



# Oak Park and River Forest High School Master Facilities Plan

## **COMPONENT FLOW CHART & SEQUENCING DIAGRAMS**

November 9, 2018

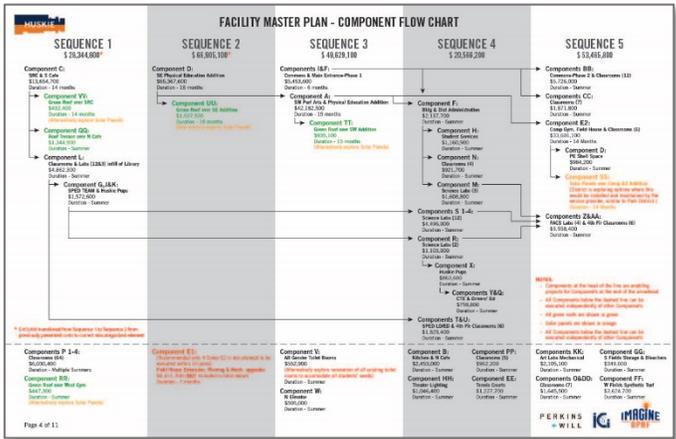
The following is a narrative intended to accompany the component flow chart and sequencing diagrams illustrating the current draft of the master facilities plan. This provides context and detailed explanations about how these diagrams are intended to be utilized and the information they are conveying.

# General Information

The Facilities Master Plan for OPRF has been previously presented as a series of five sequences. Within those sequences the various elements of the Master Plan are further broken down into Components. These Components include groups of spaces based on reasonable project areas, common functional space, and logical divisions from adjacent spaces. The Components were then grouped together into the five sequences based on priorities assigned by the Imagine Group, construction efficiency in the execution of similar construction scope, and logical construction sequencing. These Components can be executed as discreet projects or grouped together into larger construction projects, giving the Board of Education the flexibility to decide how much they wish to address at any one time with the knowledge of how that Component relates to all the other Components of the overall Master Plan. The set of diagrams, spreadsheets and other documents included with this narrative illustrate how these Components relate to each other in construction sequencing, location within the building, and estimated project budget cost. Below are further descriptions of the Component Flow Chart and Sequencing Diagrams.

# Component Flow Chart

The Component Flow Chart illustrates the various Components included in each sequence and how they relate to each other. Each Component is given a letter designation, a descriptor naming the major elements included in the Component, the estimated project budget cost, and the estimated construction duration. Some groupings will include multiple Components such as P 1-4 or G,J&K. In the case of P 1-4: Classrooms, the renovation of the typical classrooms were broken into four Components for budgeting purposes as all classrooms would not be renovated in a single summer. Components G,J&K are grouped together, as it is most likely they would be executed simultaneously. They were originally separated as the Master Plan was developing to maximize flexibility.



—————> Connecting many of the Components are a series of lines and arrows. These arrows illustrate relationships between Components, where the Component at the start of the line is considered to be an “Enabling” project for the Component the arrowhead is pointing to. Enabling Components either need to be completed prior to or at the same time as the Components the arrow is pointing to. For example Component C: South Cafeteria & Student Resource Center (Library) must be constructed prior to the existing library, Component L, being renovated into new classrooms, science labs and offices. While both are included in Sequence 1, one would have to follow the other. Some lines span multiple Sequences, as is the case for Components S 1-4 and R. These Components could be executed in earlier Sequences if the Board chooses, so long as the Enabling Components G,J&K are executed first.

- - - - - The Components below the dashed line at the bottom of the page are viewed as completely independent. They can be executed at any point in time and have little to no impact on other Components.

Some of the Components are shown in different colors. All green roofs are shown in **green**. Solar Panels are shown in **orange**. Additional notes or Components that have either been adjusted from what has been previously presented or were deemed as important to highlight for the Board’s attention are shown in **red**.

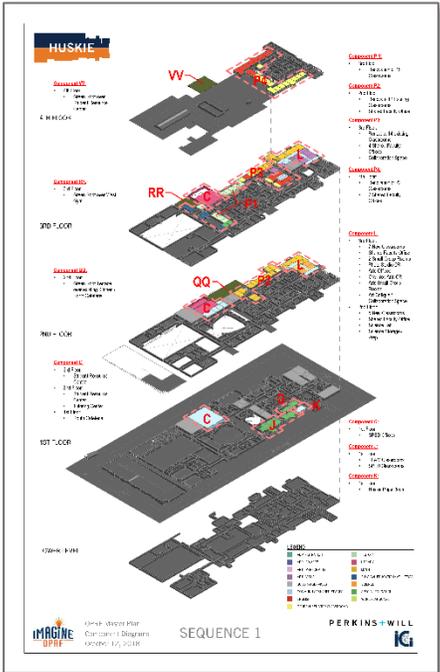
You will notice below most of the green roof Components a parenthetical note is added that you may alternatively consider solar panels. Green roofs provide much added value in the management of storm water and increased thermal insulation of the roof. Storm water is a significant issue throughout the metropolitan Chicago area and governing bodies are implementing stricter and stricter measures to deal with the issue for every new construction project that affects the site or the overall footprint of the building. Such measures include increasing of pervious surfaces to allow storm water to penetrate into the soil or installing systems that slow the release of storm water from the specific site into the municipal storm water sewer system. Green roofs are a very effective way to slow the flow of storm water from the building roof to the municipal system. With that being said, there have been several questions as to why solar panels are only shown in Sequence 5. Solar panels can certainly be installed in lieu of a green roof. As is noted for Component SS, the District is exploring options where the solar panels would be installed and maintained by the electricity service provider, similar to what the OP Park District recently implemented. If such a similar deal could be executed for OPRF, then the inclusion of solar panels in an earlier Component may be viewed as a more desirable avenue for the Board.

### Component Sequencing Diagrams

The Component Sequencing Diagrams are a series of exploded axonometric plans showing where the Components are located within the school. Each page represents an entire Sequence of Components, with the Sequence listed at the bottom of the page.

An exploded axonometric plan is a view of the school as if you were floating in the air, looking down at the school from an angle. Each of the floors of the building is broken apart and stacked such that the bottom is the lower level with the first floor stacked directly above that and each subsequent floor stacked above. To the left of the page are the floor designations, Lower Level through 4<sup>th</sup> Floor in capital letters.

The individual colored blocks in the axon plans are colored in relation to the specific department, i.e. Math, Science, Special Education, etc., the space is associated with. In the bottom right hand corner is a Legend showing which departments are related to each color. Groups of these individual colored blocks are then outlined in **light red** dashed lines to indicate a Component and tagged with the associated Component letter (C, P1, QQ, etc.). As was described earlier in this document, Components are groups of spaces based on reasonable project areas, common functional space, and logical divisions from adjacent spaces. The text to the left and right of the page has the Component heading in **red**, with bullet point listing of the individual elements included in the Component and organized by floor.





# FACILITY MASTER PLAN - COMPONENT FLOW CHART

## SEQUENCE 1

\$ 28,344,600\*

### Component C:

SRC & S Cafe  
\$13,654,700  
Duration - 14 months

### Component VV:

Green Roof over SRC  
\$432,400  
Duration - 14 months  
(Alternatively explore Solar Panels)

### Component QQ:

Roof Terrace over N Cafe  
\$1,344,900  
Duration - Summer

### Component L:

Classrooms & Labs (12&3) infill of Library  
\$4,862,300  
Duration - Summer

### Component G,J&K:

SPED TEAM & Huskie Pups  
\$1,572,600  
Duration - Summer

## SEQUENCE 2

\$ 66,905,100\*

### Component D:

SE Physical Education Addition  
\$65,367,600  
Duration - 18 months

### Component UU:

Green Roof over SE Addition  
\$1,537,500  
Duration - 18 months  
(Alternatively explore Solar Panels)

## SEQUENCE 3

\$ 49,629,100

### Components I&F:

Commons & Main Entrance-Phase 1  
\$5,453,600  
Duration - 6 months

### Component A:

SW Perf Arts & Physical Education Addition  
\$42,182,500  
Duration - 15 months

### Component TT:

Green Roof over SW Addition  
\$935,100  
Duration - 15 months  
(Alternatively explore Solar Panels)

