Good Neighbors: Developing a Synergistic STEM + CTE Campus

A4LE Northeast Annual Conference 2018

April 12, 2018



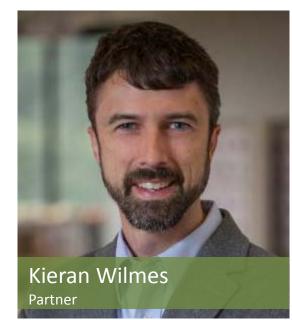
GRIMM AND PARKER Creative Collaboration Sustainable Solutions Engaging Environments



Today's Speakers



Montgomery County Public Schools



Grimm + Parker Architects



Thomas Edison High School of Technology



Our Agenda



The Planning Process Design Integration What's Next? Lessons Learned



The Planning Process

Montgomery County P.S. Background

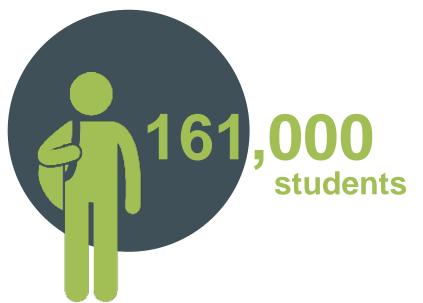




205

schools

- + (25) high schools
- + (38) middle schools
- + (133) elementary schools
- + (4) special education centers
- + (1) CTE school
- + (1) alternative education school



Diverse school system — racial/ethnic profile for school system

Wheaton High School

MCPS G+P

Kennedy

DCC

Northwood

Vheaton

Blair

Part of a **5** high school consortium where students choose their focus:



Four Academies

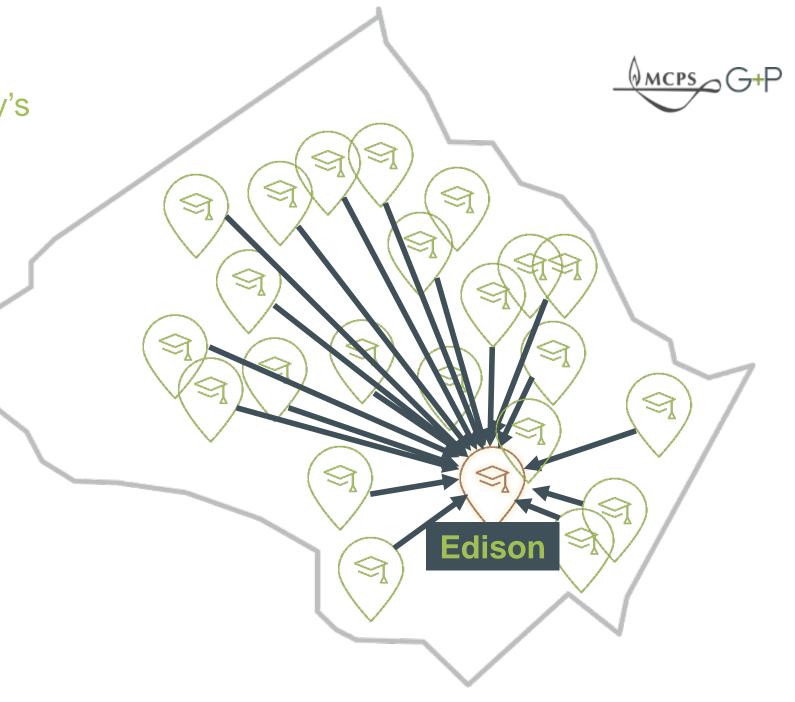
- + Bioscience Academy (PLTW)
- + Academy of Information Technology
- + Academy of Engineering (PLTW)
- + Institute for Global and Cultural Studies
 - Global Studies Pathway
 - Digital Music and Arts Pathway

Two Application Magnets

- + Biosciences
- + Engineering
- + Current Enrollment:1,959 students



- + 3 class periods each day
- + AM and PM sessions
- + 17 Programs at Edison.... and growing
- + 640 students at existing school
- + 900 students design capacity at new school





