2020-2021 CTE Perkins Reserve Grant
Letter of Interest (LOI) Application Due 5:00 p.m. CT, April 8, 2020

Texas Education Agency

NOGA ID

Authorizing legislation: **Strengthening Career and Technical Education for the 21st Century Act Section 112©(2)**

Application stamp-in date and time

This LOI application must be submitted via email to **loiapplications@tea.texas.gov.**

The LOI application may be signed with a digital ID or it may be signed by hand. Both forms of signature are acceptable.

TEA must receive the application by **5:00 p.m. CT, April 8, 2020.**

Grant period from: **July 1, 2020 to August 31, 2021**

Pre-award costs are not permitted for this grant.

Required Attachments

1. **Excel workbook with the grant's budget schedules (linked along with this form on the TEA Grants Opportunities page**
2. **Focus Area 1: Regional partnership agreement**
3. **Focus Area 2: Intermediary Partnership Agreement**
4. **Focus Area 2: Regional Partnership Agreement**

Amendment Number

Amendment number (For amendments only; enter N/A when completing this form to apply for grant funds): N/A

Applicant Information

Organization	Fort Worth ISD	CDN	220905	Campus	Various	ESC	11	DUNS	073177776
Address	100 N University Drive Ste. SW204	City	Fort Worth	ZIP	76107	Vendor ID	1756001613		
Primary Contact	Mirgitt Crespo	Email	mirgitt.crespo@fwisd.org	Phone	817.814.2282				
Secondary Contact	Stephanie Pollard	Email	stephanie.pollard@fwisd.org	Phone	817.814.2288				

Certification and Incorporation

I understand that this application constitutes an offer and, if accepted by TEA or renegotiated to acceptance, will form a binding agreement. I hereby certify that the information contained in this application is, to the best of my knowledge, correct and that the organization named above has authorized me as its representative to obligate this organization in a legally binding contractual agreement. I certify that any ensuing program and activity will be conducted in accordance and compliance with all applicable federal and state laws and regulations.

I further certify my acceptance of the requirements conveyed in the following portions of the LOI application, as applicable, and that these documents are incorporated by reference as part of the LOI application and Notice of Grant Award (NOGA):

- ☒ LOI application, guidelines, and instructions
- ☒ General and application-specific Provisions and Assurances
- ☒ Debarment and Suspension Certification
- ☒ Lobbying Certification

Authorized Official Name: Michael Ball | Title: Chief Financial Officer

Email: stephanie.pollard@fwisd.org | Phone: 817.814.2281

Signature: Michael Ball | Date: 4/15/20

Shared Services Arrangements

[X] Shared services arrangements (SSAs) are permitted for this grant. **Check the box below if applying as fiscal agent.**

[☒] The LEA or ESC submitting this application is the fiscal agent of a planned SSA. All participating agencies will enter into a written SSA agreement describing the fiscal agent and SSA member responsibilities. All participants understand that the "Shared Services Arrangement Attachment" must be completed and signed by all SSA members, and submitted to TEA before the NOGA is issued.

Statutory/Program Assurances

The following assurances apply to this program. In order to meet the requirements of the program, the applicant must comply with these assurances.

Check each of the following boxes to indicate your compliance.

[☒] 1. The applicant provides assurance that program funds will supplement (increase the level of service), and not supplant (replace) state mandates, State Board of Education rules, and activities previously conducted with state or local funds. The applicant provides assurance that state or local funds may not be decreased or diverted for other purposes merely because of the availability of these funds. The applicant provides assurance that program services and activities to be funded from this LOI will be supplementary to existing services and activities and will not be used for any services or activities required by state law, State Board of Education rules, or local policy.

[☒] 2. The applicant provides assurance that the application does not contain any information that would be protected by the Family Educational Rights and Privacy Act (FERPA) from general release to the public.

[☒] 3. The applicant provides assurance to adhere to all the Statutory and TEA Program requirements as noted in the 2020-2021 CTE Perkins Reserve Program Guidelines.