## SEQUENCE 4

\$ 20,566,200

### Component F:

Bldg & Dist Administration  
\$2,137,700  
Duration - Summer

### Component H:

Student Services  
\$1,160,900  
Duration - Summer

### Component N:

Classrooms (4)  
\$921,700  
Duration - Summer

### Component M:

Science Labs (3)  
\$1,608,800  
Duration - Summer

### Components S 1-4:

Science Labs (12)  
\$4,496,000  
Duration - Summer

### Component R:

Science Labs (2)  
\$1,103,000  
Duration - Summer

### Component X:

Huskie Pups  
\$863,600  
Duration - Summer

### Components Y&Q:

CTE & Drivers' Ed  
\$759,800  
Duration - Summer

### Components T&U:

SPED LD/ED & 4th Flr Classrooms (6)  
\$1,825,400  
Duration - Summer

## SEQUENCE 5

\$ 53,465,800

### Components BB:

Commons-Phase 2 & Classrooms (12)  
\$5,726,000  
Duration - Summer

### Components CC:

Classrooms (7)  
\$1,871,800  
Duration - Summer

### Component E2:

Comp Gym, Field House & Classrooms (6)  
\$33,601,100  
Duration - 14 Months

### Component D:

PE Shell Space  
\$984,200  
Duration - Summer

### Component SS:

Solar Panels over Comp E2 Addition  
(District is exploring options where this would be installed and maintained by the service provider, similar to Park District.)  
Duration - 14 Months

### Components Z&AA:

FACS Labs (4) & 4th Flr Classrooms (6)  
\$3,558,400  
Duration - Summer

### NOTES:

- Components at the head of the line are enabling projects for Components at the end of the arrowhead
- All Components below the dashed line can be executed independently of other Components
- All green roofs are shown in green
- Solar panels are shown in orange
- All Components below the dashed line can be executed independently of other Components

\* \$163,000 transferred from Sequence 1 to Sequence 2 from previously presented costs to correct miscategorized element

### Components P 1-4:

Classrooms (64)  
\$6,030,400  
Duration - Multiple Summers

### Component RR:

Green Roof over West Gym  
\$447,300  
Duration - Summer  
(Alternatively explore Solar Panels)

### Component E1:

(Recommended only if Comp E2 is not planned to be executed within 10 years)  
Field House Extension, Flooring & Mech. upgrades  
\$4,411,200 (NOT included in total above)  
Duration - 7 months

### Component V:

All Gender Toilet Rooms  
\$552,900  
(Alternatively explore renovation of all existing toilet rooms to accommodate all students' needs)  
Duration - Summer

