

MAYFIELD JUNIOR SCHOOL
INNOVATION CENTER



EXECUTIVE SUMMARY

In May 1931 Mayfield School opened in Pasadena, California. At that time, Pasadena's population was about 80,000 and although there were fine private schools in Pasadena, there was not one private Catholic school among them.

In the late 1930s, Mayfield considered moving the school to another location. When zoning issues proved overwhelming, the decision was made to stay on Euclid Avenue and begin to acquire surrounding property as it became available. In 1938, the property just north was purchased for an auditorium and additional classrooms.

Enrollment had grown significantly and more space was needed to accommodate not only the increased numbers but the strong academic program. A campaign to support the future of Mayfield Schools received overwhelming support from the community and in 1967 additional property was purchased for a new Junior Building, adding much needed classroom space including a science lab and art studio to Mayfield Junior School's campus.

The late 1970s and 1980s brought many changes and more growth to the campus. The layout and face of the campus began to change again significantly in the 1980s. The Pike Learning Center was added to the center of the campus in 1983 and in 1988 the Junior Building was remodeled providing a new computer lab and additional office space.

In the fall of 1993, Mayfield Junior School welcomed Mrs. Stephanie Griffin as head of school. Mrs. Griffin was committed to maintaining academic excellence and sustaining the family spirit of the school. Under her guidance, Mayfield Junior School continued to build on the traditions established and supported by previous generations of students. A commitment to "Actions not Words" increased community outreach and service.

In 1998 when the multipurpose building was completed adding a gymnasium, chapel, art studio, music rooms and an expanded after school programs to the campus, space for art and music programs allowed student potential to be explored.

At this time, the campus had reached its absolute its maximum capacity and density. In an effort to reduce class size and renew the school's commitment to academic excellence, Mayfield took on an ambitious plan to increase the number of classes in grades K-4 from two to three with only 18 students per class. In order to accomplish this goal and provide the additional classrooms needed, a major remodel of the south campus was undertaken.

The challenge facing Mayfield today is with no more room for growth and limited financial resources, the school desperately needed to add learning environments that embrace current teaching trends. To exacerbate the challenge the existing academic spaces need to remain operational and have all undergone previous renovations to the best of their abilities.

The goal set to the design team was to program, vision and build a lasting academic center that would foster innovation and allow for flexible teaching spaces.



A rich historic campus in the heart of a residential neighborhood, constrained and grown to capacity, seeks a new academic center that will foster collaboration and provide flexibility for the future.



Vicinity Map



Word Cloud based on comments received by school faculty.

Mayfield Junior School
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SCOPE OF WORK & BUDGET

Mayfield Junior School is currently undergoing a capitol campaign to raise the necessary funds to construct and furnish the new academic center. Mayfield’s steering committee determined that accomplishing the program goals is paramount and the design solution should be reflect their commitment to quality, fully addressing their program needs and to that end, requires sensitivity from the design team to cost. At this concept stage of design, the budget is estimated at \$300 per square foot and a final budget is to be determined as the project develops.

Space Description	Existing Area	Proposed Area	Comments
Level 1			
Robotics Lab		720	Proposed new shared lab.
Clean Lab		720	Proposed new shared lab.
D Lab	697	720	Proposed: replace existing D Lab
Elementary Classroom 1		750	Proposed new classroom sized space. This is a classroom adjacent to the library
Library / Learning Center	2568	4030	Proposed: replace existing Library
Tutor Lab 1		720	Proposed new tutoring lab. This tutor lab is to be adjacent to library.
Tutor Lab 2		720	Proposed new tutoring lab. This tutor lab is to be adjacent to library.
Restrooms / Stairs / Elevator		1200	
Total Square Feet	3,265	9,580	
TOTAL LEVEL SQUARE FEET		3,265	9,580
Level 2			
Middle School Classroom 1	717	770	Replace classroom sized space. This is a flexible classroom.
Middle School Classroom 2	717	770	Replace classroom sized space. This is a flexible classroom.
Middle School Classroom 3		720	Proposed new classroom sized space. This is a flexible classroom.
Middle School Classroom 4		720	Proposed new classroom sized space. This is a flexible classroom.
Middle School Classroom 5		720	Proposed new classroom sized space. This is a flexible classroom.
Middle School Classroom 6		1080	Proposed new classroom sized space. This is a flexible classroom.
Elementary Classroom 2		770	Proposed new classroom sized space. This is a flexible classroom.
Deck		600	
Shared Circulation		2000	
Stairs / Elevator		540	
Total Square Feet	1,434	8,690	
TOTAL LEVEL SQUARE FEET		1,434	8,690
TOTAL BUILDING SQUARE FEET		4,700	18,270

SCHOOL & COMMUNITY ENGAGEMENT

Mayfield Junior School is located in Pasadena, California and is situated in a residential neighborhood with both single family and multi-family housing. Mayfield's presence within and commitment to the community it serves, is based upon a rich history of growth with the community and continues to this day.

Mayfield's stakeholders consist of parents, teachers, administrators, alumni, and business leaders. The stakeholders provide the necessary leadership for the continued health and viability of Mayfield Junior School into the future by focusing on the fiduciary leadership (oversight and assessment of mission and finance "Doing things right"), strategic leadership (foresight and "Doing the right things") and generative leadership (shared visioning, investment for the future and "Leaving a legacy").

Challenges: The primary challenge for the design team was to incorporate an aggressive program into an already severely constricted campus that needs to remain operational throughout the construction of the project. Additionally, after a thorough visioning and programming campaign, the resulting program had the potential to become overpowering to the existing campus and likely not approvable by local building and planning authorities.

Available assets: Mayfield Junior School is privately funded and largely dependent upon gifts from the community it serves, alumni and generous donors who share the vision and commitment of the school.

Value of process and project to the community at large: Fundamental to the success of the new academic center was the visioning exercise. This exercise was undertaken over a 12 month period. Mayfield established a steering committee that engaged the faculty, students, local officials with jurisdiction of the proposed project, and its board members. Sensitivity to the surrounding neighborhood was a key consideration throughout the concept phase. Initial studies were resulting in building massing that would have had a detrimental effect to the scale of the neighboring community. As such, creative ways to reduce the scale of the project without compromising the program goals were sought out and ultimately resulted in capturing "found space".

VISIONING EXERCISE

Faculty member of the school were considered in a series of conversations, ideas; and visioning. All intended to bring improvements to the campus. With all the new technology and innovative methods of teaching becoming more and more real everyday, the current Library building does not fit for the future of teaching. Libraries have become more high-tech, with more methods of hands-on learning and exploration; children are presented with opportunities to learn in a more high-tech environment with connections to the outdoors, different to how the traditional library is currently set up. The new Innovation Center has the potential to become a major campus resource in regards to its central location within the site. The needed renovation will affect the overall campus in a positive manner as it will allow for the opportunity to upgrade for the future education.

The New Innovation Center is the core reasoning behind this new planning strategy. Faculty all met and listened to a discussion presented, after some quick introductions and a conversation about the mission to accomplish for the campus, everyone was encouraged to comment on images that represented the program of yesterday, today and the future.