[☒] 4. The applicant provides assurance to adhere to all the Performance Measures, as noted in the 2020-2021 CTE Perkins Reserve Program Guidelines, and shall provide to TEA, upon request, any performance data necessary to assess the success of the program.

[☒] 5. The applicant provides assurance that they accept and will comply with Every Student Succeeds Act Provisions and Assurances requirements.

[☒] 6. The applicant provides assurance that they will continue to meet all Statutory Requirements as outlined in their 2020-2021 Perkins Formula Grant, which is incorporated by reference.

[☒] 7. The applicant provides assurance that curriculum will be appropriately aligned to regional labor market supported CTE programs of study including higher education programs of study where applicable.

[☒] 8. Applicants provide assurance that they will submit a Memorandum of Understanding (MOU) detailing the relationship between the institute of higher education, the LEA, and business and industry partner(s) within 90 days of the grant start date. The MOU will establish joint decision-making procedures that allow for planning and implementation of a coherent program across the institutions. The partnership and the MOU must include provisions and processes for collecting, sharing, and reviewing student data to assess the progress of the students.

Summary of Program

Provide an overview of the program to be implemented with grant funds. Include the overall mission and specific needs of the organization. Describe how the program will address the mission and needs.

The North Central Texas Aerial Robotics STEM Initiative (NCTX) was formed in 2019 to create an innovative new career pathway to meet the demand for Licensed Small Unmanned Aircraft Systems (sUAS) or "Drone" operators. The ten NCTX districts, ranging in enrollment from 187 students (Strawn ISD) to more than 83,000 students (Fort Worth ISD), share a mission that includes preparing all students for success in college, career, and community leadership. In 2019-2020, each district established its own sUAS program, aligned directly with local industry. In 2020-2021, NCTX will add key strategic partners, including another district, another IHE, and more diverse industry partners to integrate aerial robotics into high-wage, high-demand career pathways including STEM, Aerospace, Agriculture, Construction, Cybersecurity, Geographic Information Systems (GIS), AV/Business, and Law & Public Service.

Goals, Objectives, and Strategies

Describe the major goals/objectives of the proposed program. What activities/strategies will be implemented to meet those goals/objectives?

The goal of this program is that 100% of NCTX districts will integrate Aerial Robotics into at least one pathway with supporting curriculum by the 2020-2021 school year, to result in 200 new student certifications/licenses in Project Year Two. Primary objectives include (1) developing a regional network of North Central Texas school districts to create/embed career pathways and align curriculum for certification/licensure; (2) increasing CTE enrollment and dual credit courses in industry-based pathways; and (3) offering a variety of professional development opportunities for teachers across multiple aerial robotics industries.

Performance and Evaluation Measures

Describe the performance measures identified for this program which are related to student outcomes and are consistent with the purpose of the program. Include the tools used to measure performance, as well as the processes that will be used to ensure the effectiveness of project objectives and strategies.

The project evaluation plan will illustrate measures for program development and alignment for a cycle of continuous improvement. Anticipated measures for each objective include (1) 100% of districts represented will offer at least one course pathway aligned with aerial robotics by 2021; (2) 200 students will earn new certifications/licenses aligned with the operation of sUAS in participating campuses; and (3) 85% of districts will participate in professional development, with at least two districts represented at each training. Pathways support will measure students' knowledge of college and career pathway options, their related interests and skills, and their goals and aspirations for acquiring pathway skills. On-track indicators will consist of course completion, performance on summative assessments, course taking patterns, and postsecondary aspirations in the pathway. Measures of postsecondary readiness will include student persistence in the pathway and progress toward industry credentials and certifications. Each district partner will monitor patterns in CTE enrollment, CTE sequencing, and certification using PBMAS, TAPR, and Snapshot data sources to ensure equitable representation of enrolled students. Whenever possible, comparisons will demonstrate district-level performance alongside regional and state performance. Curriculum development and alignment among NCTX members will be documented through meeting minutes, meeting agendas, and course syllabi. Meetings will provide an opportunity for NCTX members to discuss programmatic challenges/adjustments, stakeholder support, funding, and the academic return on investment (AROI).

