

Closing the Loop at North Park School for Innovation

2022 A4LE Midwest / Great Lakes Regional Conference

Cunningham



Introductions



Jeff Cacek

Principal - North Park School for Innovation



John Pfluger

Architect - Cuningham



Jen Garman

Architect - Cuningham



Devon Clark

Landscape Designer - Cuningham



A quest for equitable
learning opportunities

Radical Incrementalism

2021+
Zero Waste

2018
Learning
Landscapes

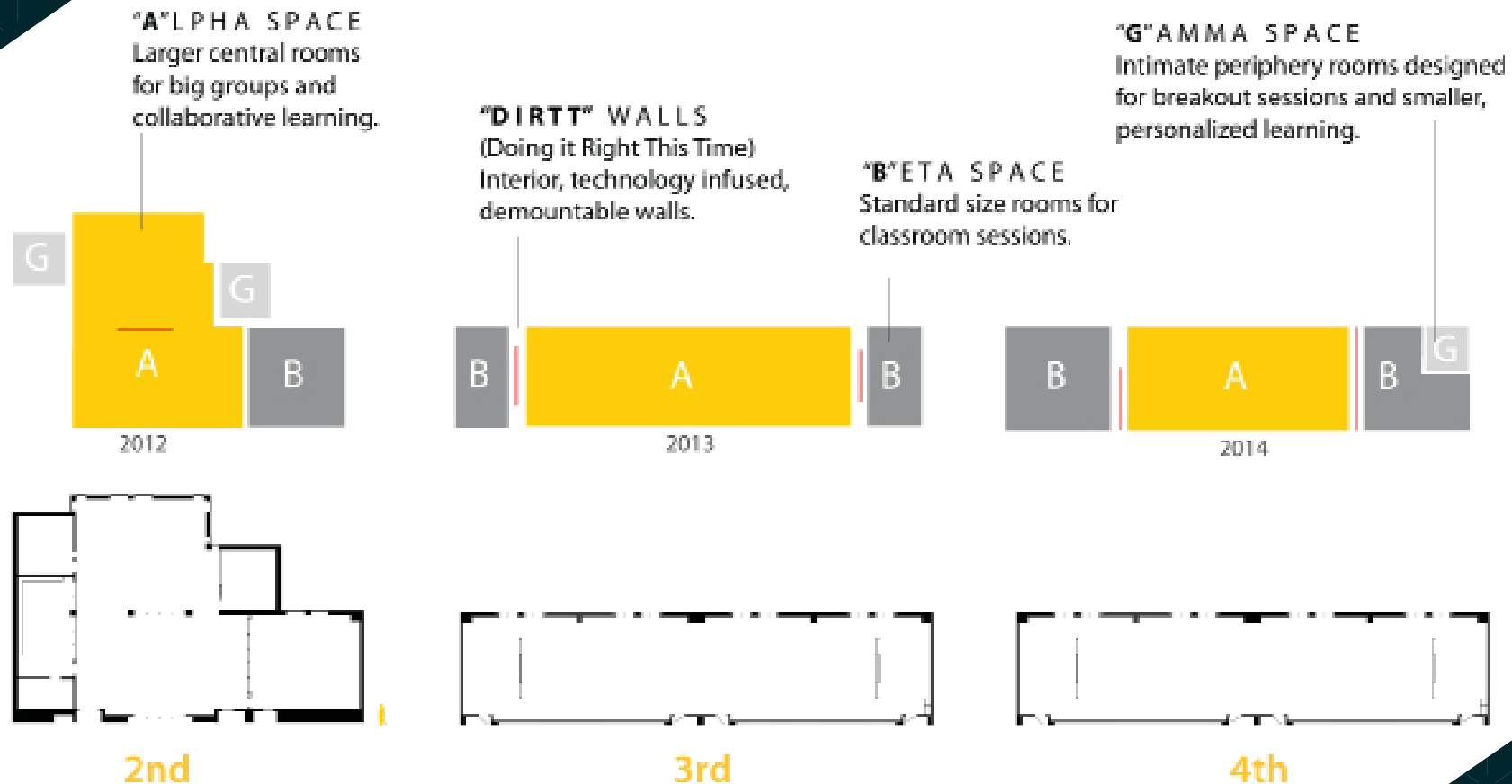
2016
School Growth
(referendum
& active
learning)

