

Wyandanch Village STEAM Center



Artist's rendering of Wyandanch Village; STEAM Center to be located in the building behind the fountain



A Feasibility Study Submitted by

Lawrence C. Levy

Executive Dean, National Center for Suburban Studies at Hofstra University®



Beth E. Levinthal

Executive Director, Hofstra University Museum

HOFSTRA UNIVERSITY MUSEUM

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TABLE OF CONTENTS

INTRODUCTION.....	1
CONCEPT, MISSION, AND VISION STATEMENTS	4
USABILITY, SUSTAINABILITY, AND REPLICABILITY	4
STEAM CENTER PROGRAM POSSIBILITIES	5
A SAMPLE SATURDAY AT THE STEAM CENTER	9
A SAMPLE WEEKDAY AT THE STEAM CENTER.....	10
OPERATIONAL MENUS	11
POLITICAL AND COMMUNITY SUPPORT	15
SUMMARY OF FINDINGS, GOVERNANCE, AND CONSIDERATIONS FOR FUTURE STUDY	18
APPENDIX	21

INTRODUCTION

Suffolk [County] has asked Hofstra's National Center for Suburban Studies and its nationally-accredited art museum to conduct a preliminary study of a STEM-focused arts center in Wyandanch... expected to produce a programmatic profile and lay the groundwork for determining capital costs, as well as its potential for generating jobs, revenue, and improved educational outcomes.

-Long Island Regional Economic Development Council

The arts provide us with new ways of thinking, new ways to draw connections...and they help maintain our competitive edge by engendering innovation and creativity.

-Rocco Landesman, former Chair of the National Endowment for the Arts

A STEAM center is not only worthy of inclusion in the new village but important to Wyandanch rising both in terms of community revitalization and cultural growth. The center could become the hub of Wyandanch, not only for the residents but non-residents as well.

-Anne Stewart, highly-regarded community activist

The creative energy of **STEAM** – marrying the A for arts with the STEM of science, technology, engineering and math – could put some “heat” into the revitalization of Wyandanch.

That's the over-arching conclusion of our nine-month study of the economic, educational, artistic and cultural potential of such a STEAM Center in the new Wyandanch Village. Based on the Hofstra University study, which included dozens of interviews with experts, potential funders, community members and other stakeholders, a multi-purpose STEAM Center – with space for exhibitions, lectures, workshops and additional activities – could work for Wyandanch in a number of ways. Those include the generation of jobs and other economic activity through tourism, high-tech skills training and artistic entrepreneurship, as well as creating educational portals for learners of all



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ages. From the reaction of residents, a STEAM Center – particularly one with bi-lingual programming to meet the needs of the growing Latino community in Wyandanch – would have broad appeal within the hamlet and beyond.

“Count us in,” said the principal of a Wyandanch elementary school. “A STEM arts center would be very beneficial to our students.”

Experts and academic literature repeatedly cite improvements in essential math, science and language skills – critical to creating a high-tech workforce to keep the region competitive – from exposing

young students to the arts. And these include STEM and arts programs not offered by many public school districts because of fiscal and curricular constraints. “There is a pressing need for creative people across a broad range of industries,” Stephen Beal, President of the California College of the Arts wrote in the Huffington Post:

“Innovation is not the exclusive domain of scientists, programmers, and engineers. Companies and organizations that have traditionally looked to large research universities for talent are now looking for artists and designers – creative people who will bring to the workplace unique problem-solving skills, entrepreneurial spirit, and a deep understanding of the user experience.”

The leveraging potential of STEAM was specifically cited by the Long Island Regional Economic Development Council in its five-year strategic plan for Nassau-Suffolk, produced in 2011, and all three of its annual updates. The LIREDC noted in its 2013 report, which directly endorsed a STEAM Center for Wyandanch:

“The arts have a significant role to play in reshaping Long Island and can be included in the broader context of STEM as STEAM. Pursuing STEAM initiatives will most effectively prepare Long Islanders for a variety of demanding career paths with the skills, knowledge, and creativity to succeed.”

By the same token, technology offers inspiring avenues for artistic endeavors that might not have been possible without new means of expression. Technology also allows non-artists to participate in the continuum of artistic expression, including those who create devices and materials that enable or enhance performance. *“The beautiful music made by our artists would not be possible without the scientists and others who develop and produce the materials that go into producing quality instruments,”* said James D’Addario, CEO of D’Addario, a Long Island-based company whose wide variety of musical strings are renown throughout the world. *“The arts and technology go hand in hand, and there are a range of jobs for those with the skills for them.”*

Additionally, it is widely accepted, including in the Long Island Regional Economic Development Council’s strategic plan, that the arts provide a powerful spark for downtown revitalization efforts – especially attractive to the young workers the region is seeking to attract and retain. The

arts also are a major focus for job training – and can be that in Long Island’s statistically poorest hamlet to hasten its economic and social ascent. *“Entertainment products are the region’s second largest export, and the STEAM Center in Wyandanch will be designed to excite youth and adults about the potential of a career in arts-related STEM fields,”* an LIREDC update declared. *“The Center will provide exhibition areas to serve as its public face and anchor a future arts district that is hoped to attract outsiders to the hamlet. The STEAM Center also will host ‘working’ spaces such as artwork conservation labs to provide hands-on experience and training.”*



“Companies and organizations...are now looking for artists and designers – creative people who will bring to the workplace unique problem-solving skills...”

Local examples of the stimulating power of the arts abound, and their potential in Wyandanch is real. The Center’s location only yards from a Long Island Rail Road Station, as well as near major highways, is seen as a key feature in drawing people to a range of amenities in this “transit-oriented, smart growth” initiative. Already the completed Building A is filling with hopeful renters in both subsidized and market rate apartments. The desirability of these apartments is seen by the developer, Albanese Organization, as being enhanced by a STEAM Center and other arts endeavors. In fact, Albanese is committed to donating the space for the center, as well as for the Long Island Music Hall of Fame. *“The arts will be a powerful magnet,”* said George Aridas, Executive Vice President, who is overseeing the project for the Albanese Organization. *“They [the STEAM Center and Long Island Music Hall of Fame] are an integral part of creating an exciting new village.”*

Support for the STEAM Center is broad and deep. Numerous meetings with community stakeholders in the Arts, Science, Technology and Education, who represent organizations and institutions as diverse as the Art League of Long Island, Brookhaven National Laboratories, Farmingdale University, the Heckscher Museum of Art, Hofstra University, the Hofstra University Museum, the Huntington Arts Council, LaunchPad, the Long Island Childrens Museum, the National Center for Suburban Studies, the Maritime Explorium of Port Jeff Harbor, and Stony Brook University, as well as community groups and organizations in Wyandanch, have indicated keen interest in various levels of participation.

But the Wyandanch STEAM project must be viewed with eyes wide open. Although rich with the potential to create an appealing “buzz” or “vibe” and sense of pride in this “rising” community, such a Center would be the first on Long Island. Although STEAM-related initiatives have been undertaken locally and around the country for years, there is no local example whose experiences – successes and setbacks – can serve as a specific guide. Although the arts have helped other communities, and Wyandanch has some lauded arts programs for youth, the hamlet has no professionally run museum or cultural arts organization of any kind. Thus, a STEAM Center in the village demands careful evaluation and planning before any investment in bricks and mortar. While many in the community and in the region’s business, arts, charitable



and governmental circles expressed enthusiastic support for the project, its success will depend heavily – regardless of its expected popularity – on their willingness to provide financial, technical and other support. And that support was often cited as dependent on the perceived competency of whatever organization – particularly the leadership skills and commitment of its board and director – that will shape the center’s programming and promotion.

This report explores the obstacles and opportunities reflected in developing and sustaining such a cutting edge facility and offers a menu of options in programming, equipment, funding, management and governance for decision-makers, both public and private, to consider when committing further resources.

