ILLINOIS GREEN RIBBON SCHOOLS APPLICATION

School Applicant Information

1. School Name: Prairie Trails School

   District Name: River Trails School District 26
   Street Address: 805 N. Burning Bush Lane
   City: Mount Prospect County: Cook
   Zip: 60056

2. Website: rtsd26.org (district), pt.rtsd26.org
   Facebook page: facebook.com/RTSD26 (district), facebook.com/PrairieTrailsSchool
   YouTube: youtube.com/@rivertrailsd26
   Instagram: instagram.com/rivertrailsd26
   Twitter: twitter.com/rivertrailsd26 (district), twitter.com/prairietrails26

3. Principal Name: Amy Veytsman
   Principal Email Address: aveytsman@rtsd26.org
   Phone Number: 224-612-7800

4. Lead Applicant Name (if different): Lyndl Schuster
   Lead Applicant Email: lschuster@rtsd26.org
   Phone Number: 224-612-7302

<table>
<tr>
<td rowspan="2">Level
X Early Learning Center (PK-K)
☐ Elementary (PK - 5 or 6)
☐ K - 8
☐ Middle (6 - 8 or 9)
☐ High (9 or 10 - 12)</td>
<td rowspan="2">School Type
X Public
☐ Private/Independent
☐ Charter
☐ Magnet</td>
<td rowspan="2">How would you describe your school?
☐ Urban
X Suburban
☐ Rural</td>
<td>Is your school in one of the largest 50 districts in the nation?
☐ Yes
X No</td>
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<tr>
<td>Total Enrolled: 181</td>
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<tr>
<td>Does your school serve 40% or more students from disadvantaged households?
☐ Yes
X No</td>
<td colspan="2">% receiving FRPL: 28%
% limited English proficient: 23%
Other measures:</td>
<td>Graduation rate: NA
Attendance rate: 90%</td>
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ILLINOIS GREEN RIBBON SCHOOLS APPLICATION

School Summary and Highlights:

Use 2-3 pages to provide a summary narrative describing your school's efforts to reduce environmental impact and costs; improve student and staff health and wellness; and provide effective environmental and sustainability education. This overarching summary should highlight the best of your work in every ED-GRS Pillar and Element.

You can view examples of summary narratives in past Highlights Reports. The summary that you submit should be what you would like to see appear in a future Highlights Report, if your institution is selected. Be sure to include concrete sustainability achievements, supporting data, unique partnerships, program participation, awards, and certifications. It may be helpful to pull from your application materials to write the summary.

Prairie Trails School is located in Mount Prospect, Illinois and serves the preschool and kindergarten students in River Trails School District 26. An important goal for the school and district is to lead the way in promoting environmental sustainability within the community by inspiring students and staff to protect the environment and be responsible global citizens. This has been a focus for the district for more than a decade and has been the catalyst for several successful projects, none more ambitious than the recent Prairie Trails School renovation.

In 2021, construction was completed at Prairie Trails, making it Mount Prospect's first net-zero energy facility. It is the nation's first net-zero energy renovated school that also meets the PHIUS+ Source Zero standard for using 40-60% less energy than conventional buildings. The renovation incorporated state-of-the-art sustainable ideas, materials and technologies. It focused on creating a building that is better suited for students, as well as more energy efficient and eco-friendly. Several features and practices went toward achieving these objectives.

First and foremost was the installation of photovoltaic solar panels on the roof. These are designed to help offset 100% of the building's annual electricity consumption. The annual production is 225 megawatt hours.

There are other environmentally-friendly features, as well. The building has a new heating and cooling system with heat recovery, eliminating the need to rely on fossil fuels. A Variable Refrigerant Flow (VRF) system delivers fresh air to classrooms and makes it easier for a comfortable temperature to be maintained at all times of the year. Previously the building relied on a boiler and unit ventilators, which were noisy and ineffective. The VRF system saves a tremendous amount of energy and makes classrooms more conducive to teaching and learning. It allows teachers to better meet their students' needs by controlling the temperature and noise level.

The building was a renovation project, meaning that most of the original structure was retained. The best example of this is related to the walls. Architects created a plan that allowed the building's old perimeter walls to be a part of a layered approach, consisting of an outer layer of fiber cement board, rainscreen support, a layer of rigid insulation, an air barrier, and a layer of gypsum sheathing board. The result is a structure that is significantly more energy efficient and protected against moisture while also offering more temperature control.

The lights in the building were also addressed. Rather than the incandescent lighting utilized in the old building, energy efficient light-emitting diode (LED) lighting was installed. This approach uses much less energy and gives the building a bright decor which creates a better learning environment for students and teachers.

The renovated building also requires the use of less water. There has been a significant reduction in water usage over the past decade, especially since the renovation. New low-flow toilets and the overhauled heating, ventilation and cooling system have required approximately five gallons per occupant every month. In 2009, 705 gallons per occupant were needed each month.

These changes made the school more environmentally friendly and also brought cost savings to the community. The reliance on solar energy is expected to save the district more than $32,000 per year in gas and electricity costs.

Other practices also contribute to the school's sustainability efforts. The parking lot was constructed with permeable pavers to replace the existing asphalt pavement. This helps to alleviate flooding and produce less runoff that can erode surfaces and potentially carry pollutants into surrounding areas.

The cafeteria uses compostable trays for lunch which are sent to a local commercial composting facility. Additionally, kitchen food scraps are also sent to a commercial composting facility. Other cafeteria practices include the avoidance of straws during lunch and single-dispensed cutlery to reduce the unneeded pieces in a pre-bundled cutlery kit.

Recycling is a big priority for the school. 100 percent of paper used in classrooms and the office is recycled. Each classroom is equipped with a recycling container and students are taught the importance of recycling. Electronic products are recycled at an approved facility, as are items such as oil, batteries and maintenance truck tires.

Student and staff health and wellness also benefited from the upgrades. According to studies, classroom conditions have a significant impact on student health and performance. The new heating, cooling and ventilation system creates a healthier, quieter and more comfortable environment for everyone who spends their days in the building.

A multipurpose room, used for physical education and lunch, features skylights that allow natural light into the room. This gives students the opportunity and space to be more interactive. There are also soundproofing panels so that the noise will not affect any surrounding classrooms.