Budget Narrative

Describe how the proposed budget will meet the needs and goals of the program, including for staffing, supplies and materials, contracts, travel, etc. If applicable, include a high-level snapshot of funds currently allocated to similar programs. Include a short narrative describing how adjustments will be made in the future to meet needs.

The NCTX budget provides equitable services and materials for all SSA districts to build new programs. NCTX proposes $40,000 for payroll to cover project development and extra duty for the creation of pathway curriculum and training modules; $145,000 in contracted services to compensate partners for expending time and effort beyond advisory duties, as well as travel, project evaluation, AV, and PD (additional funds were allocated to internediary, Interlink, to support personnel capacity); $155, 671 in 6300 to be used by the fiscal agent (FWISD) to conduct project activities and provide equipment for new pathways to its campuses; and $40,000 in 6400 funds beyond those budgeted under 6493 for SSA partners will be used for travel and SSA group activities. Payments of $510,000 in 6493 will be made to SSA partner districts for payroll, supplies, equipment, and operating costs. Indirect costs of $34, 329 bring the total grant request to $925,000.

TEA Program Requirements

1. **Focus Area 1** - **Texas Regional Pathways Network Planning Grant**

The applicant must identify --in partnership with all LEAs included in the application, a public institution of higher education, employer partners, and local workforce development board, economic development agency, and/or chamber of commerce --high-wage and in-demand occupations and TEA approved statewide or regionally approved CTE programs of study that lead to these occupations. Regional labor market information must be included in the application demonstrating how the CTE programs of study were identified. Applicants may use LWDA Labor Market Information and Resources from TEA to demonstrate labor market alignment.

N/A

2. **Focus Area 1** - **Texas Regional Pathways Network Planning Grant**

The applicant must provide a sample crosswalk that identifies secondary and postsecondary coursework that would be required of a student in the program of study in order to complete a certificate or receive an associate degree from the partnering general academic teaching institution(s) within two-three years of graduating from high school. The crosswalk should align to higher education program of study curricula where applicable and also demonstrate how the program of study can lead to a bachelor's degree.

N/A

TEA Program Requirements (Cont.)

3. **Focus Area 1 - Texas Regional Pathways Network Planning Grant**

The applicant must identify strategic partnerships already in place that provide an advantage in implementing the proposed project/initiative. Strategic partnership examples include, but are not limited to: JET Grant, Internship Challenge, Texas Industry Partnership, Jobs Ya'll, Talent Connection, P-20 Councils, TWC Career Specialists, 60x30TX Regional Target Advisory Groups, etc.

N/A

4. **Focus Area 2 - Texas Regional Pathways Network Implementation Grant**

The applicant must demonstrate how grant funds will be used to increase the number of participating LEAs (and other partners, as appropriate) partnering to provide at least one TEA approved statewide or regional CTE program of study that spans secondary and postsecondary education and includes an appropriate sequence of courses that are aligned with high-wage and in-demand occupations identified by the local regional workforce board. Applicants may use LWDA Labor Market Information and Resources from TEA to demonstrate labor market alignment.

NCTX is expanding to include Mineral Wells ISDYear Two. The Mineral Wells Airport is a regional hub for UAS development, testing, and training and drone specialist UASWERX has dubbed it an innovation zone for the "independent industry sector." Another addition is the North Central Texas Council of Governments (COG), a public-private entity representing a variety of industries in the region, including the North Texas UAS Safety and Integration Task Force. NCTX will embed curriculum, work-based learning opportunities, professional development, and equipment under the guidance of region based workforce intermediaries, industries, and IHE partners that prepare students to enter the high-wage and in-demand occupations of sUAS operators, pilots, engineers and other relevant jobs. Tarrant County Workforce Solutions forecasts increases in jobs for engineers (29%), surveyors and mapping techs (28%), pilots (28%), software developers (27%), and electro-mechanical technicians (23%). The average monthly salary for in-demand careers ranges from $3,400 to $10,300.

