

Dancing with the Yeti Part 2: Regenerative Design at Rock Ridge Public Schools

2025 A4LE LearningSCAPES Conference, Phoenix, AZ



Learning Objectives

- Analyze how design centered on well-being and student success can transform communities.
- Develop a framework for building community support and advocacy for a regenerative vision.
- Demonstrate how students can actively co-create their learning environments.
- Implement strategies for integrating active learning, outdoor learning, movement, and play into educational spaces.

Presentation Team



JOHN PFLUGER
Design Director
Cuningham

Design Principal



HAILEY WRASMAN
Senior Interior Designer
Cuningham

*Lead Interior Designer
and Student Engagement
Specialist*



JEN GORMAN
Architect
Cuningham

Regenerative Design Lead



DR. NOEL SCHMIDT
Superintendent
Rock Ridge Public Schools

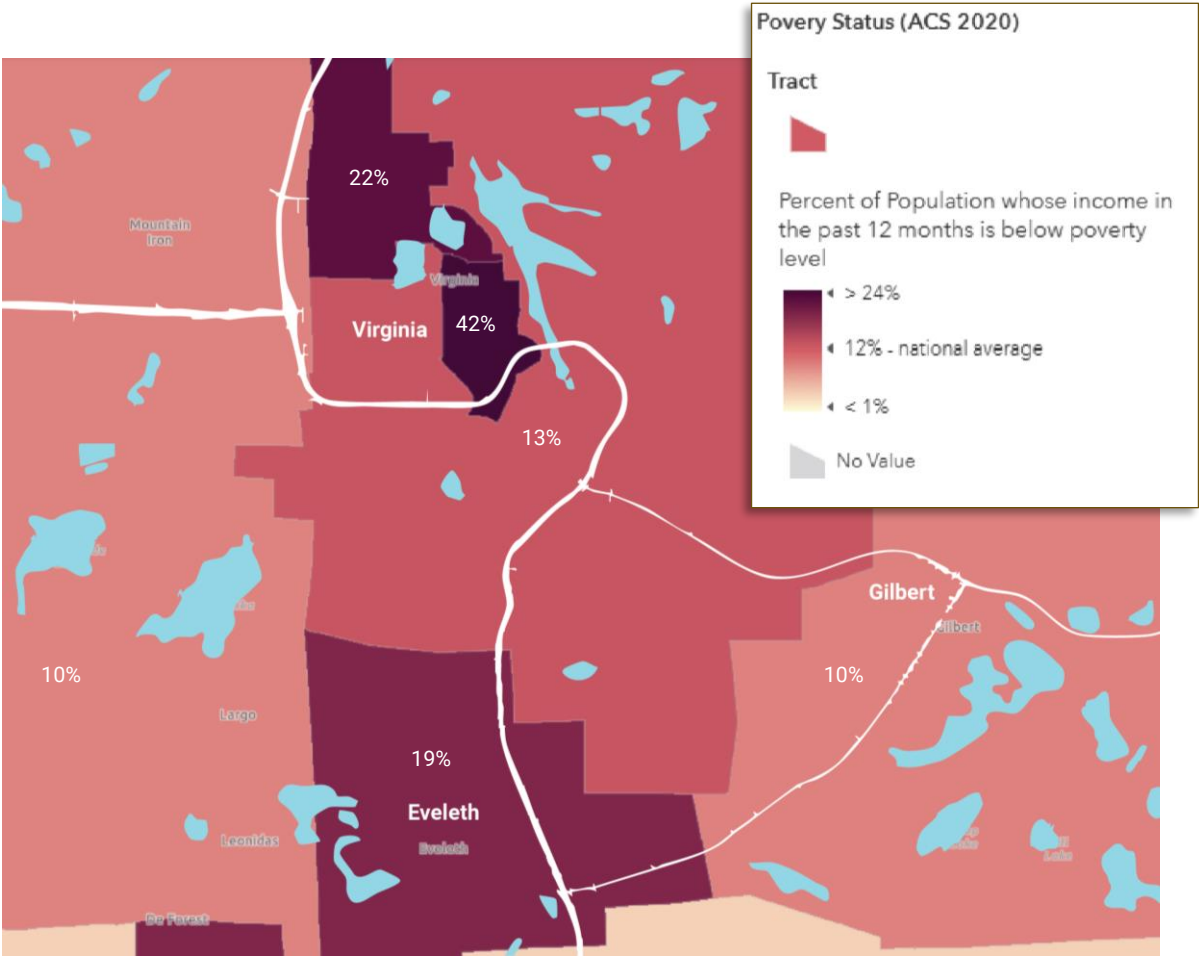
Visionary Superintendent

Presentation Outline

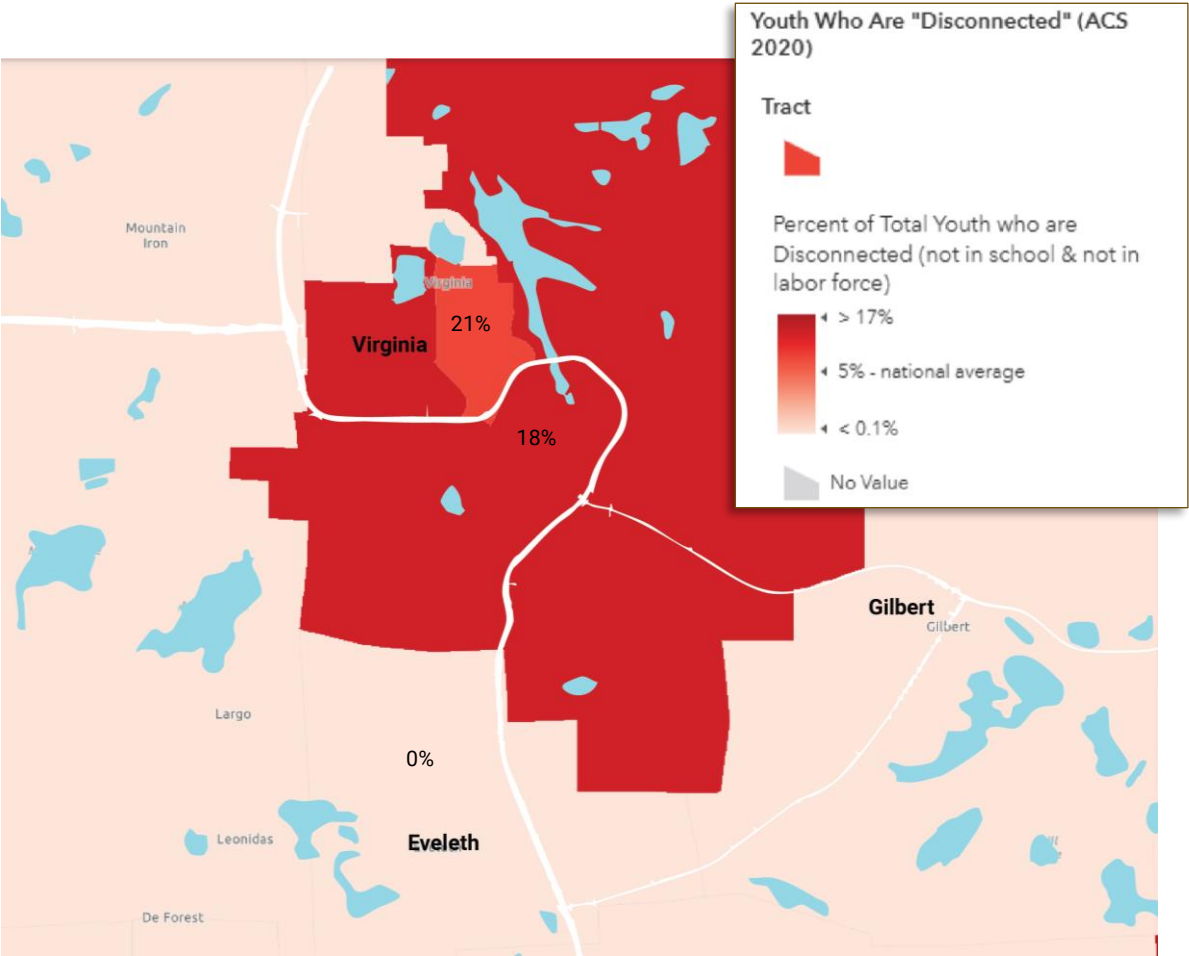
- Imagining a New Way Forward
- Pride in Place
- Well-being + Play
- Exploration + Career Academies
- Questions + Discussion



Iron Range Context - 2020

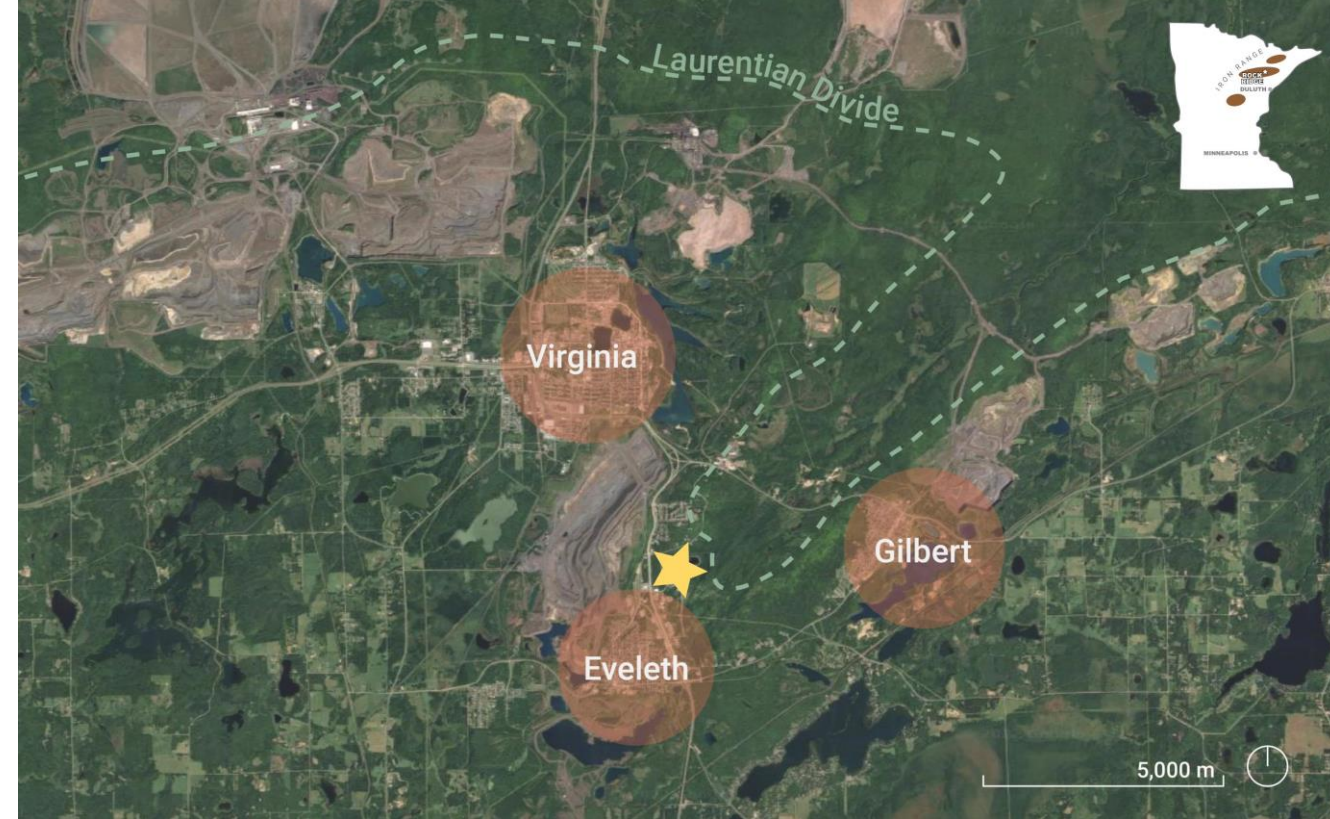
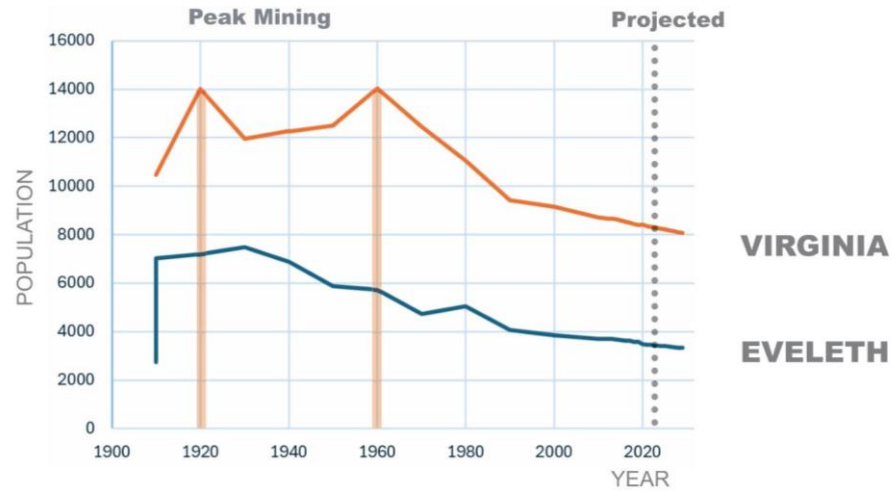


