

Membership Committee c/o: Todd Hensley, FASTC Schuler Shook 363 West Erie St., Suite 400, Chicago, IL, 60654 Phone: 312-944-8230 thensley@schulershook.com

# Application for ASTC Membership:

Your Name: Paul Whitaker			
Date: 02/24/24			
I am applying for:	<b>X</b> Membership	Associate	Membership
Business Contact Information:			
Organization: Schuler Shook			
Address: 219 Main St SE, Su	ite 200		
City: Minneapolis	State/Province: MN	Mail Code:	55414
Phone: 612-339-5958	FAX:	Country: USA	
E-Mail: pwhitaker@schulershook	c.com		
Declarations:			
I am not an owner, employee, or a commission agent of any firm that manufactures, sells or installs equipment or that acts as a contractor for the construction of performance, assembly, or studio facilities.		<b>X</b> Yes	☐ No
My principle source of earned income is from work as a consultant to owners, architects and or engineers of performance, assembly, or studio facilities.		<b>X</b> Yes	☐ No
I am over 18 years of age.		🗷 Yes	☐ No

Project #: 1

Project Name: Macalester College - Janet Wallace Fine Arts Center - Theater Building

Location: St. Paul, MN

Client: HGA Architects and Engineers, Minneapolis, MN

Project Cost: \$32 Million Theatre Equipment Budget: \$1.5 Million

Date You Began Completion or

Work on this Project: January 2015

Occupancy Date: July 2020

Your Employer for this Project: Schuler Shook

Briefly Describe this Project:

New theater and dance building with 200 seat flexible main theatre, 80 seat studio black box, theatre support spaces, shops, theatre and dance rehearsal rooms, classrooms, and design lab. A black box, the flexible theatre was designed to easily support a traditional wing and border dance configuration.

USITT Architecture award winner 2021.

Briefly
Describe Your
Responsibilities
on this Project:

Project manager and lead designer for theatrical lighting, architectural lighting, theatrical rigging, and seating systems from concept design to opening. Served as main contact to our client and the owner. Very involved in space programming and initial building layout to maximize usable program space

over a small footprint.

Project #: 2

Project Name: Carleton College Weitz Center for Creativity

Location: Northfield, MN

Client: HGA Architects and Engineers, Minneapolis, MN

Project Cost: \$35 Million Theatre Equipment Budget: \$1.7 Million

Date You Began Completion or

Work on this Project: December 2014

Occupancy Date: September 2017

Your Employer for this Project: Schuler Shook

Briefly describe this Project:

New small college music building with 400-seat technically advanced flexible concert hall, small 80 seat recital hall/choral rehearsal room, large instrument rehearsal room, and small white box flexible performance space. Flexibility of concert hall allows various performance types from orchestra to amplified

music to dance.

Briefly describe your Responsibilities on this Project: Theatre consultant, project manager, and lead designer from concept design through opening. Responsibilities included initial space planning and programming, seating layouts, theatrical rigging, acoustic curtain rigging, custom rolling shell towers, pivoting side walls, theatrical lighting, and architectural lighting. Scope included performance hall, recital hall, large rehearsal rooms, and concert hall support spaces.

Project #: 3

Project Name: Palace Theatre

Location: St. Paul, MN

Client: Oertel Architects, St. Paul, MN

Project Cost: \$16 Million Theatre Equipment Budget: \$700,000

Date You Began

Completion or October 2015 March 2017 Work on this Project: Occupancy Date:

Your Employer for this Project: Schuler Shook

Briefly Describe this Project:

Built in 1916, and unused since 1984, this historic theater was given new life as a 2800 capacity popular musical venue. The design philosophy was "preservation through stabilization". The intent wasn't to restore the building to its original state, but to feature the worn and weathered aesthetic. The facility has the technical

infrastructure to support larger touring music acts.

Briefly Describe Your Responsibilities on this Project:

Designer and project manager responsible for all contact with the design team, city, and operators. Work included removing the orchestra seating to create a tiered flat main floor, raising the stage, renovating the balcony seating, new FOH layouts, new structure to support concert rigging, motorized fire curtain, motorized dead hung masking curtains, power, lighting and theatrical infrastructure to support touring groups, new architectural lighting, and new backstage support spaces.

Project #: 4

Project Name: St. Paul Academy and Summit School

Location: St. Paul, MN

Client: HGA Architects and Engineers, Minneapolis, MN

Theatre Equipment Budget: \$950,500 Project Cost: \$20 Million

Date You Began Completion or

July 2013 August 2015 Work on this Project: Occupancy Date:

Your Employer for this Project: Schuler Shook

Briefly describe this Project:

A traditional proscenium theatre to support active middle school and high school music and drama programs and weekly assemblies and lectures for parents and the community. Working on a tight site with a modest budget, the building easily accommodates music concerts with up to 200

performers on stage to small drama performances.

