

Rock Ridge High School

Virginia, Minnesota





Executive Summary

Located in the heart of Minnesota's Iron Range, Rock Ridge High School creates a progressive learning environment that emphasizes 21st-century skills like collaboration and critical thinking, aims for a global education benchmark, and introduces career-oriented pathways. The project's innovative design is a result of an extensive community engagement and visioning process.

The consolidation of formerly-rival school districts Virginia and Eveleth-Gilbert into Rock Ridge Public Schools in 2020 was a reflection of their commitment to enhancing the quality of education in northern Minnesota. With a shared vision to provide students with an exceptional educational experience, these two communities collaborated extensively. Workshops with students, staff, and stakeholders created a collaborative design process, ensuring the school met the community's educational and cultural aspirations.

Rock Ridge High School features multi-level learning neighborhoods, flexible and collaborative spaces, and a deep connection to the natural surroundings. The multi-story Innovation Commons connects all three levels, fostering an open and dynamic atmosphere with visibility to specialized programs and furniture promoting gathering and collaboration. Sustainability is foundational to the design, with energy conservation measures ensuring comfort in extreme weather conditions with minimal environmental impact.

The school champions equitable opportunities by supporting all career paths, not just college readiness. Specialized spaces allow students to explore a wide range of trades and skills relevant to the Iron Range. Inclusive facilities, such as single-occupancy restrooms, promote equity and a sense of belonging. The school's flexible learning spaces adapt to evolving curricular needs, promoting hands-on learning experiences and real-world connections.

Investments from local businesses support educational opportunities, state-of-the-art equipment, athletic facilities, and a performing arts center, making the school a focal point and source of pride for the community. The design also preserves the surrounding natural environment, with less than one acre of wetlands disturbed and minimal impact on the site's rock outcroppings and tree canopies.

Rock Ridge High School is a symbol of unity and pride, and stands as a community-wide commitment to educational excellence. By embodying sustainability and inclusivity, the school creates a progressive learning environment that prepares students for the challenges and opportunities of the future.

Scope of Work and Budget

Architecture, Interior Design, Landscape Architecture, Planning, Programming, FF&E

Integrated design for a new facility that features multi-level learning neighborhoods, adaptable and collaborative spaces, state-of-the-art career and technical education labs, outdoor classrooms, and extensive community amenities including gyms, athletic fields, a stadium, community pool and fitness center, and a performing arts center.

Total Project Budget: \$113 Million



School & Community Research and Engagement

CONTEXT

Rock Ridge Public Schools encompasses the close-knit communities of Virginia, Eveleth, and Gilbert, which meant the project had a large stakeholder group, including district leaders, educators, students, parents, local business owners, and community members. Key challenges faced included bridging the historical rivalry between the Virginia and Eveleth-Gilbert districts, accommodating a wide range of educational needs, and managing the project within budget. Despite these challenges, the community brought considerable assets to the table, such as a strong commitment to educational excellence, local businesses willing to invest in the future, and a beautiful natural environment that was integrated into the school's design.

PROCESS

The visioning process for Rock Ridge High School was highly-inclusive and community-centered. To begin, district leaders and community members toured exemplary schools across the country to gather inspiration and best practices. The extensive community engagement that followed included workshops and listening sessions with students, staff, and residents—both before and after the referendum passed. This comprehensive process ensured that the school's design reflected the community's values and aspirations.

By involving a diverse range of voices in the decision-making process, the engagement sessions promoted diversity, equity, and inclusion, ensuring that the new school would be a welcoming and supportive environment for all students, regardless of their backgrounds. This inclusive approach has not only shaped the physical space but also strengthened the social fabric of the community, making Rock Ridge High School a beacon of educational and communal advancement.





Physical Environment

CONTEXT

Nestled in the heart of Minnesota's Iron Range region, Rock Ridge High School is surrounded by lush forests, rocky outcroppings, and pristine wetlands. The school's design harmoniously integrates these natural surroundings, featuring a warm, yet modern aesthetic with weathered steel that recalls the region's mining industry. Customized masonry mimics the color and texture of the surrounding rock formations, and wood elements connect the exterior and interior design. An expansive glass exterior brings abundant daylight and views into the building, blurring the boundaries between indoor and outdoor spaces.