An especially proud feature is the natural playground, a key aspect for preschool and kindergarten students. The innovative space promotes cognitive, emotional and physical growth while supporting an integrated curriculum. The natural playground also gives teachers an outdoor teaching environment with several quiet and comfortable areas. It was built using the earth that was displaced during the renovation project with playground equipment made up of natural materials.

Having an immediate positive impact on the community was a top priority for this project. Another top priority is to ensure that students, who will be among those most affected by climate change, learn and understand the importance of these changes allowing them to create environmentally-friendly habits at a young age.

Included in the construction was the installation of interactive displays throughout the building to teach students about the building's features. One display shows the layers of insulation the building utilizes, while another showcases the efficiencies of the VRF system as opposed to the old boilers and univents.

The school serves preschool and kindergarten students but also acts as a learning hub for the district's older students. As part of a middle school program which teaches about energy usage, the environment and sustainability, students take a field trip to Prairie Trails to learn about the school. The students apply this knowledge when designing their own energy-efficient homes as an end-of-trimester project.

The kindergarten curriculum includes important STEAM units. Students learn about plants, animals, weather and how it all impacts the world. The outdoor learning spaces create a perfect environment for these lessons and discussions.

This project was a community effort and only achievable due to hard work, expertise and a strong desire to build a school that works for students while protecting the environment. The district received a grant of up to $2 million from the Illinois Clean Energy Community Foundation toward the cost of the project. It was awarded as part of their Net-Zero Energy Building program.

The school and district have been the recipient of several awards and recognitions as a result of sustainability efforts. These include the U.S. Department of Energy 2021 Building Envelope Campaign Award, recognition by the U.S. Department of Energy for participation in the "Better Buildings" initiative, the TRANE Reducing the Energy Intensity of the World Award, and the 2022 Merit Award by the Illinois Chapter of the American Society of Landscape Architects (ILASLA) for the natural playground. In the announcement of the award, the ILASLA said, "The Prairie Trails playground was transformed into a creative and engaging natural playground that extends learning outdoors. From the outset of the project, the landscape architect worked closely with school administrators, teachers and

maintenance staff to create a space that would reintroduce children to the joys and possibilities of the natural world."

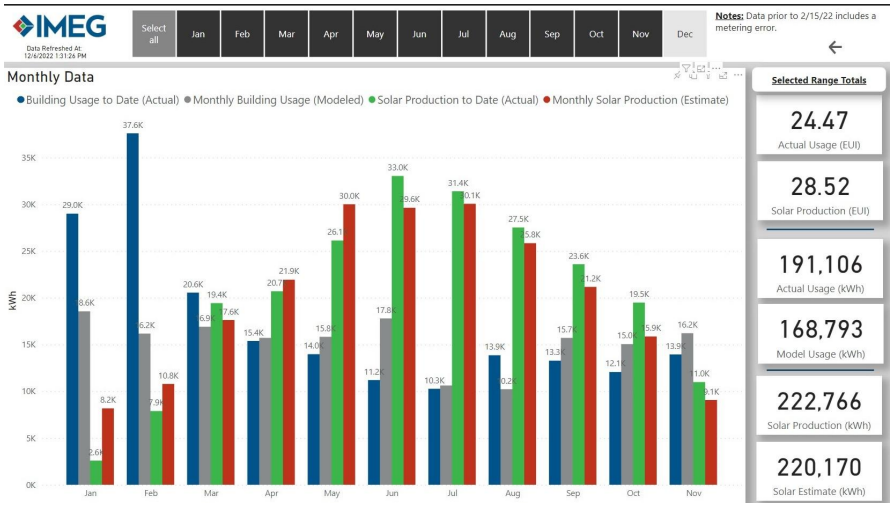
Not only will Prairie Trails School continue to educate young students in the conventional sense, but it will also educate children, teachers, staff, families and the larger community about how the building itself is designed to meet net-zero objectives. River Trails School District 26 community is incredibly proud of Prairie Trails School.

Pillar I: Reduced Environmental Impact and Costs

A. Energy

1. **Do you track energy use in ENERGY STAR Portfolio Manager®, or another way in your district?**
   ☒ Yes ☐ No

2. **If so, how have you tracked your resource usage, for how long, and how has your usage dropped over that time?** *(Data or graphs can be submitted as a separate supportive document if desired.)*
   It is hard to track actual data from prior years as building usage changed drastically from a leased daycare facility with 1966 mechanical equipment and window a/c units. Through modeling we expect to save the district more than $32,000 per year in gas and electricity costs. The following graph shows usage on the renovated facility from January (first started tracking) through November 2022.



3. **Please describe the strategies you have implemented or planned to reduce your energy consumption.**
   Prairie Trails School, which serves 220 PK/Kindergarten students (River Trails SD 26, Mount Prospect, IL), is the nation's first net-zero energy renovated school that also meets the PHIUS+ Source Zero standard for using 40-60% less energy than conventional buildings. This certification is conferred by PHIUS (Passive House Institute US), a nonprofit organization committed to making high-performance passive building the mainstream market standard.

4. **What percentage of your school's energy is obtained from:**
   a. **On-site renewable energy generation:**
      Type: Prairie Trails provides 100% on-site renewable energy
   b. **Purchased renewable energy:**
      Type: 0% as 100% energy produced on-site

c. **Participation in an energy cooperative, DOE Wind for Schools or other school energy program:** The Illinois EPA has awarded River Trails School District an electric school bus with a bidirectional Vehicle to Grid DCFC Fast charger.

