

Re-Envisioning Career and Technical Education for Authentic Learning

The Advanced Career Education Centers
at Hermitage and Highland Springs



LEARNING OBJECTIVES

1. Learn how innovations in CTE programming have transformed traditional career and technical education.
2. Understand how fully integrated learning environments connect CTE programs to the larger community through entrepreneurship and real-world projects.
3. Illustrate design principles that are critical to creating optimal learning environments for CTE programs.
4. Demonstrate how to empower students by promoting equitable access to careers through alternative learning pathways.

A little about us:

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RE-ENVISIONING CTE

Schools and Centers

Elementary.....	46
Middle.....	12
High.....	9
ACE Centers.....	3
Alternative Programs.....	3
Henrico Virtual Academy.....	1
Total Schools and Centers.....	74

Students

Elementary.....	21,664
Middle.....	11,070
High.....	15,656
Other.....	559
Total Students.....	48,949

Diversity

African American.....	35%
Asian.....	14%
Caucasian.....	33%
Hispanic.....	13%
Multiple Races.....	5%
Other.....	4%

Economically Disadvantaged..48%

Graduates

Total Annual Graduates.....3,840

Total On-Time Graduation Rate.....90.7%

CTE On-Time Graduation Rate.....98.9%

A little about
Henrico County Public Schools



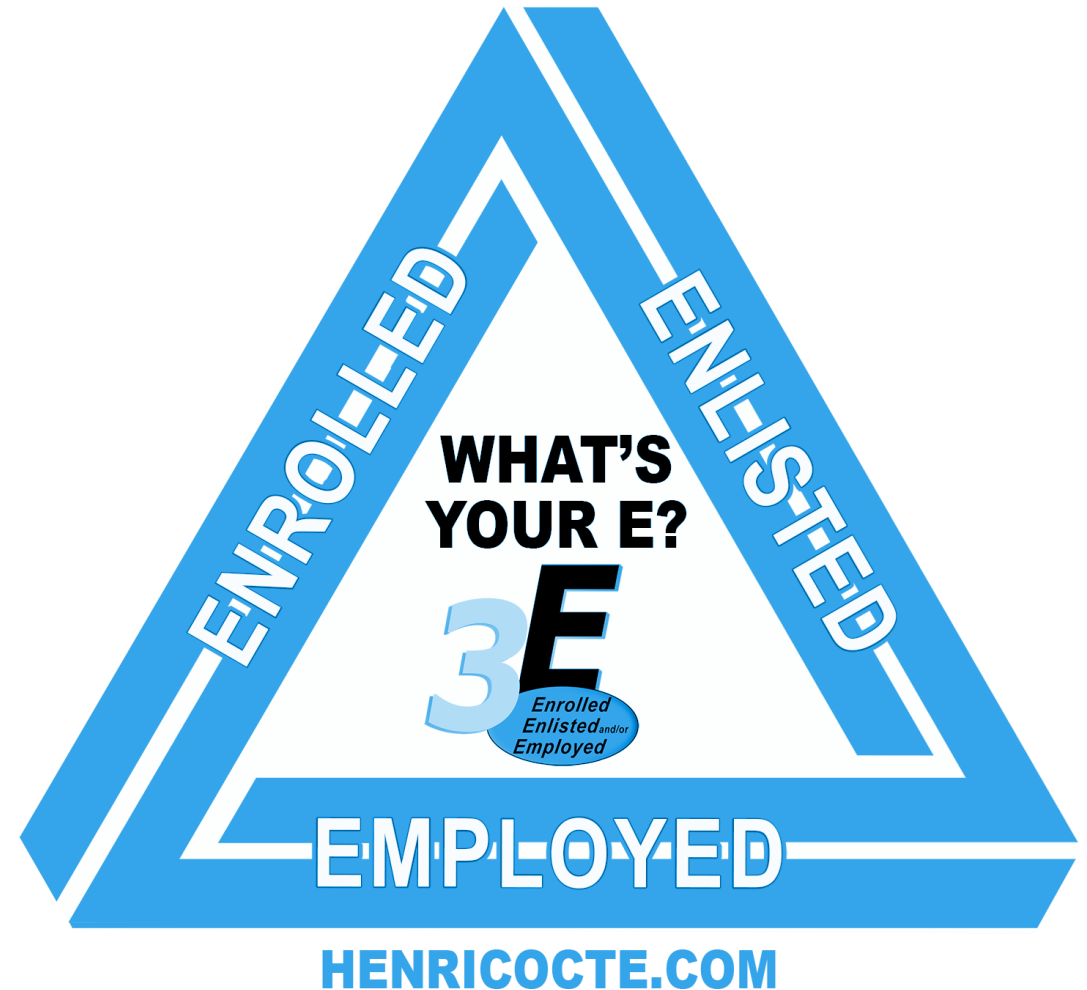
Make sure every student knows their **WHY!**

- In Henrico County, every student will graduate:

- Enrolled
- Enlisted

AND/OR

- Employed



FOUNDATIONS

Answering the WHY not the WHAT

Vo Tech:



ACE Center:



FOUNDATIONS

Answering the WHY not the WHAT

Prior to:

- For specific students
- Limited program areas offered
- Separate “track” with a focus on technical education
- High school focused
- Students trained with focus on specific occupational skill set

Moving forward:

- For all students
- 17 Career Clusters and 79 pathways offered
- Integrated with academics in a rigorous and relevant curriculum
- High school and post-secondary partnerships providing pathways to employment and/or associate, bachelor’s and advanced degrees
- Progression of foundational, pathway, occupational and 21st Century skills
- Opportunities for meaningful work-based learning opportunities

RE-ENVISIONING CTE

Three questions to consider:



How do we make sure programs are located as close as possible to companies who could partner with the schools?

How do you connect ACE center students with post-secondary opportunities?

How do you ensure the synergy needed to build the business partnerships?

CTE Design Principles

Transparency



Transparency & visibility between spaces

Real World Environments



Spaces that model real-world, professional work environments

Specialized Equipment & Infrastructure



Providing infrastructure to support specialized equipment required for to learn professional skills.

Flexibility



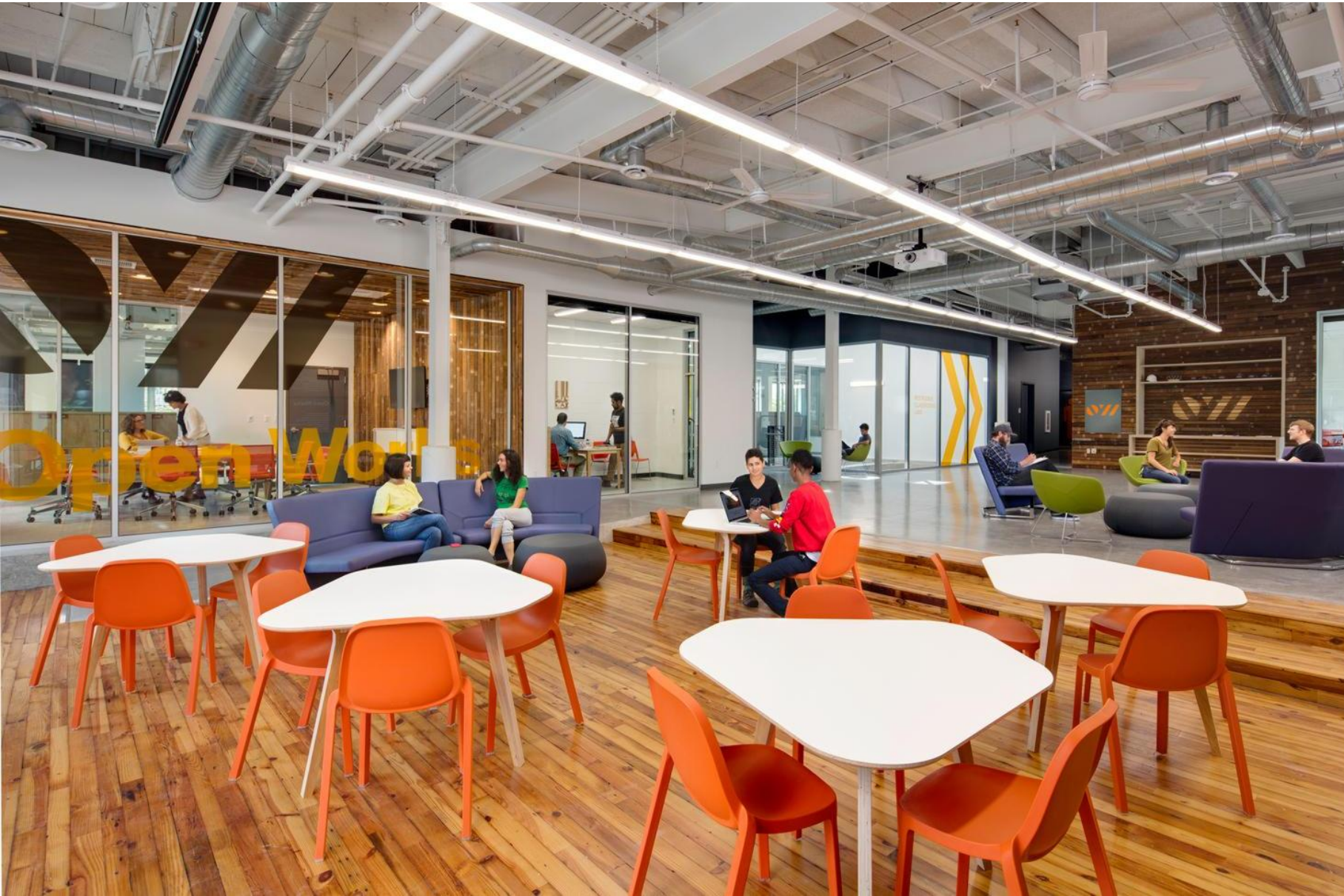
Flexible and agile spaces for easy adaptability as future needs evolve

Building as a Teaching Tool



Exposing the building systems and structure to use as real-world teaching tools.