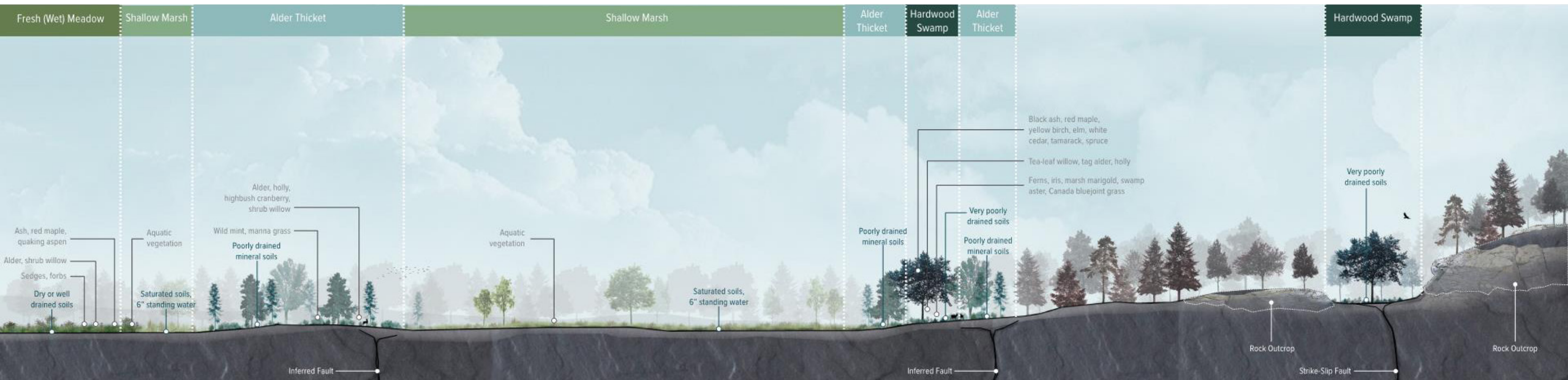
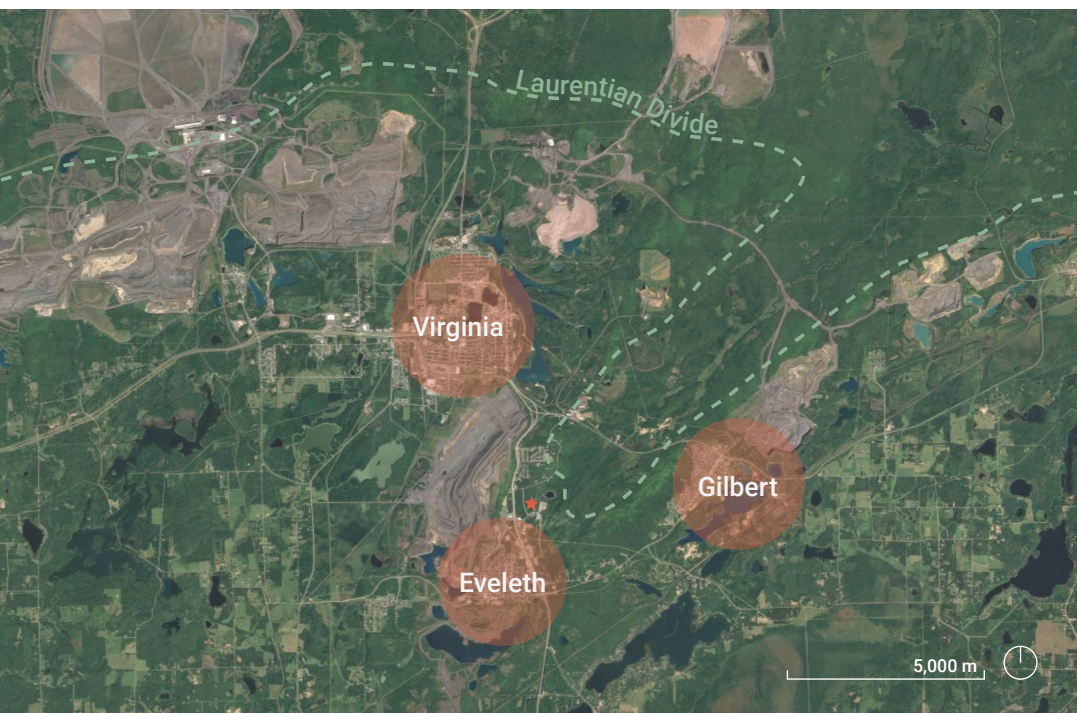
Situated on a sprawling 110-acre site, the school's athletic fields and outdoor learning areas seamlessly blend with the surrounding landscape, preserving the area's natural beauty while providing ample opportunities for student exploration and engagement. The integration of indoor and outdoor spaces goes beyond aesthetics by promoting sustainability and functionality. Large, salvaged boulders within planting areas encourage infiltration of snow melt, while smaller rocks are repurposed throughout the site as a crushed base for parking lots and walking paths. In the learning courtyard, a swale collects rainwater from the roof, bringing it down throughout the site.