5. **In what year was your school originally built?** 1966

6. **What is the total building area of your school?** 28,737 sf

7. **Please describe any new construction or major renovations at your school in the past ten years, including the date, and the percentage of area renovated. Describe how you achieved green building or similar standards and any certifications earned.**

The 2020 to 2021 renovation/deep energy retrofit was the main project over the last 10 years. The entire facility, 100%, was renovated. High performance/sustainable features include:

a. Net Zero energy usage
b. Target EUI of 24 to 29
c. No natural gas service to the school
d. Mechanical system - The existing hot water boiler system was replaced with a new electric variable refrigerant flow (VRF) system with heat recovery. The VRF system is coupled with dedicated outside air units with energy recovery wheels for fresh air delivery. The multipurpose room is conditioned by a single zone variable air volume packaged rooftop unit with an energy recovery wheel and fresh air via demand control ventilation.
e. New temperature controls: load-specific electrical monitoring, including plug loads, lighting loads, HVAC loads, and energy generation from the PV panels. Integration (monitoring and display) of the net-zero technologies through the BAS system. (The BAS system monitors, not controls, the solar panels).
f. New solar panel system to produce 100% of the electricity needs
g. New rooftop photovoltaic system to generate on-site renewable energy with an annual production of 225 MWh.
h. Roof system - The existing built-up roof system was replaced. This increased the roof insulation performance value from R-30 to R-65 (average) using the additional thickness of polyisocyanurate foam board insulation. The system design includes additional parapet height to conceal additional insulation. The new roof system is a single-ply synthetic rubber roof.
i. Exterior wall system - The existing uninsulated exterior wall system was modified to receive new wall cladding. The foundation was modified to include new insulation below grade. The existing face brick was removed and a new thermally broken rail system with new insulation was applied. New exterior cladding was applied.
j. The remodeling included new LED lighting, with light harvesting, to reduce energy consumption.
k. New window system - The original single-pane aluminum window system was replaced with a new double thermally broken curtain wall framing system with triple-pane dual Low-E insulated glazing.

Certifications:

a. This renovation is Illinois' first net-zero energy school that also meets the 2018 PHIUS+ Source Zero project standard. Certification received in 2022.
b. In 2021, the U.S. DOE recognized Prairie Trails School among 14 exemplary projects in its "Building Envelope Campaign." Prairie Trails School was honored in the "Retro 50" category for facility renovations that achieve a 50%+ performance improvement over the original building.

8. **Please describe your sustainability policy and practice for new or renovated construction materials and building maintenance.**

Our district's goal is to lead the way in promoting environmental sustainability within our community and schools by inspiring our students and staff to protect the environment and be responsible global citizens.

Vision

- Empower students and the community to understand their natural world and their impact on it.
- Provide opportunities for students to make connections between the science they learn and the science they experience in their natural environment.
- Create opportunities for the community and school to understand how people, energy, and the environment are dynamically interrelated.
- Promote the health and well-being of students, staff, and community.
- Instill a sense of respect and ownership of one's environment that fosters advocacy and activism.

River Trails is consistently seeking to upgrade facilities so that they can better serve our students and be more environmentally friendly.

Board Policy 4:150 states, "Standards for Managing Buildings and Grounds: all District buildings and grounds shall be adequately maintained in order to provide an appropriate, safe and energy-efficient physical environment for learning and teaching. Board Policy 4:160 states that the Superintendent shall take all reasonable measures to protect the environmental quality of the District's buildings and grounds.

B. Water and Grounds

9. **Can you demonstrate a reduction in your school's total water consumption from an initial baseline or describe your best practices to limit water usage? For example, calculate your change in water usage (in gallons per occupant) over a specified period of time, or a reduction in water used for irrigation.**

Reduction in monthly water usage over time:

2009 - 123,500 gal/month (approx 175 occupants) = 705 gal/occupant/month

2022 - 1,166 gal/month (approx 225 occupants) = 5 gal/occupant/month

Building was renovated in 2020/21. Toilets were upgraded to low flow, HVAC was upgraded. The previous occupant was a daycare/preschool, with more younger children and longer usage hours.

10. **What percentage of your landscaping is considered water-efficient and/or dedicated to ecological or instructional use? Describe the kinds of plants used and locations:**

Not including the lawn area, 97% (22% if lawn included) of the planting can be considered water-efficient planting. From this planting, 68% (6% if the lawn is included) would be dedicated to ecological and instructional use. These areas would include vegetable garden planters, the butterfly exploration trail, the willow tunnel, and the native grasses on the hill. The remaining landscape areas serve as foundation planting to screen the parking lot and buildings from the play area.

Low-maintenance planting that provides seasonal interest, ecological benefit, and 'tough-ness' to withstand the children's exploration was at the heart of the design. The butterfly exploration garden was a selection of milkweed, allium, Agastache, and goldenrod with outcropping stones to encourage children to discover the garden. Five raised wooden vegetable planters allow students to learn about ecology and science in the outdoors. The willow tunnel over the main path uses planting to create a tunnel enclosure and become a new semi-private play area. The large native grass planting on the top of the hill of Golden Tufted Grass allows students to walk through the planting and touch the plumes and play games.

Spoils from the detention base were used to shape a new natural playground at Prairie Trails. Diverse plants and habitats were part of the design. Non-toxic trees, shrubs and vines were specified. Rocks and boulders were integrated. Embankments, earth sculptures, wood logs, as well as a variety of ground surfaces, were part of the play area.

11. **Describe the water sources used for irrigation, including any cisterns or rain barrels.**
    No irrigation

12. **Describe any efforts to reduce stormwater runoff (e.g., rain gardens) and/or reduce impermeable surfaces.**
    The improvements to Prairie Trails School included replacing existing asphalt pavement with permeable pavers and the construction of a native vegetated detention basin. Switching from the asphalt parking lots to permeable pavement reduced the total impervious coverage on the site by over 0.5 acres. These Best Management Practices (BMPs) provide a total stormwater management capacity of 75,960 cubic feet (568,221 gallons). Of that volume, 35,010 cubic feet is available in the stone underneath the permeable pavers and in the soil and stone underneath the detention basin. The intent of these BMPs is to promote infiltration to recharge the groundwater and remove this stormwater from McDonald Creek and the Des Plaines River. The stone, soil, and roots of the native vegetation provide water quality benefits as well, reducing total suspended solids (TSS) and phosphorus from the discharge from the site. The remaining water capacity of the system is held in the above-ground detention basin. This basin attenuates the flow from the site to McDonald Creek, reducing peak discharges during large rain events to provide some relief to downstream flooding.

C. Waste and Chemicals Management

13. **Describe the strategies you use to divert solid waste (e.g., trash, cafeteria waste, paper, or landscape waste) from landfills due to reduction, recycling and/or composting. Complete the calculations below or provide reduction rates:**
    The cafeteria uses compostable trays for lunch which are sent to a local commercial composting facility. This facility provides the right environment to biodegrade thus not contributing to methane gas production. All kitchen food scraps are also sent to the commercial composting facility. Students are offered single-dispensed cutlery, reducing unneeded pieces in pre-bundled cutlery kits. We do not use straws for milk. All classrooms have recycling containers so paper, cardboard and cans throughout the school are recycled. Electronic products are recycled through an approved facility. Oil, batteries and tires from trucks are recycled.

