

Program Overview

Completed by info@wsmixxer.org on 4/24/2022 4:35 PM

Case Id: 15254

Name: Mixer Community Makerspace - 2022

Address: *No Address Assigned

Program Overview

Please provide the following information.



City of Winston-Salem
ARPA Transformational
Non-Profits Application

City of Winston-Salem
P.O. Box 2511
Winston-Salem, NC 27102
336-727-8000
ARPA@cityofws.org

This application portal is to request funding from the City of Winston-Salem as part of the Transformational Non-Profits Application Process. Applications received through this portal will only be reviewed by the City of Winston-Salem. Other jurisdictions may have separate application processes. Please contact other jurisdictions (e.g., Forsyth County) for instructions regarding requests to those jurisdictions.

Submitting an application does not guarantee funding. Please see the section below regarding the scoring process. The Mayor and City Council will have final decision-making authority regarding program funding requests.

Non-profit organizations may submit funding requests for capital or operating costs.

Minimum Criteria

- Must be registered non-profit organization (includes faith-based organizations providing a public purpose)
- Must have been incorporated as a non-profit for at least one year

Scoring Process and Matrix

All completed applications will undergo a review to ensure required documents are attached. Fully completed applications will be reviewed by selected City staff members and scored based on the scoring matrix approved by the Mayor and City Council. [Click here](#) to view the scoring matrix. Scored applications will be reviewed by the City's Management Team for potential recommendation to the Mayor and City Council who will have authority to appropriate funding for programs.

Staff reserves the right to contact any applicant to request clarification or additional details regarding application responses and materials.

Defining Performance Measures

Sections of the application will reference performance measures and outcomes as required by the U.S. Department of Treasury. Specifically, the application will request workload and effectiveness/outcome measures. Please see this video (<https://www.cityofws.org/2809/Performance-Measures-Video>) for general information on performance measures.

Upcoming Application Orientation Session

The City will host a virtual application orientation session on April 1, 2022 at 10:00 am. The meeting will take place virtually via the Zoom platform and will also have a live simulcast on the City's YouTube page. The link for that meeting will be posted the morning of the meeting to the website: www.cityofws.org/clfrf

Contact Information

For any questions or concerns, please email ARPA@cityofws.org or call City Link at 336-727-8000.

A.Contact Information

Completed by info@wsmixxer.org on 4/22/2022 3:21 PM

Case Id: 15254

Name: Mixxer Community Makerspace - 2022

Address: *No Address Assigned

A.Contact Information

Please provide the following information.

ORGANIZATION/AGENCY INFORMATION

A.1. Organization/Agency Name

Mixxer Community Makerspace

A.2. Mailing Address

1375 North Martin Luther King Jr. Dr. WINSTON SALEM, NC
27101

A.3. Organization Website

wsmixxer.org

A.4. Year 501 (c)(3) Status Obtained

2,014

A.5. Organization/Agency Fiscal Year

2,022

A.6. Federal Tax ID Number

A.7. Federal DUNS Number

A.8. Federal SAM Registered?

Yes

ORGANIZATION/AGENCY CONTACT INFORMATION

EXECUTIVE DIRECTOR

A9. First Name

Alan

A10. Last Name

Shelton

A11. Title

Executive Director

A12. E-mail

alan@wsmixxer.org

A13. Phone Number

(336) 265-7362

BOARD CHAIR

A14. First Name

Alana

A15. Last Name

James

A16. E-Mail

jamesam@wfu.edu.

A17. Phone Number

(336) 265-7362

A18. Term Expiration Date

07/01/2023

B. General Project Information

Completed by info@wsmixer.org on 4/22/2022 3:22 PM

Case Id: 15254

Name: Mixer Community Makerspace - 2022

Address: *No Address Assigned

B. General Project Information

Please provide the following information.

PROJECT INFORMATION

B.1. Project/Program Title

Connection Point to Career Pathways

B.2. Project Location/Address

1375 N. Martin Luther King Drive Winston-Salem, NC
27101

PROJECT CONTACT/MANAGER

B3. First Name

Alan

B4. Last Name

Shelton

B5. Title

Executive Director

B6. E-Mail

alan@wsmixer.org

B7. Phone Number

(336) 250-0532

C. General Project Narrative

Completed by info@wsmixxer.org on 4/24/2022 5:11 PM

Case Id: 15254

Name: Mixxer Community Makerspace - 2022

Address: *No Address Assigned

C. General Project Narrative

Please provide the following information.

C.1. Provide description of project and how funds will be used

The Connection Point to Career Pathways program will facilitate the interactions of educators and mentors with students from Winston-Salem and Forsyth County to teach skills to students in grades six through twelve that will lead them to career pathways, including university and college, apprenticeships and direct-to-work, as well as entrepreneurship tracks. This year-round extracurricular program uses technology that is engaging and directly related to emerging career opportunities in our community, specifically the development of infrastructure to support Unmanned Autonomous Systems (UAS) and Unmanned Autonomous Vehicles (UAV). As students learn to build, maintain and deploy drones, they will also be educated on services these skills can provide such as photography, mapping, structural inspections, product delivery and light shows. The in-depth knowledge of the operation and maintenance of these machines acquired in this program can be applied to a broad range of careers in automation, engineering, and mechatronics.