2012
Re-imagined
studio concept
for equitable
learning



**EXECUTE.
REVIEW + ADJUST.
REPEAT.
FOREVER!**

Changing the educational model

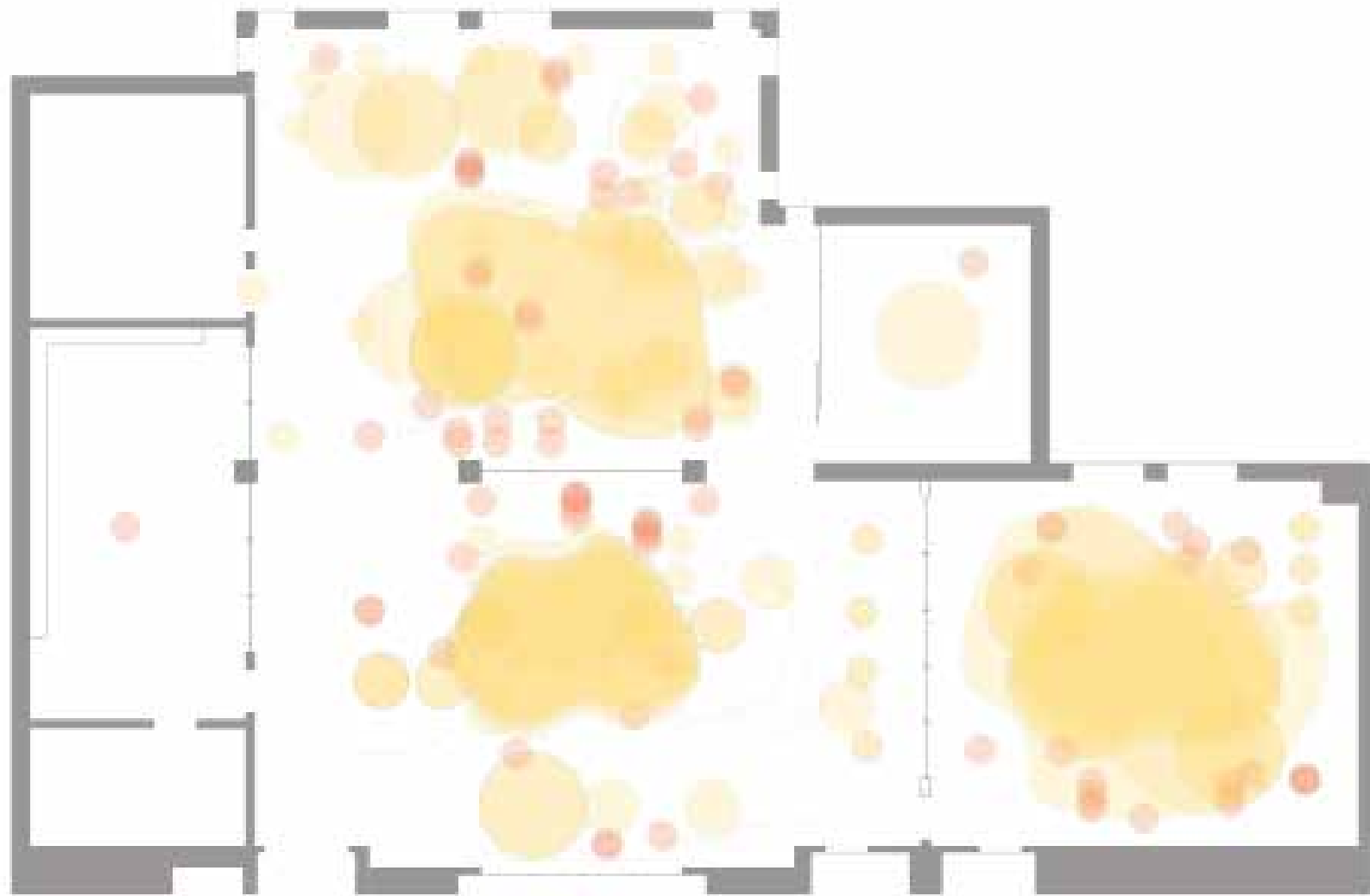


2012



Recorded over two hours

2nd





Student Outcomes

91% **Increased Student Engagement**
Parents reported that their child is excited about what he or she is learning

96% **Increased Confidence**
Students shared that they have learned things that make them feel good about themselves and are proud of the work they have done in school

98% **Improved Peer Relationships**
Students said they have learned how to get along better with others in learning studio environments

91% **Improved Problem Solving Skills**
Students reported that they learned a variety of ways to solve problems

87% **Increased Future Orientation**
Students said that what they have learned in school has helped them imagine their life as an adult



