design progresses.

Doors: Doors to exterior may be of heavy construction to isolate exterior noise. Need for isolation and extent of construction has yet to be determined.

Vestibules / Sound and Light Locks (SLL)

Vestibules will help to control sound and light penetration from ancillary spaces into the theater.

Background noise: RC 20-25

Walls: Fabric-wrapped glass fiber panels (FWAP) should be incorporated into 50% of these surfaces, concentrating in the 4' to 7' AFF zone.

Floors: Carpet or carpet tile.

Doors: Inner doors - 2 ¼" thick solid core, full perimeter gasketing, no latch or panic hardware Outer doors - 2 ¼" thick solid core, full perimeter gasketing. Quiet operation panic hardware can be located at the outer doors only. No panic hardware should be located at the doors within the Theater. Fire separation line should be configured for outer doors.

Ceiling: High NRC ceiling tile, mineral fiber tile or fabric-wrapped glass fiber panels (FWAP)

Lighting / Control / Follow Spot Booths

These areas will be used for live event production and housing technical system infrastructure and instruments. The control room may be open to the theater during rehearsals and performances, or isolated via a window system.

Background noise: RC 25-30

Walls: Side and rear walls: fabric-wrapped glass fiber panels (FWAP) over minimum 50% of these areas, concentrating in the 4' to 7' AFF zone. Multi-layered gypsum board, concrete or masonry substrate running fully to deck above.

Floors: VCT or exposed Concrete slab.

Doors: 2 ¼" thick solid core, full perimeter gasketing, no latch or panic hardware.

Ceiling: High NRC ceiling tile, mineral fiber tile or fabric-wrapped glass fiber panels (FWAP).

Window: Operable, angled ½" thick laminated glass. STC rating of 35. All voids around frames to be packed with glass fiber and sealed. Fixed projection grade glazing will be required at projection areas. Glass thickness of 3/8" minimum is recommended.

All wall, floor, and ceiling penetrations for ductwork, conduit, and piping shall be permanently sealed with grout or acoustically rated sealant.

Lighting shall be a mix of dimmable incandescent lighting (for performance) and LED (preferred) or fluorescent work lighting. Any fluorescent lighting must have remotely located ballasts or electronic, sound rated 'A' ballasts.

Backstage / Receiving / Loading Dock

Background noise: RC 30 - 35

Walls: Concrete or masonry, unpainted or painted without filler; Tectum paneling.

Floor: Concrete.

Doors: A large STC-50 sound-rated door is required between the Theater Stage and the Loading Dock. Smaller person-doors will require vestibules or a similar STC-50 rating.

Ceiling: Acoustic metal deck or thick spray-on absorption.

Toilets

Walls: Standard construction to non-sensitive spaces; secondary walls and isolation to the main theater. Isolated wet wall and plumbing construction. Isolation of toilets will depend on location. Exact wall construction TBD.

Floors: Concrete slab on grade with perimeter isolation joint or secondary floated slabs if above grade and near acoustically sensitive spaces. Isolated floor construction where near acoustically sensitive spaces.

Doors: Louvered doors or well gasketed doors without louvers if door opens onto an acoustically sensitive space.

Ceiling: High NRC ceiling tile, mineral fiber tile or fabric-wrapped glass fiber panels (FWAP).

Piping: Route piping carefully to avoid contacting any building surfaces of acoustically sensitive spaces.

All wall, floor, and ceiling penetrations for ductwork, conduit, and piping shall be permanently sealed with solid masonry or acoustically rated sealant.

Concessions

Ice machines, refrigerators, freezers, and other motorized equipment should be located away from the theater and cannot share a common wall. All equipment should include vibration isolation and avoid direct floor or wall coupling.

Acoustic wall, ceiling, and floor treatment will help to control ambient noise. Carpet should be considered to decrease noise due to carts.

Dimmer Room / A/V Equipment Rack Room / Electrical Rooms

Significant construction is required to isolate the tonal noise of specialized technical equipment including dimmers and their cooling fans, AV equipment racks, large transformers, and UPS units. "Room-within-room" construction may be required, using grout-filled masonry or stud walls with multiple layers of gypsum board.

Outer construction: 8" thick grout-filled CMU walls.

Inner construction: Stud walls and ceiling with two layers gypsum (resiliently supported off walls and concrete ceiling) and isolated wood.

Door construction: Heavy gauge metal with fiber fill or solid wood (staved or particleboard) doors. Full perimeter seals shall be provided. A raised threshold may be required to obtain a full seal.

All wall, floor, and ceiling penetrations for ductwork, conduit, and piping shall be permanently sealed with grout or acoustically rated sealant. Avoid any penetrations directly to the supply air plenum above.

Transformers should not be located near rooms containing sensitive recording and audio system equipment or rooms with windows.

Performance Support / Dressing Rooms / Green Room / Administrative Offices

These spaces house performers and guests for pre and post function preparation, dressing, warm-up, and post-event reception. They must be isolated from the theater and from each other. Some pre-event warmup and practice will likely take place herein.

A consistent approach to these areas is encouraged, as it is quite common for these zones to serve interchangeably dependent upon conditions. They might also function as cultural incubators and shared production spaces depending on community demand.

Background noise: RC 30 - 35

Walls: Fabric-wrapped glass fiber panels (FWAP) over minimum 50% of these areas, concentrating in the 4' to 7' AFF zone. Multi-layered gypsum board, concrete or masonry substrate running fully to deck above.

Doors: Heavy gauge metal with fiber fill or solid wood doors. 2 ¼" thick solid core, full perimeter gasketing.

Floors: Carpet or carpet tile.

Ceiling: High NRC (.85+) acoustic ceiling tile or gypsum board.

All wall, floor, and ceiling penetrations for ductwork, conduit, and piping shall be permanently sealed with grout or acoustically rated sealant.

Ductwork should not run between dressing rooms; separate supply ducts shall be run to corridor only. Plenum return with internally lined z-shaped transfer ducts at each room or ducted return ducts from each space to the corridor only.

Mechanical Rooms

Air handling units, pumps, transformers, chillers, boilers, etc.

Be careful to provide enough volume that duct runs and air handling unit layouts can avoid excessive convolution.

Walls: Grout-filled masonry or concrete. Unpainted masonry or concrete; in noisiest rooms partially covered with duct liner or absorptive Tectum panels.

Doors: Heavy door construction - thick solid wood or heavy-duty hollow metal with separated stiffeners. Full perimeter gasketing and thresholds.

Floors: Concrete Floor - Concrete slab on grade or secondary floated slabs if above grade

Ceiling: Concrete or metal deck; in noisiest rooms may be partially covered with duct liner, spray-on absorption, or Tectum panels / suspended barrier ceiling.

Penetrations: All penetrations of walls, floor, and ceiling must be slightly oversized, stuffed with glass fiber, and sealed airtight with permanently resilient, fire-rated acoustic sealant.

Supports: All vibrating or rotating equipment must be mounted on springs; all piping, conduit, and duct connections to such equipment must be made with resilient connectors; all piping, conduit, and ductwork within mechanical equipment rooms and within 30' of such rooms must be supported on resilient hangers or mounts. Refer to attached ED+A Mechanical Guidelines document for more information.

Ductwork: Expansion plena and/or attenuators required in all duct runs serving spaces listed as RC 30 or lower. Duct lining may be necessary in some parts of the duct runs. Ducts will be larger than normal to minimize air velocity. Refer to attached ED+A Mechanical Guidelines document for more information.

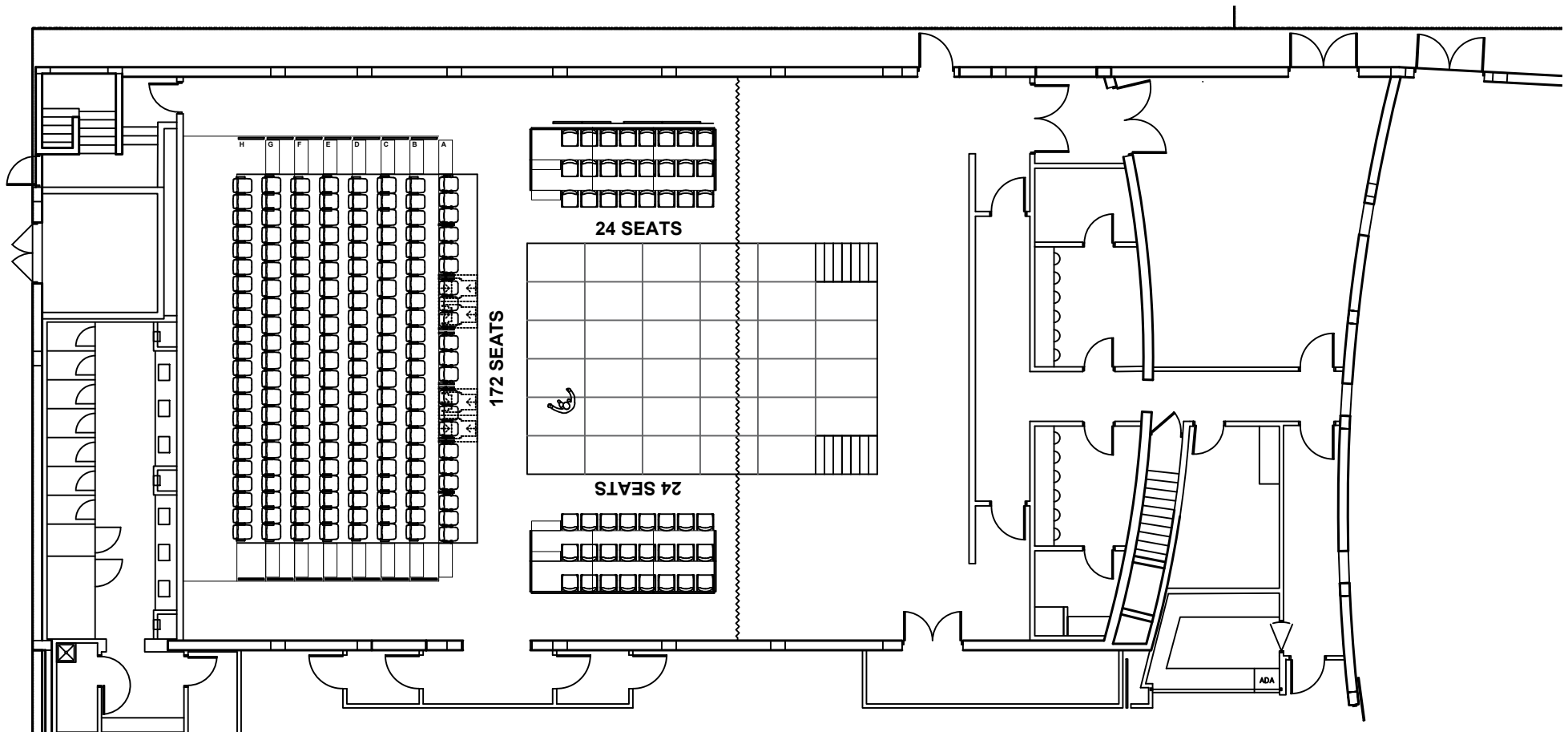
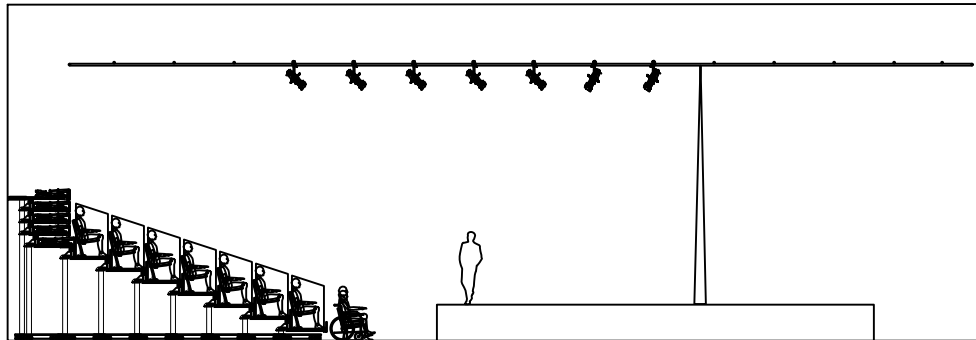
Plumbing: Roof rain-water leaders should not be located within the Multi-Purpose room volume.