Connection Points will augment Career and Technical Education (CTE) that Forsyth County students are already engaged with. The curriculum is tied directly to CTE learning outcomes as well as federal occupational standards outlined in the Occupational Information Network developed under the sponsorship of the U.S. Department of Labor/Employment and Training Administration (USDOL/ETA) through a grant to the North Carolina Department of Commerce.

This extra-curricular program differentiates itself from existing education programs in a few key ways. We are keeping a focus on emerging technology and engineering job fields like drone services, computer programming, automation, autonomous vehicles, additive manufacturing, and other emerging fields. We are also committed to making this program accessible to members of all local communities, as well as creating revenue streams for the long term sustainability of the program. This program utilizes project based learning so that students get a realistic version of what is required to deliver a product or service.

Funding from the City of Winston-Salem Transformative Grant ARPA funds will be used to fund 97% tuition assistance for youth living in underserved communities, and to pay for capital expenses required to start the Connection Point program. Sixty percent of tuition income will be subsidized through donations and grant funding to offer enrollment to students living with economic challenges, while forty percent will be through full tuition payment.

C.2. How will a participant access the proposed project/program, use the services, and derive a beneficial outcome from participation?

Students will be recruited through an equitable access model that Mixxer Community Makerspace has used for 3 years in our STEAM Experiences summer learning program for youth in grades 6 through 12. Enrolled students will enter the program through one of two ways: active recruitment in collaboration with organizations that serve underserved communities, or recruitment through traditional methods with a tuition fee. We have had great success with this model in our STEAM Experiences program, by partnering with local nonprofits that serve families living with economical challenges. These organizations are listed elsewhere in this grant proposal, but include: Crisis Control, Habitat Forsyth,

LEAD Girls of NC, and others. Students that pay tuition and those receiving financial assistance are enrolled as equals and work together.

Connection Point focuses on pursuing dynamic youth-adult interaction by focusing on practical project based learning and direct interaction with local industry professionals. By designing a program to attract and train students with specific topic interests, and by challenging and placing real-world expectations on them along with skilled mentors' support and guidance, we aim to cultivate welcoming, engaging, challenging and collaborative peer-to-peer and student-to-instructor/mentor relationships.

Students will be sorted into teams based on their abilities and interests. Teams will include: Equipment Maintenance, UAV/UAS Programming, Deployment and Data Retrieval, Data Deliverables, Design/Development of Systems. Peer-to-peer mentoring will also be integral to each team dynamic. Instructors and mentors will coordinate activities of each team to deliver services to the community utilizing UAS technology. Students will have regular opportunities to engage with professionals in technical fields, and learn about the operations and career opportunities in the emerging UAS markets that will be supported by the build up of local UAS infrastructure. Mixer will invite local professionals to come speak to students and will also plan fieldtrips for on-site engagement.

Students will be recruited through public and private schools, but increased emphasis will be placed on recruiting students living in underserved communities. Students may enter the program as early as 6th grade, and all students that are enrolled when they graduate from high school will begin a process of exiting the program to make room for new students. Teams will be developed to create opportunities for older youth to mentor younger students.

C.3 Total estimated number of unique participants to be served annually

75

C.4. Will program beneficiaries be only residents of Winston-Salem?

No

Describe the other areas (counties) that will benefit

Forsyth County

Estimate the percentage of beneficiaries that will be residents of Winston-Salem

75.00 %

TOTAL FUNDING REQUEST

C.5. Total Operating Funding Request

\$283,757.00

C.6. Total Capital Funding Request

\$49,235.00

SPENDING TIMEFRAME

C.7 Capital Spending Timeframe

36 months

C.8 Operating Spending Timeframe

36 months

D. Project Budget Categories

Completed by info@wsmixer.org on 4/24/2022 3:30 PM

Case Id: 15254

Name: Mixxer Community Makerspace - 2022

Address: *No Address Assigned

D. Project Budget Categories

Please provide the following information.

Use templates below to input **the total** Project Budget (**only requested expenses and estimated revenues related to the program or project for which you are requesting funding**) by clicking **Add Column**. Please include all funding from the City and other sources.