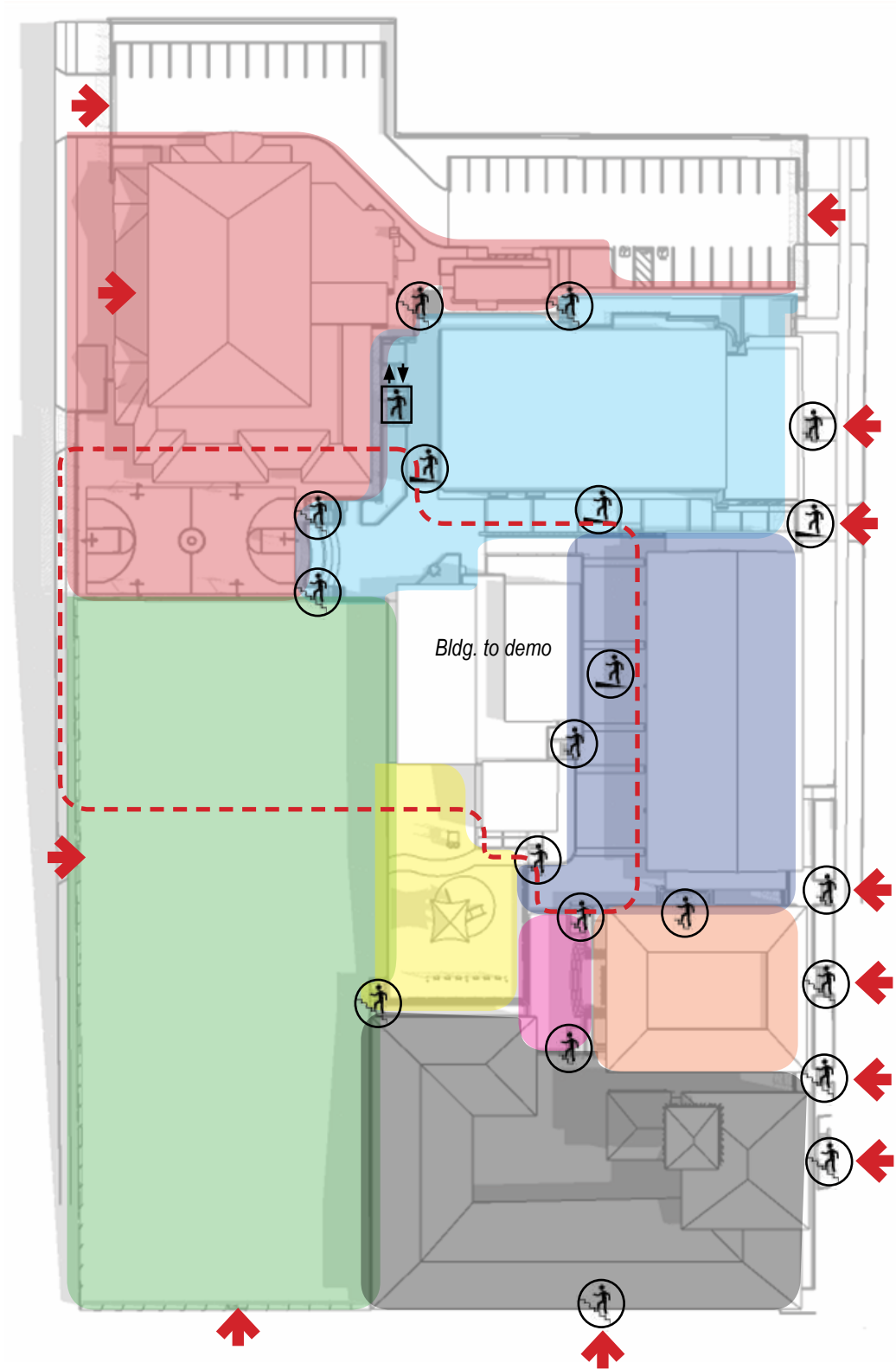
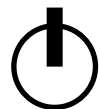
As described, the images shown to the faculty all were a coordinated balance of libraries, learning centers, classrooms, and maker studios that represent the conditions that exist now in the educational community and a direction in which education is moving towards; the classroom of the future is a very real situation today and schools must be ready to tackle the ever-changing curriculum the students will endeavour.

The visioning exercise generated a series of comments by the faculty describing their ideal design and organization for the new building. Everything from the ideal classroom to the ideal day in the life of a student. The comments, having been reviewed many times by the design team, have been represented in a graphic manner as a word cloud and later as programming diagrams. Keeping true to the suggestions made by the faculty, the design team has directly reflected the conversations had in this meeting into the planning of the new building.

MS Student

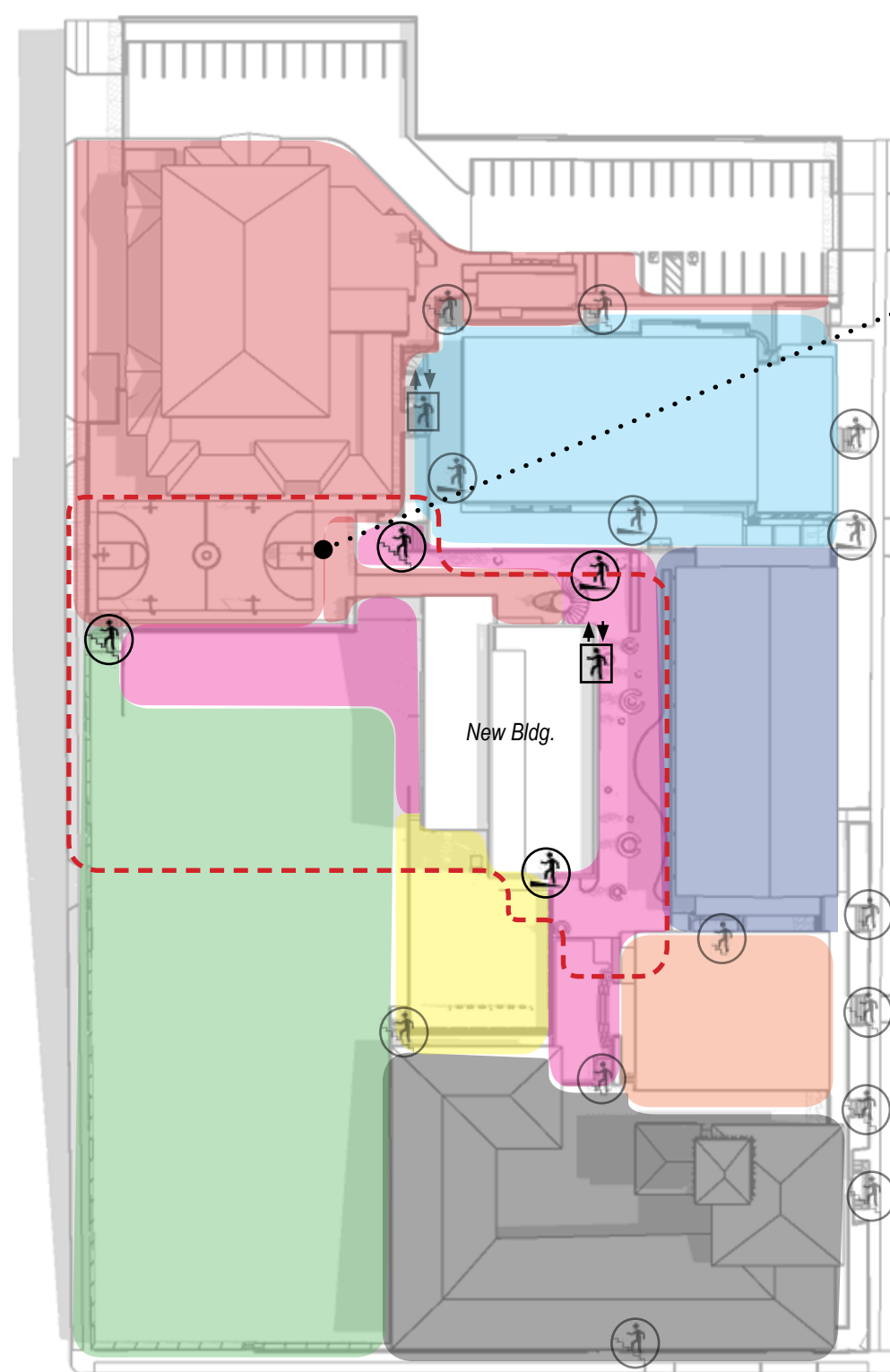
- * Food, snack bar / store
- * Private space to make noise
- * Cool, modern
- open, design, works, collab. spaces
- technology options - interactive
- spaces, outdoor space
- * make an inprint / curated artwork
- * comfortable & relax place to rest ^{near to}
- * tools available & supplies / easy to ^{mess} _{clean + use}
- theatre, debate, robotics, speech choir, 'comedy improv', ~~the~~ media arts
- ^{Arts} Integration & co-teaching - STEAM PBL
- Innovation
- * large space ^{put} guest author
- Black box / share small perf.
- kitchen space?
- * teachers accessible + central
- open transparency
- Commons, video games
- board games





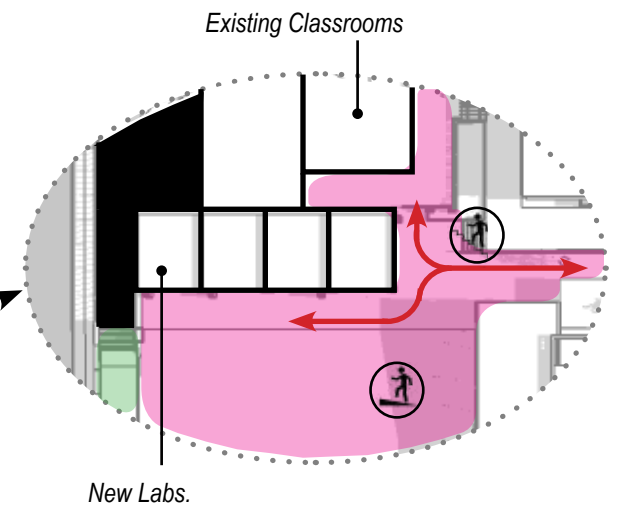
EXISTING CONDITION

The existing campus was developed over time resulting in various level changes and constricted pathways, this gave an overall sense of separation and disunity. Each color represents graphically a change level.