Briefly describe your Responsibilities

on this Project:

Theatre planner, project manager, design lead, and main contact from programming through opening. Scope included programming, initial theatre layouts, and seating layouts. Design of counterweight and motorized rigging, theatrical lighting control system, orchestra shell, orchestra pit platform, and loose equipment for theatre and shop. Loose equipment included theatrical lighting fixtures and accessories, platforms, risers, chairs, and music stands,

and all shop equipment.

Project #: 5

Project Name: The Howard Theatre

Location: Washington DC

Client: OTJ Architects (Formerly Martinez & Johnson), Washington, DC

Project Cost: \$29 Million Theatre Equipment Budget: \$1.1 Million

Date You Began Completion or January 2009 April 2012

Work on this Project: Occupancy Date:

Your Employer for this Project: Schuler Shook

The Howard Theatre, built in 1910 was the first African American owned **Briefly Describe** theatre in the country. The theatre was reopened after being abandoned and left this Project: to ruin for almost 32 years. The newly renovated modern interior allows for 700

seated patrons or 1000 standing with support for popular music, jazz, comedy

shows, corporated meetings, and a weekly gospel brunch.

Briefly Project manager, designer, and client contact from the beginning of the project Describe Your providing FOH layouts, seating layouts, sightline studies, support space layouts, Responsibilities stage lighting, rigging system design, production infrastructure assistance, and

interior and exterior architectural lighting design on this Project:



Membership Committee c/o: Todd Hensley. FASTC Schuler Shook 363 West Erie St., Suite 400, Chicago, IL, 60654 Phone: 312-944-8230 thensley@schulershook.com

# Support Letter Form

### Applicant Instructions:

Applicants for membership in ASTC should complete the requested information below. A copy of this completed form should be sent to each of the ASTC Member sponsors who will be writing a support letter for you. A minimum of two support letters are required. In addition, please submit a copy of this completed form with your application.

Applicant's Name: Paul Whitaker

Applicant's

Projects: Macalester College, Janet Wallace Fine Arts Center, Theatre Building, St. Paul, MN

Carleton College, Weitz Center For Creativity, Northfield, MN

Palace Theatre, St. Paul, MN

St. Paul Academy and Summit School, St. Paul, MN

The Howard Theatre, Washington, D.C.

Support Heather McAvoy, ASTC, Schuler Shook Letter Tony Forman, ASTC, Nextstage Design

Writers:

Instructions for Support Letter Writers.

Please prepare your letter of support on your letterhead and submit it directly to the Applicant. It will assist the applicant and Membership Committee if your support letter is in the form of a .pdf file that can be emailed. The letter should include your knowledge of the applicant's professional conduct and experience as they relate to the ASTC member qualification criteria. In particular, your evaluation of the applicant's scope of work on the projects listed above, the quality of the completed facility, and your recommendation as to the applicant's initial Membership Level.

The Membership Committee suggests that sponsors take on the role of mentor for applicants they are sponsoring. If you have any questions please contact the Membership Committee Chairman using the above contact information. Qualifying requirements for membership in ASTC may be found in the "INSTRUCTIONS for ASTC Application for Membership" document. Please note that e-mail is preferred.



12 February 2024

Todd Hensley, FASTC
Chair – American Society of Theatre Consultants Membership Committee
c/o Schuler Shook
363 West Erie Street, Suite 400
Chicago, IL 60654

Re: Sponsorship letter for Paul Whitaker Membership Application

Todd,

This letter is to express my support for the application of Paul Whitaker for ASTC membership. As Paul's colleague at Schuler Shook, I am very familiar with his qualifications and experience and have worked with Paul as a part of the leadership team at Schuler Shook. I would like to express my unqualified support of his membership application to the ASTC.

Paul has been a theatre consultant for over 20 years and has used his extensive experience as a theatrical lighting designer for regional theatre and opera throughout the U.S. to inform his practice in theatre consulting, as well as integrating architectural lighting design into his work. He has led significant theatre consulting projects for which he has served as Project Leader and as Principal-in-Charge, including the Janet Wallace Fine Arts Center at Macalester College, the Weitz Center at Carlton College, the Howard Theatre in Washington, D.C., the Maple Grove (MN) Town Green Bandshell, and the Palace Theatre in St. Paul, MN.

I believe that Paul Whitaker is qualified for full membership in the ASTC and that he would be a valuable participant in our Society and its activities. Therefore, I have agreed to serve as one of his membership application sponsors.