5. **Focus Area 2 - Texas Regional Pathways Network Implementation Grant**

[Or] The applicant must expand the number of CTE programs of study that span secondary and postsecondary education and include an appropriate sequence of courses that are aligned with high-wage and in-demand occupations identified by the local regional workforce board.

NCTX anticipates collaboration in the following pathways: STEM, for positions such as engineer, construction supervisor, and extraction worker; Robotics, for positions such as computer numerically controlled machine tool programmer; Aerospace, for positions such as commercial pilot; Agriculture, for positions such as environmental engineer and technician; Construction, for positions such as surveyor and construction supervisor; Cybersecurity, for positions such as information security analyst; and Law and Public Service, for positions such as assessor, appraiser, and police drone pilot. Tarrant County College District offers programs in STEM, Robotics, Cybersecurity, and Criminal Justice that NCTX can crosswalk with existing LEA pathways, enabling students to specialize in an industry field, take a recognized industry certification exam, and begin postsecondary coursework prior to high school graduation. Where a crosswalk does not exist, students may enroll in dual credit and complete an associate's degree after graduation.

TEA Program Requirements (Cont.)

6. **Focus Area 2** - **Texas Regional Pathways Network Implementation Grant**

The applicant must describe the capacity of the designated intermediary organization to carry out the functions related to this role, including --but not limited to --convening cross-sector stakeholders, supporting regional education and workforce development initiatives, working with educators and employers to create work-based learning experiences and place students in them, and collecting data to evaluate program outcomes and plan for continuous improvement.

The Project Manager (PM) and Intermediary are integral to the success of NCTX's work this school year. The Intermediary, North Central Texas InterLink, Inc., works directly with industry partners to collect input, ensuring that the program maintains alignment with business and industry needs while adhering to the goal of NCTX. The PM communicates regularly with all stakeholders and organizes ongoing projects. In addition to working directly with one another, the Intermediary and PM maximize the capacity of the project by working individually with stakeholders from regional school districts, postsecondary education, business, and industry, as well as working with other intermediaries. Both the Intermediary and PM are respected members of the advisory board, bringing years of regional experience to NCTX. The Intermediary regularly convenes cross-sector stakeholders, holding formal meetings but also facilitating digital conversations and virtual surveys. The Intermediary supports regional education and workforce initiatives by regularly including presentations from all sectors, both public and private. Through this work, regional school districts and postsecondary stakeholders have established and maintain relationships with business and industry, serving students and meeting business needs. The Intermediary and PM will work side-by-side in this capacity and collect evaluation measures.

7. **Focus Area 2** - **Texas Regional Pathways Network Implementation Grant**

The applicant must provide, for all pathways, crosswalks that identify secondary and postsecondary coursework that would be required of a student in the program of study in order to complete a certificate or receive an associate degree from the partnering general academic teaching institution(s) within two-three years of graduating from high school. The crosswalk should align to higher education program of study curricula where applicable and also demonstrate how the project can lead to a bachelor's degree.

