

# CEDAR FALLS COMMUNITY SCHOOL DISTRICT

HIGH SCHOOL PLANNING

INVISION



JANUARY 2019



# OUR PROCESS



## DISCOVERY

**We problem-seek before we problem-solve.**

- Key decision makers come together
- Hopes and Fears
- Review design standards
- Review and document existing conditions
- Review lessons learned
- Scope definition



## STRATEGY

**We analyze what we learned from Discovery and create a solution.**

- Research solutions
- Develop concepts and options
- Strategize approach
- Budget & schedule development
- Coordination with trades
- Material & finish selection



## IMPLEMENTATION

**We align with the design strategy, respecting schedules and budget.**

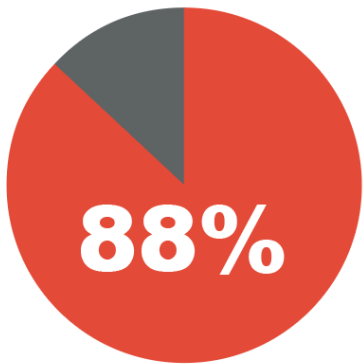
- Document development
- Consultant coordination
- Reviews and page turn
- Budget update
- Bidding and negotiating
- Preconstruction phase
- Construction administration



# DISCOVERY

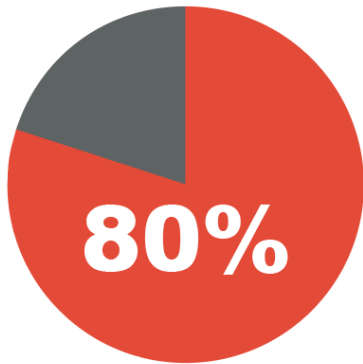
## STAFF SURVEY RESULTS

THE ROLE OF SPACES IN EDUCATION



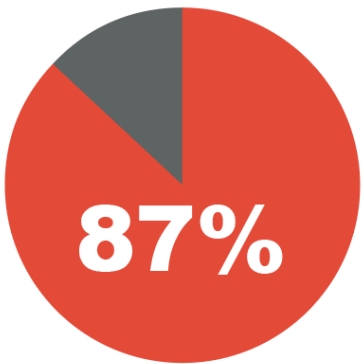
**SPACES ARE THE MOST IMPORTANT FACTOR** IN CREATING SUCCESSFUL LEARNING EXPERIENCES FOR STUDENTS

CAPABLE SPACES + TEACHING



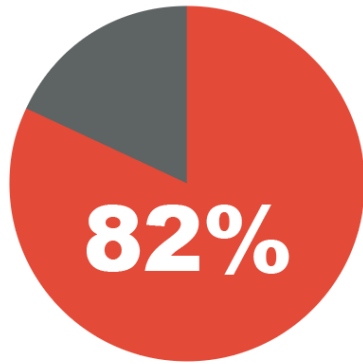
CREATING MORE CAPABLE SPACES WOULD EITHER **SIGNIFICANTLY IMPACT OR COMPLETELY CHANGE** HOW THEY TEACH

CAPABLE SPACES + LEARNING



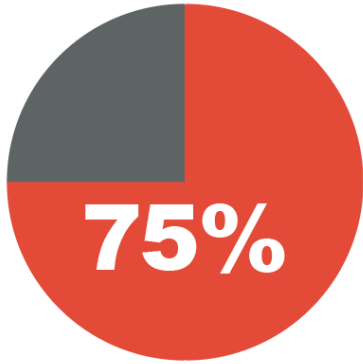
CREATING MORE CAPABLE SPACES WOULD EITHER **SIGNIFICANTLY IMPACT OR COMPLETELY CHANGE** HOW STUDENTS LEARN

SPACES AS A REFLECTION OF VALUES



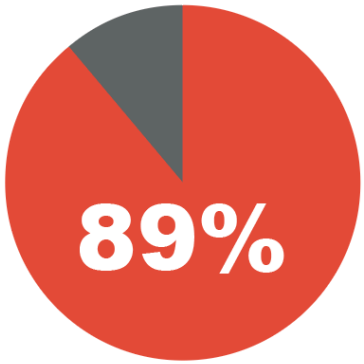
CURRENT SPACES **DO NOT REFLECT THEIR VALUES AND BELIEFS** ABOUT HOW STUDENTS OF THE CEDAR FALLS COMMUNITY SHOULD BE EDUCATED

POWER HOUR



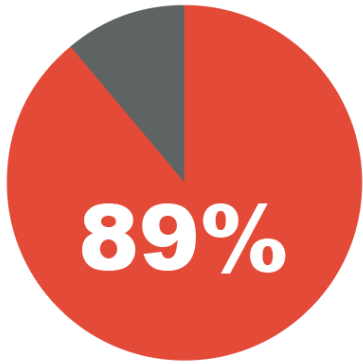
CURRENT SPACES **DO NOT SUPPORT** POWER HOUR EFFECTIVELY

INNOVATION



NEW SPACES WOULD ENABLE THEM TO BE **MORE INNOVATIVE** IN THEIR PRACTICE

SUCCESS

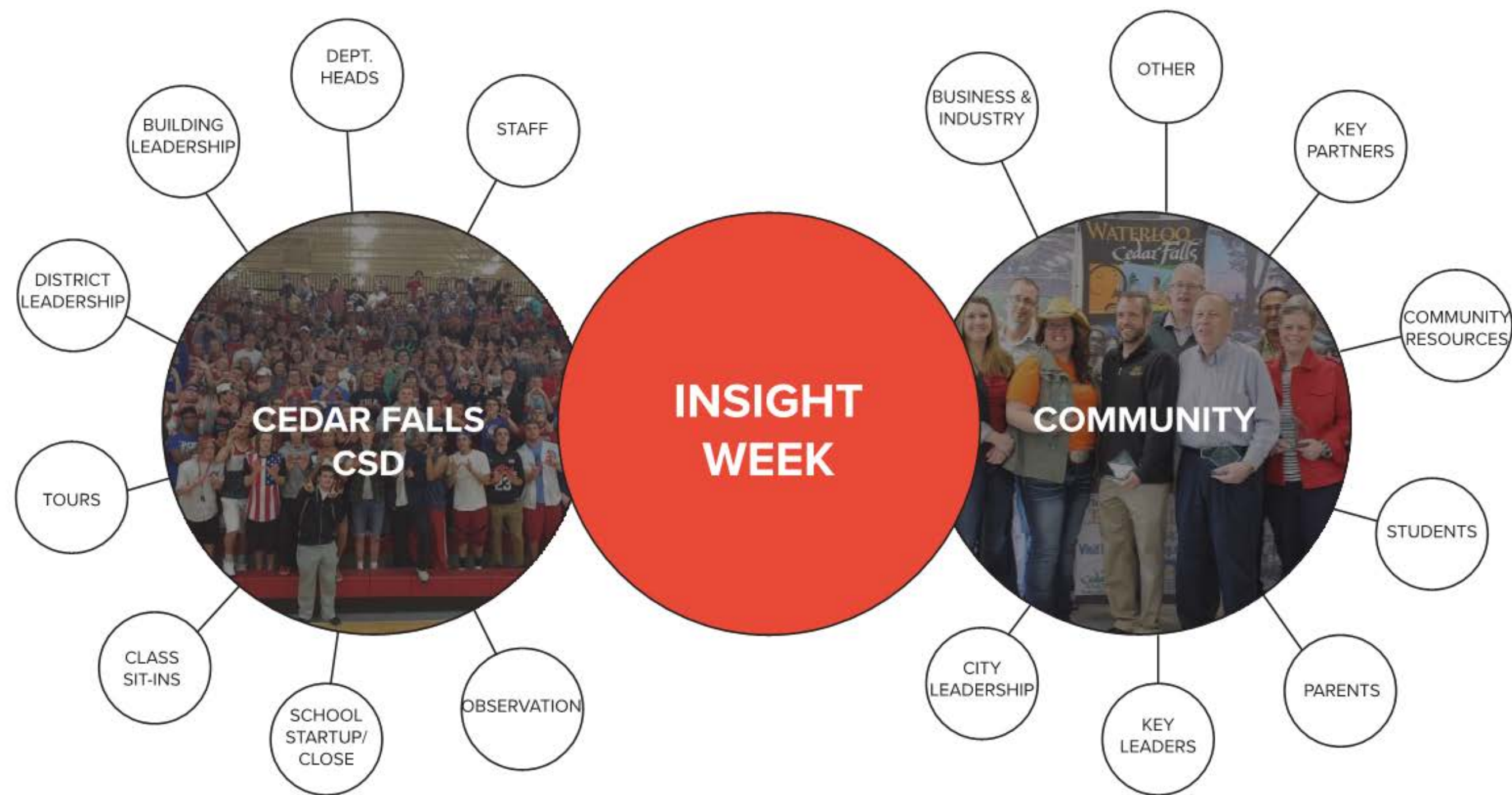


SCHOOL **SUCCEEDS IN SPITE OF** ITS CURRENT SPACES



# DISCOVERY

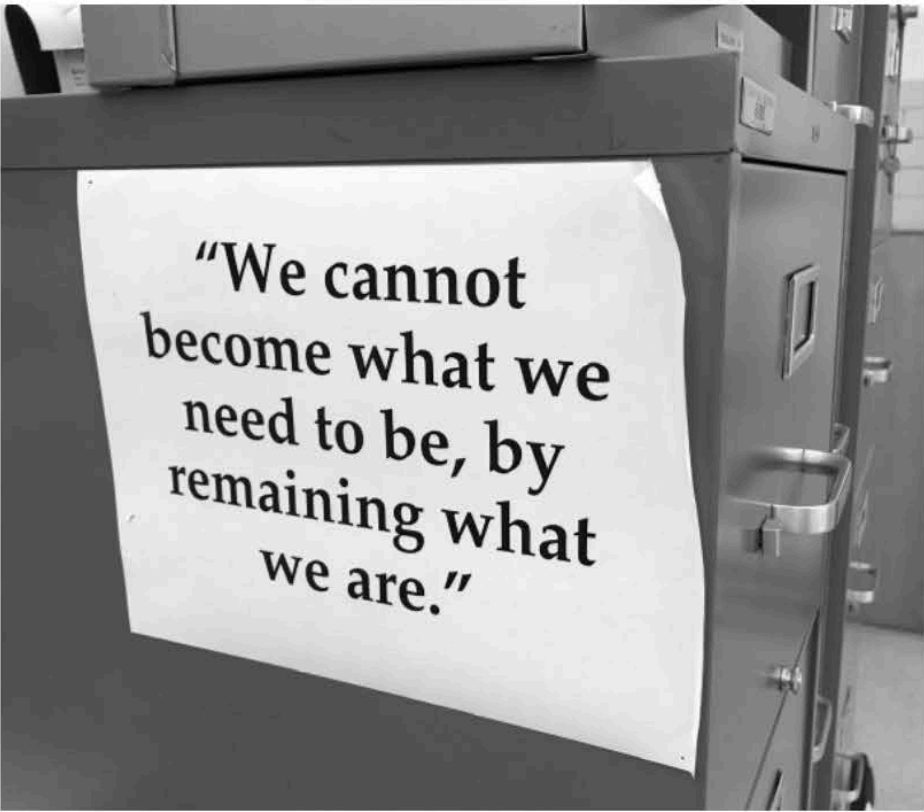
## INSIGHT WEEK BIG PICTURE





# DISCOVERY

## INSIGHT WEEK DRIVERS



LEVEL 1

**MOST NEW  
SCHOOLS**



LEVEL 2

**EDUCATIONAL  
CULTURE CHANGE**



LEVEL 3

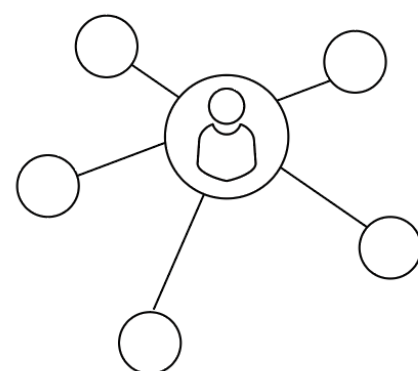
**COMMUNITY  
ASSET**





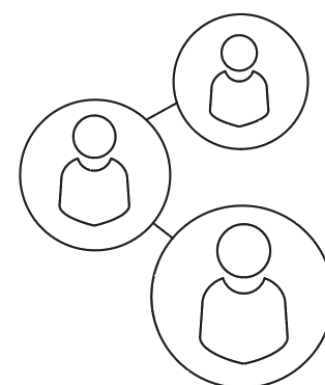
# DISCOVERY

## INSIGHT WEEK DRIVERS



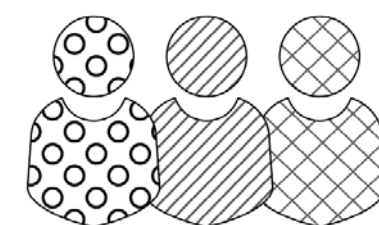
### CONNECTEDNESS

The future of learning manifests through a greater degree of connectedness among the elements and factors that create the conditions for learning.