RESPONSE

The physical environment inspires and motivates students, faculty, and visitors alike through its innovative design features and thoughtful integration of sustainability and wellness principles. Innovative aspects of the physical environment include the multi-story Innovation Commons, which serves as the heart of the school, fostering interaction and connectivity among students from all backgrounds. Additionally, the school's emphasis on wellness and inclusivity is evident in its design, with features such as inclusive restrooms, visibility and connection to all programs, daylighting, and accessible outdoor learning spaces.

The school's commitment to sustainability is further demonstrated through its high-performing building envelope, energy-efficient systems, and minimal disturbance of the surrounding wetlands and natural habitats. By prioritizing sustainability and wellness, Rock Ridge High School not only creates a healthy and vibrant learning environment but also instills in students a sense of stewardship for the environment and their own well-being.





← ATHLETIC FIELDS

WETLAND TRAILS

ROCK RIDGE LOOKOUT

NORTHWOODS GARDEN

BUILD PLAZA

SCENE SHOP

MUSIC SUITE

FITNESS

LOCKER ROOMS

THEATER

CONSTRUCTION LAB

DESIGN + ENGINEERING LAB

PROTOTYPE

SCIENCE

PROJECT-BASED LEARNING NEIGHBORHOOD

STAFF

MAKER LAB

VISUAL LAB

VIDEO

ART

FLEX ART LAB

ART

MAIN ENTRY ON LEVEL 2

OUTDOOR LEARNING BASECAMP

INNOVATION COMMONS

PROJECT-BASED LEARNING NEIGHBORHOOD

MAKER LAB

SCIENCE

STAFF

MANUFACTURING LAB

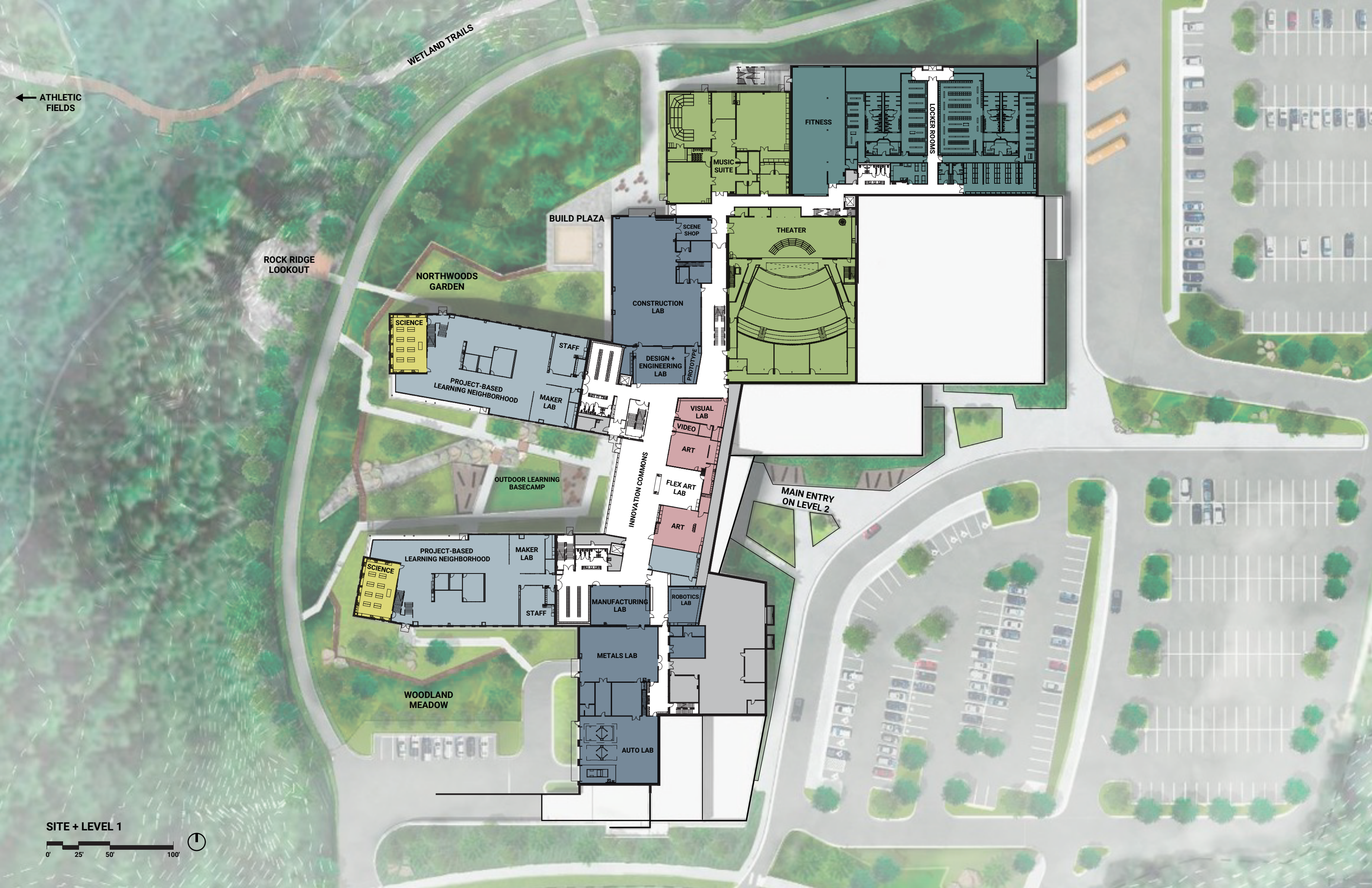
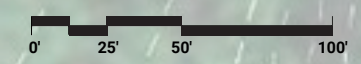
ROBOTICS LAB