14. **What percentage of your school's total office and classroom paper content is post-consumer material, fiber from forests certified as responsibly managed and/or chlorine-free?**
    100%

15. **List the types and estimated quantities of chemicals (e.g., laboratory materials, cleaning products, pesticides) managed at your school, and how they are stored, disposed of, and minimized:**
    We buy only environmentally friendly cleaning products in our schools. Though considered safe, chemicals used for cleaning are kept in a locked closet not accessible to students and staff. Cleaning products are pre-measured, ensuring the correct ratio of product to water. Proper techniques are continually reviewed to make certain our staff follow the guidelines set forth as it pertains to daily cleaning. An example is the proper application of spray and wipe cleaners. To minimize product atomization and its exposure to the students and faculty, we stress spraying the cleaner directly into the microfiber wipe and then proceed to clean the surface. For carpet cleaning, we utilize extracting equipment that lowers the water flow and decreases drying time and chemical exposure with the use of air dryers. Our hard surface flooring does not require waxing or stripping. We wash floors with an environmentally friendly neutral cleaner. There are no laboratory materials or pesticides on site.

16. **Describe how your school purchases environmentally preferable products for use by students and staff:**
Purchasing procedures ensure that we purchase only environmentally friendly products. We use only SIPC Green products for custodial supplies, green hand wipes for children and staff, and all custodial paper products are made from recycled materials. We use environmentally friendly custodial equipment such as low-water usage extractors and HEPA vacuum cleaners. Classroom LED monitors automatically shut off when not in use. Recycled and low-VOC construction materials protect the environment. Electronic documents, online paychecks and benefits, online board packets, online purchasing, and fobs and software to monitor copiers and printers and defaults set to two-sided copying limit paper and printing. All Chromebooks and laptops we purchase are energy star certified. We've eliminated all appliances from classrooms. There are no vending machines and appliances are limited to the teachers' lounge. Appliance purchases for lounge areas are energy star certified.

D. Alternative Transportation

17. **What percentages of your students walk, bike, bus, or carpool (2 or more students in the car) to and from school? Please explain how these numbers are obtained and calculated, and describe any improvement in this area over time.**
Currently, 39% percent of our students take the bus to and from school while 10 percent walk or ride their bikes. Typically in the warmer months, we have a much higher percentage of students who walk to and from school. The remaining students are car riders.

18. **Describe the plans or strategies to increase the number of students walking and biking to school.**
The school is an early learning center so children are too young to walk or bike to school without a parent or guardian. Work schedules for parents can make walking to school challenging. However, the school has begun to organize after-school play opportunities on the playground for students and siblings. Parents who live in the surrounding neighborhood will walk to after-school events.

19. **Has your school implemented any of the following? Check all that apply.**

☐ Designated carpool parking stalls.

X A well-publicized no idling policy that applies to all vehicles (including school buses).

X Vehicle loading/unloading areas are at least 25 feet from building air intakes, doors, and windows.

X Safe Pedestrian Routes to school or Safe Routes to School.

Describe activities in your safe routes program: Students walk to school with their parents. Students are instructed about parking lot and bus safety multiple times throughout the year.

20. **Describe how your school transportation is efficient and has reduced its environmental impact:**
Drop-off and pick-up have been streamlined to minimize emissions. Bus and car drop off are on separate sides of the building. Idling has been discouraged via signs and school newsletters. We have made our routes more efficient, eliminated a bus, and will continue to reduce the number of routes where possible. Prairie Trails routes are combined with the elementary routes, students are picked up with the 1-5th grades and then the final stop is at Prairie Trails.

21. **Describe any other efforts toward reducing environmental impact, focusing on innovative or unique practices and partnerships:**

The Illinois EPA has awarded River Trails School District an electric school bus with a bidirectional Vehicle to Grid DCFC Fast charger. We are anticipating delivery in January and the bus will be located at Prairie Trails School.

Pillar 2: Improve the health and wellness of students and staff

A. Environmental Health

1. **Describe your school's Integrated Pest Management (IPM) program, including any certifications earned, routine inspections, pest identification, monitoring, record-keeping, and pest prevention activities.**
   The Integrated Pest Management (IPM) plan is provided by Anderson Pest Solutions. It eliminates regular pesticide application and combines several strategies to achieve long-term results. Emphasis is placed on inspection and communication with the facility administration. The focus of the program is to identify and eliminate conditions inside and outside of the facility that could cause pest problems.

2. **Describe the efforts or practices you have in place to minimize or eliminate the use of pesticides, both indoors and outdoors.**
   The Park District maintains the school grounds. They also have an IPM Policy. They spray and use chemicals sparingly to keep weeds and pests at a tolerable level, as opposed to a goal of elimination. In many years they do not spray at all. They issue notices to the public explaining not spraying for dandelions, and our reasoning for environmental protection. Soil and turf nutrients are organically centered-fertilizers. They use Biosolids for the majority of turf areas, which is a recycled waste product extensively tested and approved by the Illinois EPA.

3. **Describe the actions taken or the practices your school employs to minimize or eliminate exposure to the following specific hazardous contaminants (if applicable):**

   a. **Elemental Mercury -** None

   b. **Carbon Monoxide from fuel burning equipment or appliances**
      This is an all electric building so no natural gas or other fuels are used

   c. **Radon**
      Air exchanges meet or exceed ASHRAE standards during occupancy

   d. **Chromated Copper Arsenate in wooden playground equipment**
      Wood used in playground does not include chromated copper arsenate

   e. **Others (e.g., Lead, Asbestos or PCBs)**
      Lead, asbestos and PCBs eliminated with renovation. And by converting the parking to permeable pavers, the district has eliminated the need for polycyclic aromatic hydrocarbons (PAHs) found in coal-tar sealcoating products.

4. **Describe policies and practices in place to promote security and life safety.**
   Drills, staff training, visits from police and fire, and a crisis plan which is reviewed annually and covers multiple scenarios including secure-the-school, hard lockdown, evacuation, shelter-in-place and relocation. Every staff badge has a QR code to the plan.