Commissioned by Suffolk County Office of Economic Development and funded by the New York State Council on the Arts, the report was prepared by the Hofstra University Museum and the National Center for Suburban Studies at Hofstra University, both nationally recognized organizations within the region’s largest and highest-ranked private institution of higher learning.



THE STEAM CENTER CONCEPT

- The **mission** of the Wyandanch Rising STEAM Center is to promote community participation in art-inspired STEAM activities within an inviting setting of studios, galleries, and performance spaces, enhancing economic growth by providing a variety of day and evening programming for Long Islanders of all ages, including a diverse array of introductory workshop series to foster career awareness or career transitions among all age groups.
- The **vision** of the Wyandanch Rising STEAM Center is to create jobs and pride by promoting tourism in Wyandanch as an arts and technology community.



USABILITY, SUSTAINABILITY AND REPLICABILITY

The infrastructure of the STEAM Center, as proposed herein, assures robust usability: A director with broad interests and skill sets, ideally bilingual is critical; space, furniture and storage that is flexible enhances adaptability and responsiveness, and contract capabilities with various artists, engineers, technologists, scientists heightens responsiveness to a wide audience.

In order to ensure financial sustainability some form of a contractual relationship with Suffolk County may be required to provide start-up and operating costs. It will also be essential to create strong relationships with local retail stores and the proposed Building C restaurant(s) and Long Island Music Hall of Fame. The same can be said for vital ties to regional universities and colleges.

For political sustainability, grant support from politicians at all levels of government will be vital. For creative sustainability, the STEAM Center must be committed to the hiring of local Long Island artists, engineers, technologists, scientists (with a specific intention to hire Wyandanch residents) for performances, classes, or workshops designed for promoting and facilitating career awareness and preparation.

STEAM CENTER PROGRAM POSSIBILITIES

The proposed STEAM Center has the potential to provide targeted programming that engages learners across the lifespan and particularly empowers participants with 21st century workforce skills, design perspectives, and awareness of the many career opportunities across STEAM: Science, Technology, Engineering, Arts, and Math.

The programmatic concepts that drive the STEAM Center will be offered at entry points for all learners, from those with no background or experiences in the sciences or arts, to those well-versed in STEAM, but looking for engagement and social networks through the Center (i.e., young professionals and millennials).

SPACE

This study proceeds on a conception of the STEAM Center as an approximately 8,000 square foot, fully accessible venue in Building C, with a design that includes:

- a welcome reception area (500 sq. ft.)
- exhibition/gallery space (600 sq. ft.)
- performance areas
 - state-of-the art lighting/sound/IT
 - flexible stage area and seating (1,500 sq. ft.)
- workshop areas with open floorplan and flexible wall systems
 - one mirrored wall, barre system, smooth wood floor for dance/yoga (900 sq. ft.)
 - table area with computer spaces and electricity
 - table/easel area near natural light (1,000 sq. ft.)
- living room/library area (1,000 sq. ft.)
- makerspace (1,000 sq. ft.)
- kitchen (200 sq. ft.)
- staff offices (400 sq. ft.) and storage (600 sq. ft.) areas (maintenance materials, seating, other)
- restroom facilities (300 sq. ft.)



The following interior design features and programming resources are recommended:

- easy flow landscaped interior space with movable walls and wheelchair accessibility
- warm dimmable LED lighting throughout
- wireless internet/digital technology hardware throughout
- sturdy child and adult furniture/child and adult level counters and work areas, flexible seating for stage/courses/meetings
- computer/printing/art equipment lease with repair contract
- materials budget for changing programs in makerspace and art studio

The following capital budget items are recommended for inclusion in the capital campaign:

Architectural plans and building costs for:

- reception area
- gallery
- makerspace
- living room
- stage and classroom
- dance and yoga studio with appropriate flooring
- movable wall systems
- movable furniture
- accessible restrooms
- kitchen area/ 3 office spaces
- 1 maintenance closet
- 5 storage closets for makerspace, art studio, and yoga and dance studio.



The following budget items are recommended for inclusion in the operating budget projections:

- electronic technology (computers with probes and electronic interfaces, graphic design software, smart boards, sound buffer systems for performances, technology security, lighting)
- non-electronic technology and tools (jewelry kilns, mirrored walls, barres for dance, art supplies, yoga mats, etc.)
- maintenance
- supplies (office, printing, etc)
- operational Needs – staff salaries, compensation/benefits.
- signage/advertising – printing and distribution, social media, web maintenance
- overhead – monthly/annual costs of electric, heat/cooling, water, security, equipment replacement and repair, accounting and audits, legal, dues, directors insurance, liability insurance

PERSONNEL SKILL SETS

STEAM Center operations require the following personnel skill sets, at levels commensurate with Center usage:

- executive leadership (preferably bi-lingual)
- education and program vision, development, supervision
- technology selection, usage, maintenance
- marketing of programs, development of new funding
- maintenance
- reception (preferably bi-lingual)
- security
- work-for-hire expert teachers in varied arts, technology, science and math pathways

FULLY OPERATIONAL PROGRAMMING MODEL

The following program possibilities are recommended in order to provide a full palette of options to area residents. Programming was selected for recommendation based on (1) current popularity with the indicated age groups and (2) career skill development potential.

The following sets of programs are recommended as target services for the STEAM Center. The exact selection available at the launch of the Center or the selection available at any one time in the operation of the Center will be determined by the executive director in consultation with the board of directors, the governing agency, or a community advisory council, dependent on the final governance structure established.

Morning and Weekend Programs for Families with Young Children 3 years - Pre-K:

- art explorations for parent and child
- art explorations for children
- movement, yoga, and dance for parent and child
- movement, yoga, and dance for children
- music making for parent and child
- music making for children
- technology introductions
- preparing your child for the 21st century (parents)



After School and Weekend Programs for Students in Grades 1-12:

- theater explorations – stage technology, poetry, drama performance (grades 1-12)
- digital technologies & architecture explorations (grades 8-12)
- Introduction to engineering fields, including biomedical engineering, landscape engineering, mechanical engineering, sound engineering (grades 5-12)
- computer programming and gaming (grades 7-12)
- robotics explorations (grades 5-12)
- digital media and iMac lab (grades 5-12)
- digital photography (grades 7-12)
- film and digital movie making (grades 7-12)
- makerspace explorations, including 3-D printing (grades 1-12)
- graphic design workshops and career explorations (grades 7-12)
- art making explorations, drawing and painting (grades 1-12)
- jewelry making explorations (grades 5-12)
- authentic cultural and art objects and an introduction to art conservation careers (grades 7-12)
- dance explorations – ballet, jazz, modern, tap (grades 1-12)
- yoga explorations (grades 1-12)
- music explorations – appreciation to performance (grades 1-12)



Morning/Weekend/Evening Programs for Adults:

- culinary arts program
- makerspace programs and competitions
- explorations into engineering fields, including biomedical engineering, landscape engineering, mechanical engineering, sound engineering
- computer programming, gaming, iMac lab and more...
- introduction to robotics (career pathways)
- poetry writing and poetry slam nights
- graphic design workshops and career explorations
- fine art workshops and exhibitions in the STEAM gallery
- jewelry making (and entrepreneurial explorations)



- introduction to art conservation techniques and careers
- dramatic readings and performance workshops
- creative writing workshops
- yoga classes and meditation
- theatrical performance workshops and performances
- music jam nights
- techie nights and art making
- performance and technology



A SAMPLE SATURDAY AT THE STEAM Center

8:00 AM Morning Yoga for teens and adults in Movement Studio

9:30 AM Lessons

- String Class in Stage Area
- CoderDojo, a global movement of free, volunteer-led, community based programming clubs for young people in Maker Space
- Fabric Arts in Art Studio - Today's feature: Designing on silk
- Director holds coffee hour for community input in Living Room

12:00 PM STEAM in the Kitchen

- Healthy culinary arts class for teens and adults - Today's feature: Quinoa Chowder -- Who knew it would be so tasty?