Operating Costs	Total
Program Director Gross Salary (3 years Full Time)	\$231,000.00
STEAM Education Manager Gross Salary (3 years Full Time)	\$198,000.00
Lead Engineer/Instructor Gross Salary (3 years Part Time)	\$81,750.00
Career Counselor/Instructor Gross Salary (3 years Part Time)	\$81,750.00
annual DroneBlocks subscription (3 years)	\$1,500.00
Healthy Snacks and Meals (3 years)	\$15,000.00
Shared Use Van - regular scheduled sessions (3 years)	\$7,200.00
Lyft, Uber rides (3 years)	\$7,200.00
Vehicle Rental Field Trips (3 years)	\$9,900.00
Liability & Other Insurance costs (3 years)	\$7,200.00
Annual Audit (3 years)	\$15,000.00
Office Supplies binders, paper, pens, etc (3 years)	\$4,400.00
	\$659,900.00

Capital Costs	Total
DJI Mavic 2 Enterprise Advanced Public Safety Bundle	\$7,000.00
4 Prusa Mini 3d Printers	\$2,000.00
4 Laptop Computers with hardware for 3d model data processing	\$6,000.00
6 Desktop Computer Systems with hardware for 3d model data processing	\$9,000.00
Robomaster TT Classroom Bundle	\$4,500.00
Skydio 2 and accessories	\$2,500.00
Skydio 2 3-d scanning suite	\$3,000.00
Additional batteries and associated components	\$1,000.00
Electronics components (for servicing/maintaining UAVs)	\$3,000.00
heavy duty transport cases	\$1,500.00
Secure Storage for Equipment	\$8,000.00

8 of 29

Personal Drone Learning Kit per student	\$27,250.00
3D Printer Filament	\$900.00
5 - Oculus Quest 2 VR Headset	\$2,550.00
50 - Force Flyers- Lego Drones	\$2,300.00
10 kits of hand tools	\$5,000.00
10 electronics service kits	\$5,000.00
Security System Upgrades CCTV System + Access Control	\$24,000.00
	\$114,500.00

PROJECT/PROGRAM REVENUE CATEGORIES

Please fill out the revenue estimate table. **Note: operating revenues and expenses must be balanced (be equal).**

Operating	Total
Program Director Gross Salary (from this grant)	\$99,330.00
Program Director Gross Salary (from Forsyth Co. ARPA)	\$99,330.00
Program Director Gross Salary (from Corp. Grants/sponsors, donations, tuition)	\$32,340.00
STEAM Manager Gross Salary (from this grant)	\$85,140.00
STEAM Manager Gross Salary (from Forsyth Co. ARPA)	\$85,140.00
STEAM Manager Gross Salary (from Corp. Grants/sponsors, donations, tuition)	\$27,720.00
Lead Engineer/Instructor Gross Salary (from this grant)	\$35,152.00
Lead Engineer/Instructor Gross Salary (from Forsyth Co. ARPA)	\$35,152.00
Lead Engineer/Instructor Gross Salary (from Corp. Grants/sponsors, donations, tuition)	\$11,446.00
Career Counselor/Instructor Gross Salary (from this grant)	\$35,152.00
Career Counselor/Instructor Gross Salary (from Forsyth Co. ARPA)	\$35,152.00
Career Counselor/Instructor Gross Salary (from Corp. Grants/sponsors, donations, tuition)	\$11,446.00
annual DroneBlocks subscription (from this grant)	\$645.00
annual DroneBlocks subscription (from Forsyth Co. ARPA)	\$645.00
annual DroneBlocks subscription (from Corp. Grants/sponsors, donations, tuition)	\$210.00
Healthy Snacks and Meals (from this grant)	\$6,450.00
Healthy Snacks and Meals (from Forsyth Co. ARPA)	\$6,450.00
Healthy Snacks and Meals (from Corp. Grants/sponsors, donations, tuition)	\$2,100.00
Shared Use Van - regular scheduled sessions (from this grant)	\$3,096.00
Shared Use Van - regular scheduled sessions (from Forsyth Co. ARPA)	\$3,096.00
Shared Use Van - regular scheduled sessions (from Corp.	\$1,008.00

Grants/sponsors, donations, tuition)	
Lyft, Uber rides (from this grant)	\$3,096.00
Lyft, Uber rides (from Forsyth Co. ARPA)	\$3,096.00
Lyft, Uber rides (from Corp. Grants/sponsors, donations, tuition)	\$1,008.00
Vehicle Rental Field Trips (from this grant)	\$4,257.00
Vehicle Rental Field Trips (from Forsyth Co. ARPA)	\$4,257.00
Vehicle Rental Field Trips (from Corp. Grants/sponsors, donations, tuition)	\$1,386.00
Liability & Other Insurance costs (from this grant)	\$3,096.00
Liability & Other Insurance costs (from Forsyth Co. ARPA)	\$3,096.00
Liability & Other Insurance costs (from Corp. Grants/sponsors, donations, tuition)	\$1,008.00
Annual Audit (from this grant)	\$6,450.00
Annual Audit (from Forsyth Co. ARPA)	\$6,450.00
Annual Audit (from Corp. Grants/sponsors, donations, tuition)	\$2,100.00
Office Supplies binders, paper, pens, etc (from this grant)	\$1,892.00
Office Supplies binders, paper, pens, etc (from Forsyth Co. ARPA)	\$1,892.00
Office Supplies binders, paper, pens, etc (from Corp. Grants/sponsors, donations, tuition)	\$616.00
	\$659,900.00

Please list below all known/expected **individual** grants and contributions totaling 10% or more of the project's budget.