Schuler Shook

Todd Hensley Jim Baney Jack Hagler

PARTNERS
Michael DiBlasi

Jack Hagler Michael Burgoyne Emily Klingensmith Giulio Pedota

Joshua Grossman

DIRECTORS

Duane Schuler

Robert Shook

6200 Stoneridge Mall Rd. 3rd Floor

Pleasanton, CA 94588 USA Heather McAvoy, ASTC

Heather Ma avoy

Principal

# nextstage design

February 14, 2024

ASTC Membership Committee c/o Todd Hensley, FASTC Schulershook 360 West Erie St. Suite 400 Chicago, IL 60654

Via email: thensley@schulershook.com

Re: Letter of support for Paul Whitaker ASTC membership

Dear Todd and membership committee members,

Paul Whitaker has asked me to provide a letter of support in his effort to become a member of the ASTC. I am pleased to offer this support to Paul who has demonstrated his professional demeanor and expertise to me on numerous occasions.

His role as project manager and lead designer for the projects he included in his application demonstrates a wide breadth of knowledge and experience. In addition to his role as a planner and consultant Paul maintains a full schedule of free-lance lighting design projects for productions around the country. His 20 years of experience and current production work qualify him for full ASTC membership.

My interactions with Paul are collegial and honest, he possesses the essential ability to listen, consider, and respond with honesty and tact. Fine qualities for an ASTC member.

I support Paul becoming a full member of ASTC.

Sincerely,

Tony Forman, ASTC

#### THEATRE PLANNING

## PAUL WHITAKER

Schuler Shook - Project Specialist - January 1997-August 1999

Schuler Shook - Theatre Consultant- May 2006-August 2014

Schuler Shook - Senior Theatre Consultant - August 2014 - May 2017

Schuler Shook - Principal - May 2017 - December 2023

Schuler Shook - Partner - January 2024 - Present

- Lead Designer and Project Manager for a variety of projects from concept design to building completion. Theatre consulting services include feasibility studies, architectural programming, theatre planning and building planning, theatre seating and seating conveying systems, stage rigging systems, stage curtains and tracks, stage and orchestra lifts, platforming systems, and stage lighting systems. As part of the leadership team, marketing and administrative support for principles and partners. Founding member of DEIC committee. WELL and LEED Acredited Professional

#### Select Projects as a Theater Consultant:

Starlight Theatre, Kansas City, MO Long Wharf Theatre Strategic Plan, New Haven, CT

Emerson Colonial Theater, Boston, MA City Theatre, Pittsburgh, PA

The Playwright's Center, St. Paul, MN Upper Harbor Amphitheatre, Minneapolis, MN The Tulsa Performing Arts Center, Tulsa, OK Guadalupe Cultural Arts Center, San Antonio, TX

Orpheum Theatre, Minneapolis, MN River Place, Waroad, MN

State Theatre, Minneapolis, MN Palace Theatre, St. Paul, MN Omaha Nation School, Macy, NE

Janet Wallace Fine Arts Center, Macalester College, St. Paul, MN Missouri School of the Blind, St. Louis, MO

Teatro National de Costa Rica, San Jose, CR

The Children's Theatre Company Strategic Plan, Minneapolis, MN

The Luminary, Minneapolis, MN

The Ritz, Theatre Latte Da, Minneapolis, MN

Pennsylvania Ballet Rehearsal Center, Philadelphia, PA Carleton College Weitz Center for Creativity, Northfield, MN

Teatro Amira, Barranquilla, Colombia

Hope College - Jack H. Miller Center for Music, Holland, MI

Maple Grove Town Green Band-shell, Maple Grove, Minnesota

Guthrie Green, Tulsa, OK

The Howard Theater, Washington D.C.

St. Paul Academy and Summit School, St. Paul, MN

Church of the Resurrection, Leawood, Kansas

Mayo Civic Center, Rochester, MN

John Goodman Amphtitheater, MSU, Springfield, MO

Ellis Hall, MSU, Springfield, MO

Hope College Jack H. Miller Center for Music, Holland, MI

Hope College Dance Addition, Holland, MI Granada Theatre, Minneapolis, MN Valley High School, West Des Moines, IA Wilson Performing Arts Center, Red Oak, IA

Mahaffey Theatre, Rigging Renovation, St. Petersburgh, FL

Naples Philharmonic (Multiple Projects), Naples, FL

Sisseton Fine Arts Center, Sisseton, SD Chaminade College Prep, St. Louis, MO The Reif Center, Grand Rapids, MN