Poverty (2020)
Percentage of population living below poverty level

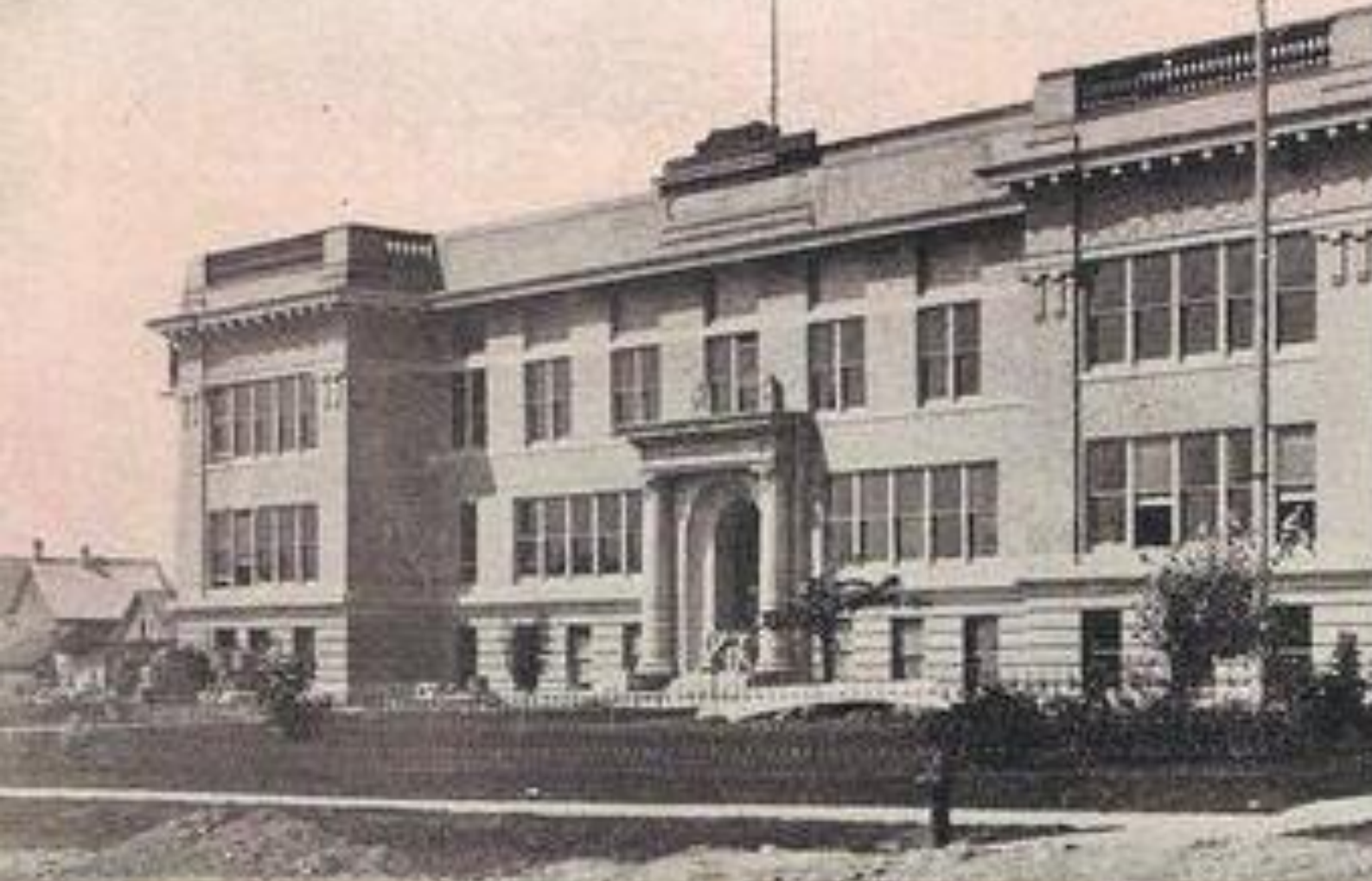


Disconnected Youth (2020)
Percentage of total youth neither in school nor in labor force

How might the Iron Range economy regenerate beyond mining?



100-Year-Old School Facilities



The New High School, Eveleth, Minn.

2 RIVAL SCHOOL DISTRICTS
SERVING 3 COMMUNITIES

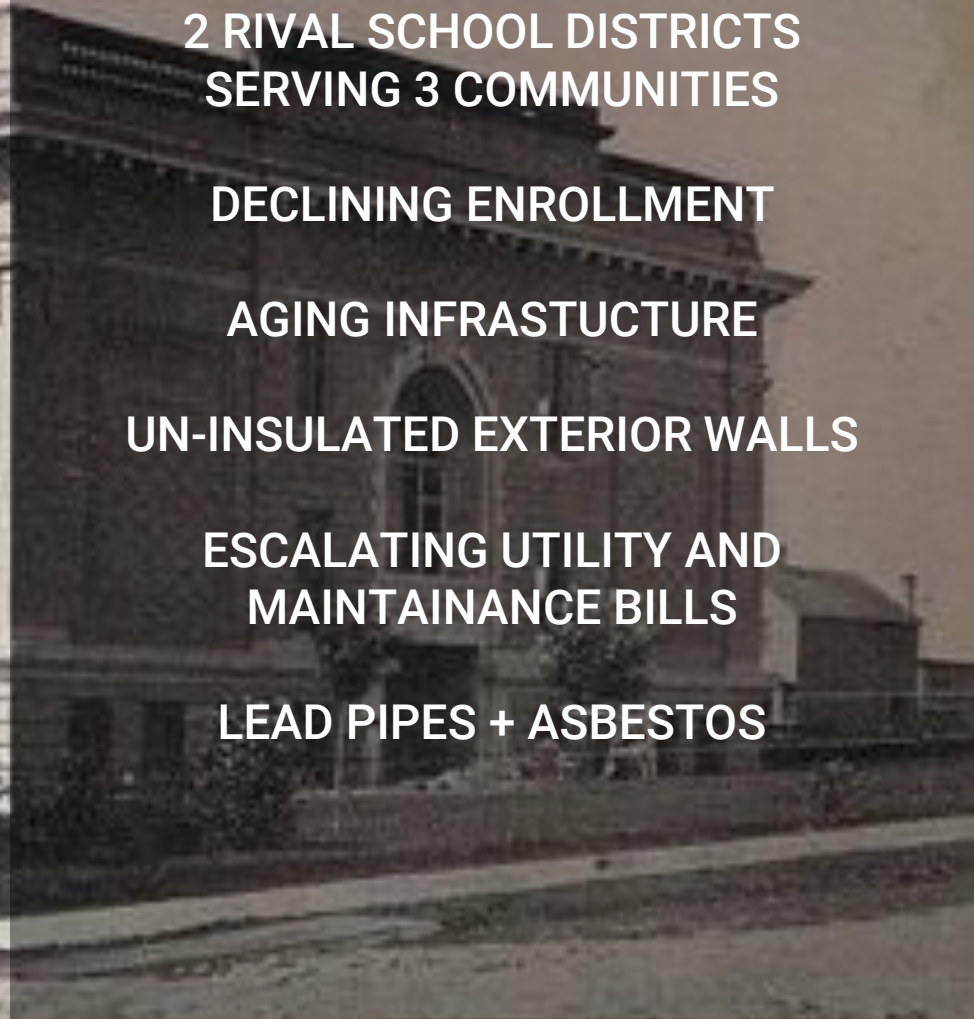
DECLINING ENROLLMENT

AGING INFRASTRUCTURE

UN-INSULATED EXTERIOR WALLS

ESCALATING UTILITY AND
MAINTAINANCE BILLS

LEAD PIPES + ASBESTOS



Climb the mountain: Key Learnings from "Best in the world Schools"

- Explicit connection to real-world
- Less emphasis on rote learning, teacher lecture, packets
- Curriculum built around problem-solving and critical thinking
- Teachers focus on both basic facts and higher-order thinking
- Student mistakes are welcomed and heavily talked about in class
- Work hard on figuring out what kids are thinking
- Focus on purpose, essential questions
- PLCs abound and are effective
- Testing de-emphasized and infrequent
- Very few lone wolves or independent contractors as teachers
- Social skills, personal habits, emotional intelligence matter
- Teachers highly valued
- Few pull-outs
- Adapt smart
- De-emphasis on grades

Traditional House education

20% classroom instruction here
80% classroom instruction here

Predict • Evaluate
Imagine • Hypothesize
Compare • Infer
Construct • Sort
Classify • Explain
Identify • Recite
List • Observe

Costa 3 story House



- Be remarkable, worth talking about, interesting, exceptional
- Build around something other than departments
- Switch from teacher saying, "I taught it," to student saying, "I learned it."
- System benefits all learners
- Teachers come from top third of college classes
- Work hard on reducing teacher variability
- Tracking is minimized. Students have access to all classes
- Teachers visit other classrooms. Talk about what they see.
- High quality teacher development
- Problem and project based learning happen a lot
- Struggling students get best teachers
- Strong vocational education components
- Lots of system coherence
- Personalized and individual learning plans
- Close alignment between elementary, high school, college systems, business, real world
- Emphasis on 21st century skills
- Local, national and global orientation
- Constant feedback and informal assessment