### COMMUNITY + CO-LOCATION

The future of learning is based in partnerships, shared resources, and the co-location of learning opportunities that increase the dimensions of where learning occurs.



### DIVERSITY

The future of learning is based upon a landscape of diverse and capable spaces that encourage new interactions, pathways for learning, and an exploration of the possible.



# DISCOVERY

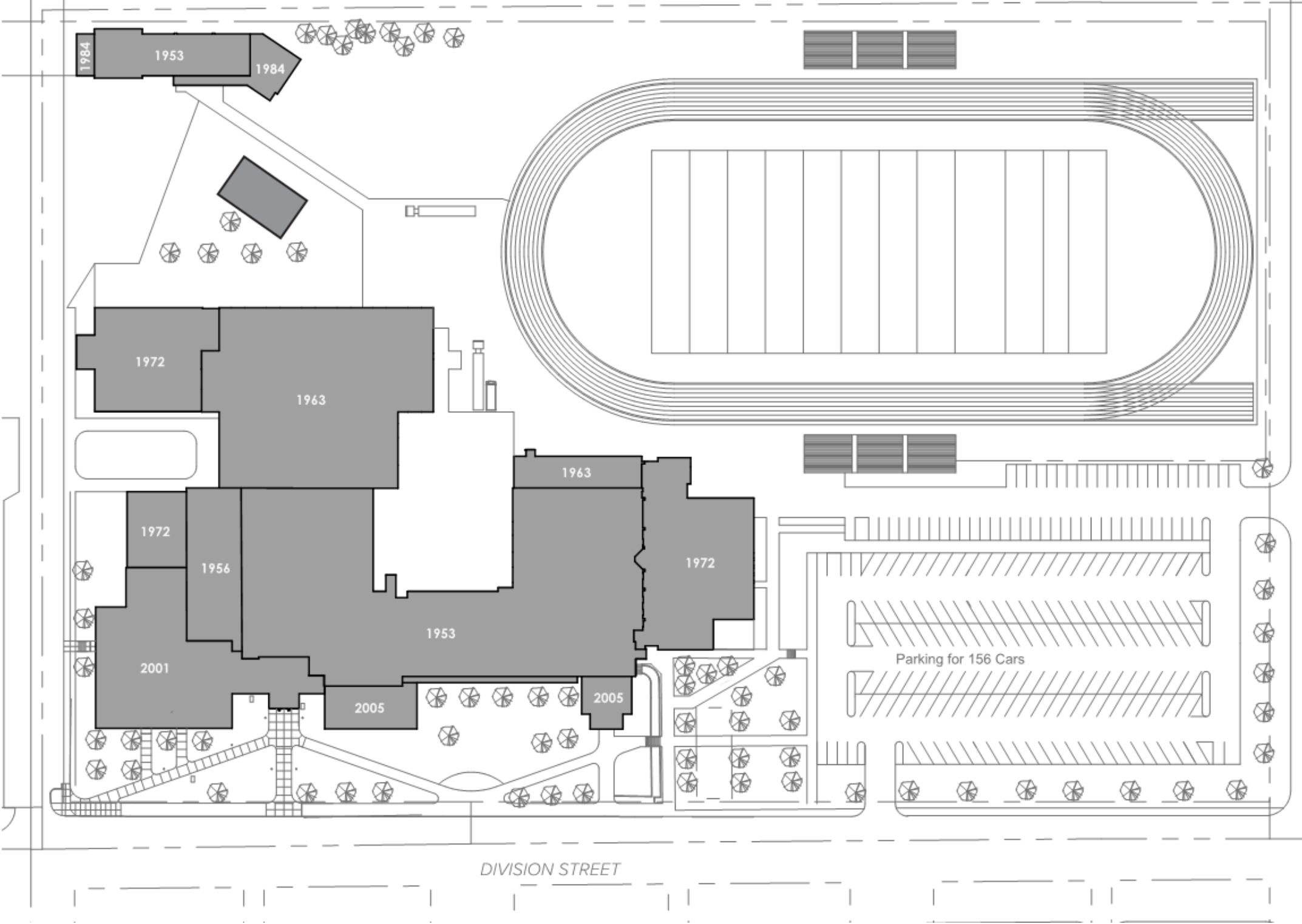
## INFORMATION GATHERING EXISTING CONDITIONS

