TARBUT V'TORAH EXPANSION

IRVINE, CA

The new 20,000 sf 2-story STEaM building seeks to create a true home for upper grade students. It expands the school's curriculum, aligning it with today's educational and instructional needs.

Established in 1991, Tarbut V'Torah is an existing K-12 community day school in Irvine, CA. This project further expands amenities on the original school property. Divided into three topographical levels, the school is broken down by grade levels K-5, 6-8, and 9-12. While the primary school buildings have an introverted layout keeping an inward focus; the middle school and high school open up for an outward connection to the larger community, including the local Jewish Community Center which borders the STEAM building site. The upper school houses both middle and high school students, and the existing quad, being on the ground level, naturally became the middle school quad. High schoolers had resorted to using a blacktop as their special social gathering space.

This phase was identified to support the upper school's collaborative, integrated STEAM curriculum on a larger scale – with added specificity resulting from the school's unique needs, including a blackbox, digital media lab, and editing suites to support the school's robust film production program.

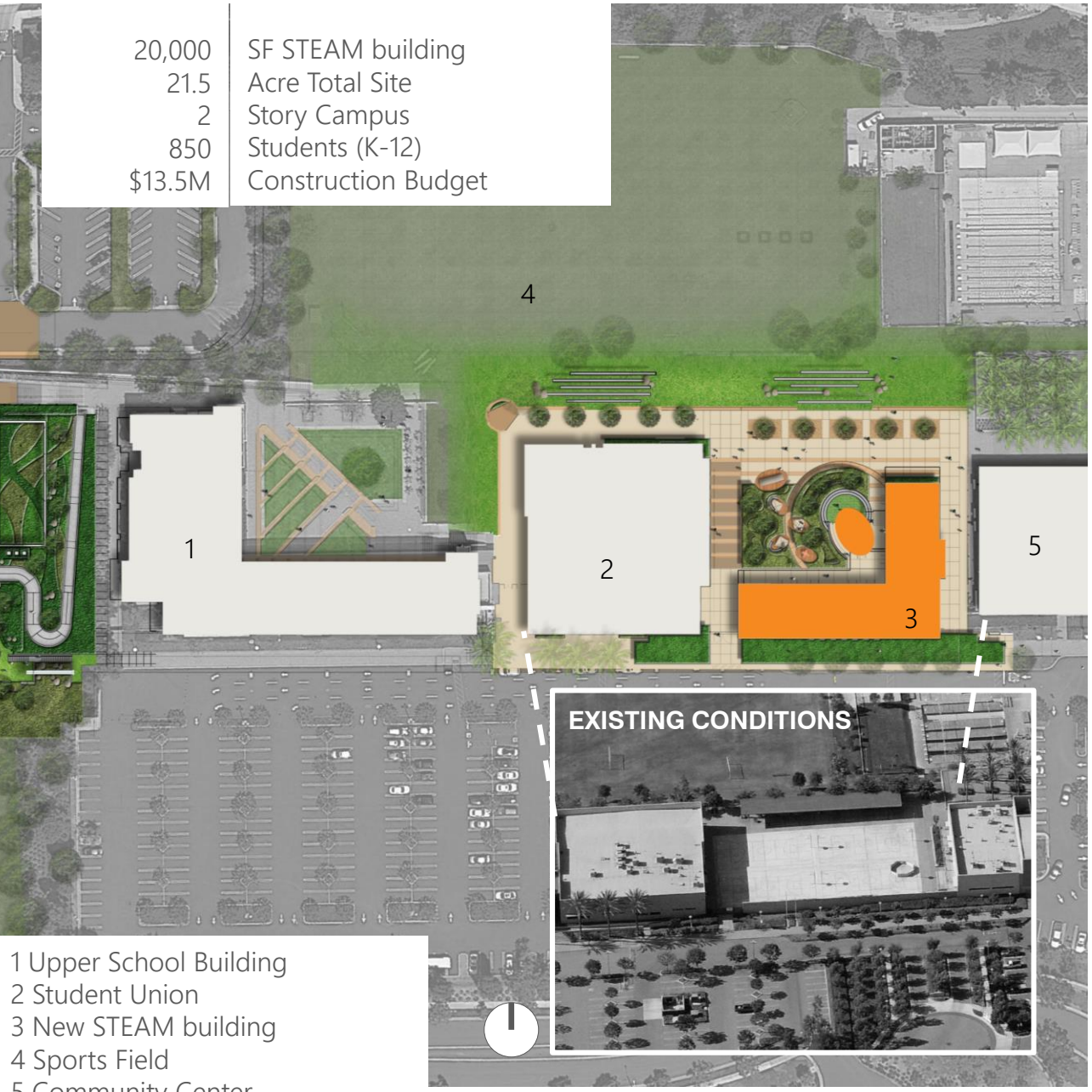
Planning Committee Goals:

- *Students need space to collaborate – team work areas*
- *Space should be ACTIVITY driven, not teacher driven*
- *Students need quiet places to concentrate*
- *Maker space – messy space for projects, emerging fabrication technology, prototyping*
- *Different types of space to congregate and recharge – small, medium and large groups*
- *Social gathering space for the high school – that create a strong sense of pride and identity*
- *More personalization of space in strategic places*
- *A dedicated "Blackbox" Theater space for performances, digital media recording and editing, and "sound stage" functionality*

"These spaces allow a learner who isn't going to thrive in a typical 20th century classroom to do well."
– Jon Cassie, Instructor

SCOPE OF WORK & BUDGET

20,000	SF STEAM building
21.5	Acre Total Site
2	Story Campus
850	Students (K-12)
$13.5M	Construction Budget



1 Upper School Building
2 Student Union
3 New STEAM building
4 Sports Field
5 Community Center

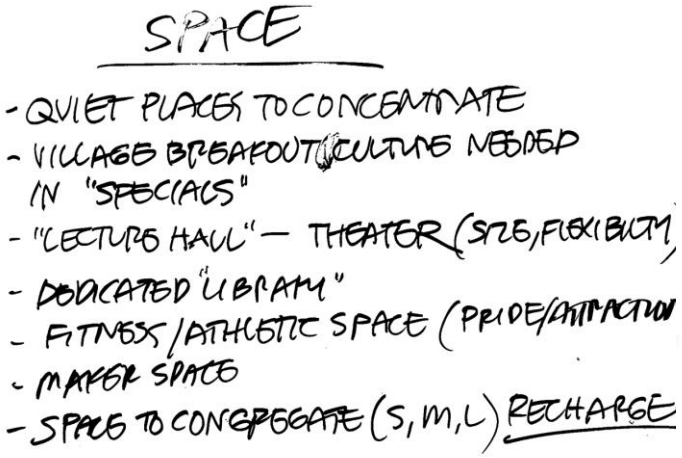
SCHOOL AND COMMUNITY ENGAGEMENT

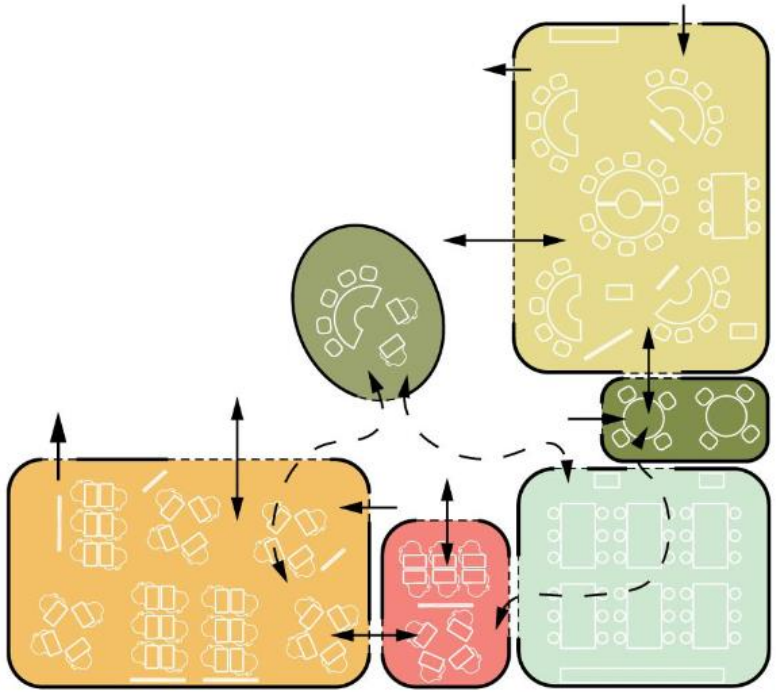
The school community is an inclusive, pluralistic community with students from 115 different feeder schools and 33 different cities/communities within Orange County.