1:00 PM Toddler – Grade 2/Parent Class in Art Studio/Maker Space

- The Reggio Emilia Approach to early childhood STEAM Education

2:30 PM Lessons and Open Time

- Woodwind Class in Stage Area
- Open Time in Art Studio and Maker Space

6:30 PM Dinner Journeys

- Gallery Walk with Artist in STEAM Center Gallery, followed by dinner in nearby restaurant, followed by event in Stage Area.

8:00 PM Performance in Stage Area

- Short film, *Passionate about Performance*, discusses major (and surprising) research findings from the Centre for Musical Performance as Creative Practice: inspiration often took place while musicians were humming, imagining dance moves, or tapping out rhythms, rather than playing their instruments.

7:30 PM Open Time in Art Studio and Maker Space

7:30 PM Ballroom Dance class in Movement Studio - Today's feature: Lindy

9:00 PM Yoga/Mindfulness class

10:00 PM Center closes and janitorial service cleans.

A SAMPLE WEEKDAY AT THE STEAM Center

8:00 AM Drop-off program for elementary children of working parents: Mindful Math: students practice yoga positions with geometry visualization

9:00 AM Buses transport students to schools

9:30 AM Morning Sessions

- Elementary STEAM class conducted at schools: *Color Without Crayons* - Children paint on special paper with household products, predicting colors from prior experimentation.
- Pre-school STEAM class conducted in Maker Space at Center: *Cargo Challenge* - Children create and use simple machines from household utensils to transport blocks using only their machines.
- Infant/Parent Brain-based Dance class at Center in Movement Studio - Baby and parent dance together, building baby's body and brain through social/emotional connections.
- Director meets with potential funders, works on grant writing.

12:00 PM STEAM in the Kitchen

- Healthy culinary arts class for adults - Today's feature: Salads using spring peas, fresh herbs and noodles

1:00 PM Afternoon Sessions

- Senior Lunch Book Talk and Bake Shop in Kitchen and Living Room: Seniors bake pies in the Center kitchen, then meet in Living Room area of Center to discuss book, *How to Bake π : An Edible Exploration of the Mathematics of Mathematics* by Eugenia Cheng. The book talk is a workshop that helps seniors learn the math behind why a recipe for a 9-inch round cake mathematically makes a pretty accurate 8-inch square cake.
- Parent/Toddler Development Class in Movement Studio: Workshop uses *STEM Sprouts* curriculum from the Boston Children's Museum
- Director interviews artists and views portfolios for upcoming programs

2:30 PM Mid-afternoon Creative Career Strand

- Middle School/High School Arts Career Awareness Series in Stage Area - Different highlight every week: art conservation, art therapy, dance, theatre, music, fashion design, animation, architecture, painting, photography, mosaics, woodworking, sculpting, glassblowing, silversmithing, blacksmithing, ceramics, filmmaking, interior design, culinary arts

8-week programs

- Drawing and Animation with JavaScript in Maker Space
- Students create individual projects, culminating in Family and Friends Gallery Walk
- Filmmaking in Art Studio
- final session with representatives from Directors Guild of America and the Alliance of Motion Picture and Television Producers; program culminates in Family and Friends Film and Popcorn Night
- Modern Dance in Movement Studio
- BrainDance exercises to begin each session; program culminates in Family and Friends Dance Performance
- Director meets with community advisory council

4:30 Late-afternoon Creative Career Strand

4-week programs

- Ceramics Class in Art Studio, highlighting techniques
- Architecture Class in Maker Studio, highlighting compression/tension forces in design
- Director meets with STEAM Center Board; Board finalizes university memorandum of agreement

6:00 PM "Happy Hour" for LIRR Commuters

- Meet the Artist: Gallery Walk with light refreshments

7:30 PM Lessons and Open Time

- Percussion Class in Stage Area
- Open Time in Art Studio and Maker Space

10:00 PM Center closes and janitorial service cleans.

OPERATIONAL MENUS

To assure that the STEAM Center comes to fruition in Wyandanch Village, three (3) start-up options are recommended, based on the level of funding available as the Center launches.

The three options below are based on the oversight of the STEAM Center from a fully realized, robust, non-profit organization with an active, contributing Board of Directors or from an already existing and successful institution or governing agency or office ready and willing to adopt leadership. With this guiding foundation in place, the following three (3) options provide different levels of service and/or a pathway by which services can be ramped up over time as funding permits.

OPTION 1 describes the fully funded, fully functioning center with weekday and weekend daytime and evening hours. This option offers a full array of programming for children, adolescent, millennial, adult, and seniors.

OPTION 2 offers weekday and weekend daytime hours, with neither design nor construction of theater/performance area, art gallery space, computer resources, nor kitchen. This option offers K-12 afterschool programs in the arts and maker space areas, family programs, without dance and yoga.

OPTION 3 offers weekday daytime hours, with neither design nor construction of the dance/yoga studio, formal reception area, staff office spaces, theater/performance area, art gallery space, computer resources, living room, nor kitchen. This option offers studio workshop programming in the arts and makerspace areas, but neither dance nor yoga.

OPTION 1

OPTION 1 provides a fully functioning, fully staffed STEAM Center with programming and services 6 days per week, on a Tuesday through Sunday schedule, from 10:00 am to 8:00 pm (with additional hours as required by programming needs). This option requires significant funding for professional salaries and benefits, operational overhead both direct and indirect costs, as well as marketing, IT, maintenance and security costs. Figure 1 illustrates a very general, very rough 80 foot x 100 foot possible example of one space configuration.

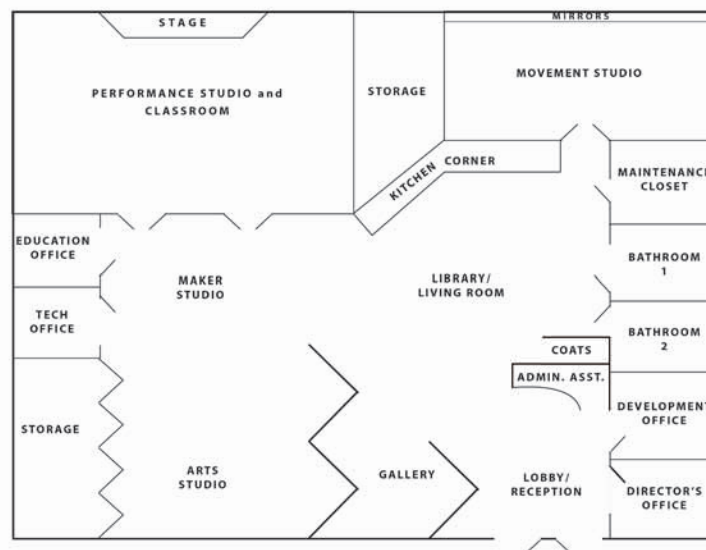


Figure 1: OPTION 1, Full Programming

In this option, the Center serves students in grades 1-12 in after school and weekend programs, families with young children and seniors in separate morning and weekend programs, and adults of all ages in evening programs. In this option, the Center is staffed by a full-time professional Executive Director, full-time professional Program/
Wyandanch Village STEAM Center

Education Director, full-time professional Technology/IT Director; part-time professional Development/Marketing Coordinator; part-time maintenance, reception, and security staff; work-for-hire expert teachers in varied arts, technology, science and math pathways. All staff are preferably bi-lingual.

To assure the appropriate development, fundraising, and operational components of a well-run and successful STEAM Center, the following staffing, with designated skill sets, is recommended.