#### PERFORMANCE LIGHTING DESIGN:

Freelance Theatrical Lighting Designer 1997 - Present

New York Credits include work at the Public Theater, MCC Theater, Playwrights Horizons, Second Stage Theatre, Atlantic Theater Company, Intar, Ma-Yi, among others

Regional credits include work at The Guthrie, The Alley, Yale Repertory Theatre, The Denver Center, The Geffen Playhouse, South Coast Repertory, La Jolla Playhouse, The Children's Theatre Company, The Long Wharf Theatre, The Huntington Theatre Company, Center Stage Baltimore, Hartford Stage, Dallas Theater Center, City Theatre, ACT, California Shakespeare Festival, among others Opera Credits include work at The Minnesota Opera, San Diego Opera, Opera San Antonio, Lyric Opera of

#### **ACADEMIC APPOINTMENTS:**

Visiting Professor of Theatrical Design - Cal Poly Pomona - Fall 2011-Spring 2012 Adjunct Professor of Theatrical Design - Amherst College - Spring 2006

#### **EDUCATION:**

Kansas City,

Macalester College, St. Paul, MN - BA - 1997

Yale School of Drama - MFA in Theater Design - 2002

#### **AWARDS:**

IES Awards, IALD Awards, USITT Architecture Award

Chicago and Minneapolis Broadway World Award, Connecticut Critics Nominations, Irne Nomination Stanley McCandless Fellow - Yale School of Drama 00/02, YSD Graduation Marshall Hispanic Scholarship Foundation Recipient 01/02

#### General

- 10 general purpose smart classrooms meet a general need for classrooms space and support theatre and dance classes
- Large office suite with faculty offices, a conference room, and a large open meeting area
- Large green room provides production support and serves as the department meeting space
- Large state of art scene shop with spray booth
- Costume shop with dye vats and washing facilities
- Ample storage
- Design lab provides teaching space, model building support, and a computer lab (can double as a light lab)
- Large make-up room that also serves as a make-up classroom
- Accessible dressing rooms are adjacent to the make-up room and provide showers, mirrors and performer storage

#### Flexible Theatre

- Acoustically isolated and acoustically optimized for speech
- Seating for 200. Platform system allows for multiple seating configurations
- Galleries can be both performance space and audience seating
- The north gallery connects to the seating risers in "endstage" configuration and serves as an alternate control location
- · Hinged east and west side galleries flip up to store against the wall
- · The south wall gallery is removable
- A tension wire grid with loft wells and rigging beams above allows for rigging any where in the room
- Loft wells allow trusses and pipes on trolleys to be rolled th length of the room
- · The tension wire grid has removable panels to allow scenery and soft goods fly up thru the gird
- A chain motor control system with chain motors on trolleys allow scenery and lighting to be easily flown
- 12' x 12' trapped area in the center for the room
- Robust lighting system that supports both LED fixtures and the existing quartz inventory
- Projection infrastructure to support projections on any wall
- Flexible audio system to support multiple seating configurations
- Unistrut mounting at 10' centers to sidewalls to support lighting and scenery
- Floor troughs and cable passes throughout the room
- Resilient floors

#### **Small Theatre**

- Seats 80
- Serves as a rehearsal room and teaching space.
- · Tracked curtains, a pipe grid, and robust lighting control system make the space easily reconfigurable
- Additional power and infrastructure to allow for future expansion

#### Large Dance Studio

- Connects via windows to the arts commons and outside
- Resilient floor
- Large enough to hold informal recitals
- Production infrastructure to allow for minimal lighting and projection infrastructure