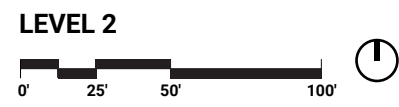
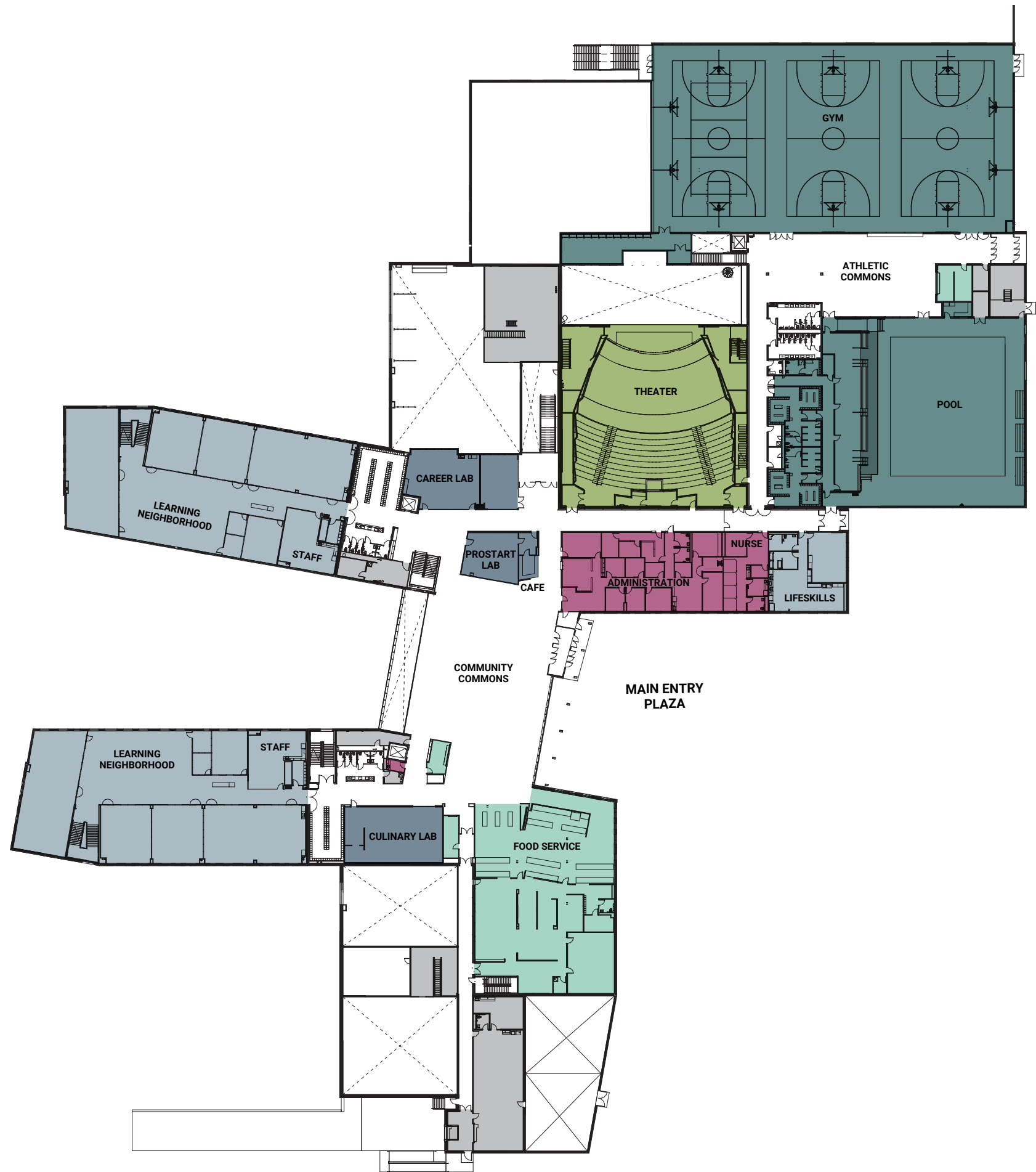
METALS LAB