- **Full-time professional Executive Director** This individual should be an innovative thinker, collaborative community-oriented leader and articulate spokesperson with an advanced degree and professional experience in Arts Management or Arts Non-Profit oversight (a minimum of 5-years of professional experience in a leadership role within an arts organization). The individual will have working knowledge of strategic planning, program development across the disciplines (art, science, technology, etc.), budget preparation and oversight, insurance and contract preparations and oversight, hiring and HR practices, grant writing and grant oversight, fundraising, Board development and collaborative decision-making practices. Willing to work a flexible schedule that includes evenings and weekends when required.
- **Full-time professional Program/Education Director:** Well versed in 21st century workforce skills, program development across disciplines, and educational requirements for P-12 grade learners, as well as learners across the life span, this individual will have a minimum of a Master's Degree in Arts Education, Education, Arts Management or a related field plus 5 years of related work experience. The Program/Education Director will be responsible for the development, scheduling, budgeting, supplies, staffing, oversight, and implementation of all programmatic elements of the STEAM Center. This individual will work with STEAM Center staff to identify potential grant worthy programming, to help facilitate the writing of grants, and to provide program oversight for grant awards. This individual will identify experts in specific fields and assure their qualifications to provide workshops and programs specific to the programmatic goals of the center. Knowledge of internet, social media, preparation of marketing and promotional materials is a must. Willingness to work a flexible work schedule that includes weekend and evening hours required.
- **Full-time professional Technologist/IT Director** With expertise in networking, PC and Mac technologies, iMac and other digital software programs, 3-D printers, theatrical sound systems, theatrical lighting systems, and other related technologies, this individual will help design and provide oversight for all IT/social media/computer/robotics/and technological services required by the STEAM Center. A minimum of a B.A. plus 5-years of related work experience is required. Willing to work flexible hours including evening and weekend hours when required is a must. Ability to work with diverse learners across the lifespan and to troubleshoot digital infrastructure issues is a must.
- **Part-time professional Development/Marketing Coordinator** Non-profit grant writing, grant oversight, and fundraising experience along with a minimum of a B.A. degree in marketing, non-profit or arts management, and knowledge of special events is required. This individual will report directly to the Executive Director, and work in tandem with the Board of Directors and professional staff to assure the budgetary goals of the organization. A strategic and organized professional, with community collaboration skills and experience is preferred. Willingness to work flexible hours with evenings and weekend when required.
- **Part-time maintenance professionals** (3 shifts of 4 hours in duration, required each day, 6-7 days per week to ensure complete Center coverage) Individuals with skills in cleaning, plumbing, electrical systems, who have a minimum of a H.S. diploma and 3-years of work experience are preferred. Each individual will be able to engage with members of the public, professional staff, and co-workers in a

collaborative and efficient manner. Ability to schedule regular maintenance as well as oversee timely and cost-effective ordering for maintenance supplies and other required materials.

- **Part-time reception/registration staff and security staff** (3 shifts of 4 hours in duration, required each day 6-7 days per week to ensure complete Center coverage) Engaging individuals with ability to handle phone calls, messages, internet requests, and registration inquiries for multiple audiences are preferred for the positions of reception desk/registration staff. Security staff will work similar 4 hour shifts during open hours of operations. Requirements for security staff include evidence of prior training and/or work experience in security for organizations that serve a wide age range of audiences and locations with high levels of activity. Candidates who have an engaging manner with the public and are prepared to handle health emergencies, evacuation protocols, and electronic security systems are preferred.
- **Work-for-hire experts and educators** in the following varied practices: art conservation, creative writing, fine arts (drawing, painting, pastel, watercolor), graphic design, dance, drama, engineering (varied fields), jewelry making, math, music (musical instruments), photography (digital and other processes), poetry, robotics, science, social media and iMac technology, theater and performance, yoga, and other programmatic pathways.

OPTION 2

If full funding for OPTION 1 is not initially possible, OPTION 2 opens the STEAM Center on a Tuesday through Sunday schedule, with weekday morning and afternoon hours, and on weekends during the day. There would be no evening hours in this option. Option 2 also calls for a delayed construction and opening of the theater/performance areas, dance and yoga spaces, art gallery space, computer resources, and kitchen. Figure 2 illustrates a very general, very rough 80 foot x 100 foot possible example, with the space available in Option 2. Diagonal lines indicate unfinished space.

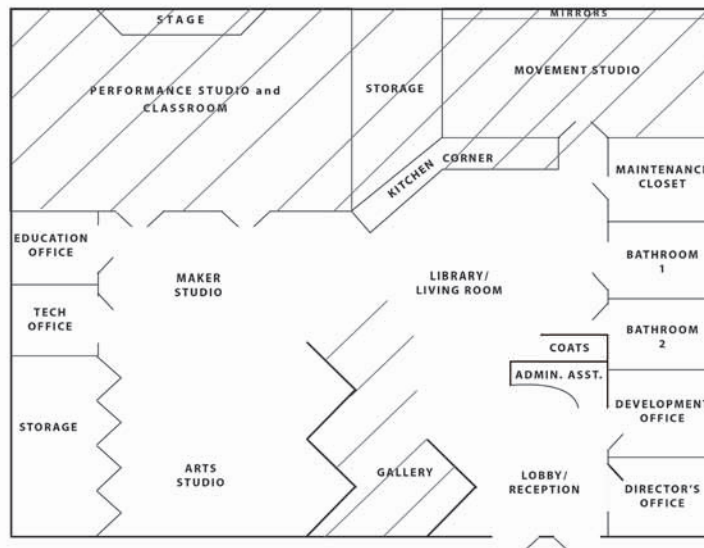


Figure 2: OPTION 2 Space Availability

Professional operations would still require the following minimal staff be hired to develop, fundraise, operate and implement the various components that define the STEAM Center: full-time professional Executive Director, full-time professional Program/Education Director, part-time professional Development/Marketing Coordinator, part-time maintenance professionals (2 shifts each 4 hours in duration, required each day, 6-7 days per week), part-time reception/registration staff and security staff (2 shifts of 4 hours in duration, required each day 6-7 days per

week), work-for-hire experts and educators in the following varied practices: creative writing, fine arts (drawing, painting, pastel, watercolor), engineering (varied fields), jewelry making, math, photography (digital and other processes), poetry, science, and other programmatic pathways.

Pending funding, an additional part-time professional Technologist/IT Director with expertise in networking, PC and Mac technologies, iMac and other digital software programs, 3-D printers, theatrical sound systems, theatrical lighting systems, and other related technologies would be hired. This individual would guide the conceptualization of the performance space, yet to be built in this scenario.

OPTION 3

In OPTION 3 the STEAM Center would function primarily during weekday morning and afternoon hours only, Monday through Friday, with the flexible workshop space for art, science, and math as the available programming space. OPTION 3 would require significant additional funding prior to finalizing the design and construction of the formal reception area, staff office spaces, the theater/performance area, dance/yoga studio, art gallery space, computer resources, living room, and kitchen. Figure 3 illustrates a very general, very rough 80 foot x 100 foot possible example of space availability in OPTION 3. Diagonal lines indicate unfinished space.

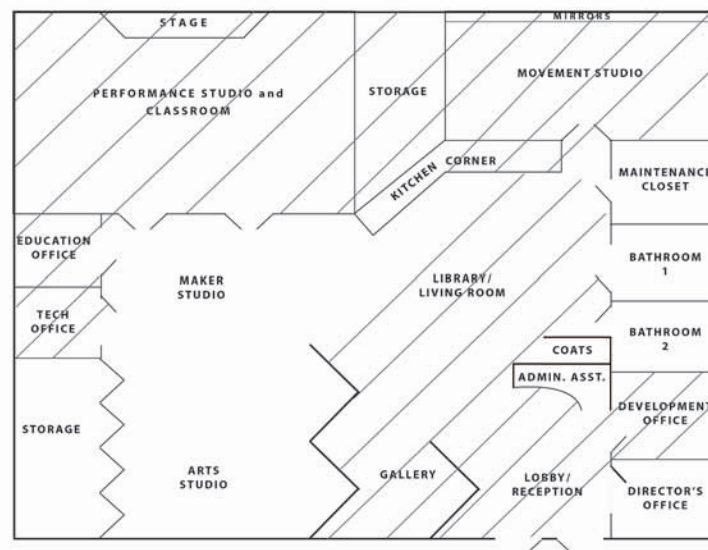


Figure 3: OPTION 3 Space Availability

Professional operations would still require the following minimal staff be hired to develop, fundraise, operate and implement the various components that define the STEAM Center: part-time professional Executive Director, part-time professional Program/Education Director, part-time maintenance professionals (4 hour shifts in duration, required each day, 5 per week), part-time reception/registration staff and security staff (4 hour shifts, required each day 5 days per week), part-time security staff will work similar 4 hour shifts during open hours of operations, and work-for-hire experts and educators in the following practices: creative writing, fine arts (drawing, painting, pastel, watercolor), jewelry making, math, music, poetry, science, and other programmatic pathways.

