

# Meadow Community School

Mapleton Public Schools | Thornton, Colorado



**RBB** ARCHITECTS

A4LE Peak Design Award

# EXECUTIVE SUMMARY

Built in 1961 and located in the Denver suburb of Thornton, Colorado, the existing Meadow Community School had numerous health, life, and safety issues, while lacking the flexibility to support the school’s educational delivery model. In 2022, Mapleton Public Schools undertook a feasibility and planning exercise to evaluate the conditions of and future for Meadow, with a comprehensive assessment evaluating how a renovation/addition project could allow the building to better support the school’s programming needs. After the Design Team carefully studied various scenarios, including cost and logistical plans for keeping the school operational during construction, it was determined that a more prudent use of the District’s funds could occur through the replacement of the facility instead.

Meadow’s replacement plan relied upon building the new school outside the existing footprint so the school could remain fully operational on its limited 6.1-acre site. The Design Team worked with a Design Advisory Group that met every other week throughout design and gained detailed input from dedicated Educational and Operational Focus Groups. Meadow’s integration of Project Lead the Way (PLTW) curriculum—which was used for grades 6-8 prior to the project—would be expanded into curriculum for grades P-5 and was a key consideration throughout the design process.

The new Meadow Community School is a 65,000-square-foot two-story building that serves 488 students in grades P-8 and opened in 2025. The new facility accommodates a mindset where:

- Learning is personalized and learner-led;
- Students, rather than Teachers, “own” the building;
- Teacher collaboration is supported with resources;
- Team teaching is utilized, with teacher to student ratios of 2:50 (rather than the traditional 1:25 model);
- Rooms are moderately open and highly transparent to foster collaboration.

## SCOPE OF WORK AND BUDGET

- 65,327 SF New Facility
  - CHPS-Verified
  - 6.12 Acre Site
  - 488 Student Capacity
  - Preschool - 8th Grade
  - Design-Build Delivery
- \$30.4 Million Construction Cost
  - Completed August 1, 2025
  - Previously a two-track school, the scope adds three ECE classrooms to accommodate both half-day and full-day preschool. Full-day kindergarten is also offered.

Meadow’s neighborhood commons areas are located within each learning suite and accommodate flexible seating, tackable surfaces, and support the Project Lead the Way Curriculum.



# SCHOOL & COMMUNITY RESEARCH AND ENGAGEMENT

## Overview & Leadership

Mapleton Public Schools is an internationally accredited public school district located in the Thornton/North Denver area of Adams County, Colorado. MPS is committed to raising expectations, providing choices for learning, and removing obstacles for all students to guarantee all students achieve their dreams and enthusiastically contribute to their community, country, and world.

Located in one of the fastest-growing counties in Colorado, Mapleton covers 25 square miles and serves suburban and light industrial communities, with new neighborhoods and developments popping up every year.

Mapleton serves more than 7,000 students in small-by-design brick-and-mortar schools and one 2-12 online school. Each student comes from a unique background with their own set of talents, interests, circumstances, and motivations.

Mapleton offers a robust preschool program with full-day and half-day options for 3-and-4-year-olds, in-person and online learning opportunities for students in grades K-12, and an alternate pathway to high school graduation for young adults up to age 21. The District is led by a Superintendent and Board of Education, which is comprised of five elected community volunteers who represent the community and lead the District.

## District Challenges

MPS faces several major challenges:

### 1. Economically Disadvantaged Population

A central challenge for Mapleton Public Schools is the high proportion of economically disadvantaged students. Between 56% and 74% of students qualify for free or reduced price lunch, depending on the year and reporting methodology, compared with about 45% statewide. Many Mapleton families experience housing insecurity, food insecurity, and inconsistent access to healthcare, which directly affects attendance, concentration, and academic progress.

*The Impact: Schools must dedicate substantial time and resources to basic student needs (meals, clothing, counseling), which reduces flexibility for enrichment, electives, and advanced coursework.*

### 2. Large English Learner Population

Mapleton serves a significantly higher percentage of English Learners (ELs) than most Colorado districts. A large share of students speak Spanish or another language at home, thus schools must provide ELL-certified teachers, translation services, and differentiated instruction while students simultaneously learn academic content.

*The Impact: Balancing language acquisition with grade level academic expectations is resource intensive and can slow overall performance metrics, even when growth is occurring.*

### 3. Academic Achievement Gaps

Statewide, English Language Learners struggle to achieve the same reading and math proficiency scores. This is true in Mapleton as well and because of Mapleton’s high number of ELs, only about 20–23% of elementary students demonstrate reading proficiency, and math proficiency rates are around 11–14%.

*The Impact: Persistent achievement gaps—especially among low income students and English learners—have led to district and school performance ratings that trail state expectations, triggering additional accountability requirements.*

### 4. Staff Recruitment, Retention, and Capacity

Like many districts, it can be difficult to retain experienced teachers with limited funding and rising costs of living. Teachers have higher workloads, fewer resources, and the emotional toll of working with high need populations contributing to turnover.

*The Impact: Staff turnover can disrupt instructional continuity, weaken student relationships, and increase challenges with staff retention.*

### 5. Enrollment Instability and School Restructuring

Mapleton has experienced fluctuating enrollment, driven by declining birth rates, housing changes, and family mobility—all challenges faced across the state. These enrollment shifts impact school consolidations and grade reconfigurations, in some years, which can create uncertainty for families and staff.

*The Impact: Long-term planning and consistent program delivery is more difficult.*

### 6. Limited Funding Relative to Student Needs

Although Mapleton receives state and federal funding tied to poverty and language services, it remains under-resourced relative to the intensity of student needs. State funding formulas do not always account for compounded challenges such as poverty + language acquisition + mobility.

*The Impact: Schools must prioritize essential services, often at the expense of electives, arts, and advanced academic offerings.*

Assets

Despite challenges it faces, Mapleton has maintained numerous assets that supported the design of Meadow:

- **Physical Infrastructure:** Rather than build a replacement school on another site, the school district elected to construct the new Meadow Community School on the same site while the existing building remained operational. This approach utilized existing land and infrastructure already in place to support the project.
- **Economic Support:** MPS has strong community school partnerships and wraparound supports—such as meals, counseling, and family services—for those families in need.
- **Educational Opportunity:** Despite economic challenges in the District, Mapleton has expanded career and technical education pathways, providing additional opportunities for students.
- **Small by Design:** Mapleton’s schools are smaller by design, helping to deliver learning environments that foster a community feel and help provide opportunities that can get lost in larger schools.
- **Stakeholder Engagement:** MPS has maintained a strong focus on equity and inclusivity and has had a highly engaged Design Advisory Group process for all of their recent school construction projects.