Community Connections



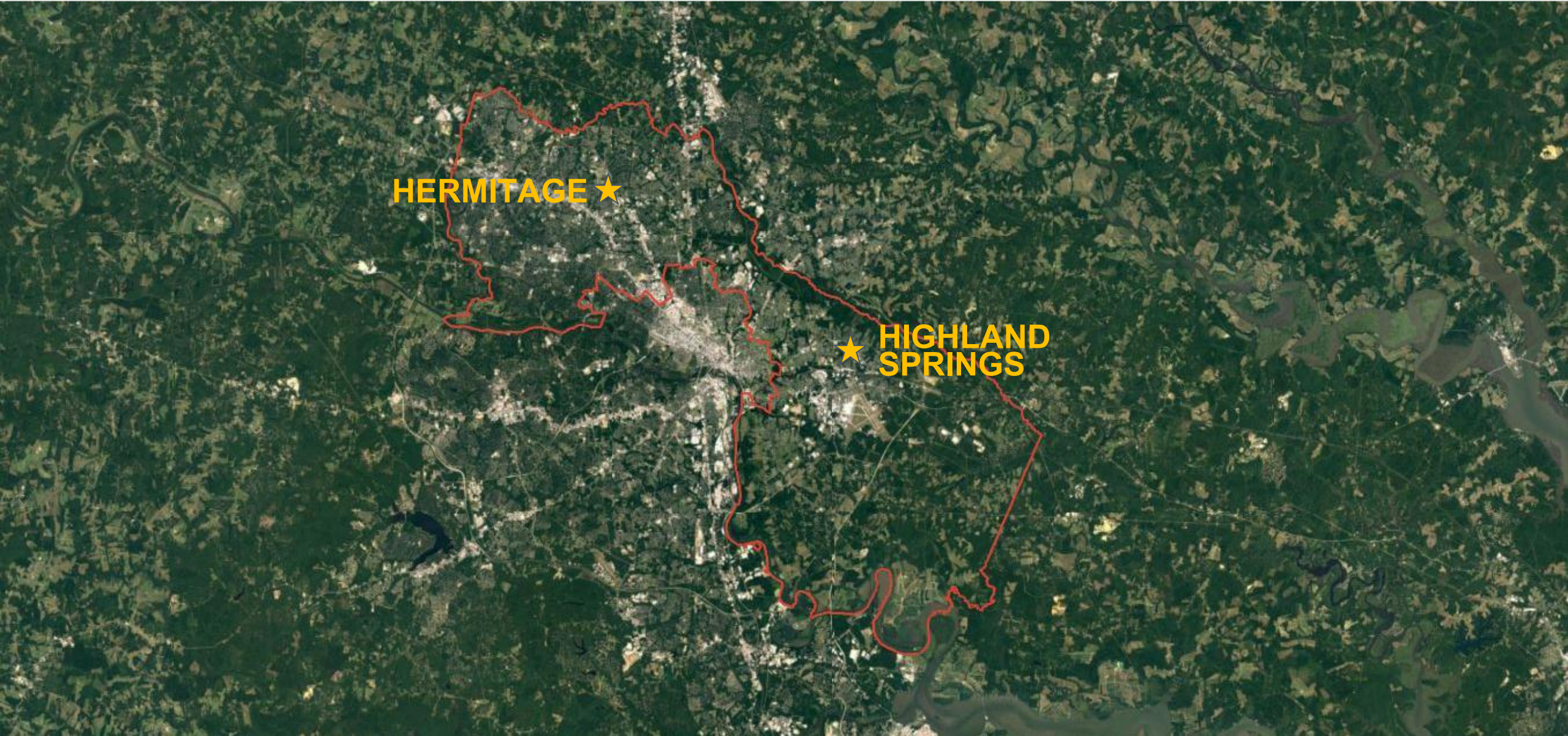
Spaces that support connections to the business community

Student Wellness



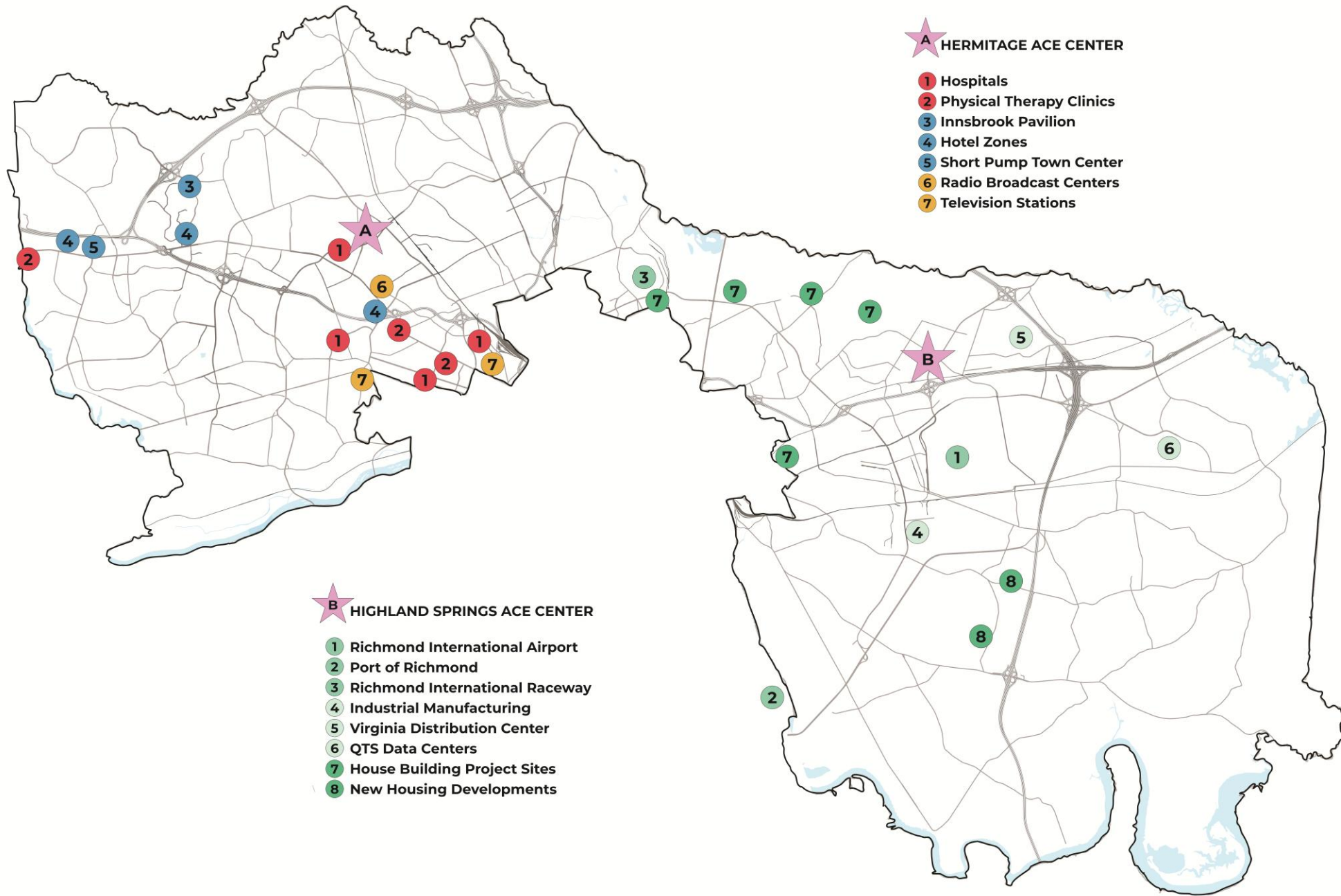
Spaces that promote sustainability and student wellness