5. **Describe actions your school takes to prevent exposure to asthma triggers in and around the school, such as animals in the classroom, sanitation, or other airborne contaminants.**
   Dedicated Outdoor Air System (DOAS) units contain MERV 13 filters and provide a constant air exchange. Lunch tables are thoroughly cleaned between lunches to avoid any asthma attacks from food allergens.

6. **Describe actions your school takes to control and prevent leaks, moisture, condensation, and excess humidity; and to promptly cleanup mold or remove moldy materials when it is found.**
   Daily equipment inspections, condensation pump alarms, pump overflow alarms, air handler humidity monitoring and automated dehumidification cycle.

7. **Our school has installed local exhaust systems for major airborne contaminant sources.**
   X Yes ☐No DOAS units function to exhaust contaminants

8. **Describe your school's preventive maintenance program for the building's ventilation system, including unit ventilators to ensure it is clean and operating properly:**
   No unit ventilators. Tickets are automated from our maintenance work order system and monthly inspections are performed on all mechanical equipment. Filters are changed as needed.

9. **Describe actions your school takes to ensure that all classrooms and other spaces are adequately ventilated with outside air, consistent with state or local codes, or national ventilation standards, including any periodic measurements and record keeping:**
   The entire building utilizes dedicated outside air systems that only bring in code-required fresh air and exhaust the building at the same rate. Each unit is provided with air flow metering to ensure the correct amount of air is delivered to the spaces.

10. **Describe other steps your school takes to protect indoor environmental quality such as implementing EPA IAQ Tools for Schools and/or conducting other periodic, comprehensive inspections of the school facility to identify environmental health and safety issues and take corrective action:**
    Professional environmental group inspects the building twice annually to identify any environmental health and safety issues and the district takes appropriate corrective action. No issues identified since the renovation.

11. **Describe your green cleaning policies, equipment, products and practices, and green cleaning certifications or awards:**
    Board Policy 4:150 states, "Standards for Green Cleaning: the Superintendent or designee shall establish and supervise a green cleaning program that complies with the guidelines established by the Illinois Green Government Coordinating Council." We buy only environmentally friendly cleaning products in our schools. We surveyed all cleaning products and have established guidelines set forth by the State of Illinois as it pertains to "Green Seal" approved products. The district has a partnership with Schools of Illinois Public Cooperative (SIPC) to improve indoor air quality. SIPC has conducted an audit of the school's cleaning equipment following the "Green Seal" recommendations when purchasing cleaning equipment – Carpet Care Equipment that meets guidelines from the Carpet & Rug Institute – lowering particulates by utilizing HEPA equipment with better filtration helping the quality of air in our buildings. Walk-off carpets are vacuumed daily to prevent dirt from entering the school improving indoor air quality. For carpet cleaning, we utilize extracting equipment that lowers the water flow and decreases drying time and chemical exposure with the use of air dryers. The school meets SIPC Green Cleaning Gold Certification.

B. Nutrition and Fitness

12. **Does your school employ the programs below to promote nutrition, physical activity, and overall school health?**

    X Participates in a Farm to School program or similar local food program.

    X Our school has an on-site garden.

X Our cafeteria provides fresh meals daily with healthy choices for students.

☐ At least 50% of our students' annual physical education takes place outdoors.

☐ Health measures are integrated into assessments.

Give details about programs and successes:

Prairie Trails was awarded a 2022 Merit Award by the Illinois chapter of the American Society of Landscape Architects (ILASLA) for its natural playground. “The Prairie Trails playground was transformed into a creative and engaging natural playground that extends learning outdoors,” ILASLA said in its announcement of the award.

13. **Provide specific examples of actions taken which are innovative or unique practices and partnerships:**

An especially proud feature is the natural playground, a key aspect for preschool and kindergarten students. The innovative space promotes cognitive, emotional and physical growth while supporting an integrated curriculum. The natural playground also gives teachers an outdoor teaching environment with several quiet and comfortable areas. It was built using the earth that was displaced during the renovation project with playground equipment made up of natural materials. From the outset of the project, the landscape architect worked closely with school administrators, teachers and maintenance staff to create a space that would reintroduce children to the joys and possibilities of the natural world.

14. **Describe how outdoor education, exercise and recreation are promoted within the curriculum and outside the classroom.**

The Prairie Trails renovation and reopening project was centered around the physical health and well-being of the students and staff. We installed the first natural playground on a school campus in Illinois. Students spend time outdoors daily navigating the terrain, exploring nature, learning about the beauty of our natural environment. All students at Prairie Trails receive daily physical education instruction from a co-certified physical education/general education teacher both outside and in our state of the art multipurpose room. Children play outside every day during recess and teachers often incorporate the playground into their lessons.

The students love to retell stories using the playground especially for 3 Billy Goats Gruff. We use the hidey holes as the bridge and the troll hides underneath. We also go on walks to look for signs of different seasons. We use chalk to practice shapes, sight words, name writing. Students practice following multistep directions on the playground/in the sandbox (e.g., "fill the blue bucket before you fill the red bucket"). In Music class, we take circle games & songs outside. It's fun for the kids to have a wide open space to run around the circle. We also explore the built-in musical instruments of the natural playground.

15. **Describe efforts to improve nutrition, health, fitness of students and staff, highlighting innovative practices and partnerships:**

We completed a unit on healthy foods and students learned about describing, categorizing, and labeling healthy foods. Students discuss healthy options for snack, lunch, and what fuels our bodies. We also take a look at what foods we like and what foods we eat with our families. We do daily warm up videos, frequently discuss heart rate and ways to incorporate more active play in our day and we take wiggle breaks to get our bodies moving.

The District Benefits Committee has a focus on Wellness for staff. This includes a partnership with our health insurance cooperative, EBC Wellbeing Incentive Program, which provides a biometric screening for staff, flu shots and a variety of wellness challenges focusing on nutrition and fitness. This is a 3 tiered program and River Trails has always earned the highest tier which provides a monetary incentive of 0.75% of premiums back to the district to use on staff wellness programs.