*The existing building was aging and had numerous health and life safety issues, as well as an inability to accommodate the current educational delivery models.*

Design Process

Prior to the successful passage of the mill levy, the school district engaged qualified consultants and construction professionals to evaluate several life, health, and safety concerns within the existing facility. As part of this process, the district sought to determine whether renovating the current building would be a viable alternative to full replacement.

Through a comprehensive assessment, the team identified significant limitations related to the building’s existing infrastructure, condition, and overall functionality. The existing building’s deficiencies included:

1. Unsafe vehicular, bus, and pedestrian traffic flow
2. Poor visibility of the main entry to administration and reception area.
3. Poor mechanical systems and the inability to easily renovate the systems to an acceptable level without a significant structural impact.
4. Poor or no insulation at exterior walls. Exterior envelope shows signs of deterioration with the presence of differential settlement, spalling of face brick, and failure of horizontal reinforcing steel.
5. Leaks on roof due to inadequate slope on roofing and compromised roof system.
6. Non-thermally broken windows and doors.
7. Inadequate amount of fixtures to serve the occupant load of the building. Condition of the sanitary line warrants full replacement. Entire building lacks ADA accessible fixtures.
8. Inadequate infrastructure to handle stormwater.

9. Inadequate electrical systems; unsafe and not compliant with current code.
10. Presence of asbestos containing materials.
11. Lack of fire protection.
12. Outdated kitchen systems.
13. Building is not ADA compliant.

Based on these findings, the district concluded that renovation would not provide a long-term, fiscally responsible solution. Instead, constructing a new facility was determined to be the most prudent approach.

To maximize resources and maintain continuity for students and staff, the district elected to build the new school on the same seven-acre site while the existing building remained operational.

Pre-Bond Studies: Site Plan Concepts



Several site configurations were studied during pre-bond project planning. The existing building would remain operational through the duration of construction.



Community meetings gained valuable feedback on what was important to voters and parents.



A pre-bond rendering helped community members envision the future of their neighborhood school.

Guiding Principles

The building should embrace:

- Spaces that empower students to develop their talents and pursue their interests.
- Small, safe, family-like environments of unwavering support where relationships ensure personal achievement.
- Less is more: substance over frills.
- Personalization: what does it mean to have a science and nature theme?
- Democratic and equitable spaces.

Philosophically, MCS is an environment where:

- Everyone deserves an unlimited opportunity to maximize their unique abilities.
  - People thrive in a caring environment.
  - Resources are dedicated to teaching and learning.
- Contributing to the greater good is the responsibility of every individual.

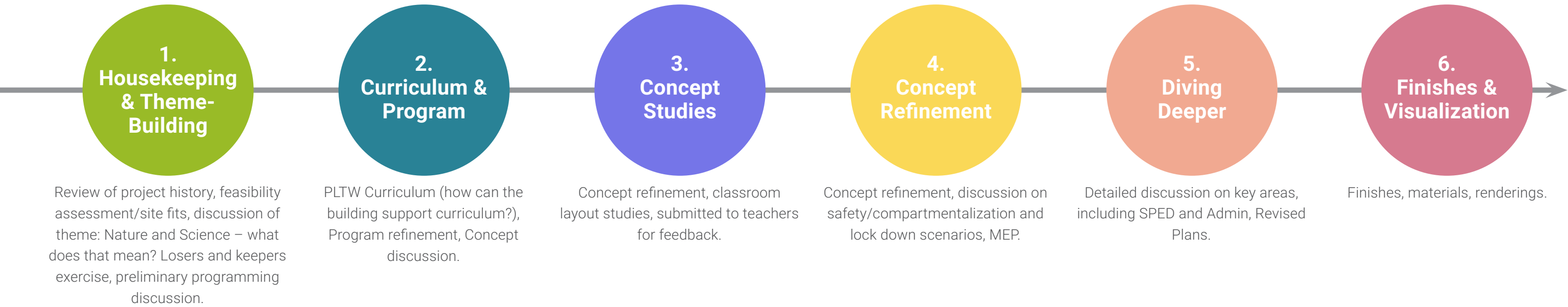
Stakeholder Engagement

The design reflects the District’s values and mission statement by being student-centric. Every design meeting began with a recap of the prior meeting, outcomes, and an illustration of the work/refinements that happened after the meeting.

Six (6) DAG Meetings were held over a 10-week period.



The design team presented conceptual options throughout the design process, then took feedback and returned to each Design Advisory Group meeting with refined options.



Building Tours

Building tours of similar schools outside the district allowed the design team and district stakeholders to develop a common language and experience around pros and cons of design strategies. Tours and debriefs of MPS’s existing P-8 schools helped identify lessons learned and refinements/redirections that were desired from previous designs.

Visioning: How Students Experience Their Environment

Drawing parallels between a meadow ecosystem and the school environment at the new Meadow Community School, a symbiotic relationship was explored between nature and education. Nestled in a neighborhood that was once a meadow, the school pays homage to its natural surroundings and thrives as a dynamic ecosystem. The school caters to a diverse range of individuals. Its sustenance comes from a supportive community that values the continuous growth, exploration, discovery, and well-being of its unique learners.

The vision for the school was that its design would reflect the interplay of science and art: creating a healthy and thriving ecosystem using brain healthy principles and aesthetics. Figurative connections to connection were explored:

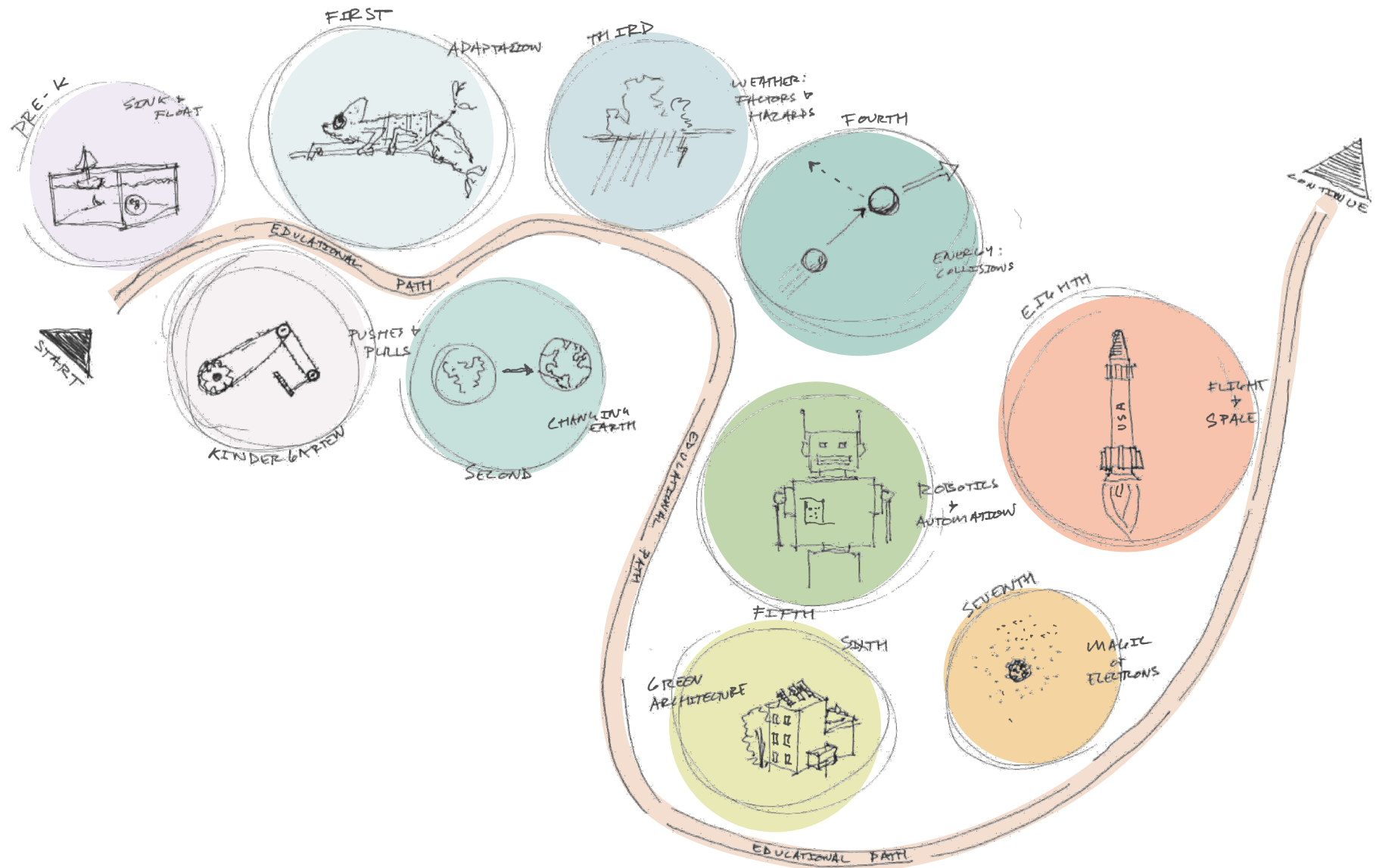
- Community gathering spaces are delineated by nature-like areas;
- Stone-like pathways meander through the building;
- Bursts of wildflower colors aid wayfinding.

All of these design elements are interwoven to focus on how each student relates to their school in ways that are unique to their own learning experience. Designing in a human-aware framework ensures that the educational experience will not only be academically enriching but also promotes the well-being of its students and staff while meeting each child where they are..



Science & Nature Theme

Mapleton develops a thematic vision for each of their schools. For Meadow, it was determined the school would have a Science and Nature theme.



Above, the diagram looks at ways to theme or identify each grade level with a Science or Nature concept that will grow in complexity as the kids get older.

At left, an image of mountains and meadows reflects the Science and Nature Theme, giving inspiration to the evolving color and finishes palette.

Helping Students Engage with their Environment

The relationship between an environment and a person is critical to how one experiences a space. We call these affordances, or, a design feature that helps people think, learn, understand and know about something. In building design, affordances can be paired with cues (or ‘nudges’) that can invite or suggest a particular use or interaction from an occupant—the purpose is to communicate intent and possibility. A school ecosystem that balances the art and science of being human provides physical affordances which support the whole student and staff. At Meadow, the design team identified the following as being instrumental in the project vision.



SOCIAL CONNECTION

Human beings are inherently social creatures and have a biological need for interpersonal connections. These connections are particularly crucial during childhood and adolescence, significantly influencing health and academic outcomes.



EXPLORATION + IDEATION

We need environments from which we can draw inspiration, feel safe to daydream, form meaningful introspective connections, and support our betterment. When we are inspired and have the space to wander, the brain will start forming new neural networks and connecting different concepts—serving as a pillar for self-discovery, creativity, and innovation.



FOCUS

Being able to focus and attune our attention is essential for deep learning and executing higher cognitive tasks, which requires relative control over our environment. Spaces that are quiet vs. active, bright vs. dim all lend to better types of learning activities. The ability to control and transform spaces into flexible, agency-focused spaces with low visual noise provide optimal conditions for the brain to effectively attend to a task.



COLLABORATION

Spatial artifacts signal different behaviors. Environments that are supplied with the necessary equipment, materials, and space support the flow of ideas and co-creation. Engaging with others offers cognitive diversity, exposing our brains to new perspectives, ideas, and problem-solving approaches thus encouraging flexible thinking and creativity. Collaborating with others stimulates the release of neurotransmitters, which play a critical role in mood regulation, reward, and social bonding, and contribute to a positive mental state.



REST + RELAXATION

Rest and relaxation constitute pivotal elements in our overall well-being and development. Offering sufficient environments conducive to rest and relaxation not only facilitates advanced learning and problem-solving but also mitigates stress and improves emotional and behavioral regulation. These environments foster restoration, promoting attention renewal and bolstering the ability for sustained focus.



MOVEMENT

Physical activity promotes many physical, mental and social benefits and new research suggests that people accrue health benefits with even small amounts of low intensity physical activity. Incorporating active design strategies into Meadow helps to support movement, physical activity and exercise.

Conceptual rendering of the first floor project-based classroom



Features Where Meadow Students Experience their Environment

SCHOOL NUCLEUS  
*Integrating Community*



The media center is also the gathering spot where students can co-mingle with peers of different ages and with staff. The area signals social interaction with flexibility to also collaborate, rest and restore, and to present work.

MEANINGFUL SELECTIONS  
*To create a sense of place & belonging*



The intentional use of neutral and nature-based materials, along with a curated color palette, serves the purpose of establishing a strong sense of belonging and identity within the school branding. Incorporating nature-based finishes not only enhances the aesthetics but also provides physiological benefits, fostering creativity and aiding in attention restoration.