SITE & ACCESSABILITY IMPROVEMENTS

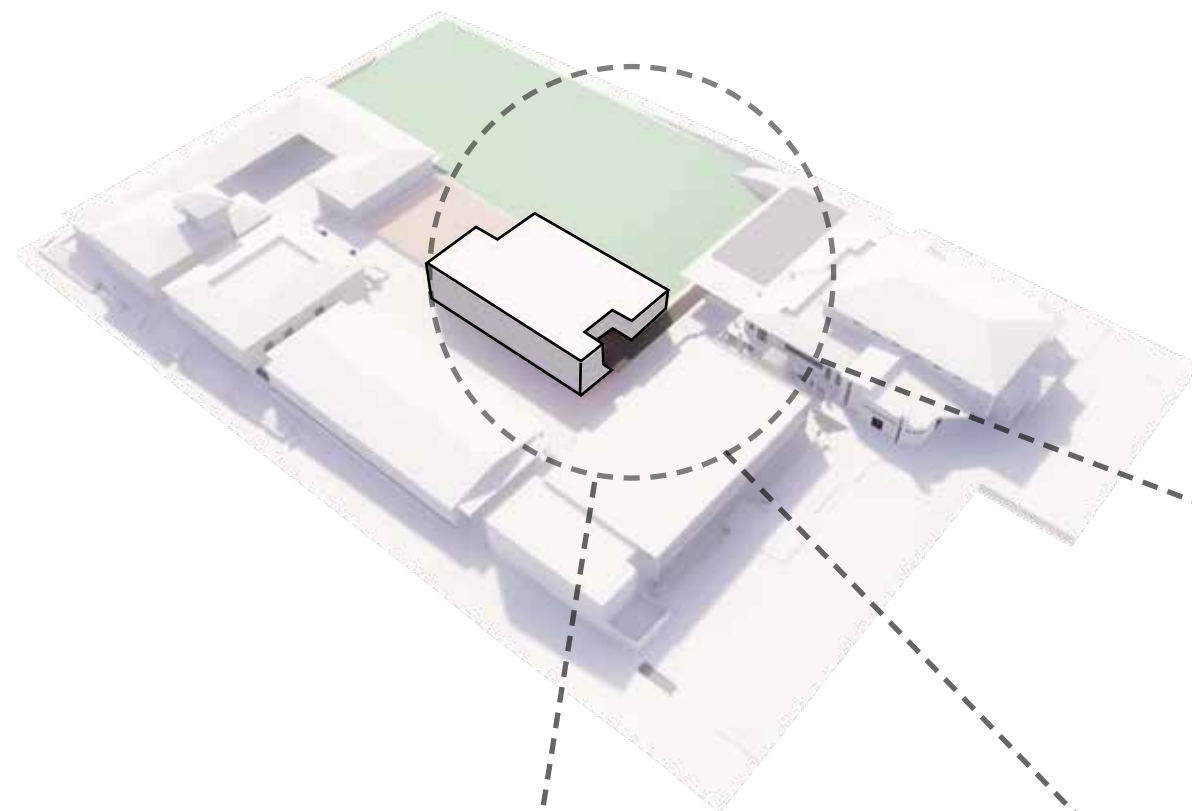
Our proposed design solution leveled and merged many of the various level changes, simplifying overall campus circulation and re-connecting difficult to find, "lost" spaces.



Buried beneath the existing gym were "dark" classrooms accessible by stair and elevator only. Our proposed plan added the "sheltered" lab wing below the basketball courts making a direct connection to these "lost" classrooms. Additionally, by leveling the new central quad and entry level of the new academic building at the same level as the basement of the existing gym, this now tied the campus together, strengthening the overall campus circulation. We also placed the second floor of the new academic center at the same level as the existing basketball courts and gymnasium. This too, enhanced overall campus circulation and connectivity.

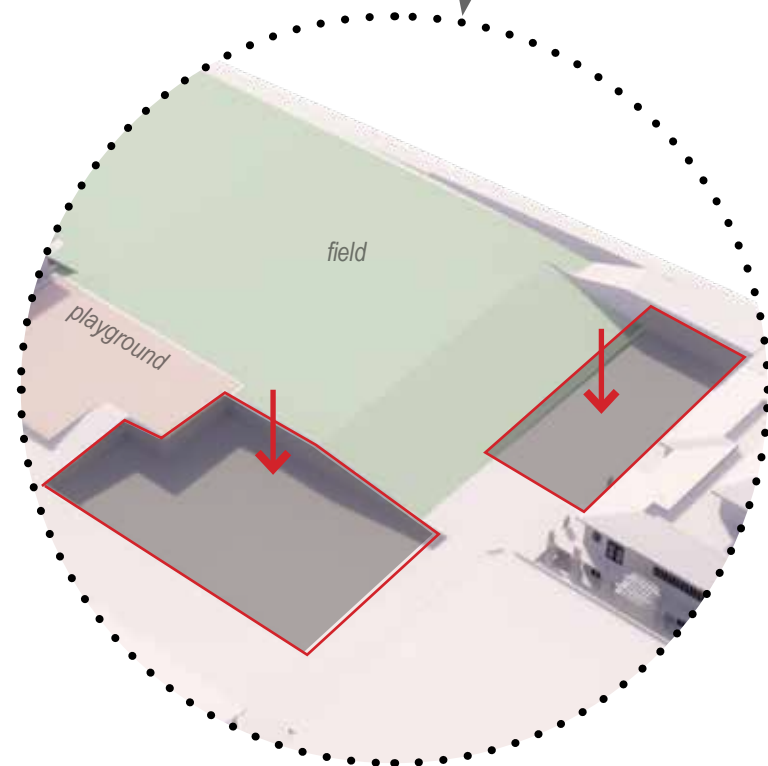
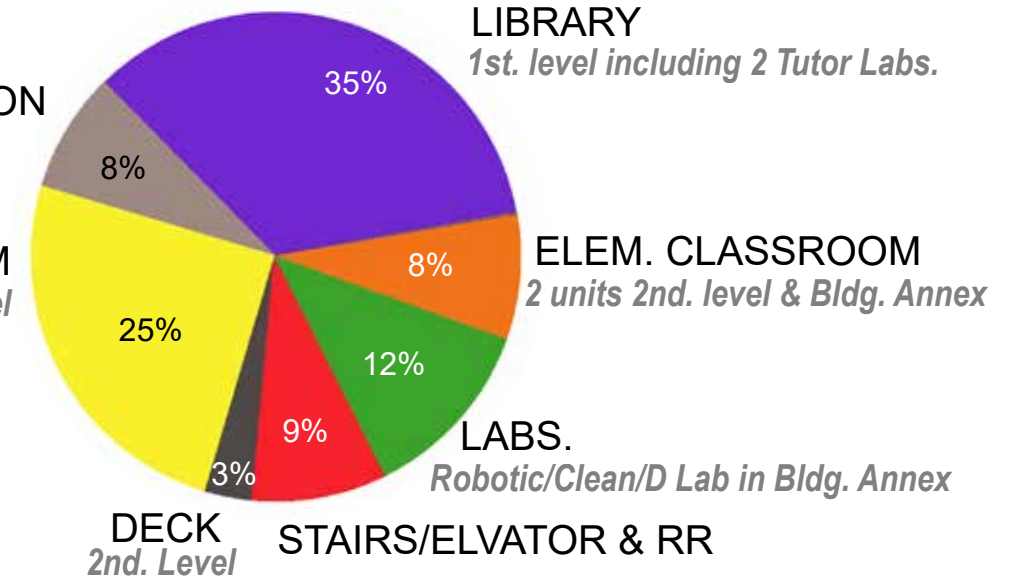
- Stair transition
- Step transition
- Sloped transition
- Elevator
- Access
- Scope area