### Component W:

N Elevator  
\$505,000  
Duration - Summer

### Component B:

Kitchen & N Cafe  
\$2,453,000  
Duration - Summer

### Component HH:

Theater Lighting  
\$1,046,400  
Duration - Summer

### Component PP:

Classrooms (5)  
\$962,200  
Duration - Summer

### Component EE:

Tennis Courts  
\$1,227,700  
Duration - Summer

### Components KK:

Art Labs Mechanical  
\$2,105,100  
Duration - Summer

### Components O&DD:

Classrooms (7)  
\$1,645,500  
Duration - Summer

### Component GG:

S Fields Storage & Bleachers  
\$349,000  
Duration - Summer

### Component FF:

W Fields Synthetic Turf  
\$3,624,700  
Duration - Summer

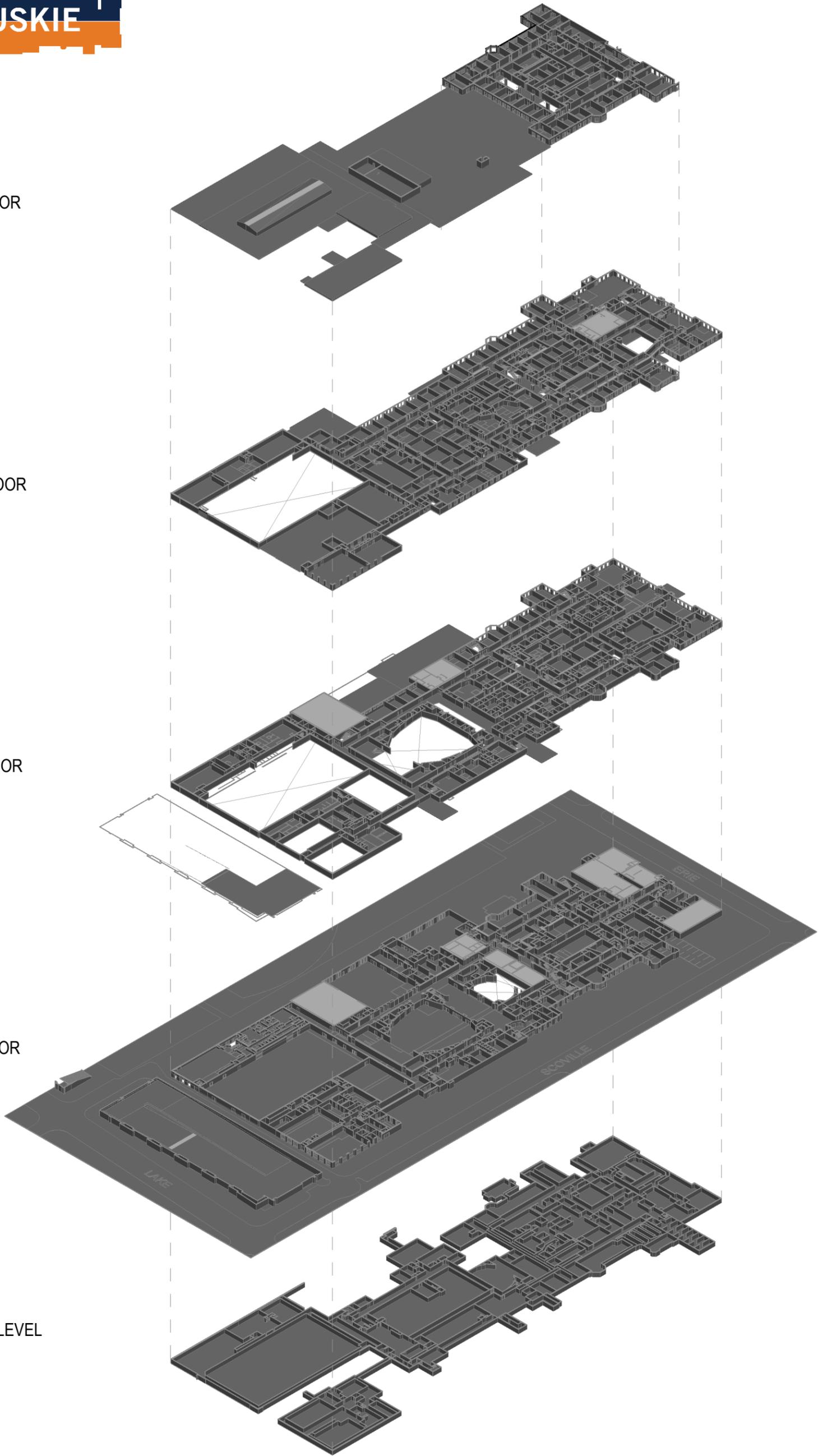
4TH FLOOR

3RD FLOOR

2ND FLOOR

1ST FLOOR

LOWER LEVEL



**Component VV:**

- 4th Floor:
  - Green Roof over Student Resource Center

4TH FLOOR

**Component RR:**

- 3rd Floor:
  - Green Roof over West Gym

3RD FLOOR

**Component QQ:**

- 2nd Floor:
  - Green Roof Terrace over existing Kitchen / North Cafeteria

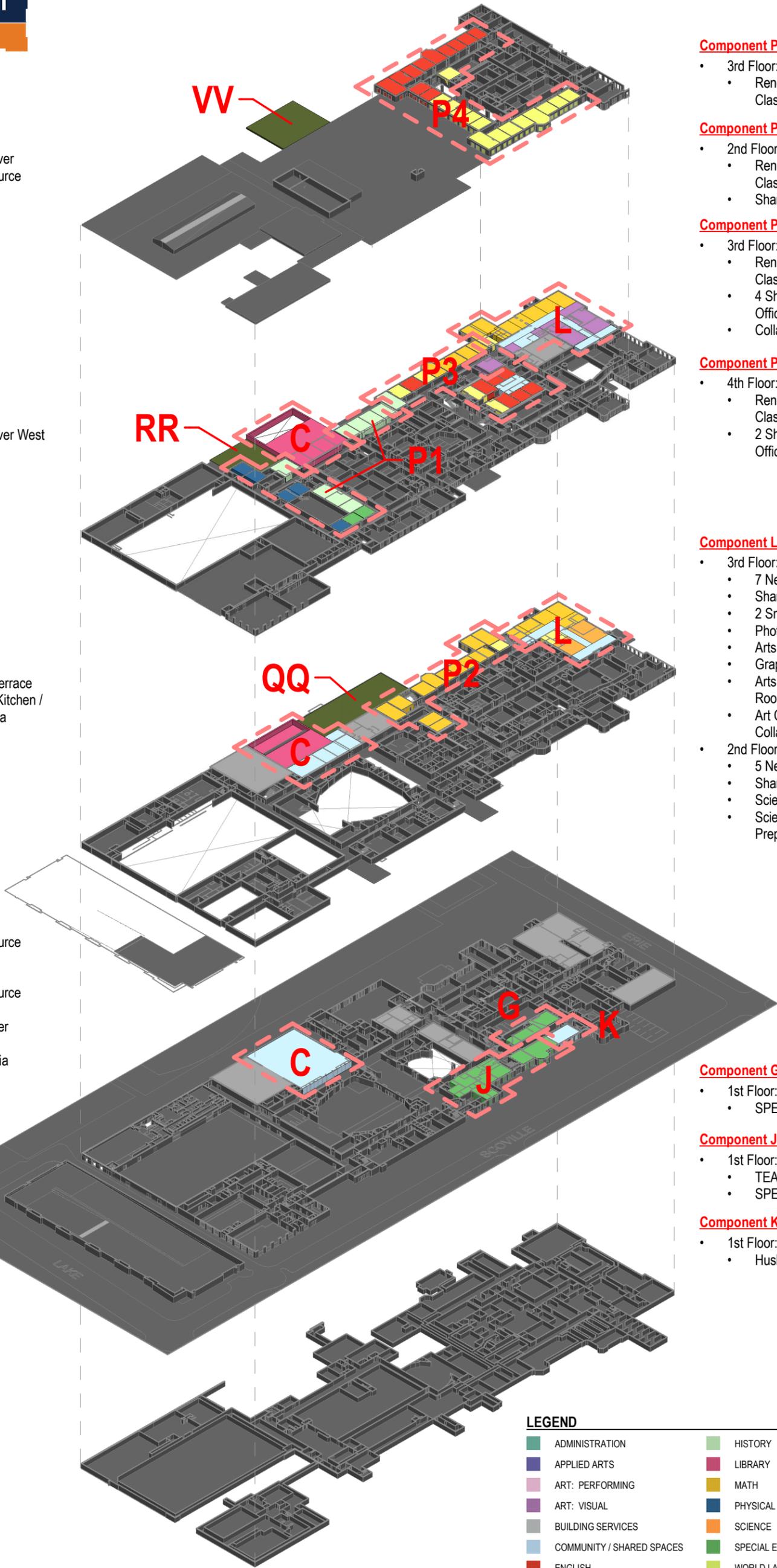
2ND FLOOR

**Component C:**

- 3rd Floor:
  - Student Resource Center
- 2nd Floor:
  - Student Resource Center
  - Tutoring Center
- 1st Floor:
  - South Cafeteria

1ST FLOOR

LOWER LEVEL



**Component P-1:**

- 3rd Floor:
  - Renovation of 15 Classrooms

**Component P2:**

- 2nd Floor:
  - Renovate 12 Existing Classrooms
  - Shared Faculty Office

**Component P3:**

- 3rd Floor:
  - Renovate 14 existing Classrooms
  - 4 Shared Faculty Offices
  - Collaboration Space

**Component P4:**

- 4th Floor:
  - Renovation of 23 Classrooms
  - 2 Shared Faculty Offices

**Component L:**

- 3rd Floor:
  - 7 New Classrooms
  - Shared Faculty Office
  - 2 Small Group Rooms
  - Photo Studio CR
  - Arts Offices
  - Graphics Arts CR
  - Arts Small Group Rooms
  - Art Critique / Collaboration Space
- 2nd Floor:
  - 5 New Classrooms
  - Shared Faculty Office
  - Science Lab
  - Science Storage / Prep

**Component G:**

- 1st Floor:
  - SPED Offices

**Component J:**

- 1st Floor:
  - TEAM Classrooms
  - SPED Classrooms

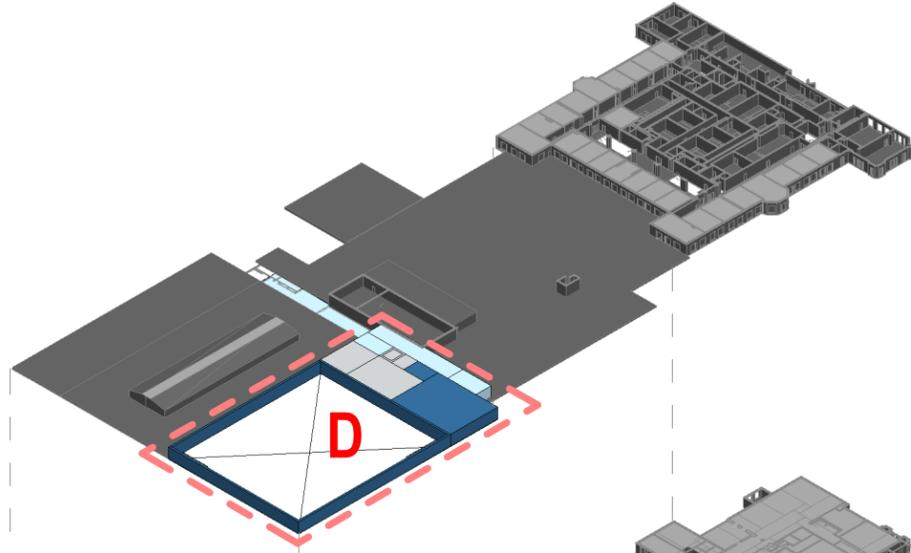
**Component K:**

- 1st Floor:
  - Huskie Pups Room

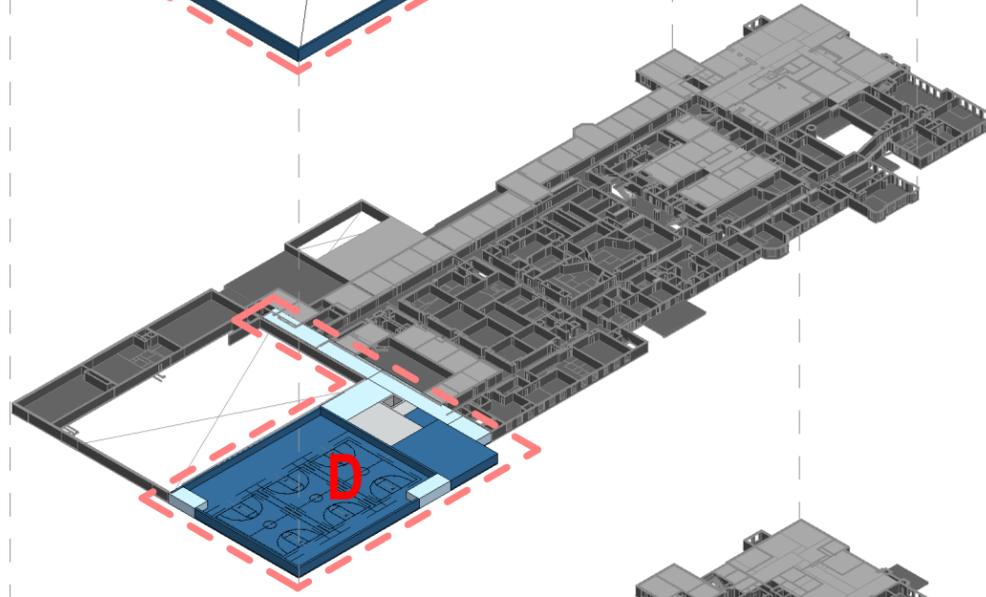
**LEGEND**

ADMINISTRATION	HISTORY
APPLIED ARTS	LIBRARY
ART: PERFORMING	MATH
ART: VISUAL	PHYSICAL EDUCATION / ATHLETICS
BUILDING SERVICES	SCIENCE
COMMUNITY / SHARED SPACES	SPECIAL EDUCATION
ENGLISH	WORLD LANGUAGE
GENERAL / SHARED CLASSROOMS	