THRUST STAGE



6 May 2021

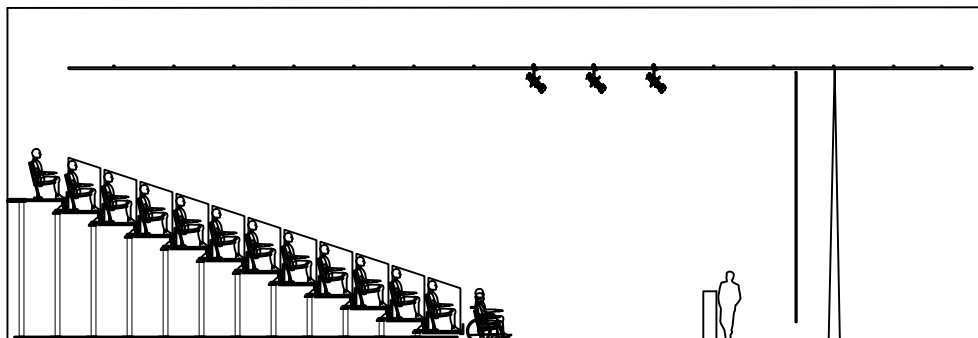
- Stage in center of room
- Risers partially deployed
- Additional seating wagons on sides of stage



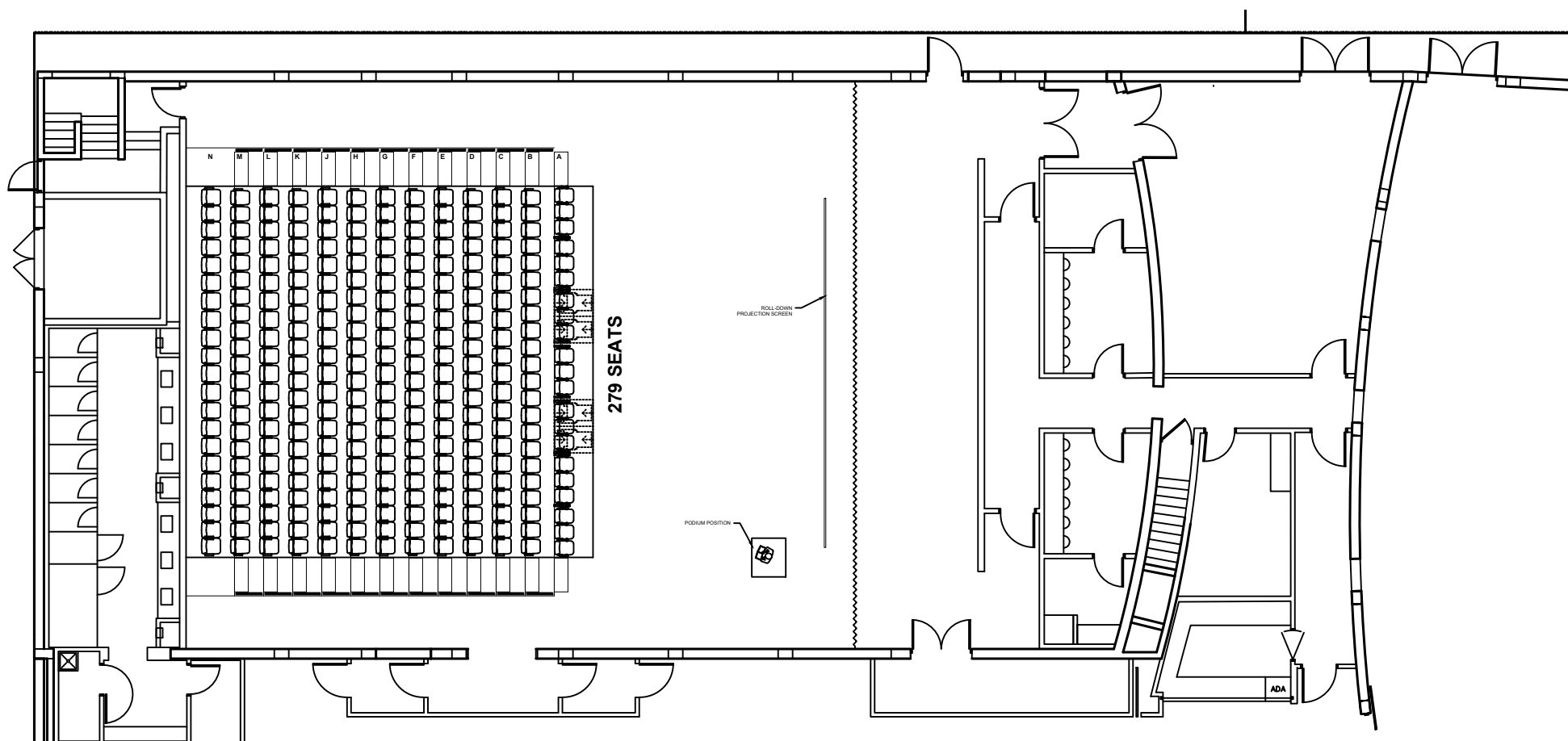
LECTURE/FILM



6 May 2021



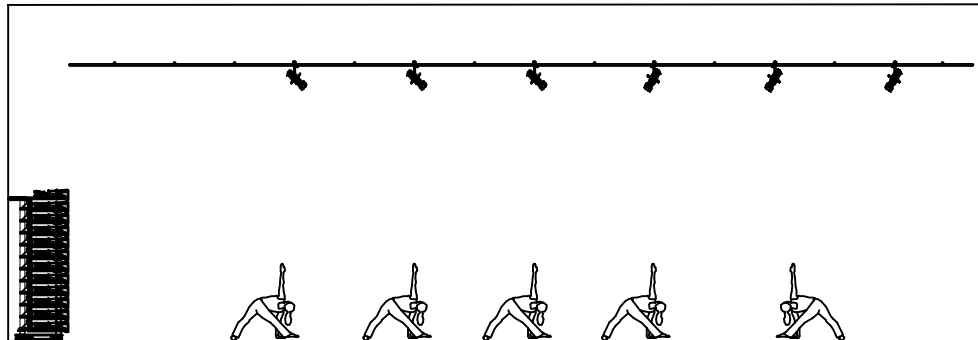
- Flat floor with lectern - no stage
- Risers fully deployed
- Projection Screen



