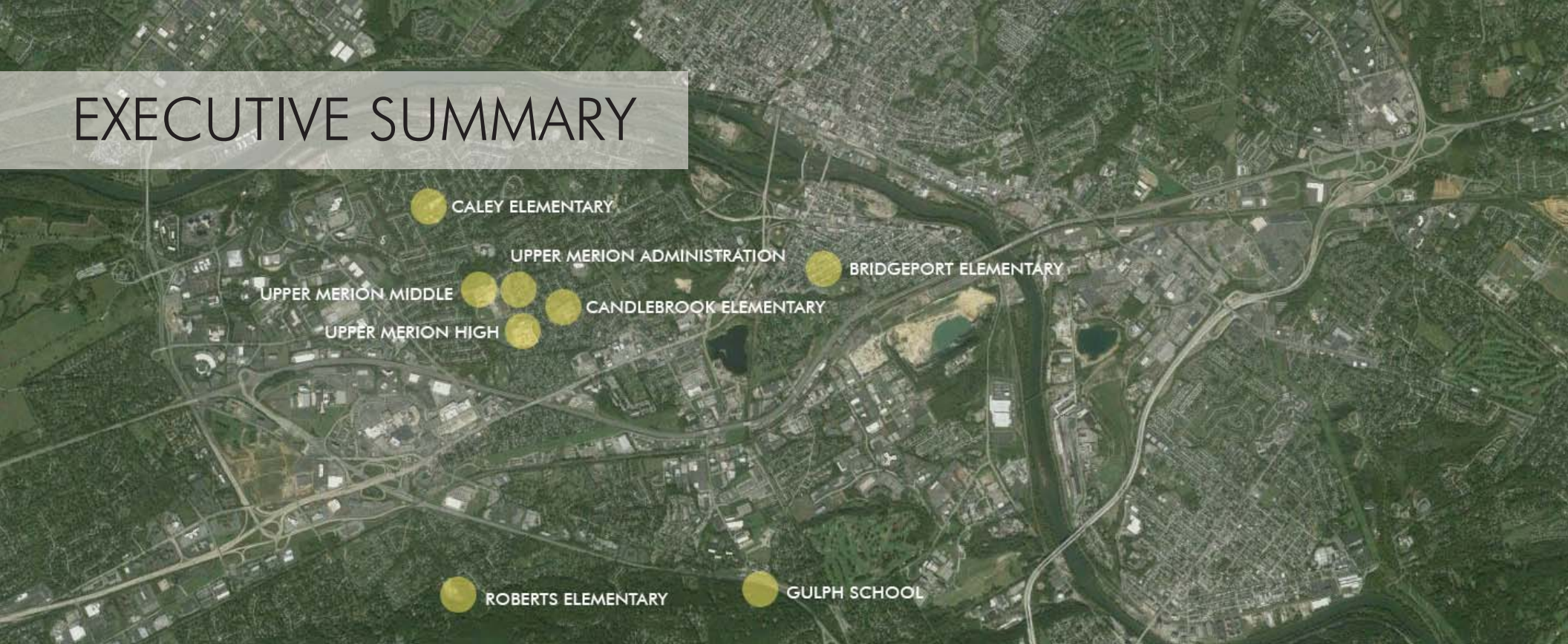




GULPH ELEMENTARY SCHOOL

Upper Merion Area School District, King of Prussia, Pennsylvania

EXECUTIVE SUMMARY



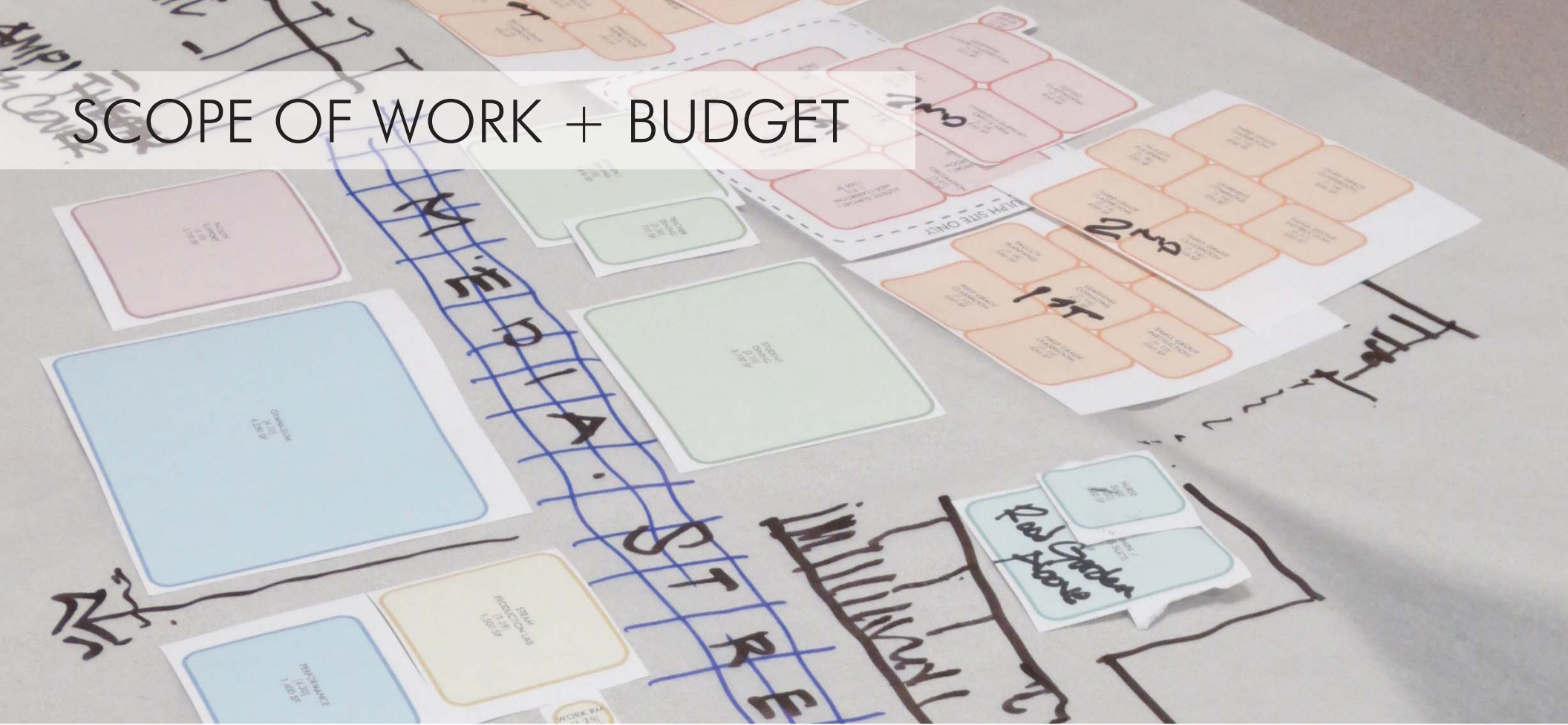
The design team worked with the Upper Merion Area School District to complete a comprehensive District-wide Facilities Feasibility Study aimed at reviewing facilities and education requirements throughout the entire district. The study included an existing conditions survey; cost estimates for upgrades and construction options; and reconstruction and repair recommendations in a priority order established using a logic matrix. The study applied to all facilities within the District, and ultimately resulted in a Facilities Master Plan. Both study and master planning were conducted as a workshop process and included regularly scheduled community meetings over the course of a year.