4TH FLOOR



3RD FLOOR

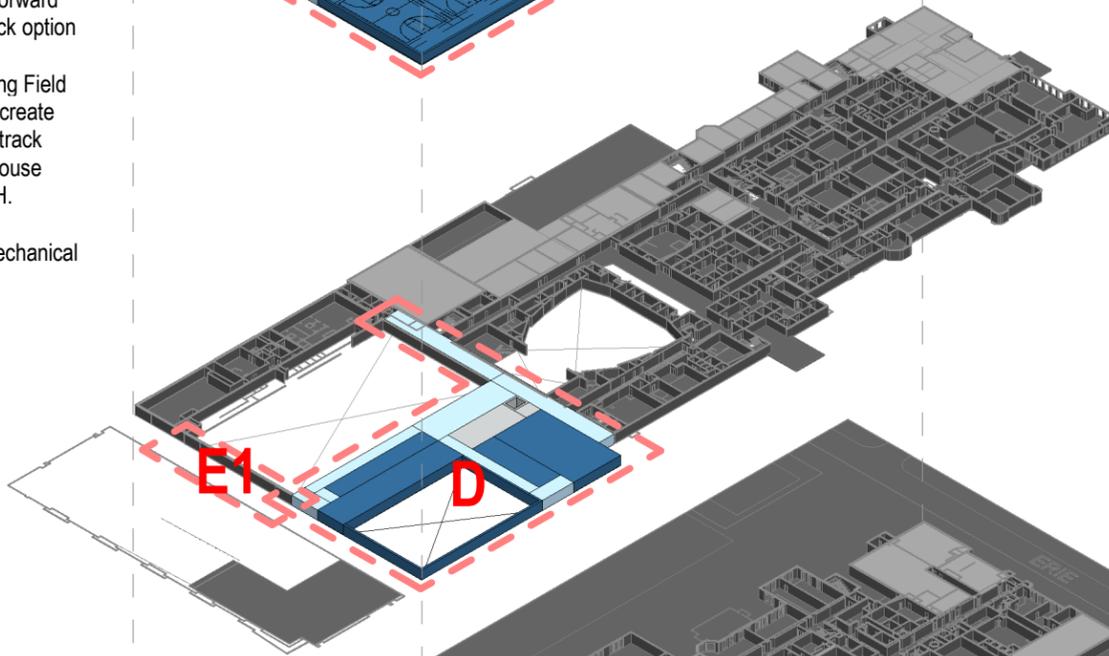


**Component E1:**

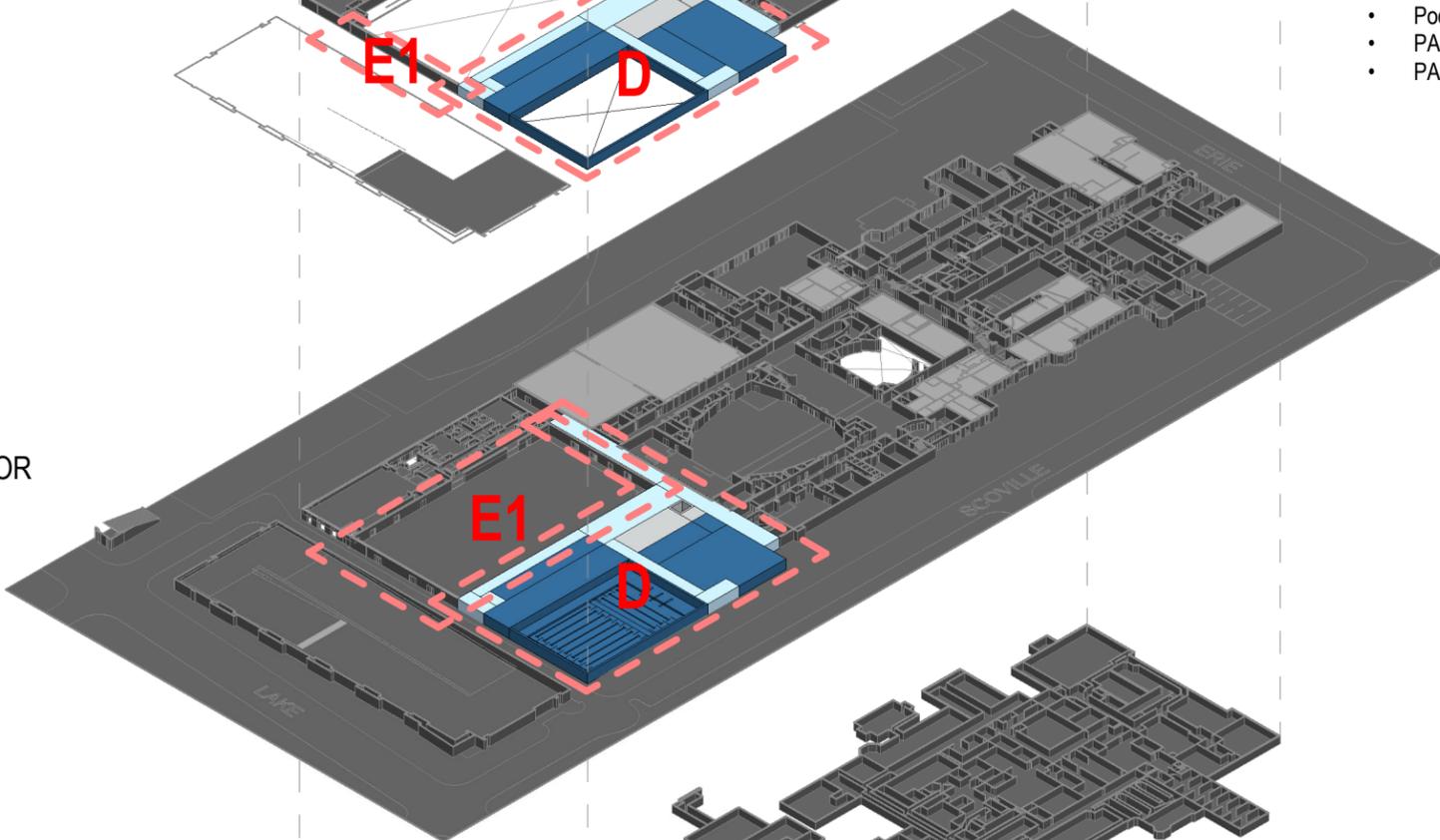
If no intention to move forward with expanded 200M track option in later phases:

- Expansion of existing Field House into alley to create more viable indoor track and flexible Field House
- Replacement of F.H. flooring
- Upgrade of F.H. Mechanical systems