54  
YEARS

EXISTING HIGH  
SCHOOL AVERAGE  
AGE PER SF

13

BUILDING  
ADDITIONS





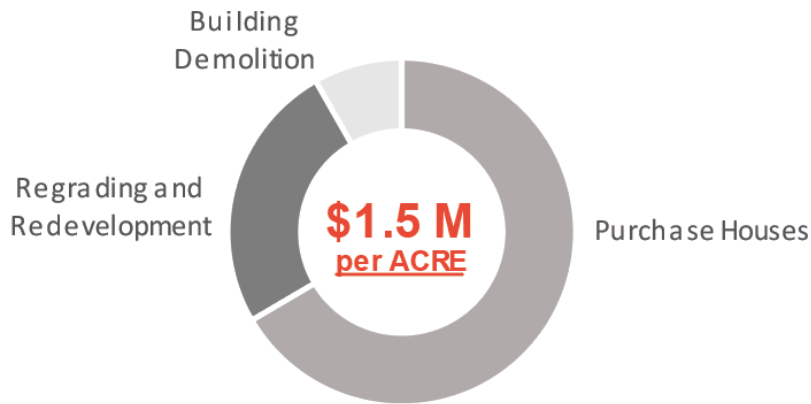
# DISCOVERY

## SITE SUMMARY



ON-STREET  
PARKING

### COSTS FOR ADJACENT LAND PURCHASE & REDEVELOPMENT AT EXISTING HS



\$1.24M - Cost of 50 Acres West of UNI



PARKING DIAGRAM

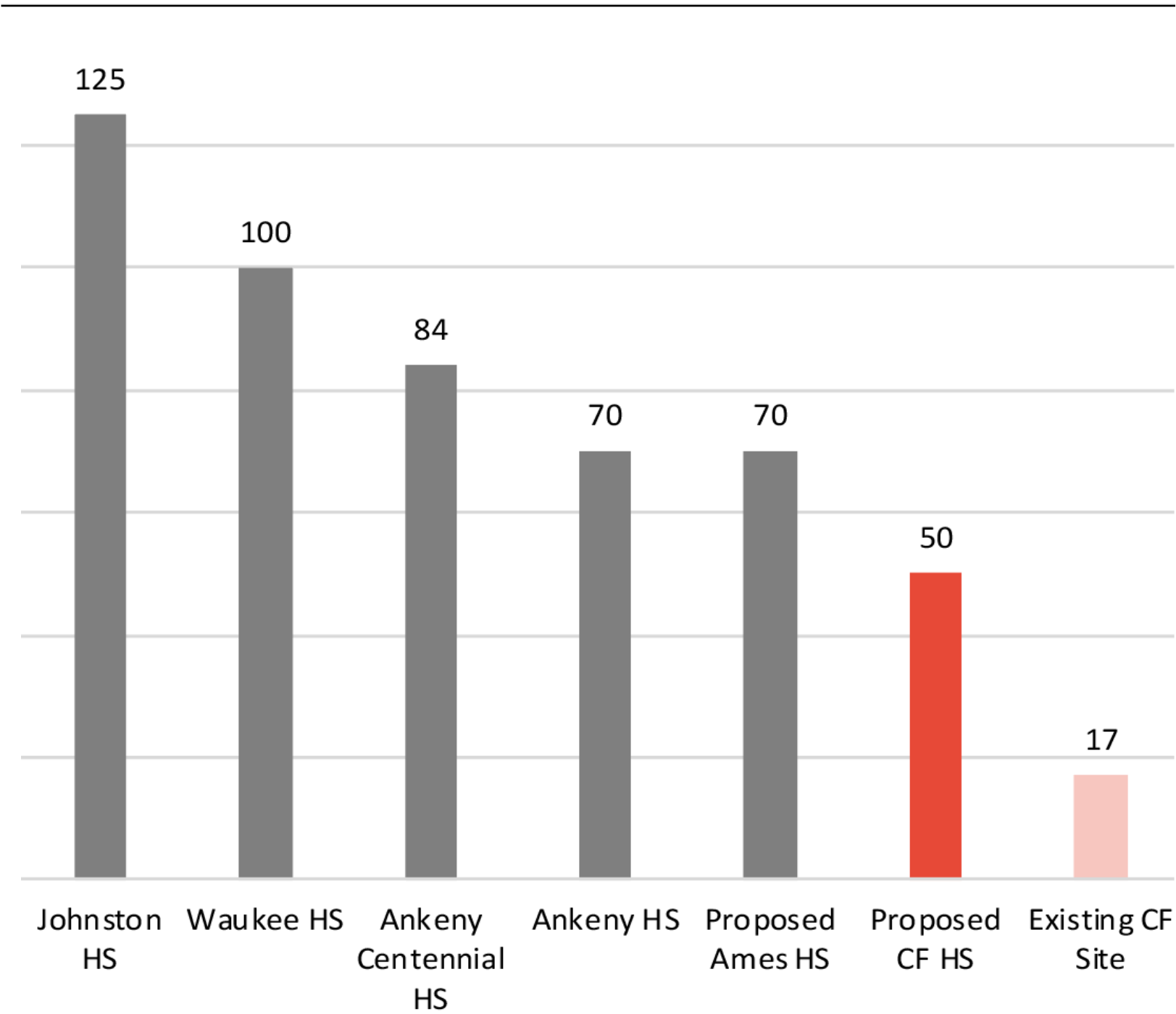
## EXISTING HIGH SCHOOL



# DISCOVERY

## BIG PICTURE

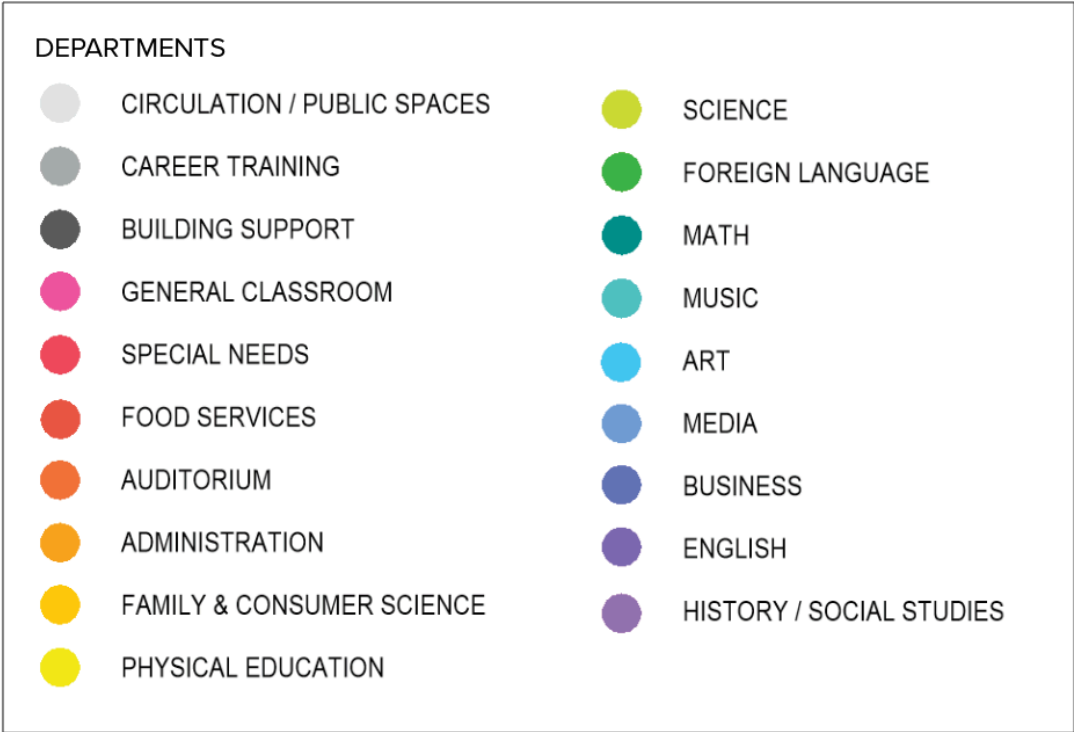
NUMBER OF ACRES FOR NEW SITE



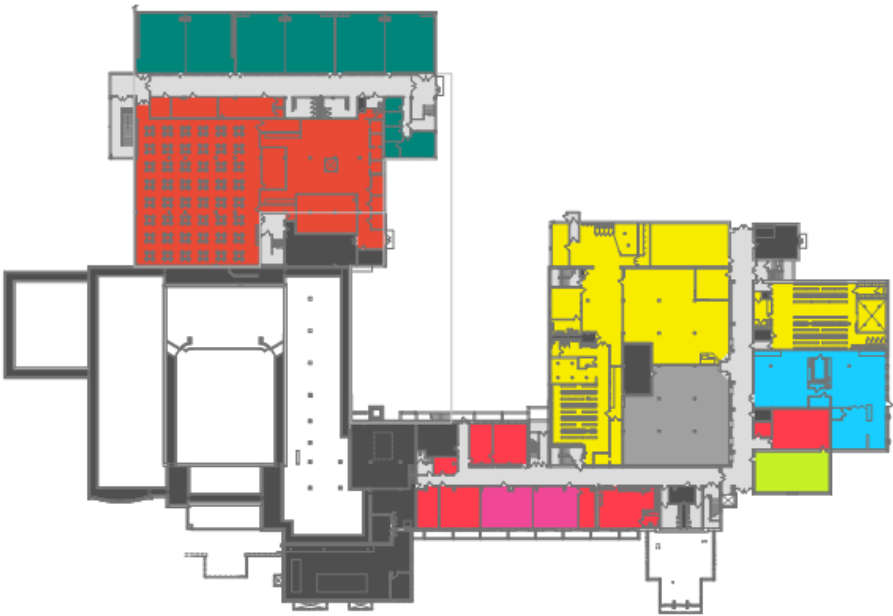


# DISCOVERY

## DEPARTMENT PLANS & ANALYSIS



FIRST FLOOR



LOWER FLOOR



SECOND FLOOR



COLLEGE LEVEL  
COURSES OFFERED

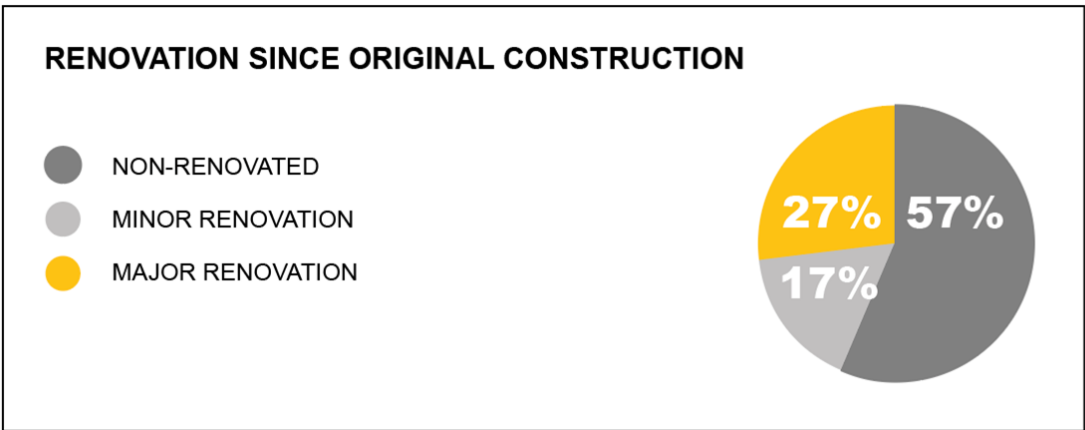


SCHOOL USED FOR  
PROGRAMMING  
NONEXISTENT IN  
ORIGINAL BUILDING



# DISCOVERY

## RENOVATED AREA



FIRST FLOOR



LOWER FLOOR



SECOND FLOOR



ELECTRICAL  
USAGE INCREASE  
SINCE 1953



U.S. HOUSEHOLDS  
HAVE A/C



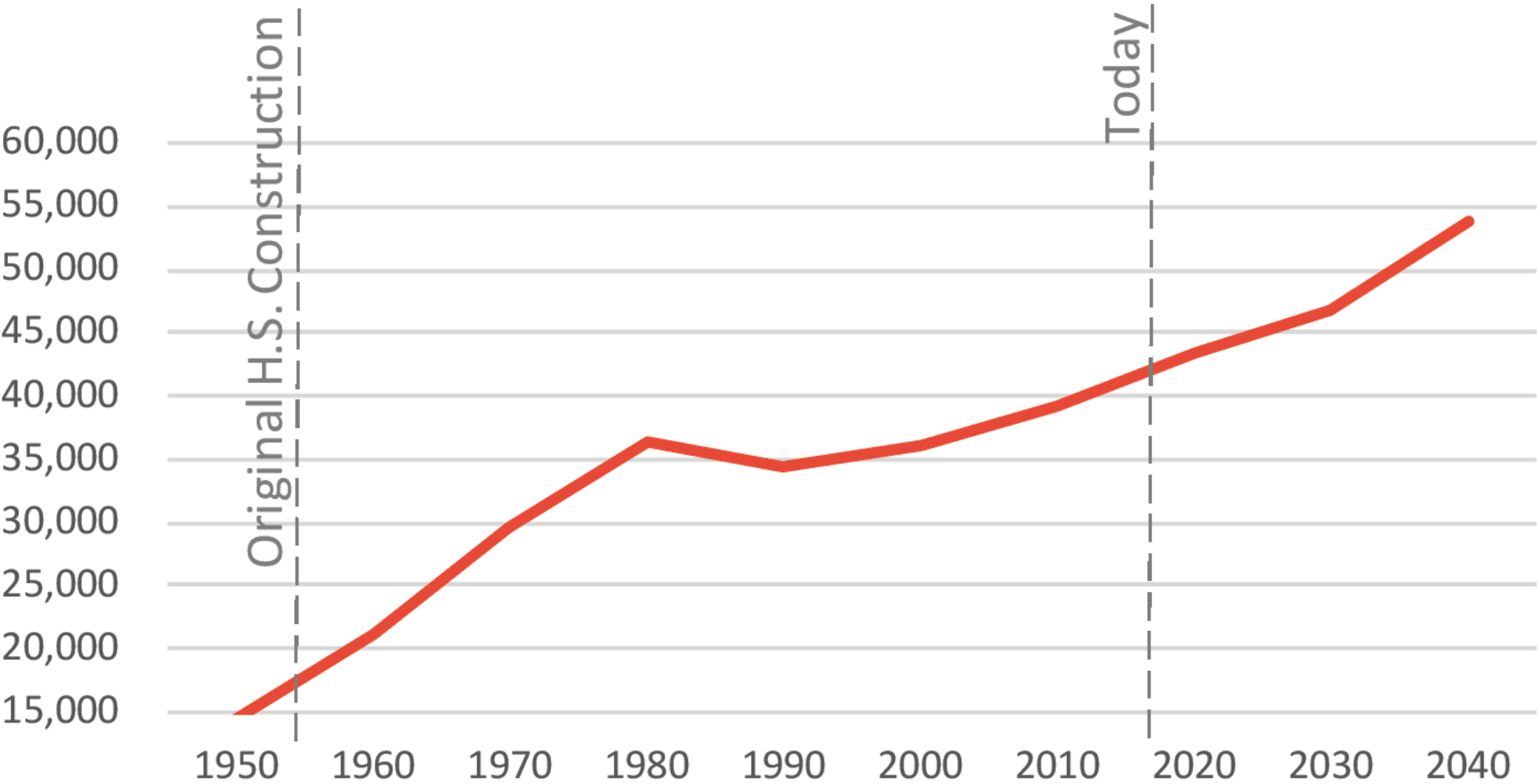
CEDAR FALLS  
HIGH SCHOOLS  
HAVE A/C



# DISCOVERY

## FUTURE GROWTH

CITY OF CEDAR FALLS POPULATION GROWTH



91%

HOME BUYERS  
CONSIDER SCHOOLS

271

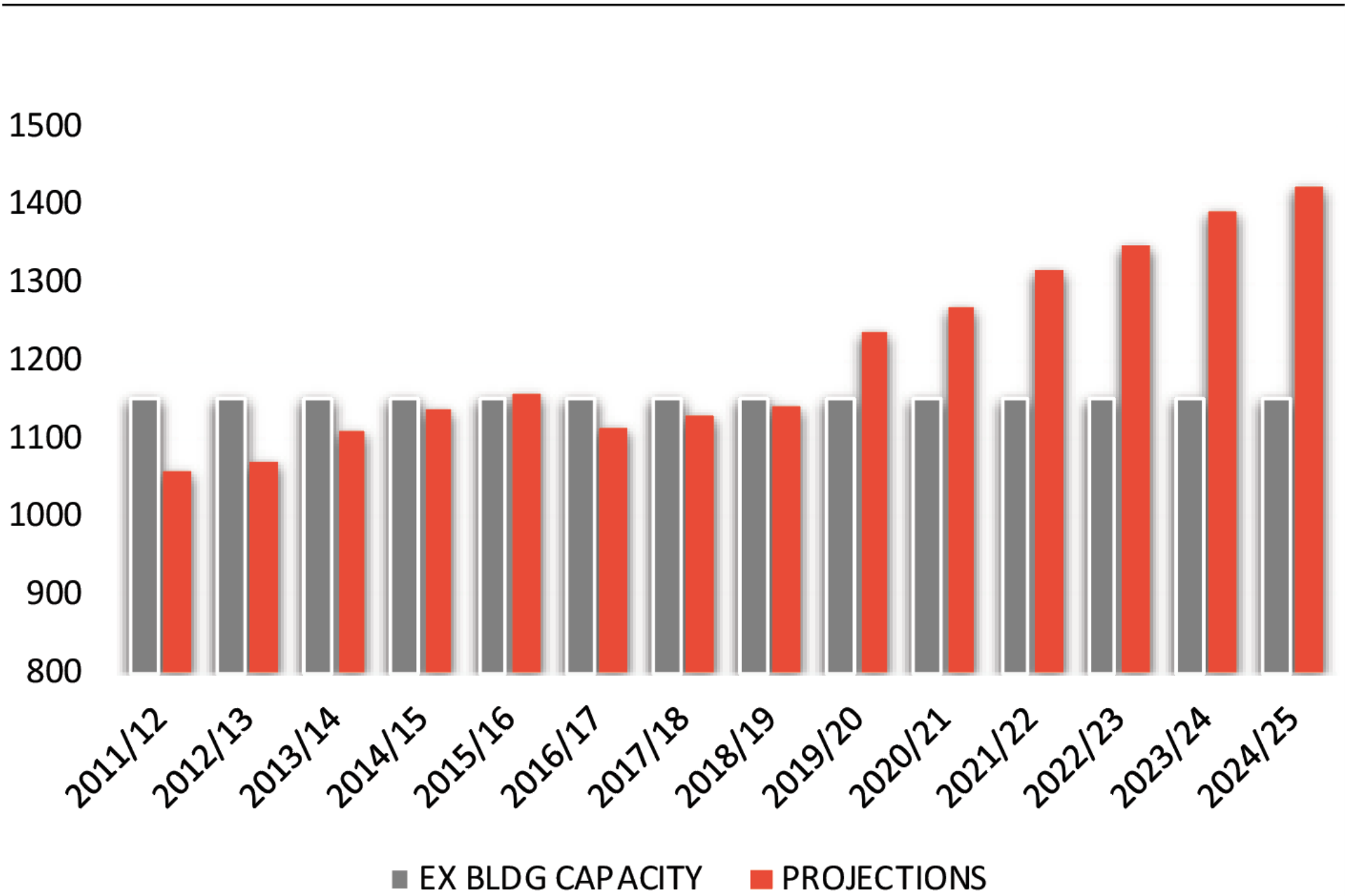
NEW HOMES  
CONSTRUCTED  
IN CEDAR FALLS  
2016-17