Note: capital revenues and expenditures must be balanced (be equal)

Capital	Total
DJI Mavic 2 Enterprise Advanced Public Safety Bundle (from this grant)	\$3,010.00
DJI Mavic 2 Enterprise Advanced Public Safety Bundle (from Forsyth Co. ARPA)	\$3,010.00
DJI Mavic 2 Enterprise Advanced Public Safety Bundle (from Corp. Grants/sponsors, donations, tuition)	\$980.00
4 Prusa Mini 3d Printers (from this grant)	\$860.00
4 Prusa Mini 3d Printers (from Forsyth Co. ARPA)	\$860.00
4 Prusa Mini 3d Printers (from Corp. Grants/sponsors, donations, tuition)	\$280.00
4 Laptop Computers (from this grant)	\$2,580.00
4 Laptop Computers (from Forsyth Co. ARPA)	\$2,580.00
4 Laptop Computers (from Corp. Grants/sponsors, donations, tuition)	\$840.00
6 Desktop Computer Systems (from this grant)	\$3,870.00
6 Desktop Computer Systems (from Forsyth Co. ARPA)	\$3,870.00
6 Desktop Computer Systems (from Corp.	\$1,260.00

Grants/sponsors, donations, tuition)	
Robomaster TT Classroom Bundle (from this grant)	\$1,935.00
Robomaster TT Classroom Bundle (from Forsyth Co. ARPA)	\$1,935.00
Robomaster TT Classroom Bundle (from Corp. Grants/sponsors, donations, tuition)	\$630.00
Skydio 2 and accessories(from this grant)	\$1,075.00
Skydio 2 and accessories (from Forsyth Co. ARPA)	\$1,075.00
Skydio 2 and accessories (from Corp. Grants/sponsors, donations, tuition)	\$350.00
Skydio 2 3-d scanning suite (from this grant)	\$1,290.00
Skydio 2 3-d scanning suite (from Forsyth Co. ARPA)	\$1,290.00
Skydio 2 3-d scanning (from Corp. Grants/sponsors, donations, tuition)	\$420.00
Additional batteries and associated components (from this grant)	\$430.00
Additional batteries and associated components (from Forsyth Co. ARPA)	\$430.00
Additional batteries and associated components (from Corp. Grants/sponsors, donations, tuition)	\$140.00
Electronics components (for servicing/maintaining UAVs) (from this grant)	\$1,290.00
Electronics components (for servicing/maintaining UAVs) (from Forsyth Co. ARPA)	\$1,290.00
Electronics components (for servicing/maintaining UAVs) (from Corp. Grants/sponsors, donations, tuition)	\$420.00
heavy duty transport cases (from this grant)	\$645.00
heavy duty transport cases (from Forsyth Co. ARPA)	\$645.00
heavy duty transport cases (from Corp. Grants/sponsors, donations, tuition)	\$210.00
Secure Storage for Equipment (from this grant)	\$3,440.00
Secure Storage for Equipment (from Forsyth Co. ARPA)	\$3,440.00
Secure Storage for Equipment (from Corp. Grants/sponsors, donations, tuition)	\$1,120.00
Personal Drone Learning Kit per student (from this grant)	\$11,717.00
Personal Drone Learning Kit per student (from Forsyth Co. ARPA)	\$11,717.00
Personal Drone Learning Kit per student (from Corp. Grants/sponsors, donations, tuition)	\$3,816.00
3D Printer Filament (from this grant)	\$387.00
3D Printer Filament (from Forsyth Co. ARPA)	\$387.00
3D Printer Filament (from Corp. Grants/sponsors, donations, tuition)	\$126.00
5 - Oculus Quest 2 VR Headset (from this grant)	\$1,096.00
5 - Oculus Quest 2 VR Headset (from Forsyth Co. ARPA)	\$1,096.00
5 - Oculus Quest 2 VR Headset (from Corp.	\$358.00

Grants/sponsors, donations, tuition)	
50 - Force Flyers- Lego Drones (from this grant)	\$989.00
50 - Force Flyers- Lego Drones (from Forsyth Co. ARPA)	\$989.00
50 - Force Flyers- Lego Drones (from Corp. Grants/sponsors, donations, tuition)	\$322.00
10 kits of hand tools (from this grant)	\$2,150.00
10 kits of hand tools (from Forsyth Co. ARPA)	\$2,150.00
10 kits of hand tools (from Corp. Grants/sponsors, donations, tuition)	\$700.00
10 electronics service kits (from this grant)	\$2,150.00
10 electronics service kits (from Forsyth Co. ARPA)	\$2,150.00
10 electronics service kits (from Corp. Grants/sponsors, donations, tuition)	\$700.00
Security System Upgrades CCTV System + Access Control (from this grant)	\$10,320.00
Security System Upgrades CCTV System + Access Control (from Forsyth Co. ARPA)	\$10,320.00
Security System Upgrades CCTV System + Access Control (from Corp. Grants/sponsors, donations, tuition)	\$3,360.00
	\$114,500.00

E. Demographic and Geographic Distribution

Case Id: 15254
Name: Mixxer Community Makerspace - 2022
Address: *No Address Assigned

Completed by info@wsmixxer.org on 4/22/2022 3:24 PM

E. Demographic and Geographic Distribution

Please provide the following information.