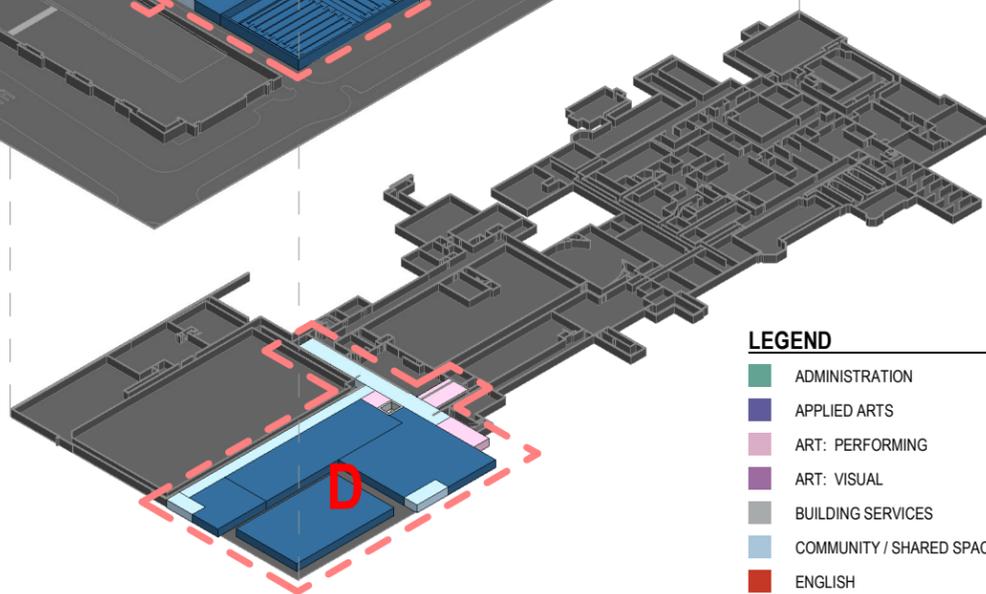
2ND FLOOR



1ST FLOOR



LOWER LEVEL



**Component UU:**

- 5th Floor:
  - Green Roof over Comp. D

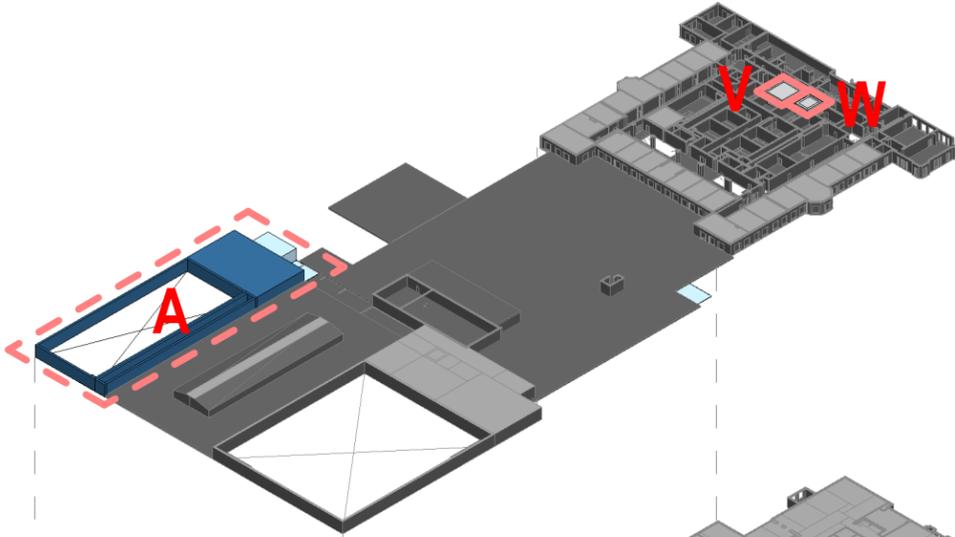
**Component D:**

- All Floors:
  - Elevator
- 4th Floor:
  - Mechanical
  - Shell/Storage
- 3rd Floor:
  - Weight Room
  - Toilet Rooms
  - PE Storage
  - Multicourt Competition Gymnasium
- 2nd Floor:
  - Multipurpose Dance
  - Toilet Rooms
  - PE Storage
  - Pool Seating
- 1st Floor:
  - PE/Athletic Office and Support
  - Concessions
  - Toilet Rooms
  - Multipurpose Room / Classroom
  - Pool Deck
  - Pool Lockers
  - PE Storage
- Lower Level:
  - Changing Facilities
  - Pool Mechanical
  - Pool Tank
  - PA Storage
  - PA Dressing Room

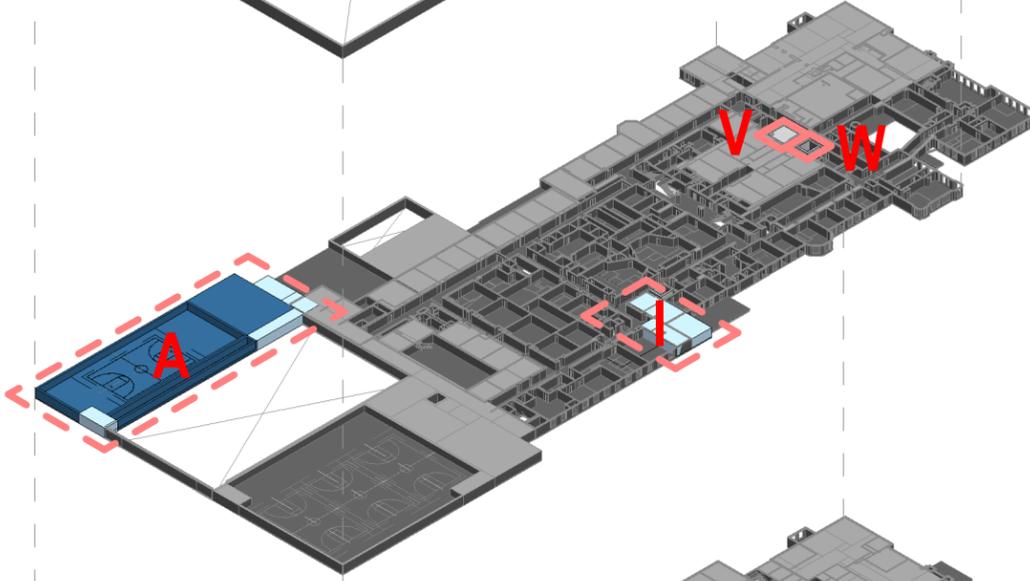
**LEGEND**

ADMINISTRATION	HISTORY
APPLIED ARTS	LIBRARY
ART: PERFORMING	MATH
ART: VISUAL	PHYSICAL EDUCATION / ATHLETICS
BUILDING SERVICES	SCIENCE
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GENERAL / SHARED CLASSROOMS	

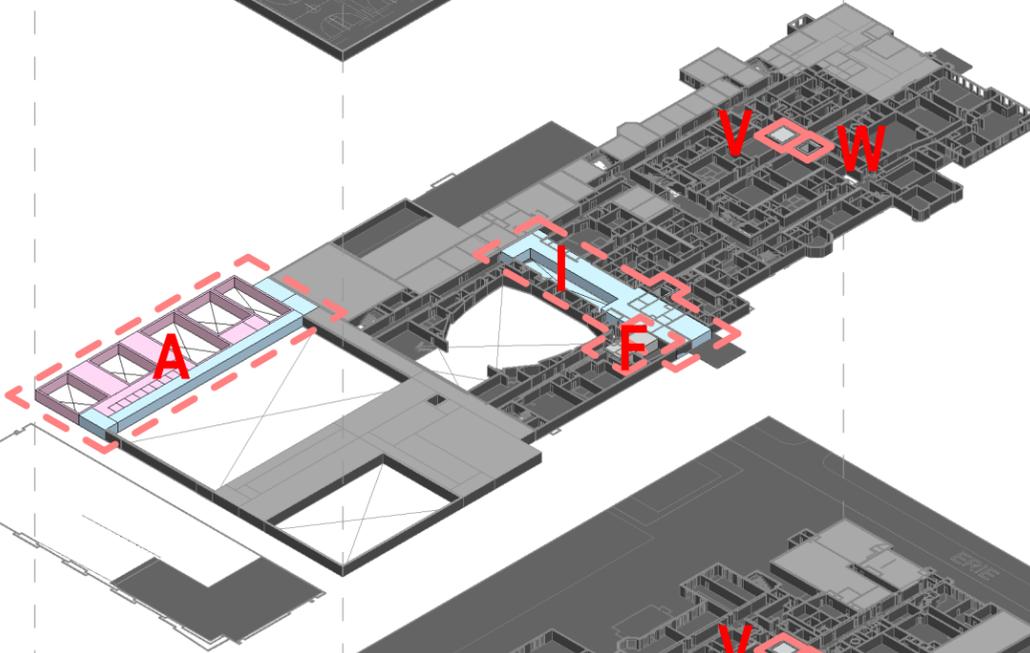
4TH FLOOR



3RD FLOOR



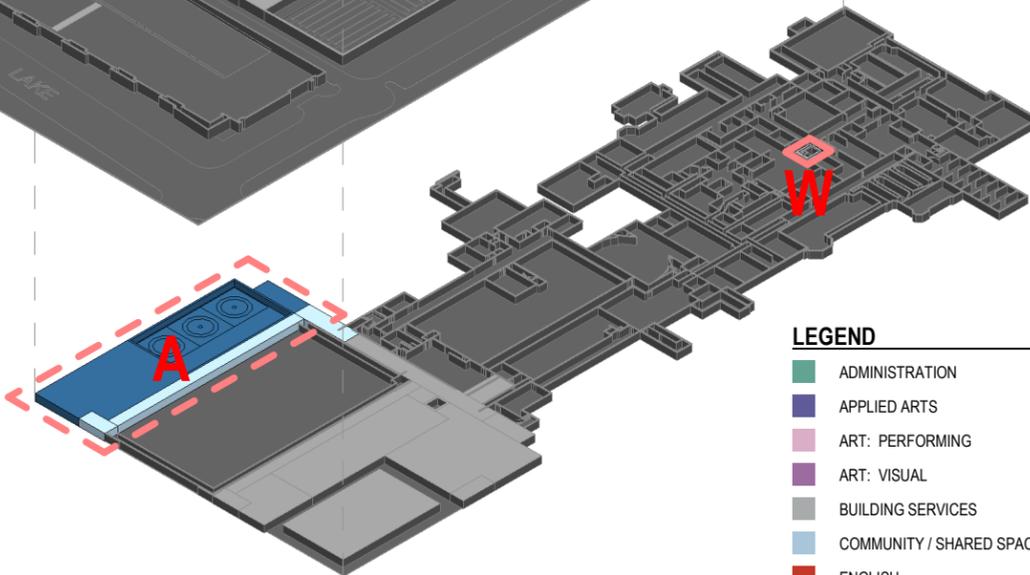
2ND FLOOR



1ST FLOOR



LOWER LEVEL



**Component TT:**

- 5th Floor:
  - Green Roof over Comp. A

**Component A:**

- 4th Floor:
  - Mechanical
- 3rd Floor:
  - Multipurpose Gymnastics
  - Adaptive Cardio
- 2nd Floor:
  - PA Storage x2
  - Practice Rooms x9
  - Ensemble Room
  - BB Control Room
- 1st Floor:
  - Choir
  - Orchestra
  - Band
  - Black Box Theater
  - Dressing Room
  - Stagecraft
  - PA Offices (2 Person x2)
  - PA Storage x2
  - Practice Rooms x9
- Lower Level:
  - Team Changing Facilities & Equipment
  - Multipurpose Wrestling
  - PE Storage