# DISCOVERY

## FUTURE GROWTH

### HIGH SCHOOL ENROLLMENT PROJECTIONS



30%

ANTICIPATED GROWTH  
OF HIGH SCHOOL  
ENROLLMENT  
IN 10 YEARS

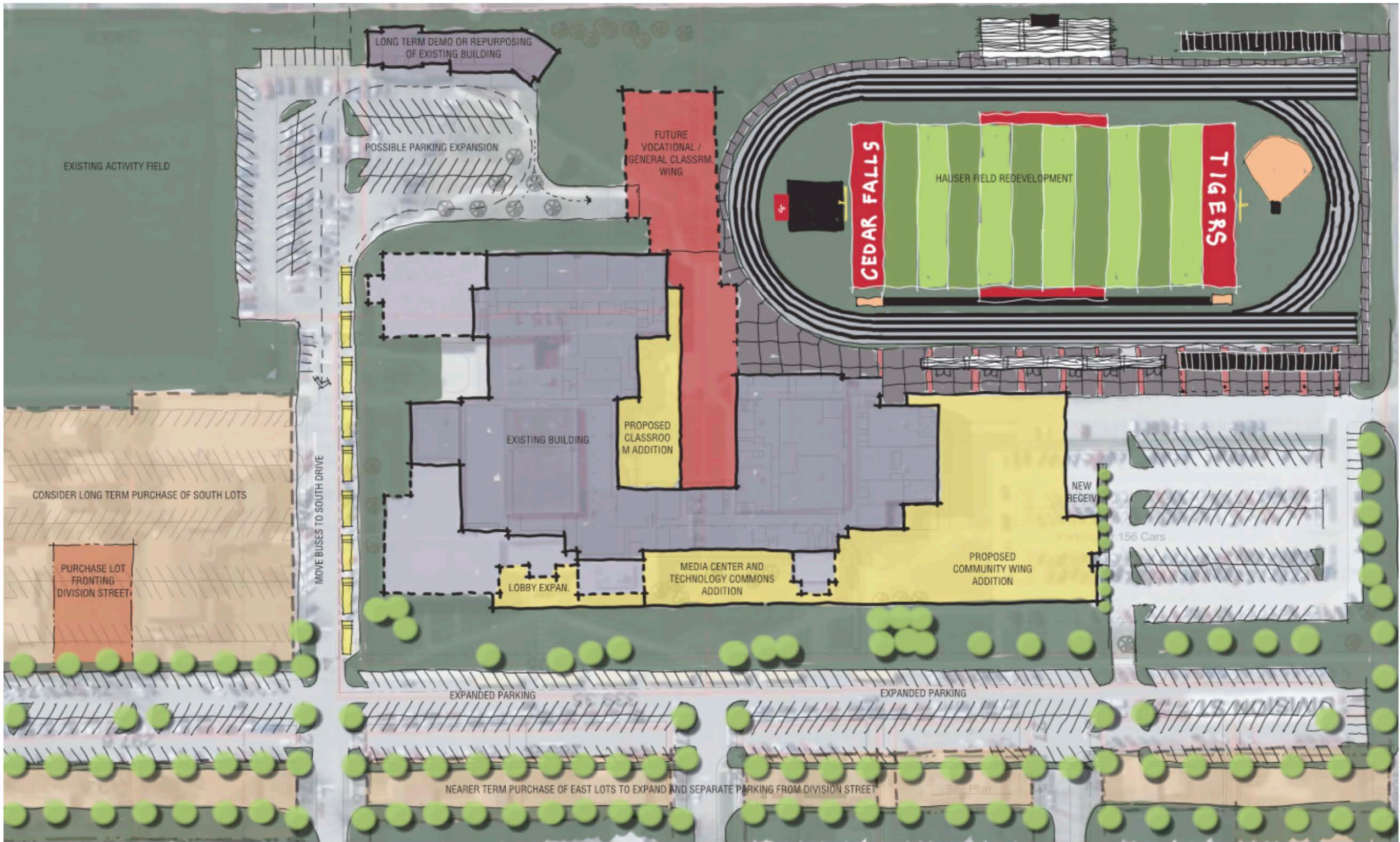
30+

STUDENTS PER  
CLASSROOM  
BY 2025 IF WE DO  
NOTHING



# DISCOVERY

## 2012 REDEVELOPMENT STUDY



## EXISTING HIGH SCHOOL





# DISCOVERY

## REDEVELOPMENT ANALYSIS



EXISTING  
REDEVELOPMENT  
COST AS  
% OF NEW



REDEVELOPMENT  
COST  
AS % OF NEW  
INCLUDING  
EQUIVALENT LAND  
ACQUISITION

### REDEVELOP AND EXPAND EXISTING HIGH SCHOOL

**PROJECT COST.....\$84,440,000**  
**CONSTRUCTION COST.....\$67,280,000**

### ASSUMPTIONS

- Accommodates 1,400 students
- Some but not all discovery goals met
- Total area = 345,000 GSF
  - Existing high school area 226,000 GSF
- Cost based on 2021 construction start
- 5 years of phased construction required
- Limited site for future growth





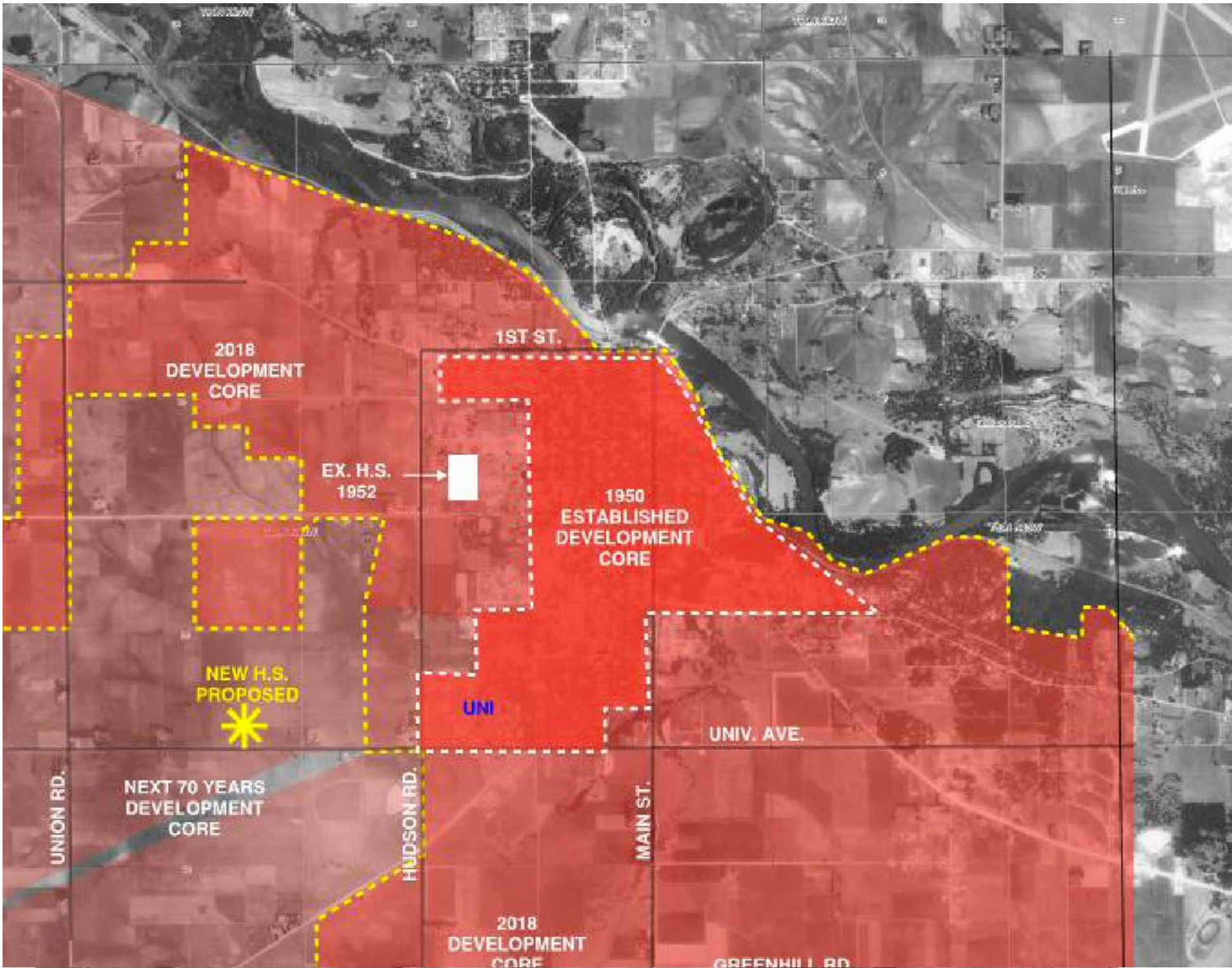
# DISCOVERY

## CEDAR FALLS DEVELOPMENT BIG PICTURE

1950

TODAY

TREND NEXT 70 YEARS



EXISTING HIGH SCHOOL





# DISCOVERY

## SPACE PROGRAMMING

TOTAL AREA: 295,000SF

### 8 LEARNING COMMUNITIES

(8 X 7,040 SF) 56,320 SF

### ATHLETICS/PE

48,970 SF (+20,200 SF W/ FUTURE POOL)