Mayfield Junior School INNOVATION CENTER

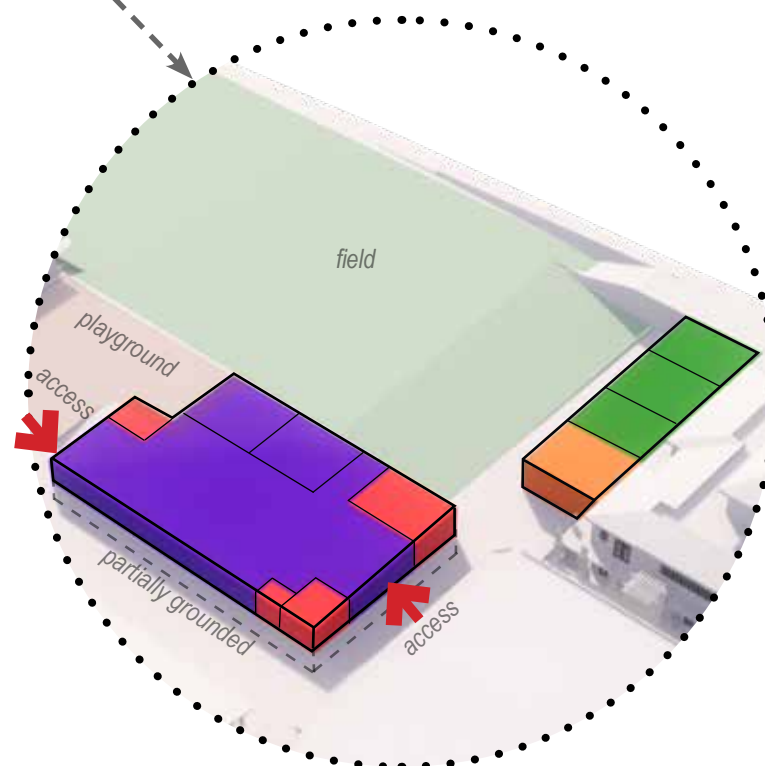


MID. SCHOOL CLASSROOM
6 units 2nd. level

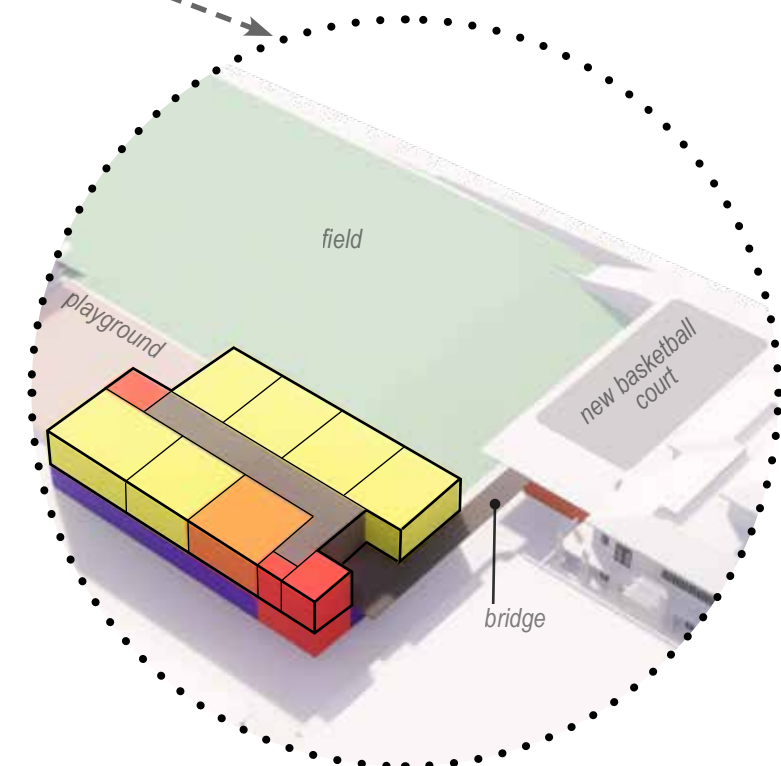
CIRCULATION



EXCAVATION



1st. LEVEL
semi underground library

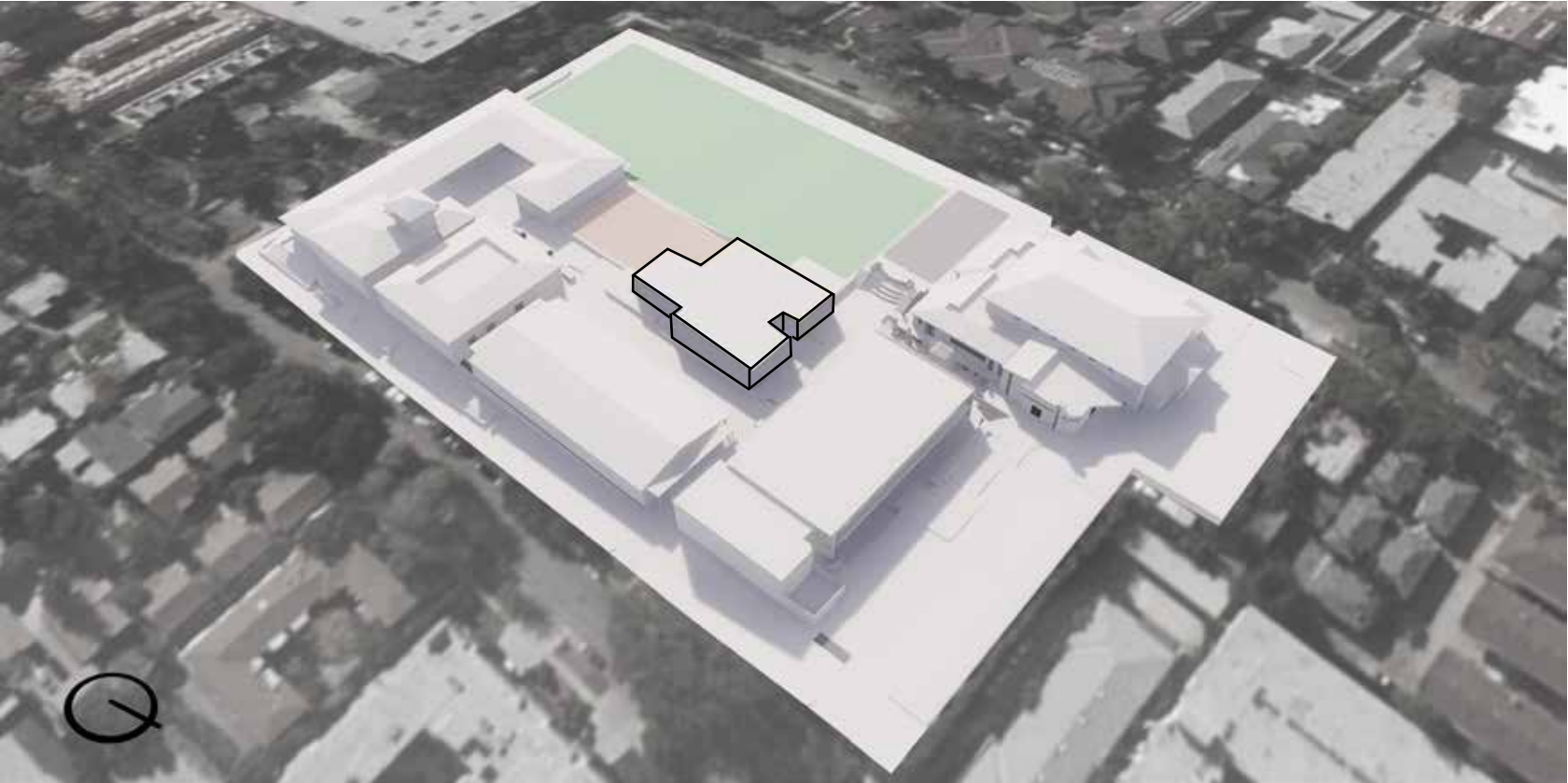


2nd. LEVEL
new basketball court through bridge

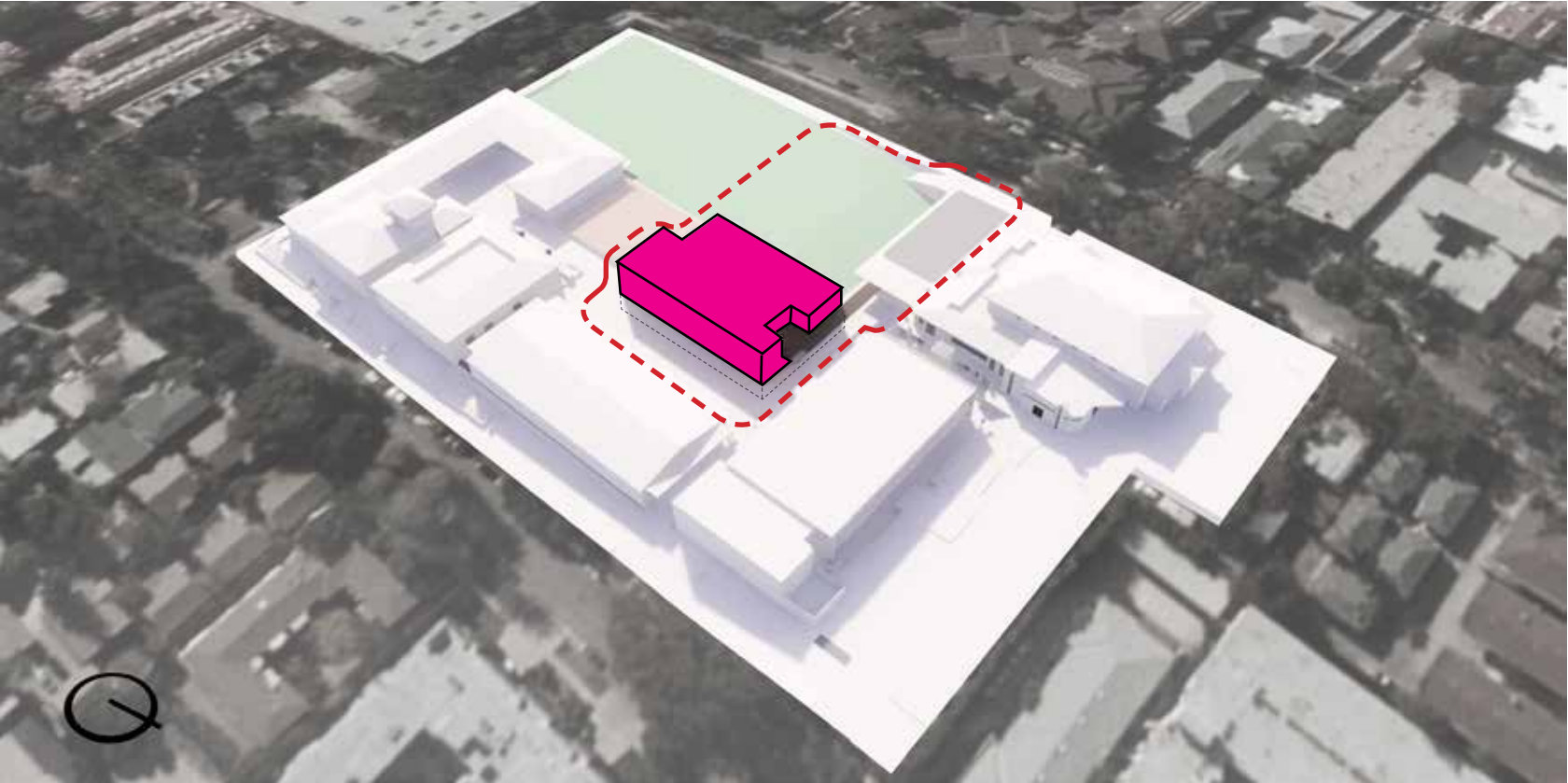
After a series of massing studies, the program is organized to best fit the campus functionally and scale wise within the existing campus.