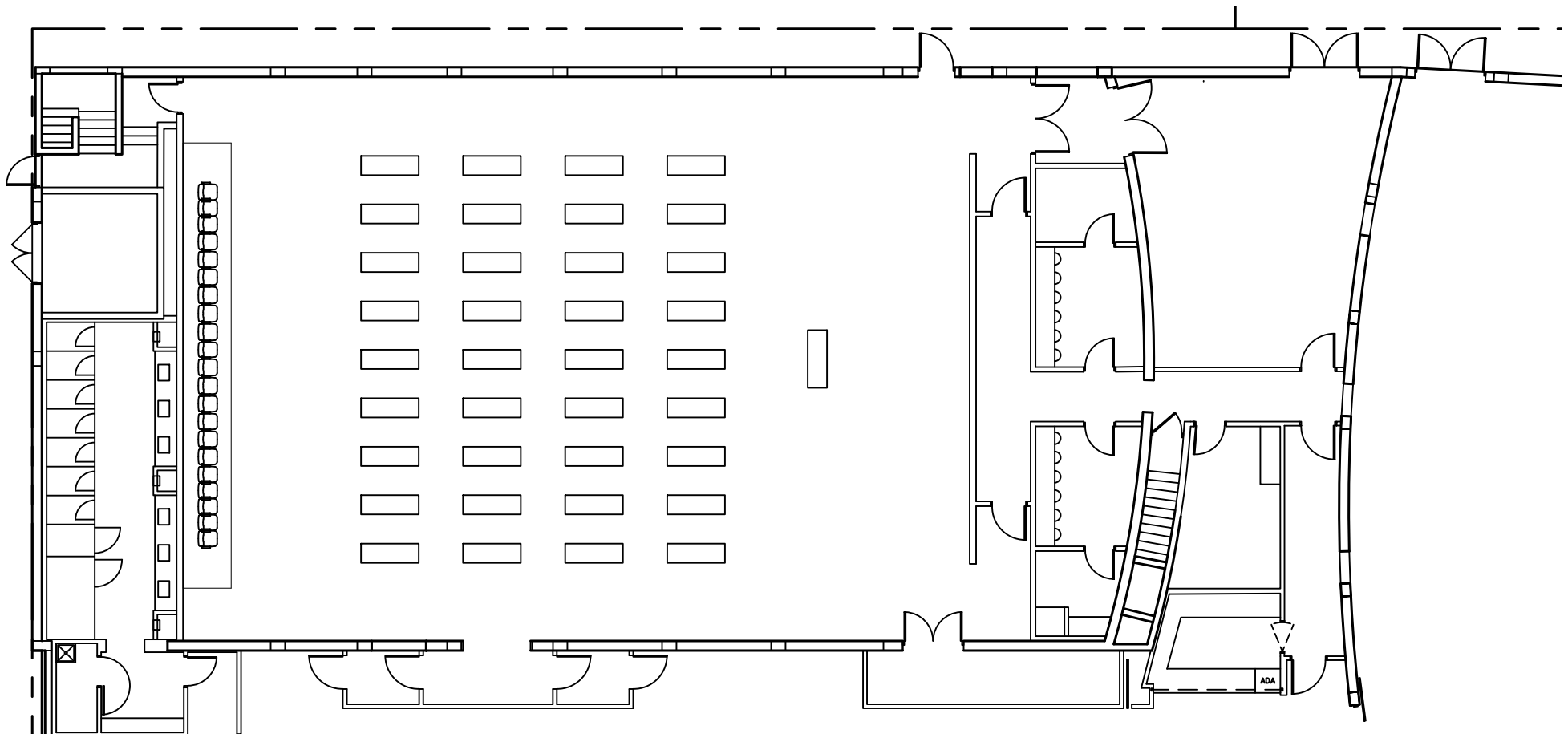
FITNESS/EXERCISE CLASS



6 May 2021



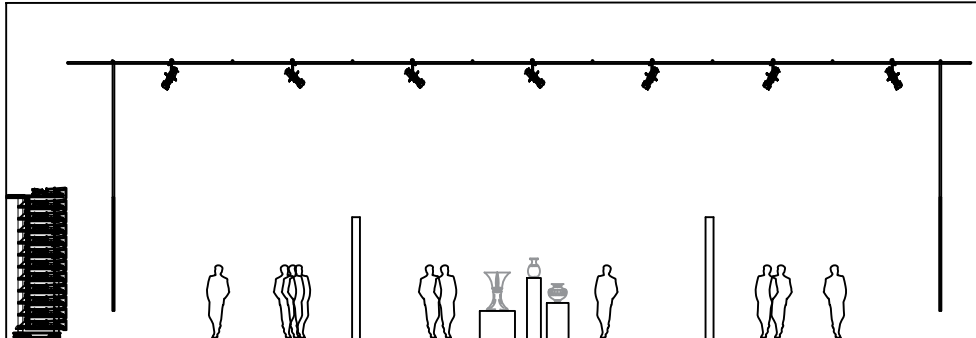
- Flat floor
- Risers stored



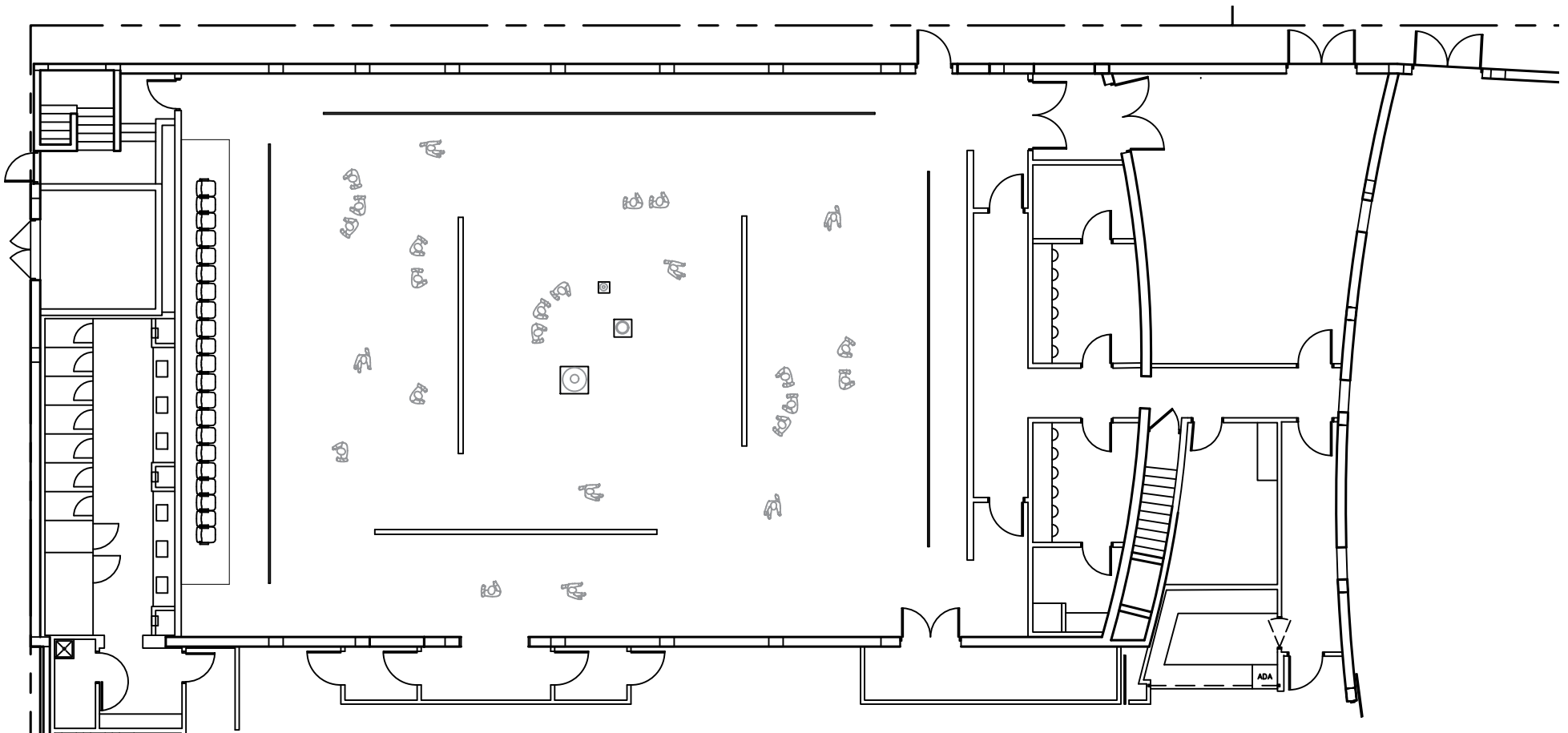
GALLERY/ VISUAL ARTS



6 May 2021



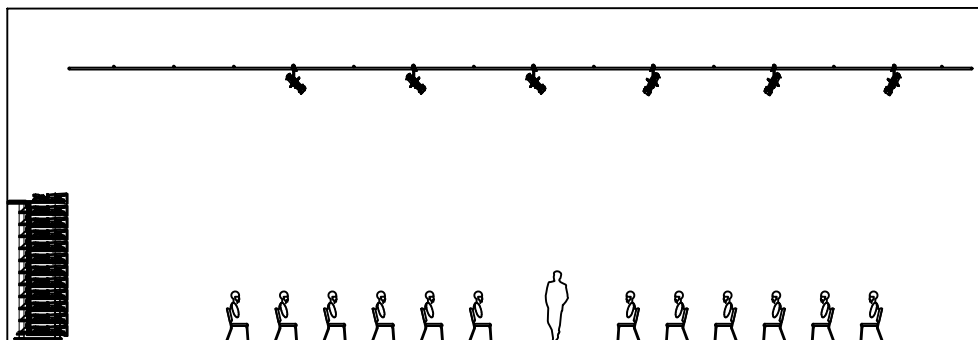
- Flat floor
- Risers stored
- Temporary/Movable Walls + Screens