**Component I:**

- All Floors:
  - Elevator
- 3rd Floor:
  - East End of Commons
- 2nd Floor:
  - Commons
- 1st Floor:
  - Commons

**Component F:**

- 2nd Floor:
  - Toilet Room
- 1st Floor:
  - Main Entrance
  - Toilet Room

**Component W:**

- All Floors:
  - Elevator

**Component V:**

- 1st-4th Floors:
  - Transgender Toilet Rooms

**LEGEND**

ADMINISTRATION	HISTORY
APPLIED ARTS	LIBRARY
ART: PERFORMING	MATH
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4TH FLOOR

**Component N:**

- 2nd Floor:
  - New Classrooms x3
  - Shared Faculty Office
  - New Large Flex Classroom

**Component H:**

- 2nd Floor
  - Student Services
  - IT Offices & Servers
  - IT Help Desk

3RD FLOOR

**Component HH:**

- 1st/2nd Floor:
  - Renovation of Main Auditorium and Little Theater Lighting

**Component B:**

- 1st Floor:
  - Renovation of Existing North Cafeteria
  - Renovation of Existing Kitchen/Servery

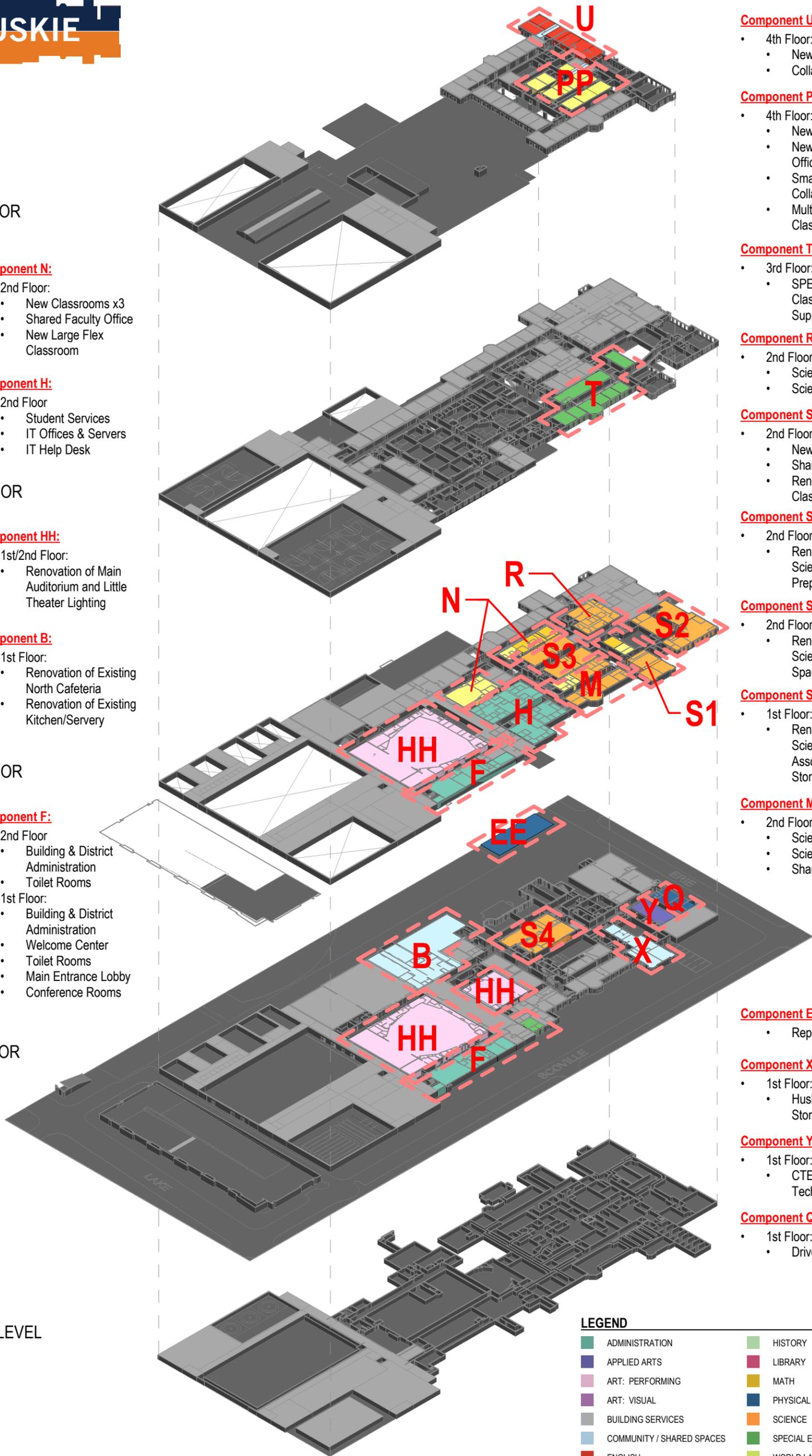
2ND FLOOR

**Component F:**

- 2nd Floor
  - Building & District Administration
  - Toilet Rooms
- 1st Floor:
  - Building & District Administration
  - Welcome Center
  - Toilet Rooms
  - Main Entrance Lobby
  - Conference Rooms

1ST FLOOR

LOWER LEVEL



**Component U:**

- 4th Floor:
  - New Classrooms x6
  - Collaboration Space

**Component PP:**

- 4th Floor:
  - New Classrooms x2
  - New Shared Faculty Offices x2
  - Small Group / Collaboration Space
  - Multipurpose Classrooms x3

**Component T:**

- 3rd Floor:
  - SPED LD/ED Classrooms, Offices and Support Spaces

**Component R:**

- 2nd Floor:
  - Science Labs x2
  - Science Prep/Storage

**Component S1:**

- 2nd Floor:
  - New Science Labs x2
  - Shared Faculty Office
  - Renovation of Existing Classroom

**Component S2:**

- 2nd Floor:
  - Renovation of Existing Science Labs x3 and Prep/Storage Spaces

**Component S3:**

- 2nd Floor:
  - Renovation of Existing Science Labs and Prep Spaces

**Component S4:**

- 1st Floor:
  - Renovation of Existing Science Labs x4 and Associated Prep / Storage Spaces

**Component M:**

- 2nd Floor:
  - Science Labs x3
  - Science Prep/Storage x2
  - Shared Faculty Office

**Component EE:**

- Replace Tennis Courts

**Component X:**

- 1st Floor:
  - Huskie Pups Rooms and Storage

**Component Y:**

- 1st Floor:
  - CTE Lab TBD (Career Technical Education)

**Component Q:**

- 1st Floor:
  - Driver's Ed Classroom

**LEGEND**

ADMINISTRATION	HISTORY
APPLIED ARTS	LIBRARY
ART: PERFORMING	MATH
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4TH FLOOR

**Component BB:**

- 4th Floor:
  - Skylight over 3rd Floor Commons and New Central Corridor
- 3rd Floor:
  - Commons with Open to Below
  - New Classrooms x12
  - New Shared Faculty Offices x2
  - New Corridor aligned with Central Corridor to the North

3RD FLOOR

**Component CC:**

- 4th Floor:
  - Skylight over 3rd Floor New Central Corridor
- 3rd Floor:
  - New Classrooms x3
  - New Shared Faculty Office
  - Renovation of Existing Classrooms x4
  - Renovation of Shared Faculty Office
  - New Corridor aligned with Central Corridor to the North