Demographic distribution is an assessment of the level of the project funds spent on a program or service provided at a physical location in a Qualified Census Tract (QCT), OR where the primary intended beneficiaries live within a QCT, OR whether the program benefits residents that earn less than 60 percent of median income for the City, OR whether over 25 percent of program beneficiaries are below the federal poverty line.

E.1 Is this project/program located in a QCT or serve residents that live in a QCT?

Yes

If yes, what percentage of clients served are estimated to be residents of QCTs? ([Click here](#) to view the QCT mapping tool)

60.00 %

E.2 If the project or program is not a QCT or specifically serve residents in a QCT, will residents meet the follow criteria:

25% or more of participants below the federal poverty line or participants served make less than 60% of the Area Median Income

The project/program does not operate in a QCT, and beneficiaries neither reside in a QCT nor meet the income thresholds mentioned above.

F. Alignment to Strategic Plan

Completed by info@wsmixxer.org on 4/24/2022 5:18 PM

Case Id: 15254

Name: Mixxer Community Makerspace - 2022

Address: *No Address Assigned

F. Alignment to Strategic Plan

Please provide the following information.

Strategic planning is a process in which organizational leaders determine their goals and objectives, and allocate needed/limited resources to successfully achieve those goals and objectives. [Click here](#) to view Winston Salem's Strategic Plan. The Strategic Plan includes three (3) tiers of priorities:

Tier 1:

- Focus on job creation/sustainability and workforce development
- Collaboration and funding for pre-K opportunities
- Funding for affordable housing
- Funding for economic development

Tier 2:

- Poverty reduction/cessation
- COVID reopening plan
- Community engagement (Power of connections)
- Funding for arts

Tier 3:

- Community Fundraising
- Environmental initiatives
- Address digital divide
- Address childcare needs
- Neighborhood maintenance
- Organization efficiency and public-private partnerships
- Law enforcement reform

F.1. Please select the primary priority from the list above addressed by your project/program.

Tier 1

F.2. Please select the secondary priority from the list above addressed by your project/program.

Tier 2

F.3. Please describe how the workload or outcomes from your project/program addresses the primary priority you

selected.

Mixer's Connection Points program provides career education and mentorship in the field of unmanned aerial systems and broader fields such as engineering and automation. Students will gain knowledge and skills that can be applied to jobs immediately after high school or for higher education. The local UAS industry is growing substantially. Mixer seeks to be a key resource in preparing a local workforce for career opportunities in this emerging field. In alignment with the mission of our organization, equitable access to Connection Points means that we are actively creating opportunities for youth in underserved communities to be, not only included, but actively recruited.

We will use competency testing and earned credentials to measure student understanding. Keeping students learning outcomes aligned with the primary goal of the program, career pathways, will be measured and constantly evaluated for each individual student. Closing opportunity gaps between students from different communities is important to this program, and will prepare more students of color and females to participate in technical careers in which they are currently underrepresented.

G. Collaboration

Completed by info@wsmixxer.org on 4/24/2022 3:51 PM

Case Id: 15254

Name: Mixxer Community Makerspace - 2022

Address: *No Address Assigned

G. Collaboration

Please provide the following information.

Collaboration is when an organization is partnering or proactively working with one or more external stakeholders to achieve the same goal.

G.1. How many other external partners, organizations, stakeholders will you be collaborating with to provide the project/program?

3+

G.2. Please provide the names of the organizations and the roles they will serve in the project/program?

Community Partners (Recruiting from underserved communities):

Boston-Thurmond United

Habitat Forsyth

Neighbors for Better Neighborhoods

LEAD Girls of NC

Big Brothers Big Sisters

Dress for Success

Winston-Salem Street School

Latino Community Services

Crisis Control

My Brothers Second Chance

Cleveland Avenue Homes

Education Partners:

Quality Education Academy

NC DoT

NC A&T University

Forsyth County Smith Reynolds Airport

Mentor Recruitment Partners:

AeroX

Agile City

Twin City Development Foundation

NC DoT

Inmar Intelligence

Atrium/Wake Forest Baptist Health

H. Administration/Reporting

Completed by info@wsmixer.org on 4/25/2022 9:51 AM

Case Id: 15254

Name: Mixxer Community Makerspace - 2022

Address: *No Address Assigned

H. Administration/Reporting

Please provide the following information.

Per U.S. Treasury rules and associated guidance, the City's framework for using these funds aligns with specific administrative reporting requirements. The administration/reporting criterion has three core elements: 1) the organization's/project's development of clear performance indicators and measurable outcomes, 2) the use of evidence-based interventions, 3) and the City's evaluation of organization and project risk.