A steering committee that included school leadership from the board, the head of school, upper and lower school principals and many educators began by taking a step back from discussing spatial needs and looking at educational visioning… not just how to supplement what they were already doing, but how to grow their school culture to become even greater than before.

In order to achieve their goal of personalized learning, teachers realized that their space should be activity driven, rather than teacher-driven.

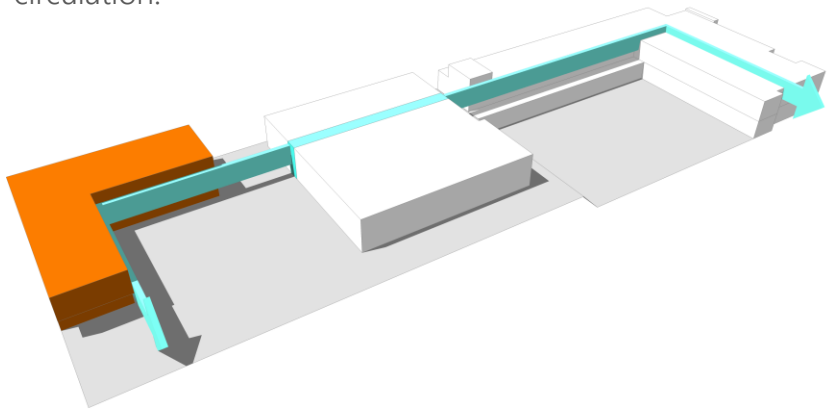
To augment their existing facilities – the steering committee identified unique program needs and areas that they felt their facilities could be improved: **high school social gathering space**, collaboration spaces for staff and students, and **dedicated specialized labs** to support their robust film program.



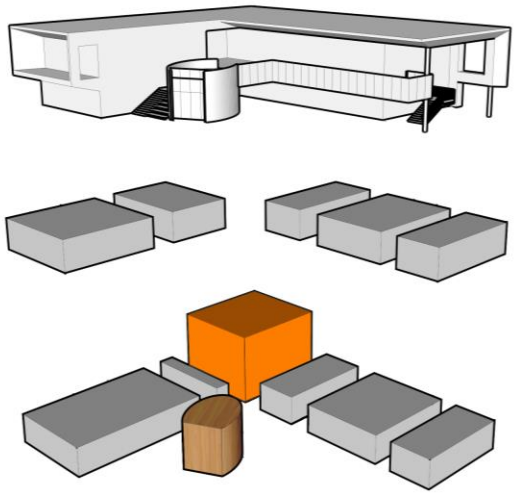


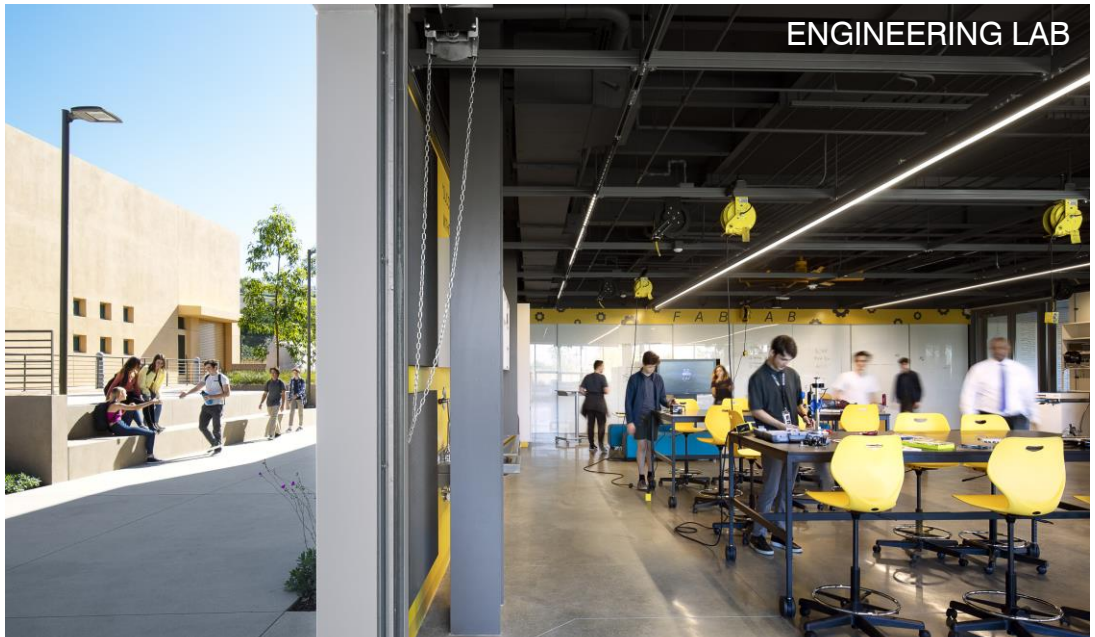
LEARNING SUITES WITH MULTIPLE MODALITIES