In the master planning process, it was determined that two new schools were required to replace the existing Caley and Gulph Elementary School facilities, which were originally constructed in the 1960's and no longer accommodated the District's enrollment or educational program.

In response to the District's decision to moving forward with the simultaneous design and construction of the two new schools, the design team developed a series of programming and design workshops that included members from the school community, the community at large and current students to arrive at a prototypical design solution. The resulting school programs for Caley and Gulph encompass 83,279 SF and 95,538 SF respectively and serve 525 students each.

Specific issues of importance addressed in the designs include housing a 1-4 program in one part of the school and a kindergarten program in another; building the 1-4 program around a STEAM curriculum; emphasizing the vitalness of literacy through the centralized placement of the media center; and providing amenities to be available for public use after school hours.

SCOPE OF WORK + BUDGET



The team provided architectural and structural engineering services for a District-wide Facilities Feasibility Study, a Facilities Master Plan, and the design and construction of Gulph Elementary School as well as a sister school, Caley Elementary School.

BUILDING CONSTRUCTION COST	\$ 19,902,144
SITE CONSTRUCTION COST	\$ 7,590,000
TOTAL CONSTRUCTION COST	\$ 27,492,144
TOTAL PROJECT COST	\$ 34,406,000



SCHOOL + COMMUNITY ENGAGEMENT

DESCRIBE THE COMMUNITY

The community in which Gulph Elementary School is located is comprised largely of middle class professionals and is in an area with a massive commercial infrastructure.

IDENTIFY STAKEHOLDERS

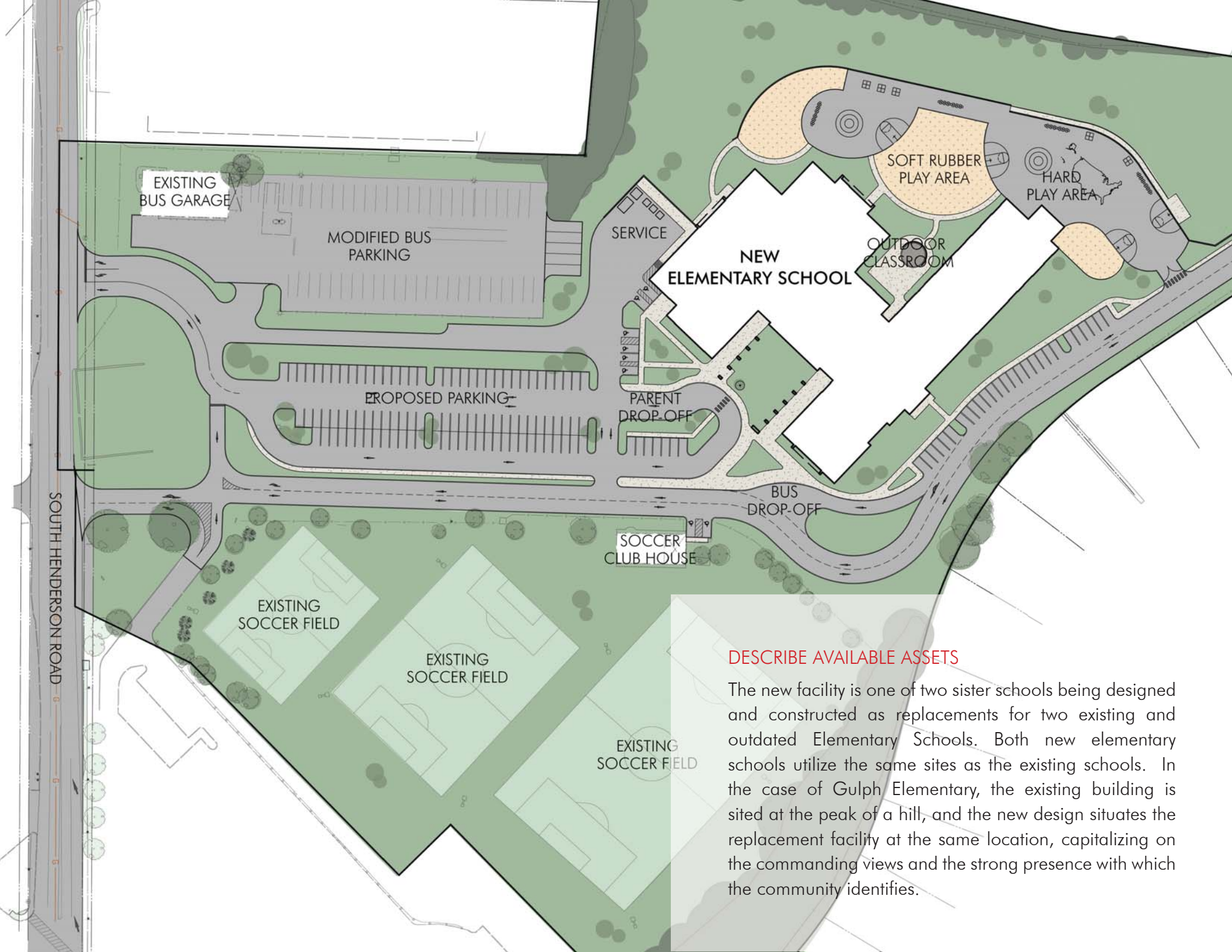
Stakeholders involved in the intensive planning and design process included:

- Members of the community
- Local businesses
- Parents
- Faculty
- Administration
- Students

NAME CHALLENGES

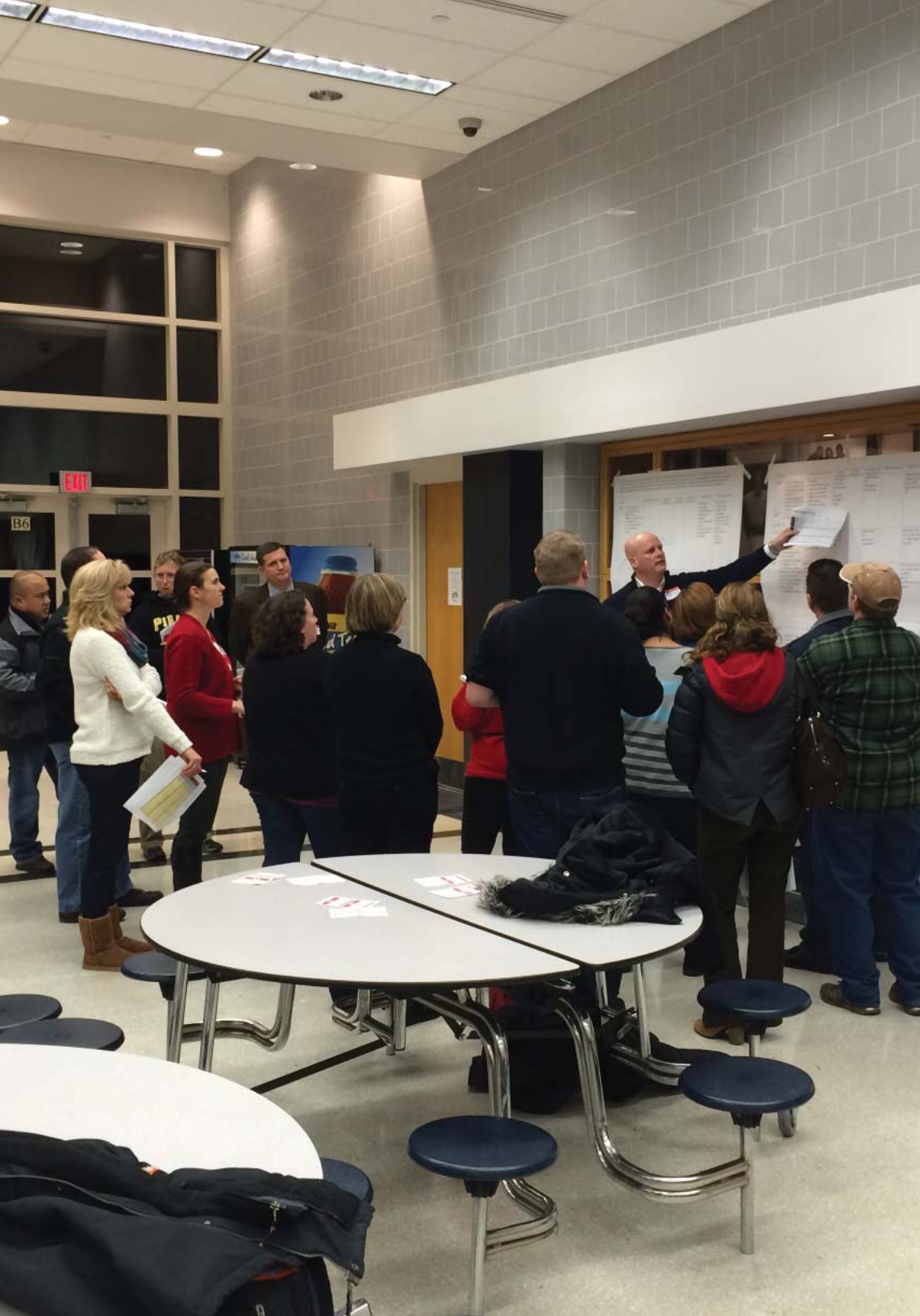
One challenge involved overcoming push back encountered in response to initial enrollment projections provided to the District; however, because the entire planning process occurred over a three-year period, anyone questioning the projections actually witnessed the growth over the duration of this project timeline. Related to site development, some challenges faced included working with an existing cemetery on site as well as the District's bus operations, which needed to maintain function during construction. Additionally, part of the property was leased to a community soccer organization, so the existing soccer fields also needed to be maintained throughout the project.