ACTIVATING NATURE  
*Signaling multi-faceted and sensorial experiences*



Using bricks from the old building, the greenhouse is an active space for spontaneous interactions, allows for a moment of reprieve, and can aid creative thinking—inviting the mind to wander as it creates a sense of safety.

PUBLISHING HOUSE JEWEL BOX  
*Age-Appropriate Challenges*



The Publishing House is visible from the main hub of the school, the Media Center below, allowing for transparency and goal-oriented challenge for younger students.





**SOOTHING SPACES**  
*Sunlight-Infused Rhythms*



Maximizing natural light can positively impact mood and attune to circadian rhythms. Balancing light throughout space and allowing the area to change with the passing of time. Operable windows allow for passive cooling, fresh air exchange, and environmental comfort based on choice.



**INTENTIONAL IN-BETWEEN SPACES**  
*To enhance place-based experiences*



Welcoming curves amble through the entire building and into the outdoor courtyards allowing for spontaneous interactions, places of respite, and small group collaboration



**VARIETY OF OPEN SPACE**  
*For physical movement*



Opportunities to choose physical movement that feels good for a variety of bodies and abilities aids in emotional-regulation, stress relief, cognitive agility, & overall health. Signals to use the body are intentionally designed in open spaces and in dedicated spaces.



**EARLY CHILDHOOD SPACES**  
*Embracing Development & Wonder*



Creating a variety of spaces for exploring, climbing, and observation using whimsical elements encourages appropriate risk-taking and social activity.

# PHYSICAL ENVIRONMENT (25 POINTS)

## Integrating with the Community

Meadow’s existing building and site meant that the facility serves an existing population within an established neighborhood. Because the school serves an existing population, the design team proposed options with parts of the building figuratively ‘reaching out into the community’. The site is surrounded by the neighborhood on all sides; as such, it begins to act as a neighborhood hub or gathering area. The site has a park/plaza effect with a well-landscaped detention pond, and benches and rocks that circle the perimeter, creating a perfect park-like setting to draw neighbors together after school-hours. The grounds are open and welcoming while integrating discrete measures of security.

## Building Siting

Meadow’s final building siting and design is a response to three key parameters and constraints:

### 1. Siting to Accommodate Existing

**School:** As the existing building must remain operational throughout the construction of the replacement school, the building is therefore situated on the east side of the site. It is elongated on the north-south axis running parallel to Cypress.

**2. Science & Nature Theme:** The school district’s intent is that the school have a science and nature theme. The building form creates elongated green courtyards which give the sense of the landscape extending into the building’s common spaces. The essence of the building mass is an interplay of ‘solid’ and ‘void’ - tectonic masses that intersect open volumes filled with natural light and large glass apertures outdoors.

**3. Classroom Orientation:** Most classrooms in the 1-8 classroom wing as well as the ECE and K classroom wing are oriented with a northern or southern exposure for even, consistent daylighting.

## Site Plan

The design of the Meadow Community replacement school stretches along the north-south axis, following Cypress Drive. There are three primary advantages provided by extending the school along the site’s north-south axis.

- First, the configuration of the school avoids the footprint of the existing building, allowing it to be constructed without a significant operational disruption to the school schedule.
- Second, the building frames and maximizes the amount of available green space along Monroe Street.
- Third, the north-south axis allows the educational wings to take advantage of favorable daylighting conditions offered by a north-south orientation.

The building form connects to the school’s theme of science and nature by extending the green corridors between the distinct masses of the building, enhancing the connection of the classrooms to nature and providing opportunities for outdoor learning. The site design addresses the current safety issues by providing a dedicated parent drop-off lane as well as a separated bus and service drive. An entry plaza and secured entry vestibule on the south side of the building along East 91st provides the administrative offices with visual control over the street as well as the parking and drop off lane.



The site plan worked around the existing building while gracefully connecting to the surrounding neighborhood.

Orientation

Orientation of the building is key for keeping the open space and play areas as a shared community asset.

Site and Playgrounds

- Landscape improvements support the school’s Nature and Science focus.
- Parent drop-off and pick-up areas are located in the south parking lot while the bus loop is located on the north end of the site.
- An outdoor classroom includes tiered boulder surfacing.
- The outdoor project area is a multi-purpose patio tucked into the east side of the building to support greenhouse, art room, and other adjacent interior spaces. Movable furniture allows for flexibility.
- An open grass play area is located to the west.
- Playgrounds feature a natural-play focus centered on inclusivity and accessibility. A large playground accommodates grades 1-8 and is separate from the early childhood playground. Hard surface play areas are also included.
- Retaining walls support the site detention needs.
- Landscaping is designed for comfort, safety, heat island reduction, and visibility. Xeriscape principles are incorporated. Site maintenance considerations were thought of throughout.
- The Community Garden provides a shared educational and community resource with garden plots open to the community. The Community Gardens are sited for neighborhood access and include raised beds, a perimeter fence, tool storage shed and hose bib.



ECE has its own playground and landscaping uses natural elements



Playgrounds for grades 1-8 include soft and hard surfaces

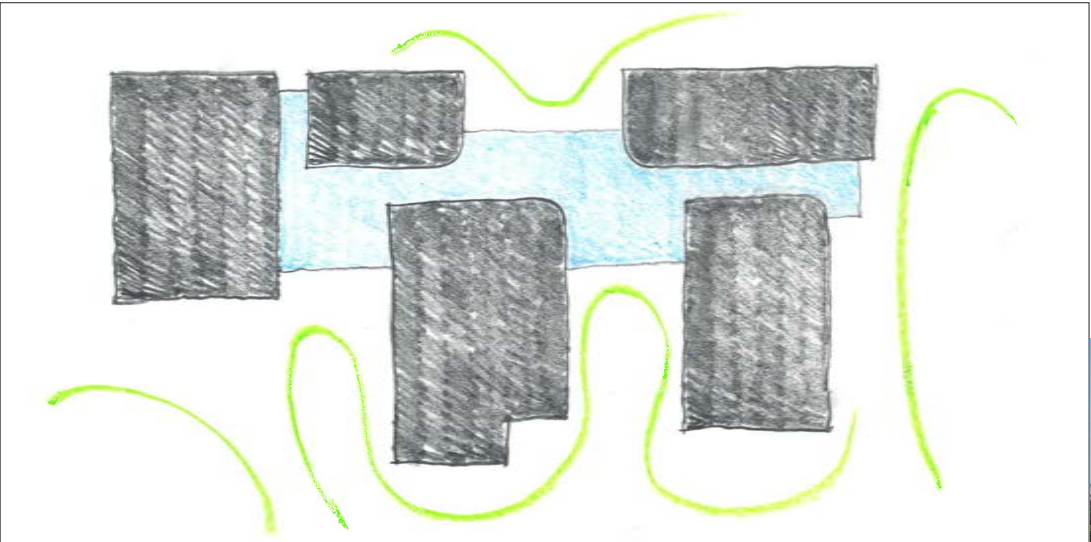


Tiered boulder seating in the outdoor classroom

Form and Massing

The building itself has a strong combination of building massing and void. The cubes have tectonic mass that anchors the space visually from interior to exterior, as well as strong visual language and a visually consistent method of wayfinding because it's organized simply.

