

# Making Every Dollar Count: Renovating Aging Facilities into Transformational Learning Environments

Albemarle County Public Schools, Bedford County Schools, and VMDO Architects





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# Audience Survey...



Design for **Value**



Increase **Flexibility** in Learning



Design for **Equity**



Promote **Health + Wellness**



Improve **Learning** Environments



Provide **Operational Savings**



Promote **Community**



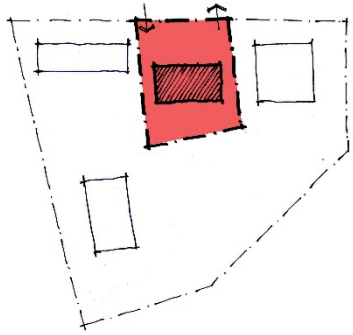
Promote **Outdoor Learning**



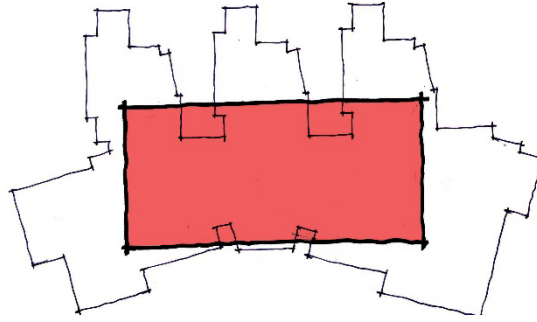
Support **Innovative Learning**



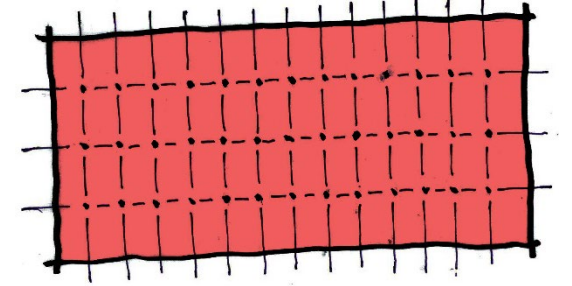
Enhance **Safety**



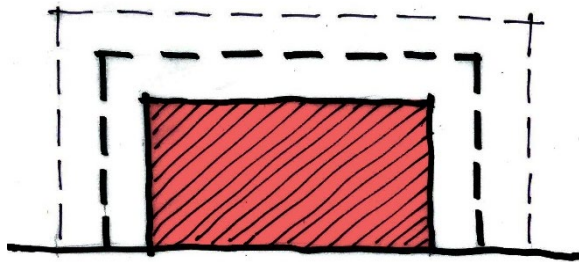
Compact Boundary



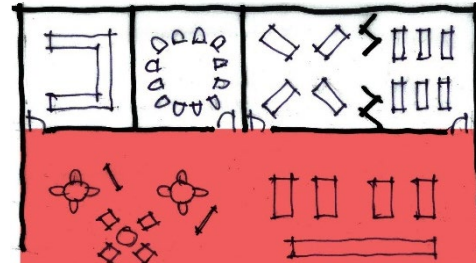
Area to Envelope Ratio



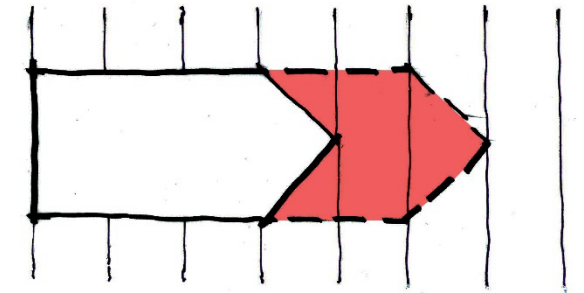
Simple Lightweight Structures



Right-Sized Systems



Build Less, Furnish More



Speed to Market

# **Small Renovations with Big Impacts** (speed round)



Clark Elementary Summer Classroom Reno - Before



Clark Elementary Summer Classroom Reno - After





Jackson-Via Elementary Summer Extended Learning Reno - Before





Jackson-Via Elementary Summer Extended Learning Reno - After





Buford Middle School Science Labs - Before



Buford Middle School Science Labs - After



Buford Middle School Science Labs - After



Charlottesville High School Science Lab Renovations





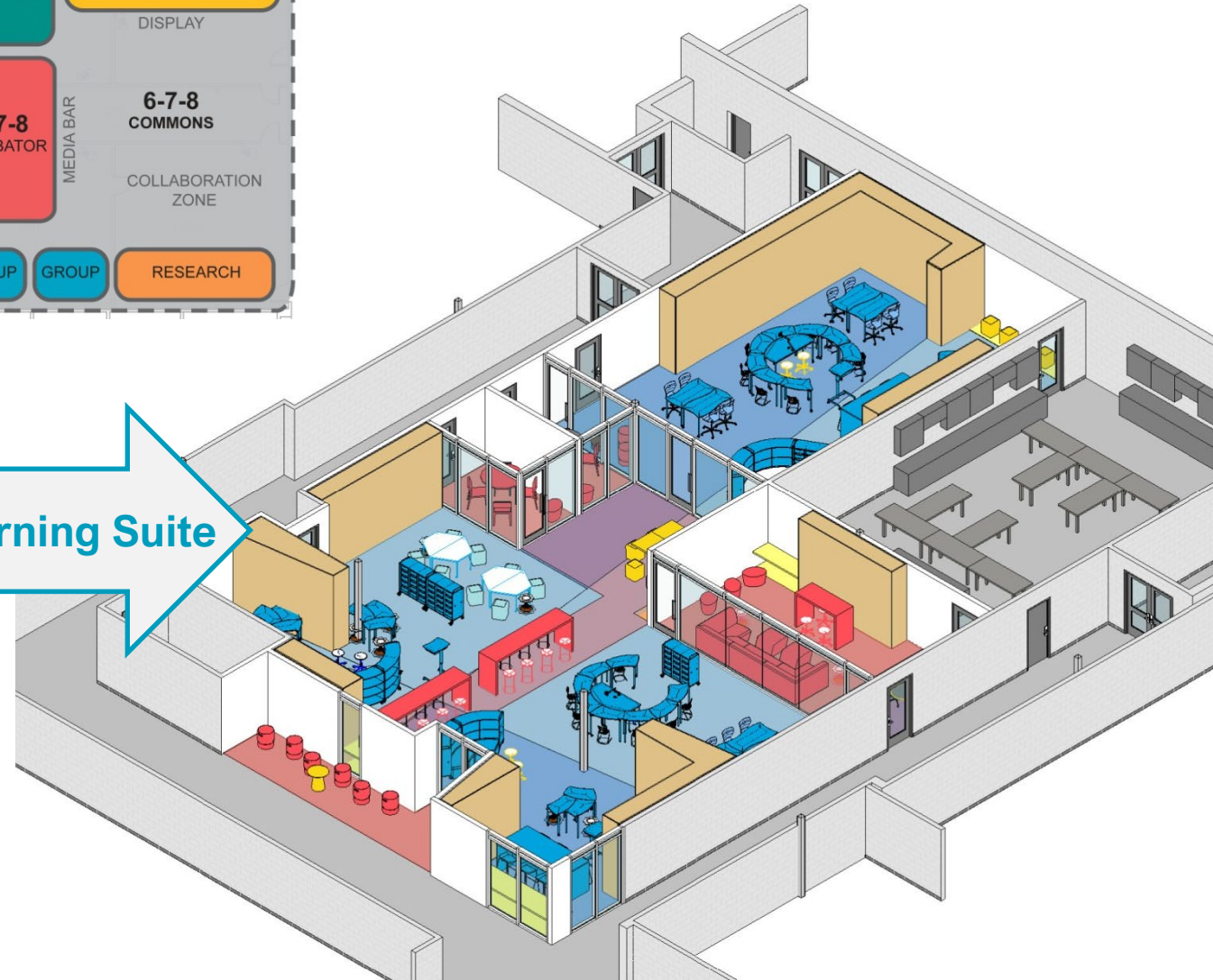
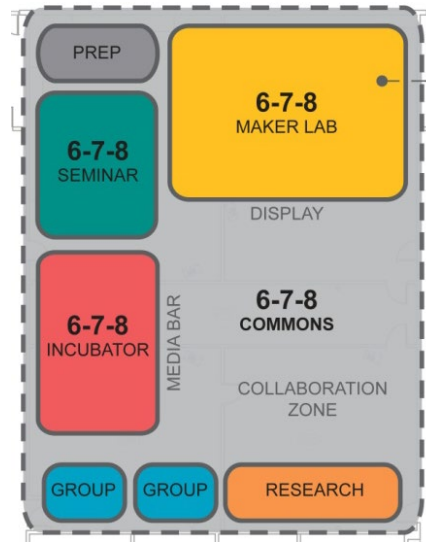
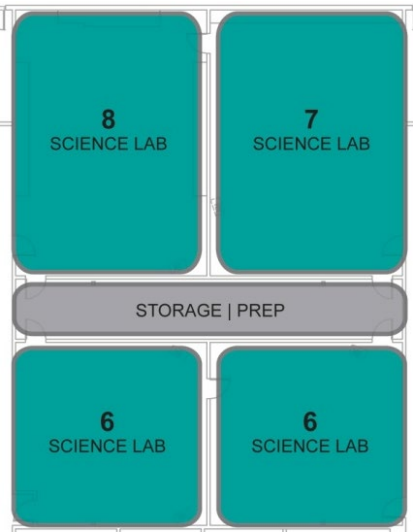
Charlottesville High School Science Lab Renovations





Charlottesville High School Science Lab Renovations







Journey + Walton Middle Schools - Before



Journey + Walton Middle Schools - After



Western Albemarle High School Before / After



Western Albemarle High School Before / After

waterstreet studio



**SITE MASTERPLAN**  
STANARDSVILLE CAMPUS



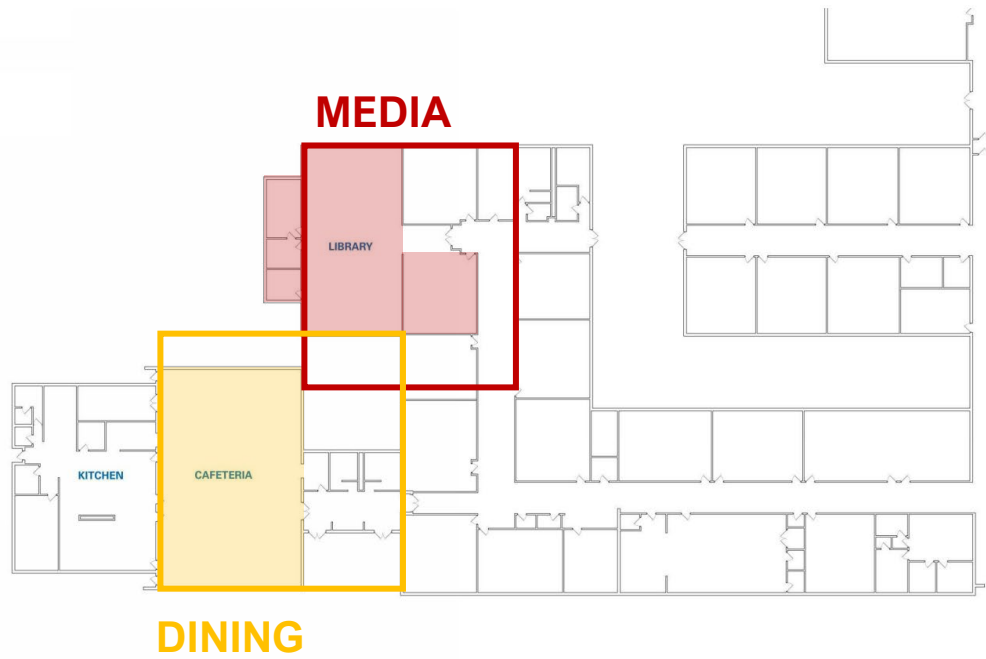
PROPOSED EAST ENTRY (MEDIA CENTER + DINING)



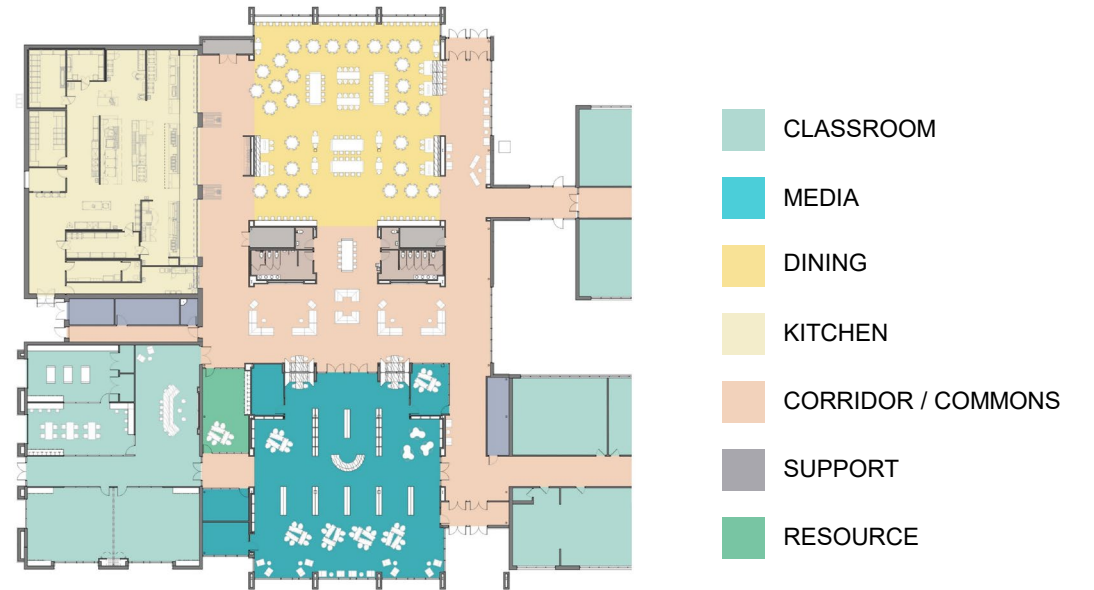
PROPOSED DINING COMMONS



PROPOSED WEST ENTRY (DINING COMMONS + TERRACE)



