

# WILBURTON ELEMENTARY SCHOOL

Bellevue School District  
Bellevue, Washington







## SCOPE OF WORK AND BUDGET

OWNER

BELLEVUE SCHOOL DISTRICT

SITE AREA

9 ACRES

BUILDING AREA

83,000 SF

GRADES HOUSED

PK - 5

STUDENT CAPACITY

550

OCCUPANCY DATE

SEPTEMBER 2018

CONSTRUCTION COST

\$44.0 MILLION



## EXECUTIVE SUMMARY

The design for Wilburton Elementary comes from the opportunity to create something new. It is the first school to be added to the Bellevue School District's portfolio since the 1970's. Community partnerships and environmental consciousness bring opportunities to the educational environment that are both forward thinking and experimental in nature. Its goal is to inspire generations.

Community partnerships enhance learning opportunities at Wilburton Elementary. Microsoft adopted Wilburton Elementary as a Showcase School. Curriculum was developed that emphasizes science, technology, engineering, art and math (STEAM). The district and Microsoft created a vision for education at Wilburton that will fundamentally change how the school's students learn. Education is further enhanced through a partnership with the Bellevue Botanical Garden immediately adjacent to the new school.

The site was a beautiful undeveloped greenfield forest in an urban residential area. The building placement and design were influenced by the wetlands, mature trees and views that surround the two-story school. Integrated sustainable features increase energy efficiency and serve as teaching tools. The school district required that this building operate at or below 14 EUI placing this among the most energy efficient schools in the Northwest.

This opportunity to create something new brought about a dramatic new school for the Bellevue School District -- Wilburton Elementary.











We are a Microsoft Showcase School





# SCHOOL AND COMMUNITY ENGAGEMENT

*"Understanding the community is understanding the students who will be attending the school."*

*Beth Hamilton, Principal*

## COMMUNITY & STAKEHOLDERS

The location for Wilburton Elementary is strategic for the Bellevue School District. It relieves overcrowded populations from three other elementary schools in the community and provides new contemporary learning space. Building a new school is an opportunity to partner with local businesses and neighboring organizations. It opens the doors for exciting new ways to provide education. Microsoft, brings world class technology and research. And the Bellevue Botanical Garden offers educational opportunities in experiential learning immediately outside Wilburton Elementary's front door.

## CHALLENGES

Placing a new school within a neighborhood is a disruption that brings a lot of challenges. Neighbors are afraid of new traffic and added population. The design team conducted traffic studies to understand and convey information about where the cars come from and where they go to. The city required that new infrastructure be added, and streets reconfigured. This desire for something new creates challenges that design overcomes.

Designing a brand new school within an established community brings great opportunity to create a system of education that is totally new. Preconceptions about the school and its curriculum do not exist. Staff was chosen as innovators. Primary design goals included technologically rich, personalized learning environments; indoor outdoor spaces, shared learning and teaming spaces; and delivery of an environmentally responsible, energy harvesting, healthy learning environment.

## ASSETS & VALUE

The biggest asset became the partnerships with corporations, neighbors and parents as the school and staff developed a vision for how to start a new school. The Bellevue School District partnered with Microsoft to make Wilburton Elementary a Lighthouse school intended to share innovation with the community and to the world beyond. With Microsoft as a partner the school embraces new technology and integrates it into the STEAM rich guidelines of the Bellevue School District. The Microsoft Education Network brings opportunities to every student to learn with students all over the world as if they are sitting in the chair next to them. Every student is empowered to learn and achieve in every corner of the building.







# EDUCATIONAL ENVIRONMENT

## EDUCATIONAL VISION AND GOALS

The goal is to create an overall community of learning, so that no matter what learning setting you are in, you are learning something new. Each student is provided with their own laptop device which enables them to have the tools necessary in every situation to be successful. Beth Hamilton the principal at Wilburton adds that this also empowers the educators by providing “flexibility to drive innovative, integrated, powerful instruction that attends to each and every child on a personal level.” The focus of this school’s curriculum uses the BSD’s STEAM resources. A Microsoft Showcase School, Wilburton’s educational program seeks to provide students with an immersive and inclusive learning experience that empowers students to achieve more.

## ENVIRONMENTAL SUPPORT OF CURRICULUM

The building is designed so that education can happen everywhere. Wilburton’s small learning communities are organized into groupings of 4 classrooms with shared space and resources. This affords the flexibility for alternate organizational models, and future changes in the educational program and/or grade level configuration. Wireless technology throughout enhances flexibility, and provides both indoor and outdoor technology access. Movable furniture and tack-able surfaces support the reconfiguration of educational space to adapt to multiple programs and group sizes.