### SCIENCE LABS

9,450 SF

### VISUAL ARTS

6,050 SF

### PERFORMING ARTS

13,600 SF

### CAFE/STUDENT COMMONS

14,700 SF

### KITCHEN

18,000 SF

### BUSINESS DEVELOPMENT

4,500 SF

### FAMILY & CONSUMER SCIENCES

3,100 SF

### ENGINEERING/MANUFACTURING

10,500 SF

### SPECIAL NEEDS

4,800 SF

### ADMINISTRATION

6,000 SF

### LEARNING RESOURCE CENTER

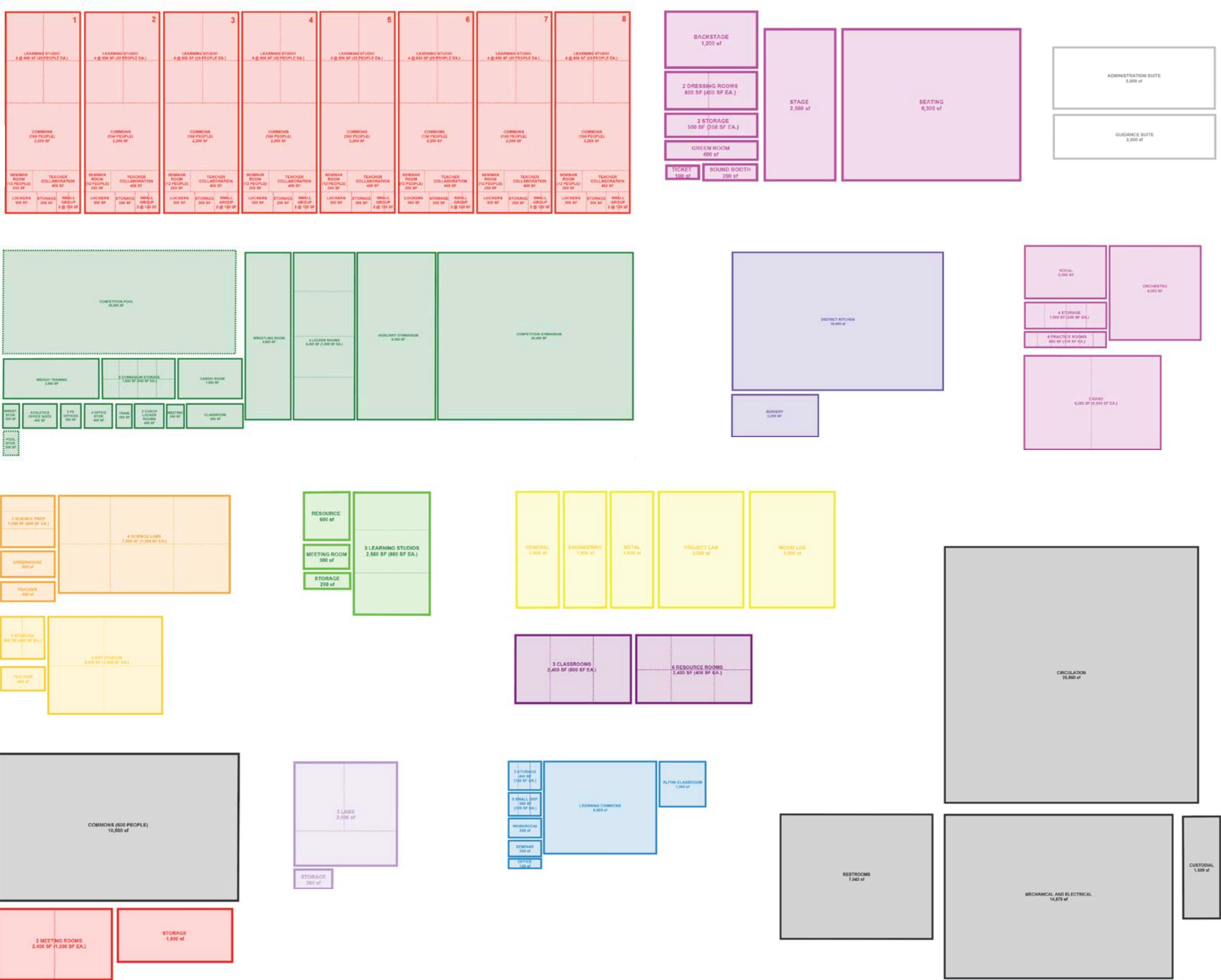
7,510 SF

### AUDITORIUM

12,000 SF

### SUPPORT

49,781 SF



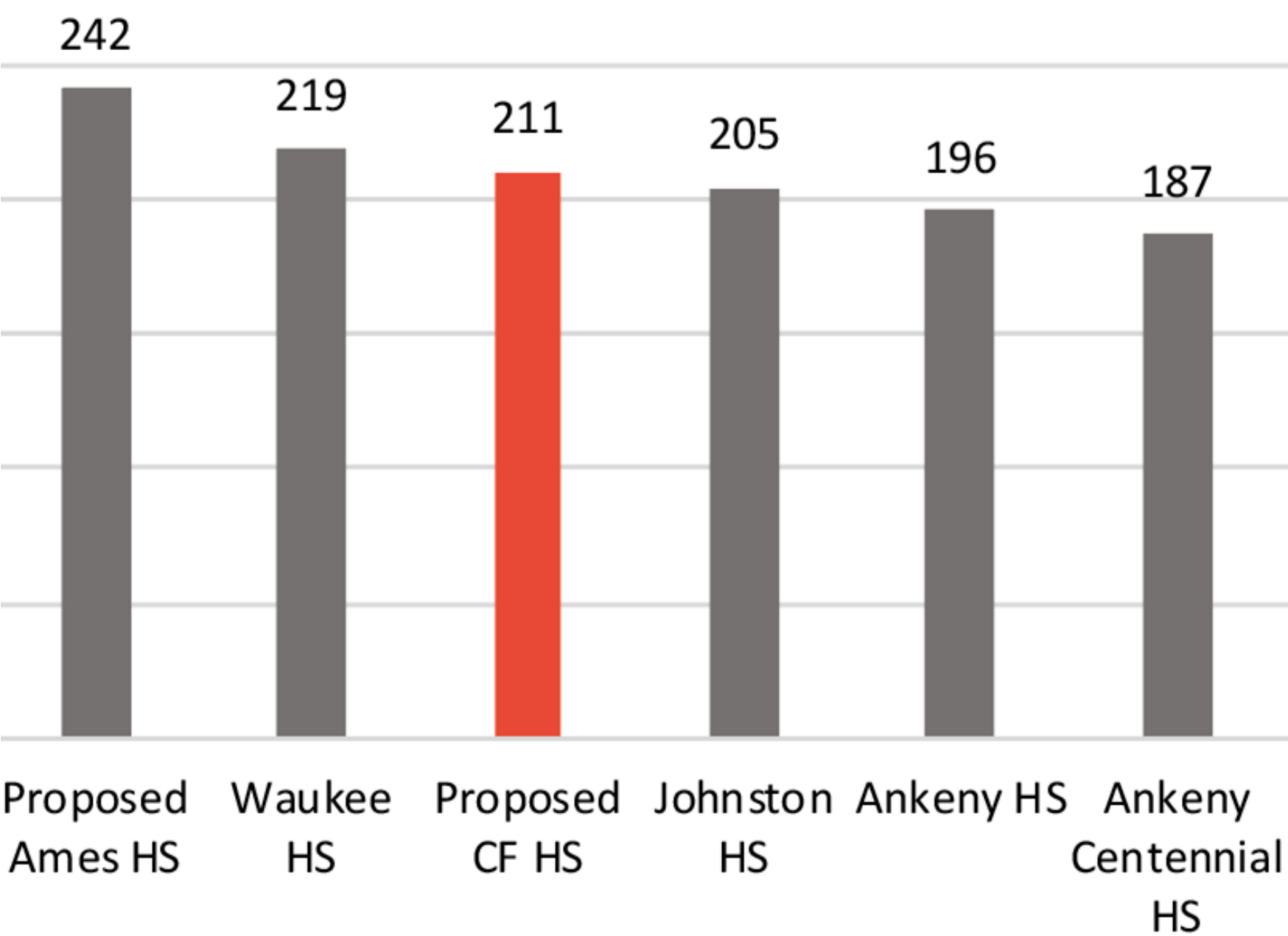
# NEW HIGH SCHOOL



# DISCOVERY

## BENCHMARKING

SQUARE FEET PER STUDENT





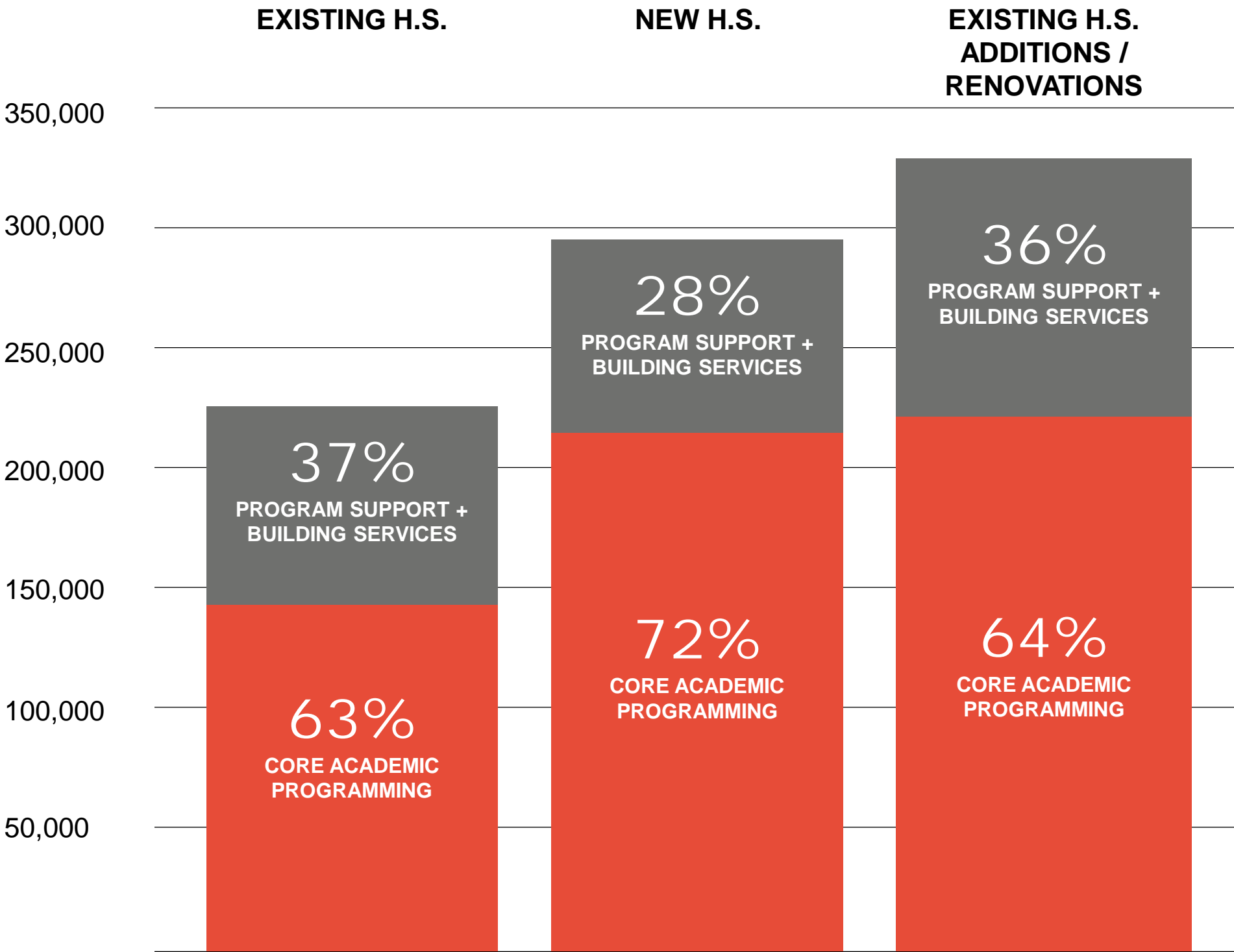
# DISCOVERY

## PROGRAM COMPARISON

**EXISTING H.S.**  
**1,250 STUDENTS**  
226,000 SQ. FT.

**NEW H.S.**  
**1,400 STUDENTS**  
295,000 SQ. FT.

**EXISTING H.S. ADDITIONS /  
RENOVATIONS**  
**1,400 STUDENTS**  
345,000 SQ. FT.

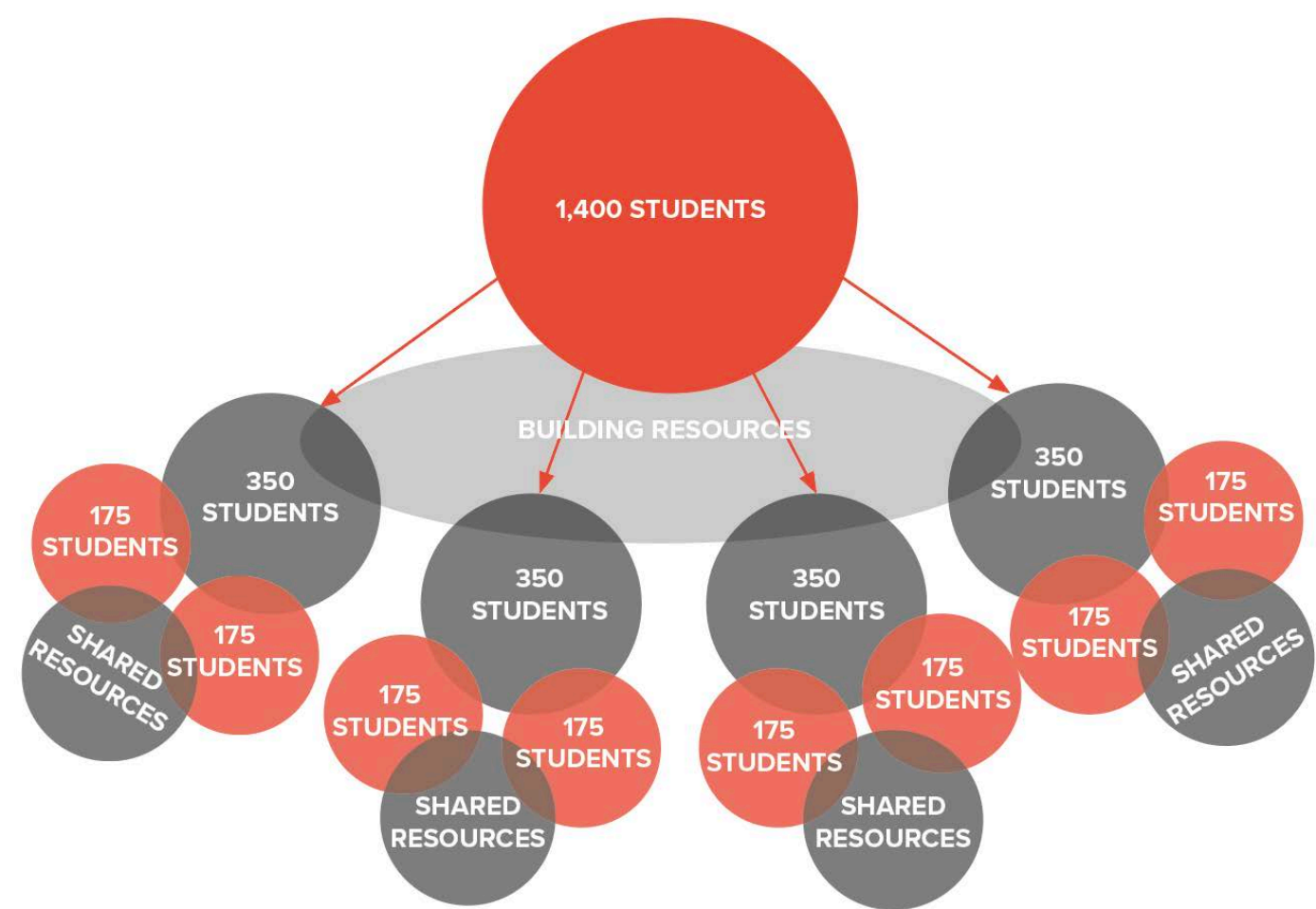