Tarrant County College (TCC) offers two-year programs in Engineering, Geographic Information Systems (GIS), Cybersecurity, and Criminal Justice. Local school districts will crosswalk with these programs to extend their pathways. STEM and robotics students may use the crosswalk for Engineering; agriculture and construction students may use the crosswalk for GIS; cybersecurity students may use the crosswalk for Cybersecurity; and law and public service students may use the crosswalk for Criminal Justice. Some students may choose to enroll in courses not aligned to these crosswalks; for example, one school district advises students to take dual credit construction courses. In this situation and others, the dual credit option is available to students. After high school graduation, students may continue their study at TCC, completing a GIS degree, an Engineering degree, a Criminal Justice degree, a Cybersecurity degree, a Construction degree, or an Aviation degree at various campuses. Students may also enroll in a program of study at Embry-Riddle Aeronautical University or the University of North Texas. Embry-Riddle, in Fort Worth, TX, offers a four-year Unmanned Systems Applications Bachelor of Science degree and a 4+1 Bachelor's and Master's degree option. The University of North Texas (UNT) Electrical Engineering Department is interested in joining the NCTX collaborative to provide students the opportunity to work on projects related to ongoing lab research. Specifically, UNT's Autonomous Systems Laboratory provides facilities for the investigation of wireless sensor networks, robotic systems, airborne networks, and networks of unattended air vehicles, which are directly aligned to challenges suggested for further study by the NCTX advisory board. UNT is interested in joining NCTX to help high school students transition seamlessly into its college program.
The GIS degree requires students enroll in ENGL 1301, GISC 1402, GISC 2411, and COSC 1301. Then follows MATH 1314, ITSW 1407, COSC 1436, and a 3-hour creative arts course. Then, GOVT 2305, GOVT 2306, and MATH 1342 before GISC 2402, GISC 2404, GISC 2401, and SPCH 1311. In final, ITSE 2405, GISC 2420, GISC 2264, and a one-hour Kinesiology course. This associate's degree also comes with Level 1 and Level 2 certificates. This, the other associate degrees, and courses in general lead to a bachelor's degree at both Embry-Riddle Aeronautical University and UNT. Embry-Riddle offers a Bachelor of Science in Unmanned Systems Applications and accepts courses within the same categories and levels from other institutions. TCC and UNT have articulated courses as well, providing students an easy transition.

TEA Program Requirements (Cont.)

8. **Focus Area 2 - Texas Regional Pathways Network Implementation Grant**

The applicant must identify strategic partnerships already in place that provide an advantage in implementing the proposed project/initiative. Strategic partnership examples include, but are not limited to: JET Grant, Internship Challenge, Texas Industry Partnership, Jobs Ya'll, Talent Connection, P-20 Councils, TWC Career Specialists, 60x30TX Regional Target Advisory Groups, etc.

NCTX partnerships arise from a strong 2019-2020 advisory board, which includes but is not limited to ten SSA districts, two advisory districts, Education Service Center Region XI, Workforce Solutions for Tarrant County (a Jobs Y'all participant that hosts annual industry discovery expos), Workforce Solutions for North Central Texas, North Central Texas InterLink, Inc., Tarrant County College District, Bell, B&H Engineers, North Central Texas Council of Governments, and North Central Texas Emergency Communications District. Within the North Central Texas Council of Governments resides the North Texas UAS Safety and Integration Task Force, on which two of our district members serve. The Task Force consists of nearly 200 members and more than 100 entities representing NASA, Federal Aviation Administration, National Weather Service, multiple airports, multiple airlines, Airbus, Bell, Lockheed Martin, small and large engineering and manufacturing companies that support the industry, postsecondary institutions, police and governmental entities, and members of the Texas Congress. NCTX strategic partnerships facilitate a level of access to industry leaders, bridging the gap that typically occurs when multiple school districts attempt to partner with industry and providing a way to partner with the districts as a whole rather than individually. NCTX benefits greatly from its strategic partnerships, including ESC Region XI, a member of the P-16 Council and 60x30TX Regional Target Advisory Group. NCTX's newest partner-district, Mineral Wells ISD, has just completed a JET Grant period and partner Cleburne ISD recently applied for the current JET Grant cycle.

9. **Focus Area 2 - Texas Regional Pathways Network Implementation Grant**

The applicant must develop and submit a proposed sustainability plan to ensure that the applicant will continue to meet the goals of the grant after the end of the grant program.