POLITICAL AND COMMUNITY SUPPORT

In Wyandanch, optimism has turned to excitement.

When Governor Andrew Cuomo tasked the Long Island Regional Economic Development Council last year with selecting an Opportunity Agenda Area, Wyandanch was the obvious choice. The community's calamitous social indicators showed it clearly lagging behind the rest of Long Island, and its lack of improvement for more than a generation was a blow to its pride and confidence.

Yet, Wyandanch's civic infrastructure of community groups and devoted activists was strong. They never gave up on themselves. And neither did we at the LIREDC. Instead, the community continued to push forward its own vision for revival, Wyandanch Rising. It was a vision that focused on meeting the needs of its people beyond a block or two of shiny new buildings. With the support of the federal, Suffolk County and Babylon Town governments, local businesses and outside developers, and two rounds of critical LIREDC-backed state funding, the community was ready for real revitalization.

Thus, Wyandanch's unique combination of need, capacity and momentum presented the LIREDC with an opportunity to realize the inclusionary vision of our five-year strategic plan while keeping our pledge to effectively and creatively target state investments.

– Wyandanch Rising Progress Report, 2014

In our collective years of evaluating public policy proposals, particularly downtown renewal projects, we have never seen a local initiative with wider and deeper support than Wyandanch Rising. Based on our outreach for this study, the proposed STEAM Center enjoys similarly enthusiastic bi-partisan support among elected officials, community leaders and various stakeholders, both inside and outside



Wyandanch. Such support can be critical to the success of any institution, particularly a not-for-profit start-up that may – as even some of the region's most well-established cultural and human service organizations must – rely on government, foundation and private funding to help cover its operational expenses.

A typical reaction to the idea of establishing a STEAM Center, featuring exhibition, educational, art creation and job training spaces in the new buildings near the LIRR station, is this: *“Sounds like a great idea to me. Let me know what I can do to help.”* That this comes from NYS Senator Philip Boyle is especially significant in that he is an influential Republican lawmaker who represents largely Democratic Wyandanch as part of a district that includes much of Babylon and Islip. Long Island Regent Roger Tilles, a strong supporter of STEAM education and founder of the Long Island Arts Alliance, declared that the STEAM concept is crucial for children and adults alike. He believes that the proposed Wyandanch STEAM Center in particular reflects the vision of state education policymakers for producing creative, well-rounded students. And while adding that it might be a challenge to find start-up funding from local philanthropists in a crowded not-for-profit community, the STEAM Center’s success would establish “an important addition to the Long Island arts and education landscape.”

Another “plus” in terms of community support is the interest displayed by local universities and colleges. In addition to Hofstra’s involvement in the preparation of this report, and the National Center for Suburban Studies’ willingness to consider supporting the STEAM Center under its diversity and sustainability banners, Stony Brook University and Farmingdale College officials said they were favorably disposed toward the possibility of providing access to their professors and students. SBU executive Elaine Crosson noted the university’s deep engagement in Wyandanch and desire “as a part of our core mission” to look for more opportunities to expand

its presence in the hamlet. “A STEAM Center would be a very appealing addition,” she added.

The creation of a STEAM Center also enjoys the support of NYS Assemblywoman Kimberly Jean-Pierre, a Democrat who directed the Wyandanch Resource Center and played a key role in the revitalization effort; DuWayne Gregory, a Democrat, who is the powerful Presiding Officer of the Suffolk County Legislature; and U.S. Representative Steve Israel. Along with Senator Boyle, their backing – including a willingness at least to try to raise funds for

the project – means that the area’s collective local, state and federal legislative delegation is completely “on board” with generating “heat” for STEAM.

Wyandanch would not be “rising” without the decade-long efforts of many people in government and the community. Years of planning started with a sincere effort to learn what Wyandanch residents wanted and needed – and what they didn’t want and need – so that the project

has always reflected a collective consensus. One thing on which almost everybody agrees is that the project never could have succeeded without the sustained attention of Suffolk County Executive Steve Bellone, especially when he was Babylon Town Supervisor, and by the man he both succeeded and was followed by in town hall, current Town Supervisor Richard Schaffer. Based on our research, we have every reason to believe that Bellone and Schaffer – two of Suffolk’s most influential public officials – are excited about the prospect of a STEAM Center in Wyandanch. Bellone already has expressed his desire to locate the Long Island Music Hall of Fame in Wyandanch Village as a cultural anchor, and it



“...the STEAM concept is crucial for children and adults alike [and would be] an important addition to the Long Island arts and education landscape.”

would make economic sense to include a multi-faceted STEAM Center in the same structure.

As noted earlier in the report, when it comes to STEAM, there is no disconnect between public officials and the people in the community. An



official in an influential church, who asked not to be identified, said: *"I love the idea and think it would be an asset for all our congregants and the entire community."* But that is not to say residents didn't express concerns and offer suggestions – a number of which we incorporated in the programming and other sections of the report. A resident suggested that perhaps the arts should be a lesser priority for the village, which is beset with social and economic problems: *"The arts are nice but there is only so much money and space to go around."* Another resident noted that arts organizations inside and outside Wyandanch have programs popular with residents and that she did not want to see them harmed or



their organizers marginalized. "Will you be working with the organizations that already have STEM programs or developing your own?" one respondent to our survey asked. "That is important because there are groups who are currently doing STEM as in the Youth Center and we don't want them pushed aside for another organizations."

It is crucial to listen to all voices in the community, especially those who don't share the opinions of the majority. That has been an important part of Wyandanch Rising's success to date. But when it comes to a STEAM Center that includes programs for skills training, spaces for exhibitions and performances, along with STEM-based arts programs and activities that appeal to young and old alike, policymakers can be assured that voices of discontent are few.



SUMMARY OF FINDINGS, GOVERNANCE, AND CONSIDERATIONS FOR FUTURE STUDY

Outreach to Wyandanch community members and beyond to Long Island thought leaders in business, government, education, philanthropy and other sectors indicates strong support for a Wyandanch STEAM Center. The enthusiasm – which we share -- is especially high among experts in the various aspects of Science, Technology, Engineering, the Arts and Math who see such a Center as an economic, educational, and cultural hub.

As detailed in this report, a multi-faceted, multi-cultural STEAM Center could provide educational pathways and opportunities for career explorations and job training in the arts, sciences, and technology for members of the Wyandanch community. It would serve as a source of pride for the village and a cultural hub for all Long Islanders and a catalyst for tourism. It would engage learners across the life span, providing links between the Center and experts in numerous fields and from universities, colleges, and high-tech industries, as well as those highly experienced in all aspects of the arts. From the youngest learners to millennials, to the senior members of the community, the Center would exist as a vital and vibrant home for the exploration of various skills and sources of knowledge, and serve as a showcase for artistic achievements. Ultimately, the STEAM Center would represent a gateway to 21st century skill sets including creativity, critical thinking, communication, and collaboration so vital for success in today's world.



GOVERNANCE AND BUSINESS OPTIONS

As valuable an educational, economic and cultural resource a STEAM Center could be for Wyandanch, however, concerns and questions about its viability remain. The most important revolve around the business and governance models that are chosen for operating the Center. There are several options for decision-makers to choose from, all of which come with pluses and minuses:

- **Independent 501 3(c) with a voting board of directors who are responsible for the operational success of the Center, including fundraising and promotion.** Most cultural institutions run under this model, which enables them to collect tax-deductible charitable donations and operate with the independence to define its vision and pursue its vision with little outside interference. To be successful, the board should include passionately committed



members – from within and outside the community – at least some of whom have the resources to raise significant funds. The problem with this model, at least at present, is that there is no wealthy, influential or passionately committed individual to lead the creation of the STEAM Center (such as Harry Chapin did for the Long Island Philharmonic or a Barbash family for the Islip Arts Council).