An early massing sketch illustrates the form and void relationship with integrated pathways of nature at the new campus.



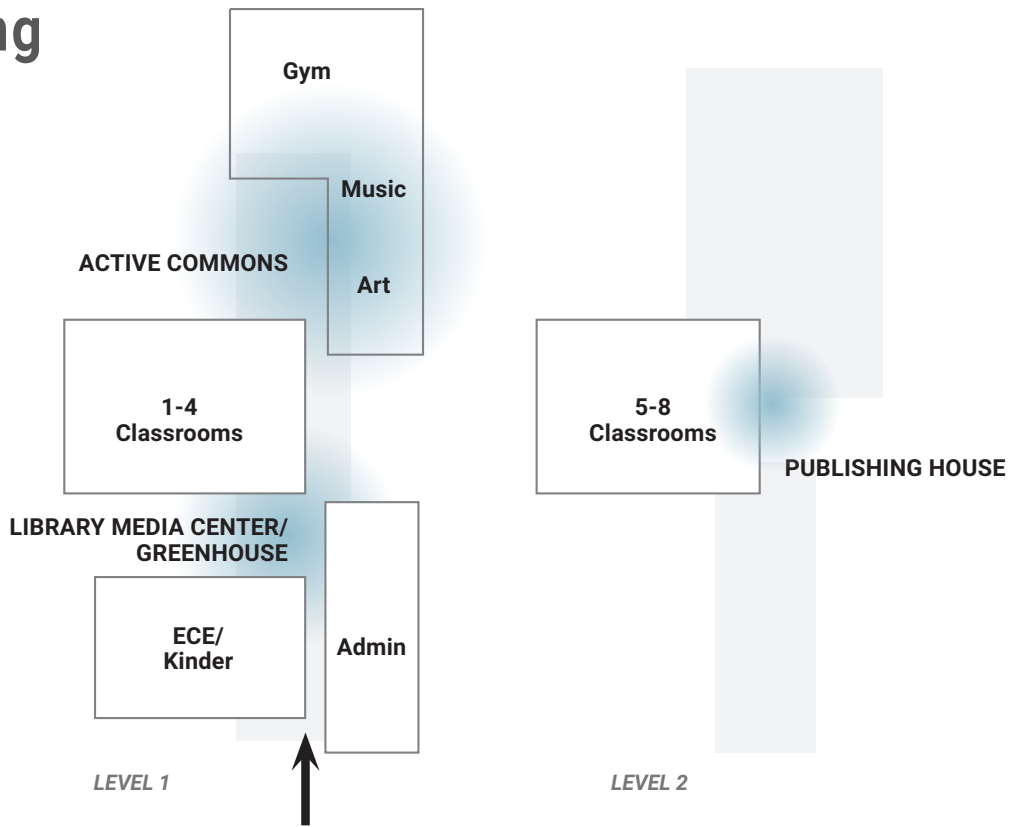
An aerial view of Meadow's campus



# Common Areas as the Heart of the Building

Two primary areas on the main level serve as central gathering spaces for students at Meadow. The heart of the building’s learning and educational immersion revolves around the Library Media Center/Greenhouse while the Art/Music/Dining Commons serve as a hub for activity and socialization throughout the day.

The second level includes a commons space for older students.



## Plan Organization

- A few ideals informed the organization of the building:
- Some separation between the elementary and middle grades.
  - Middle grade classrooms have a distinctively different feel than the younger grades and special areas unique for the older grades.
  - The building ‘grows up’ with the kids as they grow up. Spaces are unique and flexible to support each stage of life/growth from preschool through 8th.
  - The library is open, free-flowing, and accessible.
  - Smaller teacher workrooms are dispersed throughout the building rather than one large workroom.
  - Building can partition off at gym/music/art wing.
  - Commons areas are located in each suite. K-4 commons used more for small group learning and para work, 5-8 more for presentations and implementation of the PLTW curriculum.



Floor Plans



Meadow Publishing House

The library features an elevated space where students can read the books they ‘publish’ to their classmates. This shares a visual adjacency with the ‘Meadow Publishing House,’ thereby communicating and elevating the process of drafting, editing, and production to the final presented product.

Daylighting & Materials

Natural light fills the space, provided by the presence of clerestories and windows on three sides of the space.

Greenhouse

A greenhouse sits at the heart of the school. This space serves as a flexible destination classroom space where students can gather to plant seeds and watch their seedlings grow throughout the semester. This space is anticipated to accommodate a range of educational activities that may be messier in nature—hard surface flooring and a continuous trench drain is provided for ease of cleanliness and maintenance.

Broadcasting Center

A broadcasting center is immediately adjacent to the LMC that can be used for daily student announcements. It is equipped with a green screen for video recording projects.

Community Reach

The community reach area supports the community liaison and serves as a space for conversation and connection with families.