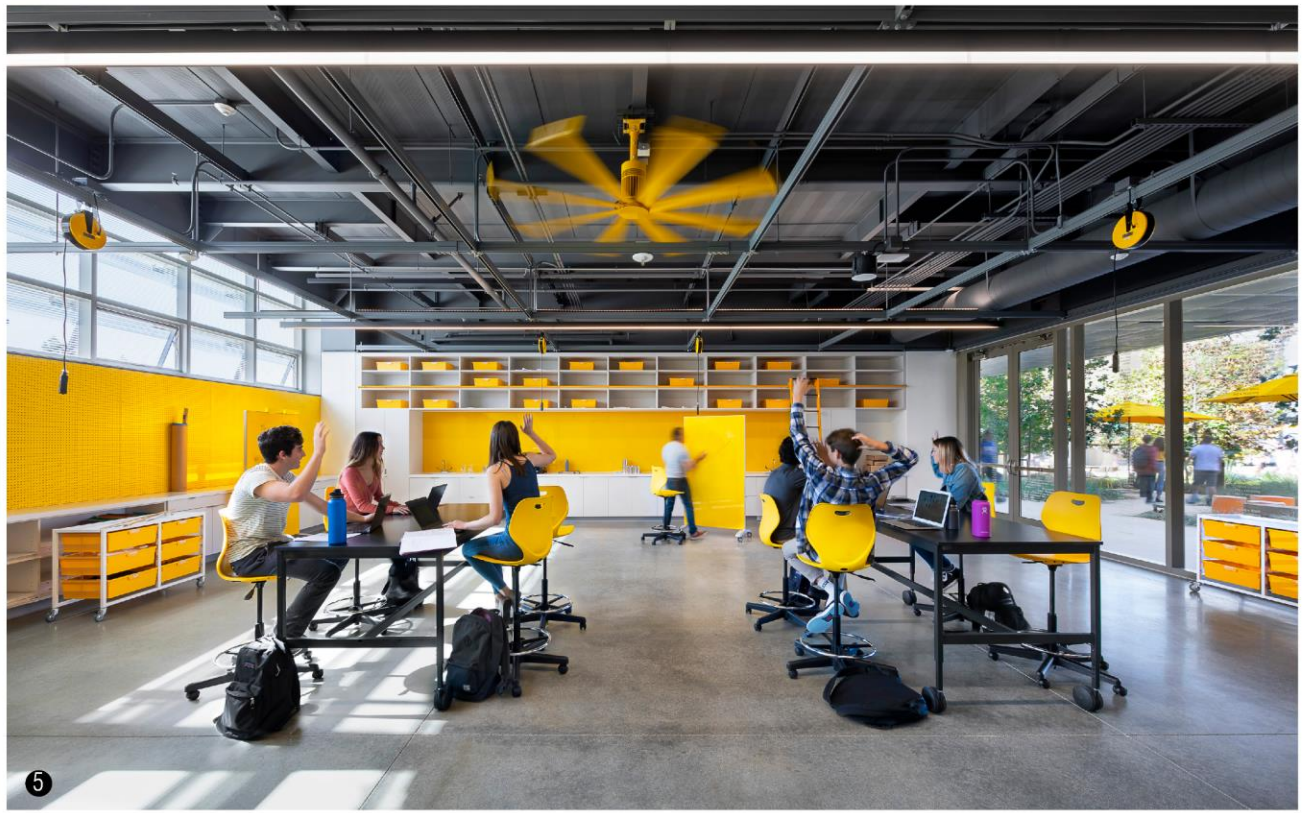
The labs create wings of the building that form an extension of the existing upper school academic spine and circulation.