THE ACE CENTERS AT HIGHLAND SPRINGS AND HERMITAGE



HERMITAGE ★

★ HIGHLAND
SPRINGS

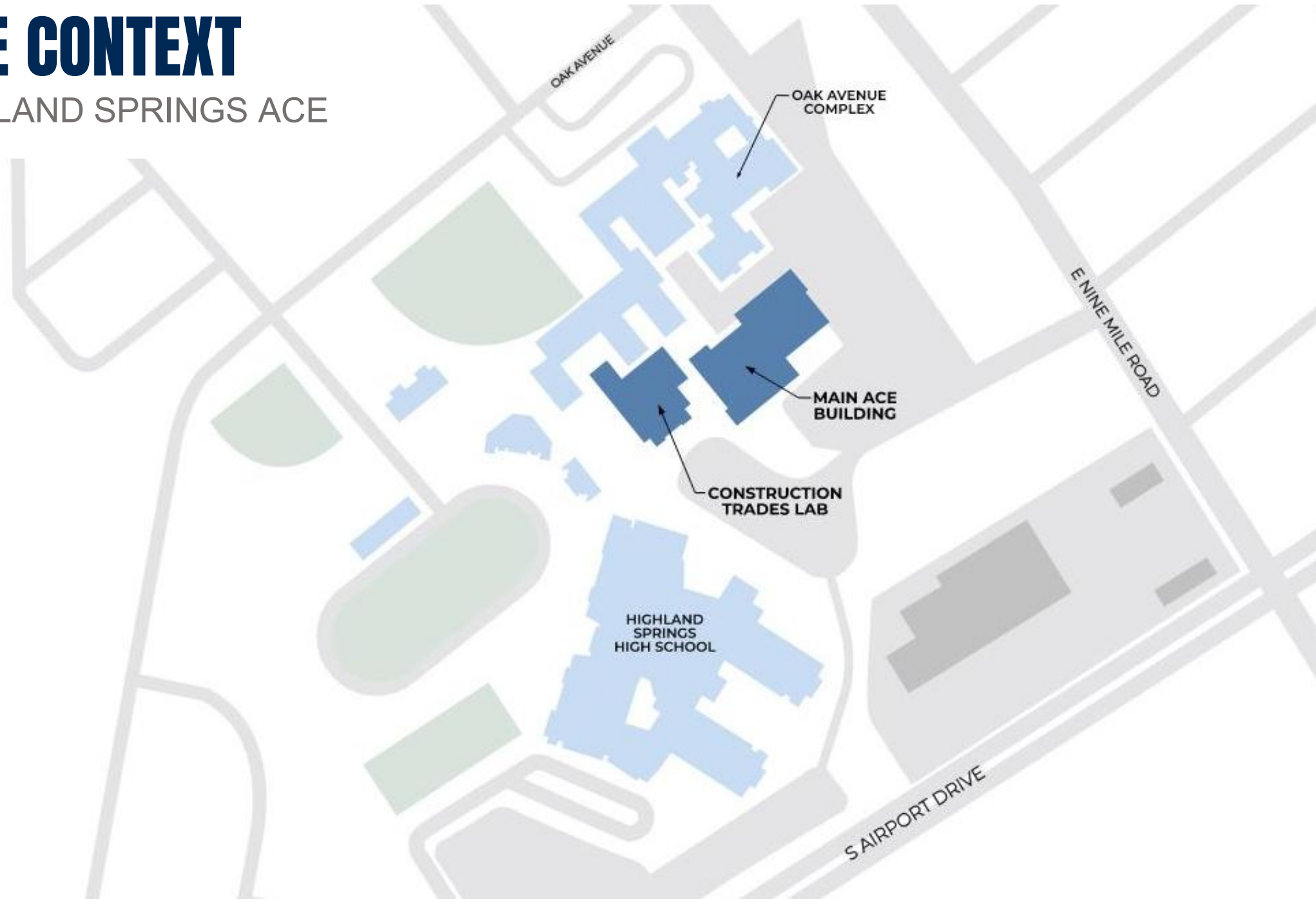


HIGHLAND SPRINGS ACE CENTER



SITE CONTEXT

HIGHLAND SPRINGS ACE

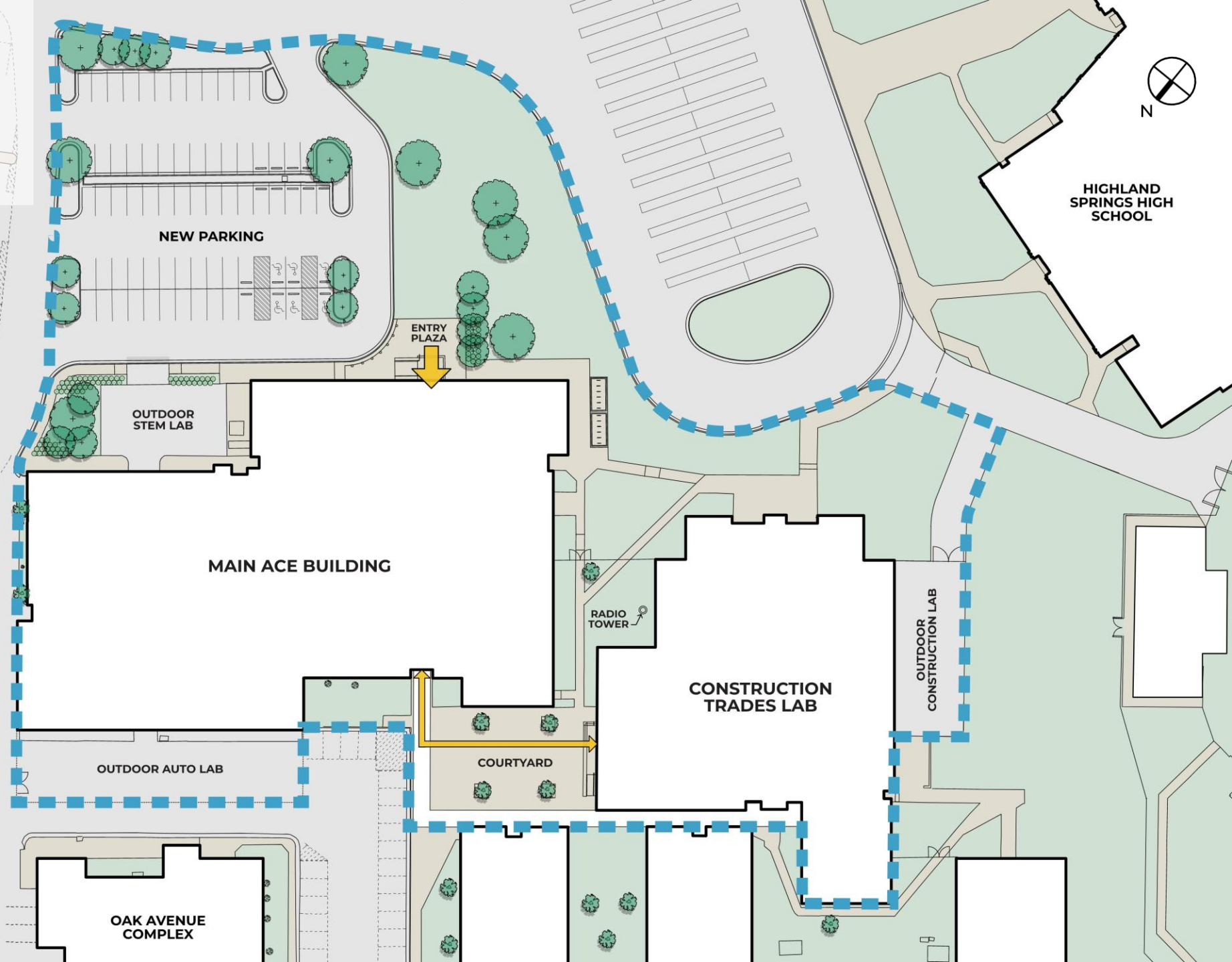


SITE PLAN

HIGHLAND SPRINGS ACE



HIGHLAND SPRINGS HIGH SCHOOL





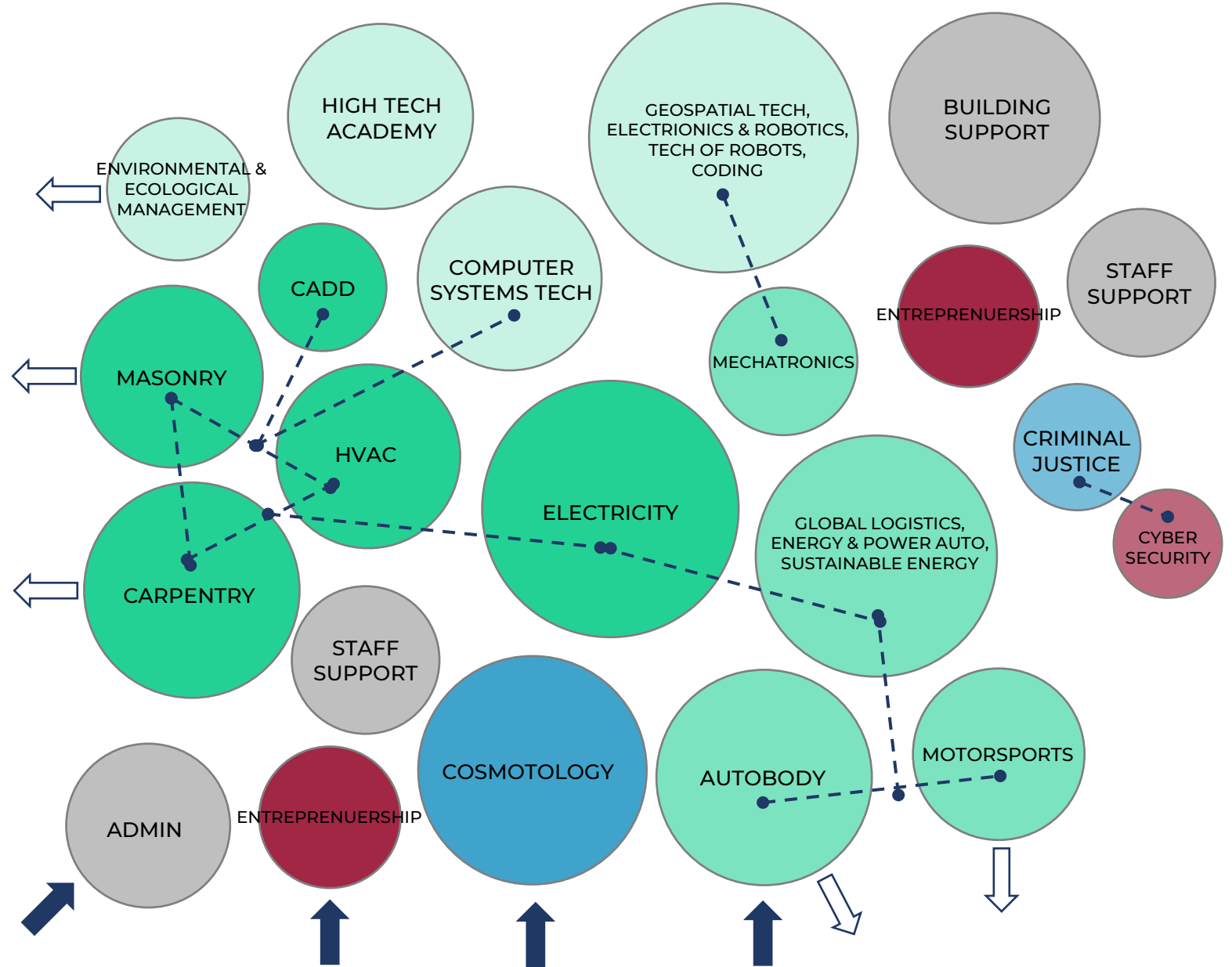
BEFORE



HIGHLAND SPRINGS ACE CENTER

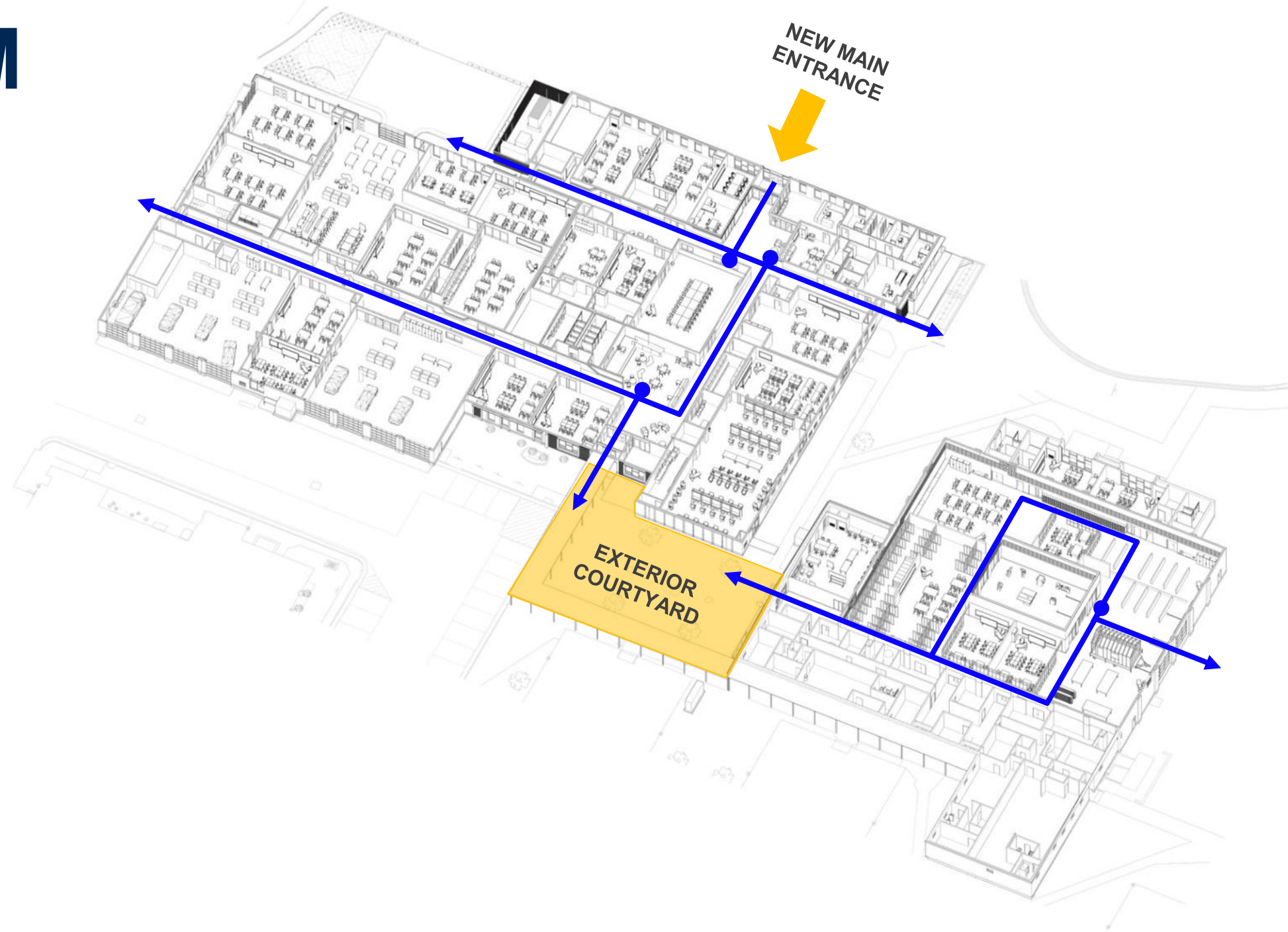
PROGRAM DIAGRAM

HIGHLAND SPRINGS ACE



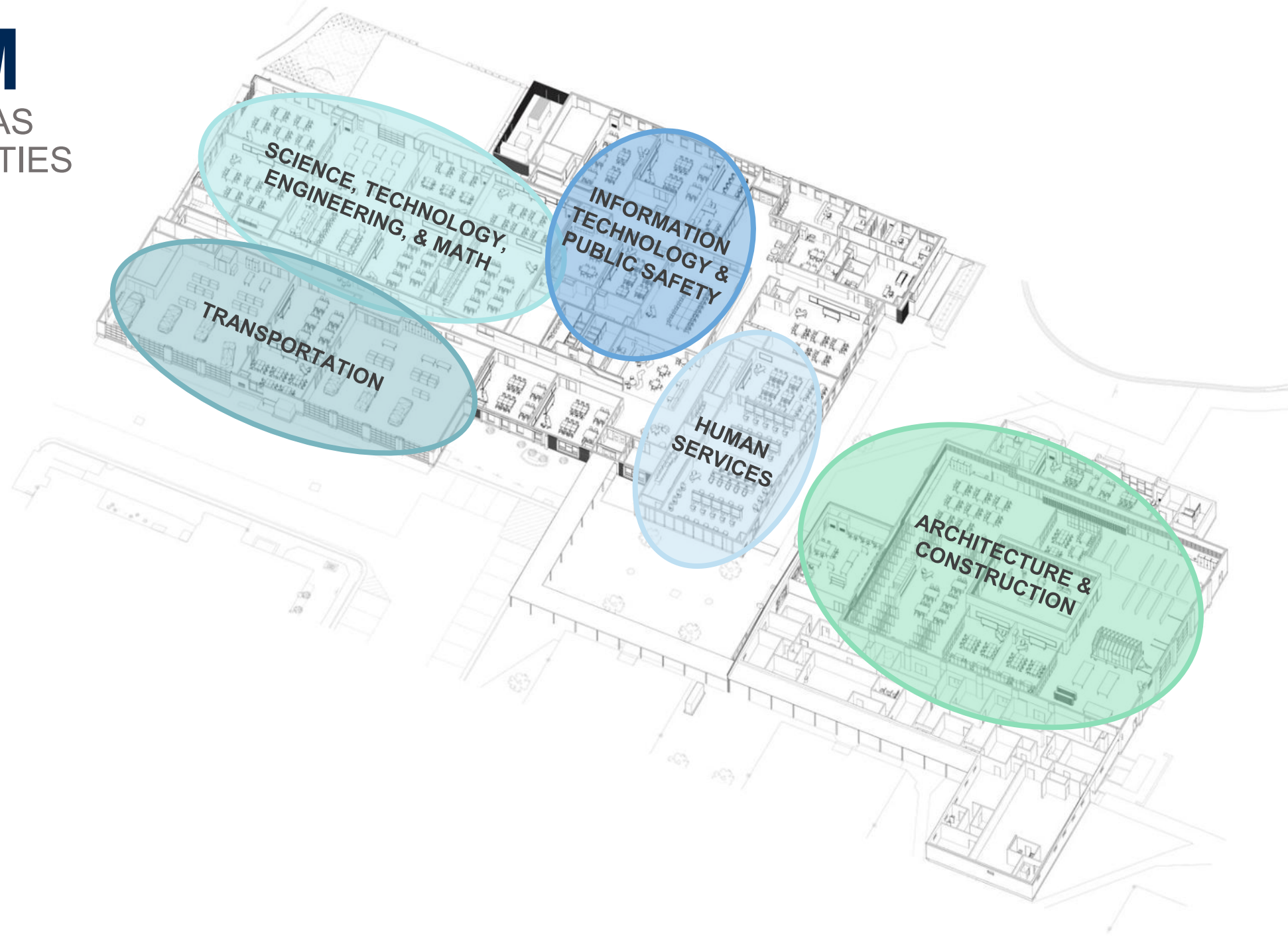