C. Coordinated School Health, Mental Health, School Climate, and Safety

16. **Does your school use a Coordinated School Health approach or other health-related initiatives to address overall school health issues?**
X Yes ☐ No

If yes, describe the health-related initiatives or approaches used by the school:
The school incorporates all components of the Coordinated School Health approach into their work. As you've probably already read, regular health and physical education or motor movement is a part of all students' day. Even our youngest learners in preschool have a focus on developing relationships and learning through play or movement. The building houses a number of support staff to help in this effort, including a physical therapist, occupational therapist, social worker, psychologist and speech therapists that work to improve all students' emotional and social health during the school day. These support services are available to all students and may benefit them directly or through consultation with the administration and teaching staff. These teams contribute to the psychosocial climate and culture of the school.

One of the school's goals for the year is to grow and build positive relationships between the school staff and the community. They are working on this through an integrated approach, providing opportunities for outdoor play and socialization after school, soliciting parent involvement through the Parent Teacher Council and also planning parent learning nights based off of parent feedback. All of those topics center around the components for Coordinated School Health. Some examples from this year: How to manage and support anxiety in young children. How to support and develop fine and gross motor skills and what other support services the school can provide to their school community.

17. **Does your school partner with any outside institutions, businesses, clubs, nonprofit organizations, or community groups to support student health and safety?**
X Yes ☐ No

If yes, describe these partnerships:
In our local community, we are fortunate to have some amazing partners. We have a close working relationship with our police and fire department. "Officer Friendly", who has been with our district for a number of years, visits all classrooms and speaks with our students about social health and safety. Additionally, we have an amazing fire educator in our community that visits during the school and during summer school to talk about safety with our students.

We have a partnership with our community churches (The Bridge) and several local non-profits, called Higher Up Ministries and River Trails Food Pantry, that support our district in a variety of different ways, such as weekly food donations, food pantry locations for families, support during the holidays, coats for students, school supplies to start the year, etc. We also have a partnership with our local Three River Rotary Club. These partnerships offer families support on basic needs, so they can be ready to learn in our buildings. The emotional impact these organizations have on our families is priceless.

The Student Wellness Committee monitors the Student Wellness Policy and proposes changes when needed. The idea is to help create policies that promote sound nutrition, student health, a reduction in childhood obesity, and increase transparency to the public on matters of wellness. The committee meets three times throughout the school year and is made up of food service, school board, students, parents/guardians, teachers and community members.

An intergovernmental agreement with the Park District allows their use of our buildings in exchange for ground maintenance. This includes a before and after school care program held at our facilities and run by the Park District. Maximizing the facility use prevents redundancy of facilities, reduces energy consumption, retains open spaces, improves student health through various activities and keeps students safe before and after school while their parents work.

18. **Describe your school's curriculum content for student health and fitness as well as its applied learning:**

School and student wellness are crucial aspects of the daily experience at RTSD26. As stated in the policy manual, "Student wellness, including good nutrition and physical activity, shall be promoted in the District's educational program, school-based activities and meal programs."

The goals for addressing nutrition education and nutrition promotion include the following: schools will support and promote sound nutrition for students; foster the positive relationship between sound nutrition, physical activity and the capacity of students to develop and learn; and nutrition education will be part of the District's comprehensive health education curriculum.

The goals for addressing physical activity include the following: schools will support and promote an active lifestyle for students and physical education will be taught in all grades and shall include a developmentally planned and sequential curriculum that fosters the development of movement skills, enhances health-related fitness, increases students' knowledge, offers direct opportunities to learn how to work cooperatively in a group setting, and encourages healthy habits and attitudes for a healthy lifestyle, Physical Education classes are a regular part of students' day and week in school. Health, fitness and wellness are emphasized in these classes with a variety of sports and activities.

Our P.E. teachers help students develop healthy habits and a commitment to physical exercise. Our food services department offers a variety of healthy food options. This includes fruit and vegetable carts, "Meatless Mondays" and an exposure to new, healthier menu options. Visit our food services page to learn more and find menus. Other Health and Wellness Initiatives include social-emotional learning activities, participation in National Farm to School Month, Fuel Up to Play 60, Kids Heart Challenge, Walk and Bike to School, Bears Mini Monsters Program, Great Apple Crunch.

Pillar 3: Effective Environmental Literacy

A. School Culture of Sustainability

1. **Describe what *sustainability* means to your school or district in particular. How is sustainability included in your mission to educate students?**

See sustainability mission and policies answered in question 8 on page 6. The following is part of the River Trails School District 26 Strategic Plan:

Pillar 3: Community Goal

Prioritize social, emotional and physical well-being of the school community by providing a nurturing environment and equipping all with the skills, knowledge, and understanding to thrive in a complex world.

Pillar 4 Pathways:

- Empower students to be stewards to their environment and community
- Maintain an intentional and regular focus on wellness and wellness strategies
- Sustain a safe, healthy learning environment

2. **What role has the administration played in the culture of sustainability at your school?**

Sustainability is more than a goal, it is a mindset. All decisions in a district must pass through certain filters before being recommended for implementation. Sustainability is one of those filters. Modeling this sort of thinking is the role of all administrators.

3. **What practices, working groups, or committees does your school employ to help ensure effective environmental and sustainability education? Provide specific examples of actions taken.**

As stated in our strategic plan, it is our goal to create Life Ready learners. To truly be life ready, one needs to understand their impact on the environment. We strive to make every student a steward to their environment and

community. Beginning in kindergarten our students learn how the earth supports life, and how we need to treat the earth well so that it can give back to us. This content is introduced in our STEAM class. This education continues in elementary school through science instruction and culminates in middle school where students take a course on Energy and the Environment. In Energy and the Environment students are challenged to think big and toward the future as they explore sustainable solutions to our energy needs and investigate the impact of energy on our lives and the world. In addition to formal curriculum, students are given opportunities to participate in clubs related to the environment and sustainability. Finally, student voice is welcomed through membership on the Student Wellness Committee.

4. **Does your school have a green team, garden club, or a community green committee on sustainability? Who participates? What kinds of projects or activities do they undertake? What roles do they play in the school?**

   Because Prairie Trails is an early learning center that serves only preschool and kindergarten students, we do not offer an extracurricular program. However, our STEAM class, which all students attend twice per week, is centered around developing an awareness of our environment, how things work, and how we, as humans, impact our environment. Our first unit of the year, aligned to the Next Generation Science Standards, provides students learning opportunities to answer the questions "What do plants need to survive? How does weather change how plants grow? How does weather impact the world? How do we impact the weather?" Students follow plants through the lifecycle beginning with planting seeds. They transfer seeds to our outdoor garden beds, observe the plants as they germinate, and finally harvest. Our garden beds are located within our natural playground which allows the students to observe growth daily.