Microsoft employs a full time staff member at Wilburton Elementary to provide technological support to the staff and students. This educator facilitates the use of technology tools in the classroom to amplify learning for all students.

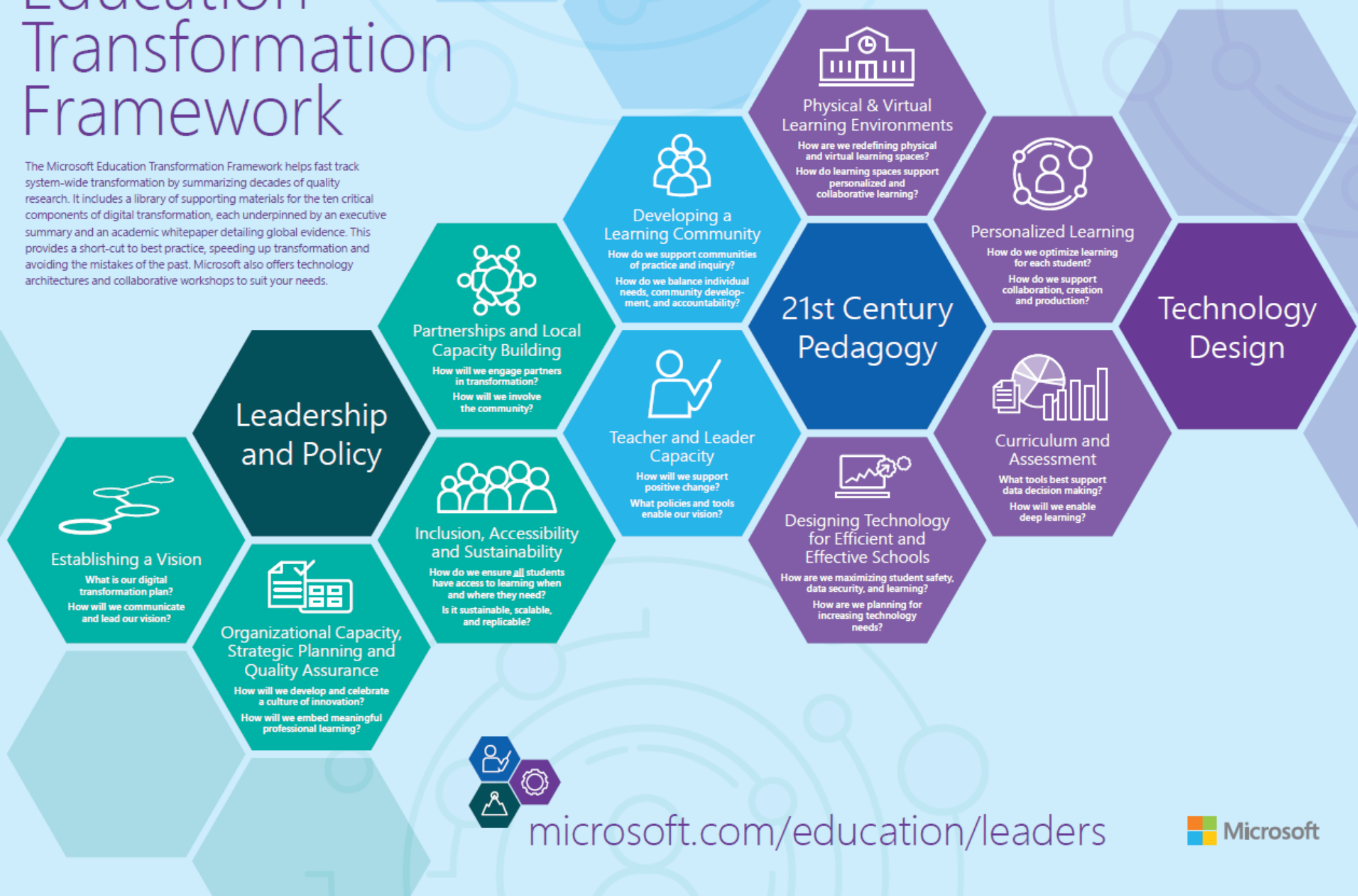
## VARIETY/ADAPTABILITY OF LEARNING AND TEACHING

Outdoor learning is provided near each classroom community providing the ability for students to access nature for projects based learning. The STEM and Art classrooms open directly through operable glass walls to a learning terrace and green roof where outdoor projects bring life to the outdoor space. Experiential learning and indoor/outdoor activities can happen simultaneously. Partnerships with the park across the street bring real world environmental learning to the school allowing on and off site educational experiences to be taught in the natural environment surrounding the school. Intense understandings of environmental stewardship can be studied and understood at the wetlands on site.