Promoting college and career readiness for high-wage, high-demand occupations is a goal of all NCTX member districts. FWISD is committed to increasing support for CTE with local funds over time. Based on evaluation findings, NCTX is committed to the sustainability of gains made through Perkins Reserve activities. FWISD is consistently successful in identifying funding sources to support key initiatives like NCTX. State and federal grant funds are key, and NCTX plans to continue to aggressively seek additional grant awards, as detailed in the comprehensive sustainability plan. The NCTX management committee, facilitated by FWISD Grants and Development, will lead the search for funding to support aspects of the project that require ongoing funding. The Chief of Secondary Schools and Chief Academic Officer will ensure that research-based system reforms will continue to be implemented with fidelity after the grant ends. The primary aspect of this project that will ensure sustainability of reforms is that the activities and research-based models selected are based on building capacity for systemic progress and growth. The skills and knowledge gained by districts, CTE personnel, teachers, and coordinators will be key " capital investments " that will continue paying dividends in student achievement after the grant period ends. NCTX continues to carefully choose sustainable activities for implementation through Perkins Reserve, rather than allocate funds for staffing. Partnerships built through this project have been and will be sustained beyond its ending date, and the work done now to interweave Aerial Robotics into a series of complementary career pathways will pay off indefinitely. Due to effective methods of grant management, many FWISD grant projects have had a lasting positive impact, introducing sustained and systemic change. Implementation of NCTX is a top priority of FWISD leadership, and every effort will be made to see that it is funded beyond the end of the grant period through its partners, the community, and state and federal funding sources. Local funds, long-term federal funds, and existing staff members will help sustain the program. Grant funds will continue to be used solely to develop a strong, sustainable foundation of training, curriculum, and equipment. The US Department of Labor delineates the steps to develop a Comprehensive Sustainability Plan, which will help ensure that goals will continue to be met: "Have a clear vision; determine what should be sustained; build collaboration; choose sustainability strategies and methods; develop action steps for sustainability; and document and communicate your sustainability successes."

Equitable Access and Participation

Check the appropriate box below to indicate whether any barriers exist to equitable access and participation for any groups that receive services funded by this program.

- (●) The applicant assures that no barriers exist to equitable access and participation for any groups receiving services funded by this program.
- ( ) Barriers exist to equitable access and participation for the following groups receiving services funded by this grant, as described below.

Group		Barrier	
Group		Barrier	
Group		Barrier	
Group		Barrier	

PNP Equitable Services

Are any private nonprofit schools located within the applicant's boundaries?

(●) Yes ( ) No

If you answered "No" to the preceding question, stop here. You have completed the section. Proceed to the next page.

Are any private nonprofit schools participating in the program?

( ) Yes (●) No

If you answered "No" to the preceding question, stop here. You have completed the section. Proceed to the next page.

5A: Assurances

- ☐ The LEA assures that it discussed all consultation requirements as listed in Section 1117(b)(1) and/or Section 8501(c)(1), as applicable, with all eligible private nonprofit schools located within the LEA's boundaries.
- ☐ The LEA assures the appropriate Affirmations of Consultation will be provided to TEA's PNP Ombudsman in the manner and time requested.

5B: Equitable Services Calculation

1. LEA's student enrollment	
2. Enrollment of all participating private schools	
3. Total enrollment of LEA and all participating PNPs (line 1 plus line 2)	
4. Total current-year program allocation	
5. LEA reservation for direct administrative costs, not to exceed the program's defined limit	
6. Total LEA amount for provision of ESSA PNP equitable services (line 4 minus line 5)	
7. Per-pupil LEA amount for provision of ESSA PNP equitable services (line 6 divided by line 3)	
LEA's total required ESSA PNP equitable services reservation (line 7 times line 2)	

Appendix I: Amendment Description and Purpose (leave this section blank when completing the initial application for funding)

An amendment must be submitted when the program plan or budget is altered for the reasons described in the "When to Amend the Application" document posted on the Administering a Grant page. The following are required to be submitted for an amendment: (1) Page 1 of the application with updated contact information and current authorized official's signature and date, (2) Appendix I with changes identified and described, (3) all updated sections of the application or budget affected by the changes identified below, and, if applicable, (4) Amended Budget Request. Amendment Instructions with more details can be found on the last tab of the budget template.

You may duplicate this page

Amended Section	Reason for Amendment