- **A for-profit entity that operates the Center with the goal of charging fees for programming and services to generate an active revenue stream for overhead costs, and operating expenditures.** Most experts accessed for this study dismissed this model as a fantasy. We were not able to find an example of an arts organization constituted in this manner, as most struggle to remain in the black and rely on philanthropic and government support to close the gap between its revenues – from tickets or user fees – and expenditures.
- **An organization under the umbrella of an existing 501 3 (c) with fundraising and budgets controlled by an existing Board of Directors or Trustees.** Experts see this as a potential interim step for a STEAM Center – allowing it to raise charitable funds, for instance, to cover start-up costs -- on the way toward obtaining its independent status. Co-location with the Long Island Music Hall of Fame offers the potential to save costs and attract supporters, including donors. But the mission of the STEAM Center spans so many disciplines – each with their own supporters and patrons – that there may be no other existing organization with the breadth of expertise and experience to deal with its programming complexities. And despite the broad enthusiasm, as well as interest in being involved with aspects of the Center, we have identified no organization willing to commit to a major role in actually operating it.
- **An organization that operates as a component of Suffolk County and/or the Town of Babylon with 501 3 (c) status and operated independently (overseen by a separate Board of Directors) with fiscal support provided through annual budget allocations, or annual block grants by the Town or County.** This model should be familiar to policymakers in Suffolk. Examples of such entities include the Vanderbilt Museum in Centerport owned and funded by Suffolk County, the Islip Art Museum in Islip Township similarly funded by the township but operated independently, and the Heckscher Museum of Art in Huntington (under the management of an independent 501 3 (c) but receiving annual block grant funding from the Town of Huntington). The Nassau County Museum of Art in Roslyn Harbor receives ongoing Nassau County support but is operated by an independent 501 3 (c). Experts caution whether local governments would be willing to take on fiscal or operational responsibility for a cultural arts institution, but note that some form of public subsidy is likely to be necessary to get the STEAM Center off the ground. The active support of powerful elected officials is seen as essential, not just in providing crucial start-up funding but sending a message to the private sector that this is a priority for the community and region.

ISSUES FOR FURTHER STUDY

A STEAM Center for Wyandanch Village would be the first of its kind, certainly on Long Island. Thus, there are no other examples of STEAM centers to replicate. This is both an advantage and a concern as such a Center does not have an existing track record of success to draw upon. Therefore, further study is required to ascertain the costs of designing and constructing the interior areas for a STEAM Center (the Albanese Organization owns the core building structure). In such a second feasibility study phase, research would also include further refinement of the costs of operating the Center (furnishings, technological equipment, materials and supplies, staff and human resources, insurance, etc.) on an annualized basis.

Most critical, as indicated above, may be the question of an operational management model and the securing of funding sources. Further research is needed to determine the best model, including the construction of a hybrid that borrows elements of several as the Center picks up “steam.” For the Center to be an ongoing success, a business plan must project a minimum of five (5) years of operational costs and overhead, as well as revenues and income streams. While the next phase of a feasibility study can provide a structure for potential cost estimates and required annual expenditures, it is not in the purview of the current study to determine the preferred governance and operational structure, funders, or other stakeholders that will have the commitment, resources and leadership skills to ensure the success of the future STEAM Center.

Despite all the questions and concerns, the caveats and considerations, we believe a Wyandanch STEAM Center has the potential to be a special community and regional resource that can change not only individual lives but the trajectory of a long-down community that is poised to soar. We recommend that Suffolk County continue to explore with the community and other stakeholders the best way to create and sustain this ground-breaking initiative.