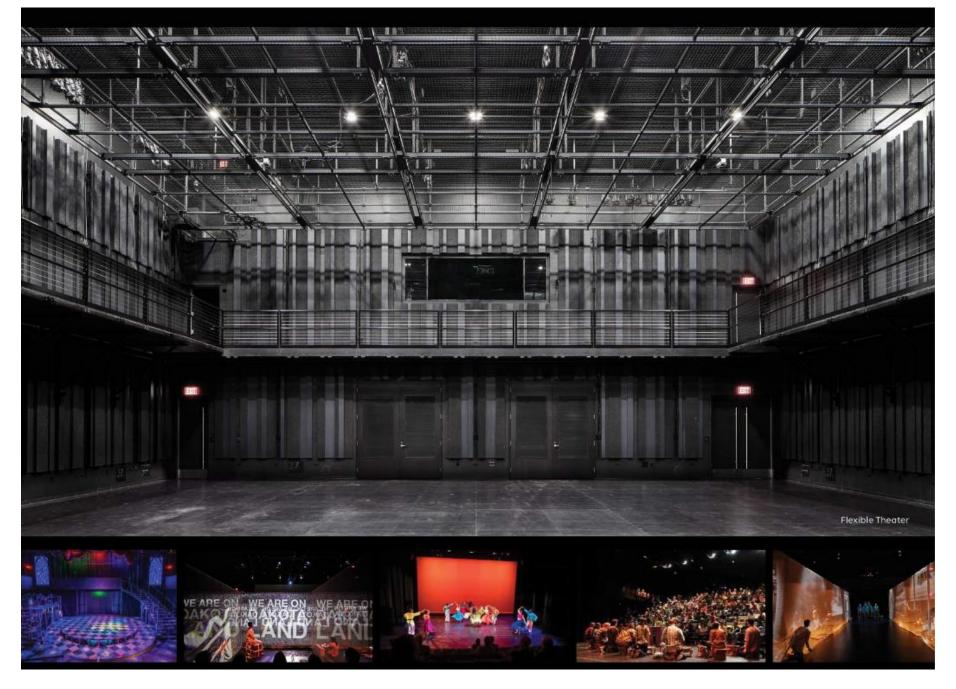




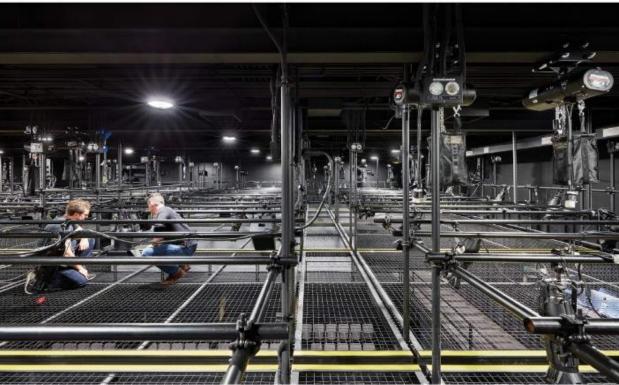




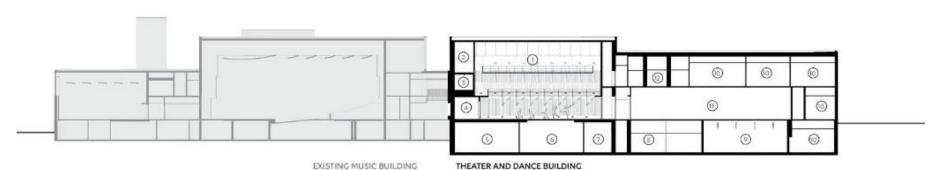








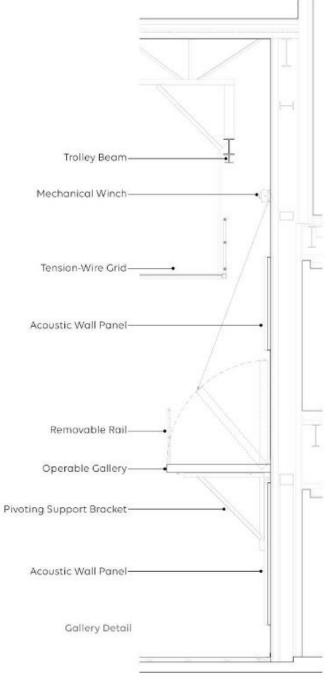
Connection to Scene Shop Tension-Wire Grid

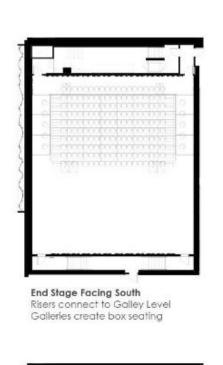


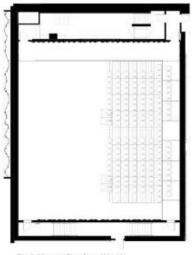
- 1 | Black Box Theater 2 | Tension Grid Access 3 | Control Room 4 | Theater Storage
- 5 | Storage 6 | Trap Room 7 | Scene Storage 8 | Dressing Rooms 9 | Rehearsal Studio 10 | Classrooms 11 | Scene Shop 12 | Restrooms

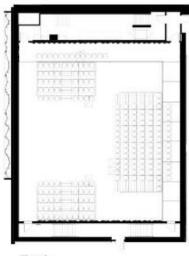


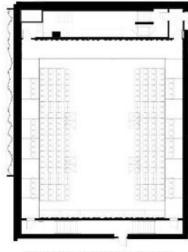








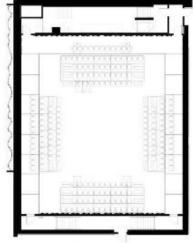




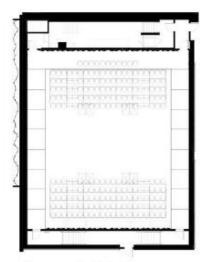
End Stage Facing West Galleries create balcony seating