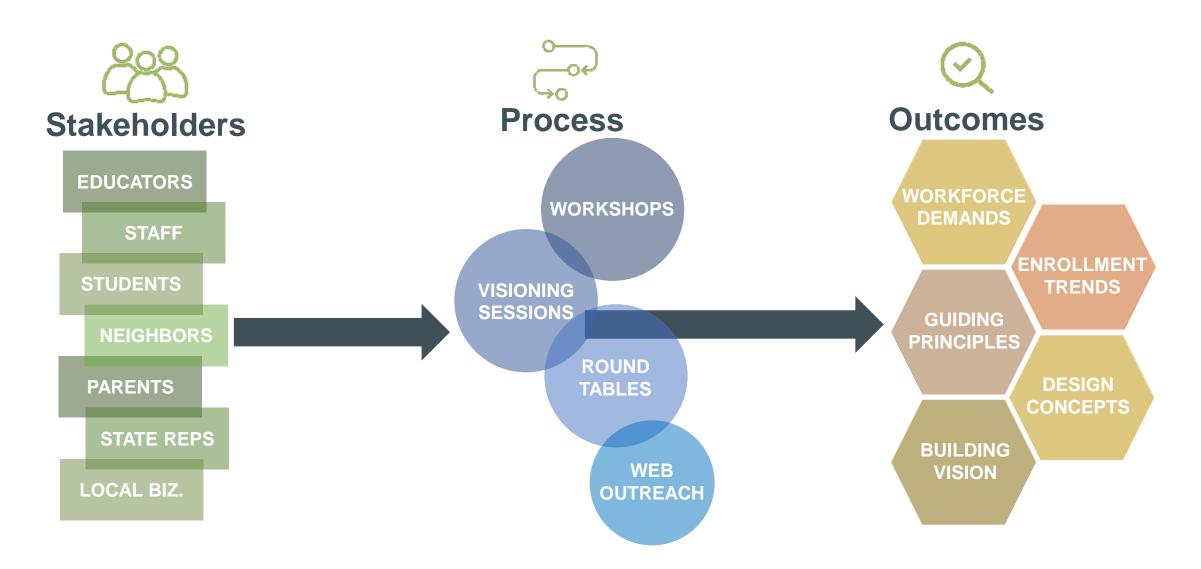
The Wheaton-Edison Study

- + Embarked on 2-phase Planning + Feasibility Study
- + Challenges:
 - School identity and image: 2 vs 1
 - Low enrollment at both schools
 - Small sandbox: tight site, no swing space
 - Evolving CTE model: educational objectives + goals
 - Upcoming modernization for two schools
- Charged to develop a wide range of program and facility approaches to define relationship between two schools