5. **Describe other ways your school integrates sustainability into daily habits and culture of the school's staff, volunteers, students and community (e.g., recycling days, no bottled water, murals, themed events, virtual backpacks, etc):**

   All classrooms have a recycling program in place. Students are taught how to recycle to be good stewards to the environment. Kindergarten curriculum is multisensory and incorporates many artistic activities. Students use recycled materials to create artistic masterpieces. To deepen the connection, teachers read alouds with a focus on being good to the planet including topics like recycling and reusing. Monthly themed activities include weather, trees, pumpkins and seeds to plants. In the lunchroom, students are introduced to the concept of composting. Composting continues through middle school.

6. **Any other school practices, visions, projects, plans or information you want to include to showcase the environmental work your school has achieved?**

   Prairie Trails School also serves as a learning hub for our middle school students. Our middle school offers an encore program to teach students about energy, the environment, and sustainability. The course is one trimester long. During their coursework, each class takes a field trip to Prairie Trails to meet with our Director of Buildings and Grounds and district architects to learn about the steps taken to construct and maintain a netzero facility. In addition to question and answer sessions, they explore the building and interact with the visual displays. One display shows the layers of insulation needed to create a suitable building envelope, while others showcase the efficiencies of the new HVAC system in comparison to old boilers and univents. The students' apply this knowledge when tasked to design their own energy efficient homes at the end of the trimester. As we continue to collect data on our building systems, we hope to expand the use of our dashboard in our middle school math and science classrooms teaching the students to interpret the data to draw conclusions and make recommendations for future building improvements. We would also like to expand the use of our playground with our youngest students. Many of the tools on the playground are not yet being used to their fullest potential to expand the learning experiences that take place in the classroom. These shifts take careful planning and staff professional development. Now that we have settled into the building and put systems in place, we are ready to move forward in these areas.

B. Curriculum and Pedagogy

7. **Does your school have a written definition and requirement for environmental literacy? Is there an assessment required?**
   Our strategic plan has four pillars. Pillar three focuses on the community by prioritizing social, emotional and physical well-being of the school community. The district is committed to providing a safe, nurturing environment by equipping all students with the skills, knowledge and understanding to thrive in a complex world. We are committed to creating life ready citizens who understand their responsibility to our world. We do not begin to formally measure students' ability to understand the interactions between Earth and human activity in a summative way until they reach the intermediate grades. We formally assess students as we engage in classroom learning opportunities.

8. **How does your school use sustainability and the environment as a context for learning STEM? How is sustainability and the environment incorporated into the curriculum in all areas?**
   Prairie Trails Kindergarten STEAM Curriculum includes 3 units. Unit 1 Plants and Weather Secrets asks the questions: "What do plants need to survive? How does weather change how plants grow? How does weather impact the world?" Unit 2 Force & Motion explores: How do things move? How can we make things move? Unit 3 Animal Secrets asks: How do animals grow? What do animals need to survive?

   In class, we focus on weather, plants and flowers in the spring where we dive deep into what plants need to grow, including a plant life cycle unit and how we use plants to nourish our bodies. We read books, make observations and plant our own grass seed and lima beans.

9. **How does your school use sustainability as a context for learning green technologies and/or career pathways?**
   Middle school STEAM students take a field trip to Prairie Trails to meet with our Director of Buildings and Grounds and district architects to learn about the steps taken to construct and maintain a netzero facility. They are able to ask questions about careers in sustainability, architecture and construction from experts in the fields.

10. **Describe students' outdoor learning experiences at multiple grade levels. How do they support curriculum content?**
    At Prairie Trails School, a preschool and kindergarten early learning center, we complete a unit on weather in the spring and learn about how the weather affects us, animals, and plants. Teachers utilize the outdoor space, like the playground amphitheater, to retell/reenact curriculum stories. Teachers take students on scavenger hunts and nature walks through the natural playground and take advantage of nice weather days to move learning outside where students do chalk writing with sight words and journaling while sitting in the shade of a tree or in a hidey-hole on the playground. Being surrounded by nature allows students unique opportunities like taking 'alphabet hunts' while actively exploring nature. The comfortable design of the natural playground makes outdoor reading and learning a luxury. *Also, see #4 regarding STEM programming.

11. **If applicable, describe how the school grounds are devoted to environmental education uses:**
    At Prairie Trails School, the building and the surrounding landscape is a living lab to teach environmental education. Our natural playground was built solely out of the earth that was displaced during the renovation project. The equipment on the playground is nearly all made of natural materials. The parking lots are paved with permeable pavers to aid water filtration and cause less water runoff which can cause flooding. Our older students learn about these unique characteristics of the building when they visit on field trips. After learning about the design, they return to class to create their own futuristic, sustainable designs.

C. Community Involvement

12. **Describe how your school promotes student and teacher engagement with the community and civic involvement outside the school? Have there been green themes to their work?**
    The district's commitment to sustainability and protecting the environment is regularly discussed with both students and teachers. The goal is not only to inform them about the district's views in this area but to also educate them

about why it matters and how it applies to their own lives. The hope is that they will use this knowledge to advocate for eco-friendliness when engaging with the community. For teachers and staff, this means routinely emphasizing sustainability in professional development. For students, it means making green issues a part of the curriculum and the day-to-day conversation.

The students at Prairie Trails School are the district's youngest learners and will be most affected by climate change in their lives. The district feels a responsibility for protecting their future by doing its part to protect the environment. An equally important responsibility is instilling a sense of eco-friendliness in these students early in their lives, to create environmentally-healthy habits. At four and five years old, Prairie Trails students might not be heavily involved in the community just yet. However, soon they will be our greatest ambassadors for the promotion of sustainability.