DESCRIBE AVAILABLE ASSETS

The new facility is one of two sister schools being designed and constructed as replacements for two existing and outdated Elementary Schools. Both new elementary schools utilize the same sites as the existing schools. In the case of Gulph Elementary, the existing building is sited at the peak of a hill, and the new design situates the replacement facility at the same location, capitalizing on the commanding views and the strong presence with which the community identifies.



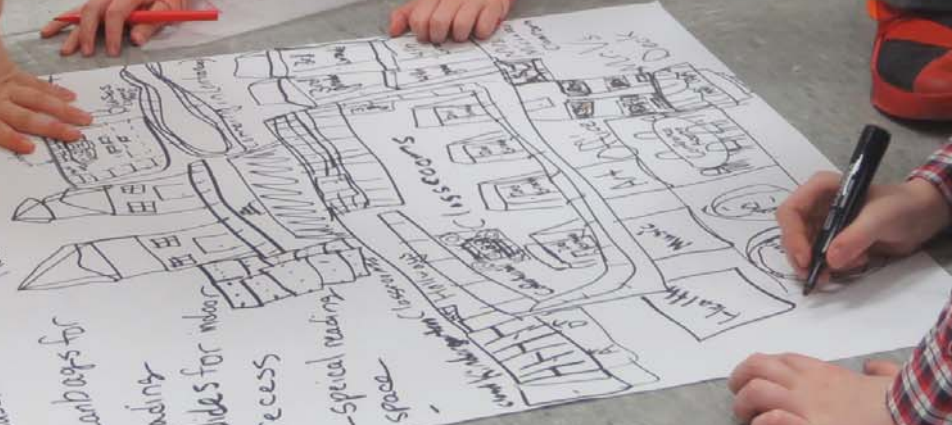
DESCRIBE VALUE OF PROCESS AND PROJECT TO COMMUNITY AT LARGE

Initially, the design team spent a year and a half with the District and community completing a District-wide needs assessment and master planning effort. A workshop-based master planning format was used to progress from identifying needs to finding solutions.

Because the District is very inclusive, a community-based design workshop process was essential to obtaining buy-in from all stakeholders. The process enabled the community at large to be involved in decision-making, which assured that community goals and desires were considered. As a result, specific school amenities will be made available to the public and, additionally, the community's desire to maintain a neighborhood school concept is addressed in the creation of the two, new sister elementary schools.