EXISTING PROGRAM AREA vs. VDOE RECOMMENDED PROGRAM AREA



PROPOSED FLOOR PLAN



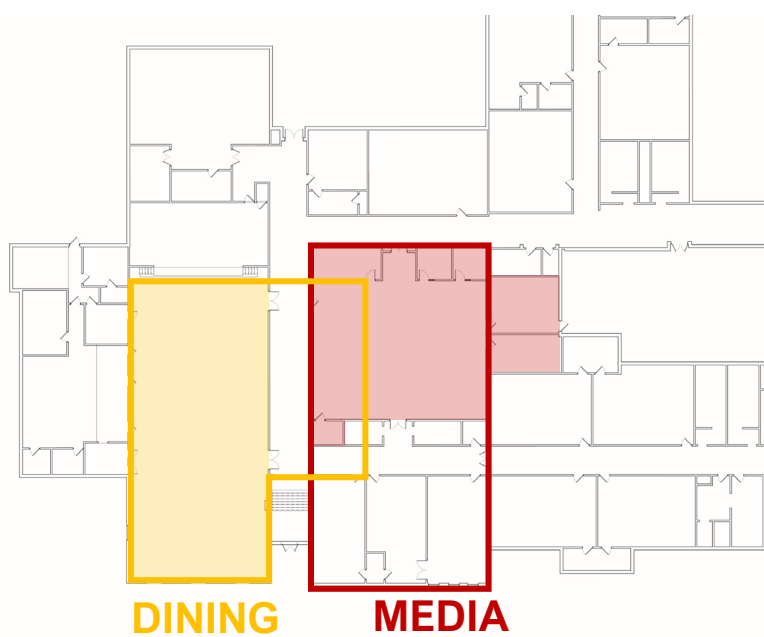
PROPOSED EAST ENTRY (MEDIA CENTER + ADMIN)



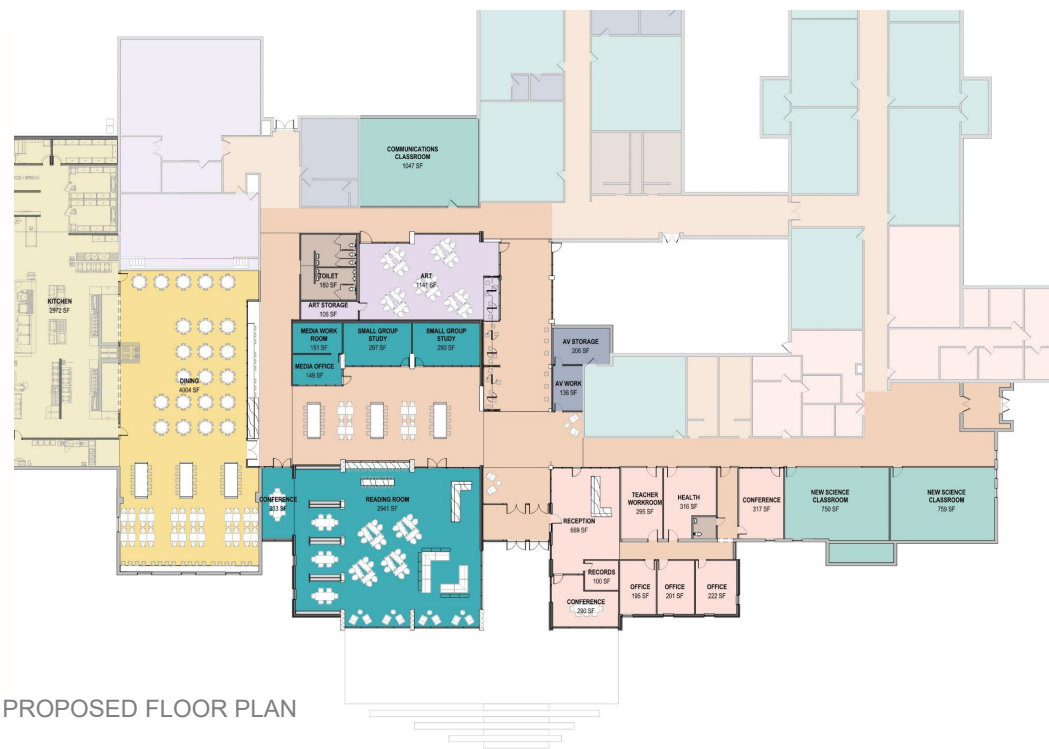
PROPOSED FLEX COMMONS



PROPOSED EAST ENTRY (DINING COMMONS + MEDIA CENTER)



EXISTING PROGRAM AREA vs. VDOE RECOMMENDED PROGRAM AREA



PROPOSED FLOOR PLAN

- CLASSROOM
- MEDIA
- DINING
- KITCHEN
- CORRIDOR / COMMONS
- SUPPORT
- ADMINISTRATION
- ARTS





William Monroe Middle School / High School

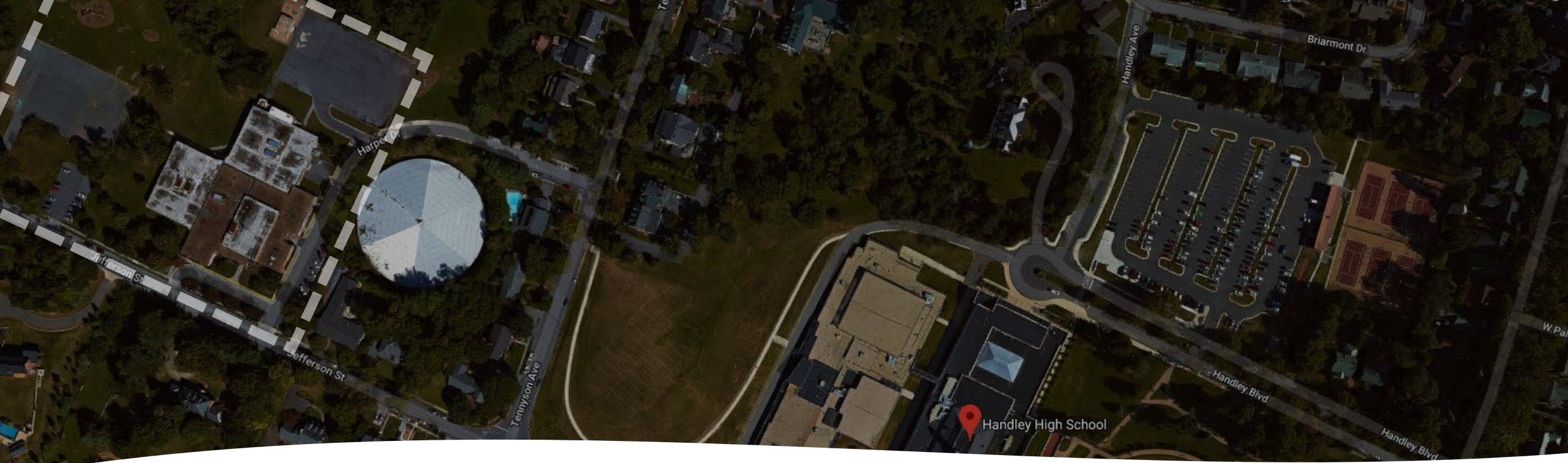


William Monroe High School



William Monroe High School





# Shihadeh Innovation Center

- 3K SF Addition + 50K SF Renovation to Existing 1972 (open-pod) JKES
- Professional Skills | Advanced Technologies | Health Sciences
- Partnership of WPS (JHHS), WEF, Laurel Ridge Community College, Valley Health & other community + business partners
- \$14M Construction Project
- Occupied in Fall 2021



## Interdisciplinary Programs

The Innovation Center is organized around three academies – each offering programs that will equip students with the skills and credentials needed for their future career.

### Civic / Social

- Ⓐ Synapse Hubs
- Ⓑ Genius Bar
- Ⓒ Forum
- Ⓓ Community Café
- Ⓔ South Lobby
- Ⓕ Secure Entry Vestibule
- Ⓖ West Entry + Roof Terrace
- Ⓗ East Entry
- Ⓘ Food Service
- Ⓝ Community Commons
- Ⓚ Reception
- Ⓛ Administration Suite

### Advanced Technologies

- Ⓢ Arch. / Eng. Drafting Labs
- Ⓣ Computer Tech Lab
- Ⓤ Cyber Security Lab
- Ⓡ Shared Classroom

### Health Sciences

- Ⓜ Nursing Lab
- Ⓝ Physical Therapy
- Ⓞ Medical Lab
- Ⓟ Anatomy Lab
- Ⓠ EMT Training
- Ⓡ Shared Classroom

### Professional Skills

- Ⓥ Professional Skills Labs
- Ⓡ Shared Classroom
- Ⓦ Welding Lab
- Ⓧ Carpentry Lab



Shihadeh Innovation Center – Maker Foundations Lab





Shihadeh Innovation Center – Maker Foundations Lab





Shihadeh Innovation Center – Nursing Lab





Shihadeh Innovation Center – Welding Lab

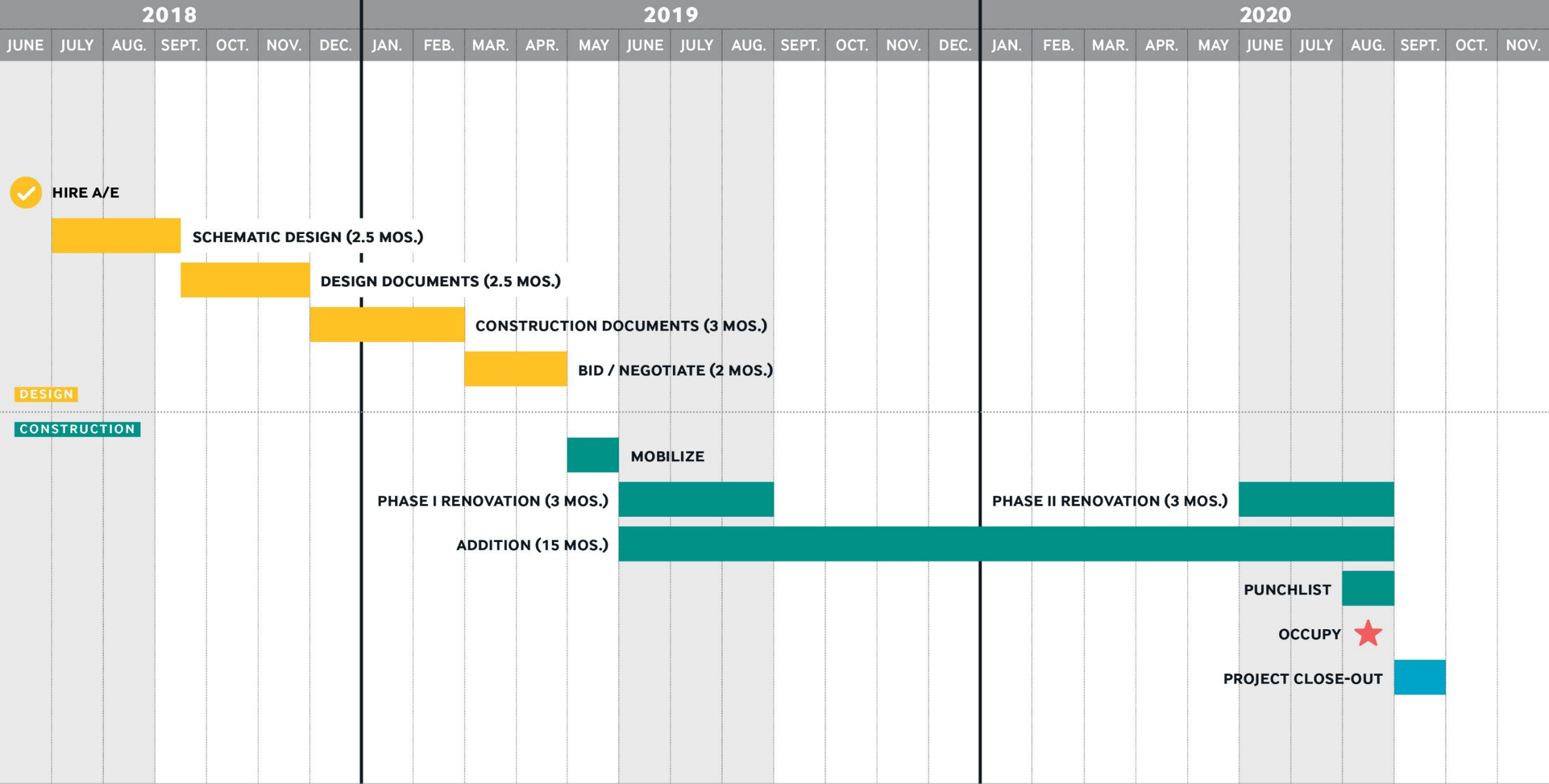
# Forest MS

- \$22.5 Million project budget
- Addition & Renovation
- 1200 student target capacity
- Completion in Fall of 2020
- In operation during construction
- and get rid of the trailers!





1. Several teachers mentioned that “The existing teacher lounges and work areas need **auditory privacy.**”
2. FMS teachers report that their students spend roughly **equal time** working as a large group, in small groups and individually.
3. FMS has the 3<sup>rd</sup> largest population of any BCPS schools but has a **very small gym.**
4. 53% of respondents were “very dissatisfied” with the **lack of operable windows** in the school.
5. 61% of respondents were either somewhat or very dissatisfied with the school’s **cleanliness.**
6. 86% of teachers use “the Octagon” either “**rarely**” or “**never.**”
7. “**We need real outdoor work space, not just some landscaping and nice-looking areas – somewhere that students can work in teams or independently.**”
8. 11 of 23 respondents indicated that **their classroom** was their “favorite place in the current FMS building or site.”
9. 12 of 22 respondents indicated that “**outdoors**” or “**the patio**” was the **students’** favorite place.