13. **Describe your partnerships to help your school and other schools achieve in the 3 Pillars. Include both the scope and impact of these partnerships:**

River Trails School District 26 received a grant from the Illinois Clean Energy Community Foundation of up to $2,000,000 to renovate a Kindergarten and Preschool Learning Center, Prairie Trails School. This grant was awarded as part of their Net Zero Energy Building program. Net zero energy consumption means the total amount of energy used by the building on an annual basis is equal to or less than the amount of renewable energy created onsite. Board President Frank Fiarito stated, "Empowering students to be stewards to their environment and community is one of our pathways to life-ready students, and what better way to demonstrate this than renovating a building to have net zero energy consumption." The facility's innovative design, in addition to providing net zero energy, has been pre-certified by Passive House Institute US (PHIUS) as a PHUIS+ and PHIUS+ Source Zero project. PHIUS+ is a "high-performance building standard" that challenges the building industry to construct buildings that can maintain a comfortable indoor environment with very low operating energy. Buildings that meet the PHIUS+ standard use 40-60 percent less energy for space conditioning than conventional buildings. Boeman Design LLC served as the Certified Passive House Consultant assisting the team in meeting the PHIUS+ Standard. This energy-efficient building features components and building materials chosen to meet net zero energy building requirements and PHIUS+ standards, including:

- Photovoltaic (solar panels) on the roof
- A new highly efficient electric variable refrigerant flow (VRF) heating and cooling system with heat recovery
- Building automation system to monitor temperature and electrical loads
- Increased insulation values in the walls and roof
- High performing windows
- Energy efficient LED lighting with daylight harvesting
- Educational displays including interactive video learning displays and energy usage

This building is a continuation of River Trails School District 26's leadership and vision of creating environmentally-friendly learning environments. River Trails School District has partnered with the U.S. Dept. of Energy in several programs including: the Better Buildings Challenge Award where our goal to achieve 20% Improvement in Energy Efficiency by 2026 was accomplished in 2015; the Low Carbon Pilot; and the Better Building Climate Challenge to reduce Greenhouse Gas emissions by 50% and Energy Intensity by 30%. Prairie Trails School was awarded the DOE Building Envelope Campaign Retro 50 in 2021 for retrofitting Prairie Trails School and demonstrating a building envelope improvement of 50% over the existing building, due to implementation of building envelope improvements. Prairie Trails School was also awarded the TRANE Reducing the Energy Intensity of the World Award.

This past summer River Trails School District partnered with the Metropolitan Water Reclamation District (MWRD) of Greater Chicago Green Infrastructure on a permeable paver parking lot and rain gardens for the middle school ($650,000 contribution). Three out of four schools now have permeable paver parking lots and rain gardens which improves water quality and relieves storm water runoff.

14. **Describe how your school shares environmental education or sustainability events with other schools or organizations?**

The District in partnership with the architect, FGMArchitects, engineering firm, IMEG, mechanical contractor, Trane, and construction manager, Nicholas & Associates, has made numerous presentations at state and national conferences to educate others on how an old facility can be retrofitted to be sustainable and used as a tool to educate students and the community. Some of these conferences include A4LE (Architects for Learning Environments), Illinois Association of School Business Officials (IASBO), Passive House Institute US (PHIUS), and the American Institute of Architects.

D. Professional Development

15. **In your required staff professional development for all teachers, is sustainability education or environmental education training included? If so, please describe what this entails.**

At Prairie Trails School all staff were trained on the building systems. The green energy goals were shared, and staff were taught how to interact with the sustainability monitoring dashboard. This training was led by our Assistant Superintendent of Business Services, Director of Buildings and Grounds, District Architect, and Representative from Trane Technologies.

16. **What workshops or professional development events have your teachers attended themed around environmental topics?**

All teachers at Prairie Trails have been provided professional development on the Next Generation Science Standards. We have a standards-based learning curriculum, and all learning activities are tied directly to the standards. Our STEAM teacher has attended multiple professional development sessions and is Project Lead the Way certified. Some of our teachers have taken professional development courses on outdoor education and its benefits.

17. **Have your teachers or staff earned any certifications in environmental education? What kind have they earned?**

Our school social worker is a certified nature and forest therapy guide as well as a clinically licensed social worker. Our Buildings and Grounds Director is PHIUS certified. Both the Asst. Supt. for Business Services and Buildings and Grounds Director are leaders on the IASBO sustainability professional development committee.

18. **Have any of your teachers or staff received any awards related to environmental education?**

Our STEAM teacher was brought to Prairie Trails to develop the STEAM and environmental wellness curriculum in 2021-2022. Prior to that, she taught STEAM classes at the Middle School. She was a member of the Green Ribbon application committee at River Trails Middle School in 2015.

19. **Do any of your teachers or staff hold environmental education related volunteer positions or memberships?**

- ☐ Environmental Education Association of Illinois
- ☐ North American Association of Environmental Education
- ☐ Children and Nature Network
- ☐ Northern Illinois Nature Preschool Association
- ☐ Chicago Wilderness
- ☐ Local environmental related clubs

Supporting Materials

ILLINOIS GREEN RIBBON SCHOOLS APPLICATION

Attach a minimum of three photos and a maximum of five photos with your application (photo size limit 5 MB). Please save your photos using descriptive language. For example, "Students conduct water quality tests in outdoor classroom with science majors from nearby university x" would be more helpful than "Photo 1." **Photos should be action shots, not posed.** By sending these photos, you are giving Illinois Green Alliance, the Illinois State Board of Education, and the U.S. Department of Education permission to use them.

Please provide a brief description (300 characters) for each:

Image 1: Kindergarten students at Prairie Trails interact with one of the school's educational displays to learn about how the new and improved heating, air conditioning and ventilation system compares to the old boilers.

Image 2: District administrators and members of the architect team inspect the solar panels and other mechanical systems on the roof of the building which made it Mount Prospect's first net-zero energy facility.

Image 3: Prairie Trails students enjoy their time playing on the school's natural playground that utilizes outdoor landscape and is designed to feature natural elements to promote cognitive, emotional and physical growth while supporting an integrated curriculum.

Image 4: Students from the district's middle school visit Prairie Trails on a field trip to learn about the building's sustainability features and about how they can help make a difference in protecting the environment.

Image 5: Kindergarten teacher Tracy Frew reads to her class after creating a "reading campout" in her room, utilizing the comfortable space and the natural light to engage her students.

Submit Your Application

Applications must be received by 5:00 PM on Monday, January 9, 2023. Applications are being collected by the Illinois Green Alliance on behalf of the Illinois State Board of Education (ISBE). *Applications should be no longer than 18 pages.*

For an application to be considered, it must be **submitted via email** to greenribbon@isbe.net. Submittals via other methods will not be accepted.

Questions? Contact greenribbon@isbe.net.