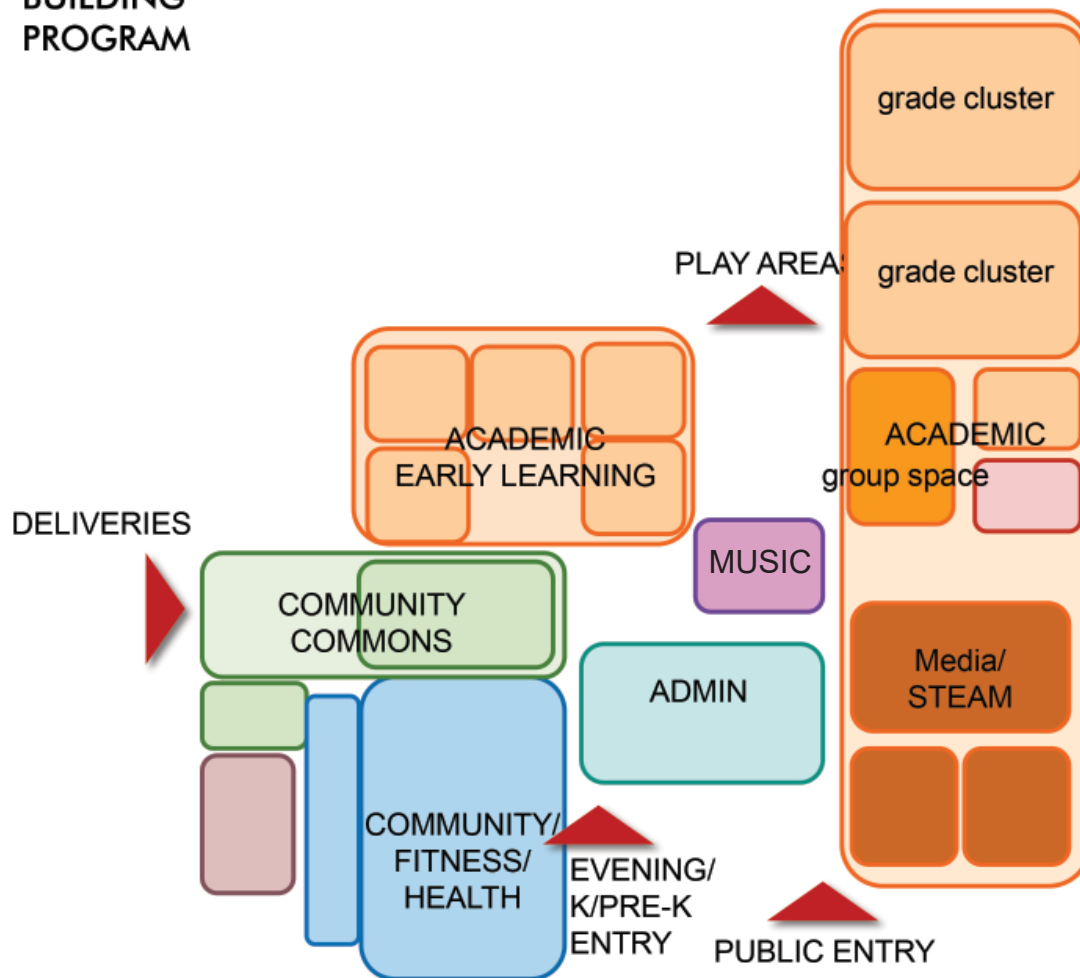


Happy at School
Three
- Our conditioning and papers in
all classrooms
- benches for
reading
- slides for indoor
recess
- special reading
space



EDUCATIONAL ENVIRONMENT

BUILDING PROGRAM



EDUCATIONAL VISION AND GOALS OF THE SCHOOL

The primary driver behind the educational vision and goals of the school included housing a 1–4 program in one part of the school and a kindergarten program in another, with the 1–4 program being built around a STEAM curriculum. The secondary driver involved designing the facility in a way that created spaces that would be available for community use.

HOW THE ENVIRONMENT SUPPORTS THE CURRICULUM

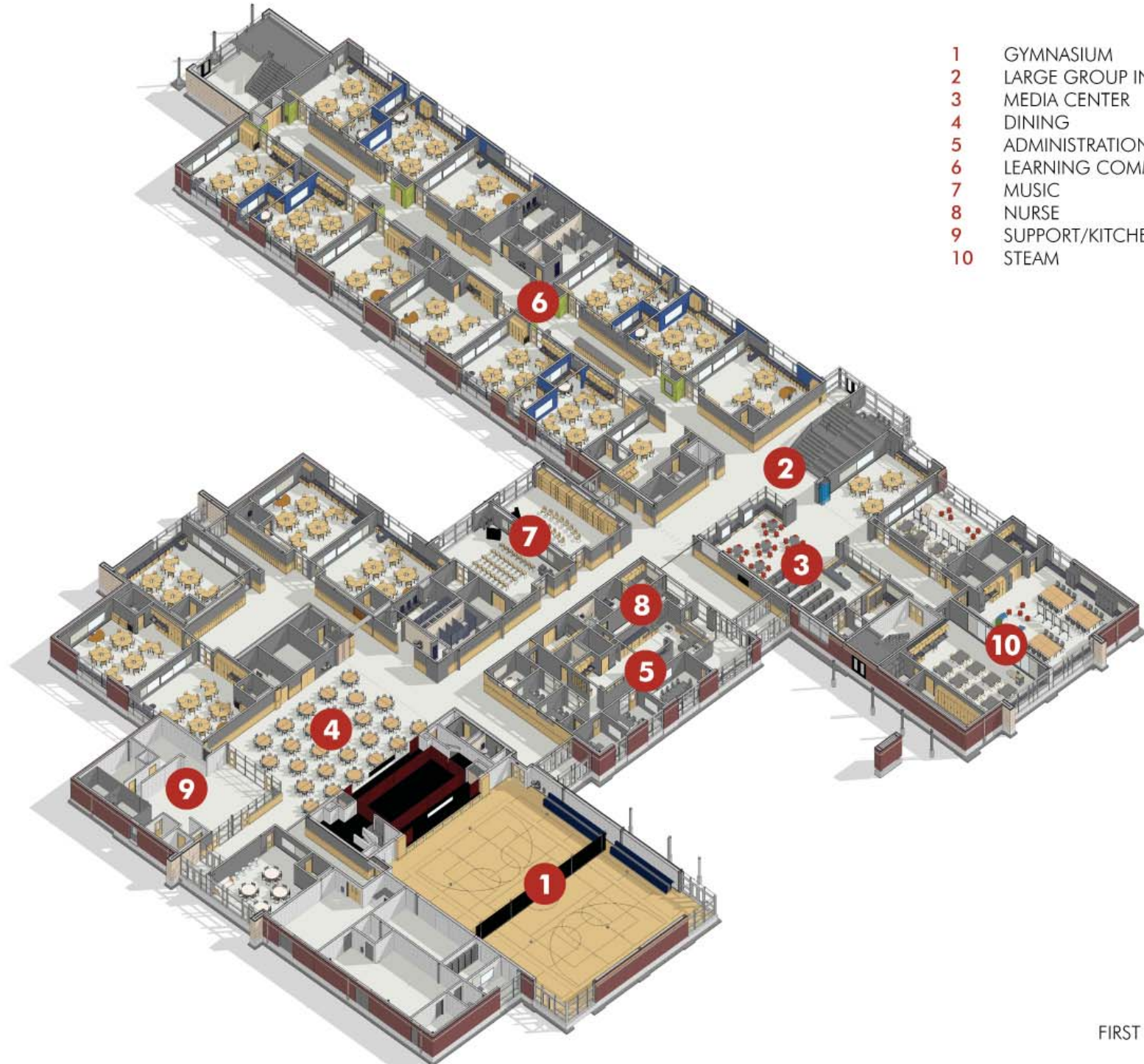
The building is designed so that the 1-4 program is housed in one wing of the building separated from the kindergarten program. The STEAM curriculum for the 1-4 program is supported by placing the media center, maker space, art and music instruction areas, and a “learning stair” intended for large group activities in close proximity to the classrooms.