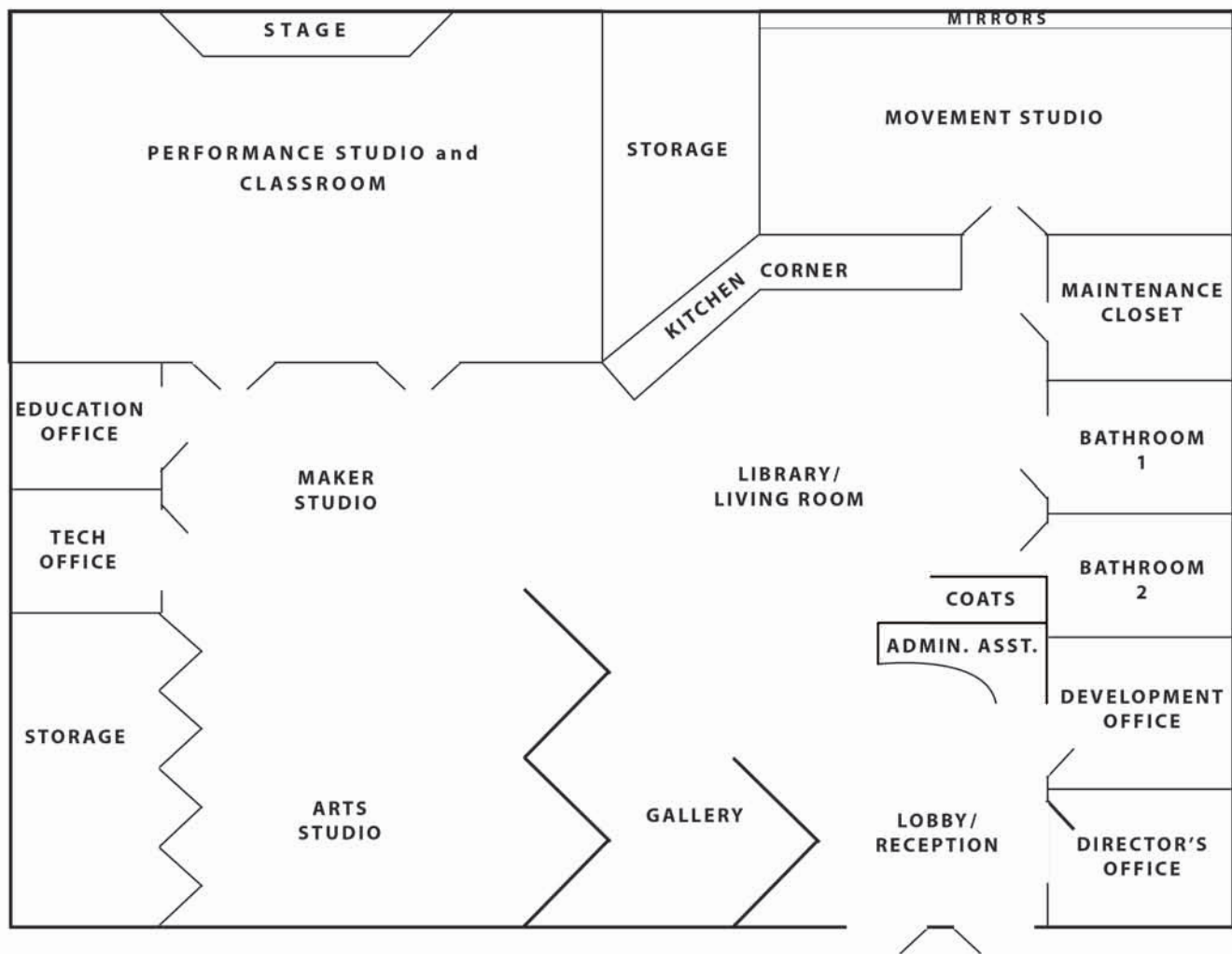
Respectfully submitted by

Lawrence C. Levy and Beth E. Levinthal
June 30, 2015

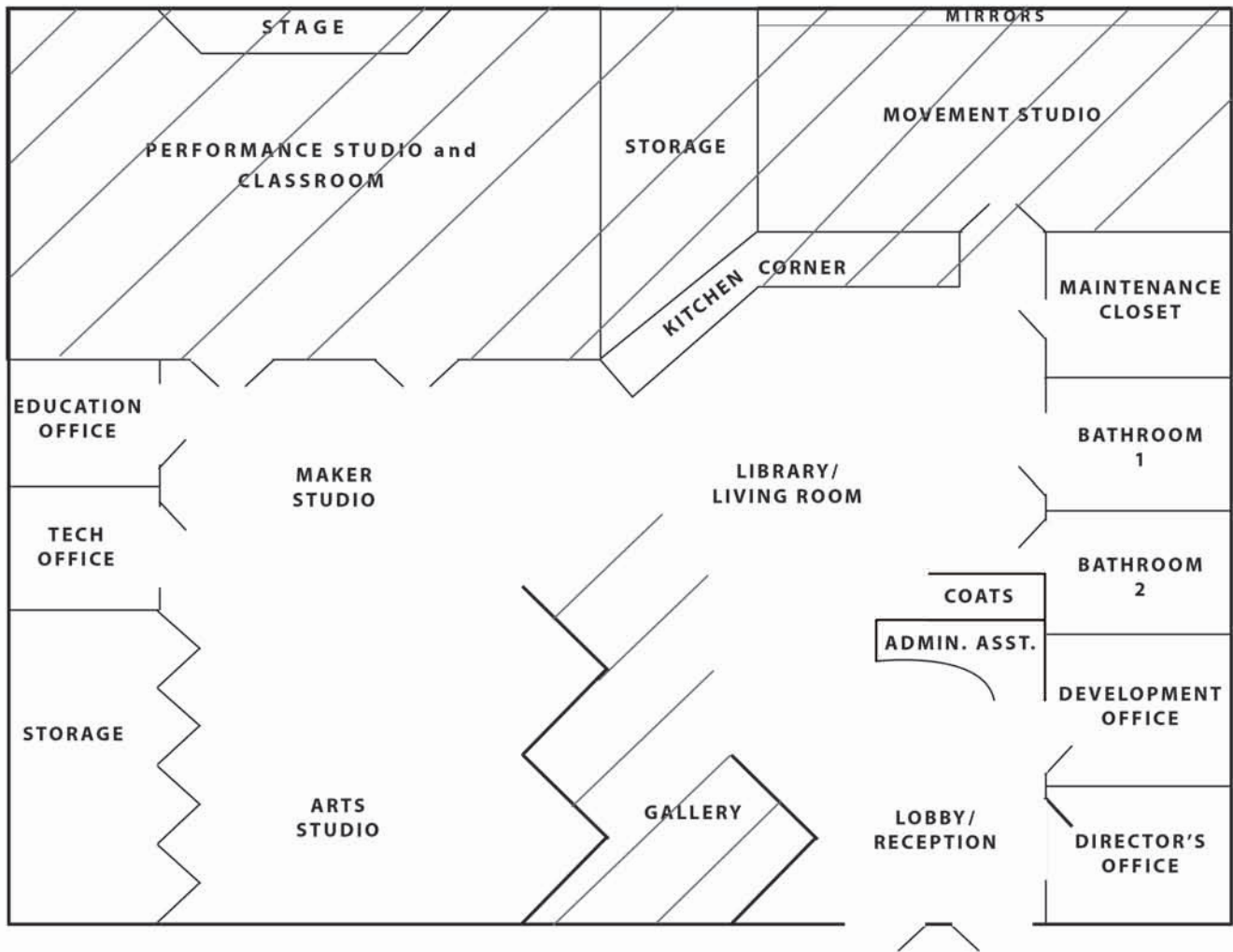


APPENDIX

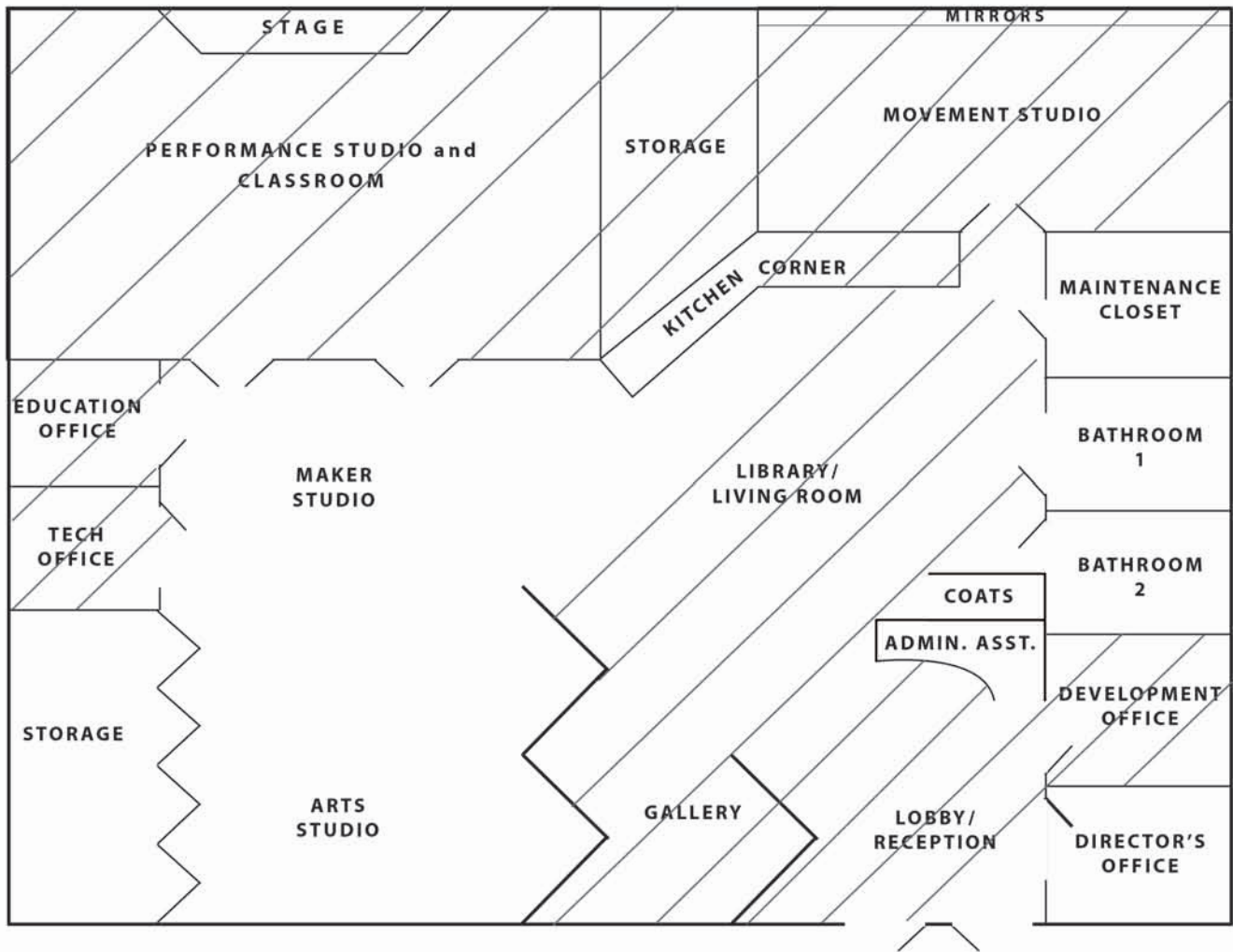
PROGRAMMATIC AND FACILITY OPTION FLOORPLANS



Option 1: Full Programming



*Option 2: Weekday morning and afternoon hours
Weekends during the day*



Option 3: Weekday morning and afternoon hours

CONTRIBUTOR BIOGRAPHIES

Lawrence C. Levy, Executive Dean, National Center for Suburban Studies at Hofstra University®

During his 35 years as a reporter, editorial writer, columnist and PBS public affairs show host, Lawrence Levy won many of journalism's top awards, including Pulitzer Finalist, for in-depth works on suburban politics, education, taxation, housing and other key issues. As a journalist, he was known for his blending of national trends and local perspectives and has covered six presidential campaigns. In his leadership role at the NCSS, which he was invited to create in 2007, Dean Levy has worked with Hofstra's academic communities to shape an innovative agenda for suburban study, including a new Sustainability Studies degree. He has forged research alliances with other academic institutions, including Harvard, Columbia, Cornell, Boston College, Virginia Tech, New York University and others, as well as not-for-profit groups, businesses and government agencies and has promoted the importance of studying suburbs nationwide. He was invited to lecture at the Harvard Graduate School of Design and the Harvard Medical School on the challenges of the changing suburbs.