Rise Century House education

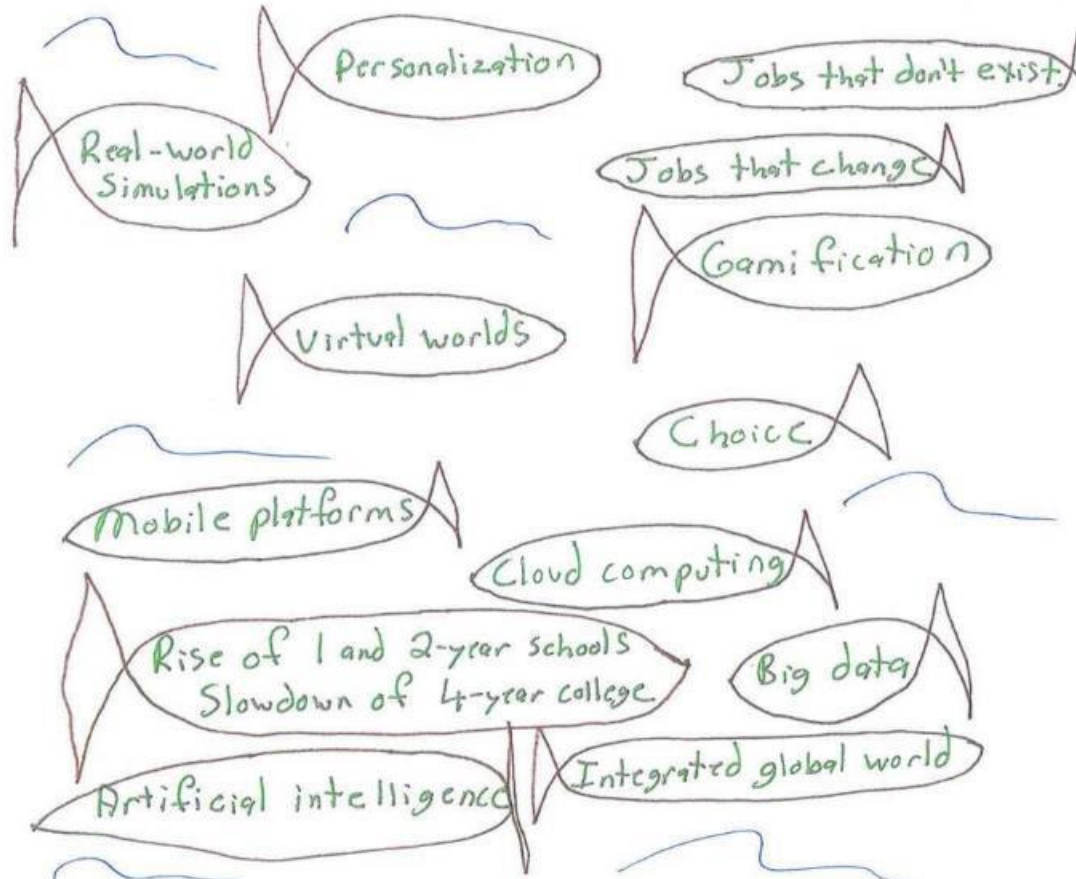
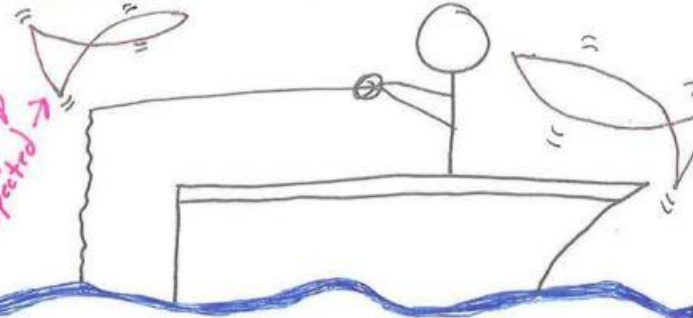
Predict • Evaluate
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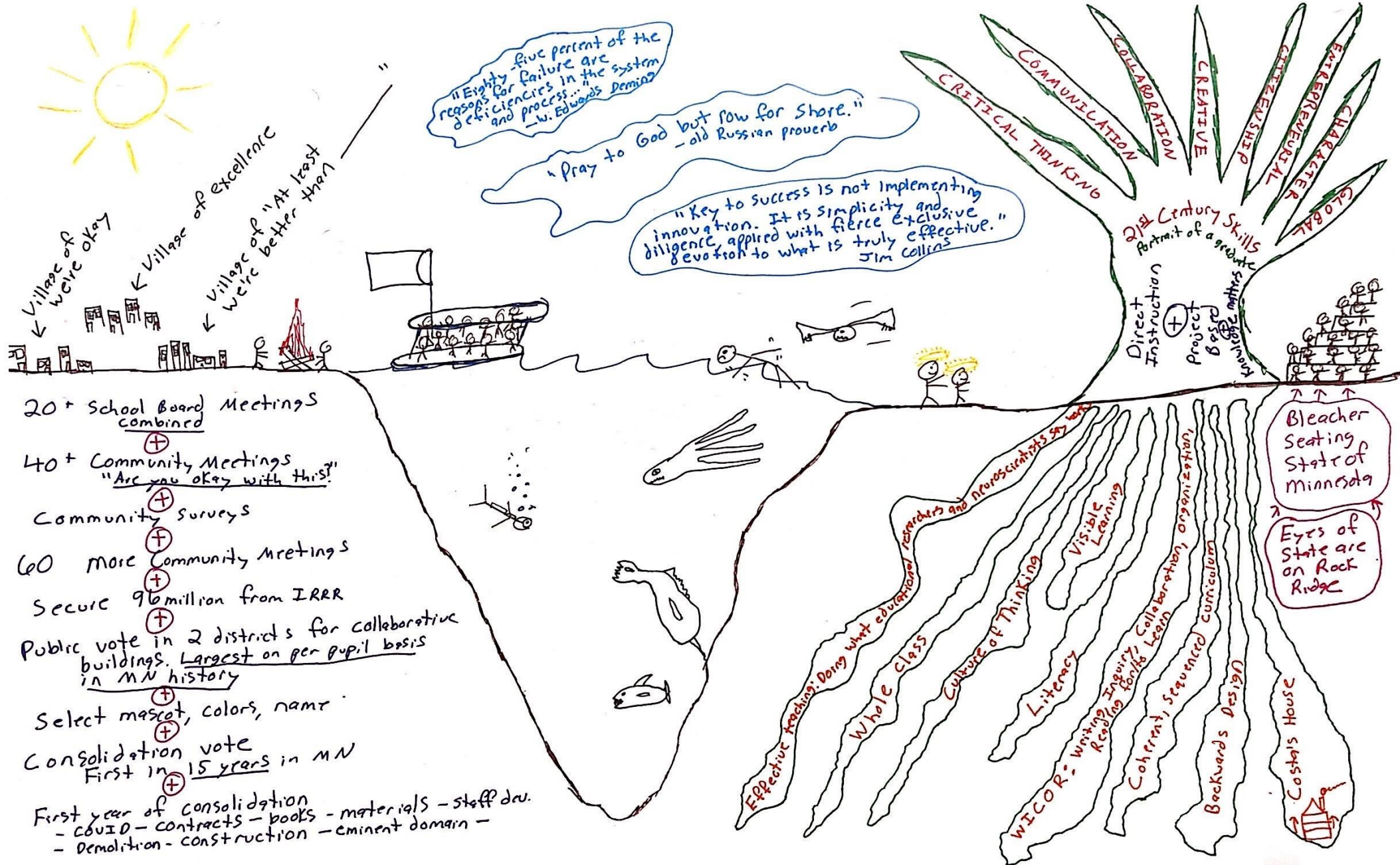
Instructional and Learning shift to all areas at least equally

Big trends and innovations that will impact education

Problems?
"Pray to God
But row for shore."
- old Russian saying

Watch out for jumping cat and the unexpected



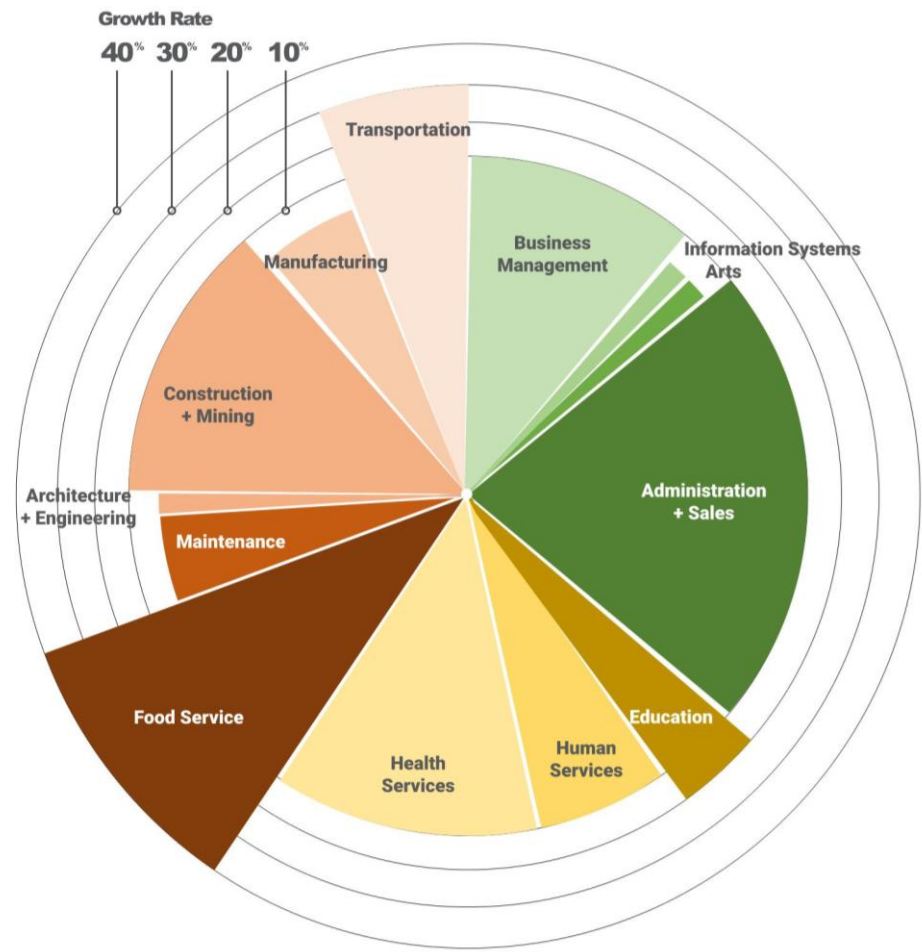


School Tours

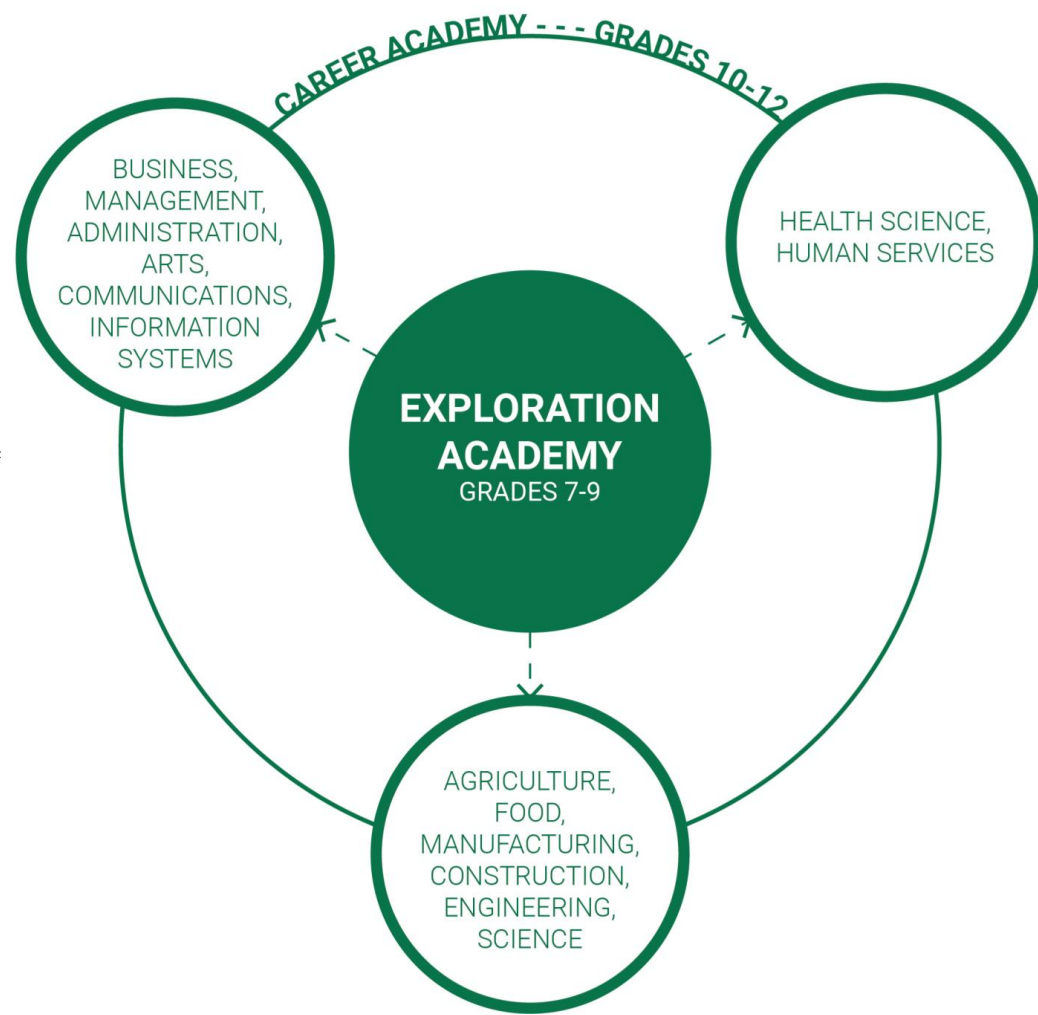
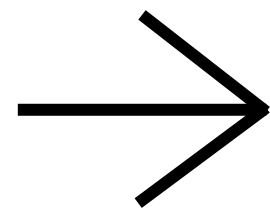
What can we learn from others?