H.1. Please clearly define the workload and outcome measures that are associated with your project/program

Workload	<p>Connection Point to Career Pathways will have an initial start-up phase, where resources will be acquired and staff will be put in place to manage the program; a recruitment phase, where youth will be recruited through connecting with nonprofit organizations serving marginalized youth as well as local public and private schools; and a long-term project-based learning phase, where students will work together and with mentors to develop skills and implement service projects in the community using the technology they are learning.</p> <p>There will be four employees responsible for carrying out this program: a program director, a STEAM manager, a lead engineer, and a career counselor. The program director will be a full-time employee who will dedicate 75% of their time to this program, focusing on planning and overseeing program success. The STEAM manager will dedicate 60% of their time to this program, focusing on program implementation. This person will manage the logistics of producing all STEAM Experiences as well as all Connection Point to Career Pathways sessions. Included in these logistics will be coordinating time and dates for sessions, communications with students, parents, instructors, and mentors, managing logistics for food and transportation for students, and maintaining records of attendance, accomplishments, and certifications earned by students. The lead engineer will work part-time and dedicate 100% of their time to the instruction and implementation of projects. The Lead Engineer will work directly with students throughout the program, and work with the STEAM Experiences Manager to ensure resources are in place for successful learning sessions. The Lead Engineer will also work with mentors to oversee their interactions with students. The career counselor will be a part-time contractor and will dedicate 100% of their work time to helping students with career exploration and overcoming personal challenges that would stifle their growth within the program.</p>
Effectiveness/Outcome	<p>The effectiveness of our staff will be evaluated through how well we met our goals which are to:</p>

	<p>-Give students access to education and mentors in a way that prepares them for a career in technology or skilled trades, and/or advancement to a college or university. (Access includes our 97% tuition assistance program so that 60% of our students are recruited from underserved local communities.)</p> <p>-Use project-based learning to provide useful services to the community.</p> <p>-Create pathways to economic advancement for every student enrolled in the program.</p> <p>-Train students in emerging technologies.</p> <p>The success of the program will be measured through student outcomes. Data collected to measure this will include:</p> <p>-Competency Testing: As part of program development, Mixer is in the process of creating a rubrics that align professional development measurements listed by Occupational Information Network (O*NET) and NCCTE.</p> <p>-Referrals: The number of referrals by higher education institutions, trade schools, and employers will be tracked.</p> <p>-Students Acceptance: This program will track the number of students who have been accepted by higher education institutions, trade schools, or employers.</p> <p>-Earned Credentials: Credentials and certifications earned by participating students will be accounted for as part of impact tracking. Droneblock Certification (STEM Accredited), Blockchain Certification, and STEAM Digital Badges are a few examples of earned credentials that indicate students have met the learning objectives of the program.</p> <p>-Projects Completion: Projects completed by students will have measurable outcomes developed prior to the start of each project.</p> <p>-Demographics: The number of minority and female students enrolled in the program.</p> <p>-Mentor Hours: Hours by volunteer mentors will be reported.</p>
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H.2. Does the project/program use evidence-based interventions?

Yes

Please provide a link to (or attach a copy of) the evaluation of the program model

<https://cteresearchnetwork.org/resources/improving-measurement-cte>

Program Model Evaluation

***No files uploaded*

H.3. For transparency purposes, the risk matrix is attached. This is NOT required, however, you can self-assess if you wish. Please fill out and upload the [Risk Matrix](#).

Risk Matrix

Risk Assessment_Mixer.xlsx

I. Capacity

Completed by info@wsmixer.org on 4/24/2022 4:07 PM

Case Id: 15254

Name: Mixxer Community Makerspace - 2022

Address: *No Address Assigned

I. Capacity

Please provide the following information.

An organization's capacity can be defined as its ability to implement the proposed project, as characterized by the alignment of its mission and vision with the proposed project, existing internal infrastructure to support it, and its plan for implementation and assessment of project success.

I.1. Please provide your organization's vision and mission statements and explain the alignment between the proposed project/program and the organizational mission.

Mixxer Community Makerspace's mission is to provide equitable access to Tech, Tools, and Community. Our vision is a Community where anyone has opportunity to make anything.

The Connection Point program is a direct response to people in the community asking for assistance in connecting students to technology in order to provide them a career pathway and access to mentors. It is also a direct response to trained/skilled professionals and business leaders asking us how they can mentor students and help them understand technology and how those students will be prepared for the workforce of the present and the future.

Members of the Mixxer Community also recognize the importance of preparing a workforce to meet the needs of UAS companies that will be developing in Winston-Salem and Forsyth County, and the lack of youth with the skills to design, build, and maintain technology based assets, and lack of skilled systems (computer) programmers. Connection Point directly addresses these needs and requests from the community.

I.2. Describe the organization's current infrastructure and capacity to deliver the program services or complete the project. Include any relevant current programming and experience providing similar services.

Mixxer Community Makerspace has operated a STEAM education summer learning program since 2018, officially launching STEAM Experiences in 2020. Our organization partners with qualified and skilled professionals to deliver these educational opportunities to youth in grades 6 through 12.