Teacher Outcomes

Philosophy Shift

Learning studio environment has changed teacher's approach to education

Student-Driven

Teachers are more comfortable giving their students choices and opportunities to take ownership over their learning, including open-ended learning activities

Flexibility

Learning studios have enhanced teacher's adaptability - classrooms are always changing, including teacher-student configurations, space, noise-levels, approaches to learning

Teacher Learning

Many teachers felt they, too, are learning in this environment! They are learning by collaborating with other teachers, trying new approaches and following what students are pursuing in their learning

Parent Satisfaction

My child wants me to know what she/he does in school

93%

My child is excited about what he/she is learning this year

91%

My child prefers learning in a Learning Studio

88%

I would like my child to continue to have a similar learning experience in the future

85%

I would recommend this type of learning experience to other parents

79%

21st Century Learning Studio Evaluation - Wilder Research.

2014

Fast Forward to 2016

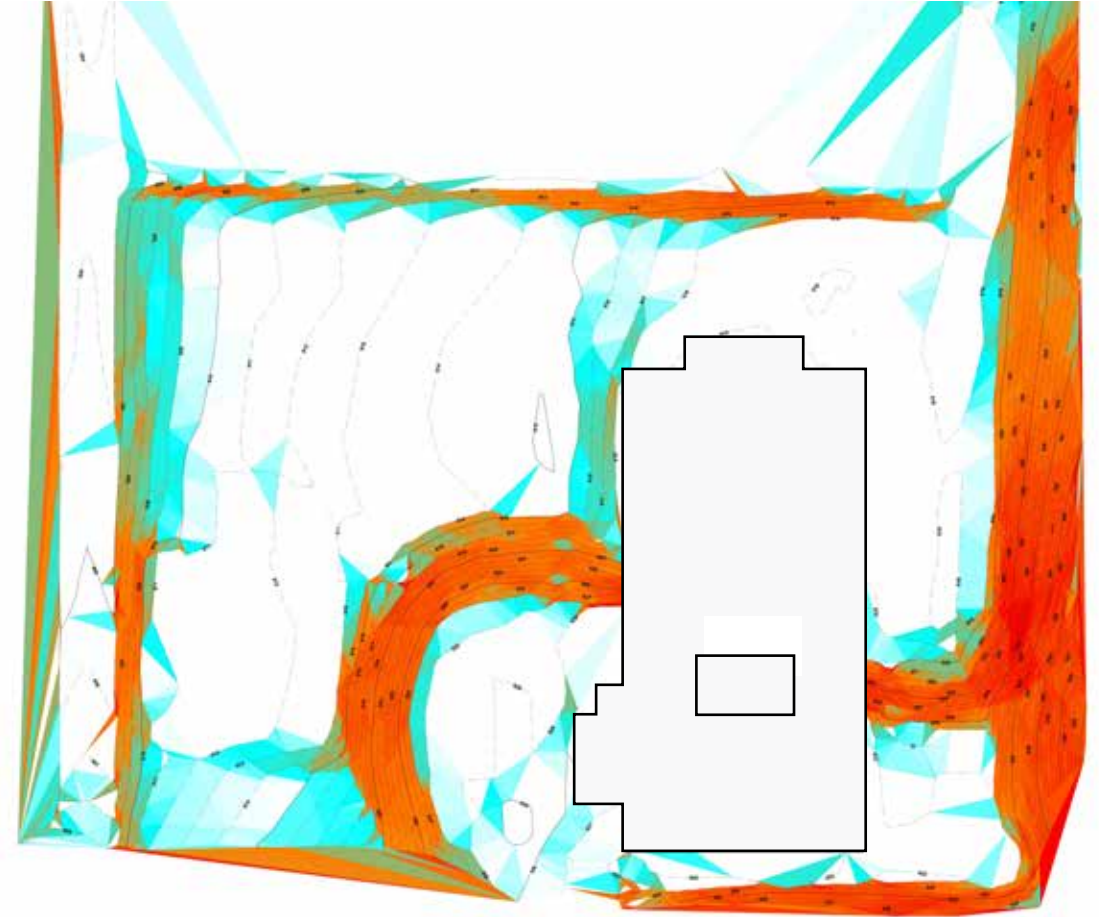
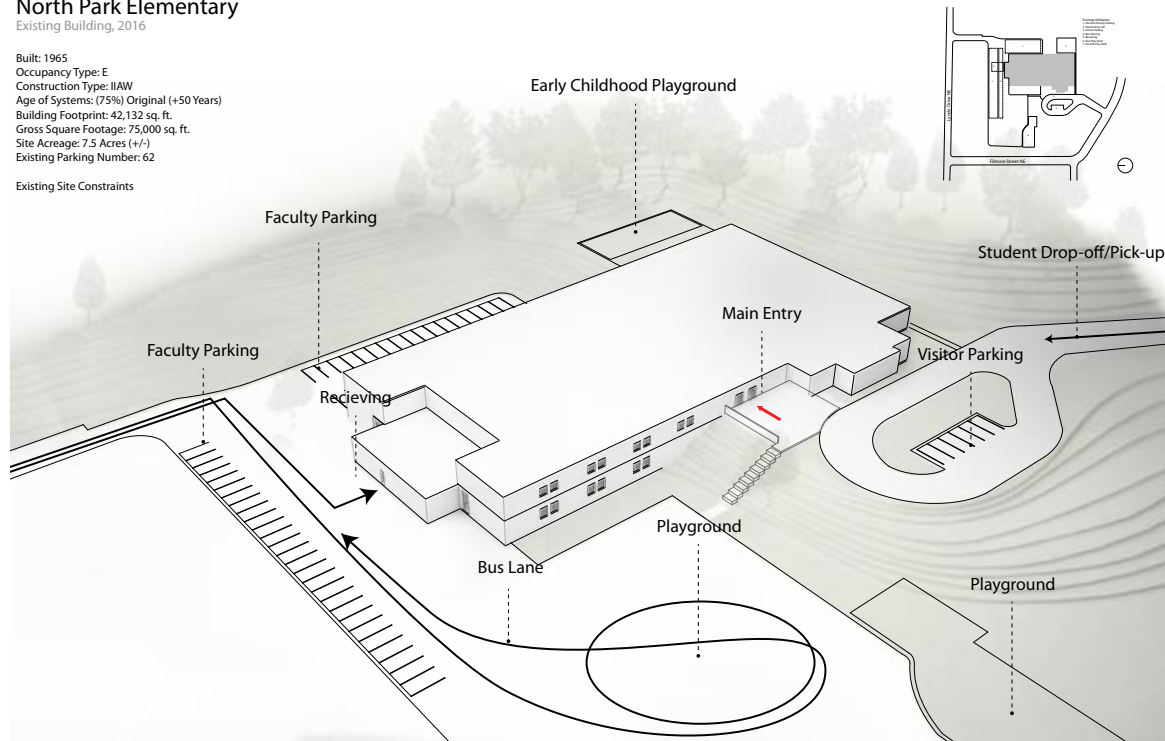
School Growth – Master Plan