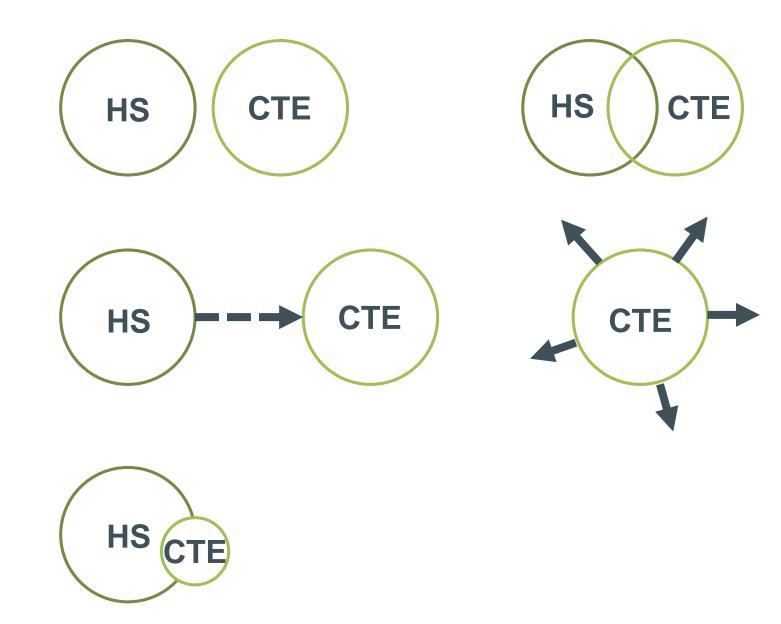


The Planning Process Community Engagement





Several Approaches Developed



- 1. One Comprehensive High School and One CTE Center as two separate buildings
- 2. One Comprehensive High School and One CTE Center as one building on Current Site
- 3. Wheaton HS remains on current site and CTE program is relocated to another site
- 4. Create multiple locations for CTE
- 5. Consider Charter School with business partners for CE programs

The Planning Process Issues – Two Separate Facilities



- Provide Magnet at Wheaton HS to increase enrollment
- Enhance schools' identity to attract more students
- Students can make decision on CTE at Grade 11
- Students maintain home school identity while focus on specific CTE at Edison
- Provide more flexibility in future



- Opinions differed on whether the this model would improve enrollment at Edison
- Continue with current model would lead to same outcomes and difficult to meet needs of all students
- Meet the needs of all students
- Impact on athletic facilities

The Planning Process Issues – Single Comprehensive High School



- Provides strong school identify
- Prepare students for college and career
- Encourage stronger partnerships with business and industry
- Career-oriented students would not be segregated
- Provide students with more flexibility in scheduling

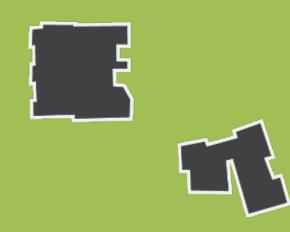
Cons

- Difficult for students to make choice at start of high school
- Students may be less willing to give up home school to attend CTE program
- Wheaton HS may be perceived as a "vo-tech" high school and not improve image of high school

What would you do



One comprehensive building for both schools or two separate facilities...



- Superintendent recommended one comprehensive building for both schools
- Based on community input during public hearings Board of Education adopted plan for two separate facilities

...what happened.