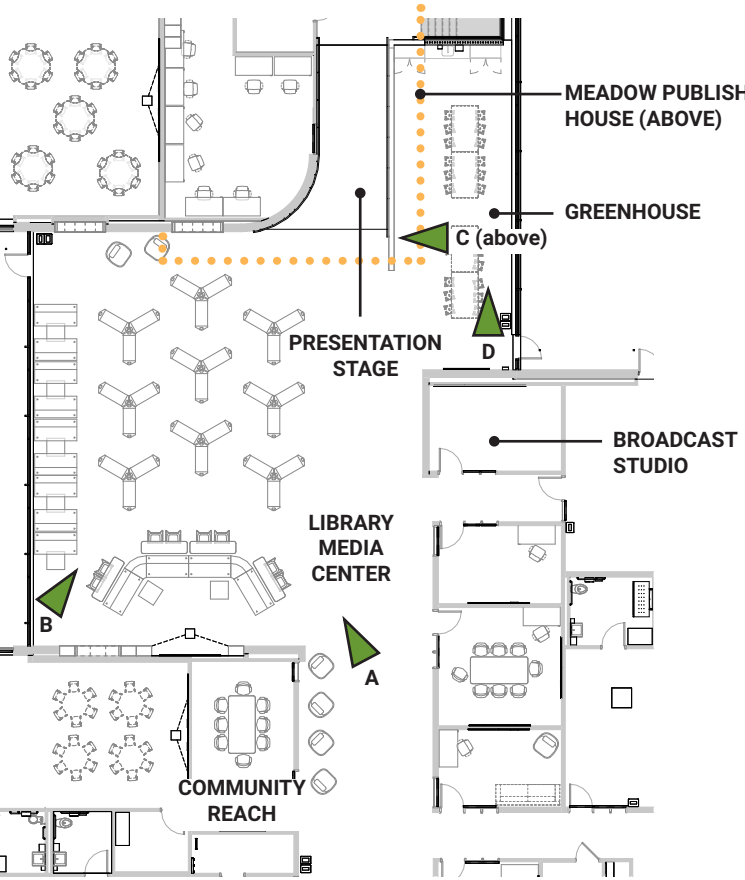
The Media Center has varied seating and flexible furnishings to modify configurations (B)



Meadow Publishing House (second floor), overlooking media center (C)



Greenhouse (D)



At left: the library media center is a vibrant community space serving as the heart of Meadow (A)



# Art/Music/Commons

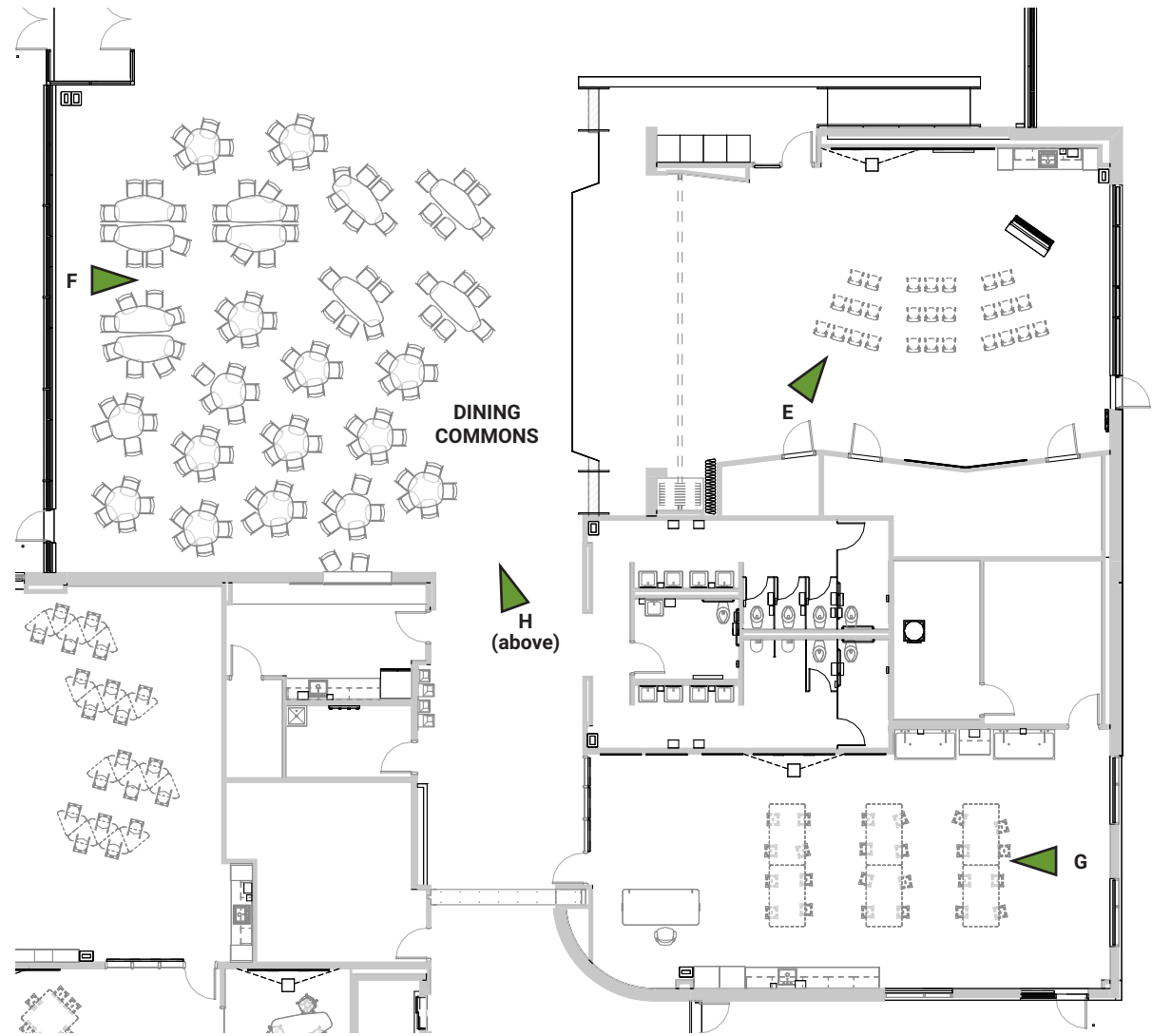
The Music Room accommodates various configurations and has an operable wall to the stage/dining commons. (E)



View from the second floor over the dining commons. (H)



The Dining Commons opens to the stage and is a hub for activity. (F)



The Art Room is functional and flexible. (G)

# EDUCATIONAL ENVIRONMENT

The educational environment supports the Project Lead the Way Curriculum and offers a variety of options for students to exercise choice and agency throughout their day.

## Project Lead The Way (PLTW)

At the time of the project’s design, Meadow was transitioning to PLTW curriculum, which is a discovery-based learning model with an emphasis on presenting to showcase knowledge. Some considerations regarding PLTW:

- “Problem-based” curriculum rather than “Project-based”: students are the problem solvers and need space for problem-solving and discovery rather than being ‘shown’ what they need to learn.
- Curriculum will change over time, teachers won’t be trained in all of the projects and projects will change from year to year.
- Goal is to engage, discover, and research the answers.
- Students present what they have learned in this curriculum. Display space for showing what the kids are learning is also important.