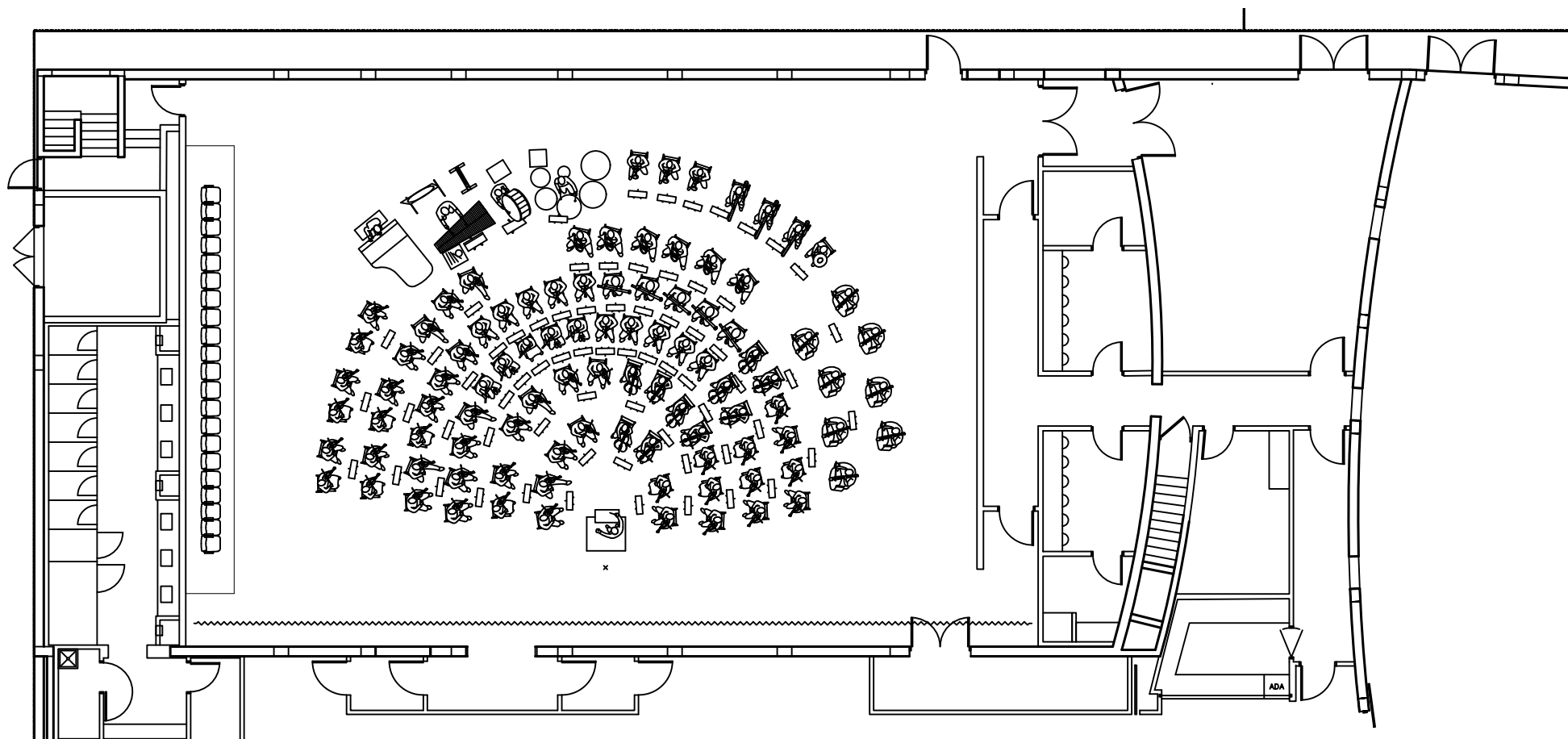
LARGE REHEARSAL



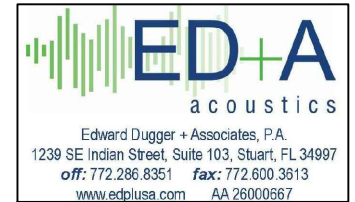
6 May 2021



- Flat Floor
- Risers Stored
- Curtains on Rear or Side walls

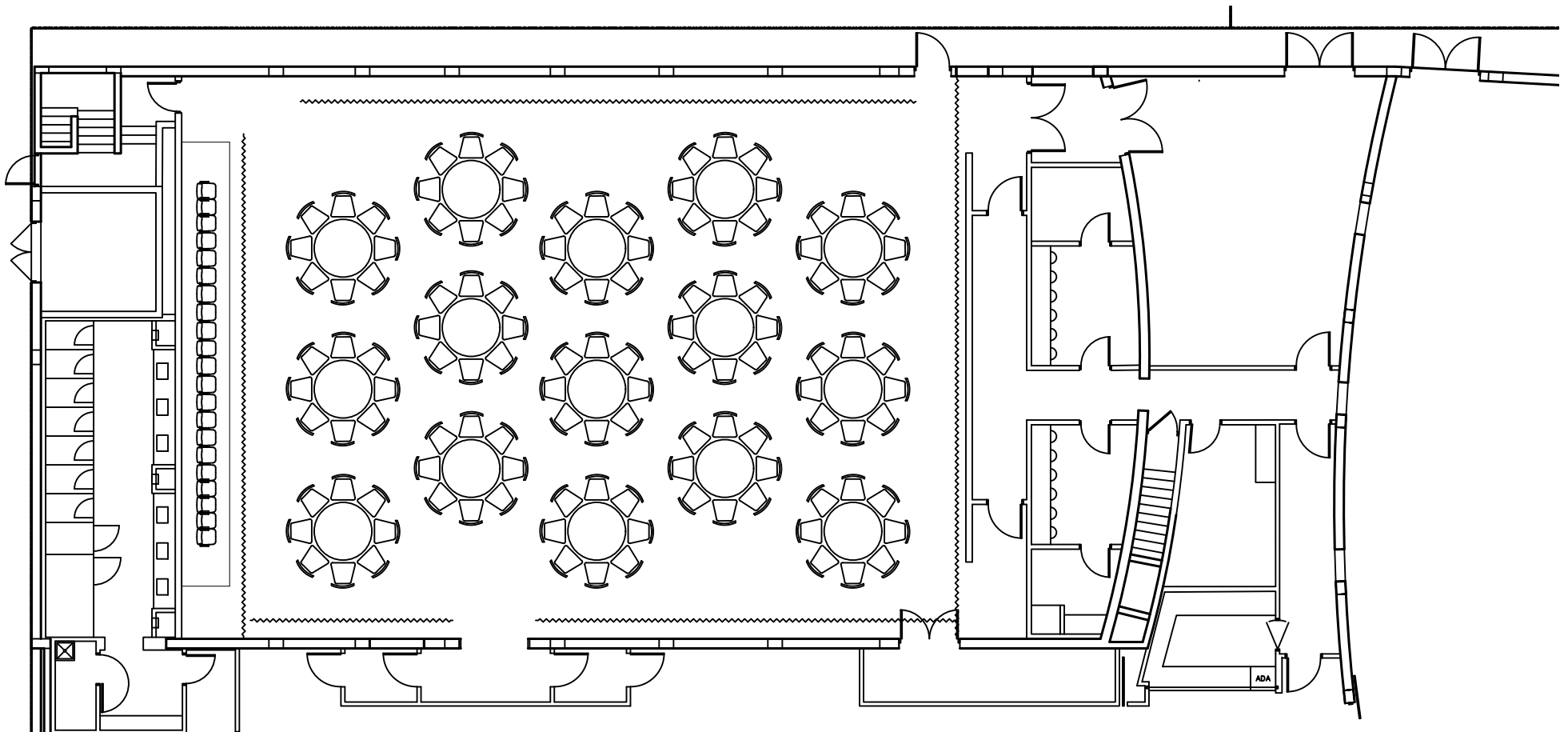
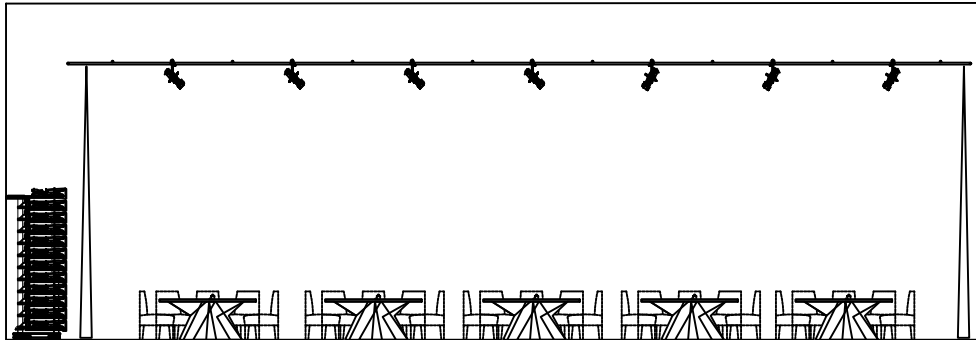


BANQUET



6 May 2021

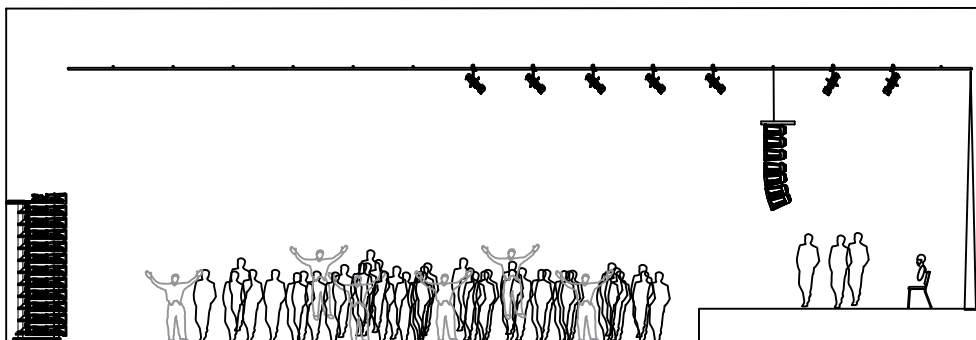
- Flat Floor
- Risers Stored
- Curtains on side walls
- Tables with possible stage/lectern



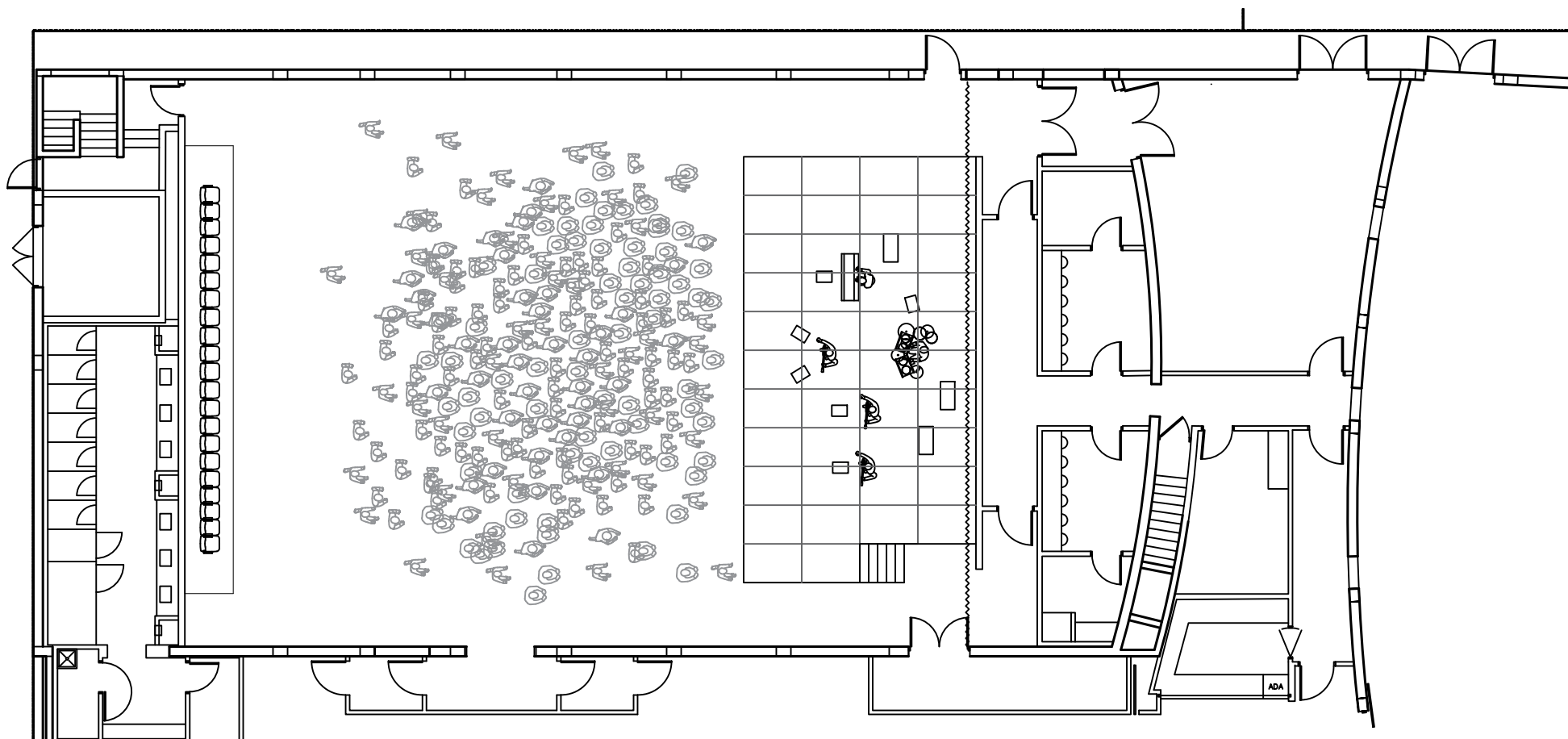
BAND/DANCING



6 May 2021



- Stage at end of room
- Risers stored - Flat floor
- Line Array Speakers suspended from grid