CAREER ACADEMY MODEL



Occupation Trends Eveleth, Gilbert, Virginia (2019)



Career Academy Model



Shared Vision

- Educational environments designed to inspire passion and joy for everyone
- Collaborative educational experiences with immediate **real-world applications**
- Meaningful **integration of community professionals** into the daily education of students
- Adaptable learning spaces that will continually meet the needs of an **ever-changing workforce**
- Everyone = faculty, staff, parents, students, **community**, visitors, etc.



Design Principles

Welcoming | Community Pride

Variety | Freedom | Choice

Flexible | Adaptable

Collaboration | Creativity

Exploration | Discovery | Advancement

Inspiration | Mentorship

Sustainability Goals + Outcomes

Resource Stewardship

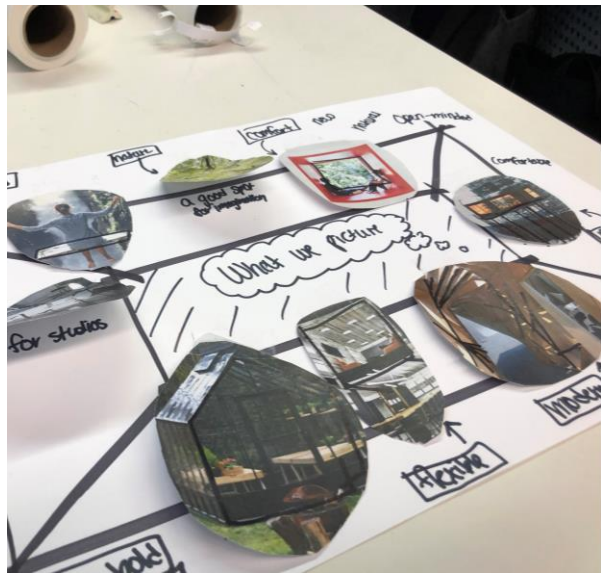
	Suggested Strategy
Energy 	LPD: 0.5 W/sf, EUI: Net Zero Ready Window/Wall Ratio: <40% Reduce plug loads Passive Design Strategies
Embodied Carbon	10% better than baseline, LCA of envelope systems, Consider wood
Materials 	No vinyl, eliminate red list, local/sustainable timber
Water Supply	All potable water from City, Limit irrigation needs
Wastewater/Stormwater	100% stormwater managed on site
Waste Management	Recycling in classrooms, compost food waste
Habitat	15-25% site preserved for habitat

Occupant Well-Being

	Suggested Strategy
Daylight Harvesting 	90% of classrooms fully daylit
Views to Nature 	All classrooms and regularly-occupied spaces have views to nature
Acoustic Comfort	High acoustic standards
Thermal Comfort	90% of occupants comfortable Operable windows Minimize air-conditioning
Indoor Air Quality 	Low/No VOC Maintain indoor CO ₂ below 800ppm in occupied spaces

Curriculum + Community

	Suggested Strategy
Building as a Teaching Tool	Students engaged in monitoring & operating, School as a living lab
Outdoor Learning 	Outdoor classrooms, School forest on site, Students maintain wetlands & local ecosystems
Community Access & Involvement	Community Partnership, Community access after school hours, Students active in the community



Questions



Where do you like to go to study?

What types of spaces make you feel calm and comfortable?

What do you want your new school to look and feel like?

What types of spaces make you feel inspired?

What types of spaces are good for working together?

What types of projects and career paths are you interested in exploring?

What makes Rock Ridge unique?

A word cloud featuring various adjectives and nouns in different sizes and orientations, centered on a white background. The words are arranged in a roughly circular pattern, with some words appearing more prominently than others. The words include:

- future
- wood
- warm
- technology
- inviting
- rock
- nature
- views
- relaxing
- open
- bright
- cool
- pride
- inspire
- tradition
- modern
- innovative
- organized
- mining
- cozy
- safe
- earthy
- unique
- outdoors
- hands-on
- choice
- industry
- coffee
- serene
- place
- comfortable
- texture
- natural
- explore
- shop
- home-like
- community
- flexible
- imagination
- opportunity
- bold
- creativity
- freedom
- metal
- together
- gathering
- collaborate
- environment
- clean



Pride in Place



Well-being + Play

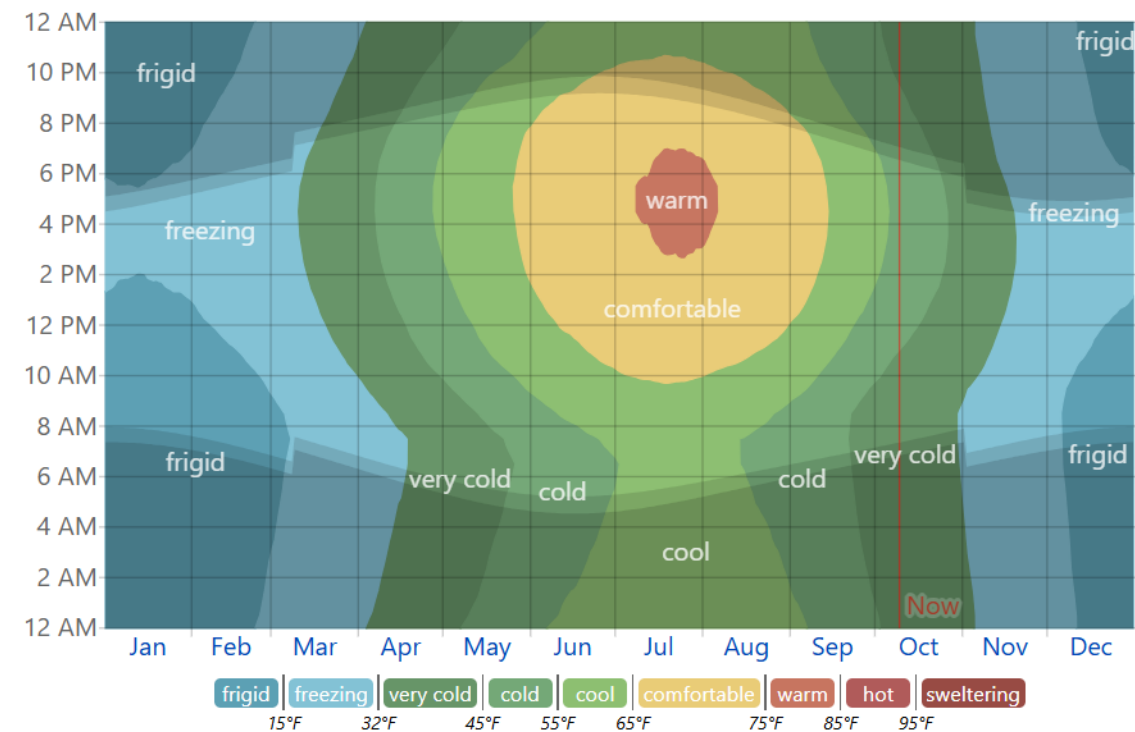
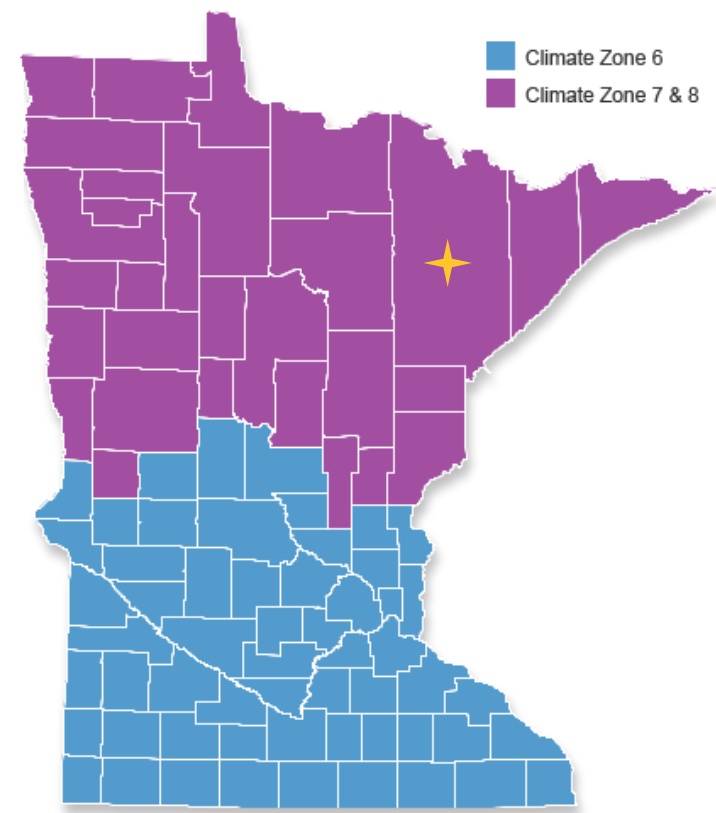