Dean Levy is a member of a Brookings Institution advisory panel and was a keynote speaker at a Brookings Metro Policy Summit in Washington, DC. The NCSS has collaborated on a number of national and international scale conferences on various aspects of suburban life, from diversity and housing, to education and health care. The center also has participated in major consulting studies on sustainability, demographic change and education and health care challenges in suburbia.

At NCSS, Dean Levy has co-authored major regional studies, including the LI2035 sustainability action plan, all four Long Island Regional Economic Development plans, and many of the post Sandy recovery plans for Suffolk County communities. Before joining Hofstra, he was Senior Editorial Writer and Chief Political Columnist for Newsday, cohost of the PBS show Face-Off, and remains involved in the world of journalism and politics. Levy has been a guest contributor to BBC.com, CNN.com, Politico, Newsday, Citiwire and in 2008 covered the presidential campaign as a contributor to the New York Times.com Campaign Stops blog. (Most of these articles and some of the media appearances can be found at the NCSS website www.hofstra.edu/ncss) He appears regularly on local and national television. More recently, he has begun to co-author articles for academic publications. He is a graduate of Boston University's School of Communication. He's especially proud of organizing the Hofstra Celebration of Suburban Diversity, which annually brings together hundreds of people from different races, religions in other backgrounds and raises funds for diversity related scholarships, research and community engagement. He also is pleased to be able to "give back" by privately mentoring many young people in journalism and public life regardless of their ideological or political allegiance.

Beth E. Levinthal, Executive Director, Hofstra University Museum

Beth has a long and passionate commitment to the role of museums as centers for civic engagement and cultural education. Her firm belief is that museums can serve to build knowledge and understanding through the study of authentic objects and art from the world's diverse cultures. Beth is currently the Executive Director of the Hofstra University Museum, Hempstead and she also served as Executive Director of the Heckscher Museum of Art in Huntington between 2000 -2006.

Additionally, her educational roots include service as Director of Education and Public Programs at the Heckscher from 1996-2000, the first School, Youth and Family Programs Coordinator for the Heckscher from 1994-1996, and as an educator of young art students at the Art League of Long Island during 1987-1994.

Throughout her career, Beth has developed numerous educational programs that impact and engage learners across the life span including *Art Travelers through Time: Literacy and History through Art at the Hofstra University Museum*; *Bethpage Federal Credit Union Global Explorations for Adults*; Long Island's Best: Young Artists at the Heckscher; *Junior Docents at the Heckscher Museum of Art*. At the moment she is working with a team of other professionals to develop a feasibility study for a STEAM Center for Wyandanch Village, as part of the Wyandanch Rising revitalization project. The STEAM Center would offer diverse programming to connect interests in the arts and sciences with career explorations for learners of all generations.

Among other volunteer pursuits, Beth is currently a Board Trustee of the Long Island Arts Alliance (LIAA) having served as the founding Secretary of the Board of Directors 2003-2014. She is a member of the Board of Directors for the Huntington Arts Council, Secretary of the Board of the Museum Association of New York, as well as a Board member of the Mid-Atlantic Association of Museums. She is currently serving a one-year term as a panel member for the American Alliance of Museums Small Museum Accreditation Academy. During 2012-2015, Beth represented Long Island's museums on the NYS Board of Regents Advisory Council on Museums.

Beth's honors include the 2015 Anne Ackerson Innovation in Museum Leadership Award of Merit from the Museum Association of New York; a "Woman of Distinction Award," Distinction Magazine in 2006, a George Estabrook Alumni Award from Hofstra University in 2005, and a Malcolm Arth Fellowship from the Mid-Atlantic Association of Museums in 1996. Since 2006 she has been a member of ArtTable, an organization recognizing women in the arts.

In this moment of STEM education, Beth is part of a movement that considers STEAM as integral to the successful education and preparation of 21st century thinkers, who are prepared for a world where they need to be analytical, creative, collaborative, innovative and strategic.

REPORT CONSULTANT

Jacqueline Grennon Brooks

Dr. Jacqueline Grennon Brooks is author of over 50 articles and three books, and presenter at hundreds of conferences; she wrote the entry for "constructivism" in the *Encyclopedia of Cognitive Science* (Nadel, Ed, 2002). *In Search of Understanding: The Case for Constructivist Classrooms* (1993, 1999) has sold hundreds of thousands of copies and has been translated into four languages. *Big Science for Growing Minds: Constructivist Classrooms for Young Thinkers* (2011), published by Teachers College Press is used as a text in teacher education programs. She consults nationally and internationally on topics of problem-based STEM instruction and language acquisition through science and math content. She has been recognized by the American Educational Research Journal for Outstanding Service in Publications.

Grennon Brooks has previously conducted NSF programs. Her NSF Partnership for Progress Grant (DUE9353460) created a teaching/learning setting called Discover Lab. Her model was recognized as an exemplary program by the National Science Teachers Association (Brooks, 2005). The Discover Lab model has been replicated at the Collegio at Puerto Rico, Nipissing University in North Bay, Canada, and Hofstra University, among others. The Lab was a learning center for thousands of teachers and their students. Specifically, it was a prime teaching/learning site for the NSF funded MSTe Project (described below).

Grennon Brooks was Co-PI of the Integrating Mathematics, Science and Technology in the Elementary School (MSTe) Project (ESI9618962), a project with a major impact on New York State's elementary school MST education. Through this grant, elementary teachers throughout the state have integrated math, science and technology curriculum into their classroom instruction. She developed a 60-person leadership team of teachers in the 22 Project districts who, with contemporary pedagogical, content, and leadership skills, have become regional MST leaders who conduct integrated science in-service programs for other teachers.

Grennon Brooks won the Teacher of the Year award at Hofstra University in 2008 and the Strong Smart Bold Award from Girls, Incorporated in 2011. She currently serves as president of board of directors of the Maritime Explorium, a 501(c)(3) interactive learning center with a charter from the New York State Department of Education. Before her work at Hofstra, Brooks worked in public schools for twelve years, teaching elementary grades and middle school math and science, and directing programs for gifted and at-risk children. She was the founding director of the Biotechnology Research Lab at Stony Brook University and directed the secondary science teacher preparation program there for 14 years.

Currently, Brooks is professor of science education at Hofstra University where she teaches undergraduate and graduate courses within the BA, MA, MS and Ed. D. programs in secondary science education, elementary education, early childhood education, and doctoral studies. She also directs the Institute for the Development of Education in the Advanced Sciences (IDEAS), a center that brings cutting edge science to the general public, and the Secondary Science Education Program. Among her other endeavors, Grennon Brooks is the founder of the Explorium in Port Jeff Station, a model of STEM and STEAM education for the LI community.

REPORT LAYOUT AND DESIGN

Tiffany Jordan

Tiffany is the Hofstra University Museum's Development and Membership Coordinator and she is responsible for enhancing the membership program, fundraising, public programming, as well as marketing and promoting the Museum and its programs including design and production of printed materials. She holds a Bachelor of Fine Arts with a concentration in graphic design from the State University of New York at Purchase College as well as a Masters of Higher Education Administration from North Park University. Tiffany has over 10 years of fundraising and development experience including event planning, database management and donor cultivation. She is also an accomplished musician, and performs at theaters and performances throughout the metropolitan area.