Design Integration

10.0

Design Integration Solve the Puzzle









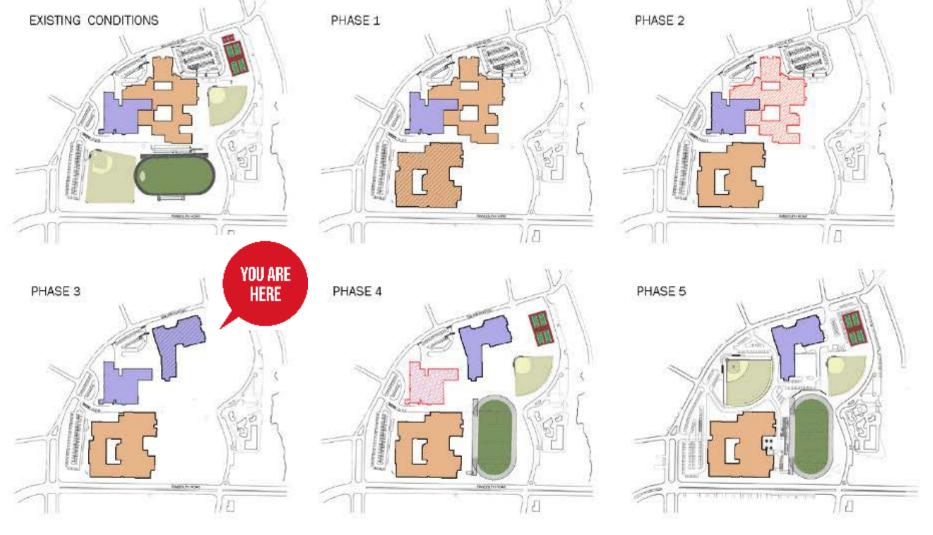






Design Integration Overview: Wheaton-Edison Campus





Design Integration Overview: Wheaton-Edison Campus





Design Integration Overview: Wheaton-Edison Campus





Design Integration Wheaton HS: Design





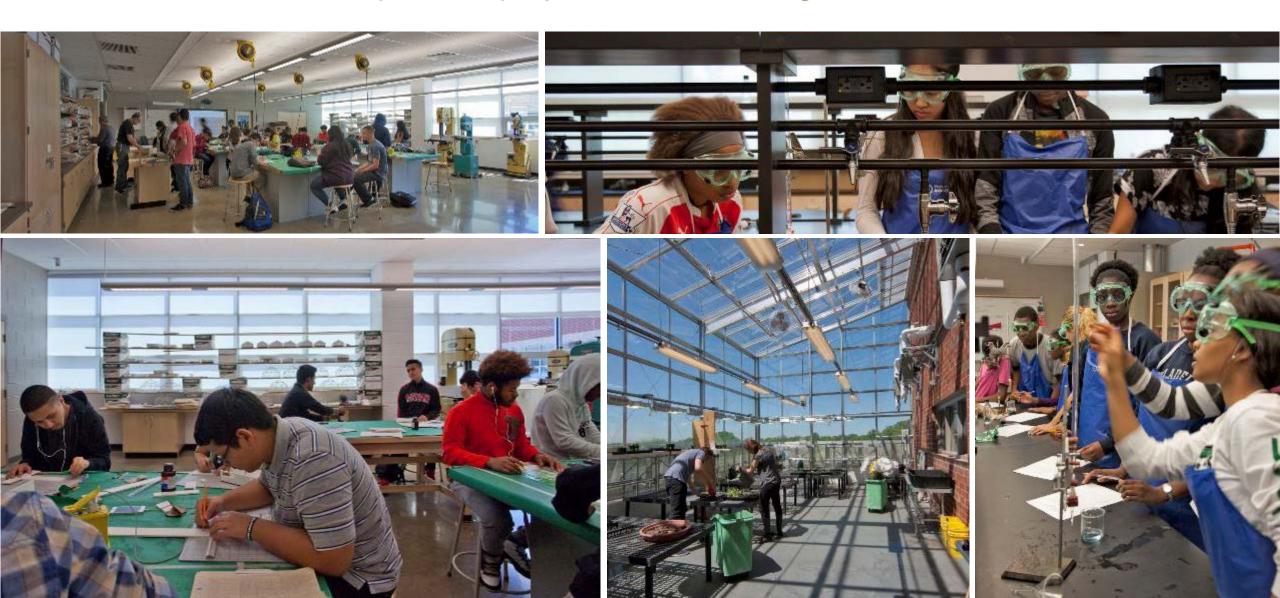
"The most fertile and engaging space in our culture is at the intersection between new technology and the humanities."