## The effect of utilization on teaching stations required for a 1200 student MS

|                               |                                    |
|-------------------------------|------------------------------------|
| School capacity               | 1200                               |
| Students per teaching station | 25                                 |
| Utilization (7 of 7 periods)  | 100%                               |
| Teaching stations required    | 48 (close to the 51 in 2017 study) |
| Utilization (6 of 7 periods)  | 85%                                |
| Teaching stations required    | 57                                 |
| Utilization (5 of 7 periods)  | 70%                                |
| Teaching stations required    | 69                                 |

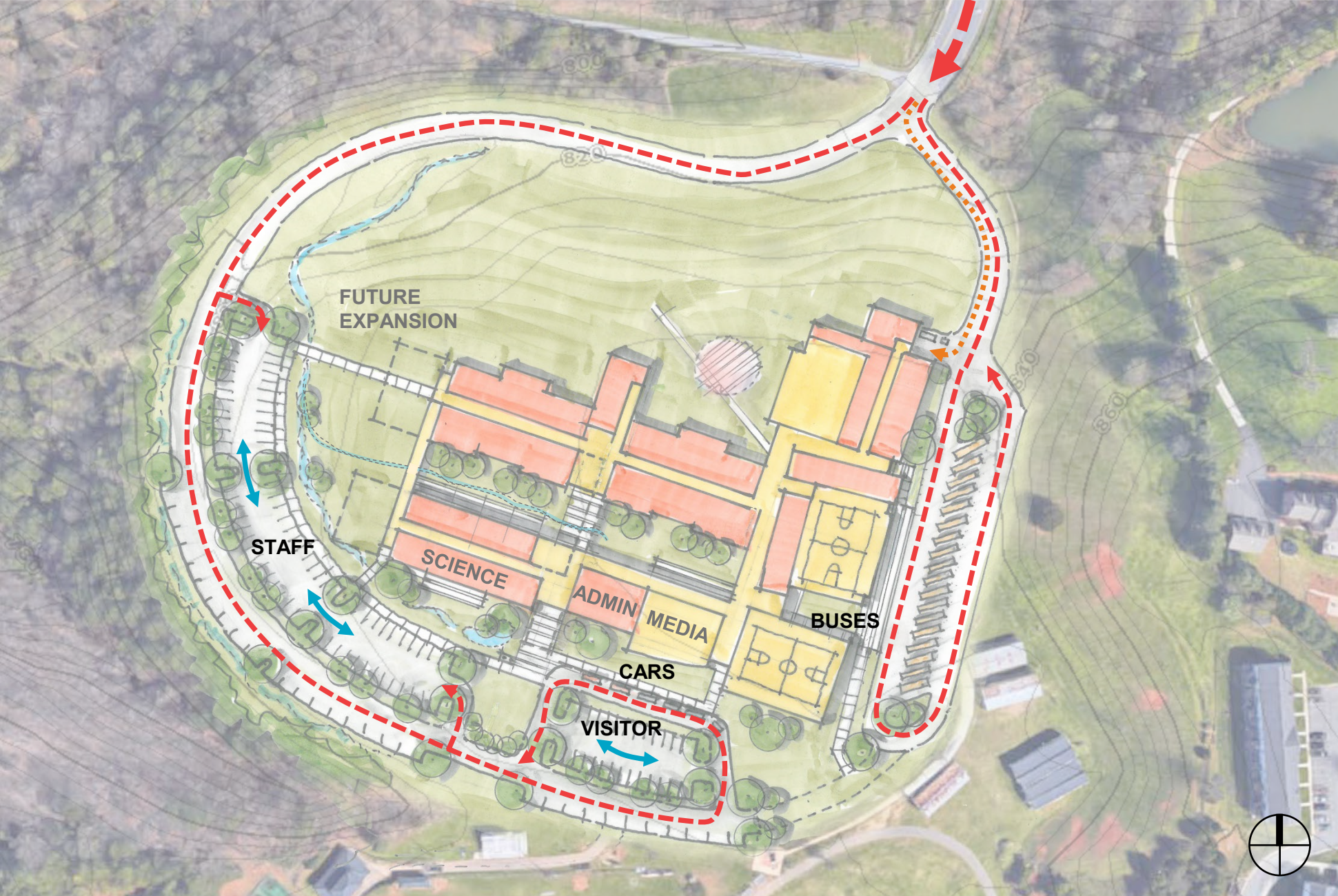
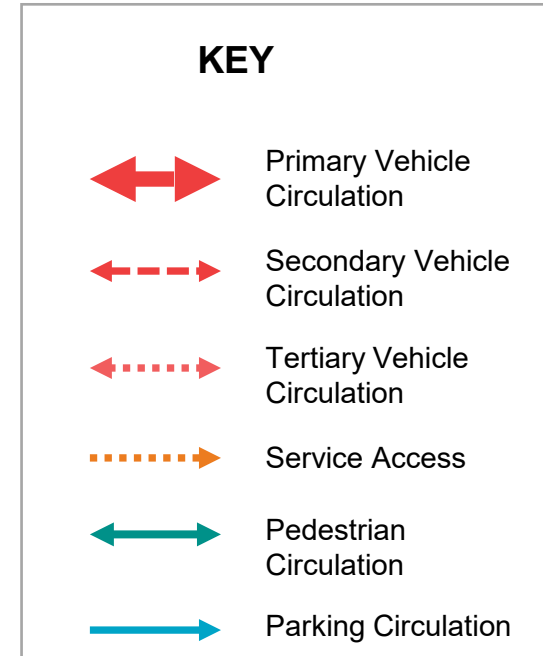


Forest MS Addition Concept: Central, Visible + Accessible



Forest MS Design Concept: Second Level

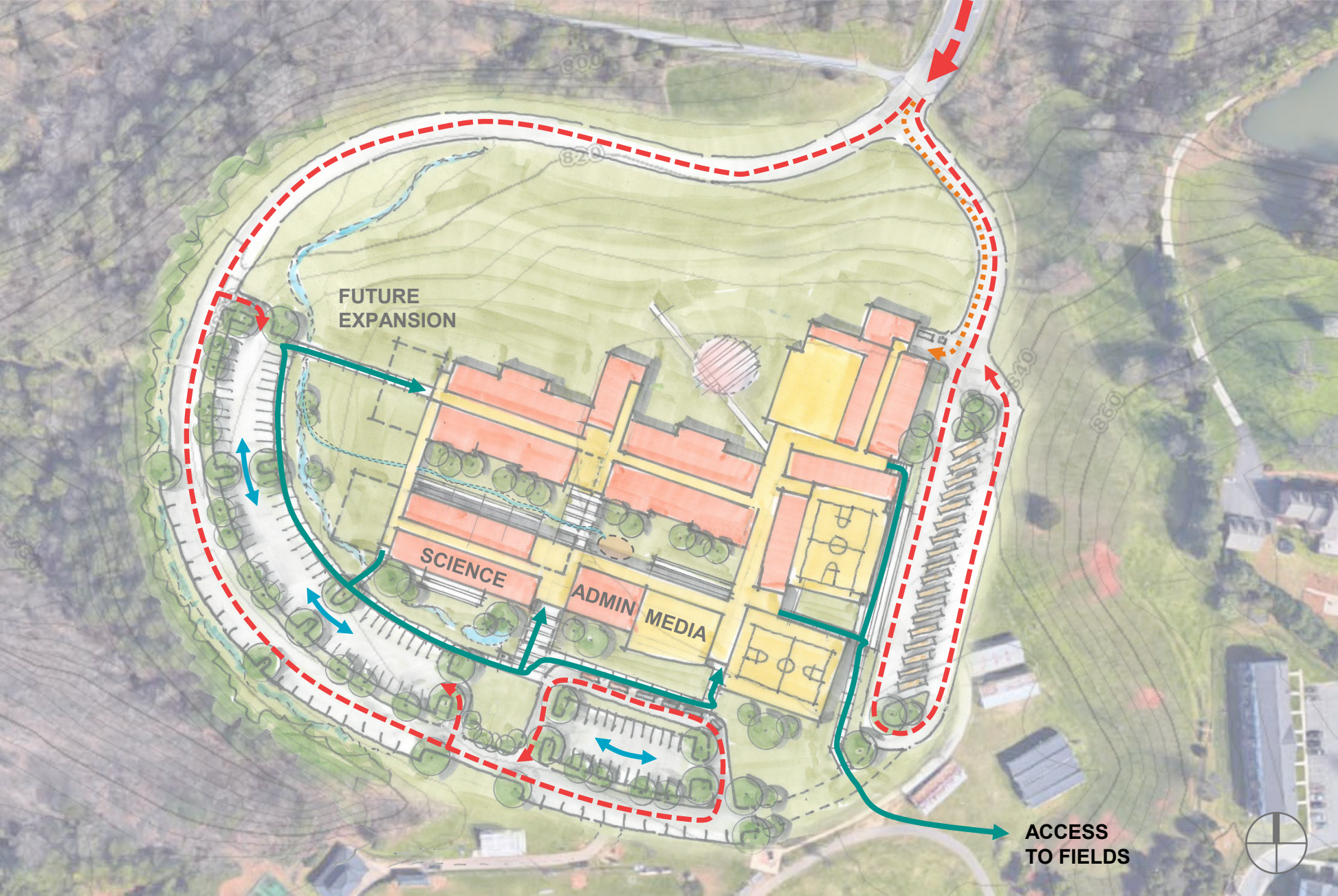
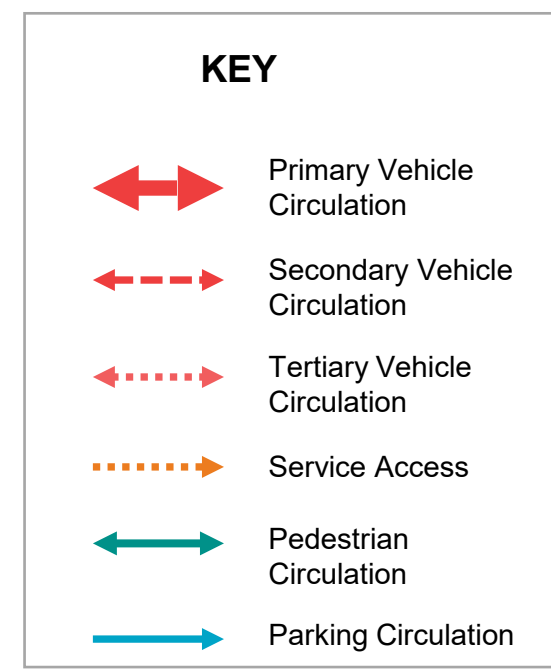
# Vehicular & Pedestrian Traffic