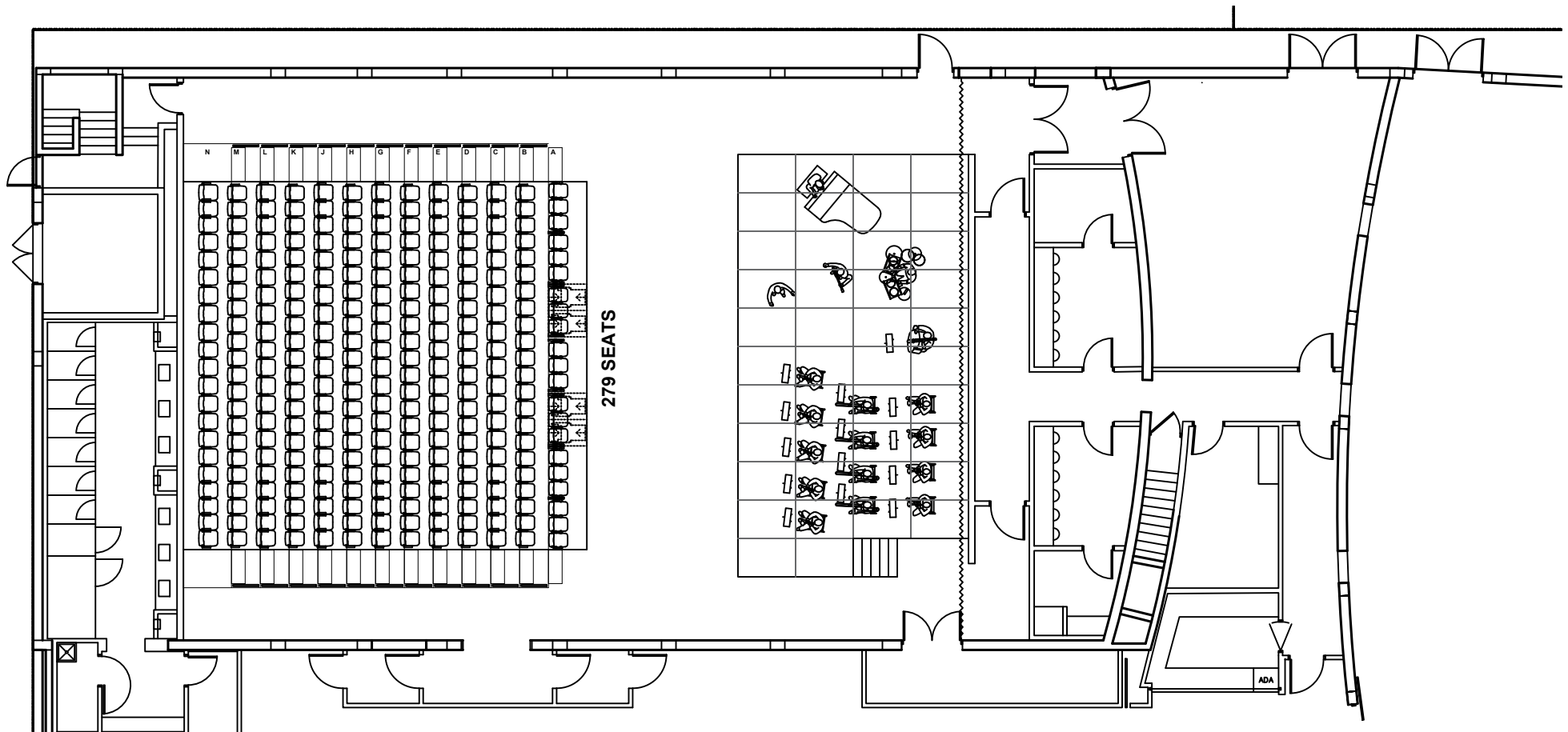
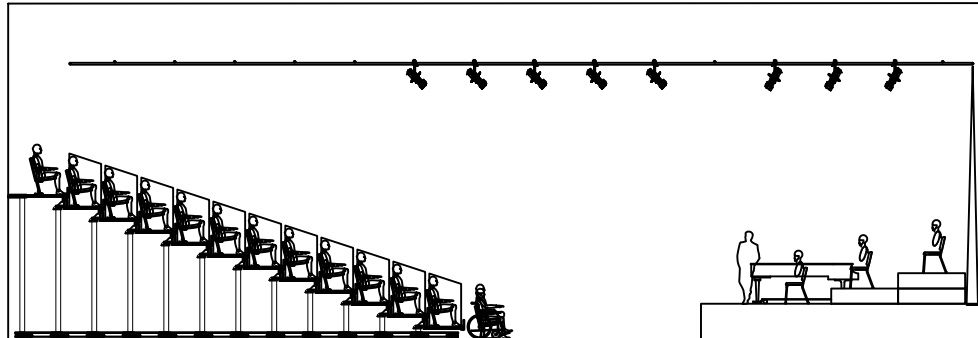


END STAGE



6 May 2021

- Stage at end of room
- Risers fully deployed



Cost Estimate

Byron Carlyle Theater
Conditions Assessment and Recommendations

Rough Order of Magnitude Cost Estimate

May 11, 2021



M. C. HARRY & ASSOCIATES
 2780 SW DOUGLAS ROAD, 302
 MIAMI, FLORIDA 33133

	Quantity	Unit	Unit Cost	Sub-Total
RENOVATION (Applies to both options)				
DEMOLITION				
Complete & Careful Demolition of all Interior Finishes	25,360	SF	\$3.00	76,080
Remove Ground Floor Slab & Associated Shoring	1	ea	\$300,000.00	300,000
Remove Elevated Stepped Slab & Associated Shoring	1	ea	\$300,000.00	300,000
Reinforcing after Stepped Slab Removed	1	ea	\$250,000.00	250,000
STRUCTURAL				
Piles throughout ground floor slabs	100	ea	\$3,000	300,000
Construction of Ground Floor slab	22,000	SF	\$16	352,000
Construction of Flood Walls	2,500	SF	\$15	37,500
Construction of 2nd Floor storage area - east theater	1	ea	\$250,000.00	250,000
Structural Steel wall reinforcing & pipe grid support	1	ea	\$385,000.00	385,000
Structural Steel for CMU reinforcing - west theater	1	ea	\$665,000	665,000
Reinforcing exterior CMU in other bldg areas	2,800	SF	\$30	84,000
Reinforcing steel deck/wall connections both theaters	1	ea	\$50,000	50,000
ARCHITECTURAL				
New Perimeter Insulation, Framing and Furring	22,100	SF	\$8	176,800
New Partitions	6,120	SF	\$6	36,720
Painting - Interior	28,220	SF	\$1	28,220
Painting - Exterior	19,000	SF	\$3	57,000
Flooring and Subfloor - Multi-Use Theater	5,300	SF	\$15	79,500
Flooring - Restroom Porcelain Tile	960	SF	\$10	9,600
Flooring - All non-theater areas	4,500	SF	\$6	27,000
Ceiling - Acoust. Treatment in Theater	5,200	SF	\$8	41,600
Ceiling - All non-theater areas	4,500	SF	\$7	31,500
Wall Tile - Restrooms	1,262	SF	\$10	12,620
Toilet Accessories, Toilet Partitions, Fire Ext.	1	LS	\$20,000	20,000
Interior Doors	27	ea	\$1,500	40,500
Exterior Doors	17	ea	\$2,500	42,500
Sliding Glass Doors	2	sets	\$12,500	25,000
Storefront Doors	8	ea	\$8,000	64,000
Storefront	200	SF	\$80	16,000
Re-build north parapet, new signage	900	SF	\$85	76,500
Re-build Box Office	54	SF	\$400	21,600
New Concrete Egress Stair	1	LS	\$50,000	50,000
Millwork - Concession	30	LF	\$500	15,000
OH Gate at Concession	1	LS	\$2,500	2,500
Roofing	22,500	SF	\$20	450,000
FLOOD PROTECTION	180	LF	\$825	148,500
THEATRICAL - See Detail in Report				
Performance Rigging	1	LS	\$200,000	200,000
Performance Dimming & Controls.	1	LS	\$300,000	300,000
Seating Systems.	1	LS	\$635,000	635,000
AV systems (some of this cost in Elec. estimate)	1	LS	\$200,000	200,000
			Subtotal	6,157,240
Estimating Contingency	10%			615,724
RENOVATION (both options) SUBTOTAL				6,772,964

[illegible]

		Quantity	Unit	Unit Cost	Sub-Total
	RENOVATION OPTION 2				
	ARCHITECTURAL				
	New Partitions	7,800	SF	\$6	46,800
	Painting - Interior	7,800	SF	\$1	7,800
	Re-Finish at Aggregate Finish at New Windows	3,700	SF	\$10	37,000
	Flooring and Subfloor - Rehearsal Space	1,850	SF	\$15	27,750
	Flooring - Restroom Porcelain Tile	830	SF	\$10	8,300
	Flooring - All non-theater areas	14,415	SF	\$6	86,490
	Ceiling	17,095	SF	\$5	85,475
	Spray Fireproofing at Roof Structure	17,095	SF	\$6	102,570
	Wall Tile - Restrooms	1,070	SF	\$10	10,700
	Toilet Accessories, Toilet Partitions, Fire Ext.	1	LS	\$18,000	18,000
	Interior Doors	21	ea	\$1,500	31,500
	Exterior Doors	4	ea	\$2,500	10,000
	Storefront Doors	1	ea	\$8,000	8,000
	New Windows	896	SF	\$80	71,680
	New Concrete Stairs	2	LS	\$50,000	100,000
	STRUCTURAL				
	Two-story steel framed addition at west theater	1	ea	\$1,092,500	1,092,500
	ELECTRICAL				
	See Detail in Report	1	ea	\$2,541,464	2,541,464
	Includes general lighting, theater lighting & audio				
	MECHANICAL				
	See Detail in Report	1	ea	\$705,000	705,000
	PLUMBING				
	See Detail in Report	1	ea	\$215,400	215,400
	Includes Lift Station replacement				
	FIRE PROTECTION				
	See Detail in Report	1	ea	\$45,025	55,900
	THEATRICAL - For Rehearsal Space				
	Performance Rigging	1	LS	\$50,000	50,000
	Performance Dimming & Controls	1	LS	\$75,000	75,000
	AV systems	1	LS	\$50,000	50,000
				Subtotal	5,437,329
	Estimating Contingency	10%			543,733
		OPTION 2 SUBTOTAL			5,981,062
	REVOVATION (both options) SUBTOTAL				6,772,964
		RENOVATION OPTION 2 TOTAL			12,754,026

	Quantity	Unit	Unit Cost	Sub-Total
NEW CONSTRUCTION				
Demolition of Existing Theater	1	ea	\$200,000	200,000
Architectural - Exterior Design Elements	1	ea	\$1,000,000	1,000,000
Structural - Renovation Option 2 Cost number +	1	ea	\$200,000	200,000
Estimating Contingency	10%			140,000
NEW CONSTRUCTION SUBTOTAL				1,340,000
RENOVATION OPTION 2 SUBTOTAL				12,754,026
NEW CONSTRUCTION TOTAL				14,094,026

SUMMARY - Byron Carlyle Theater				
RENOVATION OPTION 1				9,889,409
FFE	10%			988,941
Permitting	2%			197,788
Contractor General Conditions, Overhead and Profit	18%			1,780,094
Contractor Insurance and Bond	2%			197,788
Design Fees	10%			988,941
RENOVATION OPTION 1 TOTAL				\$14,042,961
Owner Contingency	10%			\$1,404,296
RENOVATION OPTION 1 TOTAL PROJECT COST				\$15,447,257
RENOVATION OPTION 2				12,754,026
FFE	10%			1,275,403
Permitting	2%			255,081
Contractor General Conditions, Overhead and Profit	18%			2,295,725
Contractor Insurance and Bond	2%			255,081
Design Fees	10%			1,275,403
RENOVATION OPTION 1 TOTAL				\$18,110,717
Owner Contingency	10%			\$1,811,072
RENOVATION OPTION 2 TOTAL PROJECT COST				\$19,921,788
NEW CONSTRUCTION				14,094,026
FFE	10%			1,409,403
Permitting	2%			281,881
Contractor General Conditions, Overhead and Profit	18%			2,536,925
Contractor Insurance and Bond	2%			281,881
Design Fees	10%			1,409,403
RENOVATION OPTION 1 TOTAL				\$20,013,517
Owner Contingency	10%			\$2,001,352
NEW CONSTRUCTION TOTAL PROJECT COST				\$22,014,868

Historic Photos

HISTORIC PHOTOS:



Miami Herald October 27, 1968 article announcing opening on December 19, 1968.
North Elevation Rendering showing Horizontal Marquee, and Bas Relief depicting Miami Beach



Post Opening – Horizontal Marquee, Bas Relief, Additional Sign on Byron Ave. wall

HISTORIC PHOTOS:

BYRON/CARLYLE

Exact combination of precision equipment and ideal atmosphere used in twin theatre incorporating modern concepts of construction and furnishing.