2ND FLOOR

**Component FF:**

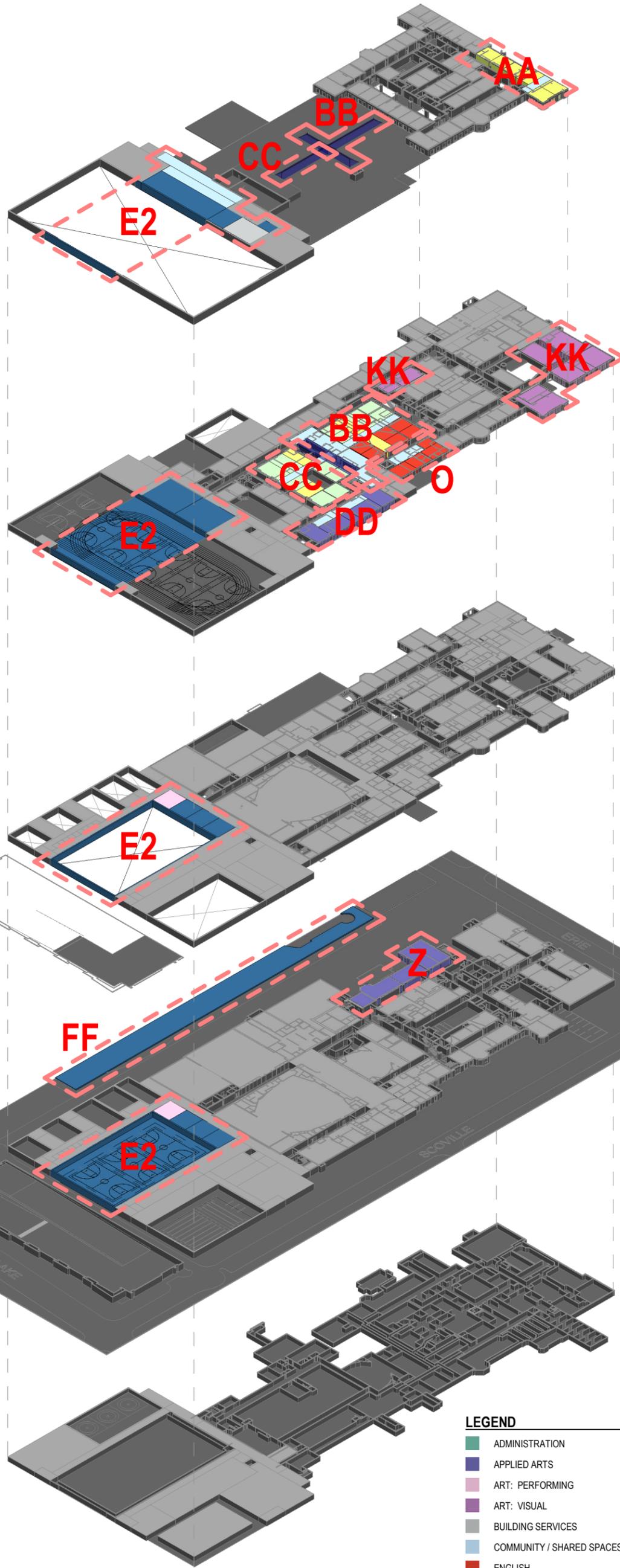
- Site:
  - West Fields Synthetic Turf

**Component GG:**

- Site:
  - South Fields Storage and Seating

1ST FLOOR

LOWER LEVEL



**Component AA:**

- 4th Floor:
  - New Classrooms x6
  - New Collaboration Space

**Component O:**

- 3rd Floor:
  - New Classrooms x3
  - New Small Group / Collaboration Spaces

**Component DD:**

- 3rd Floor:
  - Renovation of Business Suite of Classrooms with New Collaboration Spaces

**Component KK:**

- 3rd Floor:
  - Renovation of Visual Arts Labs Mechanical Systems

**Component SS:**

- 5th Floor:
  - Solar Panels over Comp. E2

**Component E2:**

- This Component assumes Comp. E1 was not executed.
- 4th Floor:
    - Track Spectator Seating
    - Renovate Shell / Storage Spaces from Comp. D to:
      - Track Spectator Seating
      - Toilet Rooms
      - Concessions
  - 3rd Floor:
    - 200M Track Field House infill between Competition Gym and MP Gymnastics Gym
    - PE Storage
    - Changing Facilities
  - 2nd Floor:
    - New Classrooms x4
  - 1st Floor:
    - Competition Gymnasium
    - New Classrooms X2
    - PE Storage
    - Officials' Lockers

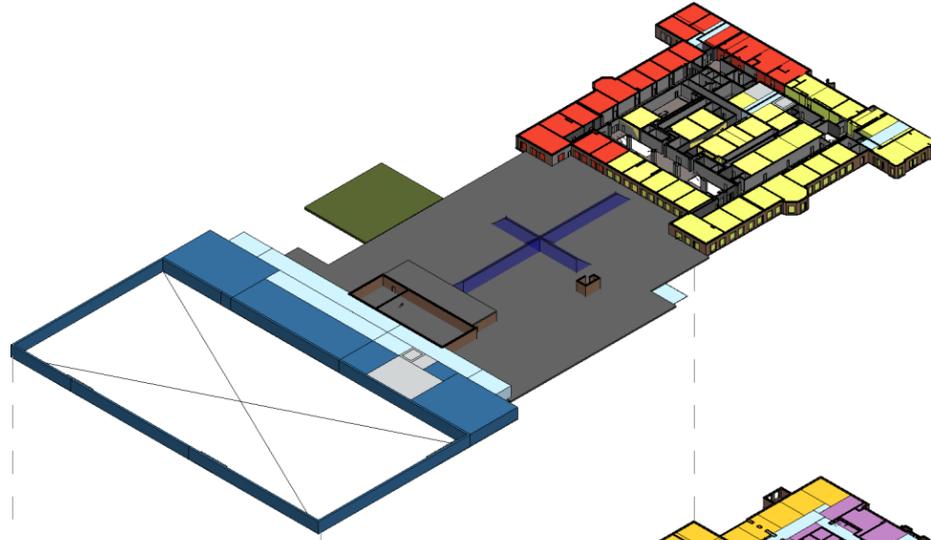
**Component Z:**

- 1st Floor:
  - New FACS Labs (Family and Consumer Sciences)
  - New Commercial Kitchen Lab
  - New Child Development Classroom

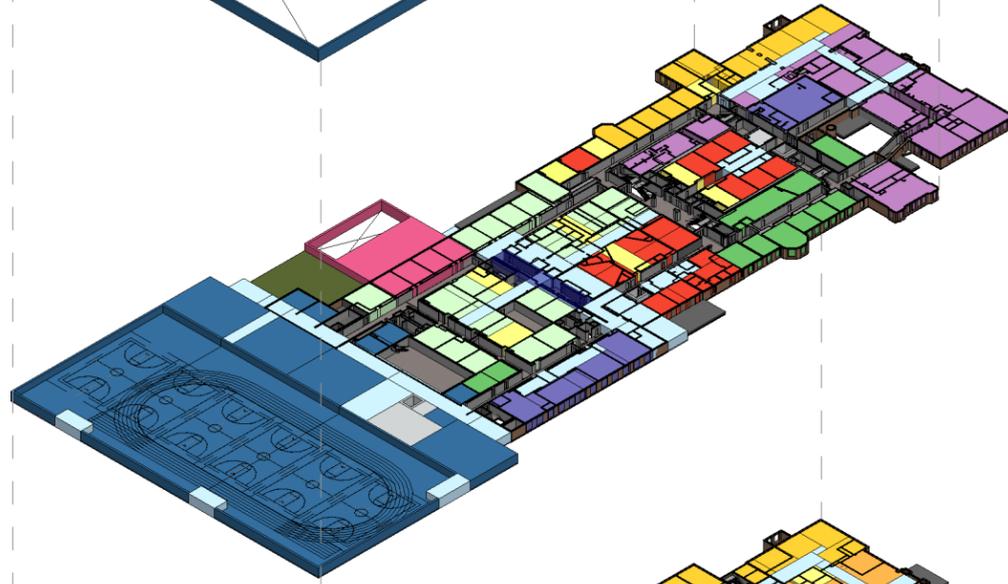
**LEGEND**

ADMINISTRATION	HISTORY
APPLIED ARTS	LIBRARY
ART: PERFORMING	MATH
ART: VISUAL	PHYSICAL EDUCATION / ATHLETICS
BUILDING SERVICES	SCIENCE
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ENGLISH	WORLD LANGUAGE
GENERAL / SHARED CLASSROOMS	