Our total funding for this program will include funding for staff to manage and grow the program. Mixxer will continue to hire contractors to deliver specialized services to streamline our staff structure and services, and reduce operational costs. Mixxer employees for Connection Point will include the Programs Director as the primary administrator, and the STEAM Education Manager as logistics coordinator. The Lead Engineer and Career Counselor will be contractors. Employees will be responsible for administration, reporting, and building relationships with stakeholders. The contractors are specially trained in engineering technology relative to the subject, and guiding students to successful career pathways.

Other current staff responsibilities are tangential to the program, and their salaries are not included in this grant or in operation costs for Connection Point.

I.3. Describe the program/project implementation plan. Include any known barriers to success and how those will be overcome

Connection Point will need some initial investment in hardware. We are seeking multiple funding sources, and will need to hold the start date for the program until all funding sources are secured. We can easily scale the time line and a portion of operational expenses to match a shorter timeline if necessary.

I.3a. Describe the program assessment plan including how the data will be collected for selected performance metrics and any other evaluation tools that will be used to determine program/project success.

Data about each student will be collected, including demographic information, family history in regard to college enrollment, address/neighborhood, schools attended, an entry survey of perceived career pathways, annual and exit surveys of perceived career pathways, number of hours of service, number of mentor interactions, and data to measure economic mobility of each student/family. All data will be presented in a way to anonymize the students.

Connection Point will use storytelling as a tool for demonstrating success of students, relationships developed, value to stakeholders, and as recruiting tools to enroll more students.

Students will have the opportunity to earn digital credentials to showcase their skills learned, and will be required to perform to a minimum level to maintain their enrollment. A Career Counselor is an integral member of the team to monitor student progress and intervene when students are struggling. These struggles will also be documented in a manner that anonymizes the students.

J. Impact/Community Need

Completed by info@wsmixxer.org on 4/25/2022 9:39 AM

Case Id: 15254

Name: Mixxer Community Makerspace - 2022

Address: *No Address Assigned

J. Impact/Community Need

Please provide the following information.

Impact/Community needs concern whether or not the proposed project will address an identified need within the community and what the short term (One year) and long term (3 years) impact of this project will be

J1. Describe the identified community need for this project/program. Cite specific data or studies/reports that have identified this as a community need.

This program provides students with quality extracurricular education, helping to close local opportunity gaps for underserved youth through career counseling and project-based learning. These students will receive equitable access to STEAM learning as well as job training. Forsyth County leadership is investing in infrastructure that will support UAS industries. Connection Point will train students to be prepared for the jobs that these industries will bring to our community. A long-term goal of this program is to see cycles of poverty end for local families who have enrolled their older children in Connection Point.

In the past two years, Mixxer has been approached many times by adults working with youth in their community, most often in communities of color and/or poverty. These adults want to give the youth they work with access to knowledge that will guide them to careers that will provide them with a successful and productive career. We have also been approached many times by skilled professionals that want to mentor youth or have a vested interest in a skilled workforce, training that could easily happen at Mixxer with financial support from government and private organizations.

According to ncaerox.com, AeroX, a collaboration of business and government partners, is working toward positioning the Piedmont Triad, specifically Winston-Salem, as the recognized leader in technologies. They seek to attract pioneering organizations in the field which will lead to high-value jobs. AeroX's strategic plan was approved in 2021 by local business and government leaders. This plan seeks to "accelerate the commercialization of unmanned aircraft systems (UAS) and electric vehicle takeoff and landing (eVTOL) technologies and create a national model for advanced air mobility in (AAM) in Winston-Salem and Forsyth County, North Carolina." AeroX was awarded \$5 million in grant funding from the North Carolina General Assembly in the fall of 2021 "to design and develop an urban advanced air mobility system in Winston-Salem and Forsyth County, North Carolina." AeroX is addressing a community need for quality job opportunities, while Mixxer is providing training so that a more diverse workforce has access to this line of work.

Sources:

<https://ncaerox.com/hello-world-2/>

<https://ncaerox.com/hello-world-3/>

<https://ncaerox.com/north-carolina-general-assembly-grants-aerox-5-million-for-advanced-air-mobility-system/>

J2. Describe the short-term impacts of the project/program and how they align with the community need identified above.

Connection Point development began in response to community needs for youth in underserved communities to have access to the Mixer Community and technologically advanced career opportunities, and for the expressed desires of skilled professionals wishing to mentor youth to create a larger pool of skilled workers in tech related fields.

Connection Point is a direct intervention to address those two complementary objectives of members of the Winston-Salem and Forsyth County community.

J3. Describe the long-term impacts of the project/program and how they align with the community need identified above.

The long term impacts of the program are economic mobility and access to mentorship for youth in underserved communities, a skilled workforce for the future UAS based industries, and better connectivity among people of disparate backgrounds and segments of the Winston-Salem and Forsyth County communities.

J4. Referencing previous section on outcomes, describe how the impacts noted above will be measured.

As mentioned in section H, the outcomes of our program are based on student success. Short term impact will be measured by number of students served, their performance, their successes and failures during the program, and number of skilled workers and students graduating to higher learning.