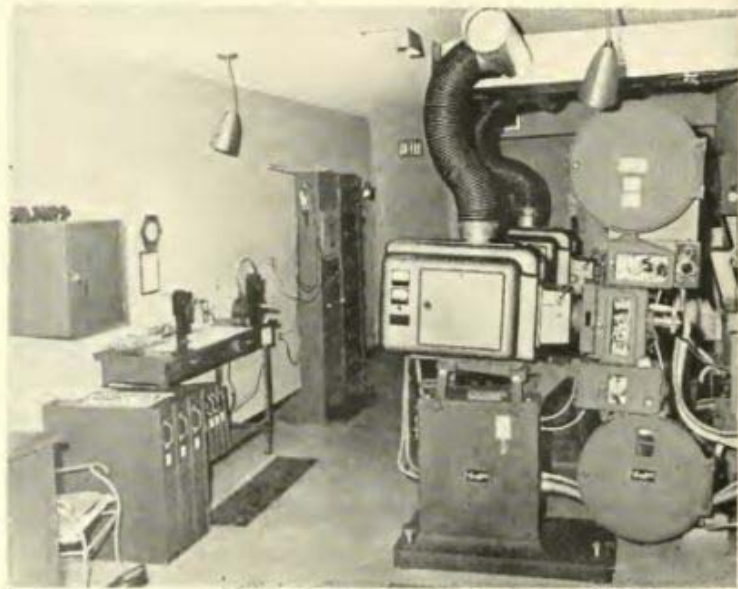
By WHITNEY STINE

MIAAMI BEACH, known for luxurious high-rise hotels, name star entertainers and perfect all-season weather, had not had a new motion picture theatre in almost 20 years until the recently opened twin houses, the Byron/Carlyle.

It all began a year and a half ago when Harvey Fleischman, senior executive vice president of Wometco Enterprises, became interested in this area as the possible site for the expansion of his circuit. Convinced that the Miami Beach populace would welcome a plush new entertainment package, he arranged a meeting between A. Herbert Mathes, the architect responsible for many Wometco theatres, and Hal Hornstein, consulting engineer and theatre equipment specialist, and told them that he had selected a location at the corner of Byron Avenue and 71st Street. These three men decided upon a plan that would incorporate the most modern concepts of both construction and furnishing. No expense was spared to produce the exact combination of precision equipment and ideal atmosphere, along with the presentation of such superior films as "Marooned" and "Anne of the Thousand Days." Their belief in his master plan has since been borne out successfully; patrons



Facade of new twin is fashioned from beige marble, features plastic collage.



Byron projection room is equipped with Century 70/35 projectors, XeTRON lamphouses, Kollmorgen lenses, Century sound and Altec speakers.

flock to the Byron/Carlyle in rewarding numbers.

Architect Mathes selected lush beige marble for the facade of the building, to which he added further interest by an especially designed plastic collage, in muted shades of all nature's colors, depicting the islands of Miami Beach in sharp bas-relief.

The large lobby is carpeted by Alexander Smith in a gold, bronze, and black paisley-patterned Crestwood weave with a soil resistant decathlon finish. Paintings by local artists are displayed above the comfortable,

posh furniture chosen by the master decorator, suggesting living room comfort and simple modern charm. The concession stands, custom built by Wometco, are ingeniously designed, allowing a full complement of patrons, never held up by traffic flow.

Different color schemes and wall treatments differentiate the auditoriums. The walls of the larger theatre, the Carlyle (993 seats), are covered with a deep moss green fabric that is not only permanently flame-

Continued on page 6

The MODERN THEATRE SECTION

Featured in The Modern Theater Magazine 1969

HISTORIC PHOTOS:

**BYRON /
CARLYLE***Continued from page 4*

proofed, but is also hypo-allergenic and decay resistant. This fabric is moulded with gold zodiac naugahyde and wood for an incomparable effect of quiet elegance and sophistication. Massey Rocker and De Luxe Lounger seating in plush, 100 per cent nylon fabric with white period walnut backs, are placed a roomy 42 inches back-to-back, allowing plenty of passing room for patrons.

The Byron, seating 590 patrons in Massey Rocker and De Luxe Lounger chairs is an alternating red and black pattern, and is completely wall-draped in a luxurious lip-stick-red fabric. A touch of drama is provided by a magnificent Austrian lift curtain of silver lame, which rises slowly, reflecting every color in the spectrum to disclose the deeply curved, custom-built Hurley lenticular screen.

The Carlyle projection room is equipped with Century 35mm projectors, Model SB, with Cine-Focus, a "flutter-free" film control, while the Byron has installed 70/35 Century projectors, Model JJ3. Both have Kollmorgen lenses, Xetron lamphouses, Century sound systems and Altec "Voice of the Theatre" speaker systems. The deeply curved screens assure optimum vision from virtually any seat in the theatre.

The premiere of the twin theatres attracted much favor with the local press, and among the famous Hollywood personalities at the opening were Jackie Gleason, Tiny Tim, Otto Preminger, as well as such other notables as Miami Beach Mayor, Jay Derner.

Harvey Fleischman, A. Herbert Mathes, and Hal Hornstein, working in friendship and close coordination, have made Byron/Carlyle truly the new showplace of Miami Beach.



Carlyle has Century 35 mm projectors with Cine-Focus, a flutter-free film control.

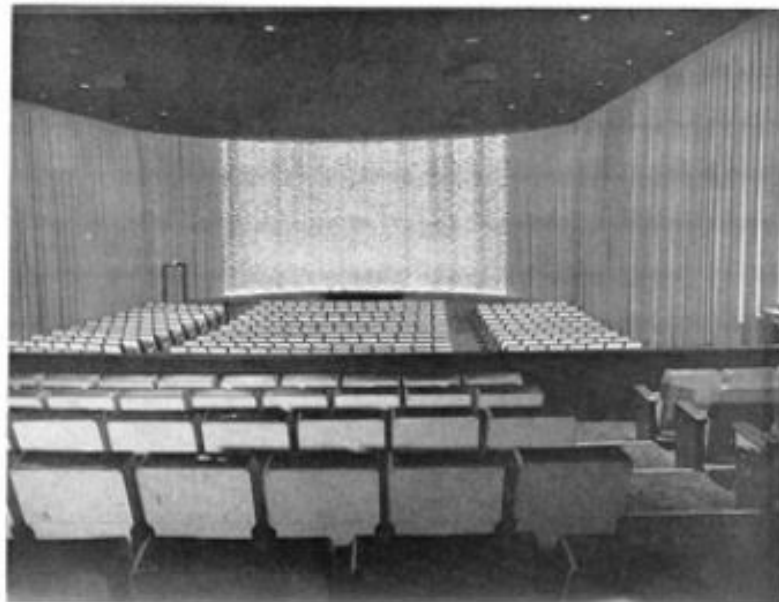
CREDITS:

Architect: A. HERBERT MATHES, A.I.A.
Builder-Owner: WOMETCO ENTERPRISES, INC.
Carpeting: ALEXANDER SMITH
Changeable Letters: ADLER SILHOUETTE LETTER CO.
Collage: A. HERBERT MATHES
Concession Stands: WOMETCO ENTERPRISES, INC.

Curtain Controls: AUTOMATIC DEVICES CO.
Draperies, Wall Treatment: HORNSTEIN STUDIOS
Film Handling Equipment: GOLDBERG, NEUMADE
General Supply Dealer: JOE HORNSTEIN INC.
Lamphouses: XETRON
Projectors: CENTURY PROJECTOR CORP.
Seating: MASSEY SEATING CO.
Screens: HURLEY SCREEN CO.
Sound: CENTURY; ALTEC



Carlyle auditorium, above, has 993 Massey seats covered with moss green fabric, features walls of green material molded with gold naugahyde and wood for elegant effect. Byron auditorium, below, is completely draped in luxurious red material. Massey seats are alternating red and black pattern. Custom-built lenticular screen is by Hurley Screen Co.



Featured in The Modern Theater Magazine 1969
 Byron Theater – Bottom Image, Carlyle Theater – Top Image

HISTORIC PHOTOS:

GALA OPENING
TOMORROW NIGHT AT 7:30 P.M.
OF WOMETCO'S NEW
BYRON and CARLYLE THEATRES
on 71st STREET - MIAMI BEACH

TICKETS NOW ON SALE
AT BOX-OFFICE

WORLD PREMIERE

IN PERSON
OTTO PREMINGER
JACKIE GLEASON
JOHN PHILLIP LAW
ALEXANDRA HAY
AUSTIN PENDLETON
LUNA and NILSSON
LARRY KING, M.C.

IT TAKES TWO TO skidoo

OTTO PREMINGER
presents
"SKIDOO"
starring
JACKIE GLEASON
CAROL CHANNING
FRANKIE AVON
FRED CLARK
MICHAEL CONSTANTINE
FRANK GORSHIN
JOHN PHILLIP LAW
PETER LAWFORD
BURGESS MEREDITH
GEORGE RAFT
CESAR ROMERO
MICKEY ROONEY
and
GROUCHO MARX
and introducing
AUSTIN PENDLETON
ALEXANDRA HAY
and
LUNA
written by
DORAN WILLIAM CANNON
Music & Lyrics by
NILSSON
Costumes
RUDI GERNREICH
Photographed in
"PANAVISION" and
"TECHNICOLOR"
by LEON SHARNOY
Produced &
Directed by
OTTO PREMINGER

A Paramount
Release

NO DANCE
COVERED
SEATING

Starts Friday
AT THESE CONVENIENTLY
LOCATED THEATRES:

MIAMI
MIRACLE
163rd St.
HILSHING
TRINITY
PLAZA
27th Ave.