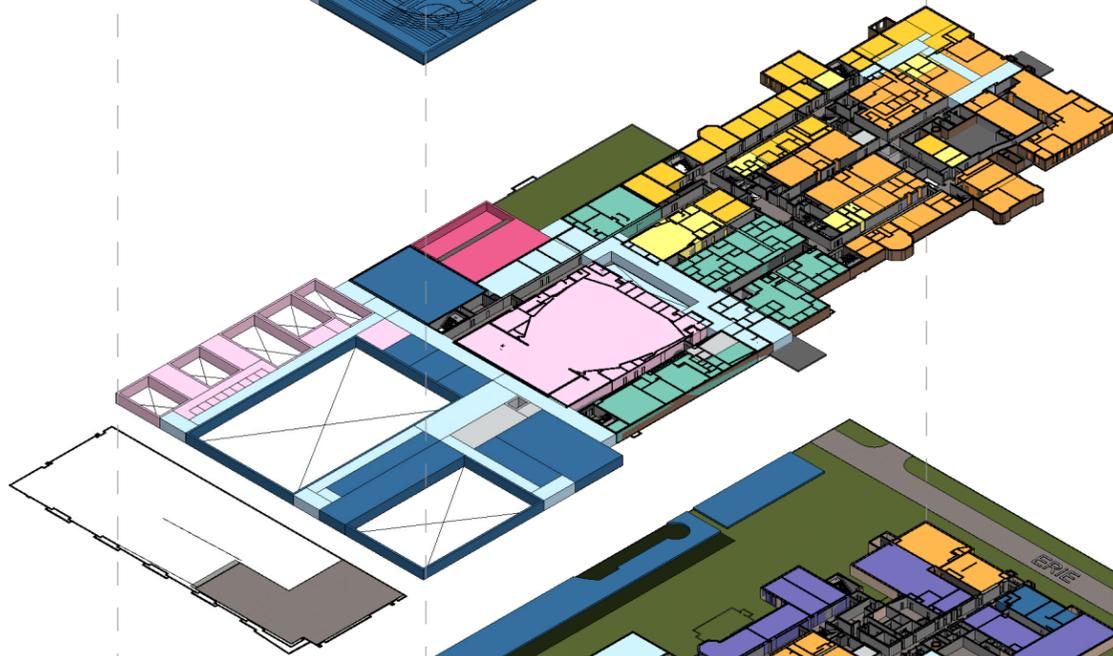
4TH FLOOR



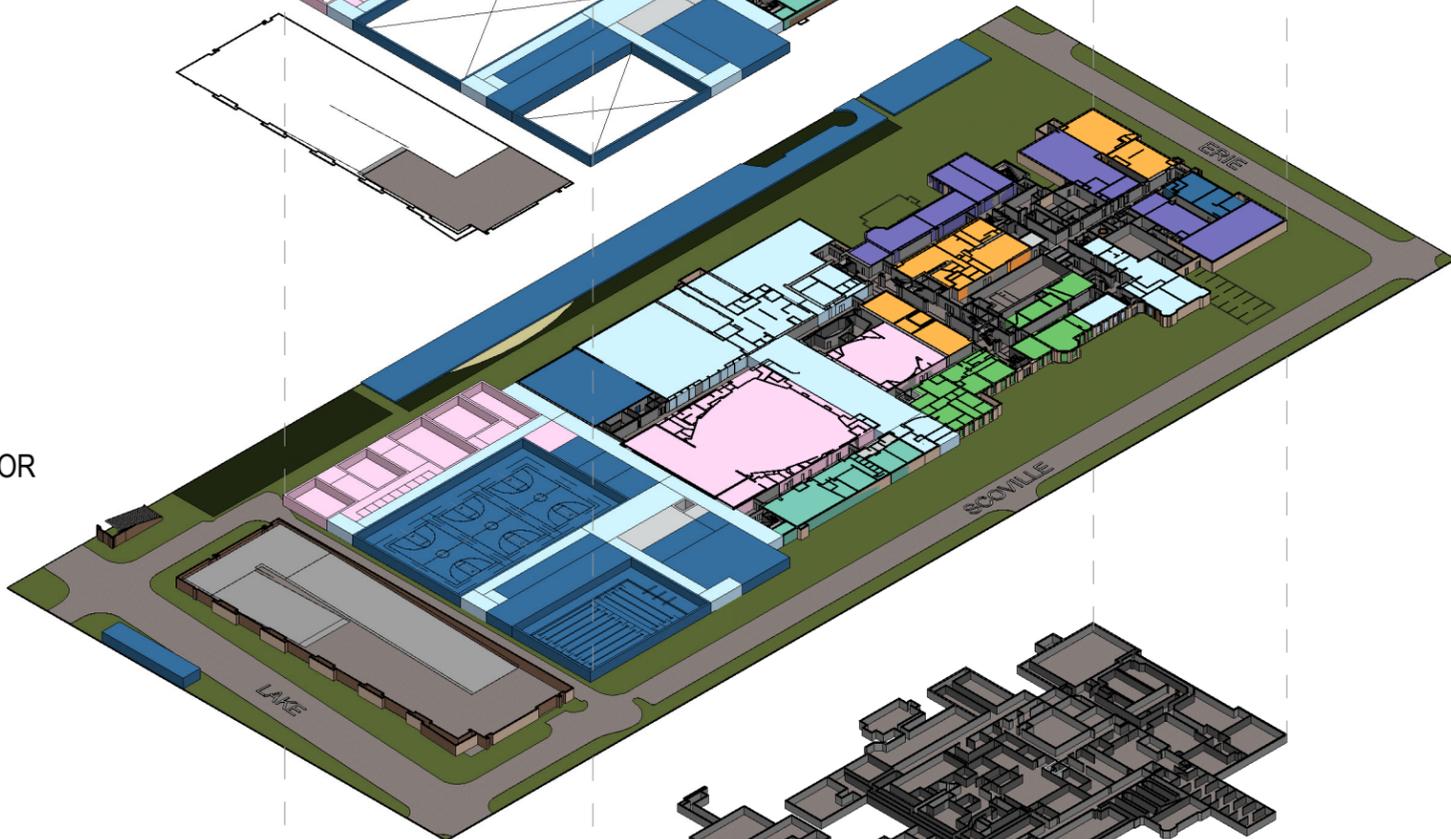
3RD FLOOR



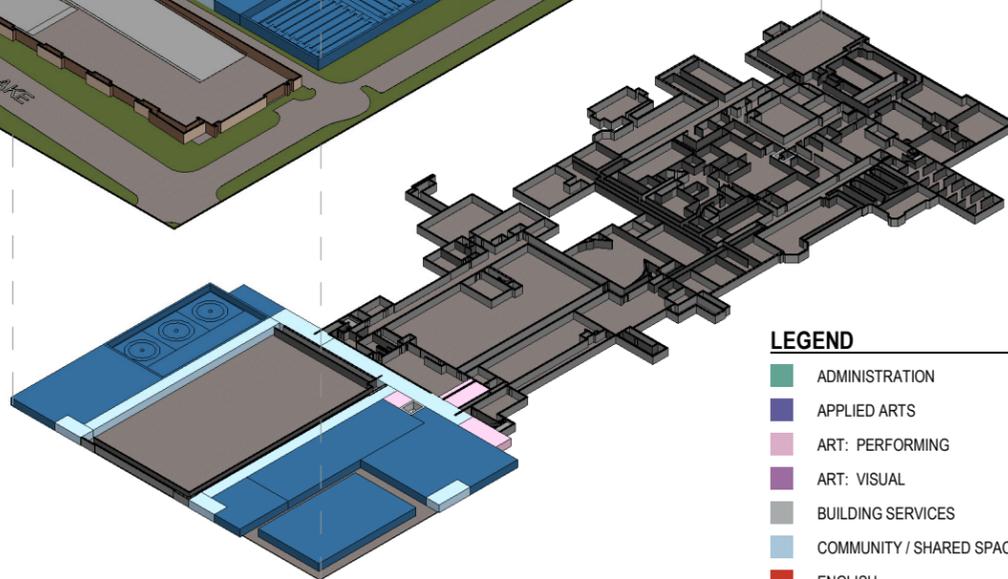
2ND FLOOR



1ST FLOOR



LOWER LEVEL



**LEGEND**

- |                             |                                |
|-----------------------------|--------------------------------|
| ADMINISTRATION              | HISTORY                        |
| APPLIED ARTS                | LIBRARY                        |
| ART: PERFORMING             | MATH                           |
| ART: VISUAL                 | PHYSICAL EDUCATION / ATHLETICS |
| BUILDING SERVICES           | SCIENCE                        |
| COMMUNITY / SHARED SPACES   | SPECIAL EDUCATION              |
| ENGLISH                     | WORLD LANGUAGE                 |
| GENERAL / SHARED CLASSROOMS |                                |