Exploration + Career Academies



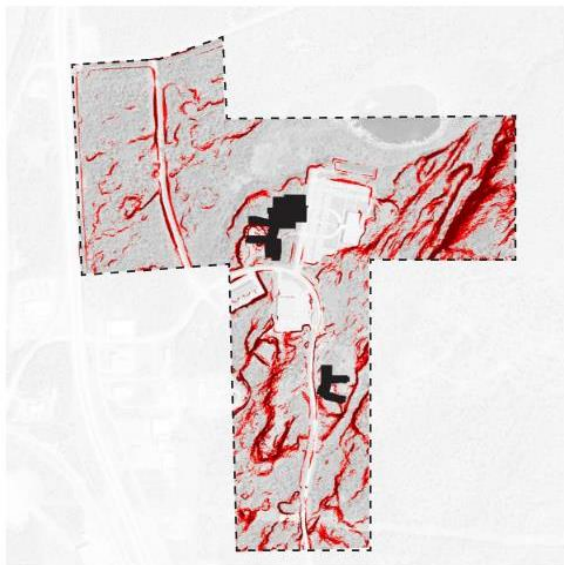
Pride in Place

Climate



Eveleth – Virginia, MN Average hourly temperature

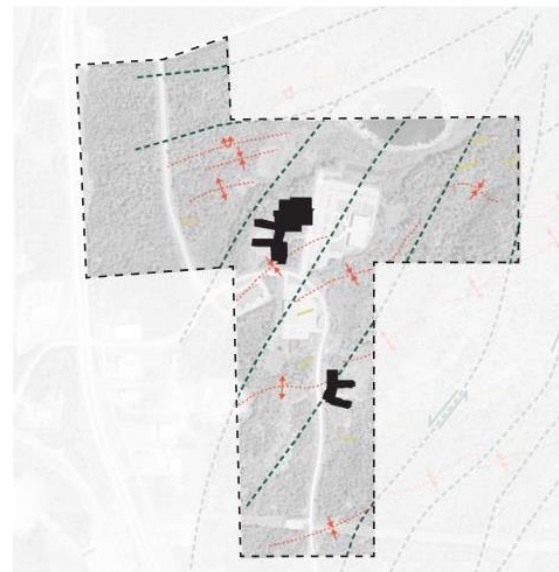
TOPOGRAPHY
LAYOUT



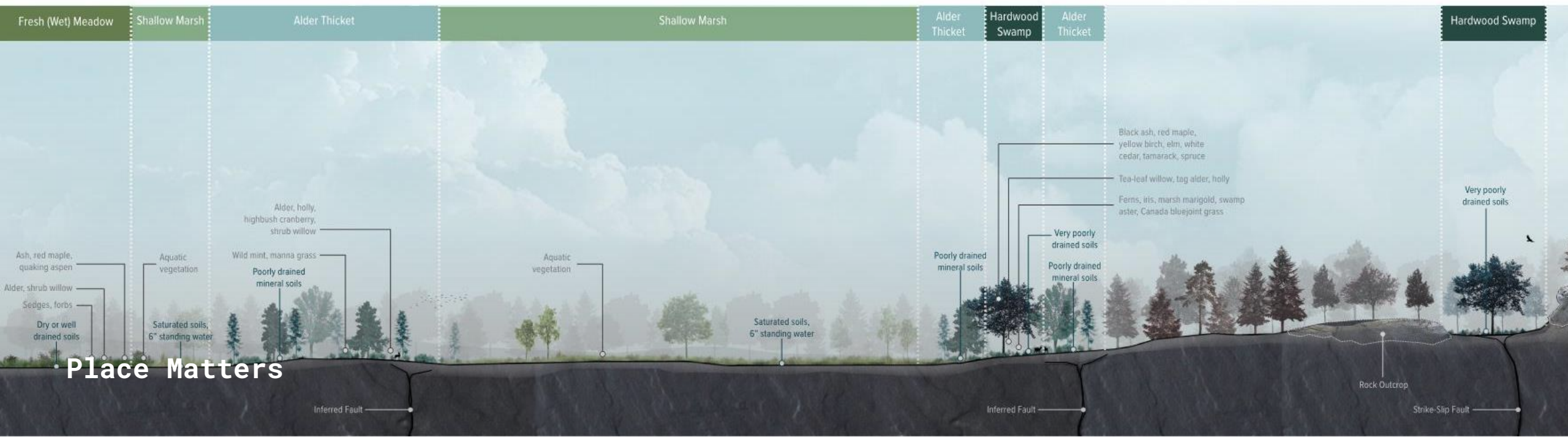
WETLANDS
ALIGNMENT



GEOLOGIC FORMATIONS
GEOMETRY

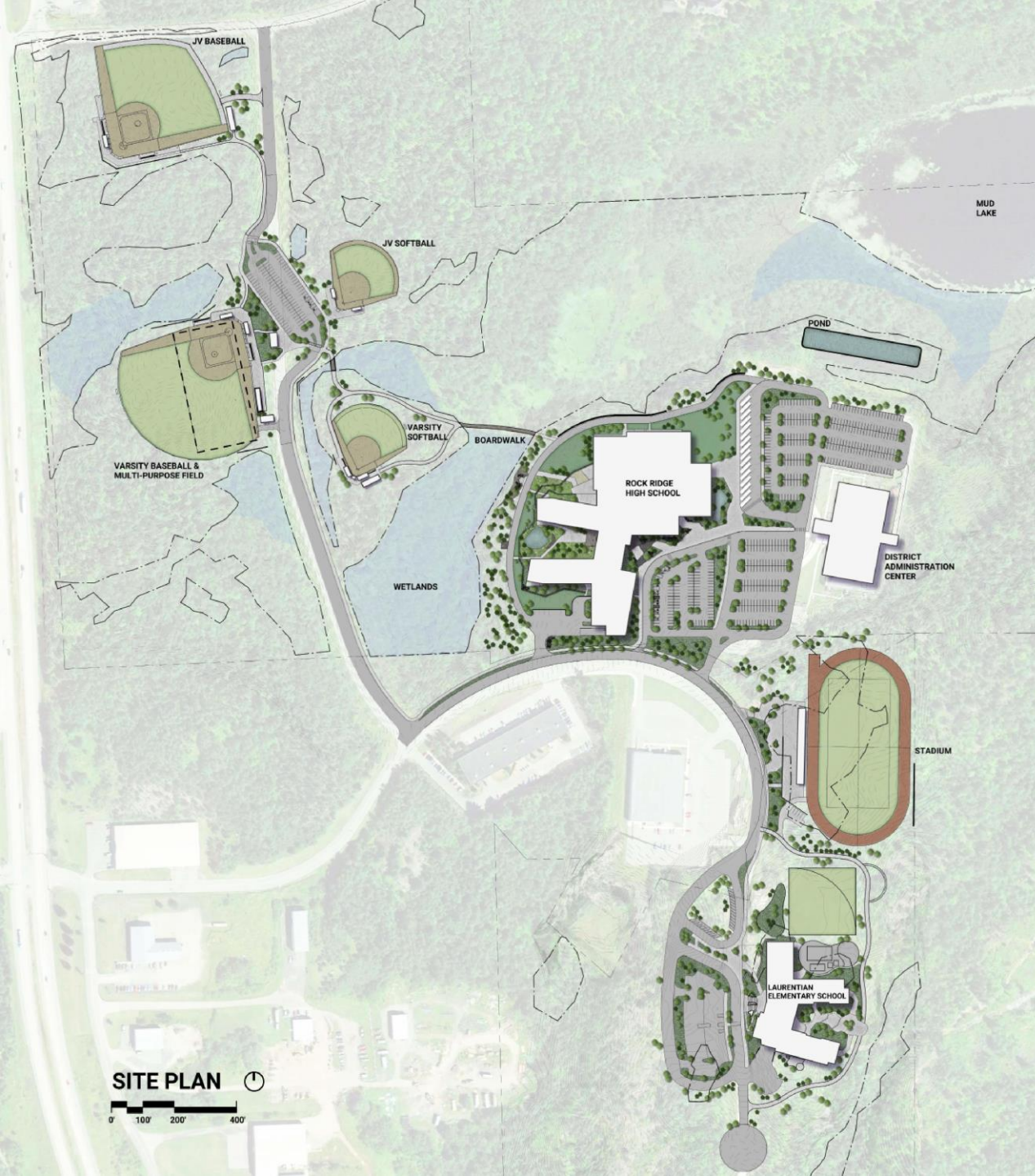


BEDROCK
MATURITY











Rock Ridge High School







LAURENTIAN ELEMENTARY SITE CONTEXT





Laurentian Elementary



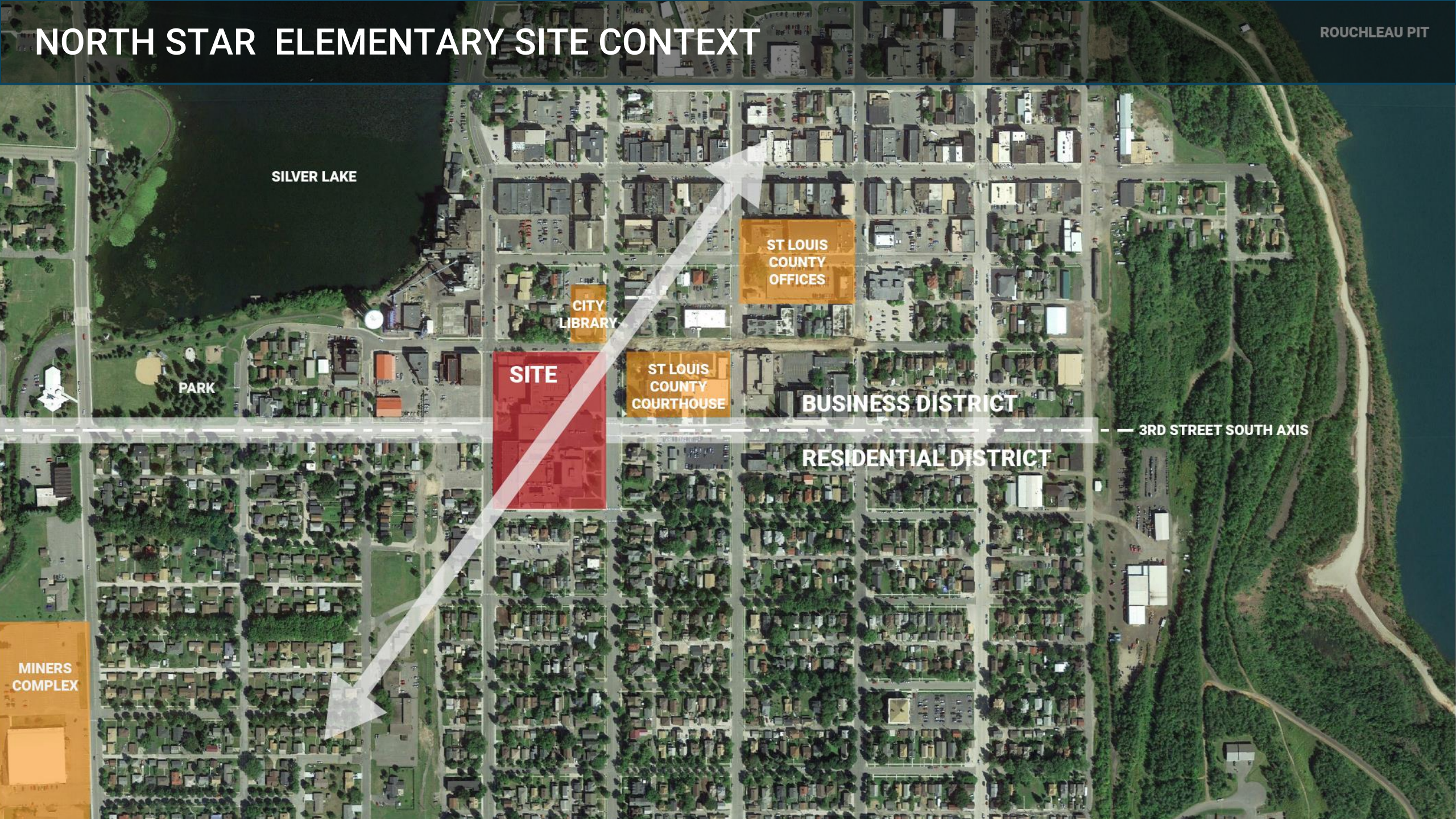
LAURENTIAN ELEMENTARY
1409 PROGRESS PARKWAY