PLAN DIAGRAM

CIRCULATION



PLAN DIAGRAM

CAREER CLUSTERS AS
LEARNING COMMUNITIES



PLAN DIAGRAM

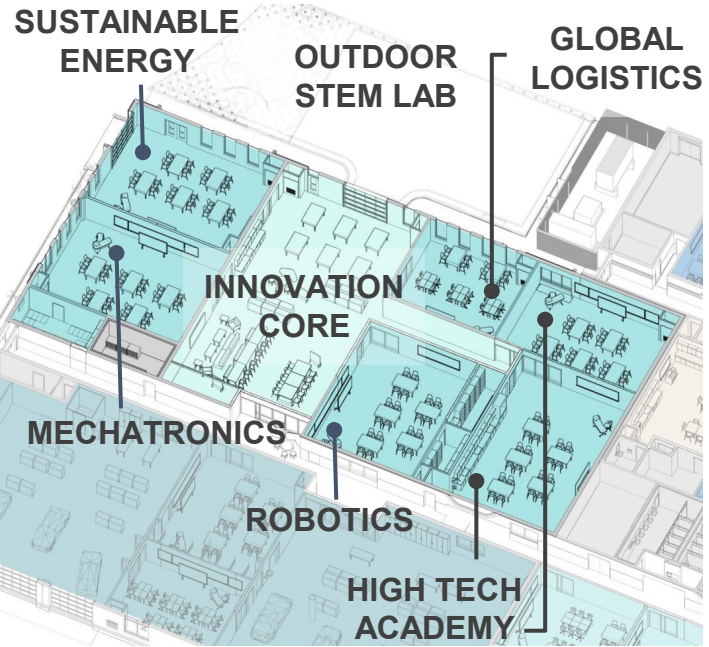
COLLABORATION

- TRANSPORTATION
- INFORMATION TECHNOLOGY & PUBLIC SAFETY
- SCIENCE, TECHNOLOGY, ENGINEERING, & MATH
- ARCHITECTURE & CONSTRUCTION
- HUMAN SERVICES



STEM

HIGHLAND SPRINGS ACE

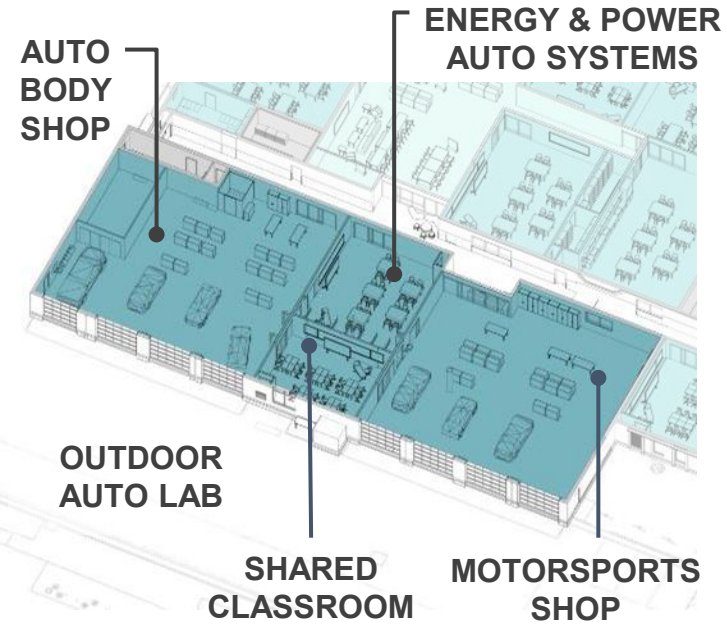


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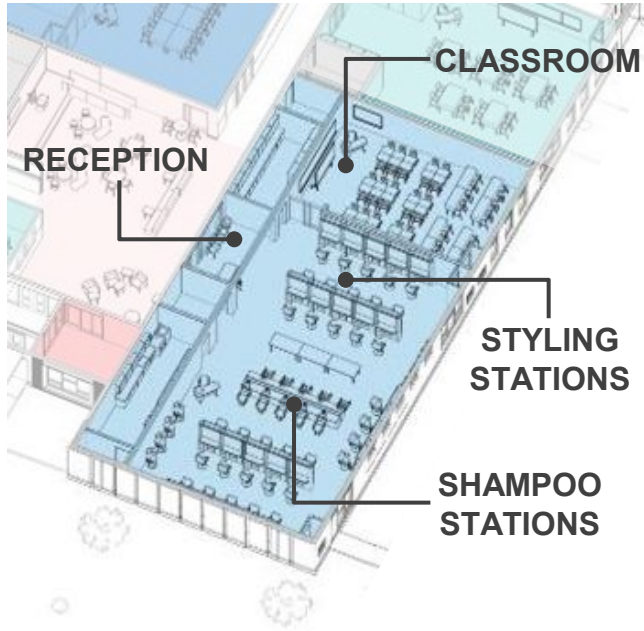
TRANSPORTATION