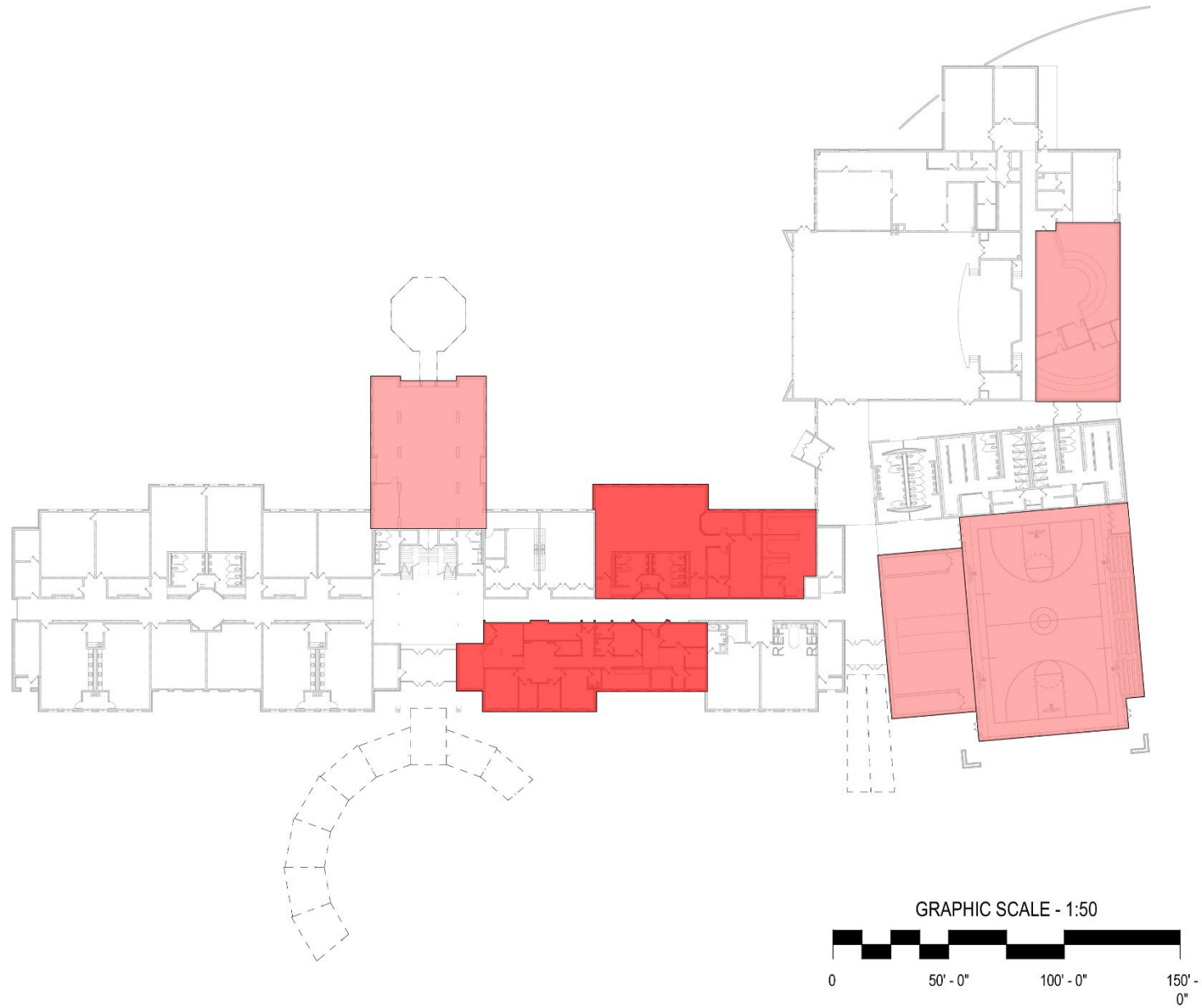
Forest MS Design Concept



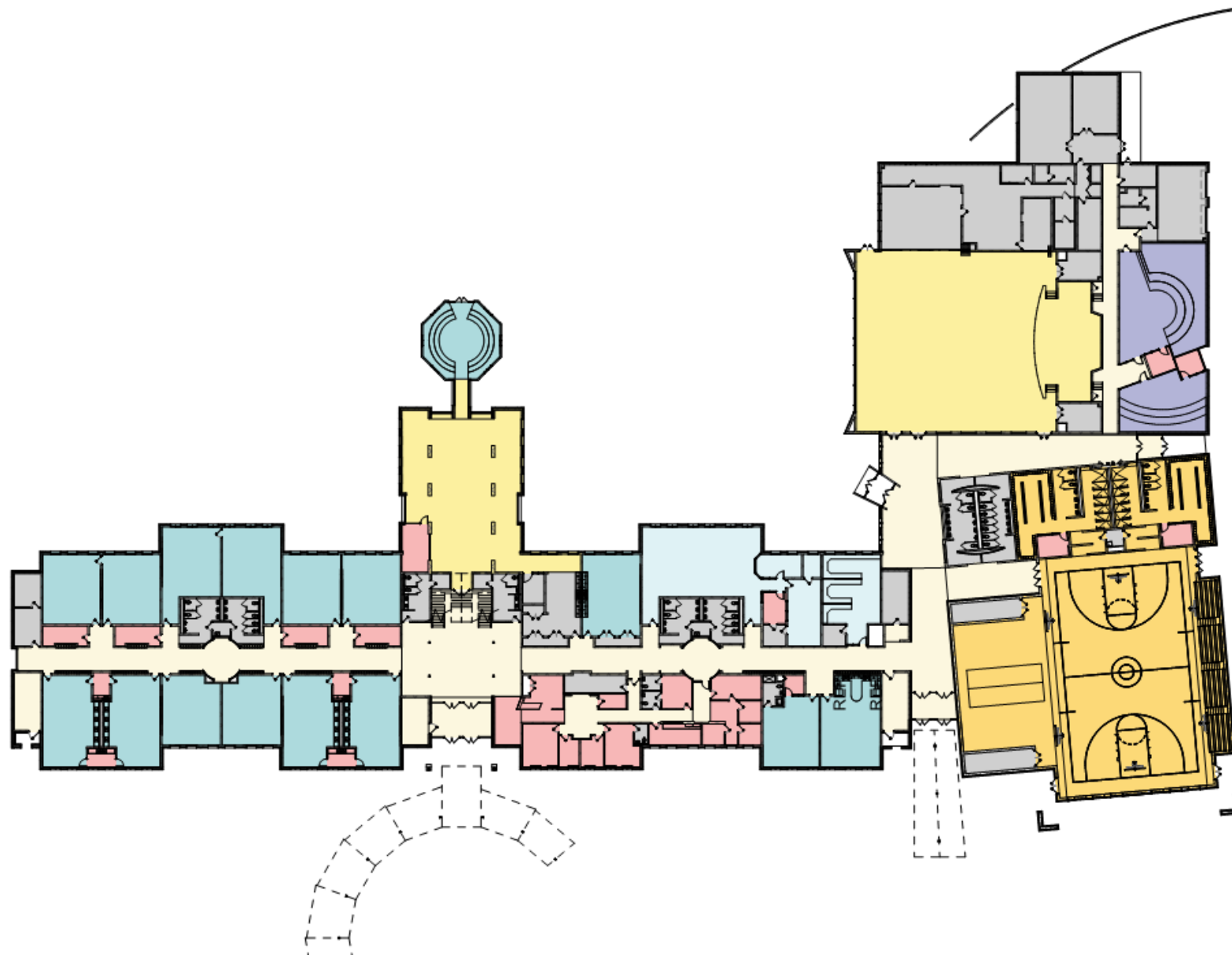
# Vehicular & Pedestrian Traffic



Forest MS Design Concept

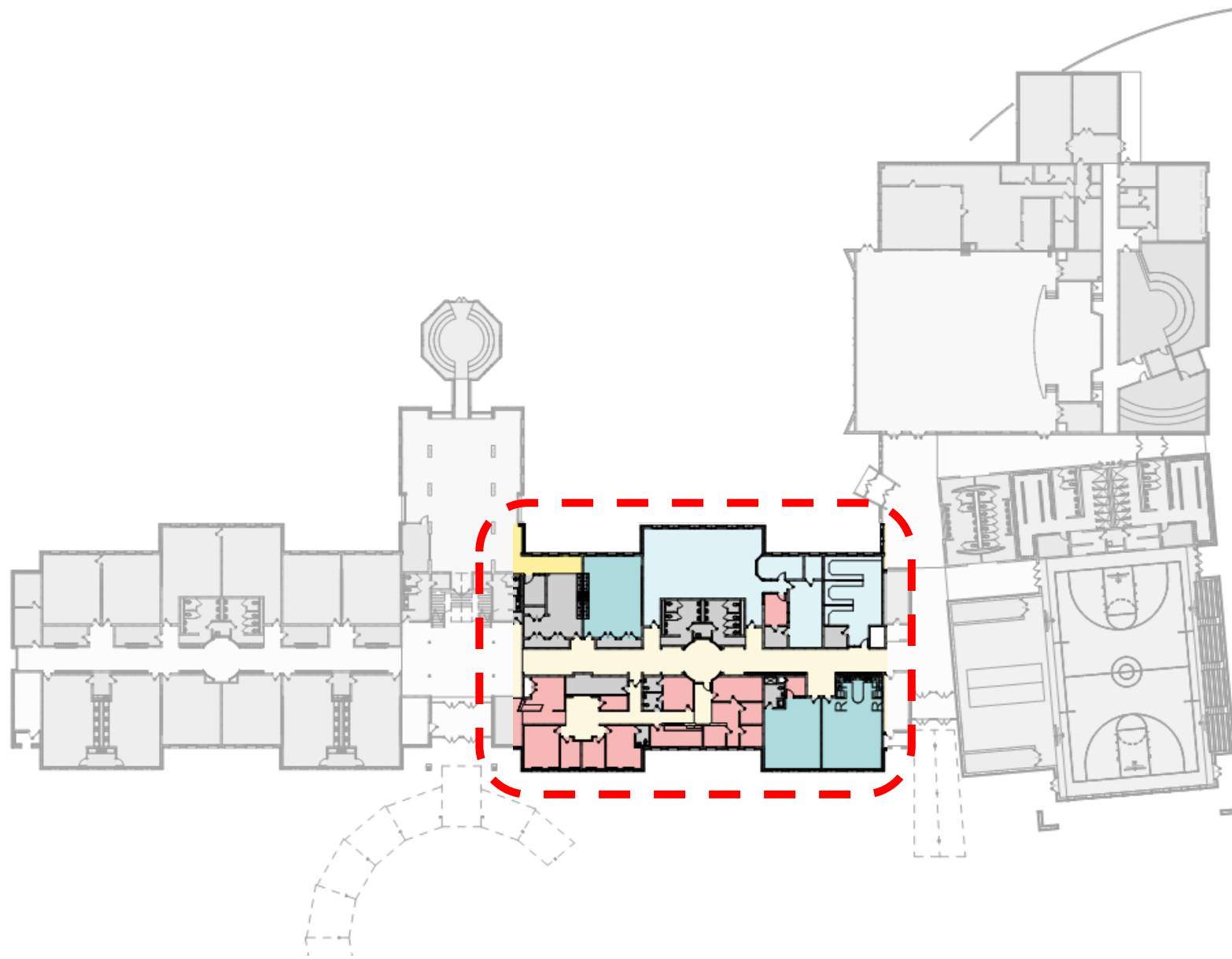


# Potential Renovation

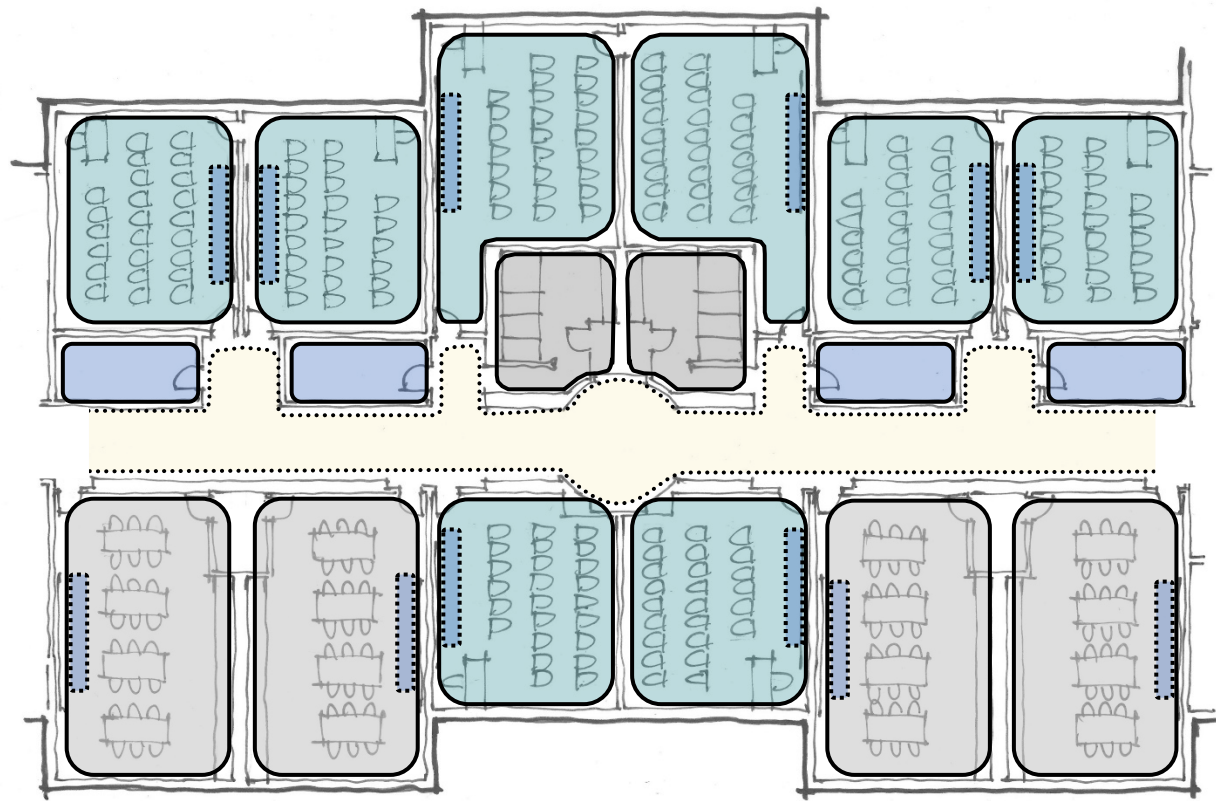


Existing Learning Community

VMDO

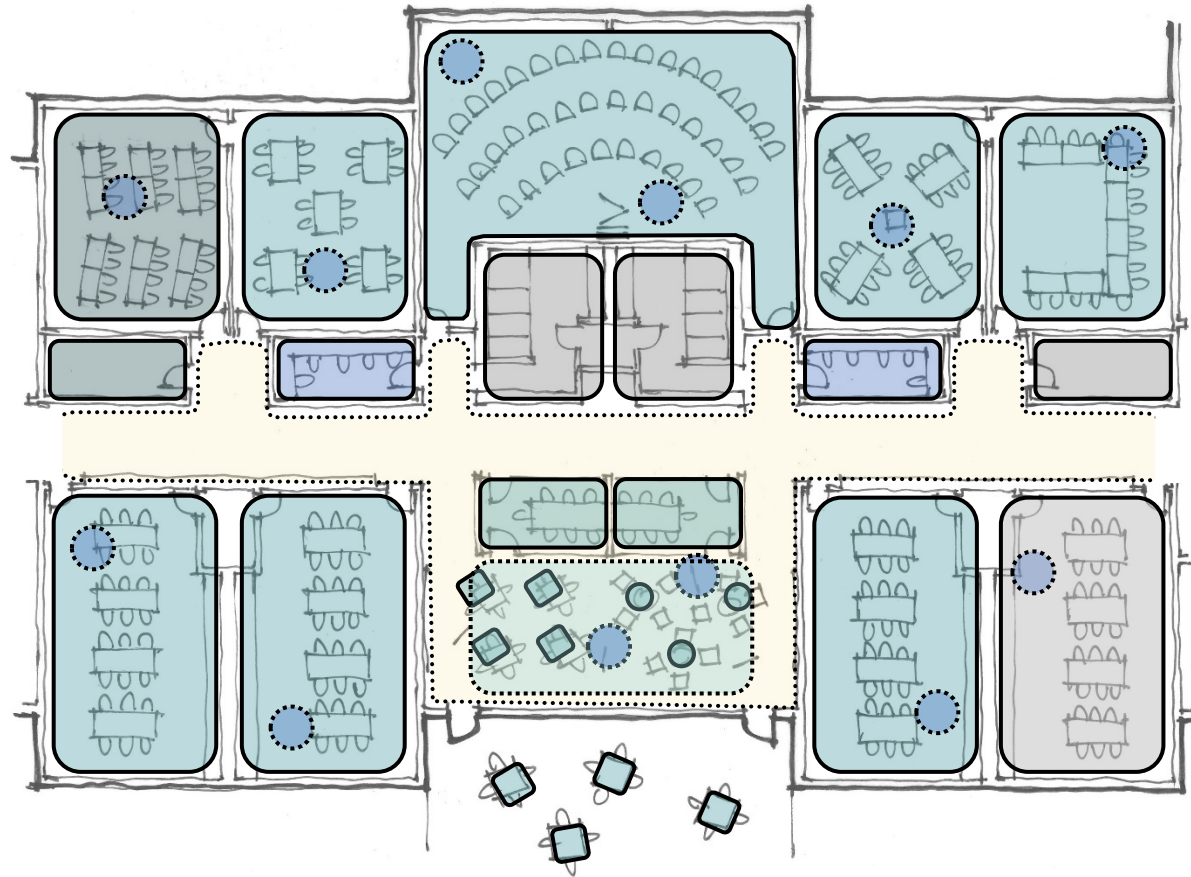


Existing Learning Community

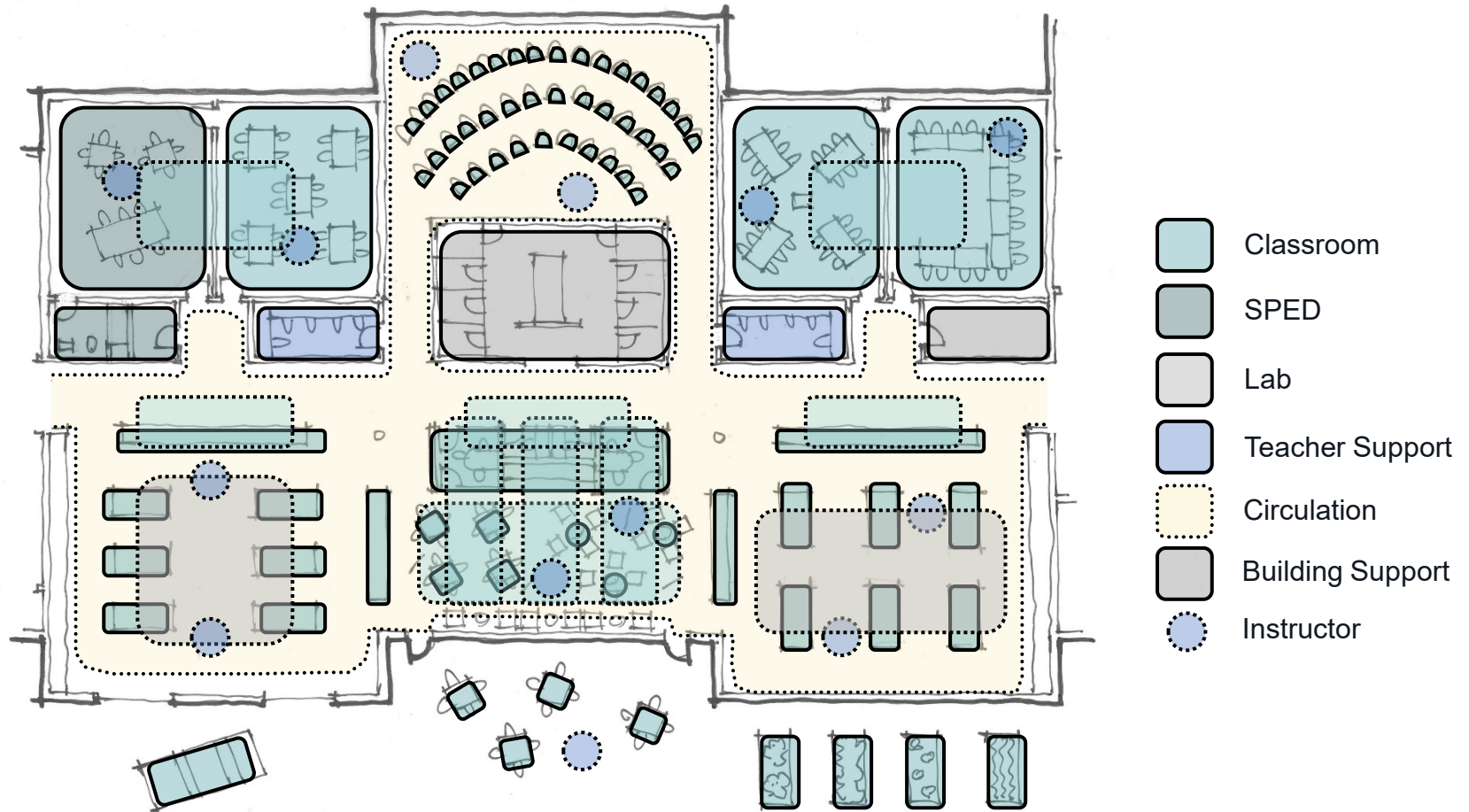


- Classroom
- SPED
- Lab
- Teacher Support
- Circulation
- Building Support
- Teaching Station