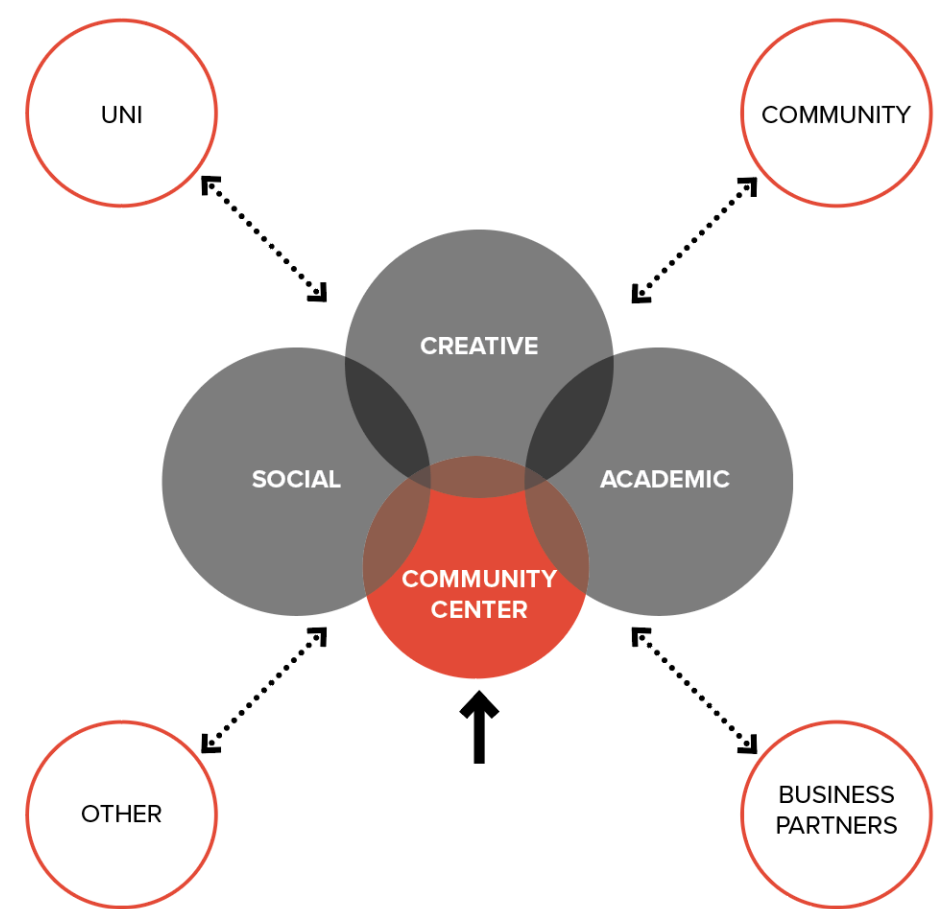
# DISCOVERY

## INSIGHT WEEK PROGRAM APPROACH

### LEARNING COMMUNITY MODEL



### SCHOOL AS A COMMUNITY ASSET





# STRATEGY

## SITE PLAN



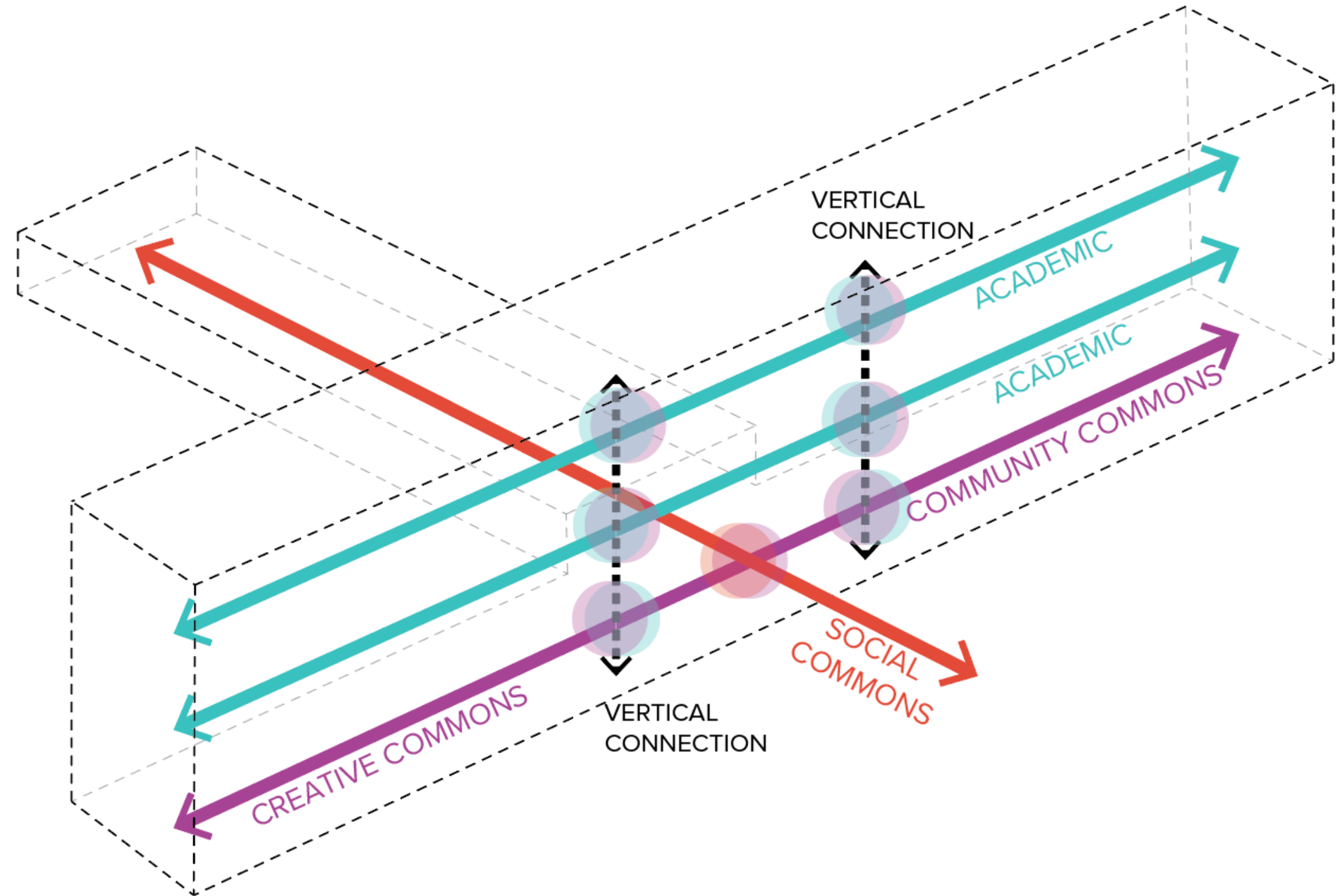
## NEW HIGH SCHOOL



# STRATEGY

## BUILDING ORGANIZATION

### SPACIAL DIAGRAM

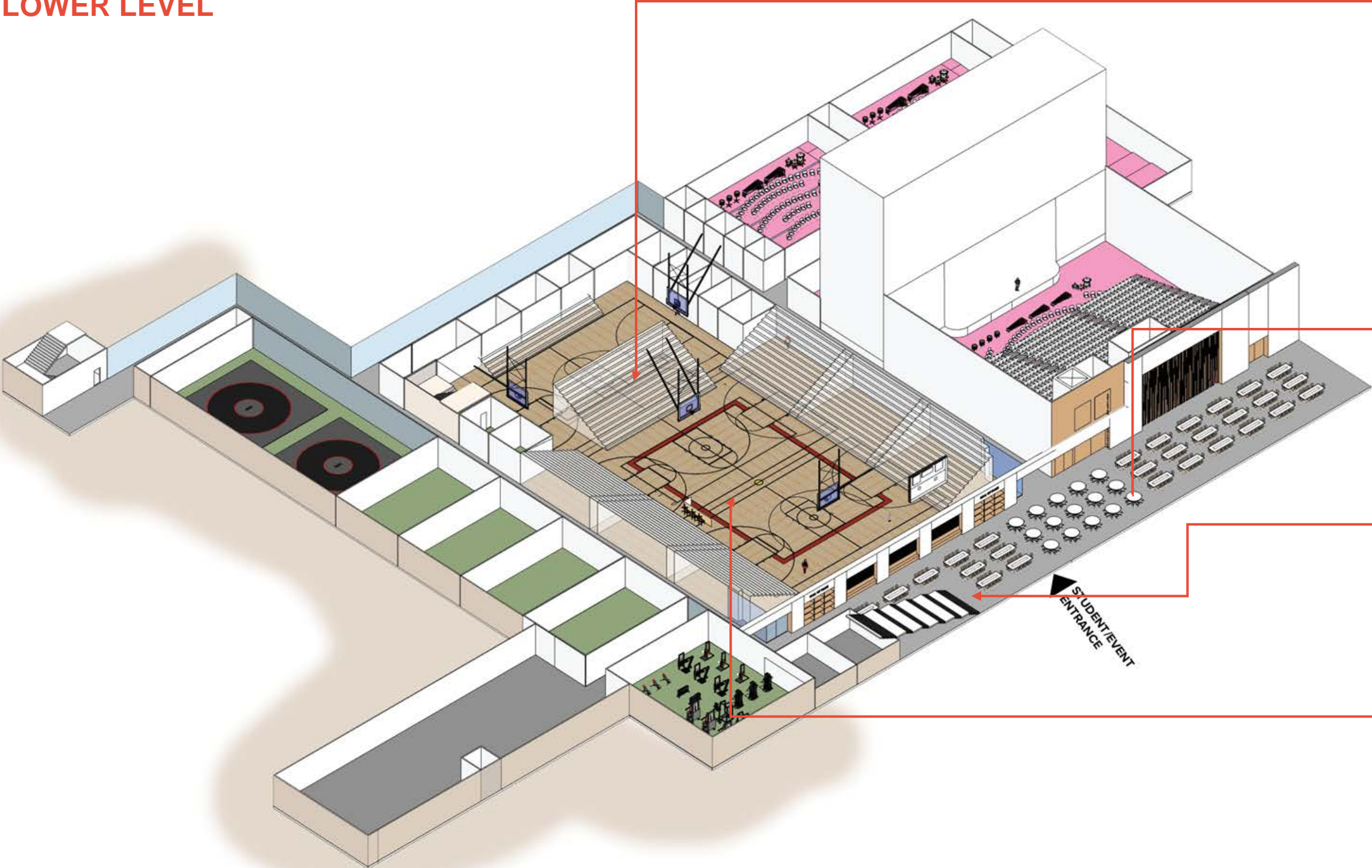




# STRATEGY

## PLAN DIAGRAM TEST

### LOWER LEVEL



**GYM / ATHLETICS**  
Competition and practice gymnasium provide **flexible seating** for competition, practice, and physical education programming.

**MUSIC WING**  
Music and performance spaces for **shared multi-purpose** programming.

**STUDENT COMMONS**  
**Two-story** student commons is a flexible space that provides opportunities for students to gather and can double as a lobby space for the auditorium.

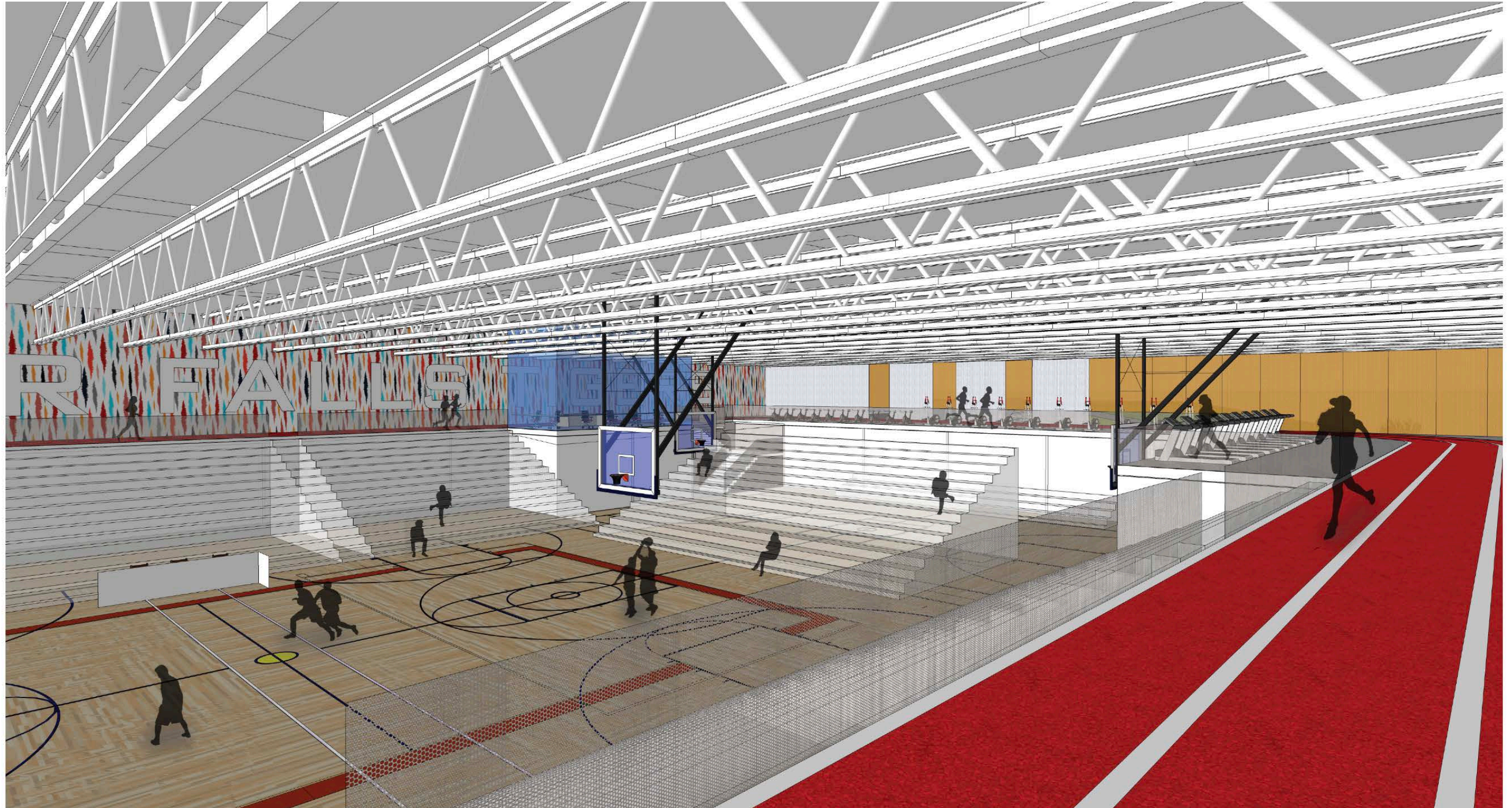