NORTH STAR ELEMENTARY SITE CONTEXT

ROUCHLEAU PIT



SILVER LAKE

PARK

CITY
LIBRARY

ST LOUIS
COUNTY
OFFICES

ST LOUIS
COUNTY
COURTHOUSE

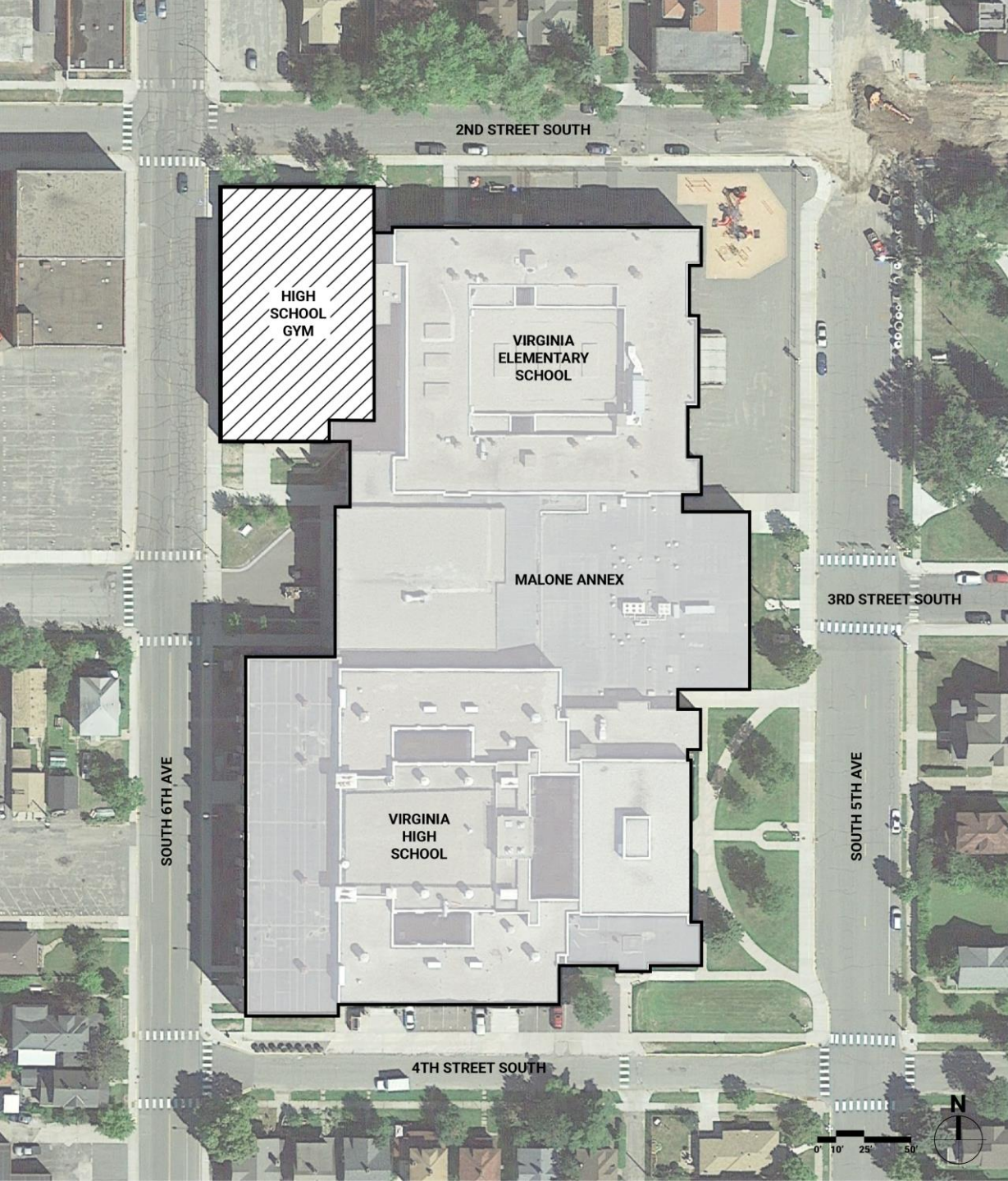
BUSINESS DISTRICT

— 3RD STREET SOUTH AXIS

RESIDENTIAL DISTRICT

SITE

MINERS
COMPLEX





North Star Elementary







Sustainability Goals + Outcomes

Resource Stewardship

	Suggested Strategy
Energy 	LPD: 0.5 W/sf, EUI: Net Zero Ready Window/Wall Ratio: <40% Reduce plug loads Passive Design Strategies
Embodied Carbon	10% better than baseline, LCA of envelope systems, Consider wood
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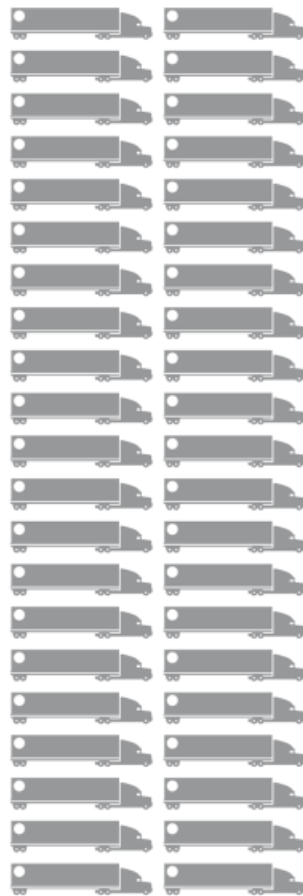
Design Collaboration



Full Scale Mock-Ups



Whole Building Air Test



42

Code Compliant
(0.400 cfm)



5

Project Goal
(0.050 cfm)



1.6

Actual
(0.015 cfm)

HIGH SCHOOL RESULTS
26.25x
better than code.

Well-being + Play



Laurentian Elementary











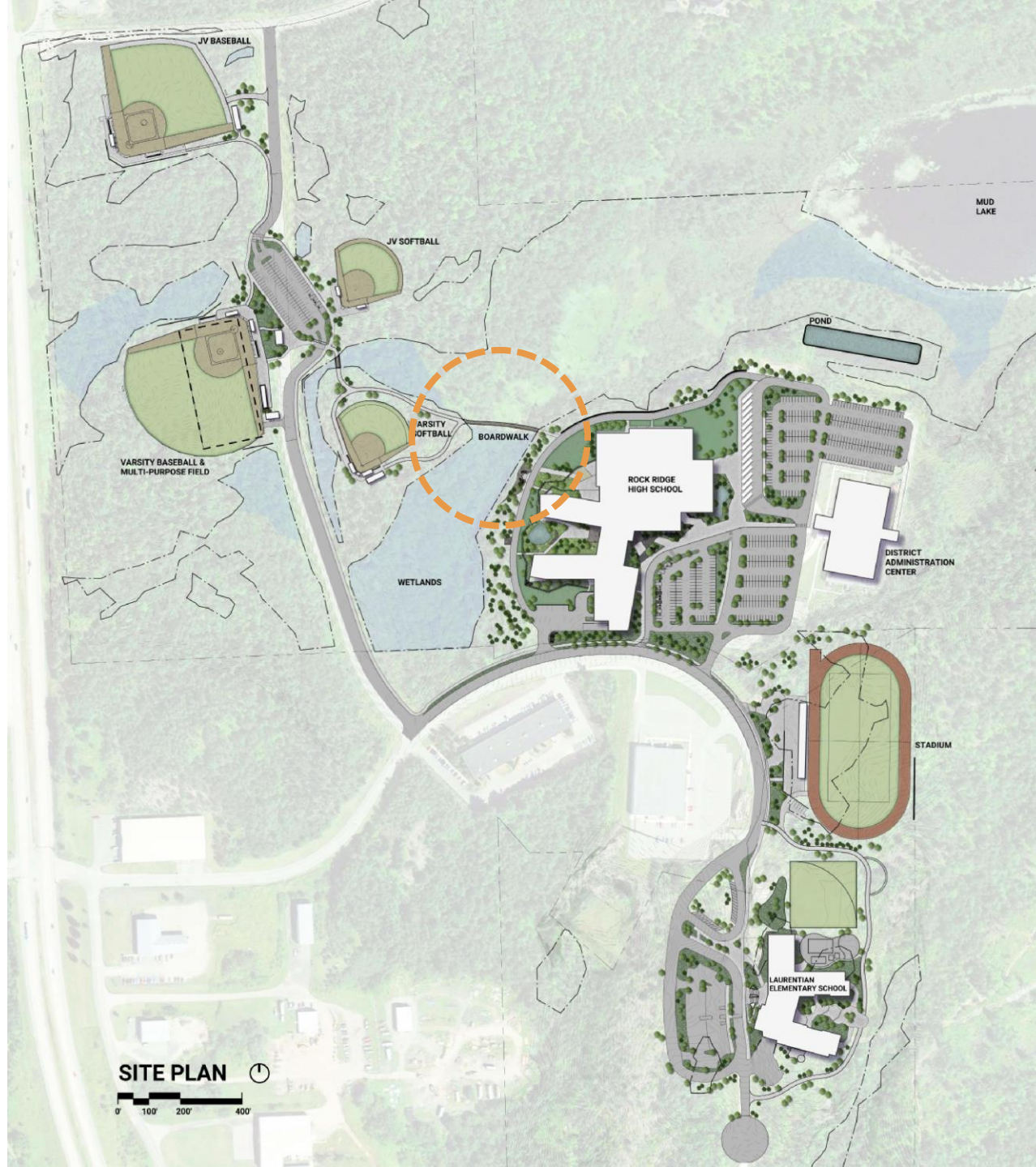


















Exploration + Career Academies



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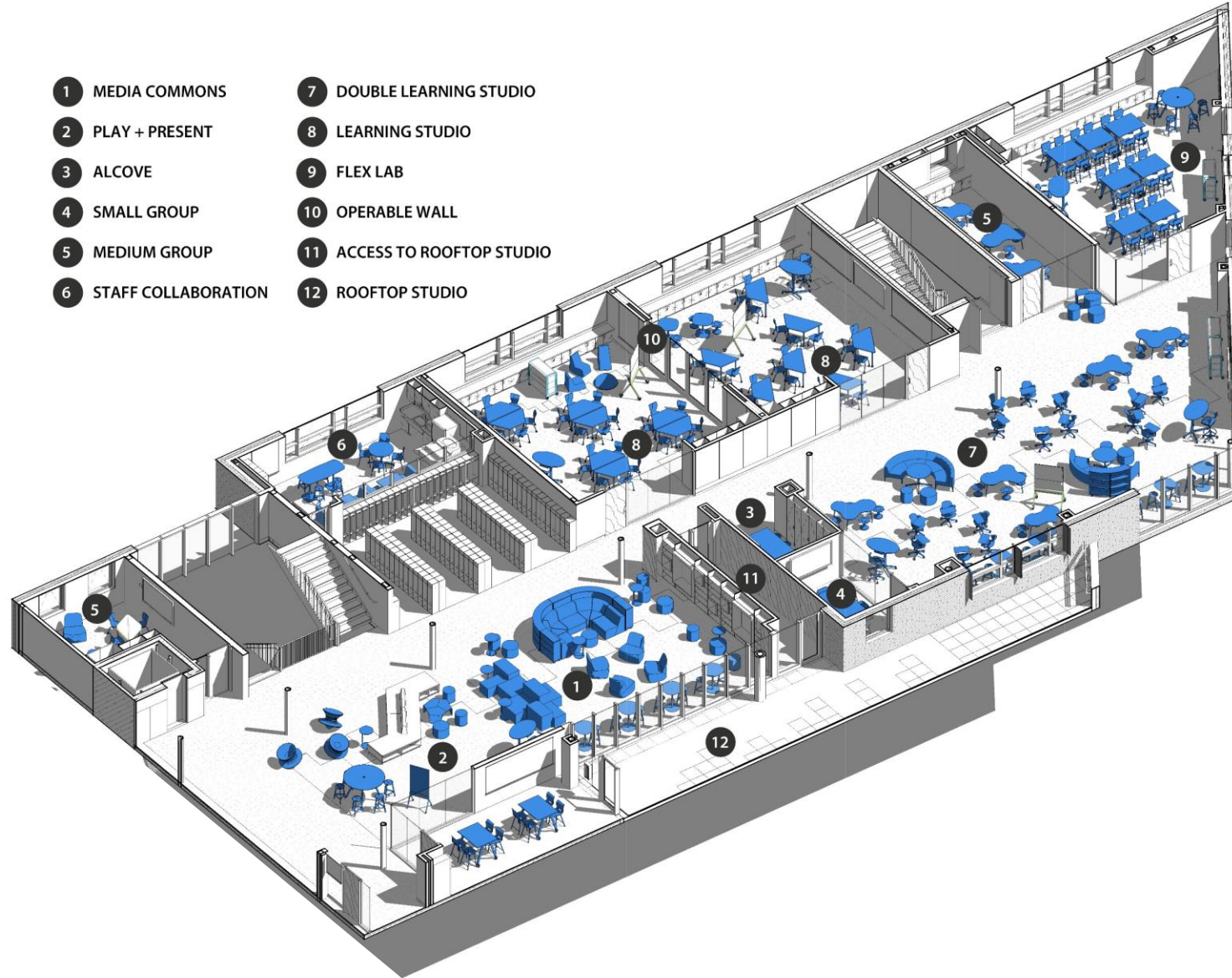
Laurentian Elementary Learning Neighborhood

- 1 NEIGHBORHOOD COMMONS
- 2 SPECIALTY LAB
- 3 LEARNING STUDIO
- 4 SMALL GROUP
- 5 MEDIUM GROUP
- 6 STAFF COLLABORATION
- 7 DISPERSED MEDIA
- 8 OPERABLE WALL
- 9 BRANDED ENTRY