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EXISTING CONDITION 1 LEVEL - 4,700 SF



NEW CONDITION 2 LEVELS - 18,270 SF



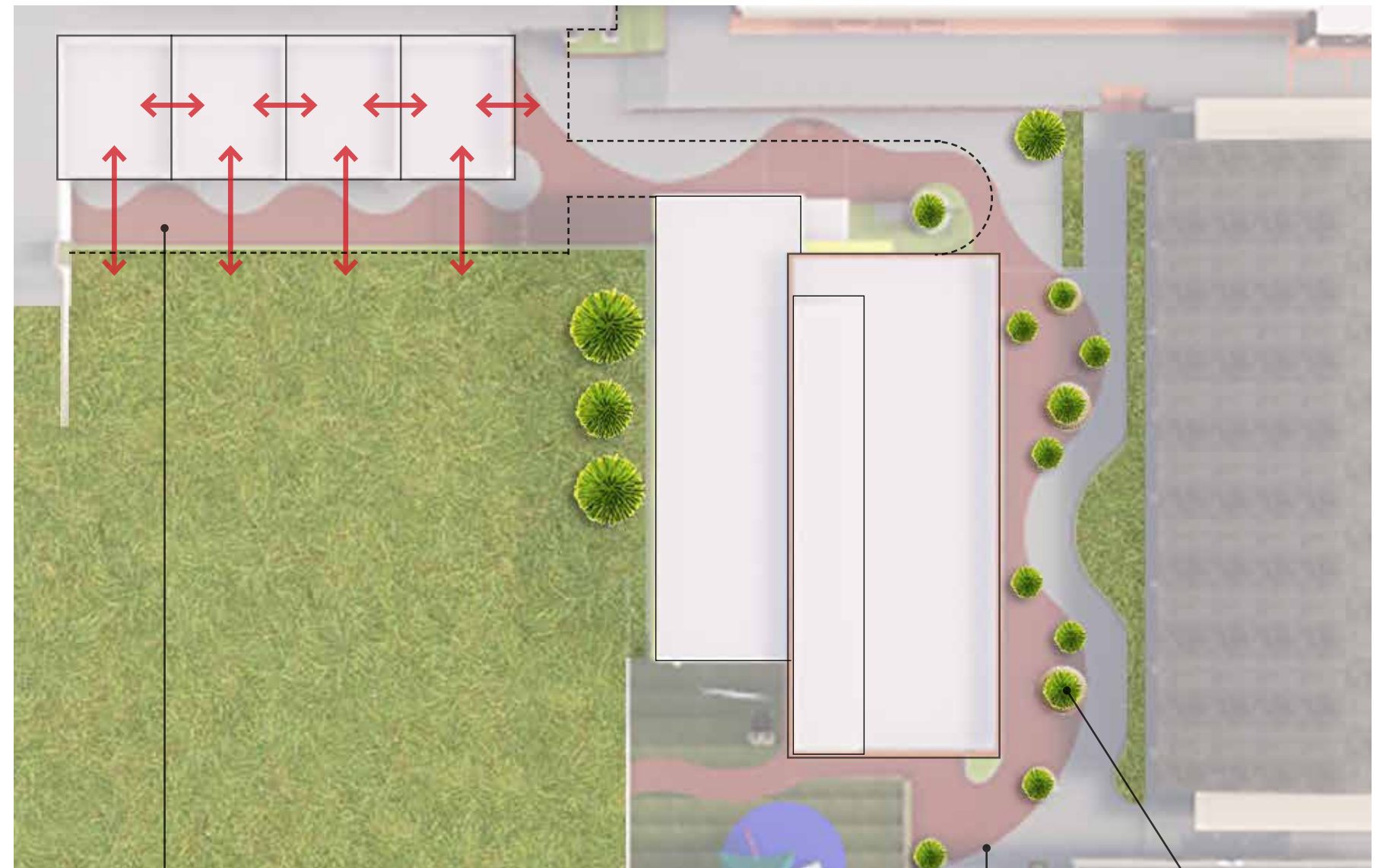
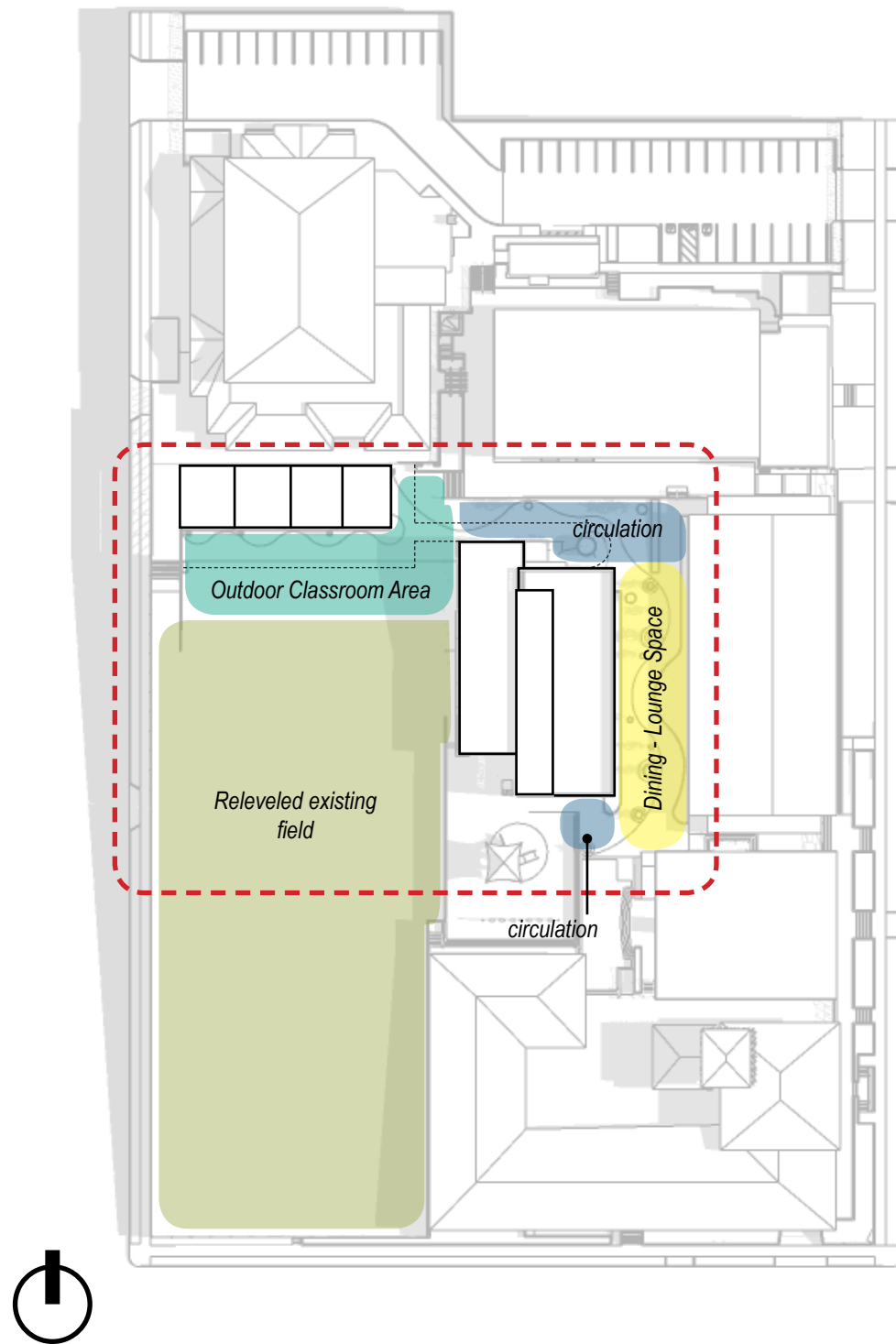
PHYSICAL ENVIRONMENT

Initially, the school’s educational vision was to simply modernize and upgrade the existing library located in the center of the campus. Through visioning and programming exercises, it was determined that the school’s needs were far greater and could not be met by modernizing the existing library only. The need for a new academic center that would serve the role of library, but would also allow for a different kind of learning destination was evident. The goal is to reimagine the library as open, transparent spaces that invite student communication and collaboration, and to provide additional spaces which serve as collaborative learning labs.



The current solution merges into the school and neighborhood without causing an exaggerated contrast among nearby elements.

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LANDSCAPE IMPROVEMENTS

The landscape and hardscape surrounding the Innovation Center have been reconfigured to accommodate both Elementary School students and Middle School students. The existing campus has multiple levels, creating separations throughout the campus. Releveling the pavement, the design allows for pockets of landscaping, while connecting both the South side and the North side of the campus on one level.