WOODLAND MEADOW

AUTO LAB

SITE + LEVEL 1





LEVEL 3



Educational Environment

CONTEXT

Rock Ridge High School advances the district's founding mission by creating a progressive learning environment that emphasizes 21st-century skills such as critical thinking, collaboration, creativity, and global competence. Additionally, the school offers career-oriented pathways to prepare students for leadership roles in an ever-changing world.

RESPONSE

Supporting the Curriculum. Rock Ridge High School supports its curriculum by offering versatile spaces that cater to diverse educational pathways and needs. From traditional classrooms to specialized labs and collaborative areas, every space is equipped with state-of-the-art technology and resources to facilitate effective and engaging teaching and learning.

Supporting a Variety of Learning & Teaching Styles. Rock Ridge High School supports a variety of learning and teaching styles through its flexible and adaptable spaces. From specialized classrooms for hands-on learning, to informal learning areas and outdoor education environments, students and teachers can customize their learning experiences according to their preferences, interests, and needs.

Adaptable and Flexible Environment. Rock Ridge High School creates seamless transitions between different modes of teaching and learning. Modular furniture, demountable walls throughout the learning neighborhoods, and movable partitions enable spaces to be reconfigured to accommodate changing educational requirements, ensuring that the environment remains responsive to evolving needs both short and long term.

Innovative Aspects of the Educational Environment. The school's innovative features include maker spaces, fabrication labs, and collaborative work areas that promote hands-on learning and innovation. Additionally, the integration of technology-rich environments and outdoor learning spaces fosters creativity, exploration, and interdisciplinary learning opportunities. Dispersed media resources, staff collaboration rooms, and shared commons spaces make effective use of square footage, maximizing space for learning in specialized pathway programs.