Steve Jobs



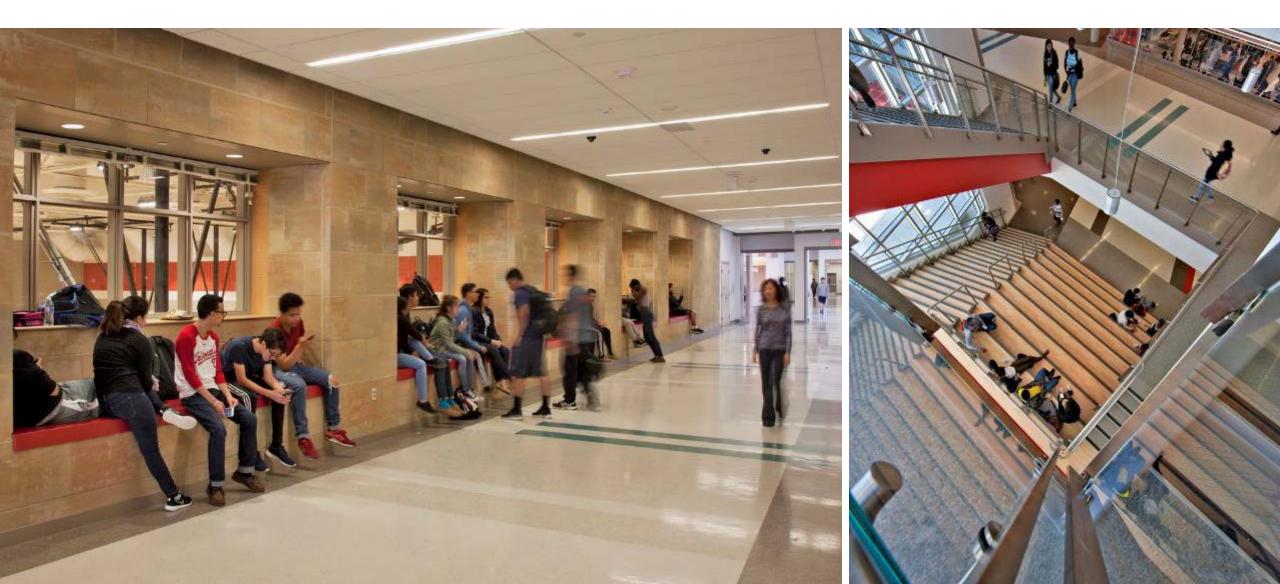
Design Integration Wheaton HS: STEM spaces = project based learning





Design Integration Wheaton HS: Places to see and be seen





Design Integration Edison: Guiding Principles + Project Goals



| Professional grade for all programs | Places for students to gather 2 | Abundant daylight throughout |
|---|---|------------------------------------|
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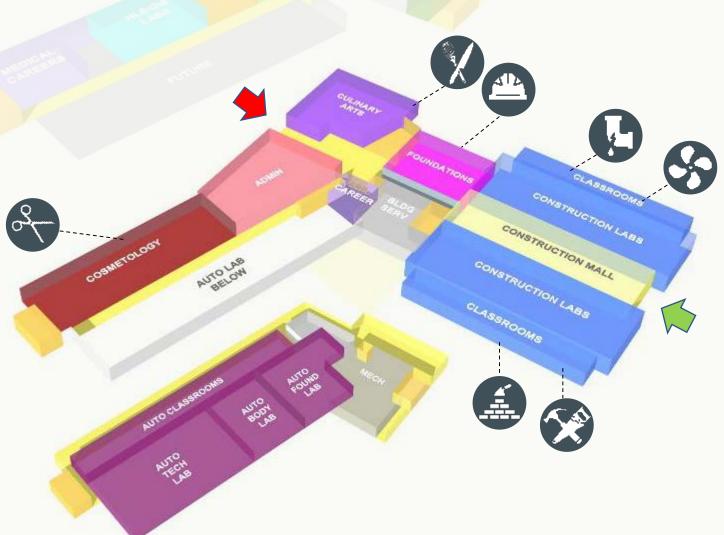
Design Integration Community Interface Edison: Goals Inform Design





Design Integration Community Interface Edison: Goals Inform Design FOUNDATIONS COSMETOLOGY AUTOLAS AUGONO BUOY AUTOCLASSROO AUTON BOOM

















