## Al Addendum (METHODS EMPLOYED BY THE AI)

The following information correlates to how the Provider will use AI in the delivery services to LEA.

| Type of Al Used  | Description/Common Uses   | Optional | Required |
|--|---|----------|----------|
| Intelligent Tutoring<br>Systems/agents (ITS)           | Personalized instruction based on students' individual learning needs and progress  |          |          |
| Adaptive<br>Learning/Assessment<br>Platforms           | Adjusts the difficulty level and content of learning materials based on the student's performance and learning pace   |          |          |
| Natural Language<br>Processing (NLP)                   | Analyze and understand students' written or spoken responses, providing feedback or assistance in language learning tasks.  |          |          |
| Machine Learning-based Recommended Systems             | Recommend educational resources, such as books, videos, or exercises, based on students' preferences, learning styles, and performance history.                                       |          |          |
| Virtual Assistants<br>(i.e. Alexa, Siri, Merlyn Mind)  | Provide automated and personalized support by handling tasks, answering questions, and managing workflows.  |          |          |
| Chatbots/LLMs<br>(i.e. ChatGPT)                        | Facilitate automated and interactive communication; provides instant responses to questions and assists with various tasks through natural language processing.                       |          |          |
| Data Analytics and Predictive<br>Modeling              | Analyze historical data and identify patterns to forecast future trends and inform strategic decision-making.   |          |          |
| Gamification and/or<br>Personalized Learning Paths     | Enhance engagement and optimize individual learning experiences by incorporating game-like elements and/or tailoring educational content to each learner's unique needs and progress. |          |          |
| Computer Vision (i.e. CNNs, GANs)                      | Interpret, analyze, and generate visual data, mimicking human visual perception for applications such as image recognition, object detection, and image synthesis.                    |          |          |
| Recommender<br>Systems/Filtering<br>(i.e. KNN, TF-IDF) | Analyze user preferences and behavior to suggest personalized content, products, or services  |          |          |
| Translation (i.e. Transformer, DeepL)                  | Translate text from one language to another, leveraging advanced machine-learning techniques to understand and generate human-like language translations.                             |          |          |
| Neural Machine Translation (NMT)                       | Algorithms used to provide accurate and fluent translations by understanding and processing entire sentences as opposed to individual words or phrases.                               |          |          |
| Speech Recognition (i.e. DNNs, Wav2Vec)                | Convert spoken language into text by accurately identifying and processing the acoustic signals of human speech.  |          |          |

| Type of Al Used                                | Description/Common Uses   | Optional | Required |
|--|---|----------|----------|
| Time Series Analysis<br>(i.e. ARIMA, LSTMs)    | Analyze and interpret temporal data points to identify patterns, trends, and seasonal variations, aiding in forecasting and decision-making.          |          |          |
| Reinforcement Learning (i.e. Q-Learning, DQNs) | Teaches optimal behaviors and decision-making policies by interacting with an environment and receiving feedback through rewards and penalties.       |          |          |
| Dimensionality Reduction i.e. (PCA, t-SNE)     | Reduces the number of variables in a dataset while preserving as much variability and information as possible to simplify analysis and visualization. |          |          |
| Other Types of Al Used                         | Specify other types of AI here:   |          |          |
| Purpose of Al Use                              | Description   | Optional | Required |
| Personalized learning                          | Customized learning to match a students' strengths, weaknesses, and learning styles.  |          |          |
| Enhanced Teaching and Learning                 | Assist teachers in delivering more effective instruction and help students grasp difficult concepts more easily.                                      |          |          |
| Automated Grading and Feedback                 | Automate the grading for assignments, quizzes, and exams; provides immediate feedback to students.  |          |          |
| Identifying Learning Gaps                      | Analyze student performance data to identify areas where students are struggling and provide targeted interventions to address learning gaps.         |          |          |
| Supporting Special Education                   | Additional support and accommodations for students with special needs, including personalized learning plans and assistive technologies               |          |          |
| Promoting Engagement and Motivation            | Gamification elements and interactive learning experiences; increase student engagement and motivation  |          |          |
| Administrative Support                         | Assist with administrative tasks such as scheduling, grading, and managing educational resources  |          |          |
| Parental Engagement                            | Provide parents with insights into their student's academic progress, for communication and collaboration between parents, students, and teachers     |          |          |
| Other Purpose(s) for AI Use                    | Specify other purpose(s) for AI here:   |          |          |

| Student Data Collected<br>With Use of Al | Description  | Optional | Required |
|--|--|----------|----------|
| Student Name                             | First and/or Last  |          |          |
| Date of Birth                            | Student's date of birth  |          |          |
| Student ID Numbers                       | Unique identification numbers to students for record-keeping purposes.   |          |          |
| Demographic Information                  | Gender, race, ethnicity, nationality, language spoken at home, etc.  |          |          |
| Academic Records                         | academic performance, grades, attendance, disciplinary history, etc.   |          |          |
| Special Education Information            | Individualized education plans (IEPs), accommodations, special needs, etc.   |          |          |
| Health Information                       | Physical or mental health conditions, medications, allergies, medical history, etc.  |          |          |
| Biometric Data                           | Fingerprints, facial recognition, or voiceprints for authentication or identification  |          |          |
| Behavioral Data                          | Behavior, interactions with educational materials, engagement levels, learning preferences, etc.   |          |          |
| Location Information                     | Track locations, GPS-enabled devices, attendance tracking systems, etc.  |          |          |
| Input Data                               | Information fed into an AI model or algorithm, which is used to train, validate, and test the model to make predictions or perform specific tasks. |          |          |
| Other Student Data                       | Specify other Student Data here:   |          |          |
| No AI used at this time                  | Provider will immediately notify LEA if this designation is no longer applicable.  |          |          |

All requested Al Elements have been identified in this Exhibit and are correct at time of signature.