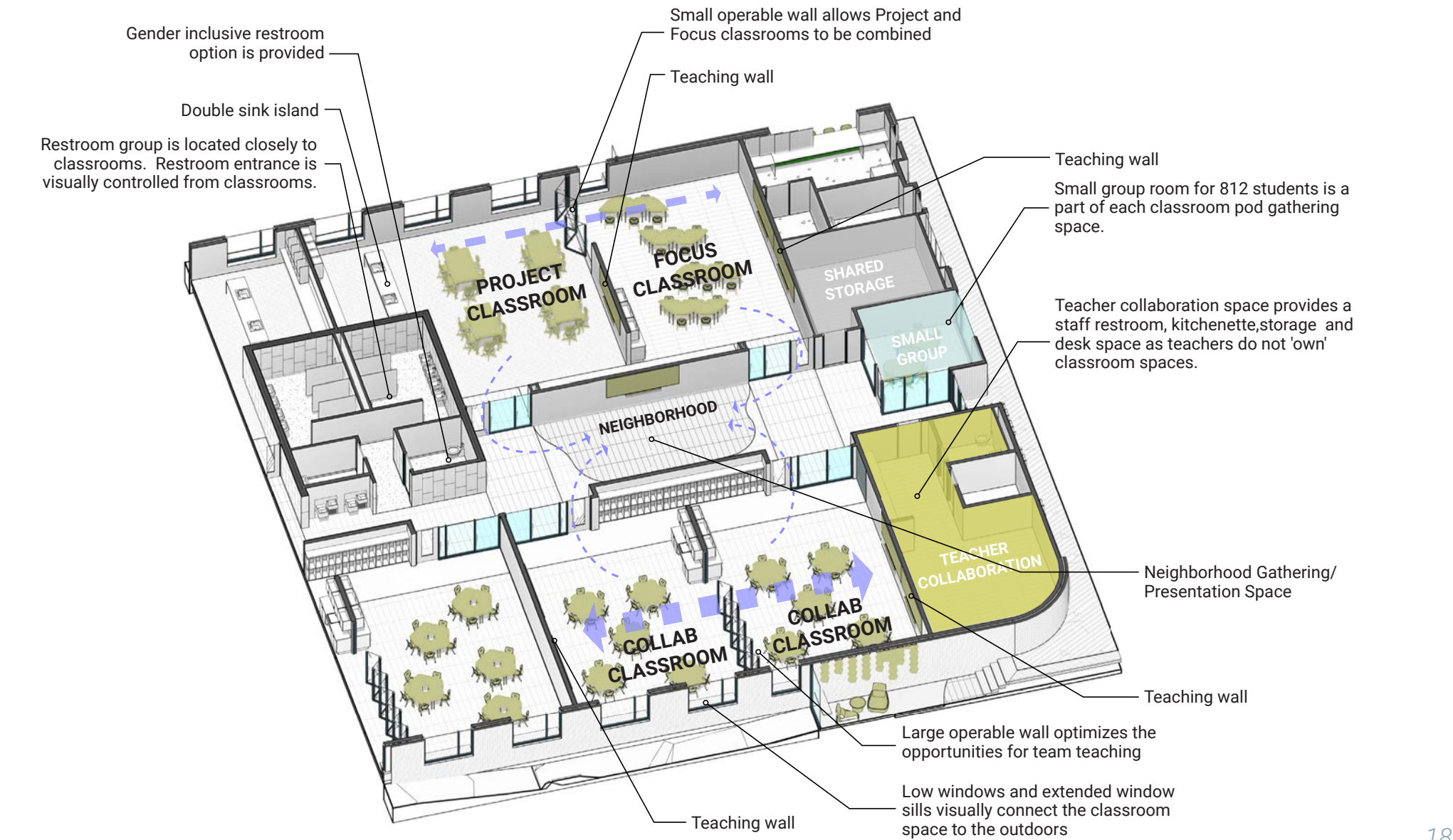
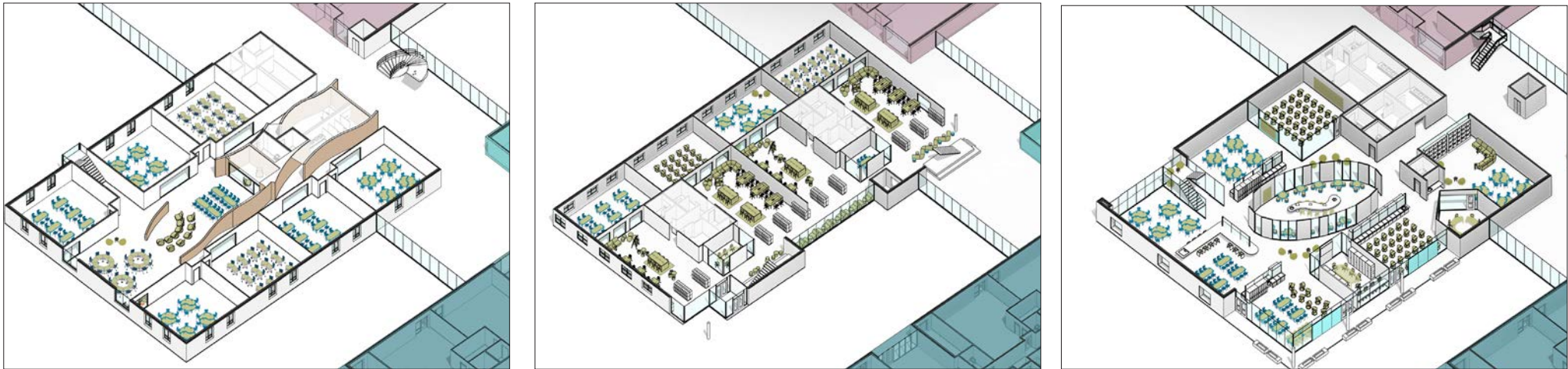
In response to the curriculum and the school’s desired flexibility, various configurations for each learning suite were explored.

Presentation spaces were incorporated into each learning suite. Grades 7 and 8 include teacher rooms for core subject. Rooms have various finishes geared towards project-based activity vs. traditional teaching.

Various learning styles are accommodated, including focused learning, direct instruction, project/group learning, and presentation.

Presentation space is included in each pod as well as small group rooms. Nature and science are illustrated throughout.

Various configurations were explored for the learning suites.



Images at right, from top to bottom: (1) Project classroom with operable partition looking into focus classroom. (2) Small group area looking out over demo area of existing building. (3) Neighborhood presentation space with tackable wall surfaces.