WOMETCO'S BYRON-CARLYLE
IS NOW A TRIPLE THEATRE!
OPENING TONIGHT AT 7:30 P.M.

3 BIG SCREEN THEATRES EQUIPPED WITH STEREO SOUND
AND WIDE SPACED-LEG ROOM COMFORT SEATING!

BYRON CARLYLE 1
BURT REYNOLDS
JILL CLAYBURGH
Starting Over

BYRON CARLYLE 2
AL PACINO
RED WING

BYRON CARLYLE 3
LEE MAJORS
KILLER FISH

LOCATED ON MIAMI BEACH—71st STREET BETWEEN
BYRON & CARLYLE AVENUES
JUST 3 BLOCKS WEST OF COLLINS AVE.

Presenting
the 1969
Wometco

Fast Powerful and Expanding ...
But not in the automotive industry!

However...
most of our patrons have cars
and need parking—
so we have provided plenty of
parking area at our Wometco's
Model of the Year in dual
comfort.

**BYRON & CARLYLE
THEATRES**
71st St. between Byron and
Carlyle Avenues
MIAMI BEACH, FLA.

Abbott Ave.
PARKING AREA
71st St.
BYRON AVE.
MUNICIPAL PARKING LOT
BYRON THEATRE
CARLYLE THEATRE
CARLYLE AVE.

OPENS
THURSDAY
EVENING

**WORLD
PREMIERE**

JACKIE
GLEASON
SKIDOO

and
on
DEC.
20th

BYRON
LION IN THE
WINTER
CARLYLE
SKIDOO

Top Left: Gala Opening Ad 1968, Bottom Left: 1979 Triple Theater Ad, Right: Opening Ad 1968

HISTORIC PHOTOS:



2011 North Elevation



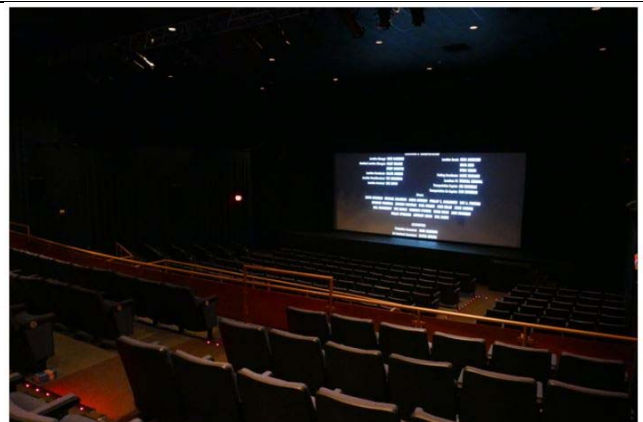
2014 North Elevation



2012 Byron Theater Interior



Byron 2014 View from Main Level



Byron 2014 View from Raised Seating Area

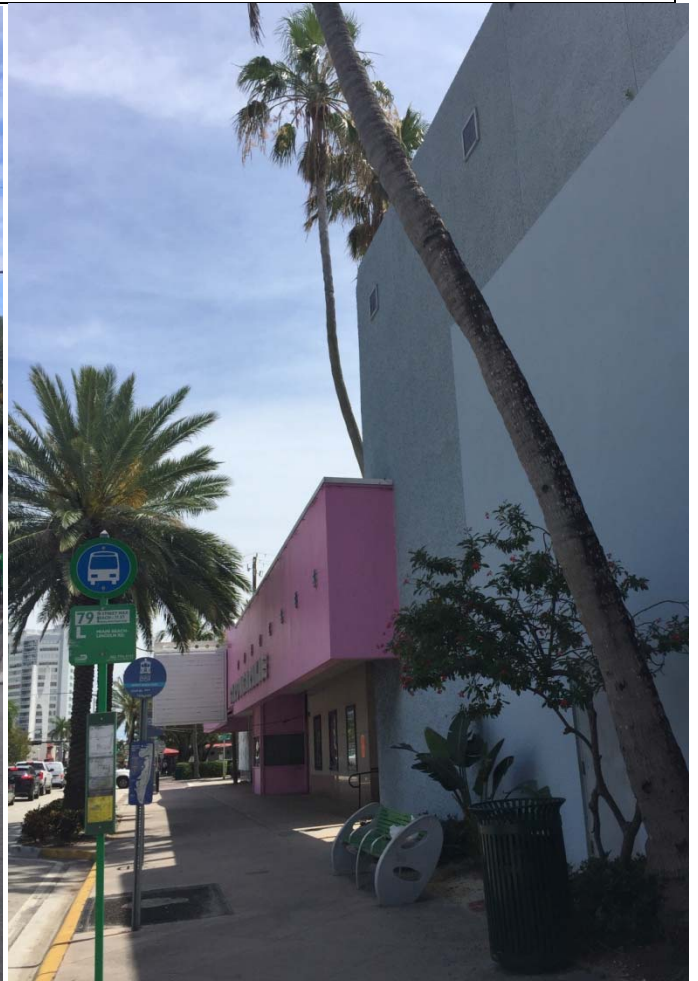
HISTORIC PHOTOS:



2019 – North Elevation



2021 – North Elevation – View from West



2021 – North Elevation – View from West

HISTORIC PHOTOS:



2021 – West & South Elevations



2021 – West & South Elevations

MIAMIBEACH

Byron Carlyle Theater – Conditions Assessment and Recommendations

8

Existing Photos

EXTERIOR:



0.1 East Elevation– View from North



0.2 North Elevation– View from East



0.3 North Elevation– View from West

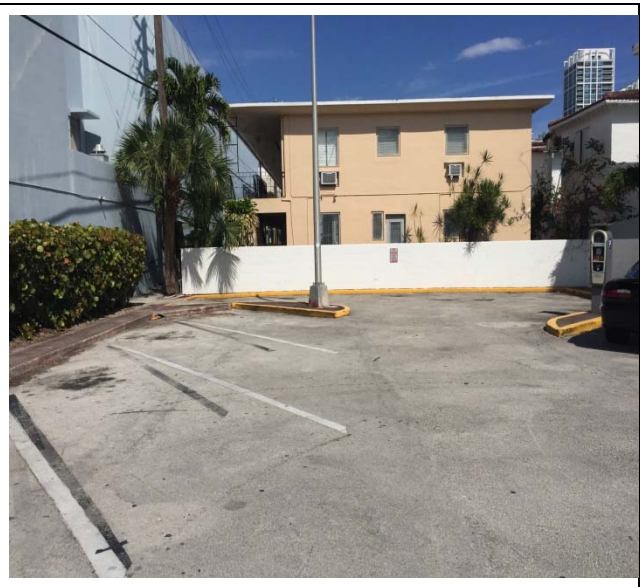


0.4 West Elevation – View From South

EXTERIOR:



0.5 South Elevation– View of South-East corner



0.6 South Lot– Lot behind Carlyle Theater



0.7 Existing aggregate finish on some walls



0.8 Existing aggregate finish detail

ROOF:



0.1 Main Lobby Roof– Marquee beam support



0.2 Main Lobby Roof– View of tree opening



0.3 Main Lobby Roof– View of west roof corner



0.4 Main Lobby Roof– View of SW roof corner

ROOF:



0.5 Byron Roof– View East corner



0.6 Byron Roof– View west side



0.7 Intermediary Roof



0.8 Intermediary Roof– View of north side

ROOF:



0.9 Carlyle Roof- Overall view



0.10 Carlyle Roof- View of NW corner



0.11 Carlyle Roof



0.12 Carlyle Roof- View of conduit anchorage

ROOF:



0.13 Carlyle Roof- View of SW corner



0.14 Carlyle Roof- View of neon



0.15 Carlyle Roof- View to Main Lobby Roof



0.16 Byron Roof- View of SE corner

BELOW GRADE SUPPORT SPACES (SOUTHEAST OF BUILDING):



0.1 SE Stairs to support spaces



0.2 Exit discharge at SE stair



0.3 Door to main switchgear



0.4 Main switchgear room

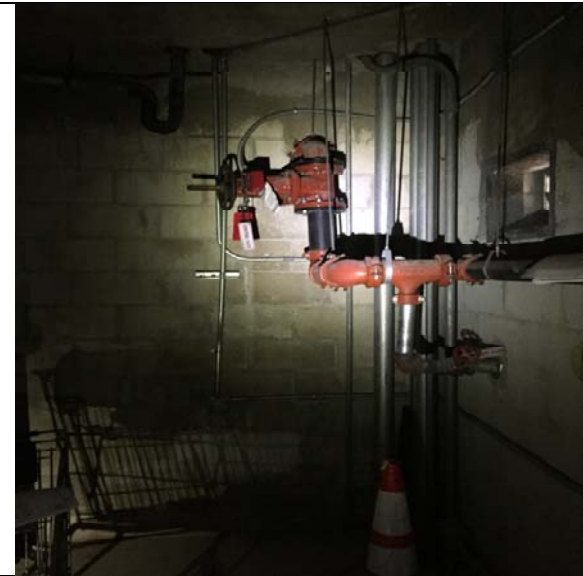
BELOW GRADE SUPPORT SPACES (SOUTHEAST OF BUILDING):