Previous Site Conditions

North Park Elementary Existing Building, 2016

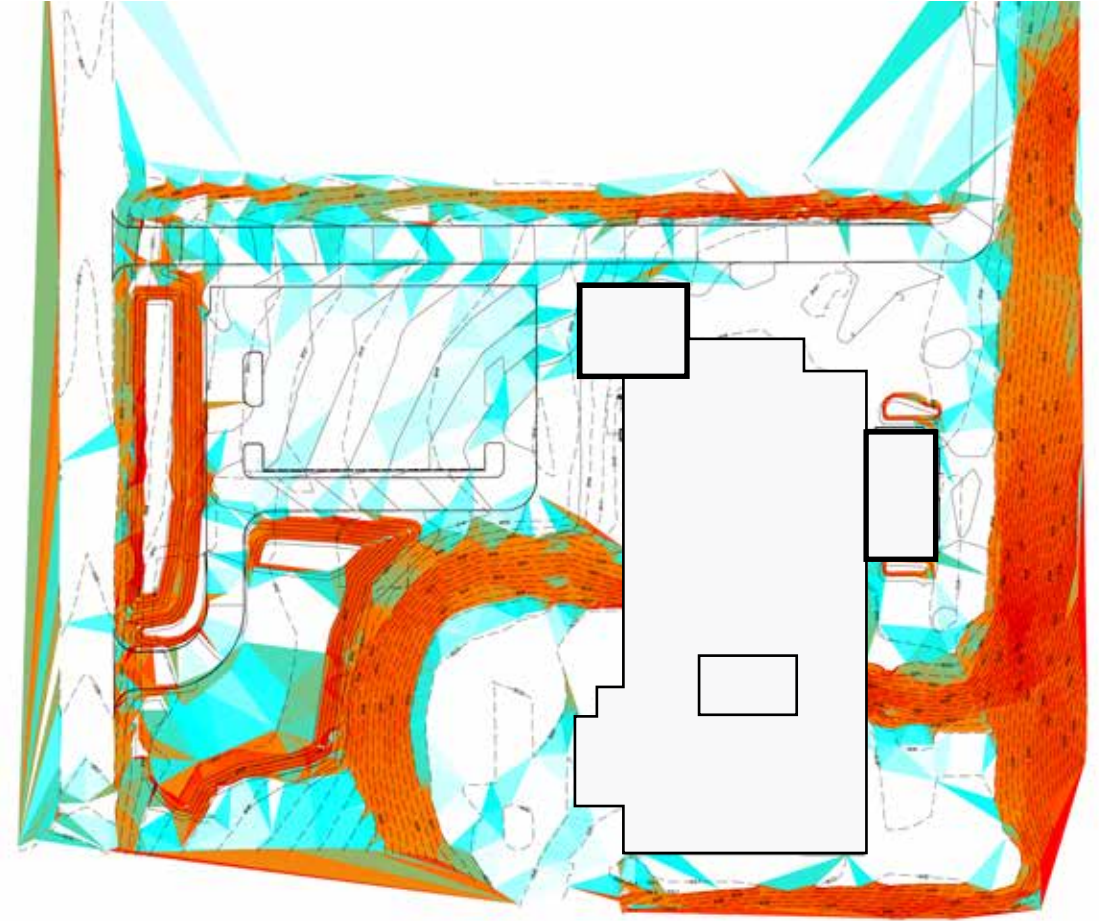
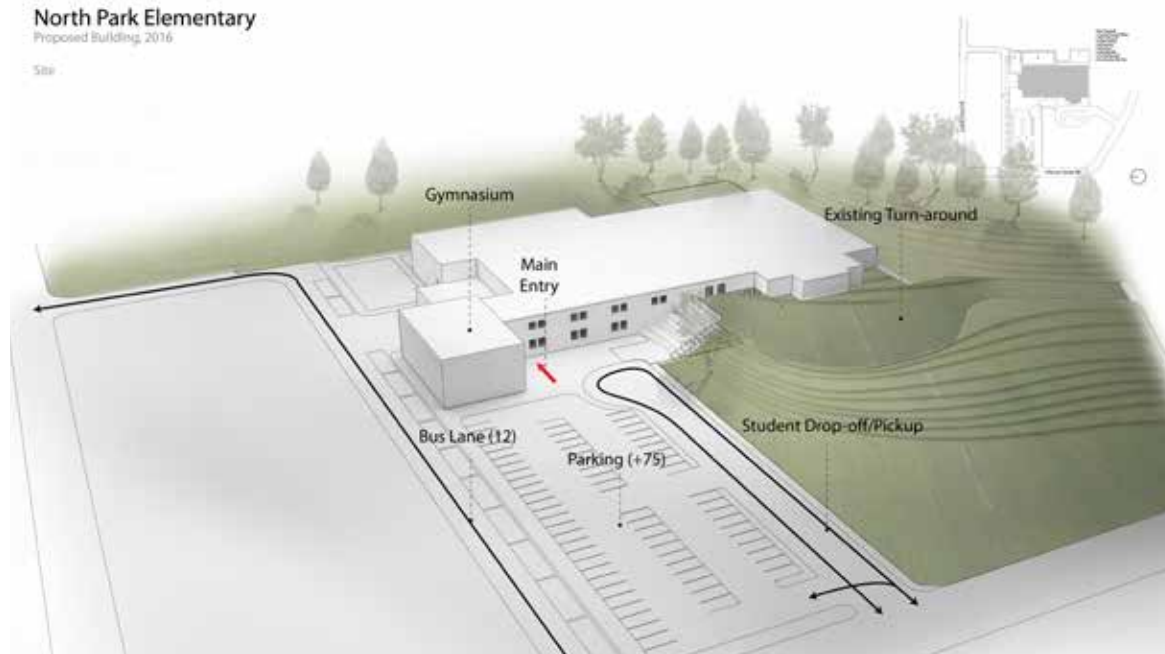
Built: 1965
Occupancy Type: E
Construction Type: IIAW
Age of Systems: (75%) Original (+50 Years)
Building Footprint: 42,132 sq. ft.
Gross Square Footage: 75,000 sq. ft.
Site Acreage: 7.5 Acres (+/-)
Existing Parking Number: 62

Existing Site Constraints





Proposed Site Conditions



Fast Forward to 2018

School Growth – Referendum

Regenerative Sustainable Goals



Enriching Equitable Learning Opportunities
for All Students

Daylighting and Views

Weave Sustainability and Curriculum

Learn with Nature

Manage Stormwater On-Site

Restore Biodiversity

Zero Waste

Net Zero Carbon by 2025

Sustainability Milestones

1,200 sf

Edible Courtyard Gardens

10 years

Recycling + Composting

60 kWh

Roof Top Solar



Referendum Passed On Second Attempt!