# Education Transformation Framework

The Microsoft Education Transformation Framework helps fast track system-wide transformation by summarizing decades of quality research. It includes a library of supporting materials for the ten critical components of digital transformation, each underpinned by an executive summary and an academic whitepaper detailing global evidence. This provides a short-cut to best practice, speeding up transformation and avoiding the mistakes of the past. Microsoft also offers technology architectures and collaborative workshops to suit your needs.



[microsoft.com/education/leaders](https://microsoft.com/education/leaders)

 Microsoft





Group learning is encouraged in the classroom through the use of movable furniture, laptops for each student and mobile teacher instruction.





Shared learning areas are accessible from the classrooms for small group and individual activities, but learning can happen anywhere in the school. The welcoming lobby is set up for community use as well as group instruction with writable walls and comfortable seating.







The library is filled with natural light and has views out to the wetlands and front of the school..





# PHYSICAL ENVIRONMENT

## PHYSICAL ATTRIBUTES

The physical placement of the school was driven by environmental features on the site. Three separate wetlands limited access from the street. Parking and drop off zones required street access. Play fields were arranged for best access from the Gym. Planning for natural lighting, solar orientation and views placed the classrooms on the West with North/South light to reduce glare. Courtyards were added to reduce the mass and bring natural lighting into the center of the school. The design evolved into a compact split level floor plan that steps up the hill with the contours of the site.

Playful elementary colors welcome the students at the waiting shelters. Lighting from above the glass brings colorful light to the ground at night just as the sunshine does during the day. The same colored glass is integrated into courtyard windows bringing playful excitement to the interior space. Classroom groupings are organized by color as well for way-finding and orientation within the building.

## COMMUNITY CONTEXT

Partnerships are the single most contextual piece of the community at Wilburton Elementary. Partnerships with Corporations; partnerships with neighboring organizations; and partnerships with parents. Each of these partnerships help to form the overarching community that enlivens the environment at Wilburton Elementary. Connection to the community is basis for all transfer of knowledge and information.

Corporate partnership with Microsoft brings expansive technological advances to the BSD's STEAM based educational system. Organizational partnerships with the Bellevue Botanical Garden brings opportunities for experiential learning both at the programs put on by the garden and by bringing advanced botanical teaching into the student gardens at the school itself. And partnerships with the parents enables the teachers to understand and learn from the parents how to teach the students in a more effective way for every child's learning style.

## INSPIRES AND MOTIVATES

A monitored dashboard in the lobby allows students to understand how the building operates - Wilburton Elementary School was designed to operate at or below 14 EUI by integrating both active and passive sustainable strategies including:

- Compact floor plan
- 90 kw photo-voltaic array
- Ground source heating system for both heating and cooling
- Solar water heating system
- Accessible green roof
- Wetlands and old growth timber preservation
- High performance building envelope system
- Multiple rain gardens
- Interior daylighting and natural ventilation
- LED lighting and low flow plumbing fixtures
- Daylighting controls and occupancy sensors

A student garden was implemented on site as a teaching tool and integrates a rainwater collection system. Materials with recycled content and low-VOC furniture and finishes were used throughout all interior spaces.





Early site investigations revealed the placement for the school on site to be centrally located. Wetlands on the East and West dictated where the parking areas could be located. Space was reserved at the North end of the site for the play field.

The slope of the site gently rises from the South to the North and in balancing the cut and fill on the site, the building needed to step with the hill. This created a split level school where the Main entry to the south is 6' lower than the play field access on the North.

Classrooms were arranged on the quiet side of the site away from traffic and to take advantage of natural daylighting from the North and South.