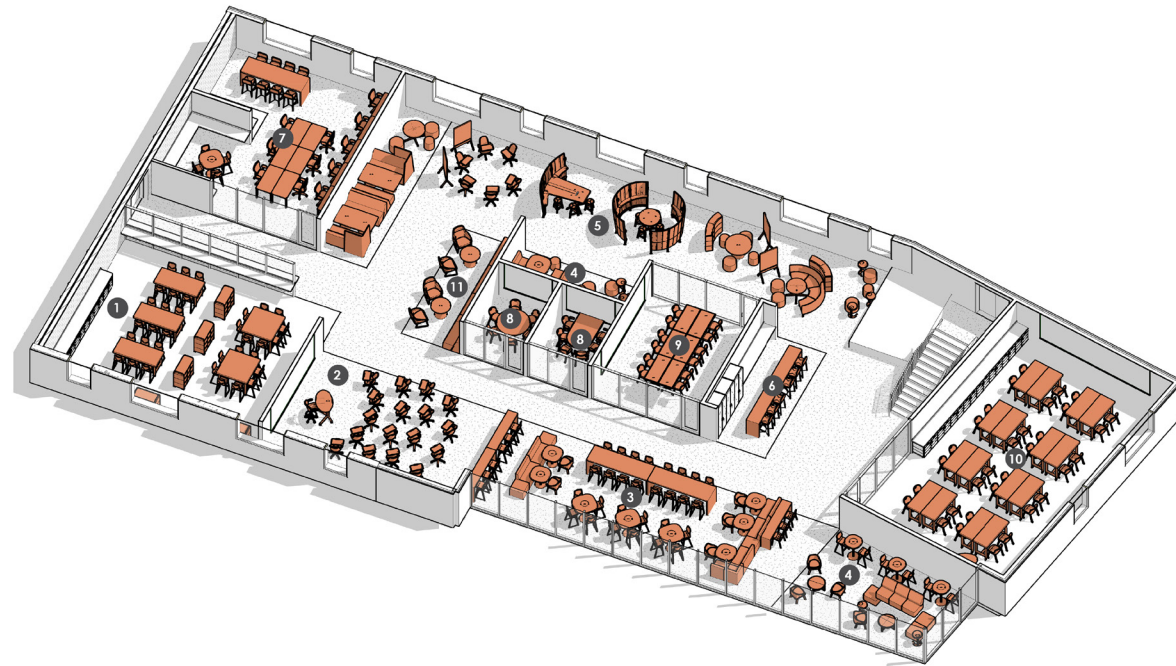


STUDENT-CENTERED DESIGN

Flexible informal learning spaces are centrally located and offer expansive views to surrounding pine forests. These spaces promote student choice and agency as they are encouraged to create the space they learn best in. These adaptable spaces support collaboration and individualization. Daylight and connection to nature uplifts student and teacher well-being and helps nurture community-building.

RETHINKING THE LEARNING NEIGHBORHOOD

Together with teachers and students, the learning neighborhood was reimagined to support project-based learning in an open and collaborative learning landscape that offers students and teachers variety and choice.



- 1 MAKER SPACE
- 2 PRESENTATION PLAZA
- 3 GATHERING
- 4 FOCUS
- 5 IDEATION ZONE
- 6 RESEARCH HUB
- 7 STAFF COLLABORATION
- 8 SMALL GROUP
- 9 MEDIUM GROUP
- 10 FLEX SCIENCE LAB
- 11 LAUNCH PAD





PATHWAYS FOR SUCCESS

Specialized learning labs throughout the building offer advanced programs with connection to the outdoors and adjacent interior common spaces to create visibility for the programs, celebrate student work, and spark collaboration across programs.



Results

Educational Goals and Objectives. Rock Ridge High School advances the district's founding mission by providing an inspiring, welcoming, and progressive learning environment that emphasizes 21st-century skills such as collaboration, critical thinking, and creativity. Flexible and adaptable spaces support various teaching and learning styles and specialized labs help students explore different pathways and prepare for future careers.

School District Goals. In alignment with district goals, Rock Ridge High School fosters a sense of community and inclusivity by bringing together students from all backgrounds and providing equal access to educational opportunities. The project contributes to the district's goal of preparing students for success in an ever-changing world by offering career-oriented pathways and promoting diversity, equity, and inclusion.

Community Goals. Rock Ridge High School achieves community goals by serving as a hub for cultural and educational activities that benefit not only students but also families, industry partners, alumni, and adult learners. The school's facilities, including indoor and outdoor athletic facilities, large commons, and performing arts center, provide valuable resources for the entire community, fostering social connections and a shared pride for the new Rock Ridge district.

Unintended Results and Achievements. The project has sparked interest and significant investments from local businesses, further enhancing the educational experience and contributing to the region's economic growth and workforce pipeline.

Financial Stewardship. The school demonstrates good stewardship of financial resources by carefully balancing design achievements with program and cost efficiency. Charged with creating the most energy-efficient building that the district could afford, Cunningham maximized a limited budget by implementing a super-tight, high-performing building envelope, which reduced mechanical system sizes and equipment. By offsetting costs in this way, not only is Rock Ridge High School high-efficiency, but it is also cost effective to operate, easy to maintain, and creates a comfortable environment for learning. educational pathways that support the future of the local job market sets up the school as an integral part of the Iron Range's economic growth.

Sustainability and Wellness Outcomes. Sustainability and wellness outcomes include a high-performing building envelope and integrated daylighting strategies that minimize environmental impact and promote occupant comfort. The school's emphasis on inclusivity and accessibility also fosters a supportive and healthy learning environment for all students and staff. A strong connection to nature through building placement, views, biophilic materials, and outdoor learning trails creates a sense of place and meaning for all occupants.