HIGHLAND SPRINGS ACE



COSMETOLOGY

HIGHLAND SPRINGS ACE



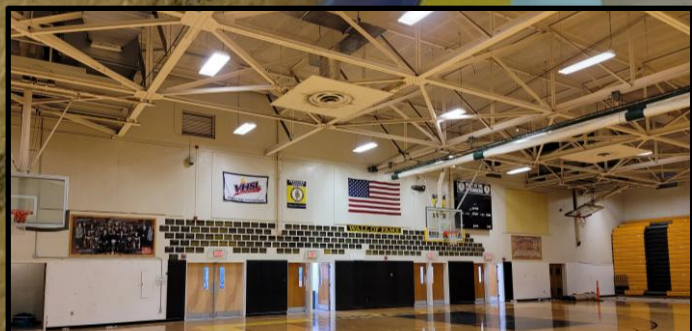


ARCHITECTURE & CONSTRUCTION

HIGHLAND SPRINGS ACE

- ① Electricity
- ② HVAC
- ③ Masonry
- ④ Carpentry
- ⑤ Machinery Room
- ⑥ Collab Build Zone
- ⑦ Architecture
- ⑧ Flex Classrooms
- ⑨ Quiet Classrooms
- ⑩ Outdoor Work Lab
- ⑪ Future Expansion Zones





ELECTRICAL



Items Needed

- CSD Modules
- Lab-104 Pins
- New Boxes
- New Terminals
- Spare Components
- Lab-104 Pins
- Red Spool & Nylon Straps (100)