HOW THE ENVIRONMENT SUPPORTS A VARIETY OF LEARNING AND TEACHING STYLES

The design of the building supports all learning and teaching styles by providing large group areas as well as L-shaped classrooms that provide a traditional learning environment along with small group instruction areas at the rear of each space.

HOW THE ENVIRONMENT IS ADAPTABLE AND FLEXIBLE

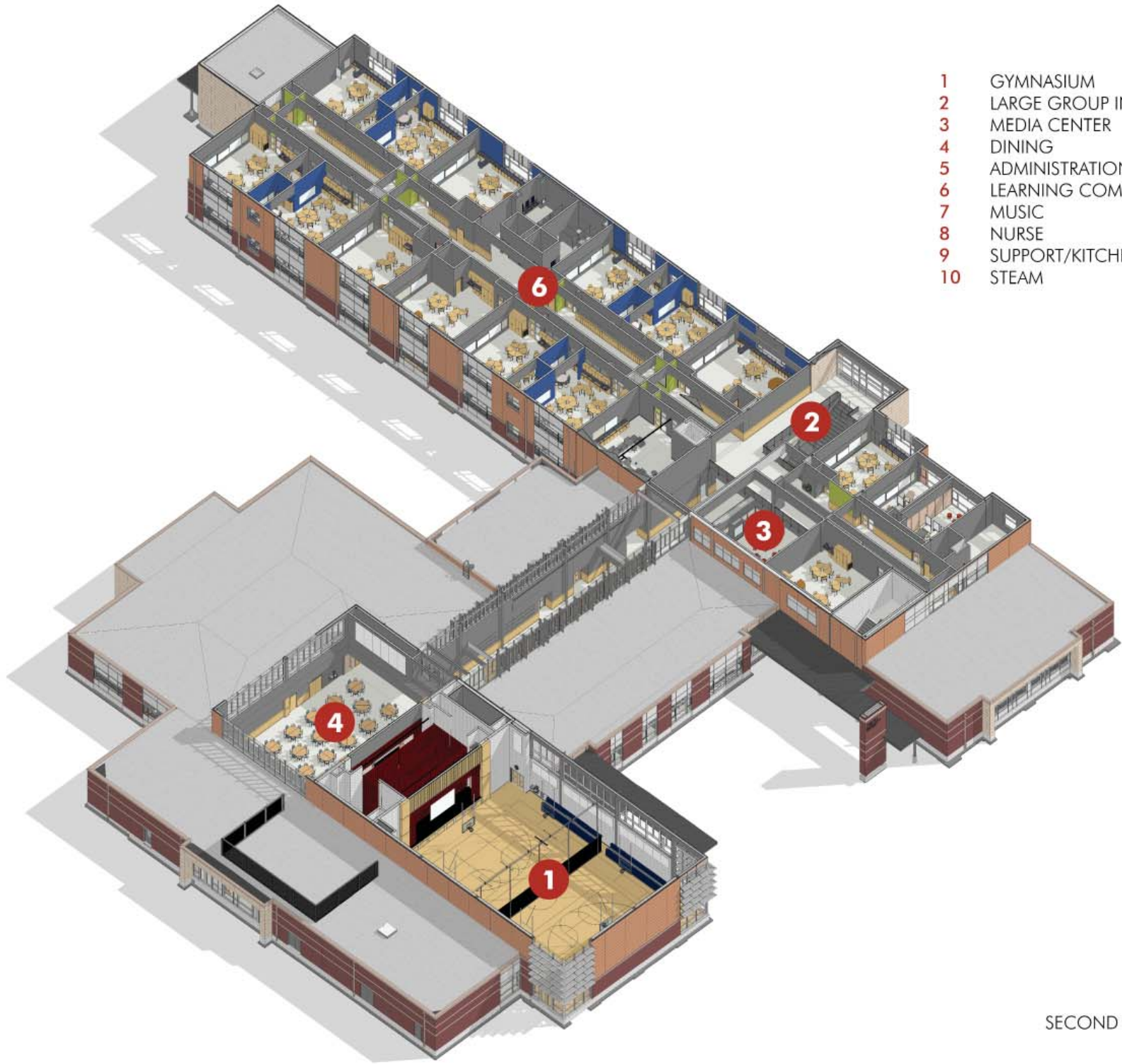
Because the design provides small and large group instruction areas as well as traditional classroom space, there are opportunities to adapt and flex to the needs of a variety of learning and teach styles. Additionally, to address the desire to provide publicly-accessible spaces, a full-size gym, playing fields and play grounds were designed to be available for public use after school hours.