Thrust
Galleries create balcony seating

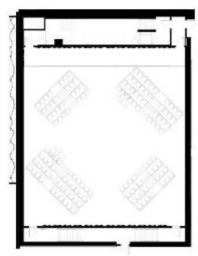
Transverse North/South Direction Galleries create balcony seating or performance area



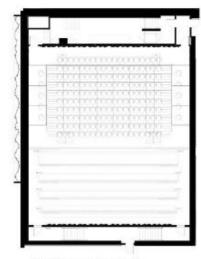
In the Round Galleries create balcony seating



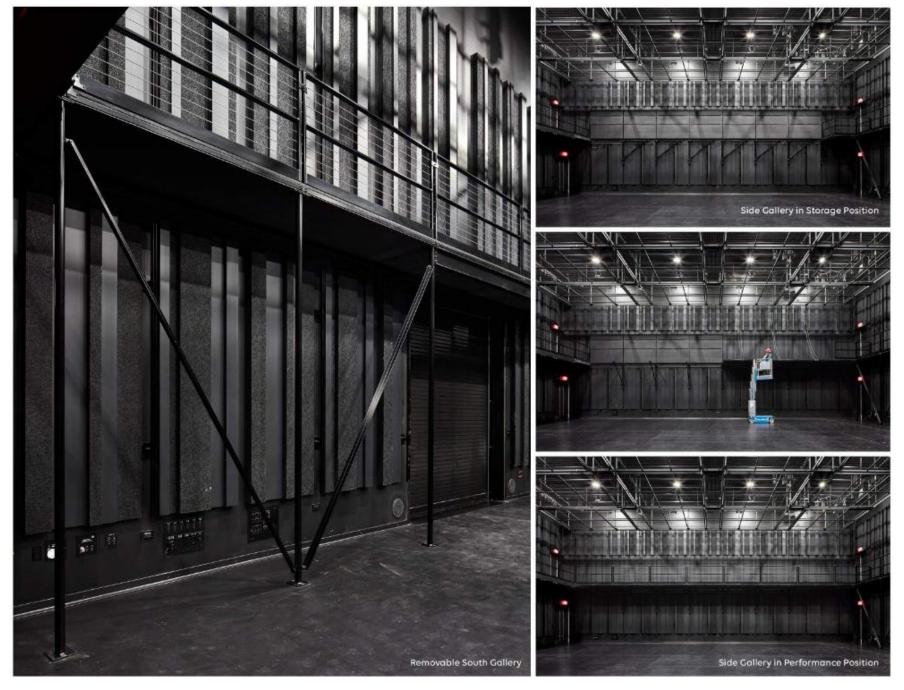
Transverse East/West Direction Galleries create balcony seating or performance area



In the Round No galleries



End Stage Facing South Dance configuration



Janet Wallace Fine Arts Center – Theatre Building – Macalester College – Operable Side Galleries ASTC Application - Whitaker

To the USITT Award Jury:

It is my pleasure to support the new College Theater and Dance/ Classroom building submission for a USITT Architecture Award.

The Theater and Dance/Classroom building expands and completes the Fine Arts Center renovation, the first phase of which was completed in 2012, and the second in 2014. The Fine Arts Center is home to three academic departments: Music, Art and Art History, and Theater and Dance, as well as an art gallery, and a large commons area.