Learning Addition
Cafeteria Addition
Playground
Safe + Secure Entry
Circulation + Drainage

2018

Site I Outdoor Learning



2

Rainwater Gardens



1

Infiltration/Pollinator Garden





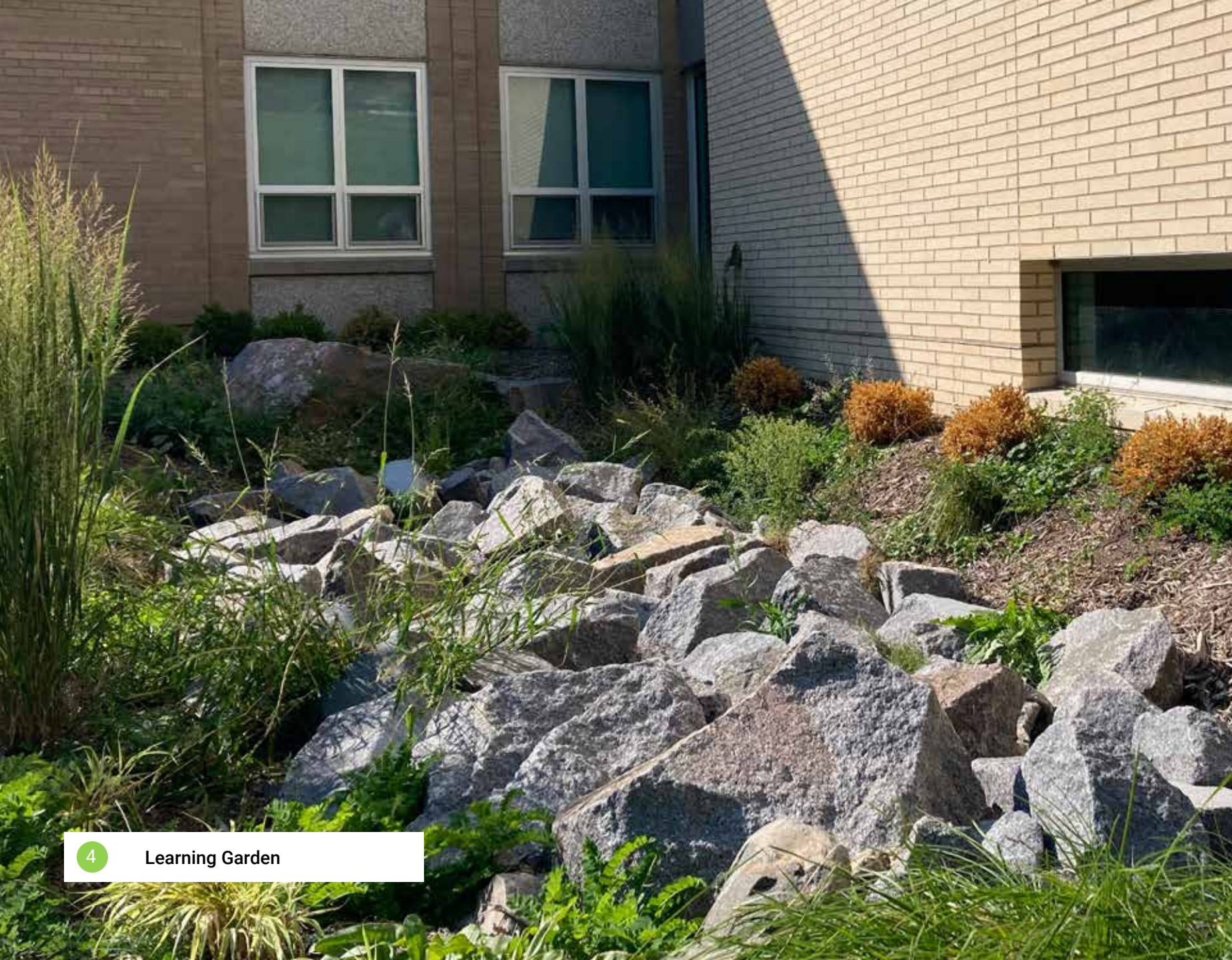
3 Edible Gardens



A New View







4

Learning Garden



Pre-K + K Studios



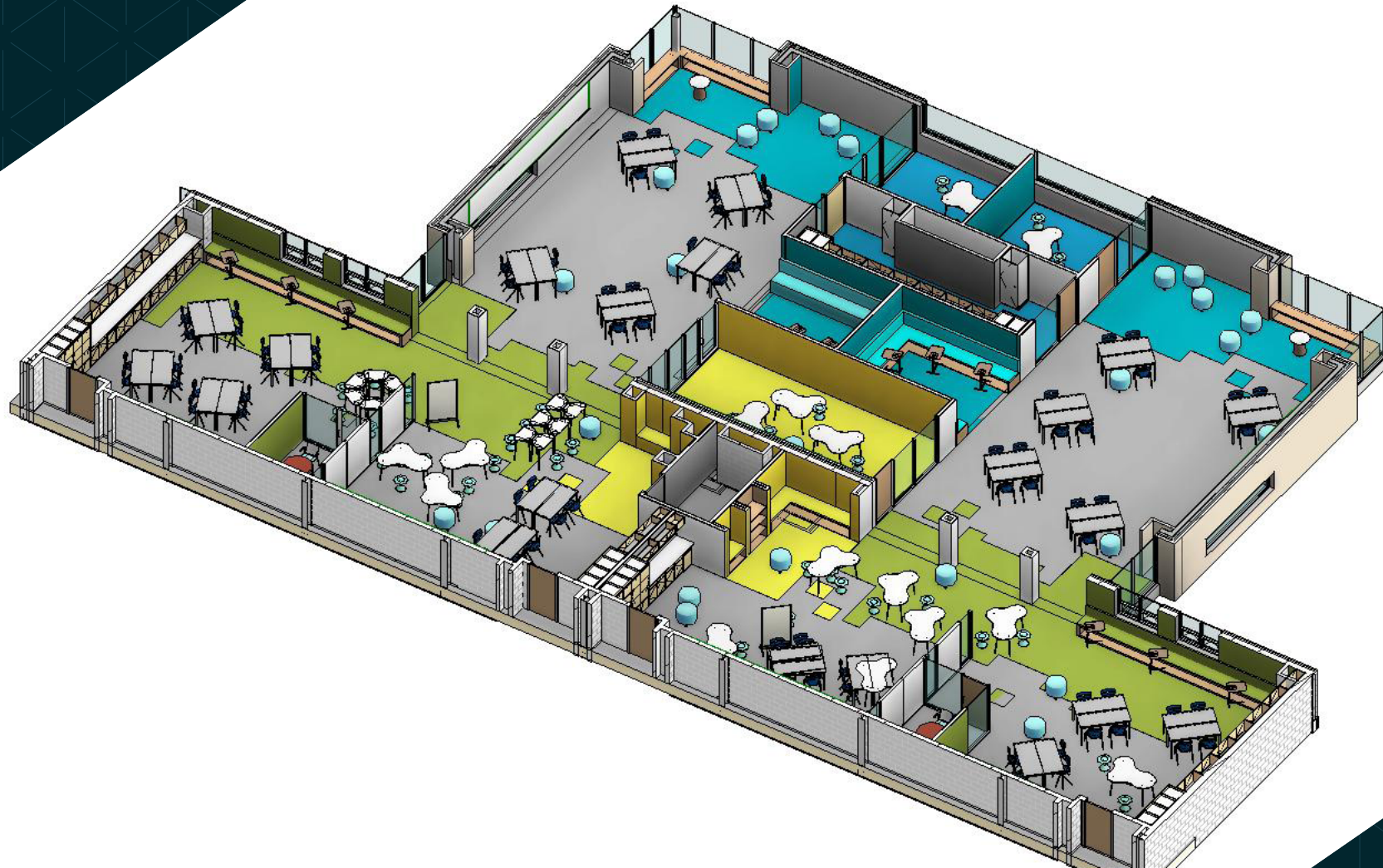
2018







Learning Studios



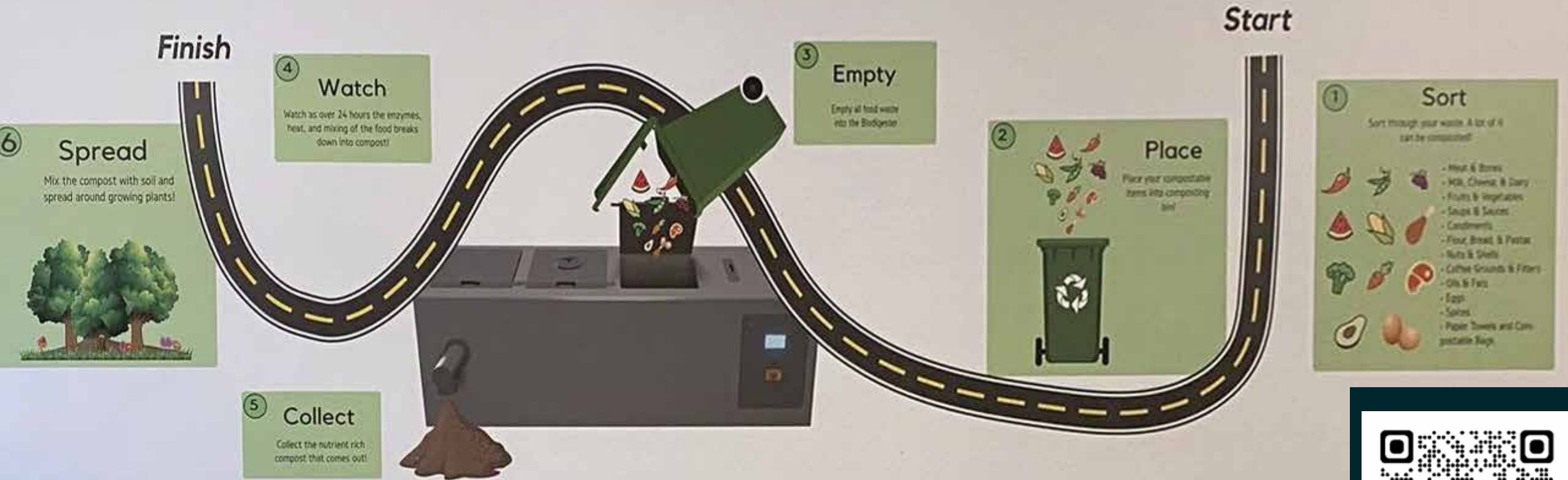
2018





Bringing us to today

Road Map to 24 Hour Composting



Scan this QR Code to learn more about biodigesters!



Sustainability Curriculum



Scan this QR Code
to watch "Helping
Our Planet" North
Park's Youtube Series
featuring their integrated
curriculum





Sustainability Curriculum

Creating the Pollinator Garden

Students repurposed cardboard and biodigestate in creation process. Every student in the building participated.

Biodigestates at Home

Students repurposed milk cartons (cartoned milk instead of bulk due to supply chain issues) to use as containers for biodigestate which was given to all families at parent teacher conferences.

Green Team