0.5 Flood line on wall in switchgear room



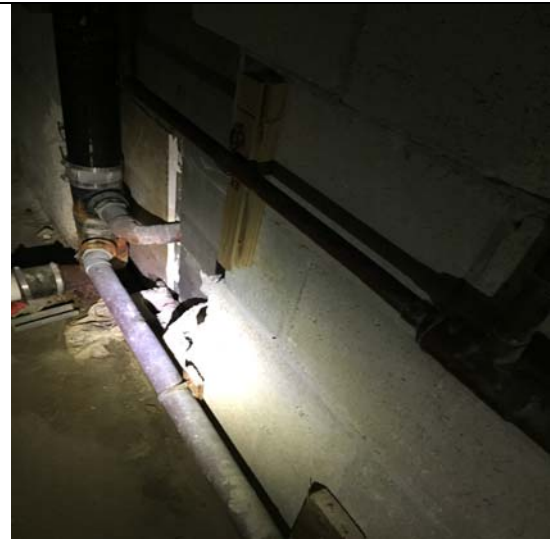
0.6 Main switchgear room



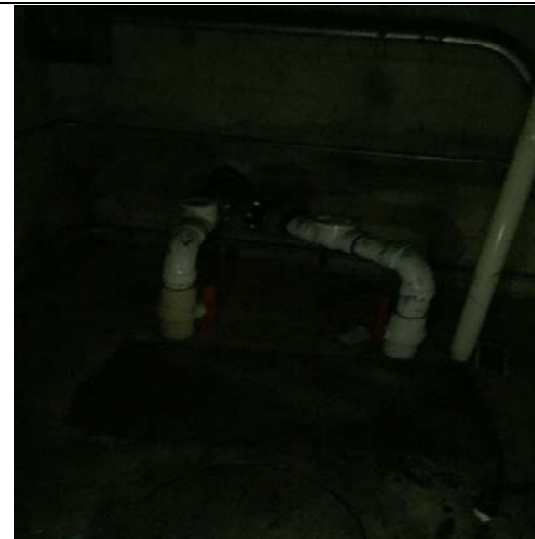
0.7 Sprinkler lines



0.8 Sprinkler system

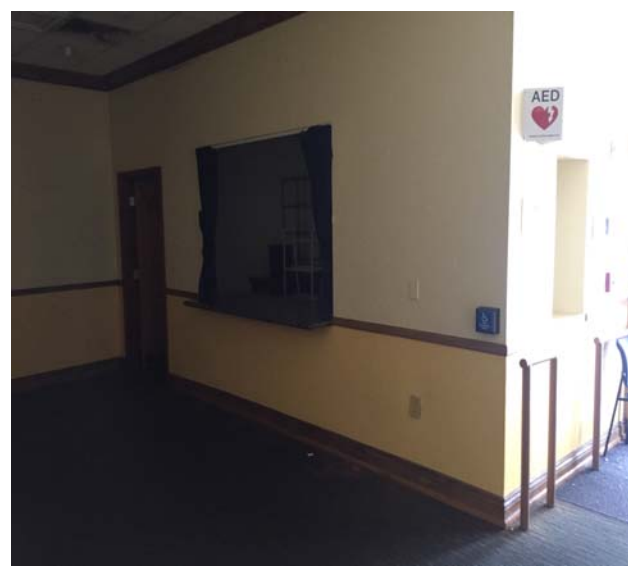


0.9 Sanitary lines



0.10 Plumbing access

LOBBY:



0.1 Main Lobby– View of concessions



0.2 Main Lobby – View of stair to mezzanine

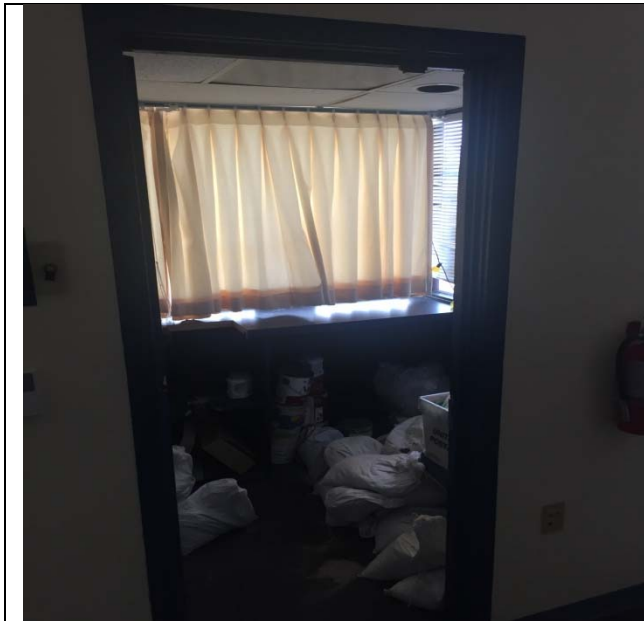


0.3 Main Lobby– Below Grade restrooms



0.4 Main Lobby– View of waiting area

LOBBY:



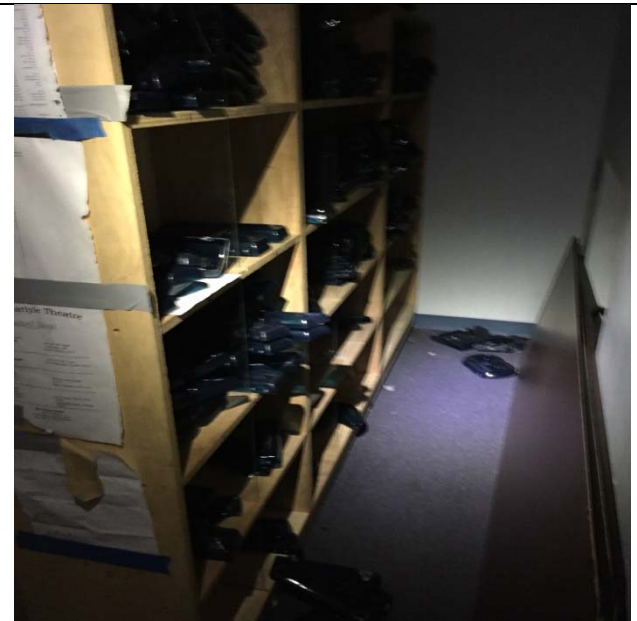
0.5 View into ticket booth



0.6 Lobby – Corridor between theaters



0.7 Lobby - currently an office area



0.8 View of storage within north office

LOBBY:



0.9 Second floor between theaters - stair



0.10 Second floor between theaters – west theater projector rooms on right of image

EAST THEATER:



0.1 Raised seating area



0.2 East wall – Projection Booth



0.3 Main level – view from raised seating area



0.4 Stage area and access ramp

EAST THEATER:



0.5 Stage lighting supports and conduit



0.6 Back-of-house access



0.7 Dressing Room A



0.8 Dressing Room B

EAST THEATER:



0.9 Projection Booth room



0.10 Projection Booth restroom



0.11 Electrical Room next to Projection Booth



0.12 Storage room, main theater level

WEST THEATER:



0.1 North wall conc. columns & beams



0.2 Corridor to west theater



0.3 West center theater



0.4 Southwest theater

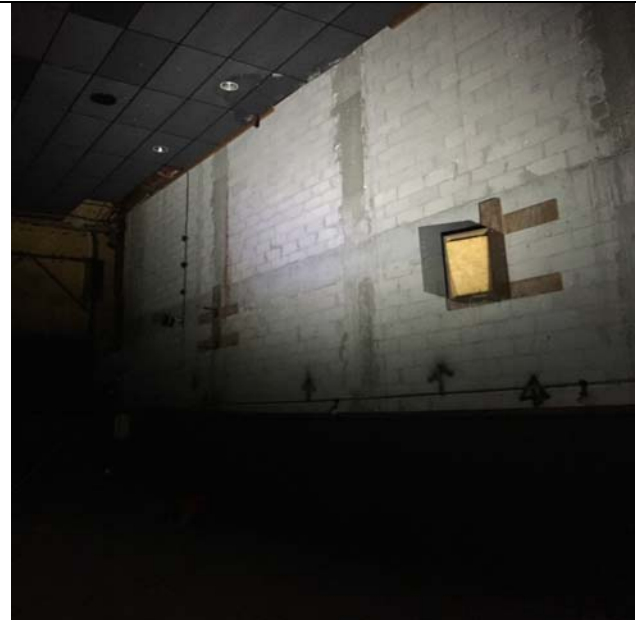
WEST THEATER:



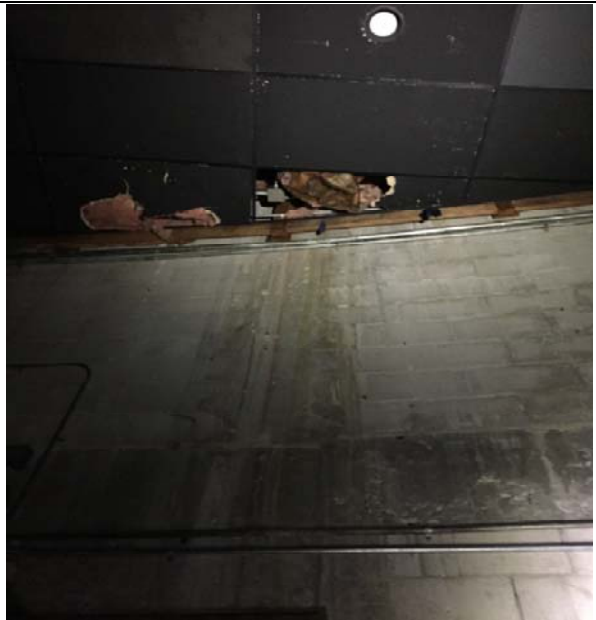
0.5 Flooring of west theaters



0.6 Flood line at west theaters



0.7 Northeast theater – conc. columns & beams



0.8 Corridor to projection rooms for west theater

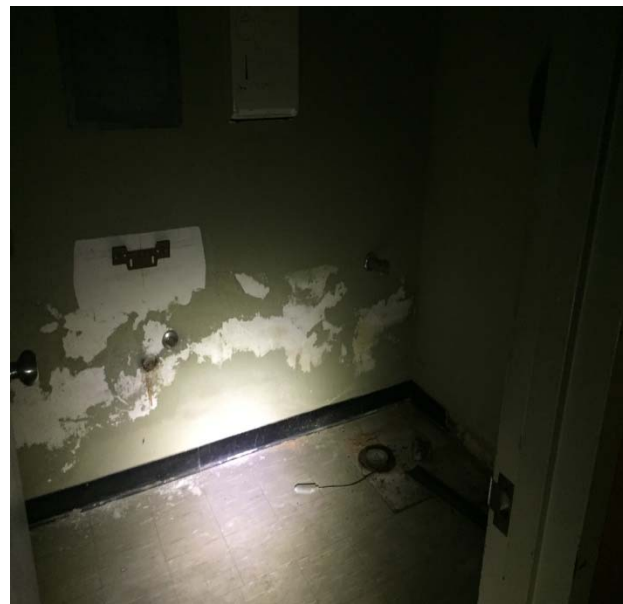
WEST THEATER:



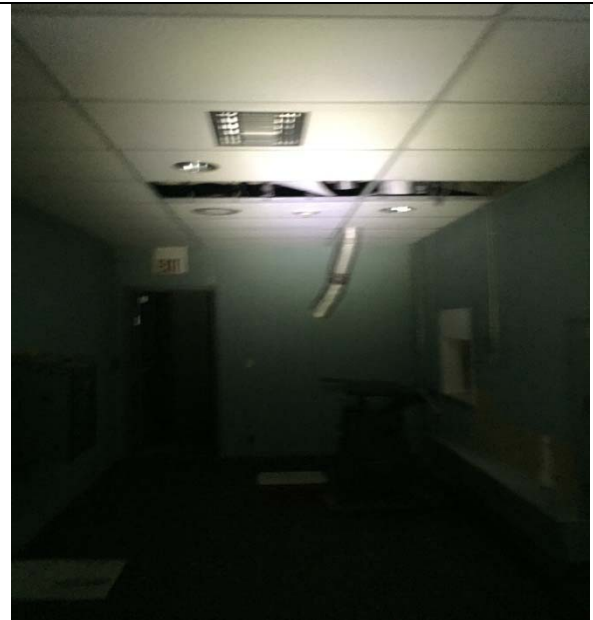
0.9 Southeast theater



0.10 Corridor



0.11 Projection Booth restroom



0.12 Projection Booth