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EDUCATIONAL ENVIRONMENT

Moreover, with the digitization of content and information available on the internet and no longer confined to printed materials accessible only in a single, physical location, our approach was to emphasize the fact that current technologies and media provide additional opportunities. Thus, the program and vision, while it still including a traditional library space with physical printed materials, placed an added emphasis on inclusion of spaces that encourages participatory learning and collaboration.

The new academic center for Mayfield has been given a temporary name of “Innovation Center” in lieu of “Library”. With that in mind, Mayfield’s faculty is currently undergoing an overall review of their curriculum and how they can utilize flexible and collaborative spaces. Much of this was developed through multiple visioning sessions with both staff and students and will continue to be an open dialog as the design of the new academic center progresses. The intent is to allow for a multitude of learning and teaching styles with maximum flexibility.

The building was broken down into four basic elements, three on the first floor and one on the second level. A “sheltered” open learning labs space located under the existing basketball courts, a west facing lab wing, and an east facing lab/library wing. The “sheltered” learning labs are protected by a cantilevered deck above providing maximum protected south facing openings. The west facing lab wing has reduced window opening allowing for limited heat gain and minimizing classroom glare.



- 1. LIBRARY
- 2. LOBBY - LOWER SCHOOL
- 3. LOBBY
- 4. STAIRS
- 5. ELEVATOR

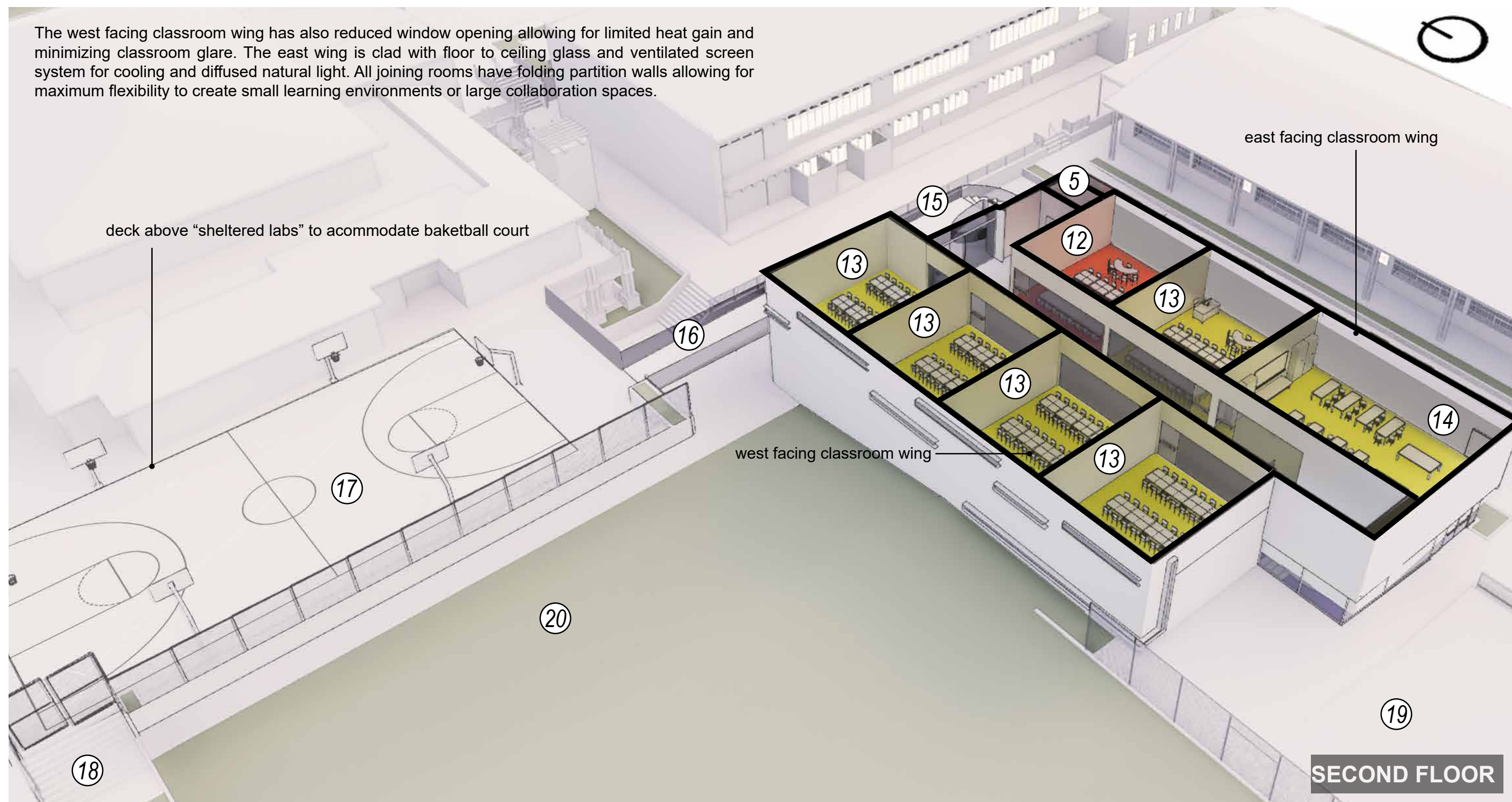
- 6. TUTOR LAB.
- 7. CUSTODIAN
- 8. RESTROOMS
- 9. ROBOTICS LAB.
- 10. CLEAN LAB.

- 11. D LAB.
- 12. ELEMENTARY CLASSROOM
- 13. MIDDLE SCHOOL CLASSROOM
- 14. ART ROOM
- 15. DECK

- 16. BRIDGE
- 17. NEW BASKETBALL COURT & BLEACHERS
- 18. FIELD STAIRS
- 19. PLAYGROUND
- 20. FIELD (OUTDOOR CLASSROOM AREA)

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The west facing classroom wing has also reduced window opening allowing for limited heat gain and minimizing classroom glare. The east wing is clad with floor to ceiling glass and ventilated screen system for cooling and diffused natural light. All joining rooms have folding partition walls allowing for maximum flexibility to create small learning environments or large collaboration spaces.