- 1 GYMNASIUM
- 2 LARGE GROUP INSTRUCTION
- 3 MEDIA CENTER
- 4 DINING
- 5 ADMINISTRATION
- 6 LEARNING COMMUNITY
- 7 MUSIC
- 8 NURSE
- 9 SUPPORT/KITCHEN
- 10 STEAM



FIRST FLOOR PLAN



- 1 GYMNASIUM
- 2 LARGE GROUP INSTRUCTION
- 3 MEDIA CENTER
- 4 DINING
- 5 ADMINISTRATION
- 6 LEARNING COMMUNITY
- 7 MUSIC
- 8 NURSE
- 9 SUPPORT/KITCHEN
- 10 STEAM



SECOND FLOOR PLAN

PHYSICAL ENVIRONMENT





PHYSICAL ATTRIBUTES OF THE ENVIRONMENT

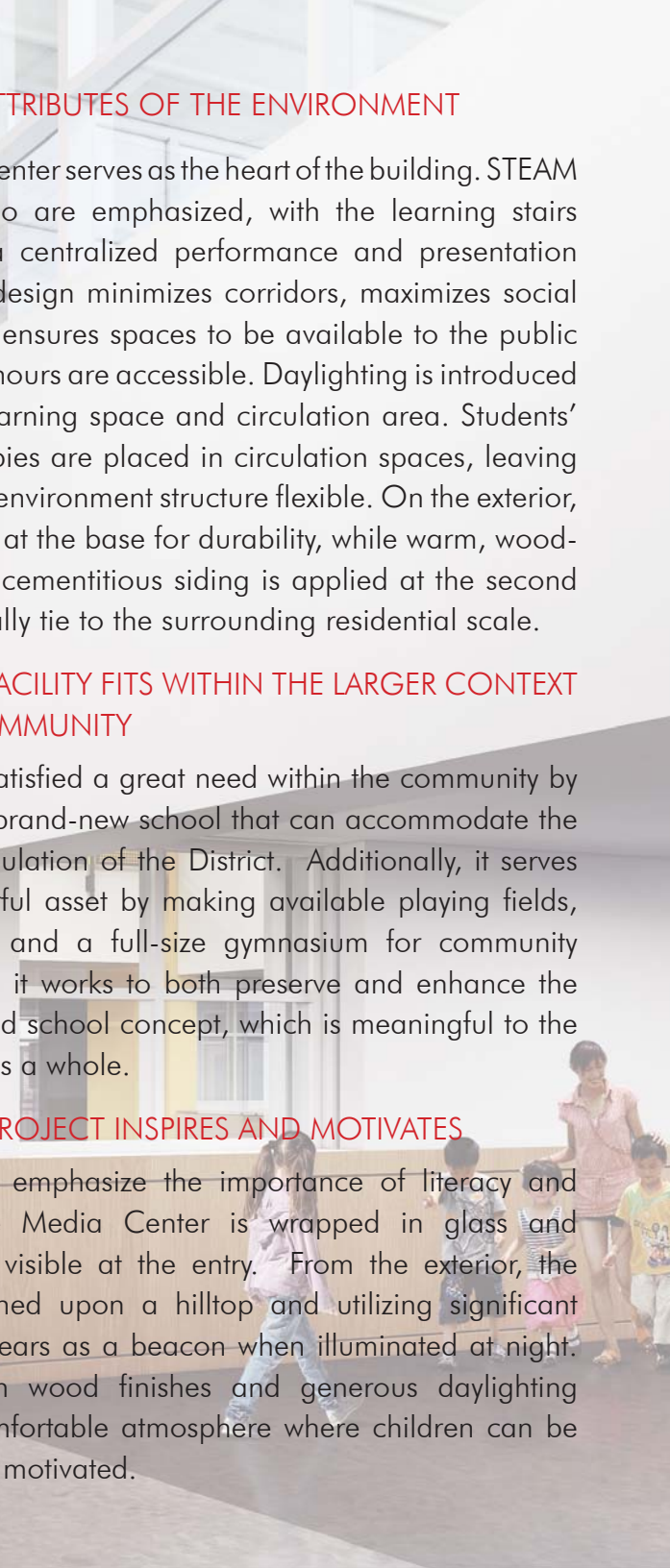
The Media Center serves as the heart of the building. STEAM elements also are emphasized, with the learning stairs providing a centralized performance and presentation space. The design minimizes corridors, maximizes social spaces, and ensures spaces to be available to the public after school hours are accessible. Daylighting is introduced into every learning space and circulation area. Students' storage cubbies are placed in circulation spaces, leaving the learning environment structure flexible. On the exterior, brick is used at the base for durability, while warm, wood-appearance cementitious siding is applied at the second story to visually tie to the surrounding residential scale.

HOW THE FACILITY FITS WITHIN THE LARGER CONTEXT OF THE COMMUNITY

The facility satisfied a great need within the community by providing a brand-new school that can accommodate the growing population of the District. Additionally, it serves as a wonderful asset by making available playing fields, playgrounds and a full-size gymnasium for community use. Finally, it works to both preserve and enhance the neighborhood school concept, which is meaningful to the community as a whole.

HOW THE PROJECT INSPIRES AND MOTIVATES

Intending to emphasize the importance of literacy and reading, the Media Center is wrapped in glass and immediately visible at the entry. From the exterior, the facility, perched upon a hilltop and utilizing significant glazing, appears as a beacon when illuminated at night. Inside, warm wood finishes and generous daylighting create a comfortable atmosphere where children can be inspired and motivated.