Traditional Learning Community



- Classroom
- SPED
- Lab
- Teacher Support
- Circulation
- Building Support
- Instructor





Traditional



Transitional



Transformational





Bedford Middle School



Bedford Middle School



Bedford Middle School



Bedford Middle School



Bedford Middle School

# Crozet Elementary School

- **35K SF addition + 45K SF renovation**
- **Doubled capacity** from 330 to 680 students
- Completion in Fall 2022
- **\$17.5 million** construction cost
- Occupied during construction
- Improved site circulation
- Reduced energy use
- Created outdoor learning + gathering spaces



Expanded play + provided accessible path

Expanded PE space + created outdoor learning court

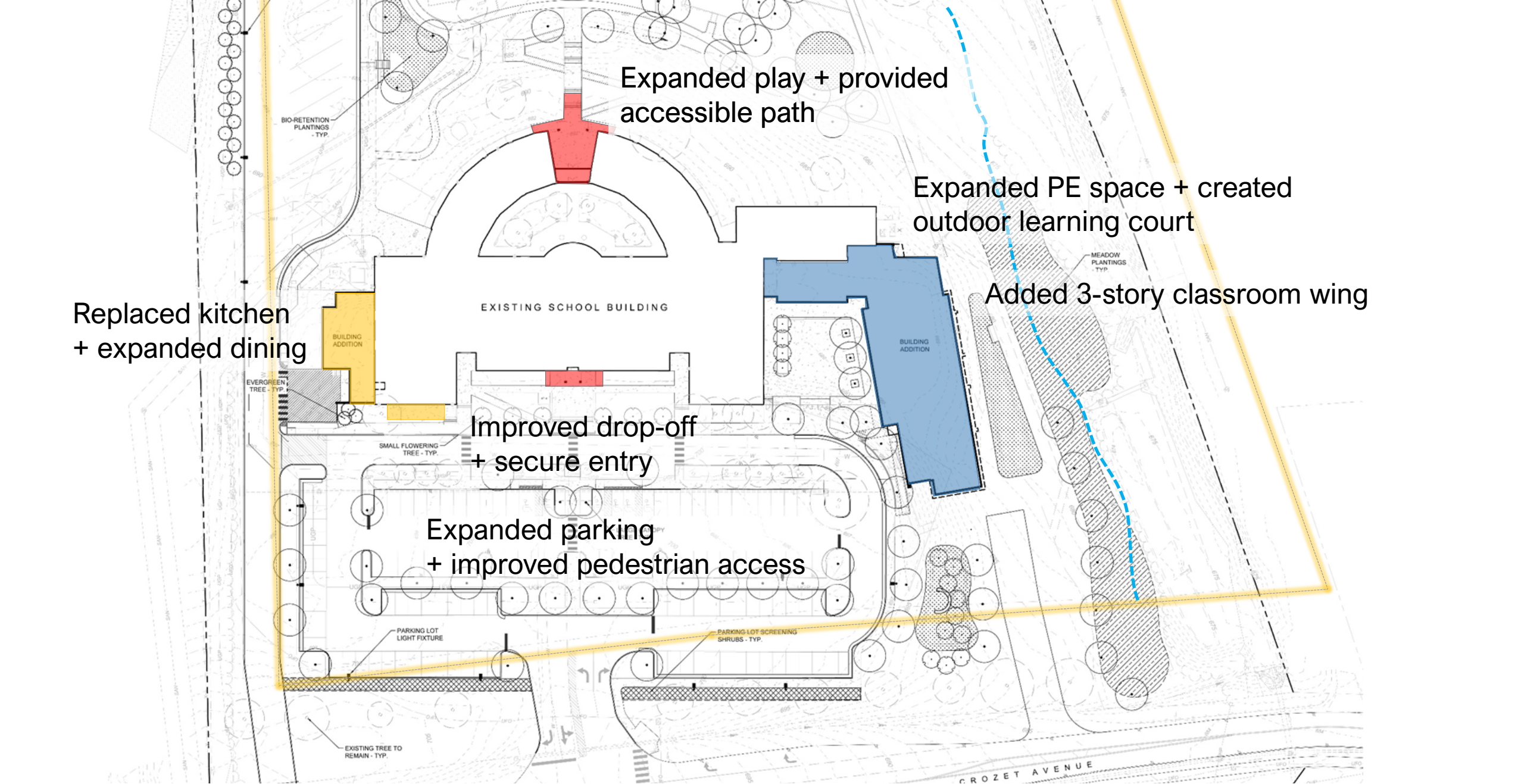
Added 3-story classroom wing

Replaced kitchen + expanded dining

Improved drop-off + secure entry

Expanded parking + improved pedestrian access

# Crozet Elementary School – Proposed Site Plan





Existing Building

Courtyard

Addition

100' Landscape Buffer

Parrot Branch

Site Section – Proposed Addition





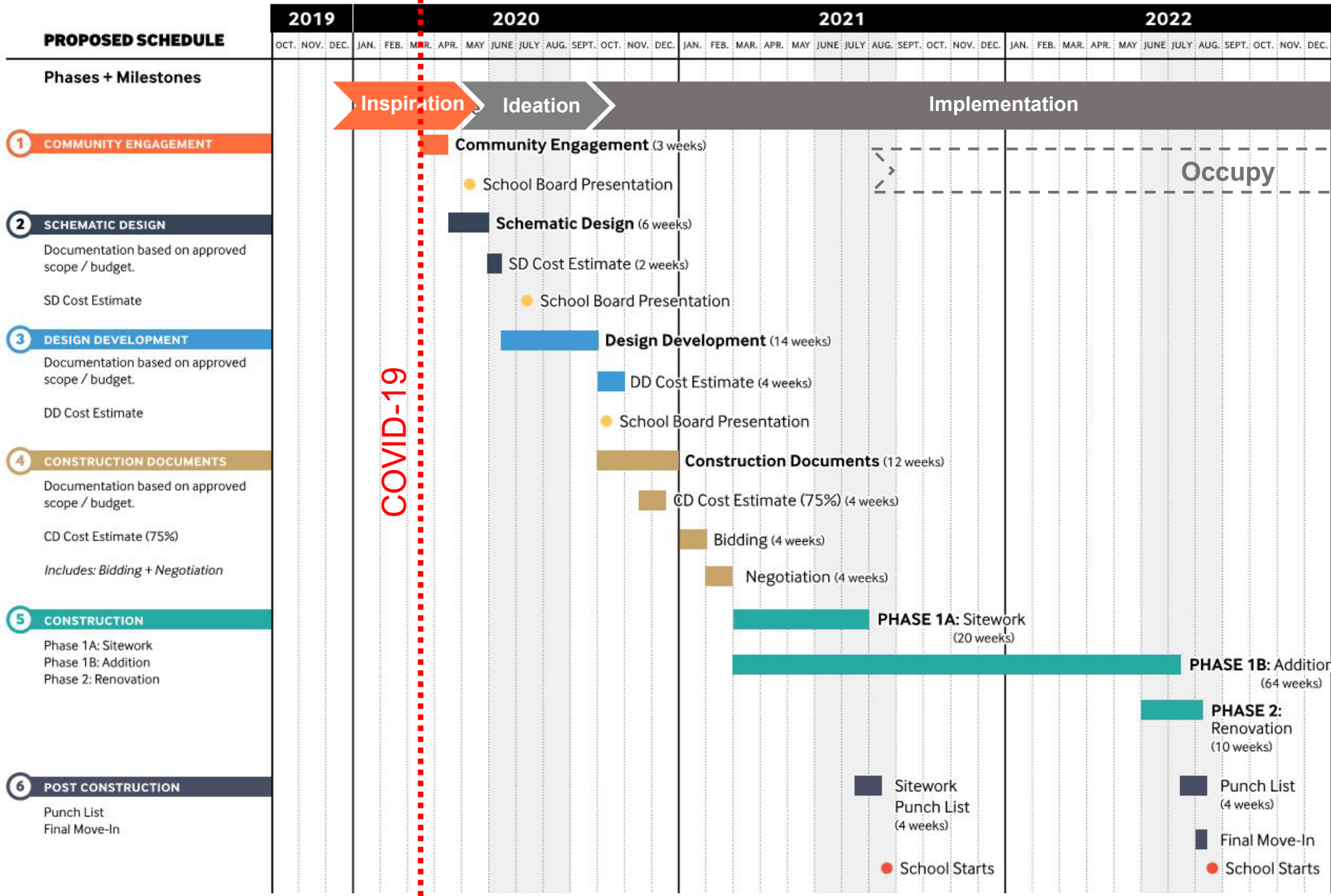
Aerial of Courtyard and New Learning Wing