'Neighborhood' common area within the learning suite



## Innovative Spaces & Interesting Features

Innovative spaces include the:

- Community garden
- Publishing House, which overlooks the media center that is adjacent to the English classrooms.
- Video production room
- SPED with (pull-out services), including an Intensive Learning Center and room for Moderate needs
- ELL - English Language Learning room and Speech Therapist
- Sensory experiences are incorporated within the design of the whole school including patterns in carpet for kids to hop and textural tile
- Two teacher collaboration rooms (one per floor).
- Greenhouse so kids can watch plants grow and chicks hatch. Various spaces for wet and dry activity are provided.
- The detention pond becomes a natural experiment to showcase natural grasses. This design took something utilitarian and make into an educational experience.

*Clockwise from top right: (1) exterior with detention pond and retaining wall, (2) interior corridor leading to the ECE with sensory experience incorporated into the carpet, (3) exterior aerial view of natural detention area and landscape.*



# Results

## Achieving Educational Goals & Objectives

One of the biggest impacts Meadow’s new design has delivered is flexibility. The new, modern Meadow is designed with adaptable classrooms, movable walls, and shared learning spaces. This makes it easier to support different teaching styles—like small-group instruction, project-based learning, or interdisciplinary work—rather than being locked into a one-size-fits-all classroom model.

Student engagement and well-being are also improved in the newer spaces of Meadow. Natural lighting, better ventilation, and thoughtful design (like quieter acoustics and comfortable common areas) help students focus and feel more connected to their environment. Research consistently shows that these environmental factors influence attendance, behavior, and academic performance, and we are seeing some of those outcomes.

Safety is another area where new construction aligns with school goals. Meadow includes secure entrances, clear sightlines, and emergency response features that help it to maintain a safe learning environment—something that’s foundational to its educational mission.

## Achieving Community & District Goals

Meadow has also strengthened community connections. The new cafeteria/commons area has already been used quite frequently for community gatherings for both school-related events and outside community activities. The new layout and available spaces have also allowed Mapleton to move in a new before and after school program to support the surrounding community.

## Value & Stewardship of District Resources

The pre-bond process for determining if Meadow’s existing school should be renovated or replaced spent significant time determining the most prudent use of the District’s resources. Estimates for addressing the deleterious conditions of the existing facility and bringing the facility into compliance with current codes were developed. Based on the cost of renovation versus the estimated cost of a full building replacement, the school district made the decision to replace the school to make better use of its community dollars.

In addition, Meadow, being a new building, will assist Mapleton in the hiring process and the enrollment process. The District has seen an increase in students choosing Meadow as their preferred school. The new pre-school wing has also helped Mapleton to build early childhood programming for the building and to serve the community appropriately.

*The new site design provides safer vehicular/pedestrian circulation and abundant play opportunities for students.*



# Sustainability & Wellness Outcomes

## Technical Aspects—CHPS-Verified Leader

Prior to the project and based upon need, Meadow Community School was partially funded by a grant through Colorado’s Building Excellent Schools Today (BEST) program. Part of the contingency of the grant is a requirement that the project achieve a High Performance Certification through a third-party program. To comply with this requirement, this campus project pursued the Collaboration for High Performance Schools (CHPS) Verified Leader certification. At completion of construction and through the final CHPS submittal process, Meadow achieved status as a CHPS-Verified Leader under CHPS version 2.0.

The CHPS scorecard evaluates projects in seven key areas: Integration, Indoor Environmental Quality, Energy, Water Efficiency, Sites, Materials & Waste Management, and Operations & Metrics. Meadow achieved roughly two-thirds of the possible points, with commitment from the School District supporting the pursuit of these credits during the project’s integrated design process as well as its post-occupancy operations and metrics.

A focus on indoor air quality helps to create this exceptional space for students to learn. Particular attention was paid to maximizing ventilation, minimizing off-gassing, using low-emitting materials, as well as maximizing views to the outdoors and daylighting. The building is designed to be energy and water efficient and earned over 80% of the available points in the sites category.

The following technical strategies helped Meadow to meet the district’s goals and CHPS Verification.

- Integrated Design Workshops held with all project teams
- Central Educational Display
- Enhanced IAQ—HVAC design meets ASHRAE 62.1
- Interior applied paints and coatings meet SCAQMD Rule 1113 VOC limits
- Flooring systems are emissions tested in compliance with CDPH Standard Method v1.1-2010
- Composite wood meets CARB Level 2 requirements
- Design meets Glare Protection requirements as shown through calculations or daylight modeling
- Design meets Acoustical Performance requirements for reverberation time, sound transmission, HVAC background noise, and exterior source background noise
- Energy efficient design—meets ASHRAE 90.1-2016 or other listed compliance options
- Commissioning of electrical, plumbing, and mechanical systems occurred
- Water use was reduced, both indoor and outdoor
- Phase 1 and/or Phase 2 Environmental Site Assessments
- Recycling collection points throughout the building
- Facility staff training
- Teacher and administrative staff training
- Adoption of benchmarking policy to track and share energy performance
- Energy and GHG performance benchmarking
- Construction waste diversion, school garden, enhanced classroom acoustics



Flexible spaces are designed throughout Meadow.



Exterior courtyards provide areas for students and staff to safely enjoy the outdoors.

# Human-Scale Aspects of the Design

Meadow integrates human-centric aspects of wellness throughout the building.

**Daylighting:** Abundant daylighting and windows connecting views to the outdoors enliven learning spaces and connect kids to nature throughout the building.

**Thermal Comfort:** The mechanical system was basic but efficient, including an enhanced filtration MERV13 system and packaged RTUs.

**Indoor Air Quality:** Low-emitting materials were used throughout, improving indoor air quality. Building went through an additional flush, further reducing VOCs.

**Neuro-Centric Design:** Choice and agency are provided throughout. Attention was paid to transitions, creating fun and vibrant environments and patterns throughout flooring materials, and providing varied furnishings for student choice.

**Integrating Nature:** A core theme in the design was integrating the natural world. Wood materials provide warmth indoors. Patterns in the facade create interesting indoor shadows as the sun moves throughout the day. An exterior courtyard provides a presentation space as well as a protected outdoor learning area. The greenhouse supports project-based learning while bringing nature inside. Patterns found in the outdoor world are brought to the interior.

**Flexibility:** Spaces of varied size and function allow flexibility in teaching and learning styles.



The science classroom for grades 7-8 is situated on the second floor with transparent views to areas below.



A view into the greenhouse and the library media center beyond. Meadow is a vibrant hub for activity.