**Learning stair** provides a connection between the two levels of the student commons and serves as an engaging spot for seating and informal gathering.

**Direct entry to gym floor** is available from the lower level with convenient proximity to locker rooms and easy access for visitors during athletic events.



# STRATEGY

## WELLNESS CENTER CONCEPT

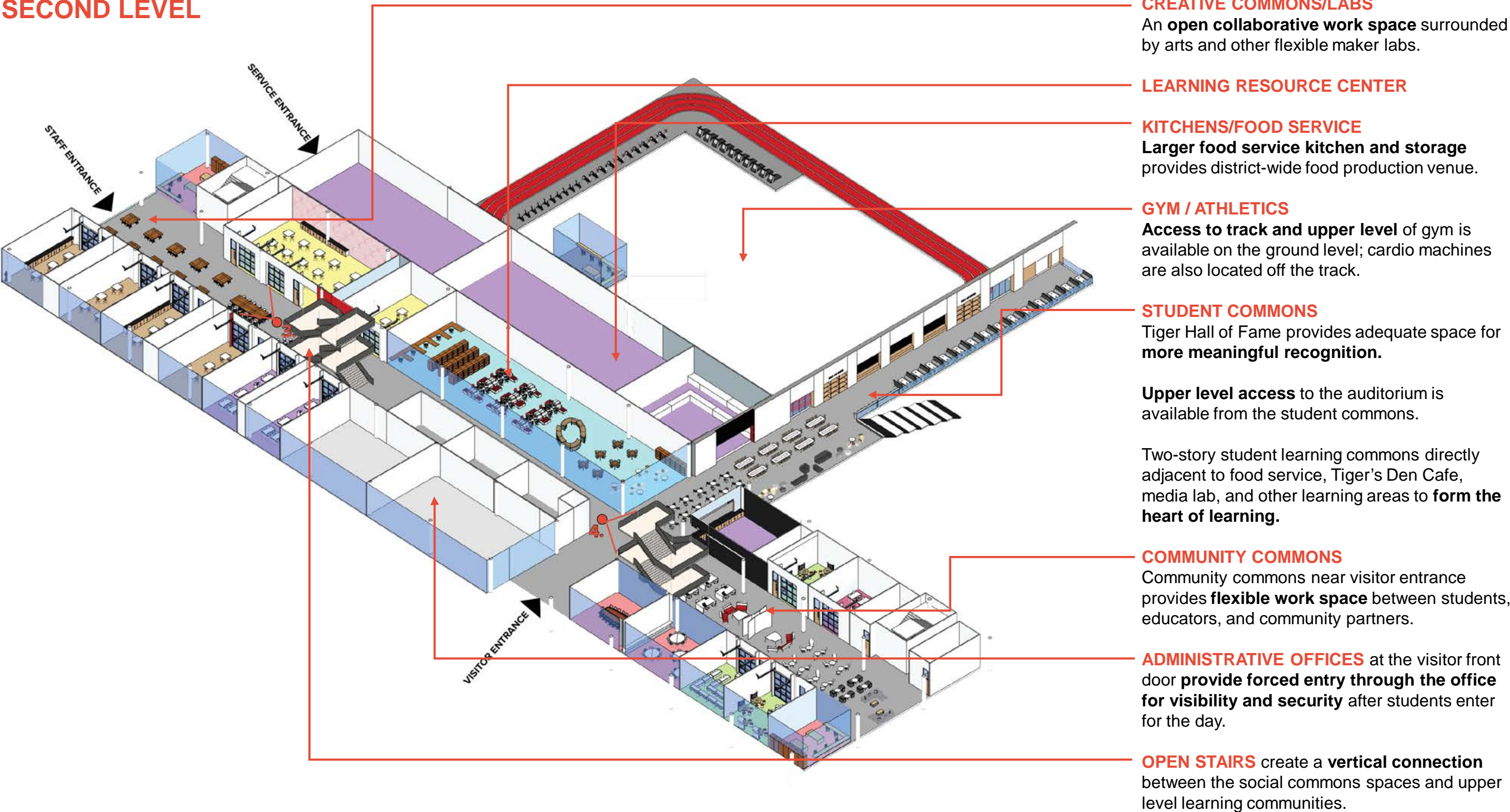




# STRATEGY

## PLAN DIAGRAM TEST

### SECOND LEVEL



- CREATIVE COMMONS/LABS**  
An **open collaborative work space** surrounded by arts and other flexible maker labs.
- LEARNING RESOURCE CENTER**
- KITCHENS/FOOD SERVICE**  
Larger food service kitchen and storage provides district-wide food production venue.
- GYM / ATHLETICS**  
Access to track and upper level of gym is available on the ground level; cardio machines are also located off the track.
- STUDENT COMMONS**  
Tiger Hall of Fame provides adequate space for more meaningful recognition.  
  