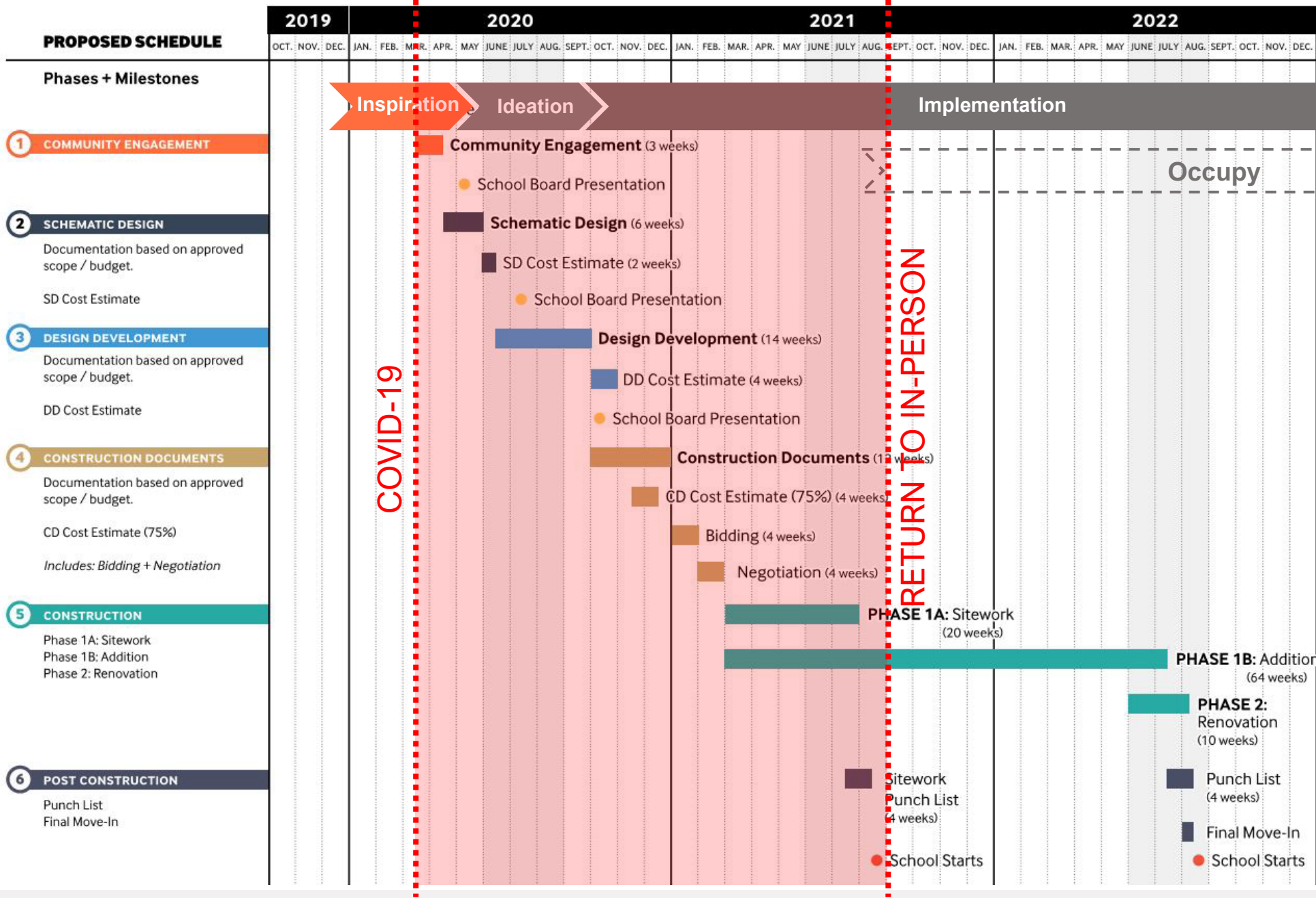


Aerial Perspective - Existing from Rear



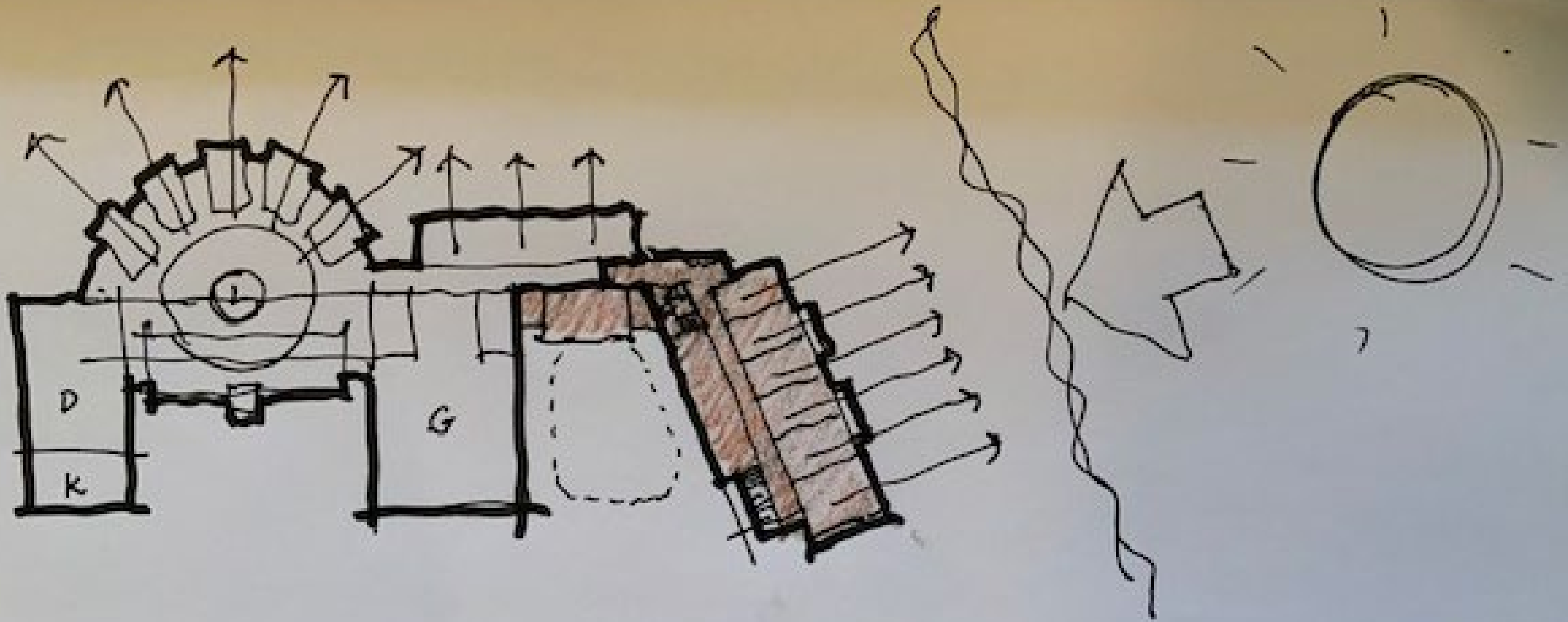
Aerial Perspective – Proposed Addition



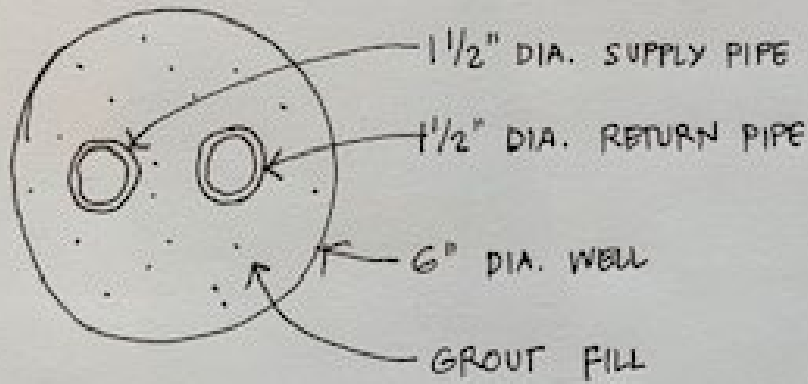
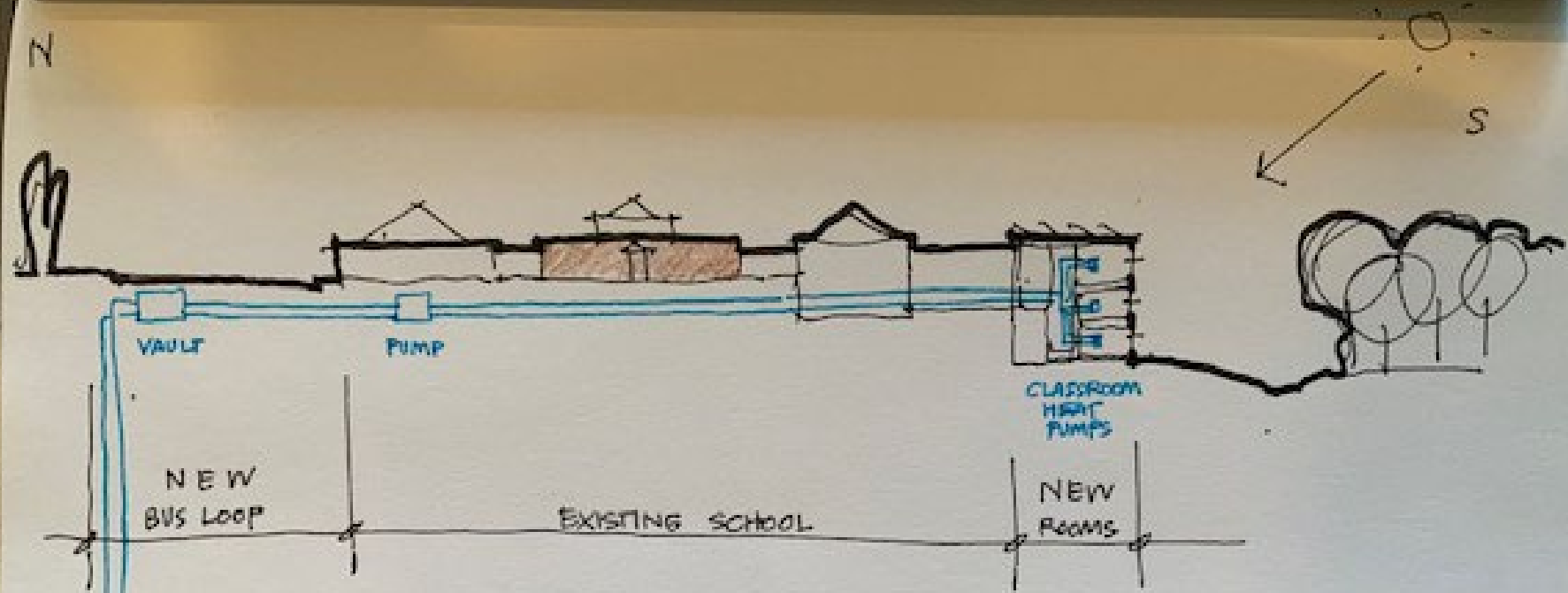




Staying Connected (While Working from Home)



Floor Plan Diagram – Protecting Views + Addressing Orientation



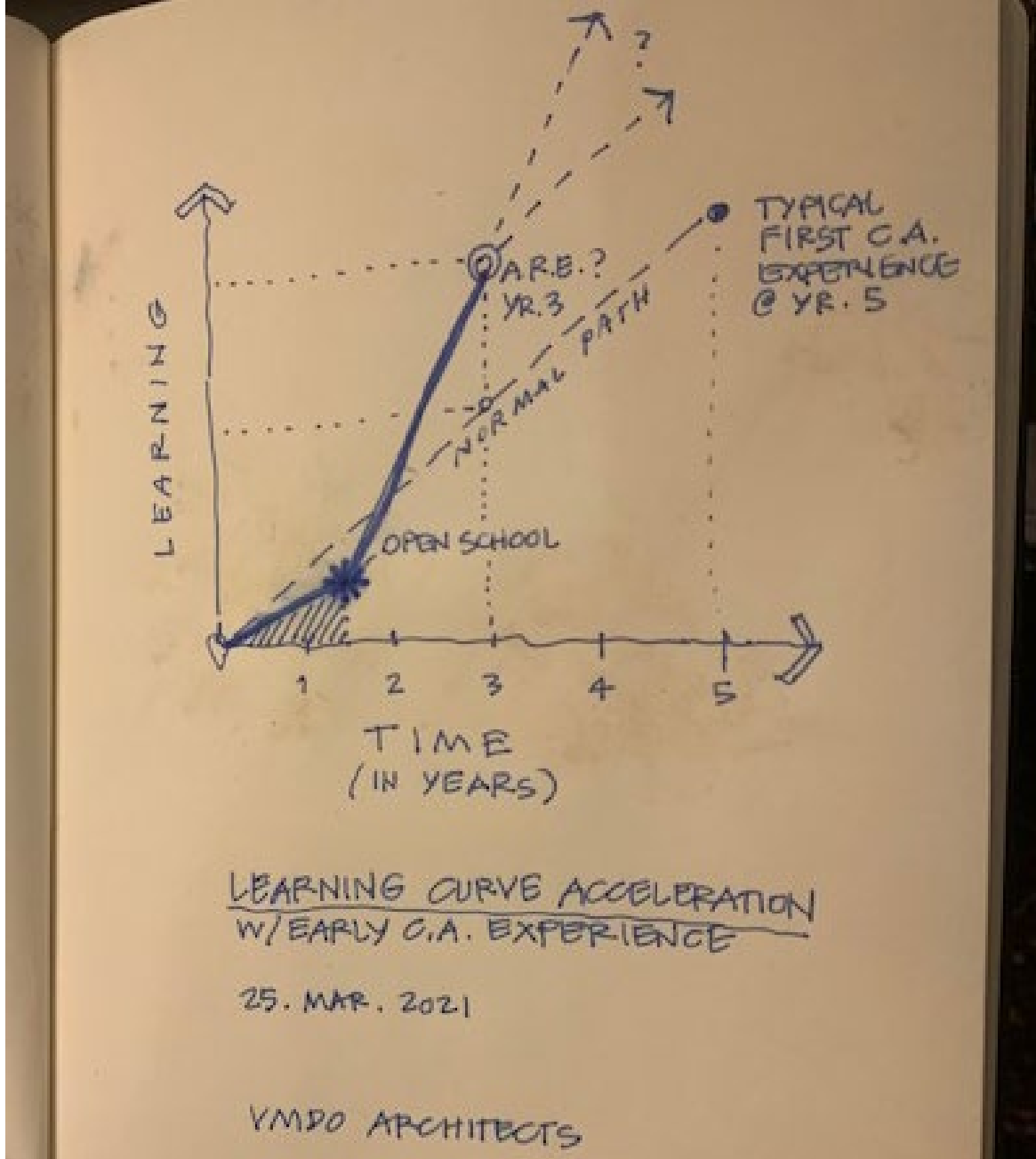
SITE SECTION

Geothermal Concept Section

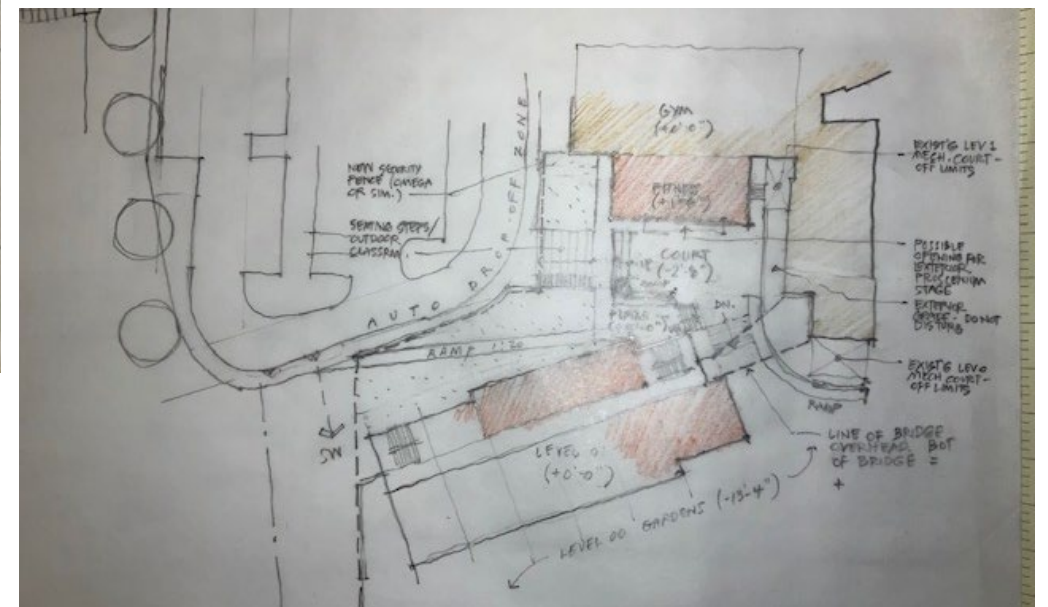
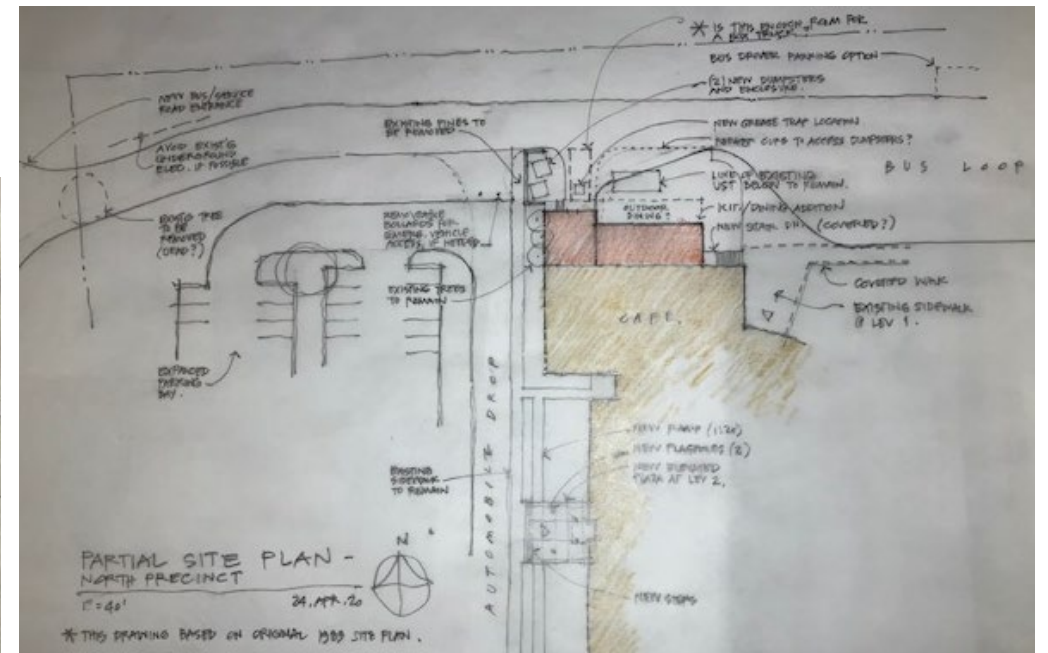
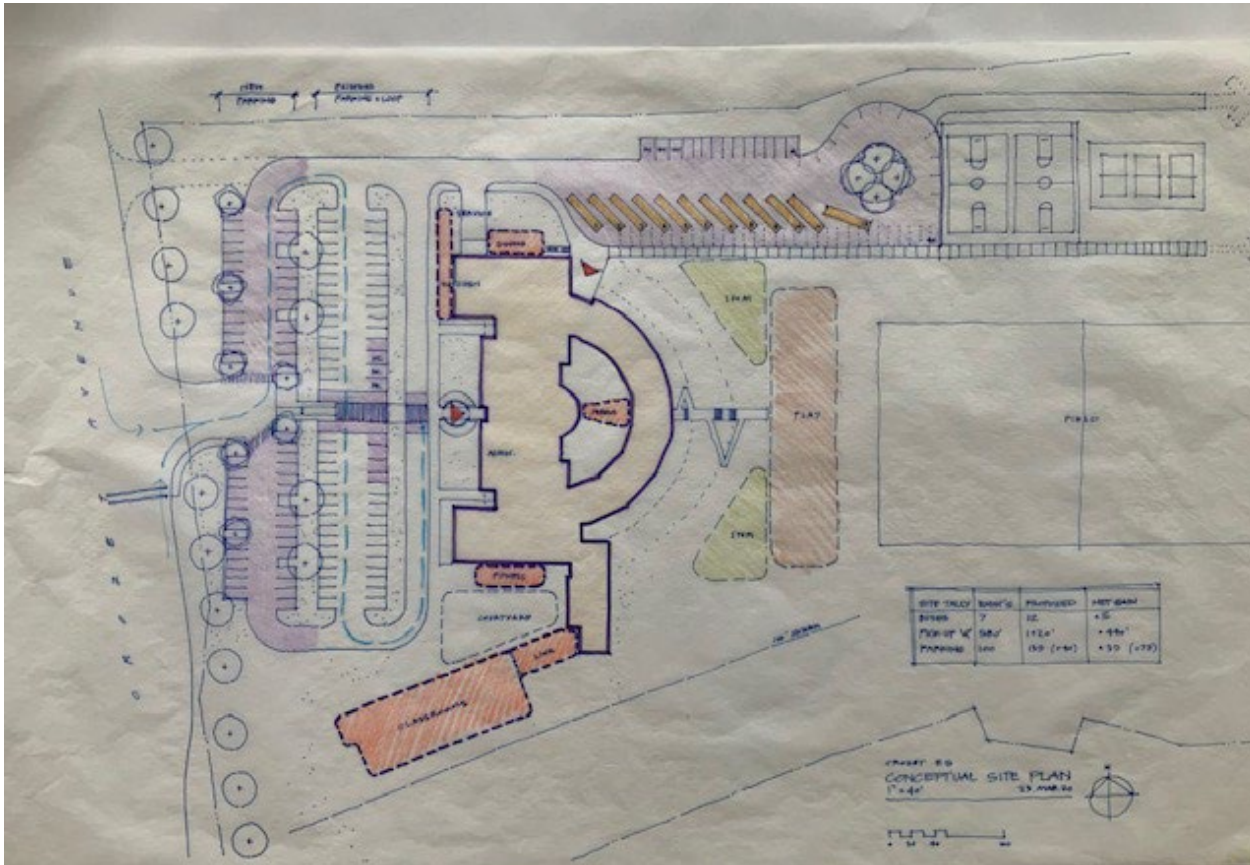