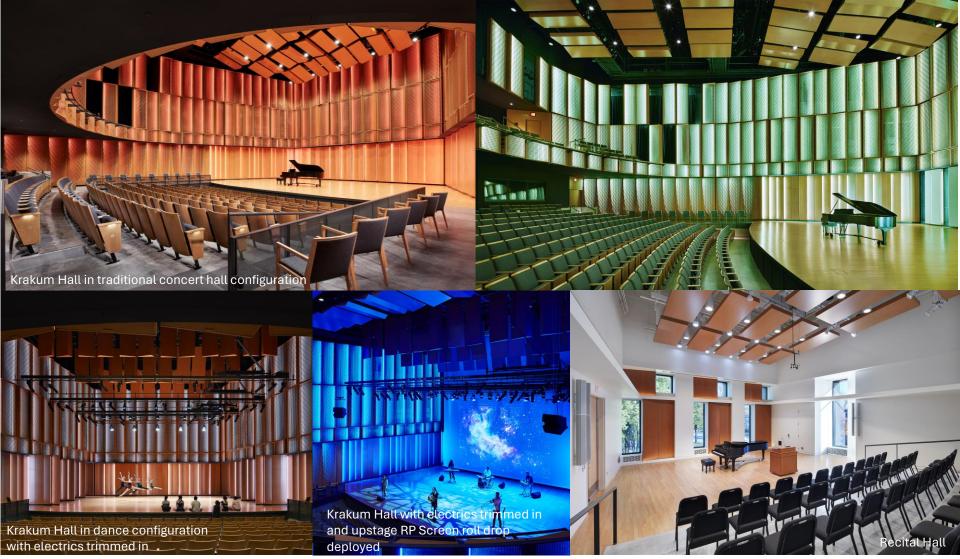
The original theater building, completed in 1965, contained a George Izenour designed multi-form performance space, which remained functional until 2012 when it was fixed into a proscenium configuration. That large performance space was situated in the center of the building and severely limited the size of the support and teaching spaces that surrounded it. The influence of the Izenour space led the theater and dance faculty and staff to charge the design team with creating a performance space that was flexible in the performer/audience relationship, and was as "forward looking" as Izenour's previous space had been. Of equal priority was to include large flexible teaching spaces. In response to both of these priorities, the new building houses two movement studios, a small flexible performance/rehearsal space, a design studio, dressing rooms and makeup studio, costume shop and scene shop, as well as the large flexible performance space. In addition to all of these specific spaces, it also includes 11 spacious classrooms that the campus desperately needed.

· The main stage performance space at the core of the new building is a beautiful response to the department's need for a creatively flexible performance space. The space is acoustically isolated from the rest of the building and acoustically suited for theatrical performance. Its hinged audience/performance galleries, demountable technical gallery, tension wire lighting grid with slots and removable sections for rigging, and I-Beam rigging points with moveable chain motors all provide flexible performance options. The seating system allows numerous configurations with or without upper gallery connections. The space is wired with infrastructure to accommodate Creative Connors automation components; audio and media connections allow connection throughout the performance space and the building. This theater is truly a space for the exploration of performance and allows students the opportunity to learn and grow with a technologically advanced set of tools.

- The smaller performance/rehearsal studio includes a full lighting grid, as well as digital and audio connections throughout. An excellent environment for class, rehearsal and small performances. The studio allows students to experiment and develop their own work, with a slightly smaller set of technical tools.
- The design studio/classroom is packed with creative possibility for young designers and technicians. It houses a full studio lighting grid for small lighting class projects or model lighting exercises. It contains digital workstations that are connected to tools in the space as well as connections throughout the building. There are also traditional drafting and model building tables for scenic and costume design development.
- The large movement studio is a gorgeous creative space with high volume, large windows and a beautiful wood floor. It also contains infrastructure for future performance. There are digital and audio connections, walls treated to be projection surfaces to support explorations of dance and media, as well as lighting possibilities to allow this large gorgeous studio to be not only a spectacular rehearsal space, but also a "works in progress" performance space.

Those are just a few of the details in four of the spaces that make up this new Theater and Dance building. The attention to detail was very apparent throughout the process. However, it was only through the design feam's initial creative work merging the Theater and Dance Department's needs and the identified campus wide need for classroom space that really allowed this project to move forward. The Theater building was slated for some very basic upgrades until the design team identified the possibility of combining the strategic classroom needs and the programmatic needs. This possibility involved demolition of the old building and construction of a new building sited in the old location with connections to the fine arts center and the science building. It was through these creative solutions that the new building brought physical connections between the arts and sciences and a vibrant creative energy to the new building. The design team's collaborative work with the many stakeholders at the college led to an outstanding project that is beautiful, functional, and very "forward looking."

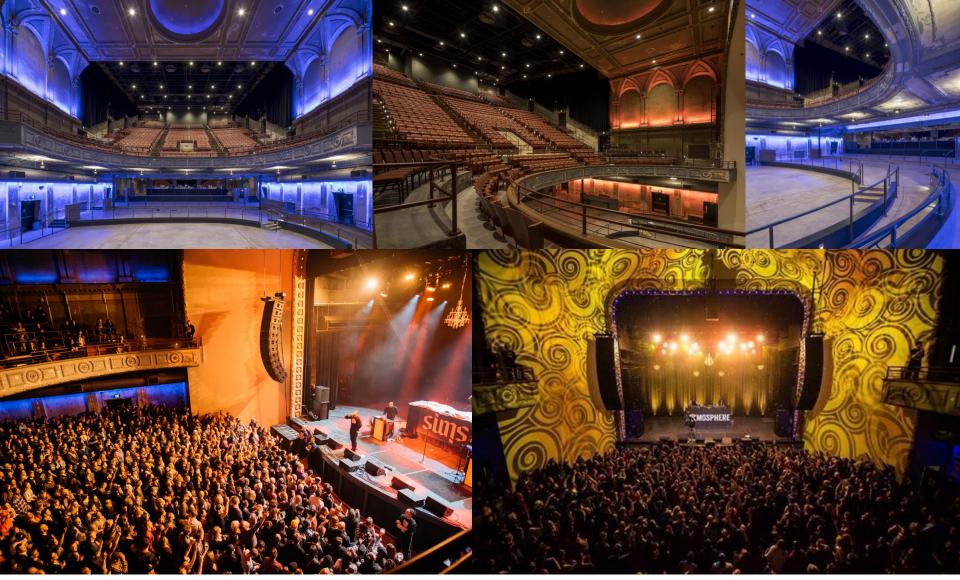
Support letter from Macalester College Technical Director in support of the USITT award application



