Educators and community members from six districts collaborated to “create a year-round program where urban and suburban students, families and staff join together to explore, create and learn.”

An environment was envisioned where students are immersed in hands-on project learning, provided with means to inform and describe what they learn, and surrounded by presentation venues to develop performance skills.
Educational Specifications / Program Requirements

- Create dynamic spaces that integrate learning about arts and sciences.
  - Arts and science curriculum was critical.
  - Desire for integrated learning experience where arts inform the presentation of science and science influences art.

- Incorporate presentation and performance spaces where learners present what they learn.
  - Create spaces for discovery and presentation (Learn presentation skills and "learn twice" by teaching.)

- Meet the unique needs of middle-level learners.
  - Physically active, dynamic learners with multiple learning styles and types of intelligence.
  - Bodies changing, intellects developing and social awareness being refined. Need nurturing, but also freedom.
  - Personal relationships with peers and adults, especially important at this age, not served well in traditional classrooms.
  - Learning by doing and experiencing places emphasis on hands-on learning.
The Planning Process
Each of the original six participating districts (eleven now participate) was represented with a 25-person design committee that included parents, administrators and board members. Teachers participated as a separate teacher's team. The challenge of combining the ideas and visions of a number of people representing different constituencies was compounded because the school being planned followed no model or predecessors and during most of the planning process had no building site. The result of meeting these challenges is a one-of-a-kind school that meets the precise demands of student and program.

Designing Solutions
Architects began by creating an overall environment informed by analogies suggested by the design committees: an Italian hill town, an arts festival, a house with multiple levels. Combining these analogies, multi-level houses were created around a central core or “heart” that is much like a town square. Multiple levels provide different views and various perspectives on this village. The “heart” provides flexible presentation space for the whole school while housing dining and administration facilities. Arranged around the “heart” are six two-story home bases, each designed to house 100 students. Within each home base a variety of spaces meet the varied needs of middle-level learners in the arts and sciences. Each home base is made up of six groups of 16 individual workstations, each “owned” by a student. A pair of groups shares a common work area. Home bases include a central presentation area, project, seminar and staff rooms. The identity of each home base is created in part by the project rooms, which are accessible to students from other home bases. The project rooms are designed for life skills, big build, green and growing, art and science.

This combination of spaces enables students to work individually, in small groups and in larger groups - meeting the learning and social needs of students in that age between childhood and adolescence. The home bases also enable each student to work with an interdisciplinary team of teachers in more a personal and meaningful way than is permitted in traditional classroom design.

Why the solutions are successful
At all levels, from the arrangement of workstations to their placement around a home base presentation area to the performance space in the “heart,” presentation space plays a central role in the design of the building, just as it did in the design of the program.

Special Site Challenges
Challenged by a site only one-third suitable for building, existing natural habitat and on-site wetlands were incorporated into the school’s program to serve as outdoor learning laboratories. A park filled with old growth oaks to the west and a lake to the north creates a strong natural edge to the site, while a partnership between the school and city seeks to blur the line between the park and school. Ultimately, the site represents a transition from the natural to the “man made”.

Materials
Derived from the nature that infuses this wetland site, the color scheme reflects the rich hues that can be found throughout the seasons. The exterior uses champagne-colored metal panels and jumbo-size brick. The roof is 30% curved metal with the metal panel extending inside. Wheat colored brick encloses the entry vestibule and clear-finished metal panels wrap the heart of the school. In the home bases, exposed wooden beams, metal deck, saturated colors, and an abundance of daylight create a warm, comfortable environment. Natural finished materials are found throughout the school: cork display walls, Tectum sound panels, perforated stainless steel guardrails, and wood windows, doors, handrails and display cases. Earth-toned sheet vinyls cover the floors in main circulation areas, with patterns that accentuate the flow of people through the school.
a. entry court
b. bus drop-off
c. play field
d. outdoor learning platform
e. park trail (future)
FLOOR PLAN LEVEL 1

- entry court
- administration
- dining
- performance
- music
- homebase
- gymnasium
- food service
Performance Heart
FLOOR PLAN LEVEL 2

Cunningham Group Architecture, P.A.
Typical Project Room

Typical Science Lab
Crosswinds East Metro Arts & Science School has received the following awards and recognitions:


American School & University (AS&U) Architectural Portfolio, *Citation Award* (2002)

Learning By Design, *Significant Projects in Progress - Citation* (2002)

American School & University (AS&U) Architectural Portfolio, *Work in Progress - Citation Award* (2001)
Crosswinds East Metro Arts & Science School

Project Team
Owner East Metro Integration District 6067

Architect and
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Structural Engineer Clark Engineering Corporation Minneapolis, Minnesota

Mechanical Engineer Wentz Associates, Inc. Edina, Minnesota

Electrical Engineer Kaeding and Associates, Inc. Edina, Minnesota

General Contractor Adolfson & Peterson Construction Minneapolis, Minnesota

Project Data
Site Development Costs $614,000
Building Costs $15,600,000
Furnishings Costs $1,200,000 (FF&E)
Total Project Costs $17,414,000

Site Area 34.5 Acres
Building Area Approximately 121,000 Square Feet
Completed October 2001