Design Integration Engagement Influences Design: A Place to Gather









Design Integration Engagement Influences Design: Feed the People



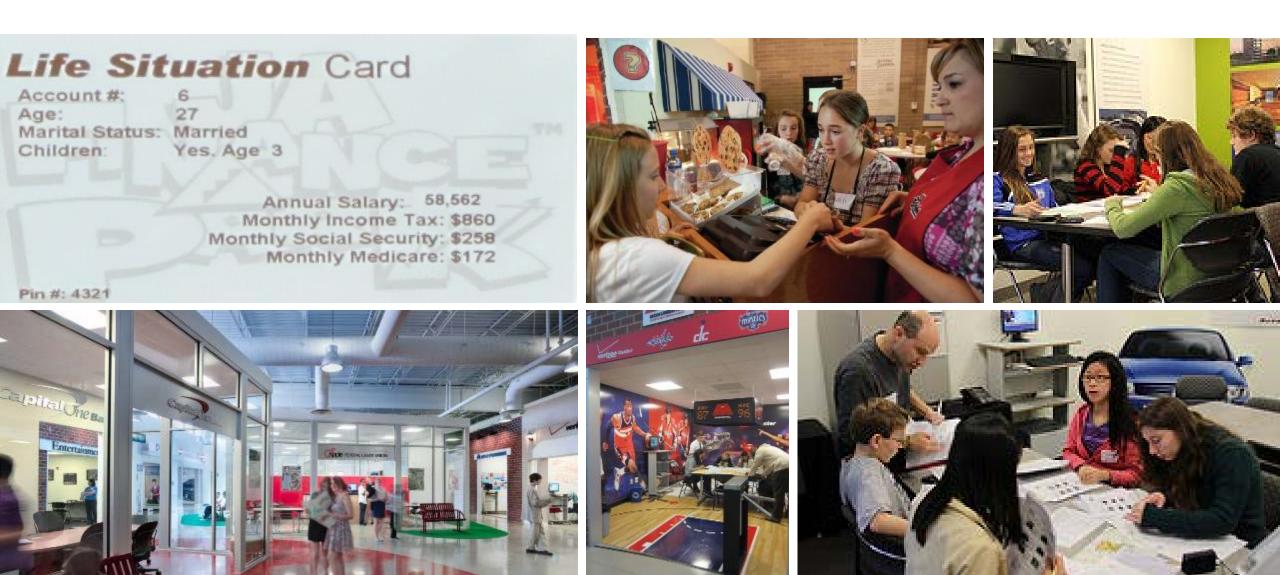
Food options for 1/2 day





Design Integration Adapting to change: Junior Achievement





Design Integration Adapting to change: Junior Achievement





What would you do (2 + Integrate JA program into the plan?

(JA)

JA

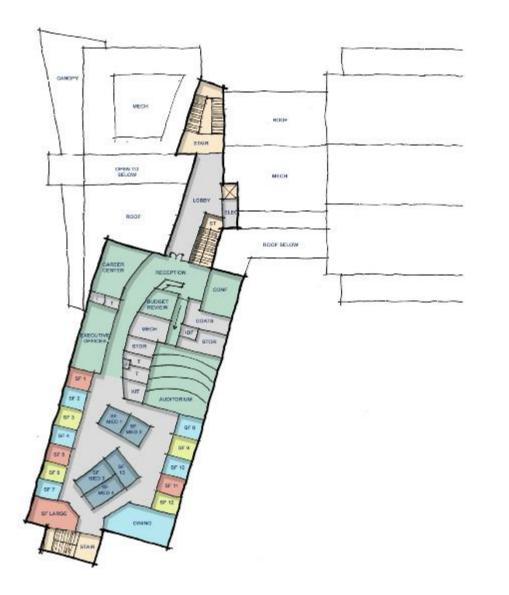
+ Separate JA program on top floor?

+ Run away as fast as you can?

- Junior Achievement suite developed on new 4th floor
- Provides safe separate of Edison and JA programs
- Middle school students experience Edison programs as they ascend thru the building

...what happened.

Design Integration Adapting to change: Junior Achievement





What's Next?

What's Next? Changes are Happening...



 + Enter new MCPS Superintendent: Career-Ready focus
 + New Principal hired during construction: New Vision + Energy
 + MCPS Focus on Career Readiness New report looks forward

MONTGOMERY COUNTY PUBLIC SCHOOLS CAREER READINESS | EXTERNAL REVIEW **Preparing All** Students for Economic & **Career Success** SEPTEMBER 2017 ESG Education Strategy Group

What's Next? Edison: the Keystone Institute to College + Career Readiness



STUDENT OPPORTUNITIES

- Junior Achievement
- Montgomery College
- Ana Mendez Comm. College
- CREA Career Readiness Education Academy
- SkillsUSA
- Foundations Office
- Business Partnerships
- Apprenticeships



What's Next? Every student, a different story...