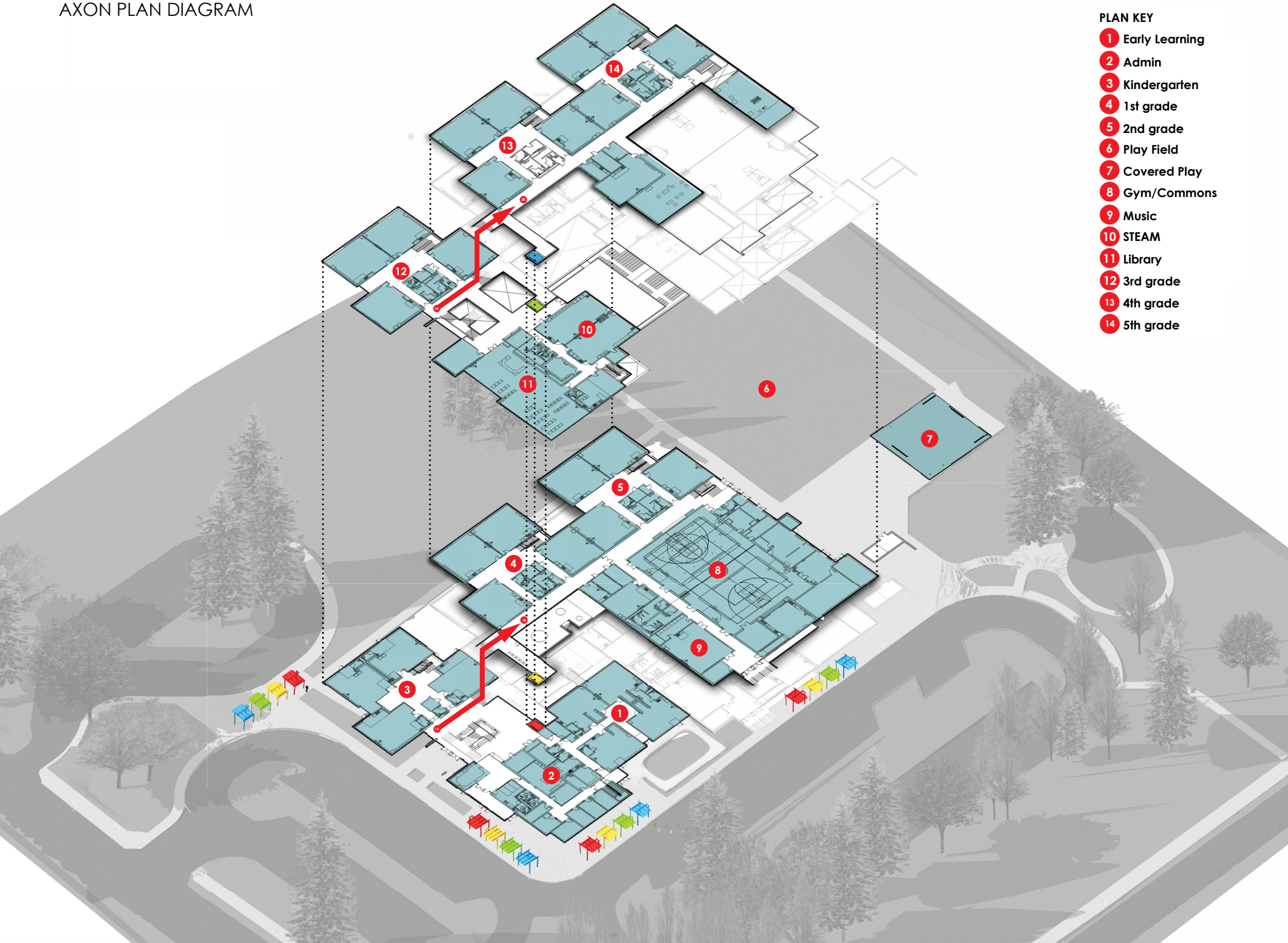




# WILBURTON ELEMENTARY SCHOOL

AXON PLAN DIAGRAM

- PLAN KEY
- 1 Early Learning
  - 2 Admin
  - 3 Kindergarten
  - 4 1st grade
  - 5 2nd grade
  - 6 Play Field
  - 7 Covered Play
  - 8 Gym/Commons
  - 9 Music
  - 10 STEAM
  - 11 Library
  - 12 3rd grade
  - 13 4th grade
  - 14 5th grade







The Art Classroom and Maker Space open onto the learning terrace for indoor / outdoor learning activities through sliding Nana walls





Interior hallways are activated with natural light through colored glass panels..







# RESULTS OF THE PROCESS & PROJECT

For the project, educational vision and goals are achieved by creating an exceptional building with flexible spaces, environmentally sustainable features and a learning environment capable of supporting the goals of the district and the population it serves.

For the School District, the project achieved its goals by meeting the program and not only for the educational spaces but for the environmental and physical maintainability and sustainability the district demanded.

For the Community this project becomes a landmark structure providing space and facilities for educational partnerships with surrounding corporations and organizations. It is designed to be welcoming, secure and nurturing for the community within as well as a source of pride for the community outside its walls.

## WILBURTON ELEMENTARY SCHOOL MISSION:

To serve each and every student academically, socially, and emotionally, through a rigorous and relevant education that is innovative and individualized. As a learning community that values one another's humanity, we provide courageous support for an equitable and exceptional education for all students.