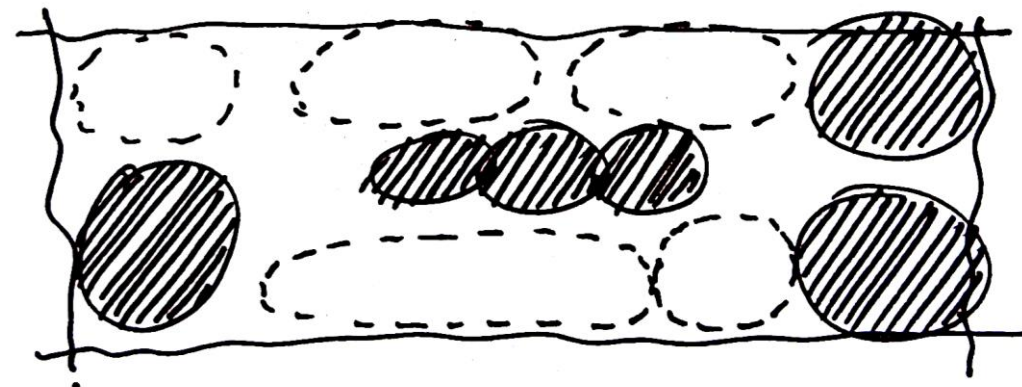
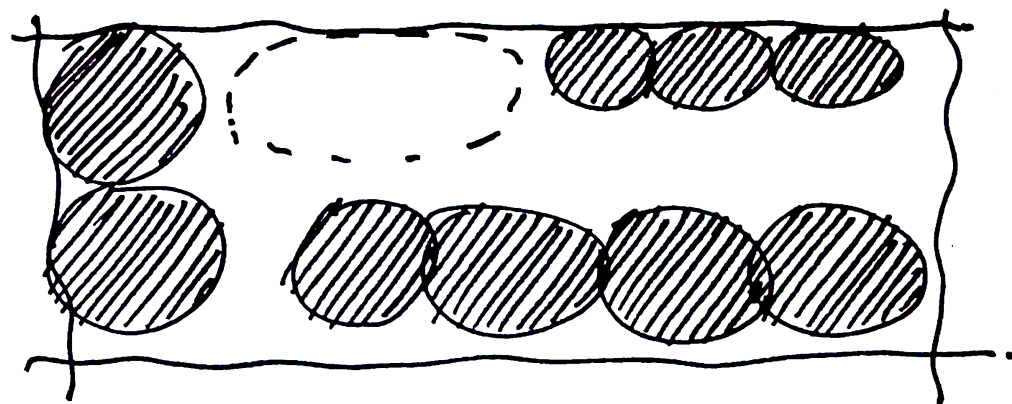


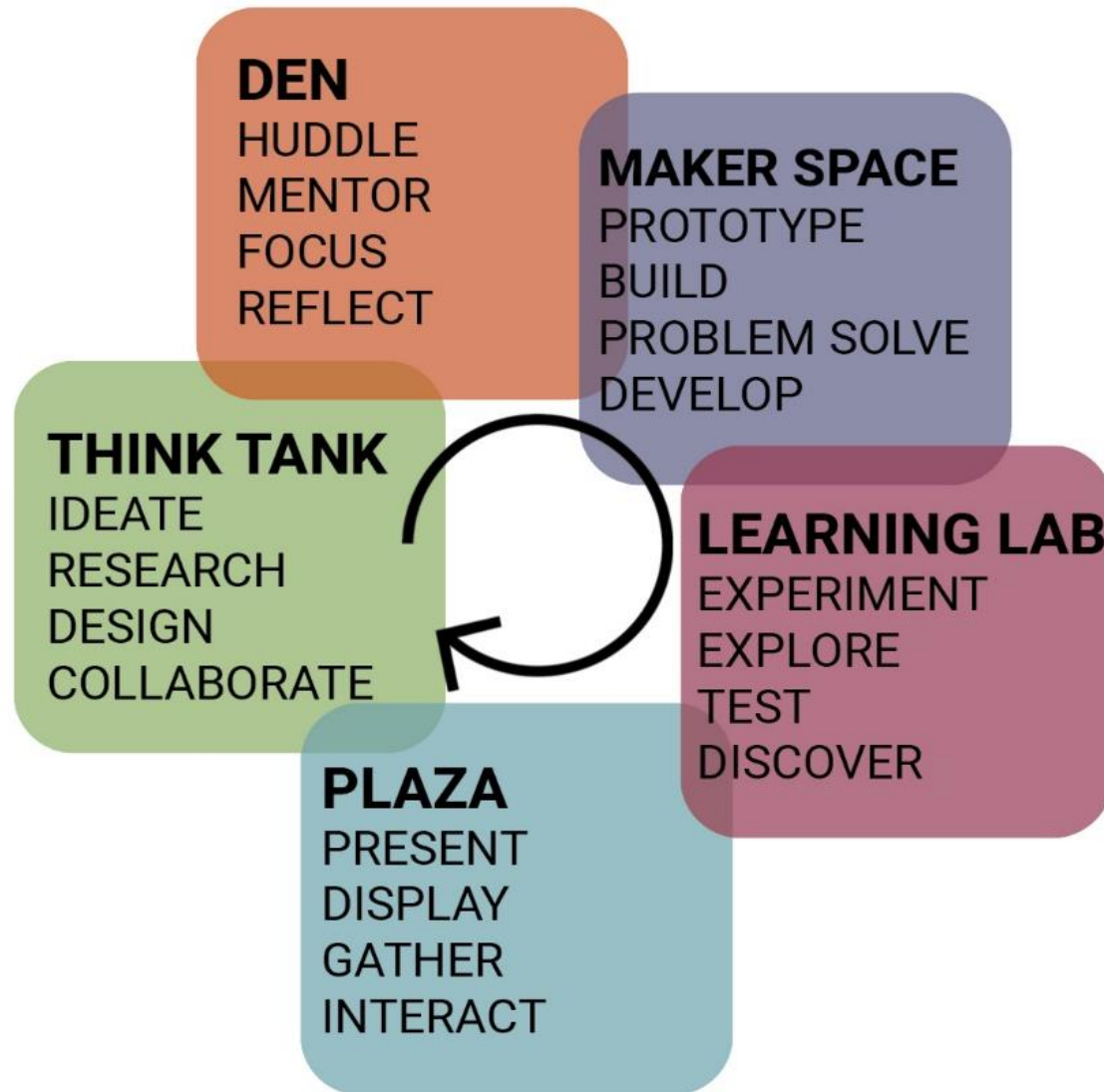
North Star Elementary Learning Neighborhood