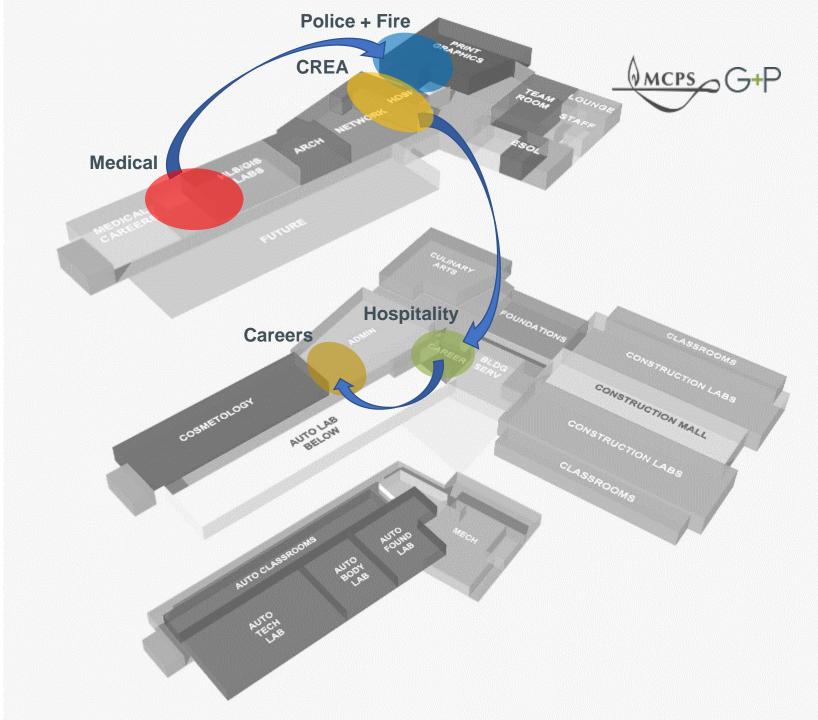
What's Next? Program evolution

PROGRAM DEMANDS:

- Need room for CREA
- Medical program #s are up, need a new lab
- Add Police + Fire Academy

ADAPT THE PLAN:

- Consolidate Print program
- Align Hospitality with Restaurant
- Move Career Center



What impact would

...a new Principal have on the design + construction process? in on the second

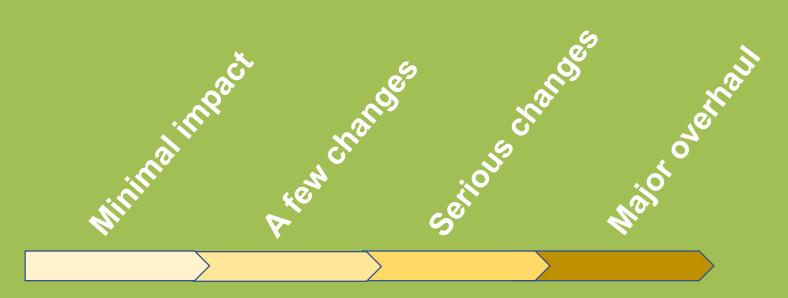
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What impact would

...a new Superintendent have on the design + construction process?

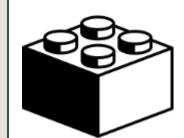


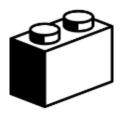
Lessons Learned

Lessons Learned What would we do differently...the same...

Modularity: keep it simple...

- + Small labs for light duty programs
- + Medium labs for mixed use programs
- + Large labs for heavy duty programs









Lessons Learned What would we do differently...the same...





 Flexible infrastructure: building systems that allow for program evolution

A Shirting a

- Communication: engage all
 stakeholders and departments,
 and when you think you're done,
 re-engage
- Agility: Get ready, change is coming!



Thank you. Any Questions?





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