- 1. LIBRARY
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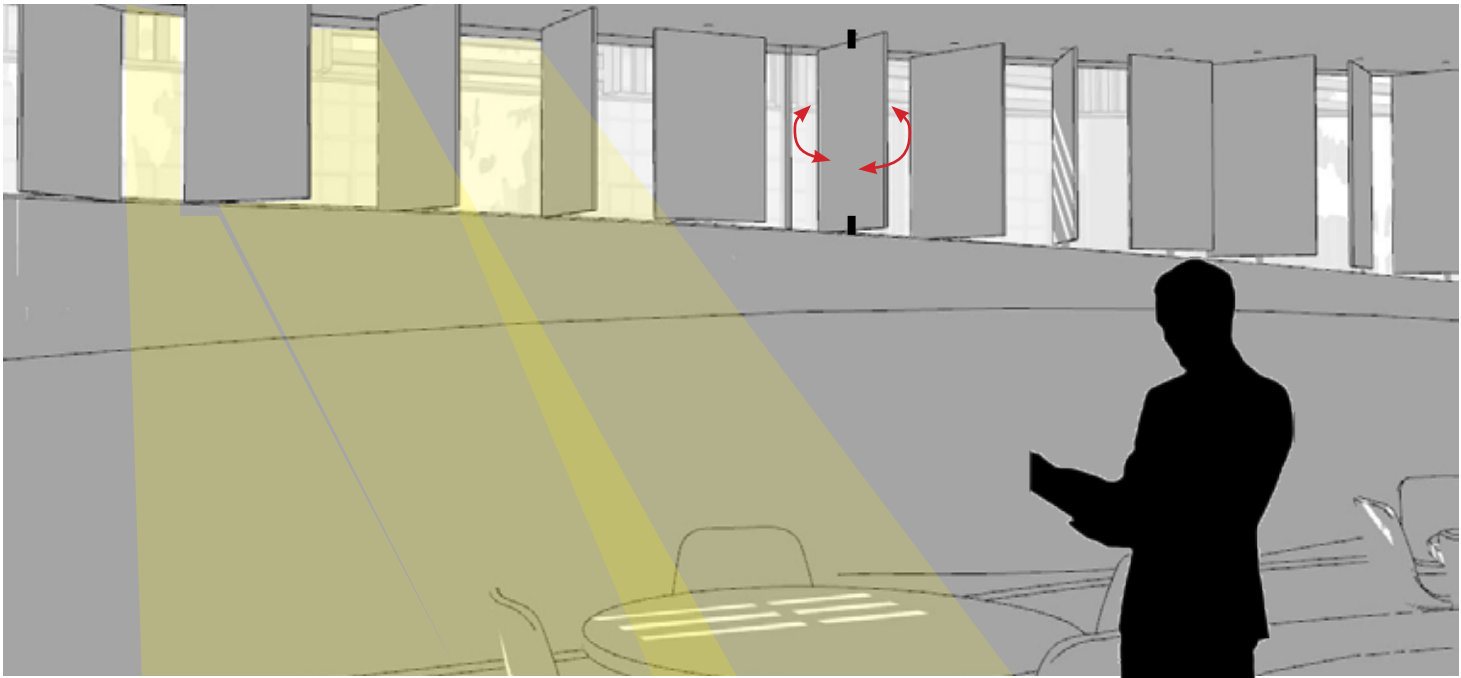
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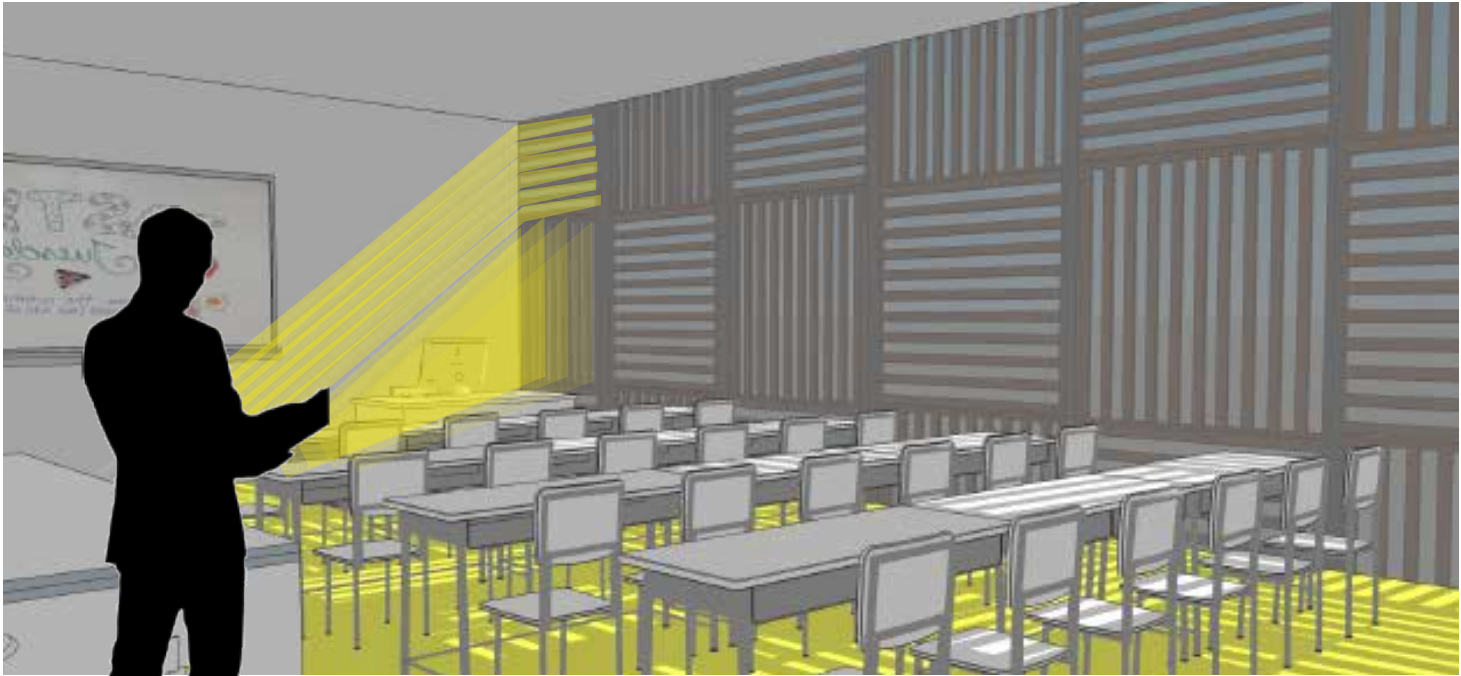
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A SUSTAINABLE INTEGRATED STRATEGY

Pivot window screens allow flexibility of space & connection to campus.



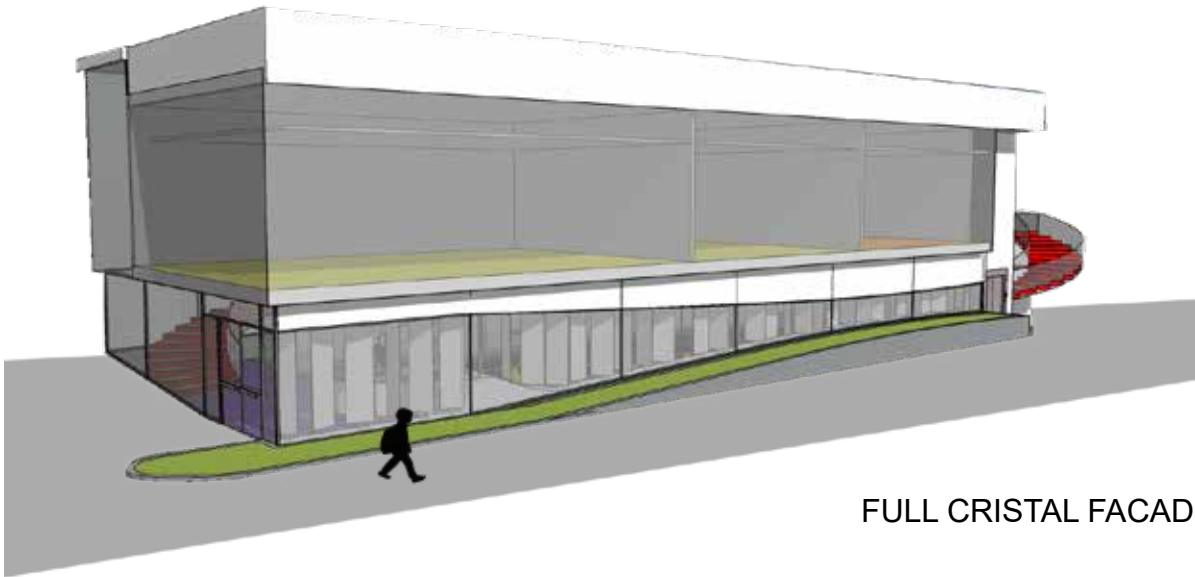
Cristal wall & wooden screens allow each classroom to be filled with natural light.



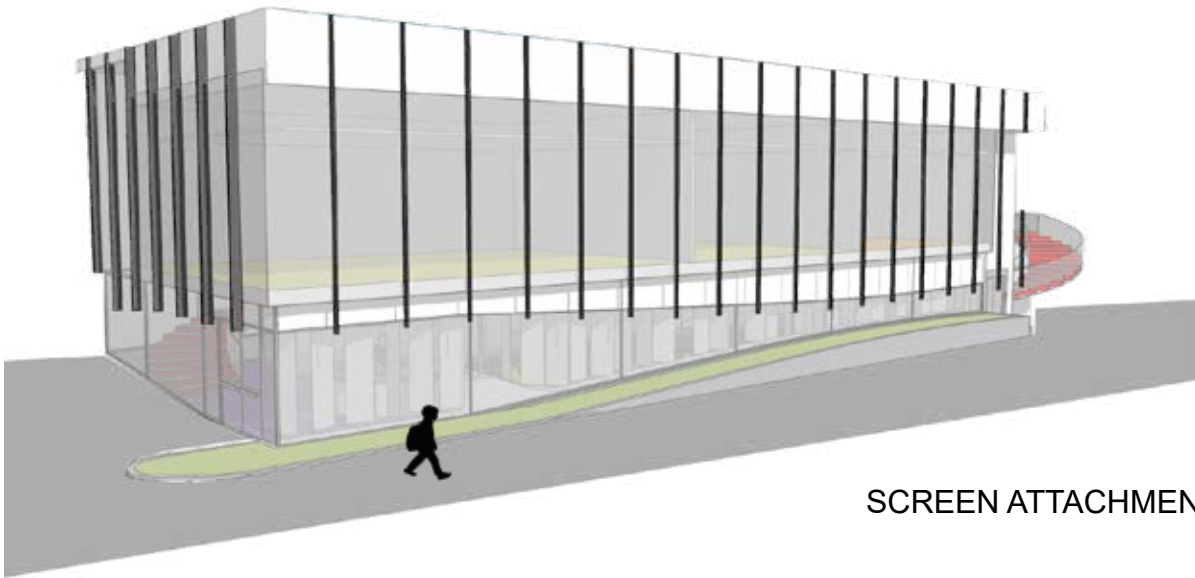
Located in Pasadena, California, the site offers a moderate climate year round. Therefore, the envelope of the building addresses the specific heat gain/loss, and natural light filtration unique to its individual facades.