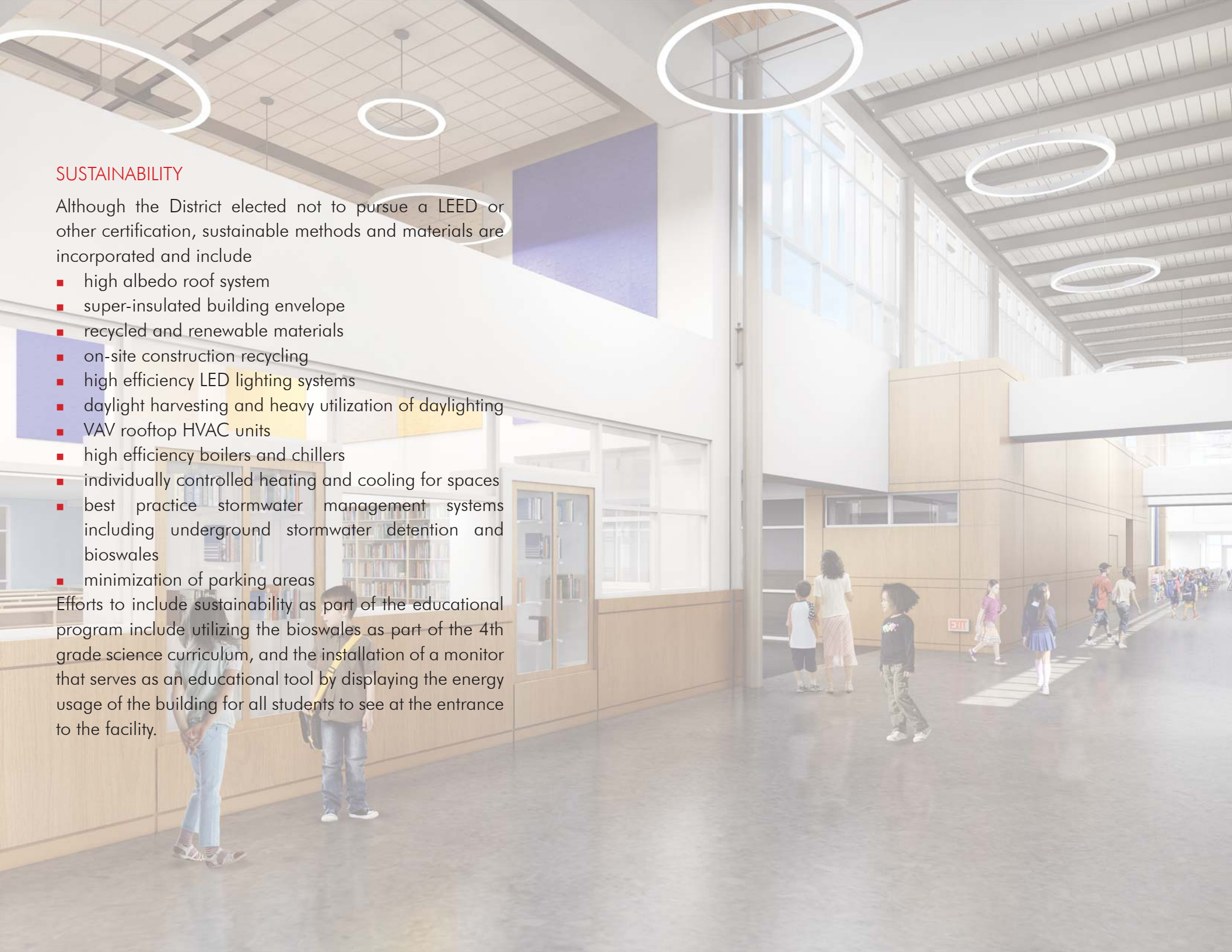
VIEW TO MEDIA CENTER AND LEARNING STAIRS FROM MAIN ENTRY

SUSTAINABILITY

Although the District elected not to pursue a LEED or other certification, sustainable methods and materials are incorporated and include

- high albedo roof system
- super-insulated building envelope
- recycled and renewable materials
- on-site construction recycling
- high efficiency LED lighting systems
- daylight harvesting and heavy utilization of daylighting
- VAV rooftop HVAC units
- high efficiency boilers and chillers
- individually controlled heating and cooling for spaces
- best practice stormwater management systems including underground stormwater detention and bioswales
- minimization of parking areas

Efforts to include sustainability as part of the educational program include utilizing the bioswales as part of the 4th grade science curriculum, and the installation of a monitor that serves as an educational tool by displaying the energy usage of the building for all students to see at the entrance to the facility.





VIEW TOWARDS COMMON SPACES FROM MEDIA CENTER AND LEARNING STAIRS

DINING/COMMON AREA AND STAGE



RESULTS OF THE PROCESS + PROJECT





HOW THE PROJECT ACHIEVES EDUCATIONAL GOALS AND OBJECTIVES

Providing separate space for two programs is successfully achieved through the design of the school by including a classroom wing for grades 1-4 with kindergarten classrooms located in a distinct cluster elsewhere in the facility. Additionally, providing a STEM focus for the 1-4 program also was successfully achieved by orienting the media center, STEM program area with workspaces, art and music instruction areas, and a “learning stair” intended for large group activities, performance, and presentation around the 1-4 classrooms.

HOW THE PROJECT ACHIEVES SCHOOL DISTRICT GOALS

The project came about as the result of a three-year process conducted by the design team with the District. Initially, the design team spent a year and a half with the District and community completing a District-wide needs assessment and master planning effort. A workshop-based master planning format was used to get from identifying needs to achieving solutions. Ultimately, goals identified by the master planning effort included replacing or renovating the existing high school, and meeting the needs of the growing elementary population. Gulph Elementary School, together with a sister school, Caley Elementary, achieves the goal of addressing elementary growth.

HOW THE PROJECT ACHIEVES COMMUNITY GOALS

The project successfully delivers the ability for the community to share and benefit from use of the school’s playing fields, playgrounds and full size gymnasium, and maintains the original neighborhood school concept.