HVAC

CAUTION

SCHO

ELECTRICAL





CARPENTRY

MASONRY

BRUTE

CARPENTRY

ENTREPRENEURSHIP IN ACTION

HIGHLAND SPRINGS ACE



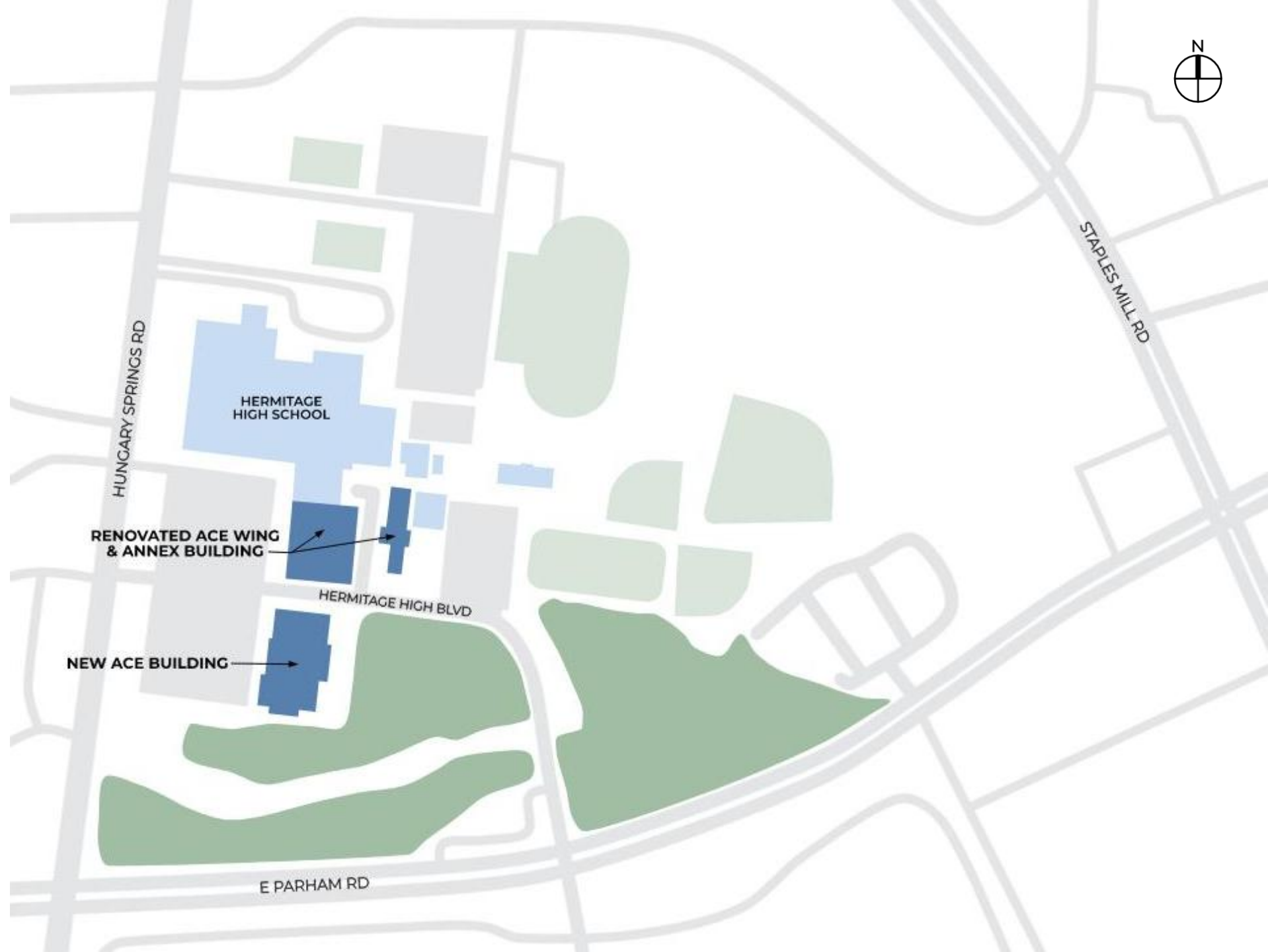


HERMITAGE ACE CENTER



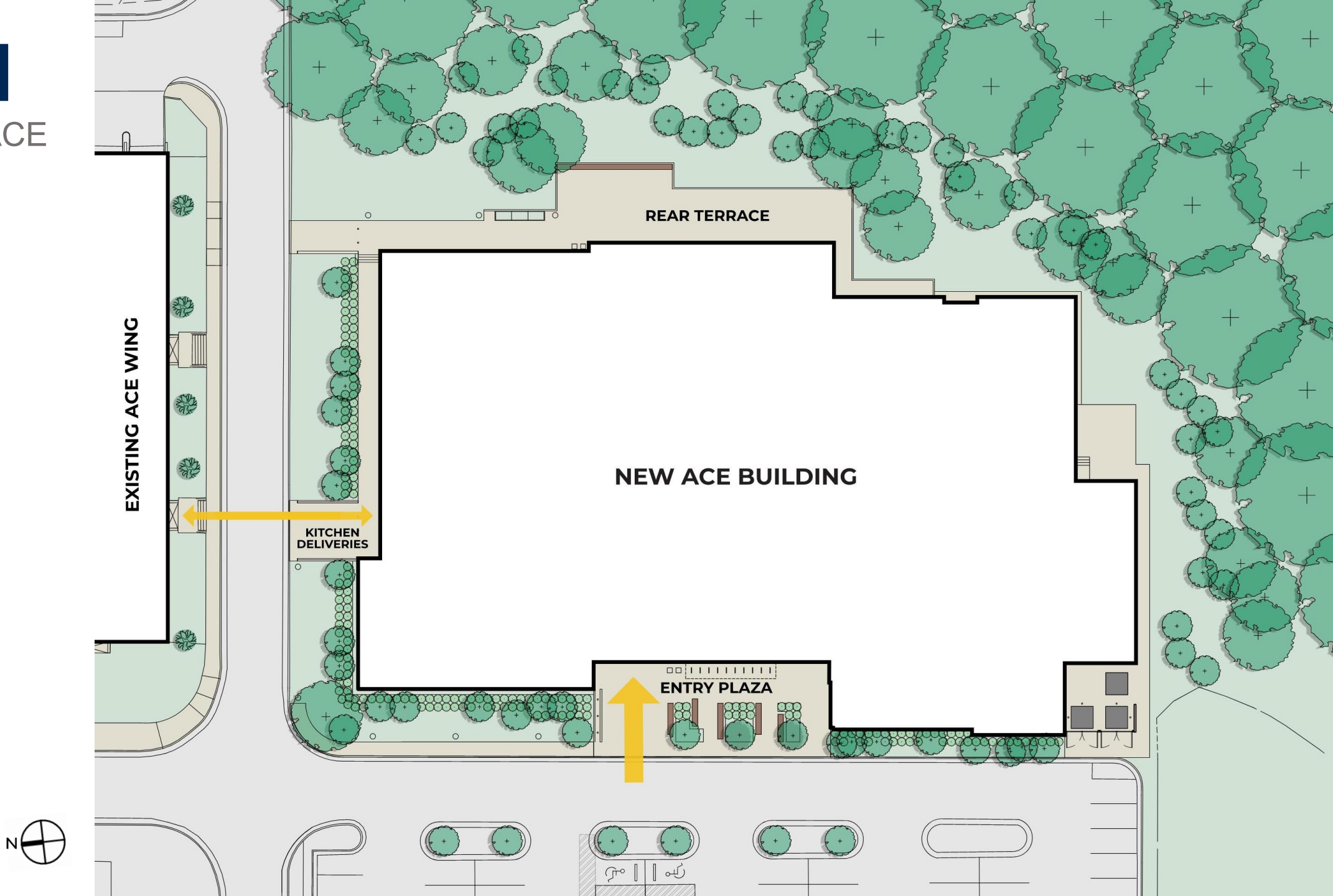
SITE CONTEXT

HERMITAGE ACE



SITE PLAN

HERMITAGE ACE





HERMITAGE

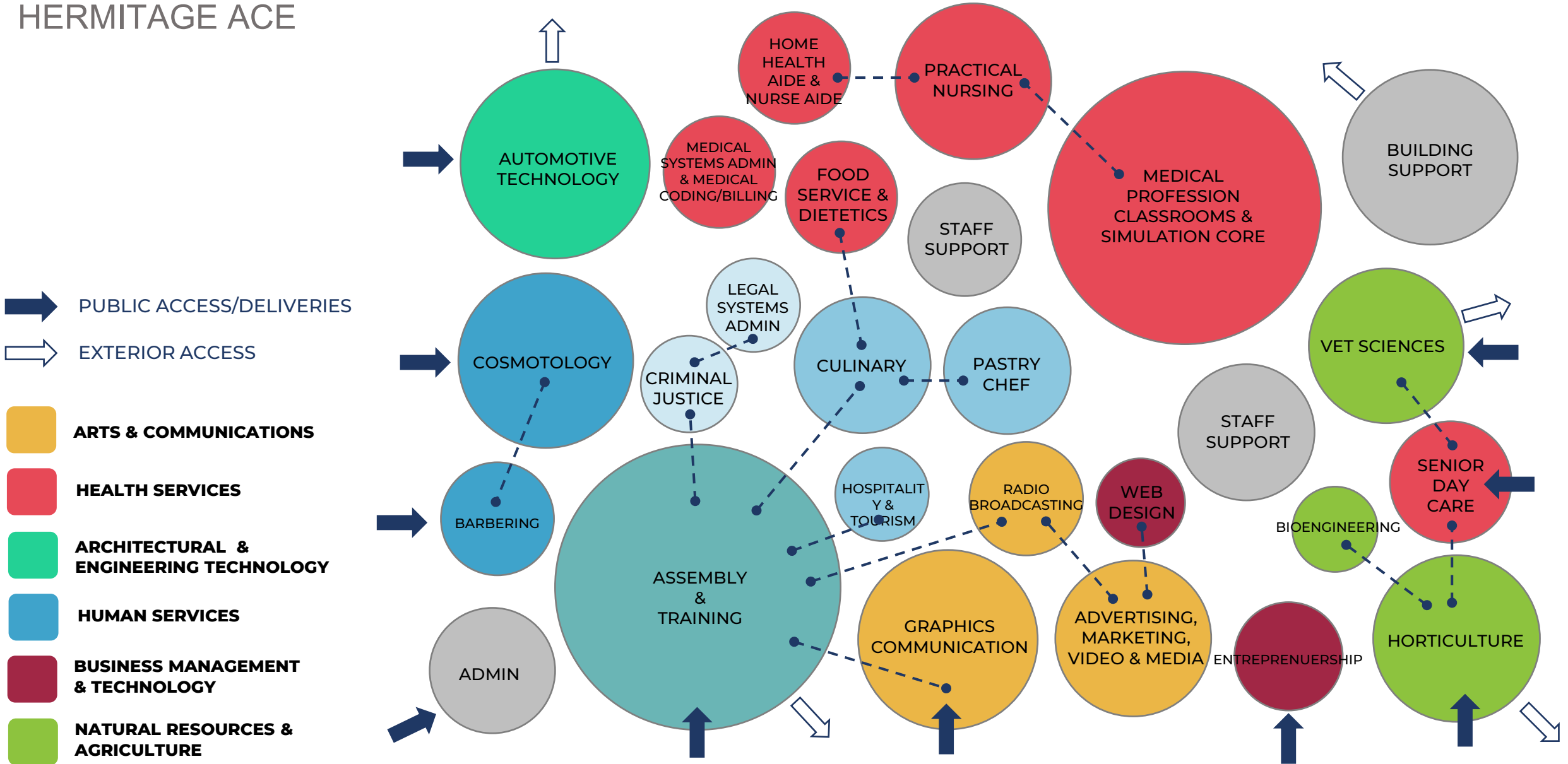
ACE

ADVANCED CAREER EDUCATION CENTER

8350

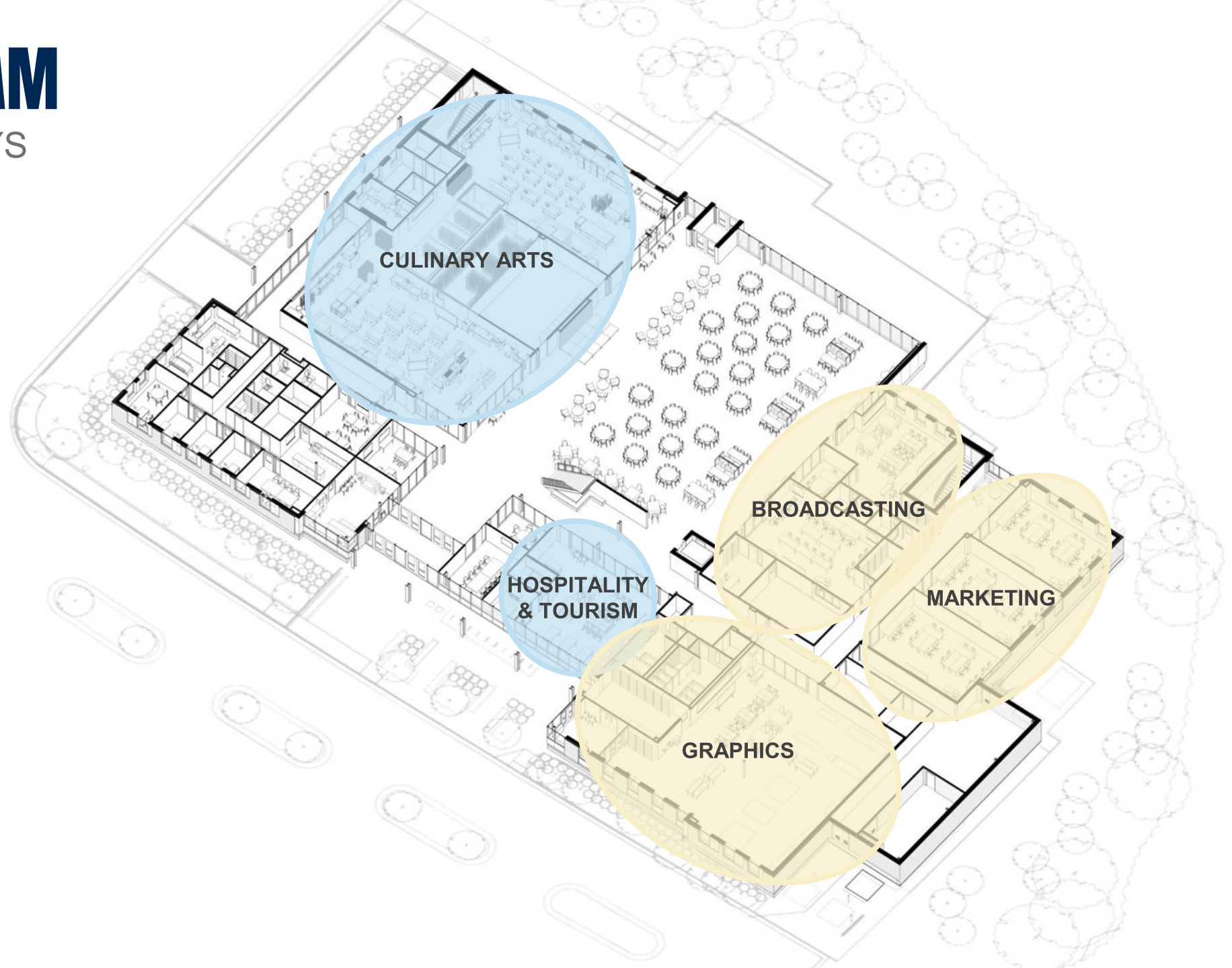
ADJACENCY DIAGRAM

HERMITAGE ACE



PLAN DIAGRAM

CAREER PATHWAYS



CULINARY ARTS

**HOSPITALITY
& TOURISM**

BROADCASTING

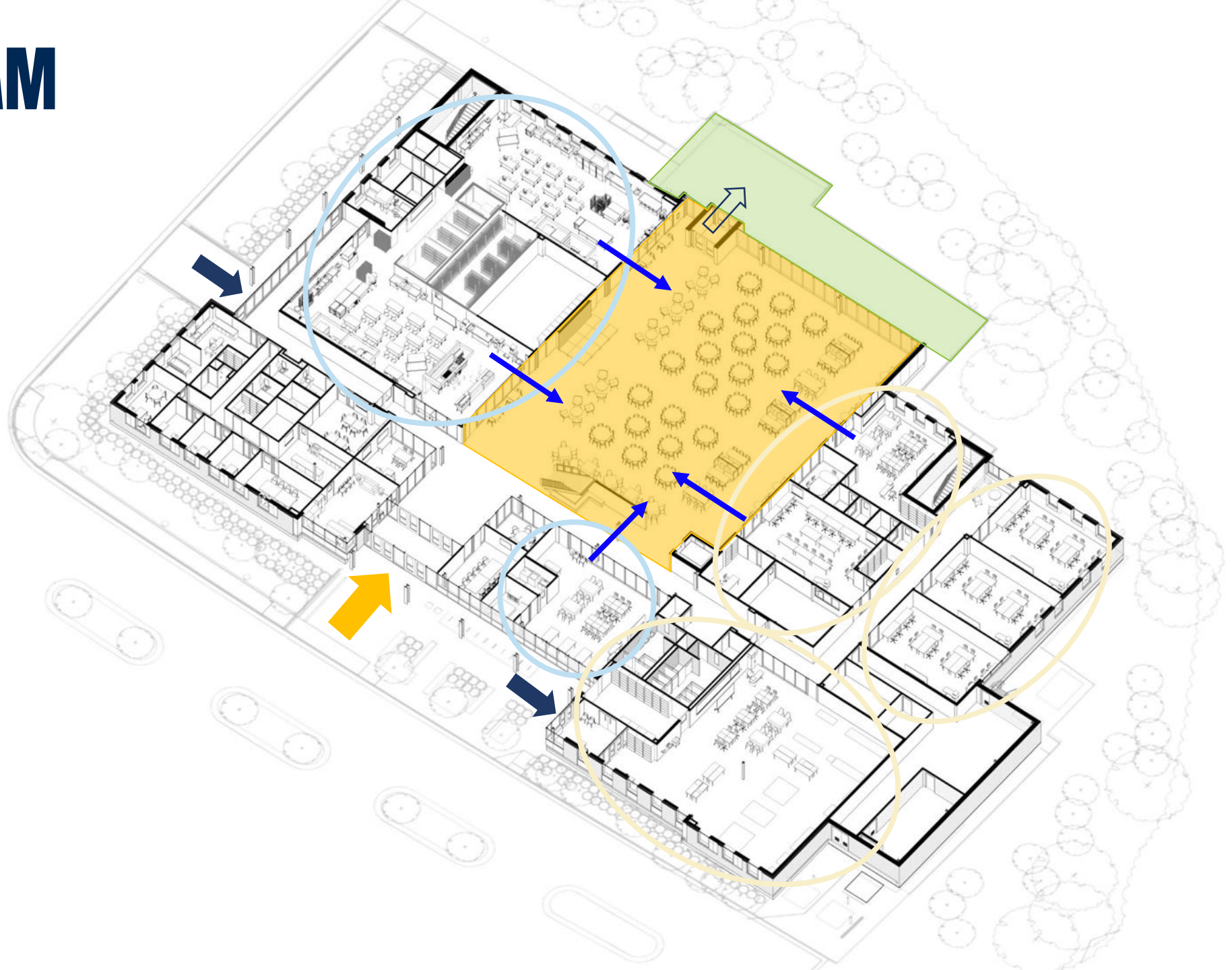
MARKETING

GRAPHICS

PLAN DIAGRAM