Mayfield Junior School

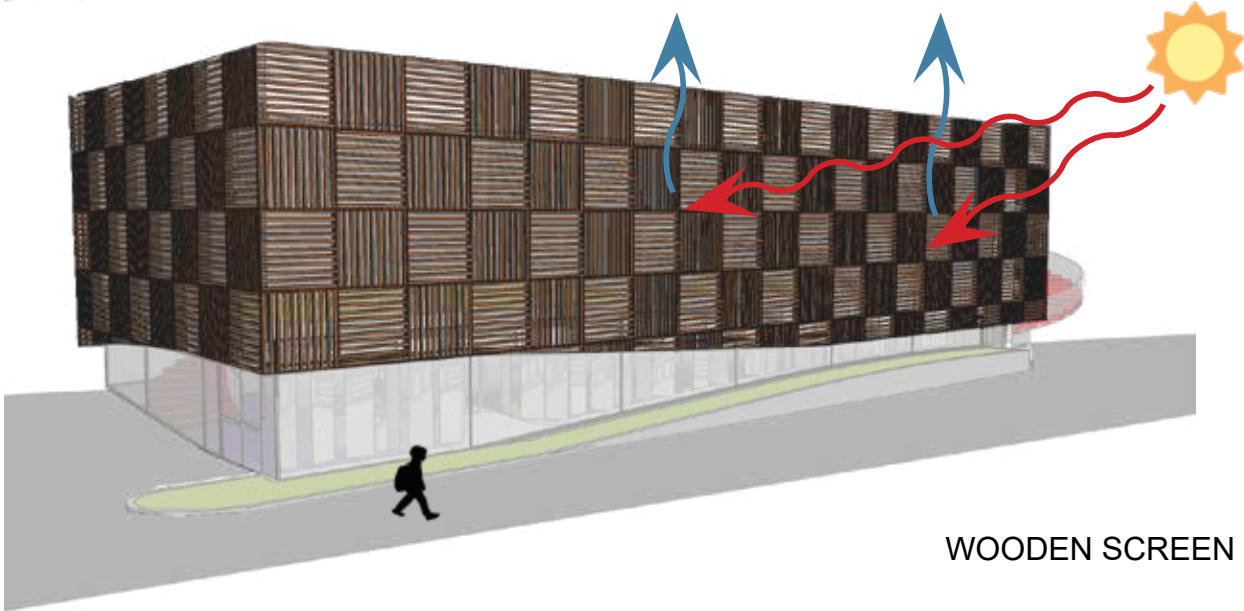
INNOVATION CENTER



FULL CRISTAL FACADE



SCREEN ATTACHMENTS



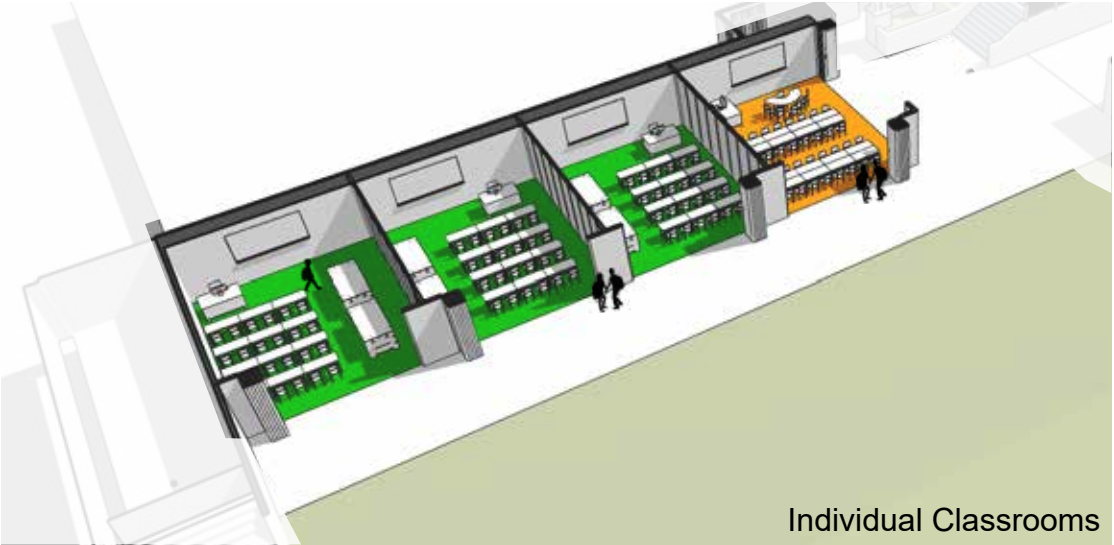
WOODEN SCREEN

FLEXIBILITY OF SPACES

The intent for the “learning labs” are to be adaptable and flexible. To meet the needs of the teachers and students, flexible spaces with mobile furniture and bookshelves are intended. Small rooms can be opened up to allow for group projects. Interior rooms can be opened to the exterior for break out spaces and activities which require more space.

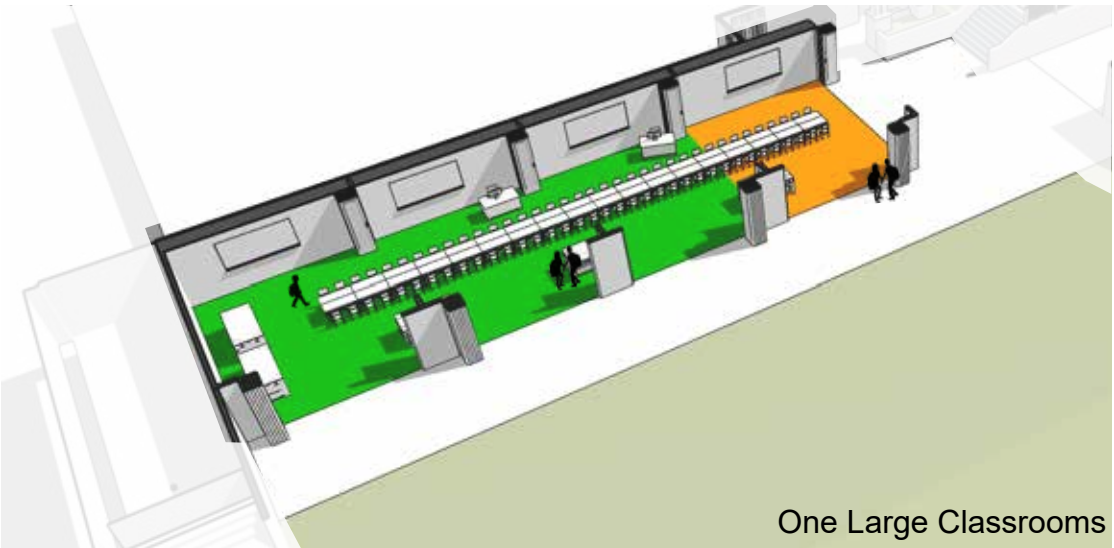


Ⓐ



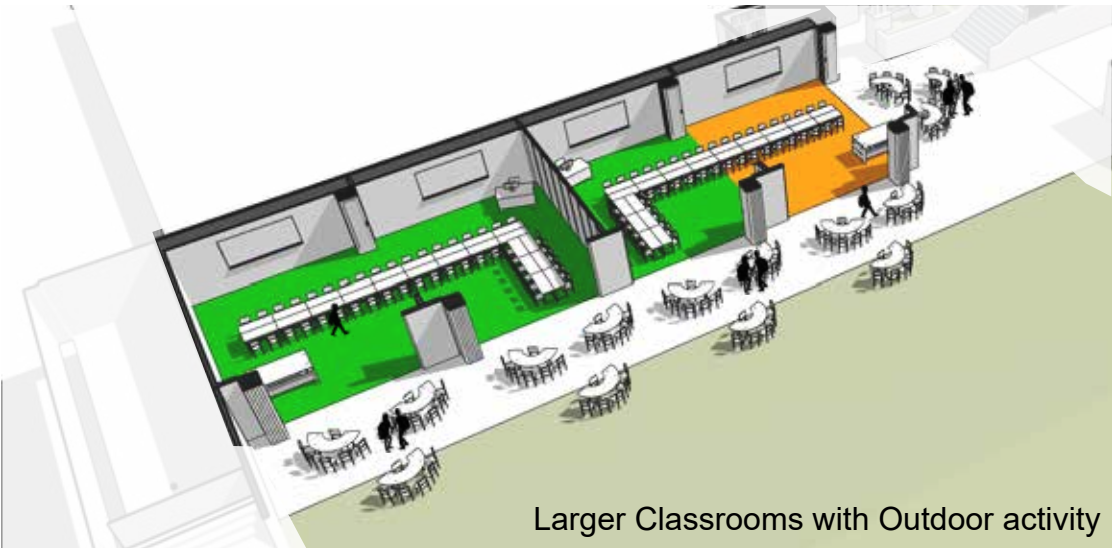
Individual Classrooms

Ⓑ



One Large Classrooms

Ⓒ



Larger Classrooms with Outdoor activity



RESULTS OF THE PROCESS AND PROJECT

The new MJS Innovation Center merges the new and existing campus with an integrated, fun, and high-tech learning environment for students. The building allows a very intricate connection to its immediate outdoor areas, activating spaces that were previously utilized as circulation. The flexibility of use transforms the campus into an open collaborative quad that students enjoy.



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Within the open plan of the Library, one member of staff is needed to oversee the children as they explore the stacks of books. The resulting design placed the circulation desk on an elevated floor by the entrance with maximum visibility, a perfect view to the entire library space.

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As a result, the design increased the number of classrooms, provided additional “break-out” spaces, and developed a major upgrade to the South campus. With the school’s necessity to add learning environments that embrace current teaching trends, the design achieved substantial growth with limited financial resources. The program needed for the new innovation center was achieved within the existing Library foot print, making way to a vision of a lasting academic center that will foster innovation and within the flexible teaching spaces.

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