Team's charge is to maintain our sustainability measures in the building. Tasks include:

- Retrieving gray water from STEM lab to use for building's plants
- Maintain the grow tower where garden plants grow from seed
- Assist with sorting waste at breakfast and lunch
- Help with landscape maintenance



Sustainability Curriculum

Vermicomposting with “Worm Hotels”

Learning about Microplastics

Students create screens to filter microplastics out of our biodigestate before sending it to its final use.

Interacting with the Edible Gardens

Students prep, plant, nourish, maintain, harvest, and winterize our edible gardens.



Steps to Net Zero

LEARNING LANDSCAPES

- 44,000 sf of rain water treated on site (8,000 sf roofwater / 36,000 sf hardscape)
- 21,100 sf of native landscaping
- 21,400 sf of reclaimed greenspace
- 3,500 sf of edible gardens

CURRICULUM

- Courtyard garden was a 3rd grade legacy project
- Waste, sorting, recycling

WATER | ECOLOGY

- Prairie planting, trees, maple tapping
- Greywater Reclamation

ENERGY

- 100% heat for new addition by Biomass boiler
- 84 kW Solar Array
- School has achieved Net Zero in the summer

WASTE

- Garbage collections reduced from twice weekly to once a month
- Zero plastic and drastically reduced recycling



Reflecting on the Process

What is one thing that your school could do to move your vision forward?







Cafeteria



Library









The Team



Contact

Jeff Cacek, Principal
North Park School for Innovation
CacekJ@colheights.k12.mn.us

Jen Garman, AIA, LFA
Regenerative Design Leader, Cuningham
(612) 540-6167
jgarman@cuningham.com

Devon Clark, ASLA
Landscape Designer, Cuningham
(612) 540-6184
dclark@cuningham.com

Hear more of the story



North Park School of Innovation

Columbia Heights School District
Cuningham - Architecture + Interior Design + Landscape Architecture
BKBM - Civil + Structural Engineering
Hallberg Engineering - MEP
Kraus-Anderson Construction Company - Contractor
Willdan The Weidt Group - Energy Design Assistance
Questions and Solutions Engineering - Commissioning
Flagship + Landscape Structures - Playground Equipment



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