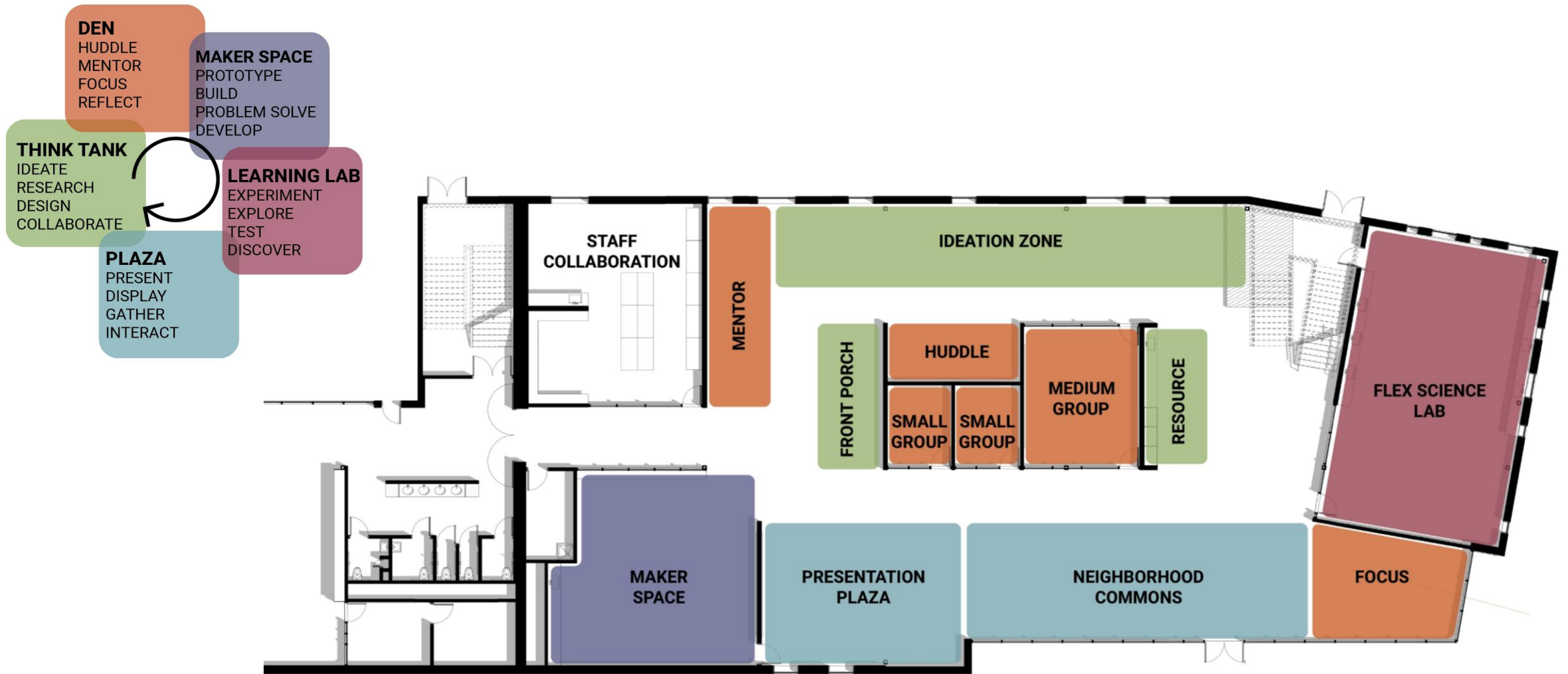




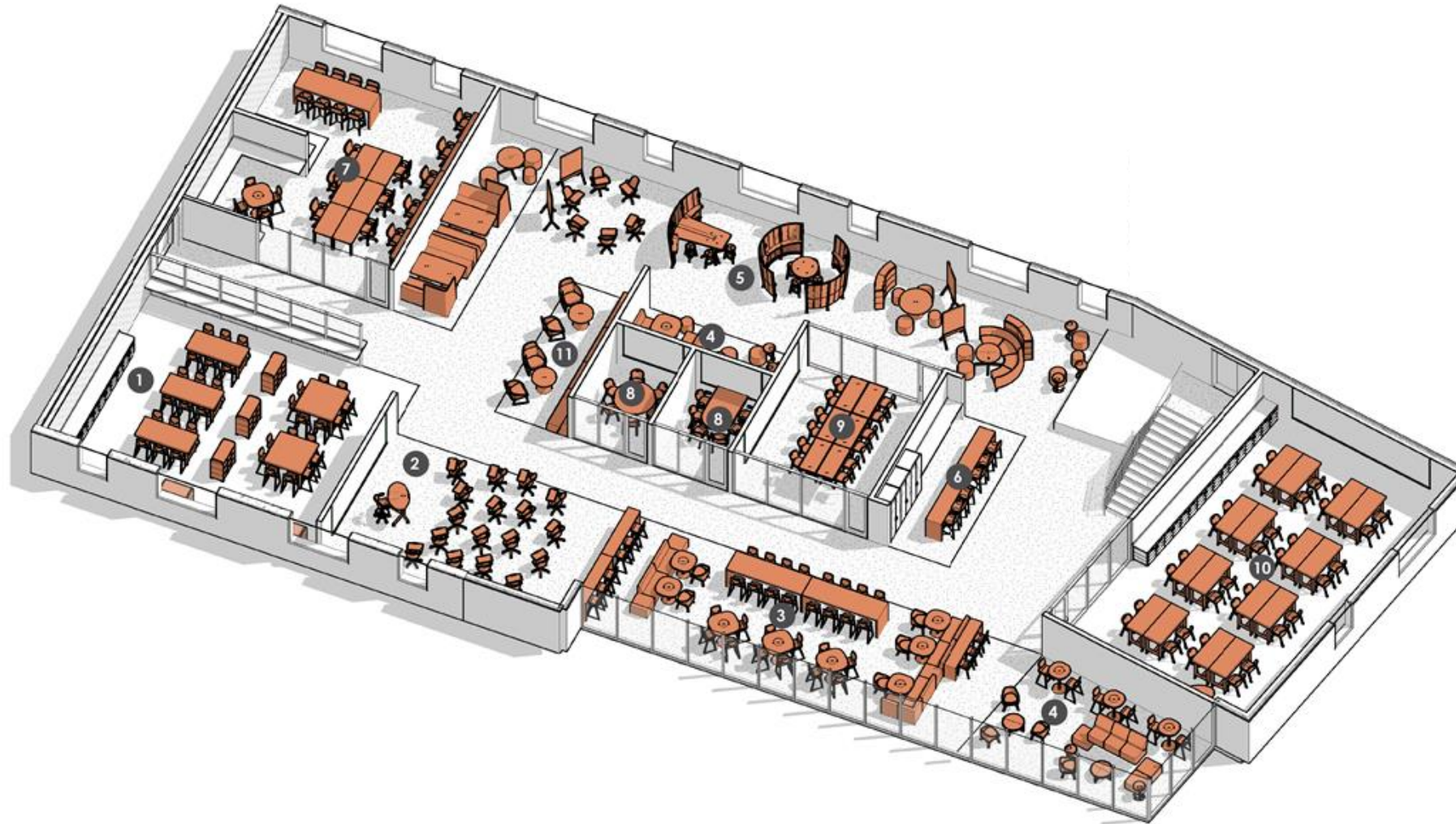
Reimagining the Learning Neighborhood







Project-Based Learning Neighborhood



- 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



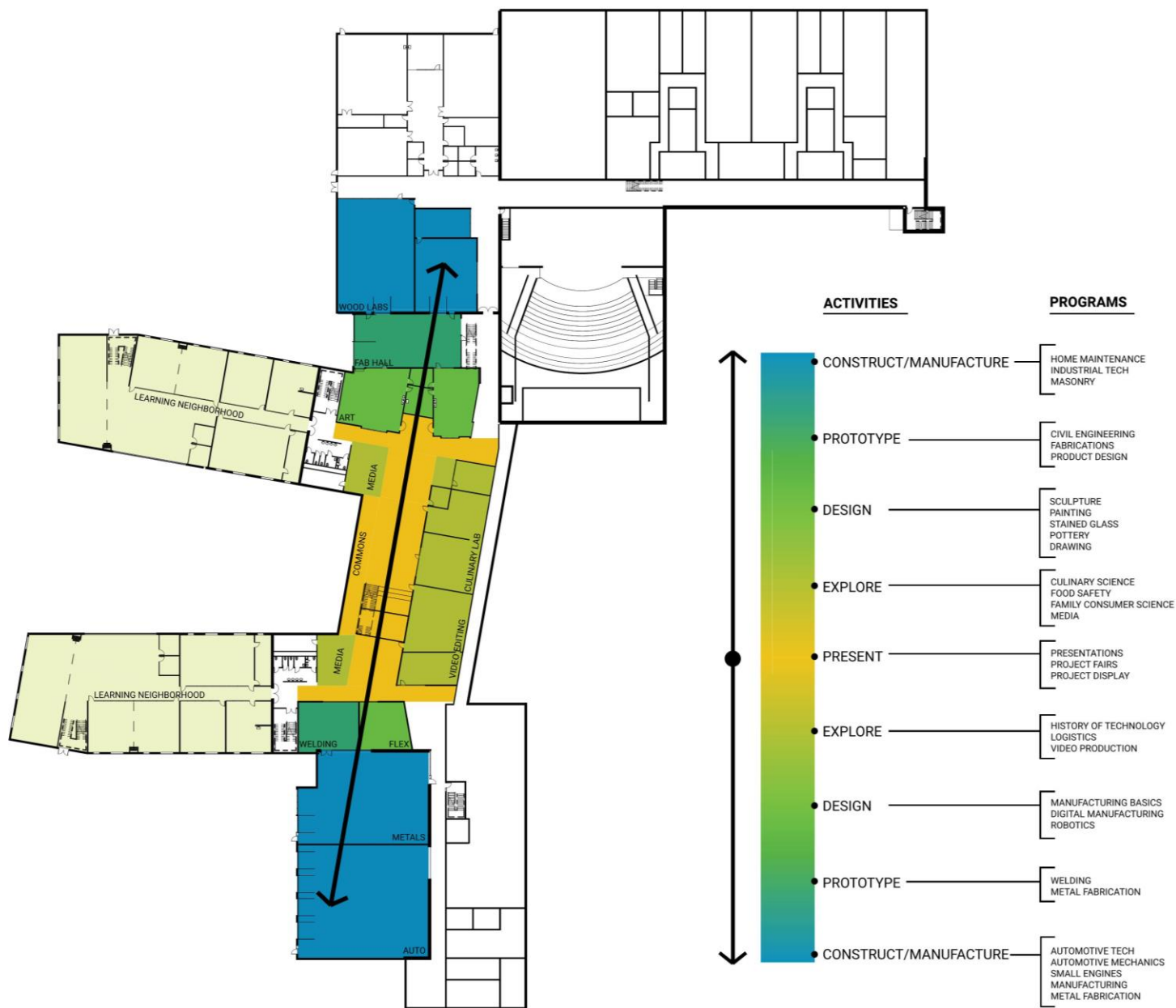
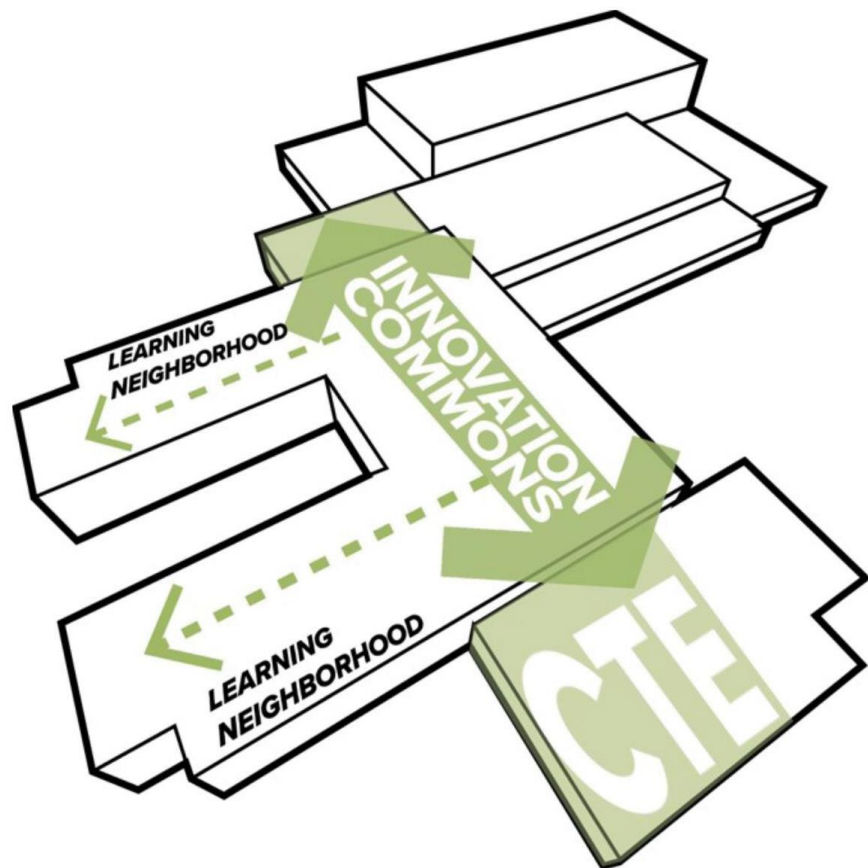






“My favorite part of the new school would probably be all the different types of classroom areas that give us **new ways to work together**. We’re not just in a normal classroom all day. There are lots of open spaces and small group areas and we’re able to **collaborate on all types of projects like we will after high school.**”

- Samantha, Junior at RRHS

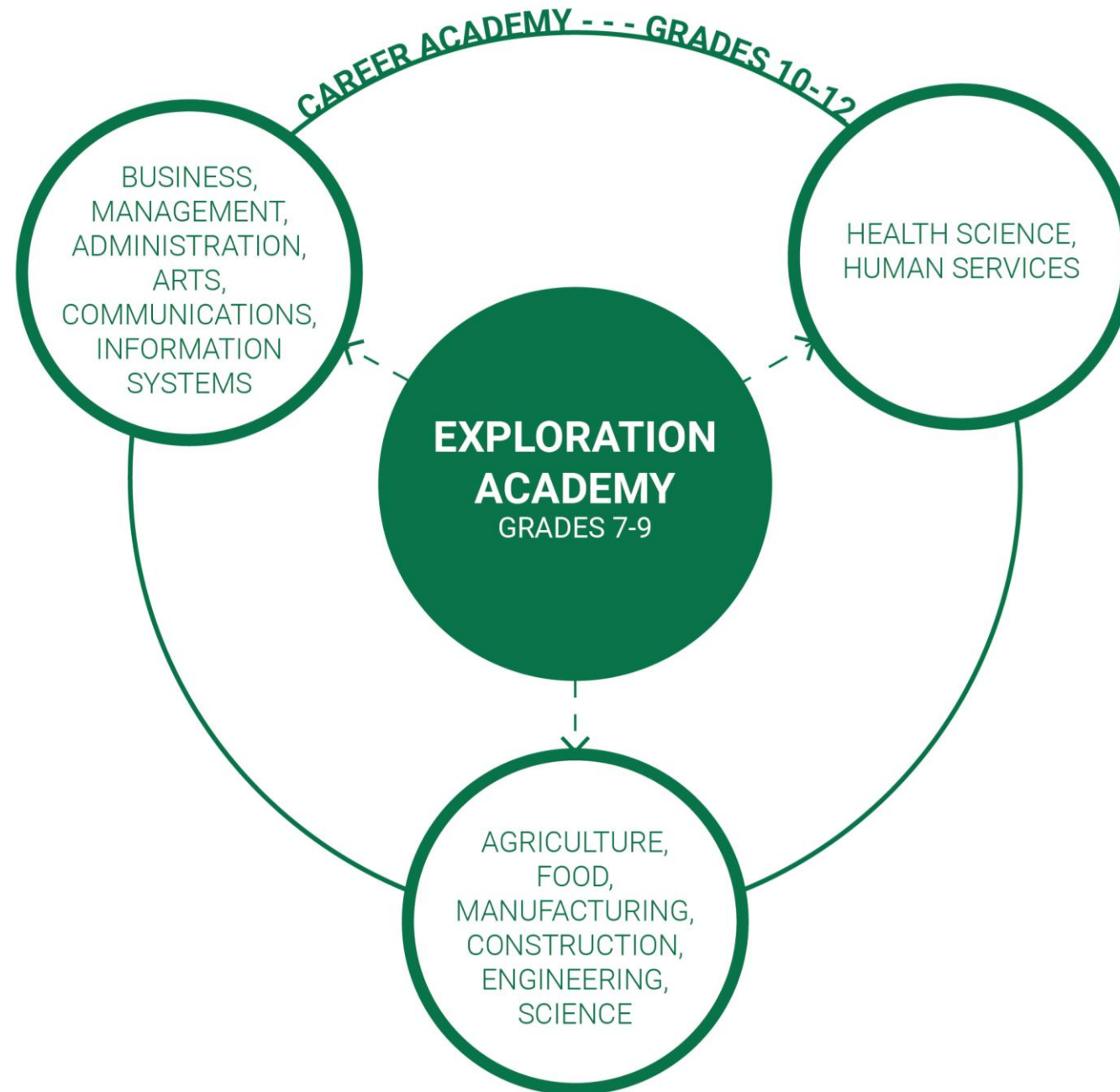














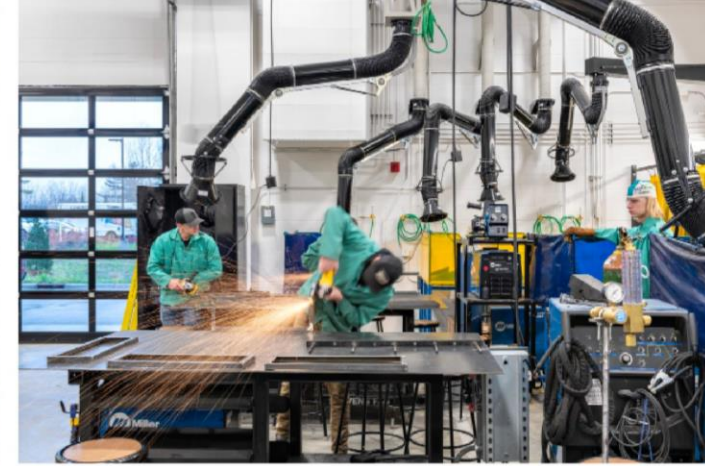






“This school prepares kids for the future - the open campus, the ability for our students to follow different tracks, becoming ingrained with local businesses and learning how they can take what they learn and move right into the workforce.”

- Bill Bryson, Technology Director



Let's talk...