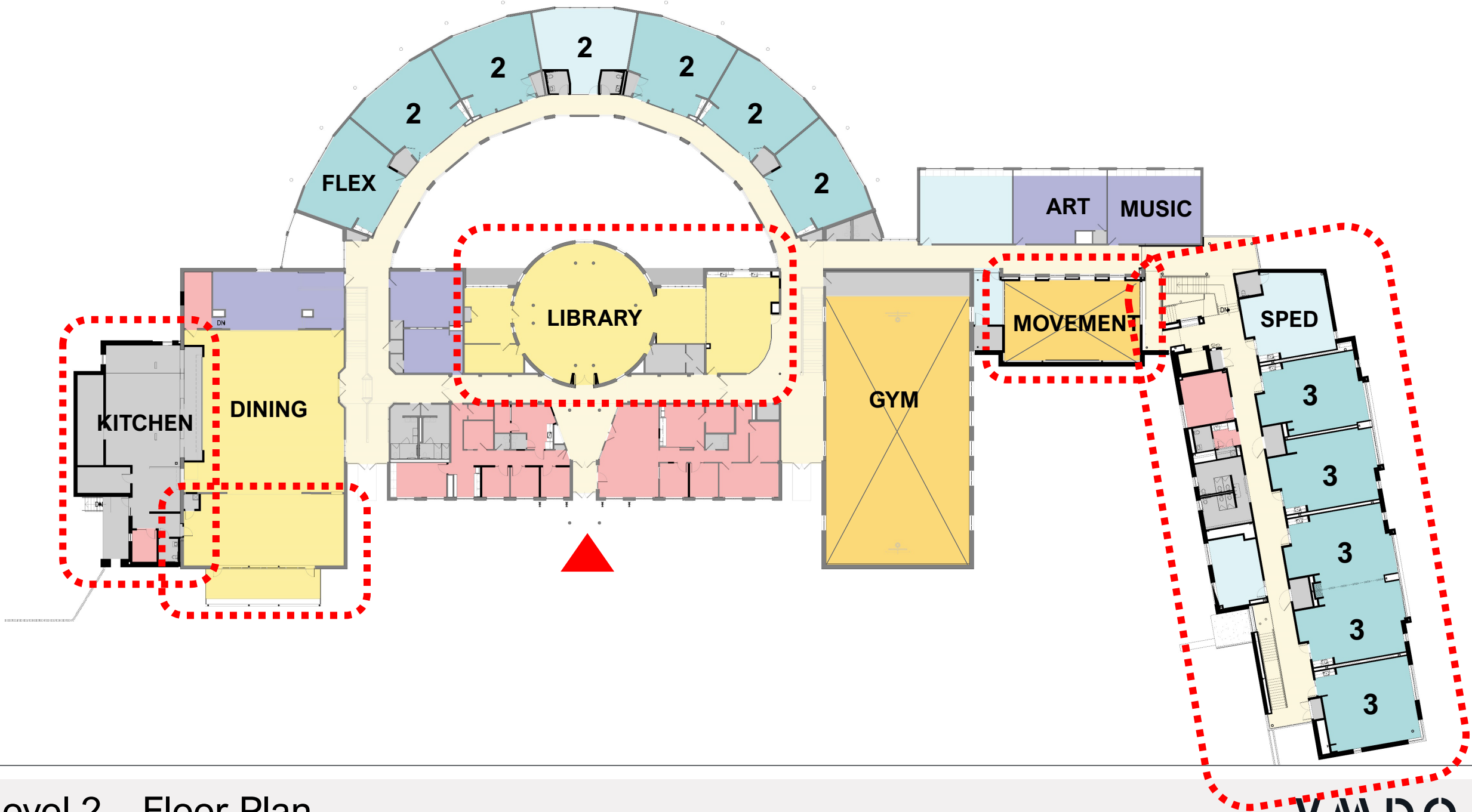
Geothermal Test-Wells



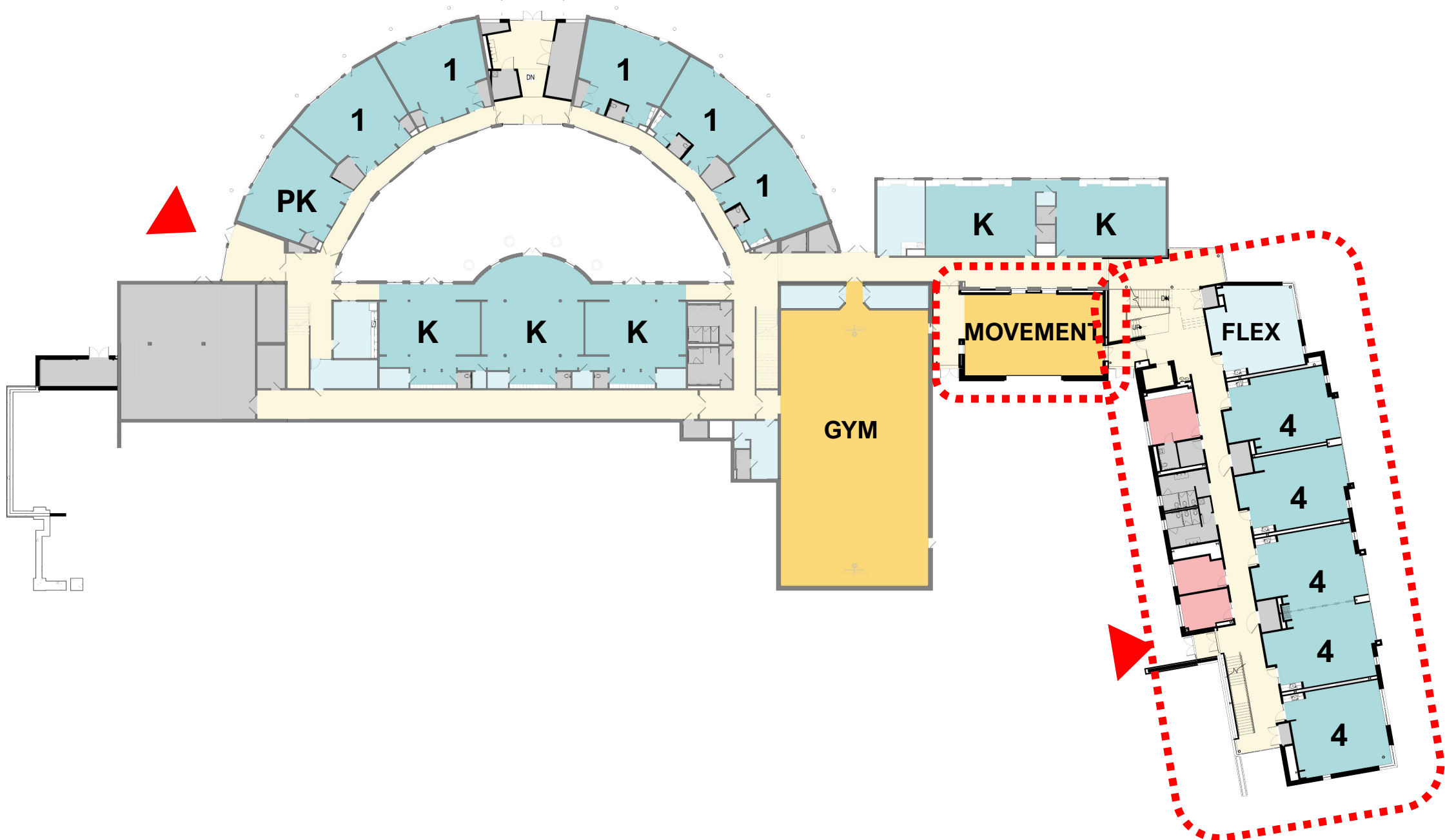
VMDO's Mentoring Strategy – Early C.A. Experience



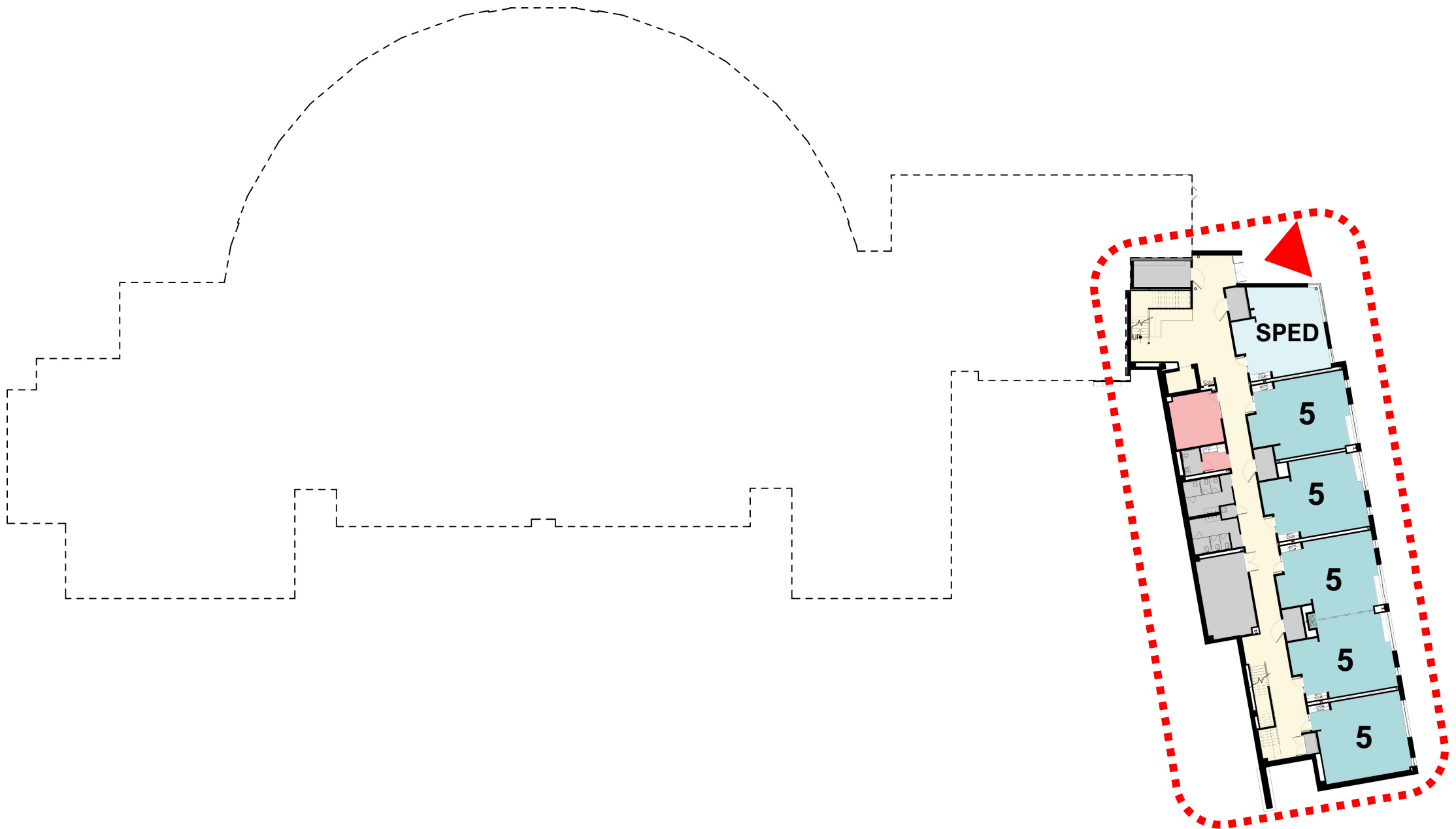
Site Sketches – Studying Parking, Bus Loop, Loading + Access