The long-term impact will be measured by the economic mobility of students/families served, and how well prepared our local community can support UAS and other industries requiring technically skilled workers.

K. Funding Stability

Completed by info@wsmixxer.org on 4/24/2022 4:26 PM

Case Id: 15254

Name: Mixxer Community Makerspace - 2022

Address: *No Address Assigned

K. Funding Stability

Please provide the following information.

Funding stability is an assessment of both the organization's annual funding and the planned funding mechanism for the project/program from grants, donations, sales, and other income generators. To the extent possible, the City wishes to ensure applying entities have sustainable funding sources outside the City's ARPA allocation. An entity will be deemed as having superior funding stability if it demonstrates at least three years of sustainable grant, contribution, and/or fee-based revenues to cover operating costs. The entity must also demonstrate commitments from other organizations to cover the full cost of project deficits or future-year operating costs (in combination with realistic fee-based revenue assumptions).

K.1. Have your organization's operating revenues covered operating expenses the last three years?

No

K.2. Approximately what percentage of your organization's total budget is covered by competitive grants that you must re-apply for?

13.00 %

K.3. What percentage of your project/program's budget is covered by City ARPA funds as part of this request?

43.00 %

K.4. Please provide narrative on funding for this program after City ARPA funding has been exhausted.

Connection Point is designed to utilize ARPA funding, and other sources, to launch the program, and develop revenue streams that require little to no federal or state funding dollars after 36 months. Long term funding resources include: earned revenue through tuition and project deliverables, sponsor funding from national, state and local corporate stakeholders; donations from corporate and individual donors, and grant funding will be used to maintain equitable access for youth in underserved communities.

K.5. Please attach commitment letters from other organizations showing financial support for the project/program.



Commitment Letters

Mixxer ARPA Greater WS Inc..docx

NCDOT Mixxer support.docx

Mixxer Community Support Letter.pdf

LOR_STEAMExperiences_KBennett_2021.pdf

QEA STEAM Experience Letter of Support .pdf

Letter for Mixxer - WSSS - Mixxer.docx

Letter of Support - Allegacy.docx

Letter of Support for Mixxer Makerspace.pdf

LOS for Alan Mixxer - PWA.pdf

Mixer Community Makerspace Letter of Support.docx

MIXXER Support Letter-2021.pdf

Mixer_LEADGirls_Letter of Support_8.3.21.pdf

QEA STEAM Experience Letter of Support .pdf

L. Representation

Completed by info@wsmixer.org on 4/25/2022 9:03 AM

Case Id: 15254

Name: Mixxer Community Makerspace - 2022

Address: *No Address Assigned

L. Representation

Please provide the following information.

Representation deals with how diverse an organizations leadership is compared with community demographics, which includes Winston-Salem's race/ethnic backgrounds as well as gender. Local non-profit organizations should reflect the communities they serve. Since organizations are requesting to receive ARPA funding through the City, we must ensure these entities hold themselves accountable to having diverse staff and leadership panels

L.1. Provide a list of board members including the race, ethnicity, and gender identification for each member.

Name	Race	Ethnicity	Gender Identification
Alana James	Black	Afro-Guyanese	Female
Adrian Smith	White	Caucasian	Male
Dawn Fleurizard	Black	African American	Female
Gabe Higgins	White	Caucasian	Male
Kasem Mohsen	Hispanic/Arabic	Puerto Rican & Palestinian	Male

M. Required Documents

Completed by info@wsmixer.org on 4/23/2022 7:31 PM

Case Id: 15254

Name: Mixer Community Makerspace - 2022

Address: *No Address Assigned

M. Required Documents

Please provide the following information.

For North Carolina Secretary of State - Current and Active Status, [Click Here](#)

Documentation



Code of Conduct/Conflict of Interest Policy *Required

Conflict_Of_Interest_Policy.pdf



Copy of the agency's latest 990 Form as submitted to the Internal Revenue Service *Required

FINAL.WinstonSalemMixerInc.2020.Signed (1).pdf



Organization By-Laws *Required

ByLaws_Signed.pdf



Articles of Incorporation *Required

Winston-Salem Mixer, Inc. - (filed) Articles of Incorporation.pdf



Organization Policies (including personnel, formal non-discrimination, procurement, accounting, etc) *Required

200606_Employee_Handbook.pdf



IRS 501(c)3 Designation Letter *Required

501c3_AcceptanceLetter.pdf

Most recent audited financial statements or a third-party review *Required

2021 Financial Review.pdf

North Carolina Secretary of State - Current and Active Status *Required

Certificate.pdf

N. Submit

Completed by info@wsmixxer.org on 4/25/2022 12:37 PM

Case Id: 15254

Name: Mixxer Community Makerspace - 2022

Address: *No Address Assigned

N. Submit

Please provide the following information.

I certify that all information entered into this application is true.

Jerry Alan Shelton

Electronically signed by info@wsmixxer.org on 4/25/2022 12:37 PM

04/25/2022