The Krakum Performance Hall is at the center of the addition to Weitz Center for Creativity. This 400-seat technically advanced hall was designed with flexibility, accommodating a full range of concerts, diverse music ensembles, dance recitals, and theatrical performances with minimal effort to modify the performance space. The hall is equipped with motorized acoustic ceiling reflectors that tilt down to allow electrics to fly in to support dance production.

The lower half of the side walls rotate open to create traditional wings for dance and theatrical performance. Portable acoustic towers roll out from the back wall to accommodate smaller ensembles. Motorized acoustic curtains wrap the space, allowing conductors to change the acoustics of the room with the push of a button. In front of the acoustic curtains, an acoustically transparent visual surround, composed of wood panels

and metal mesh, is illuminated with concealed linear color changing LED strips that allow the space to completely transform. The acoustic curtains cannot be seen when deployed. Three catwalks, color changing lighting, and a state-of-the-art theatrical lighting control system allow for theatrical possibilities rarely seen in a concert hall.



The 2800 seat venue includes an open standing and dancing tiered orchestra level with a large bar at the rear. The stage was raised to allow for better sightlines. The balcony has fixed seating. The existing seating was refurbished to maintain the historic end standards. The lower balcony was reconfigured to allow for ADA seating. Sleeves are provided so that the the FOH mix position can be set up at multiple locations. Palace Theater

Front of house, new box boom and balcony rail positions were added. Above the historic ceiling rigging points were added above sleeves through the ceiling to allow for a FOH truss. Below the stage a green room and dressing rooms were added. Above the stage, galleries were added to locate company switches, provide DMX infrastructure, and aid in cable management. Rigging points were added above the historic gridiron to support trusses.

An extensive chain motor control system was included to support house motors. A front Austrian can close off the stage for events or between acts. Marking curtains wrap the stage house on three sides. A new fire curtain was installed for safety.



St. Paul Academy has a vibrant arts program with both the middle school and high school constantly in production for theatre or music performances. The space is also used regularly for lectures and assemblies. The 600-seat proscenium is fairly traditional with a sloped orchestra and stepped parterre. The proscenium is wide at 50' to accommodate an orchestra. Acoustic

curtains surround the house and are visible thru an illuminated metal mesh. Over stage there are 24 counterweight line sets, 4 motorized electrics, and 3 motorized line sets for the shell ceilings.

A robust hybrid lighting control system with dimmer racks and relay panels support both quartz and LED technologies. A large orchestra shell with towers and operable ceilings supports the music program. To

increase stage space the orchestra shell storage alcove was located centrally upstage and covered with fixed wall panels and ceiling panels to extend the shell space for concerts that include a choir in addition to the orchestra.

An ample lobby and adjacent rehearsal space support the theatre.



The newly renovated modern interior allows for 700 seated patrons or 1000 standing. The original sloped floor was replaced, with two flat tiers, allowing temporary seating or dining tables to be brought in for select events. The balcony includes permanent booths, as well as theatrical seating. ADA seating is available on both levels.

The rigging and lighting systems were specifically designed to support a program of live music acts with flexibility to easily support corporate events, theatre, or dance.

A slot was added FOH to allow some front lighting and some lighting above the dance floor without the need of rigging a truss. At the rear of the hall a follow spot booth was included. FOH rigging point sit above ceiling sleeves to support trusses and speakers.

Over stage a new gridiron was installed. This grid supports a large rectangular truss, a motorized venetian, and dead hung masking curtains on tracks.

A lighting control system and fixture package was included to support local acts, dance nights, corporate events, and the weekly gospel breakfast. The control system can also control the color changing elements that are part of the house lighting system.

A small lift was included in the house floor to facilitate moving equipment to the storage rooms in the basement.