Level 2 – Floor Plan



Level 1 – Floor Plan



Level 0

VMDO

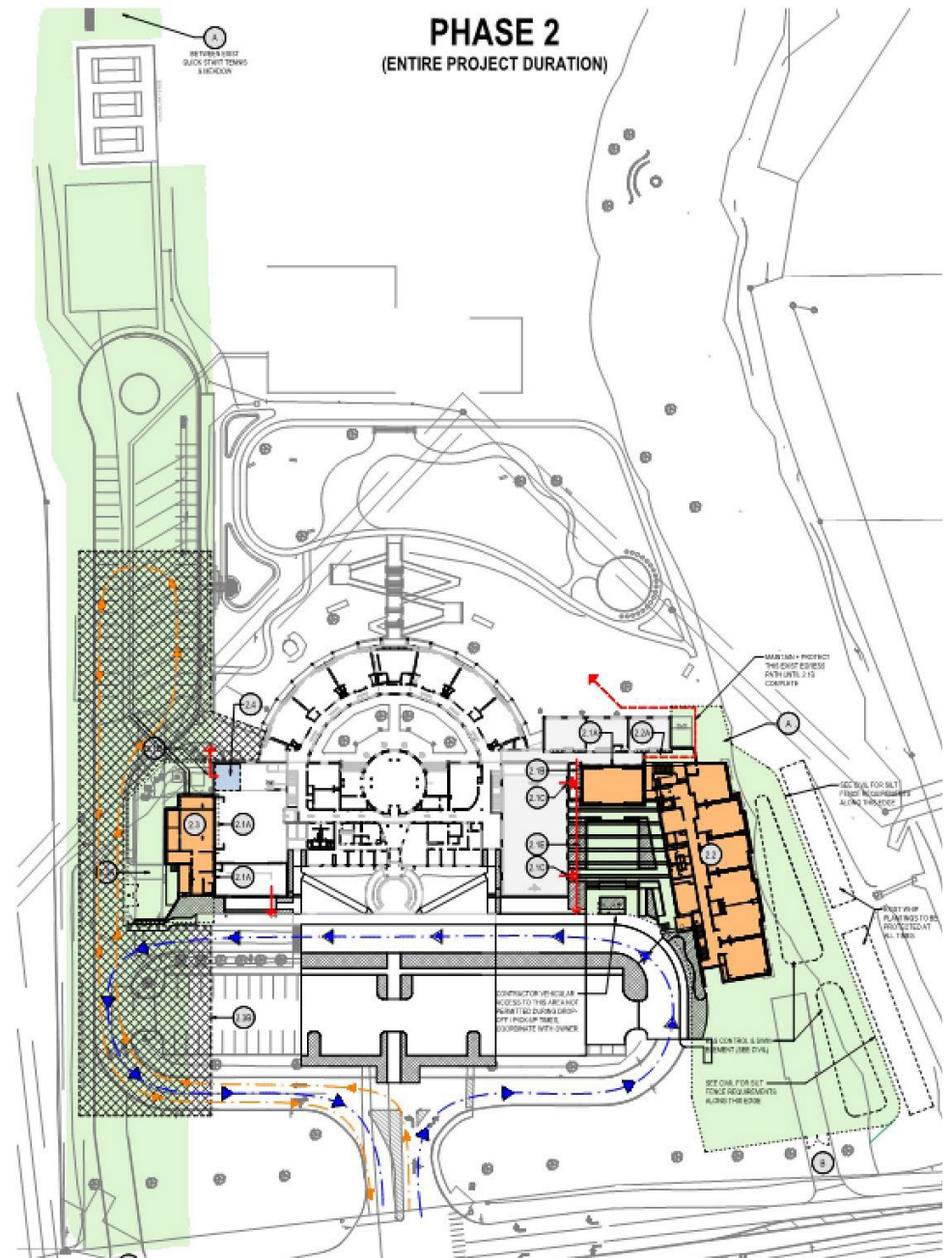
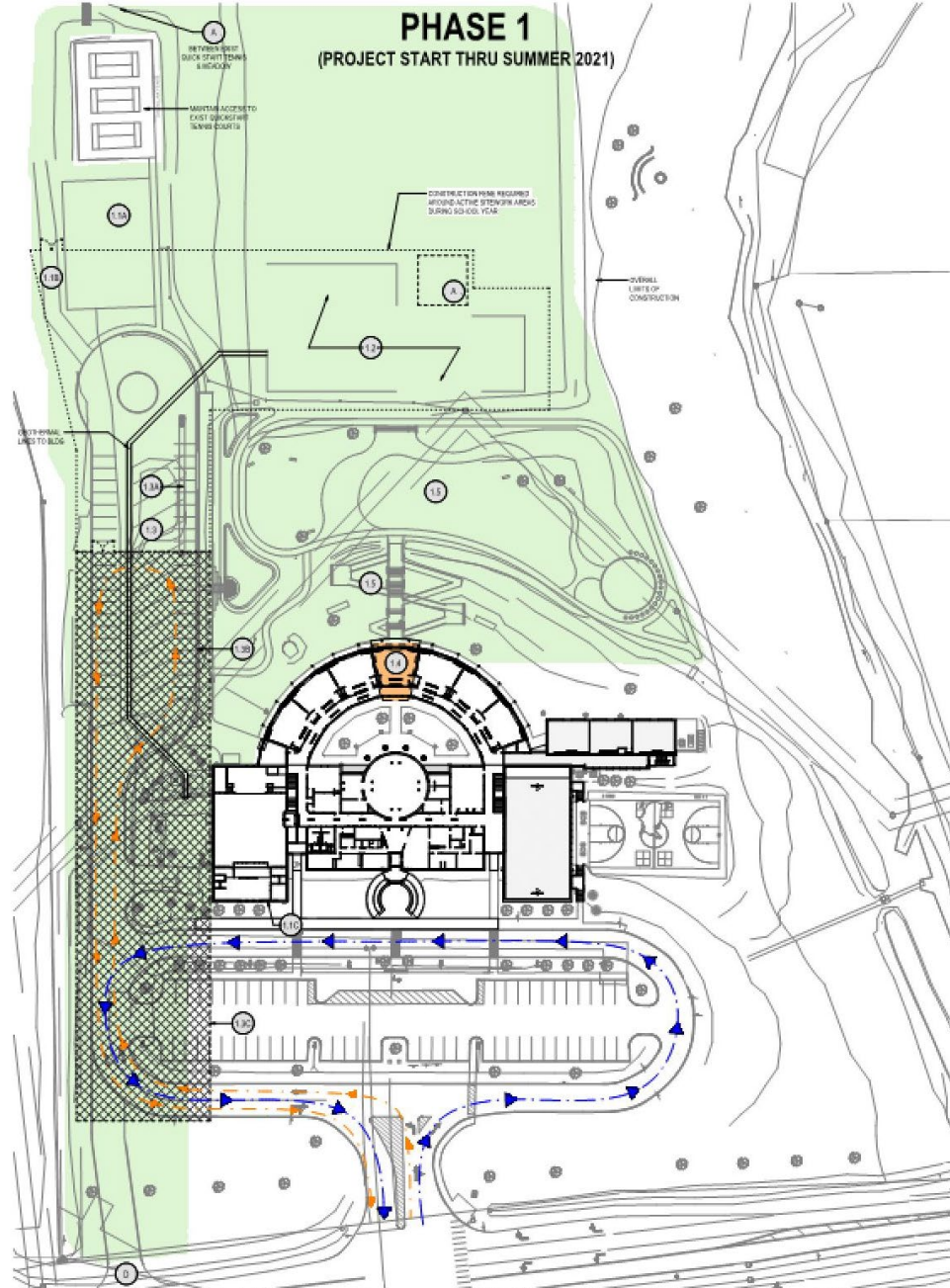


Learning Wing Axon – Traditional Classroom

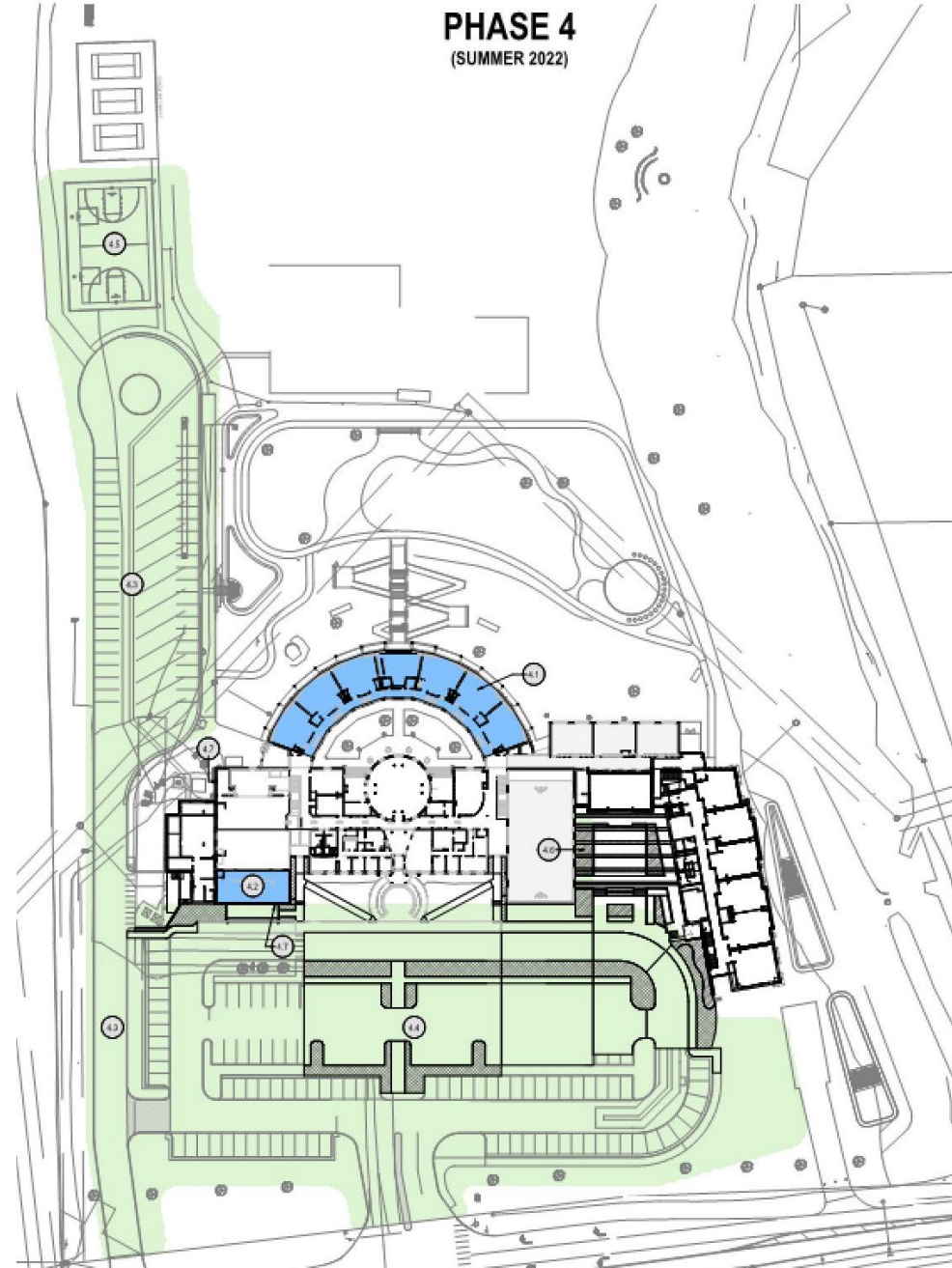
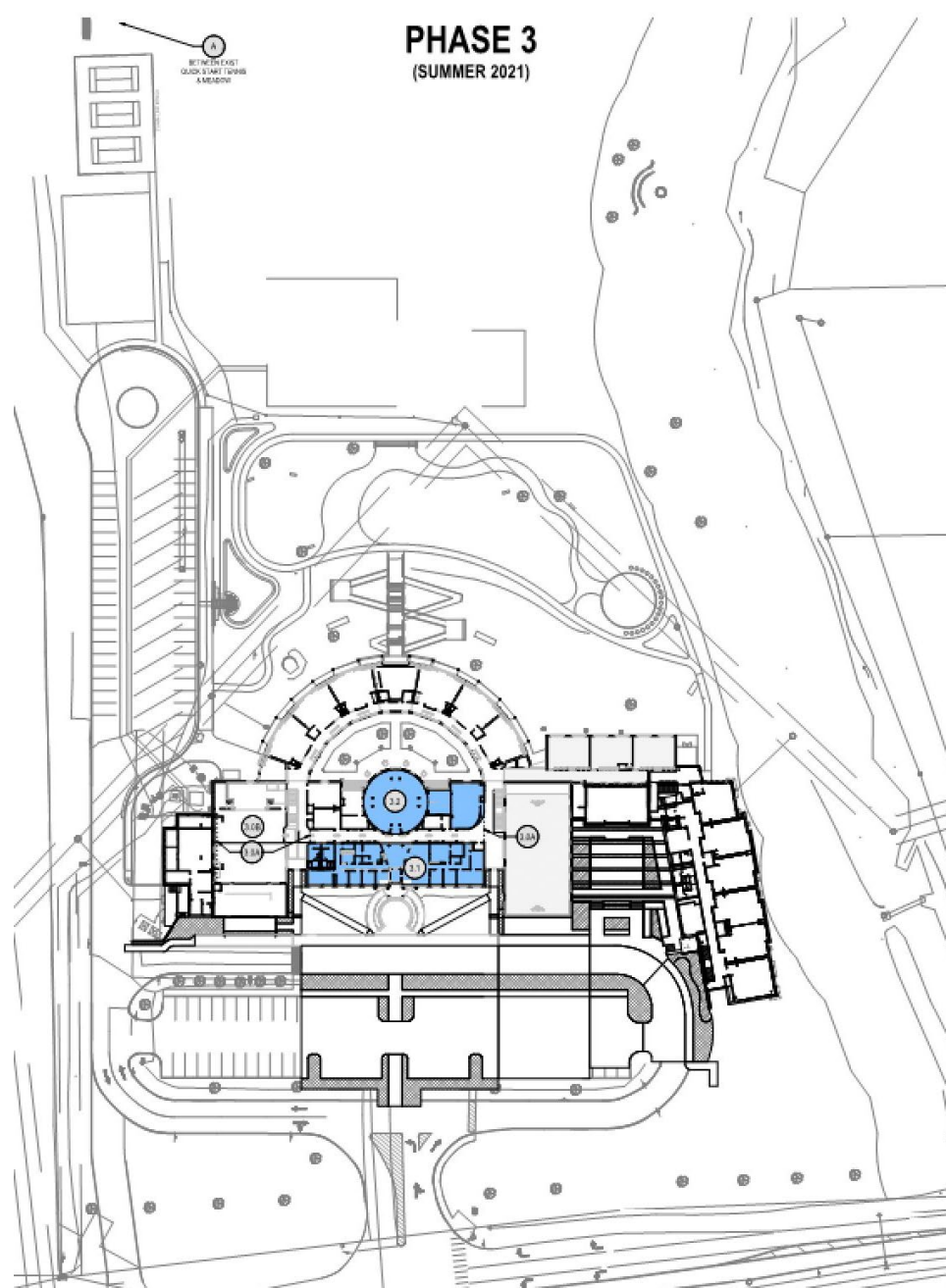


Learning Wing Axon – Flexible Classroom





Construction Phasing





Movement Room Rubber Flooring



Site Area from West - Before



Learning Wing from West



Courtyard



Southeast Perspective of Learning Wing



Front Entry from West - Before





First Day of School – Front Entry



Expanded Campus from West



First Day of School – New Learning Wing



Before – Dining Commons



Dining Commons - After



Library - Before



Library - After



Library - After





Completed Gym



Open Stair @ New Learning Wing



Flexible Classroom



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# Questions + Discussion

Thank You!