Upper level access to the auditorium is available from the student commons.  
  
Two-story student learning commons directly adjacent to food service, Tiger's Den Cafe, media lab, and other learning areas to **form the heart of learning**.
- COMMUNITY COMMONS**  
Community commons near visitor entrance provides **flexible work space** between students, educators, and community partners.
- ADMINISTRATIVE OFFICES** at the visitor front door **provide forced entry through the office for visibility and security** after students enter for the day.
- OPEN STAIRS** create a **vertical connection** between the social commons spaces and upper level learning communities.



# STRATEGY

## MULTIPURPOSE COMMONS CONCEPT





# STRATEGY

## CREATIVE COMMONS CONCEPT

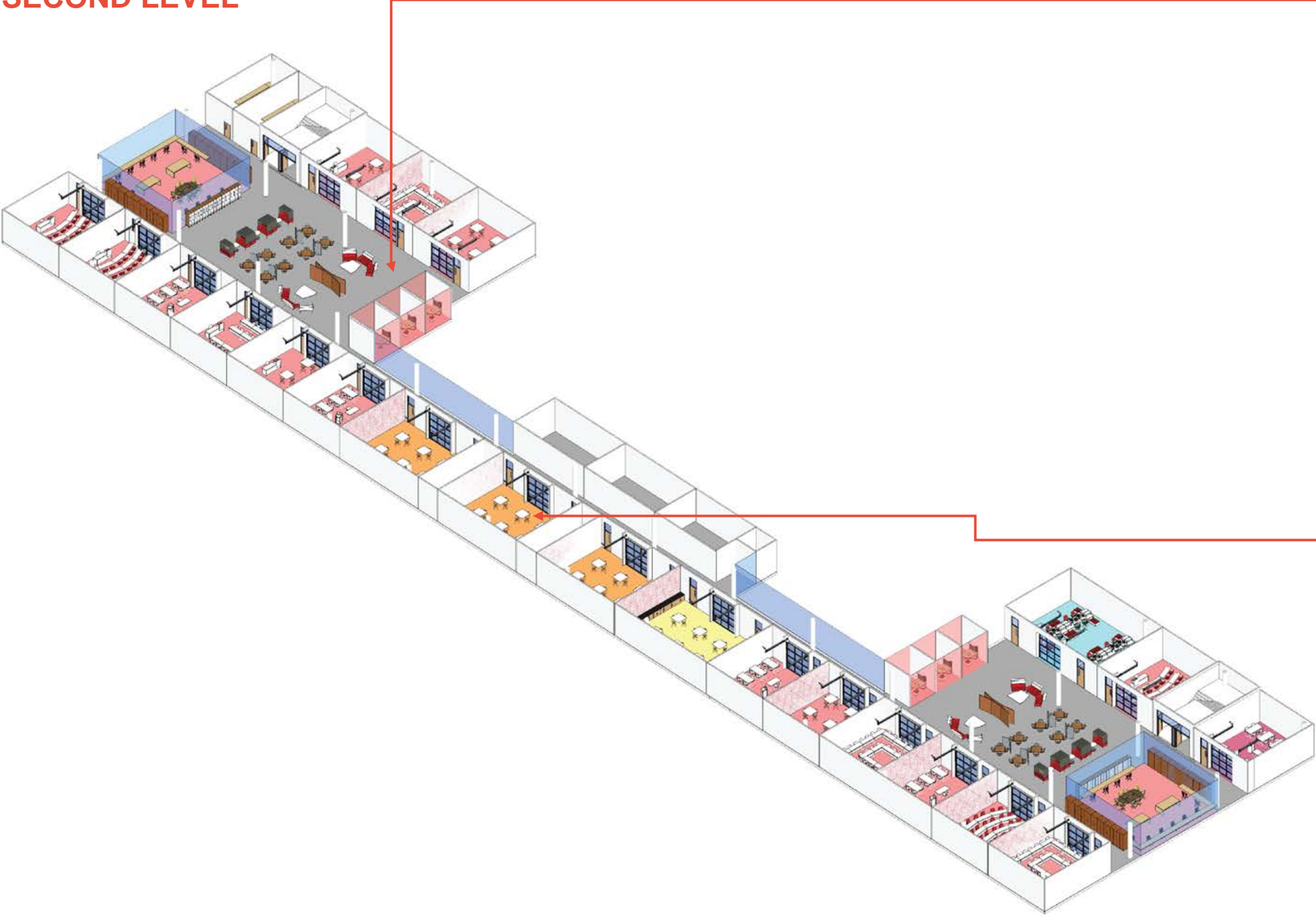




# STRATEGY

## PLAN DIAGRAM

### SECOND LEVEL



#### LEARNING COMMUNITY

**Shared science and project labs** are located between learning communities to provide better utilization and greater flexibility.

**Small learning communities** provide a school within a school and can each be compartmentalized for security, noise, collaboration, and supervision.

**Shared professional learning communities** have direct access to students and visual supervision of the site.

#### SCIENCE LABS

Learning communities are **centered around an open commons with a variety of spaces** for presentations, group work, and individual work.

Small learning communities **break down learning from 1,400 students to (4) 350-student neighborhoods.**



# STRATEGY

## CREATIVE COMMONS / ENTRY CONCEPT

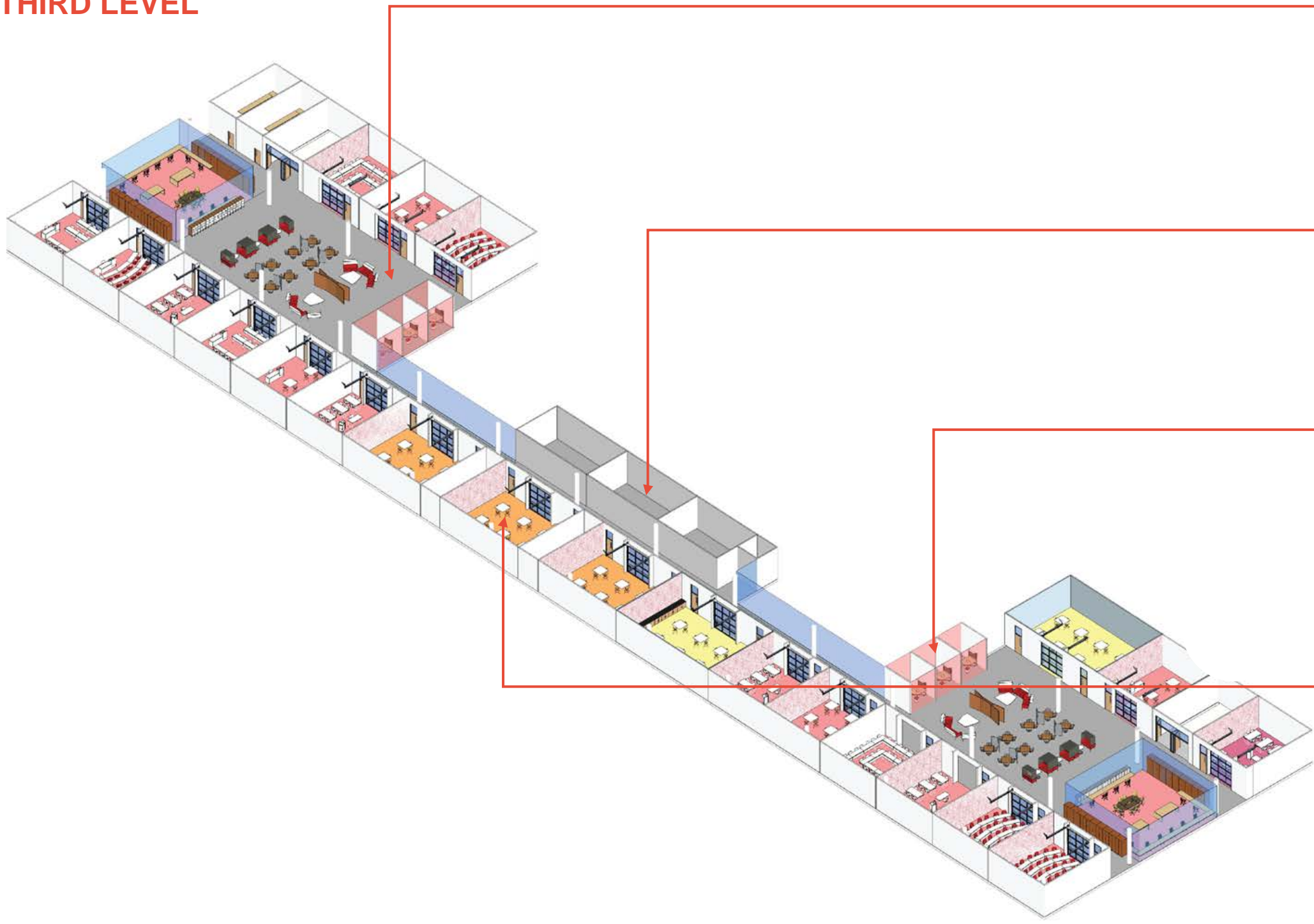




# STRATEGY

## PLAN DIAGRAM TEST

### THIRD LEVEL



**LEARNING COMMUNITY**  
**Flexible classrooms** in each learning community with operable garage doors create an open, transparent, collaborative atmosphere with direct access to the learning commons.

**CENTRAL SERVICE CORE**  
**Houses restrooms, an elevator, and mechanical space** with access to mechanical penthouse on the roof.

**SMALL GROUP ROOMS**  
Overlooking the open, multi-floor central space provide an **opportunity for a quiet working environment** while maintaining a connection to the greater learning community.

**SCIENCE LABS**



# STRATEGY

## SMALL LEARNING COMMUNITY CONCEPT





# STRATEGY

## BUDGET COMPARISON

### REDEVELOP AND EXPAND EXISTING HIGH SCHOOL WITHOUT LAND PURCHASE

**PROJECT COST.....\$84,440,000**  
**CONSTRUCTION COST.....\$67,280,000**  
project cost to develop 50 acre site...\$133,940,000  
(acquisition and redevelopment of 33 acres = \$49.5M)

### NEW HIGH SCHOOL

**PROJECT COST.....\$112,810,000**  
**CONSTRUCTION COST.....\$86,780,000**  
\*potential bond estimate \$69.9M

**3.3**  
**MILLION**  
PER YEAR  
  
COST OF  
WAITING FOR  
NEW HIGH SCHOOL

### ASSUMPTIONS

- Accommodates 1,400 students
- Cost based on 2021 construction start



# STRATEGY

## COMPARISON OVERVIEW

Building Comparison Data	Existing HS	Redevelop HS	New HS
GENERAL			
Grouped Professional Learning Communities	No	Yes	Yes
Small learning communities	No	No	Yes
Area usable for learning	67%	70%	78%
Student collaboration areas	No	Yes	Yes
Future growth potential	No	No	Yes
Includes district wide kitchen	No	Yes	Yes
Separated bus pick-up / drop-off	No	No	Yes
Site Area	17 Acres	17 Acres	50 Acres
Estimated energy \$/yr	\$213,000 (partial A/C)	\$403,650	\$346,000
Total Project \$	Delayed \$	\$84,440,000	\$112,810,000
# of Students	1250	1400	1400
# practice fields	1	1	3
Years of construction required	0	5	3
SECURITY			
Controlled entrances	No	Yes	Yes
Supervised areas	No	No	Yes
Distributed administration	No	Yes	Yes
Remote lockdown	No	Yes	Yes
Compartmentalized security areas	No	No	Yes
# Students per onsite parking space	2.3 Stud./Space	2.6 Stud./Space	1.5 Stud./Space



QUESTIONS ???

INVISION



JANUARY 2019