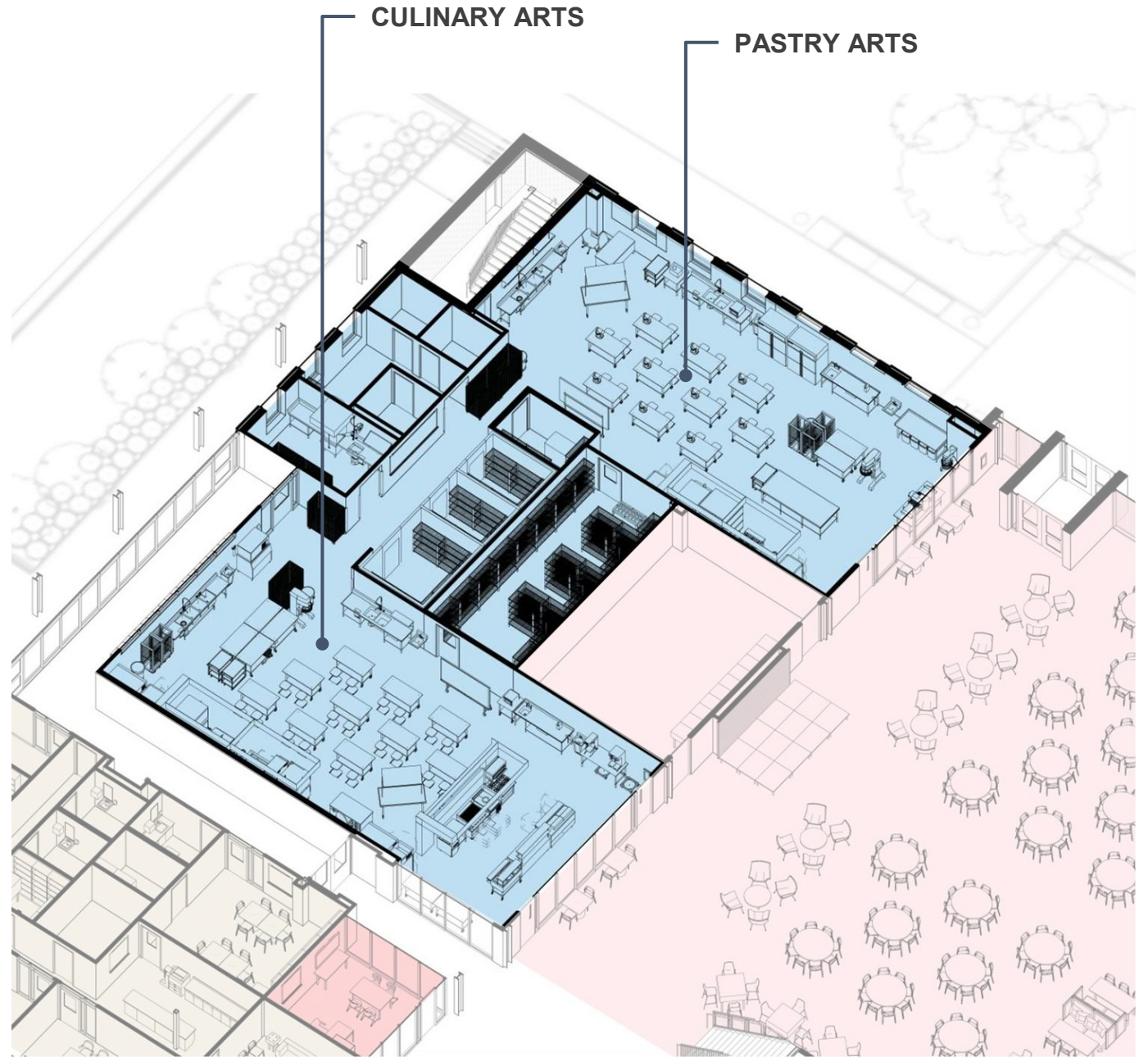
COLLABORATION

- ASSEMBLY & COLLABORATION
- HOSPITALITY & TOURISM
- ARTS & COMMUNICATION
- ENTREPRENEURSHIP
- ADMINISTRATION
- SUPPORT



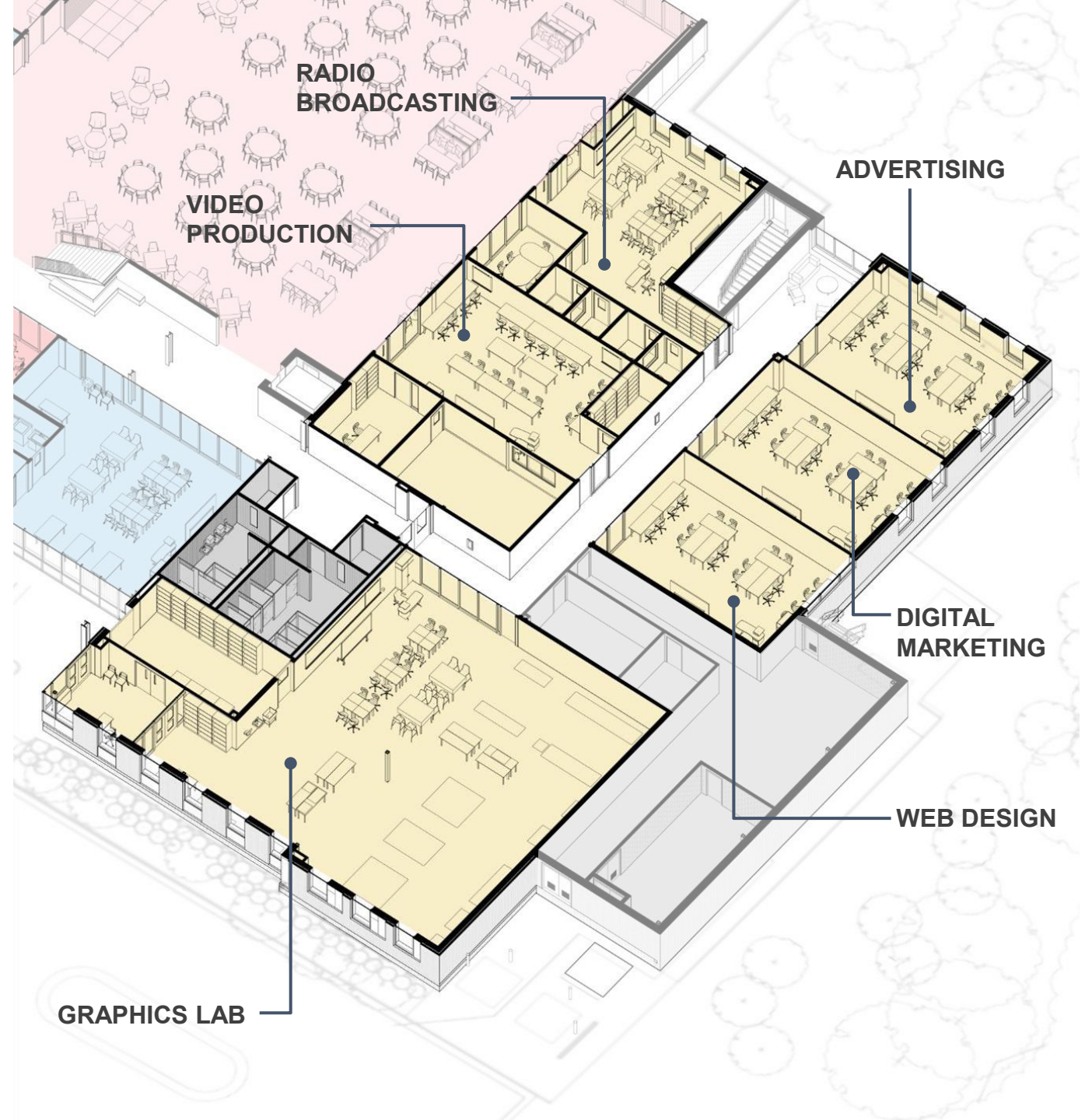
CULINARY ARTS

HERMITAGE ACE



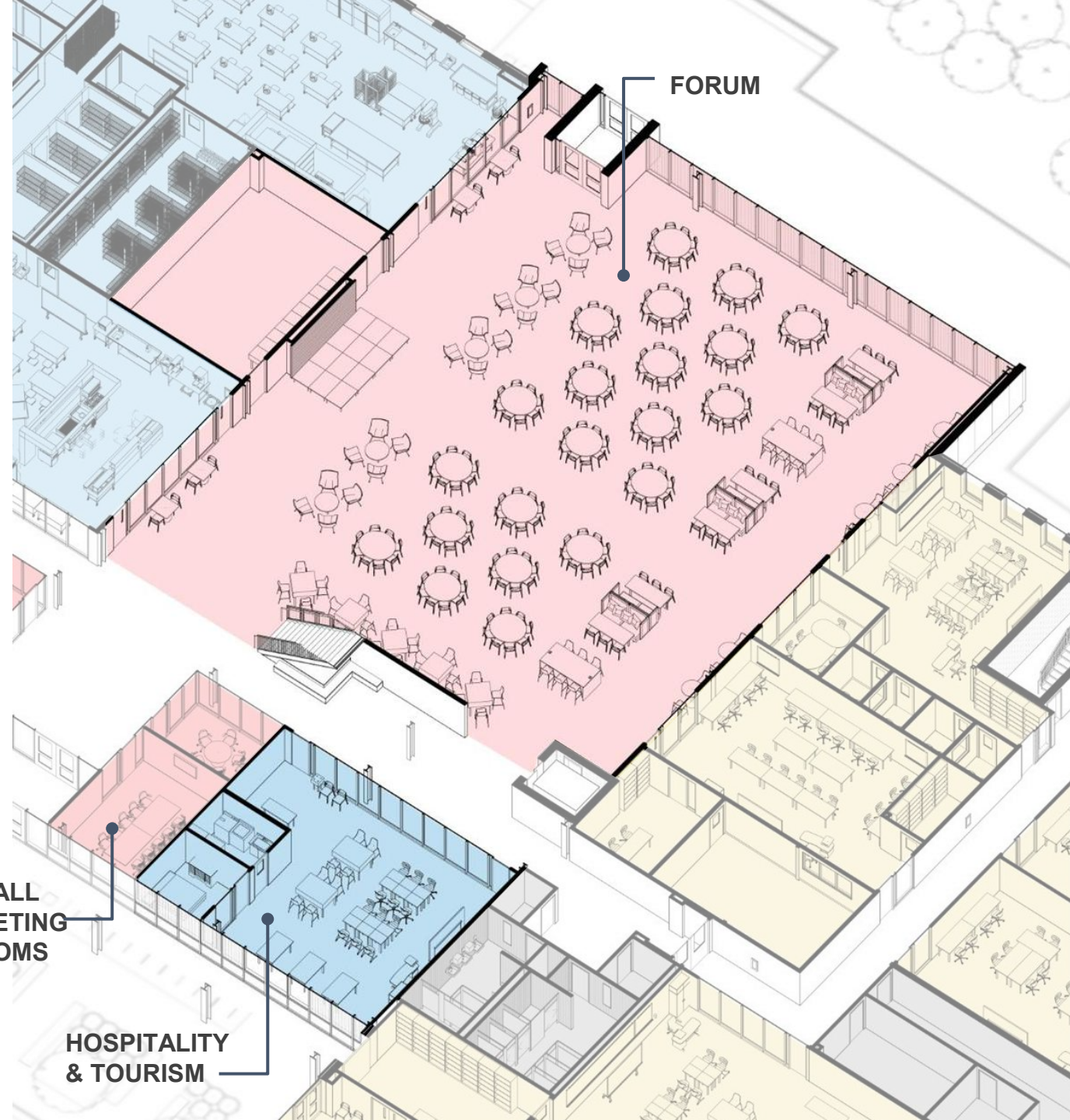
COMMUNICATIONS

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EVENTS & TRAINING

HERMITAGE ACE







COLLABORATION IN ACTION

HERMITAGE ACE



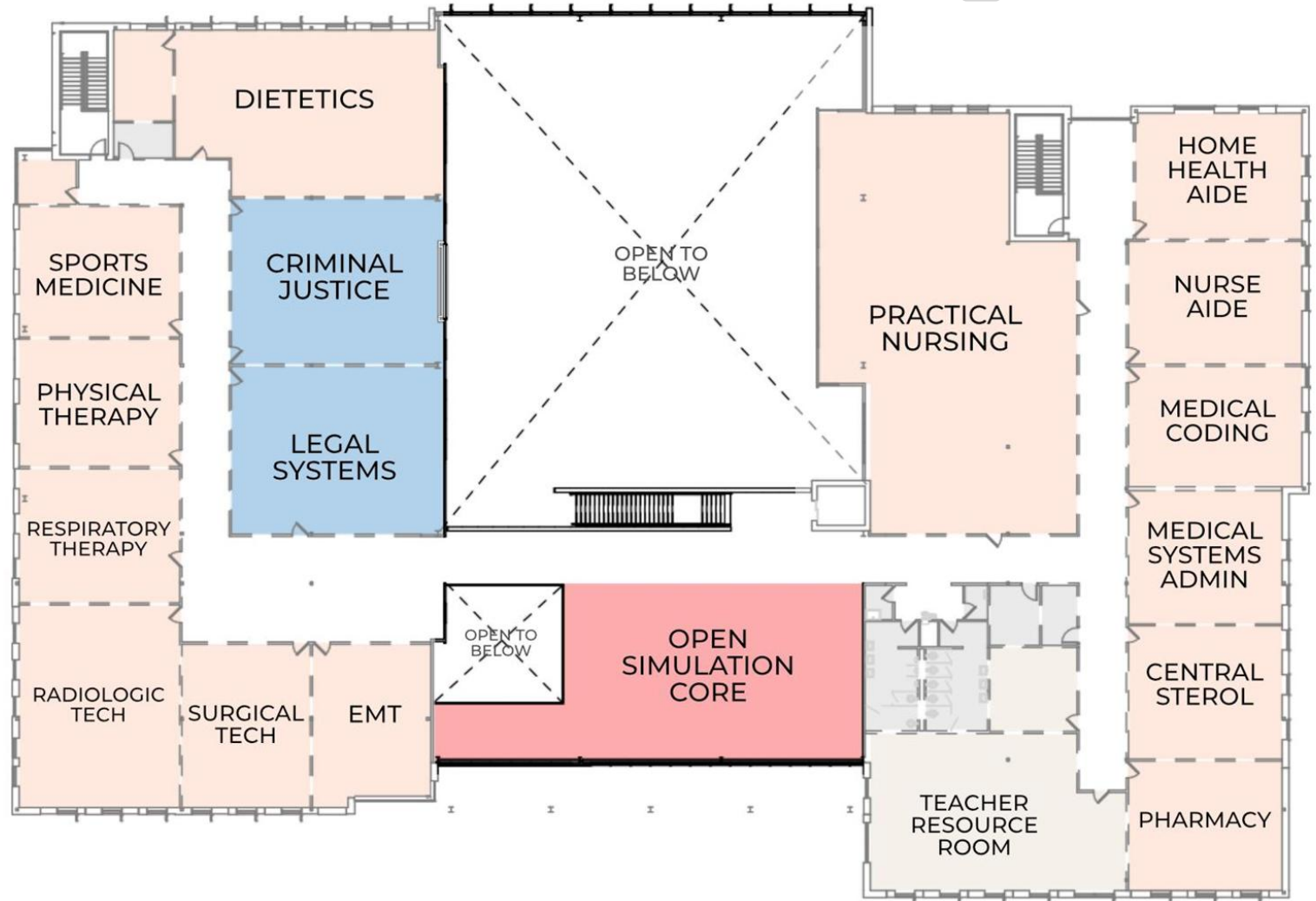


FUTURE HEALTH SCIENCES

SECOND FLOOR SHELL SPACE

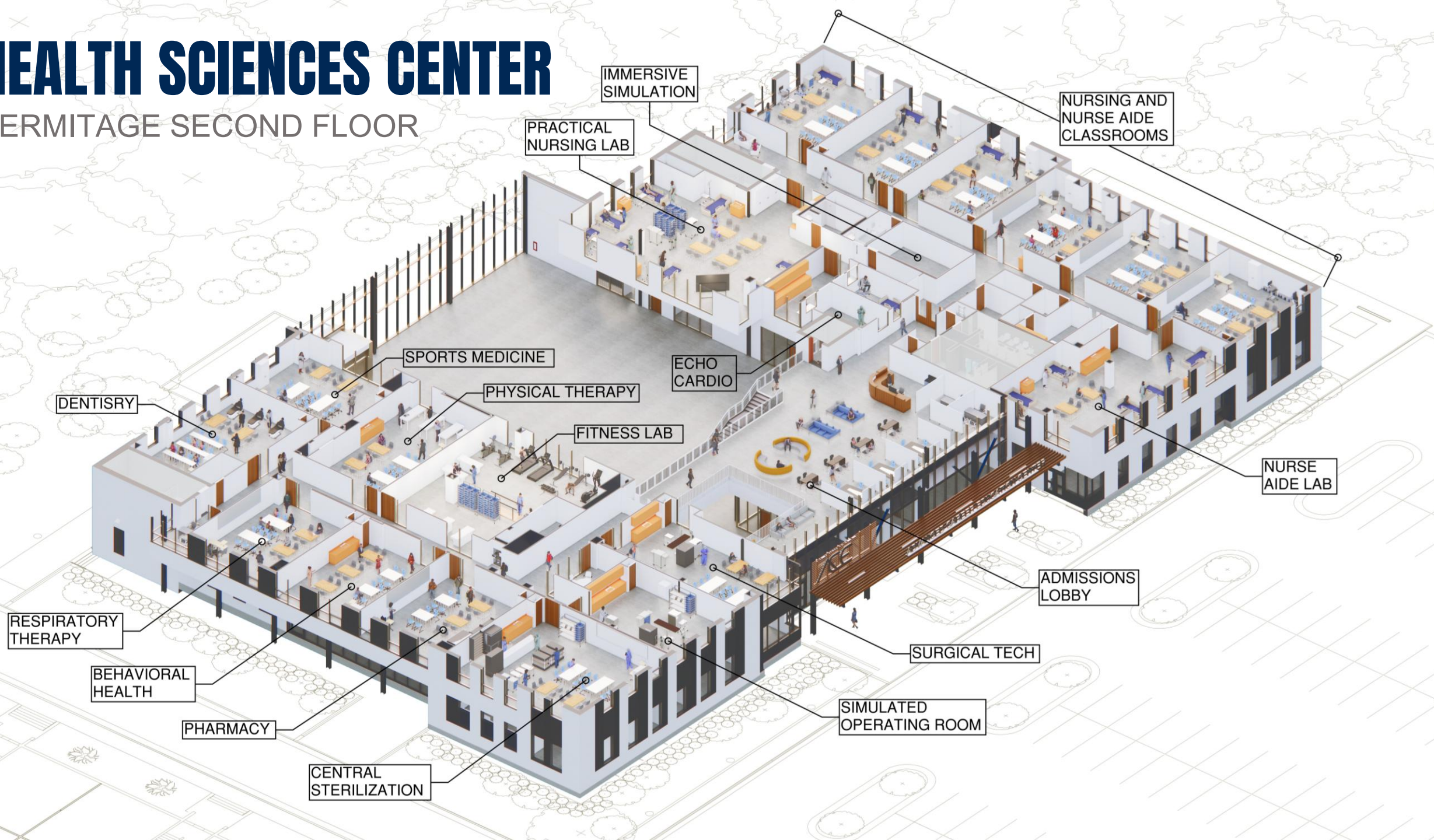


- HEALTH SCIENCES
- ENTREPRENEURSHIP
- HUMAN SERVICES
- ADMINISTRATION
- SUPPORT



HEALTH SCIENCES CENTER

HERMITAGE SECOND FLOOR





TAKE-AWAYS

- Henrico County has been a national leader and innovator in re-envisioning Career Technical Education programs.
- Connecting CTE program offerings to local industry can foster critical connections and engagement with local business partners that could be future employers for students.
- CTE that offers real-world experience and collaboration between programs engages students on a deep level.
- CTE design principles can help to shape CTE learning environments regardless of the building type or project size.

Questions ?

HERMITAGE
ACE

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