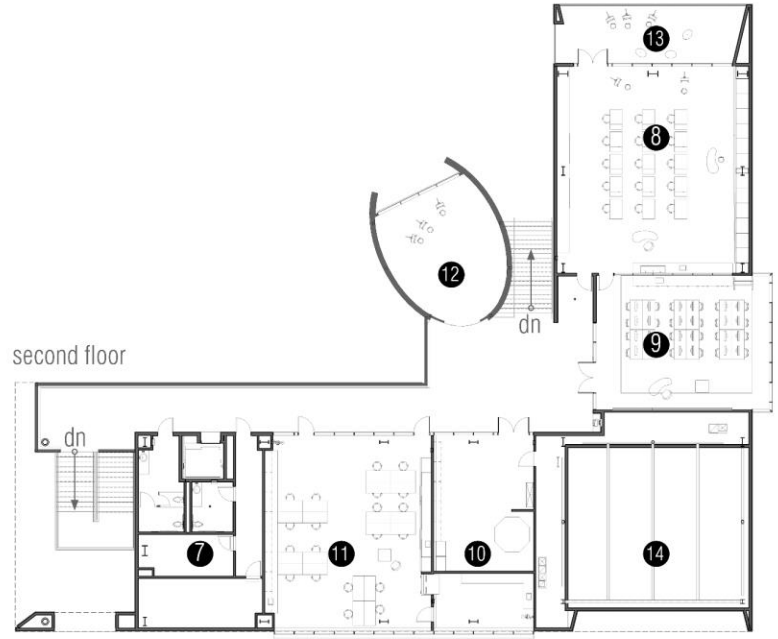
The “huddle” at the nexus of the wings allows for group collaboration and brainstorming, while activating the courtyard for larger group gatherings.

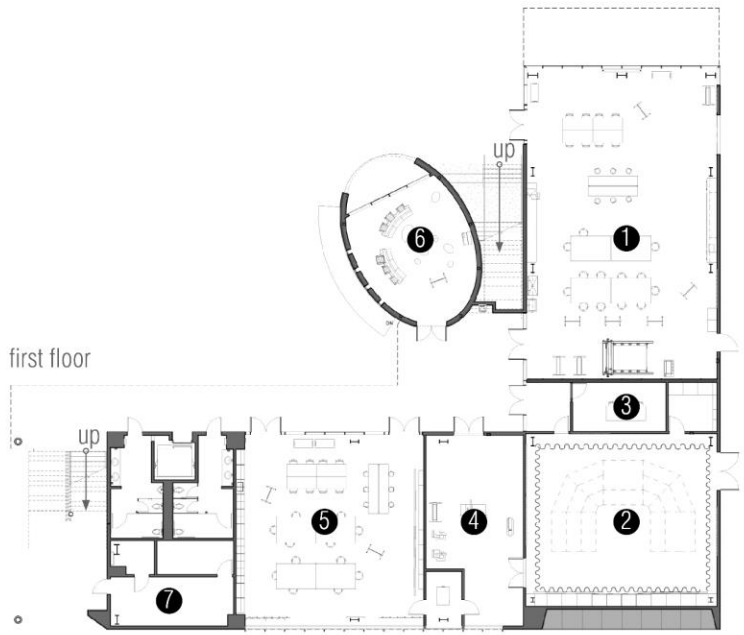






1. engineering lab
2. sound stage
3. recording
4. scene shop
5. maker lab
6. huddle
7. building support
8. 2D art studio
9. digital media lab
10. 3D art studio
11. physics lab
12. view deck
13. art gallery
14. mechanical well





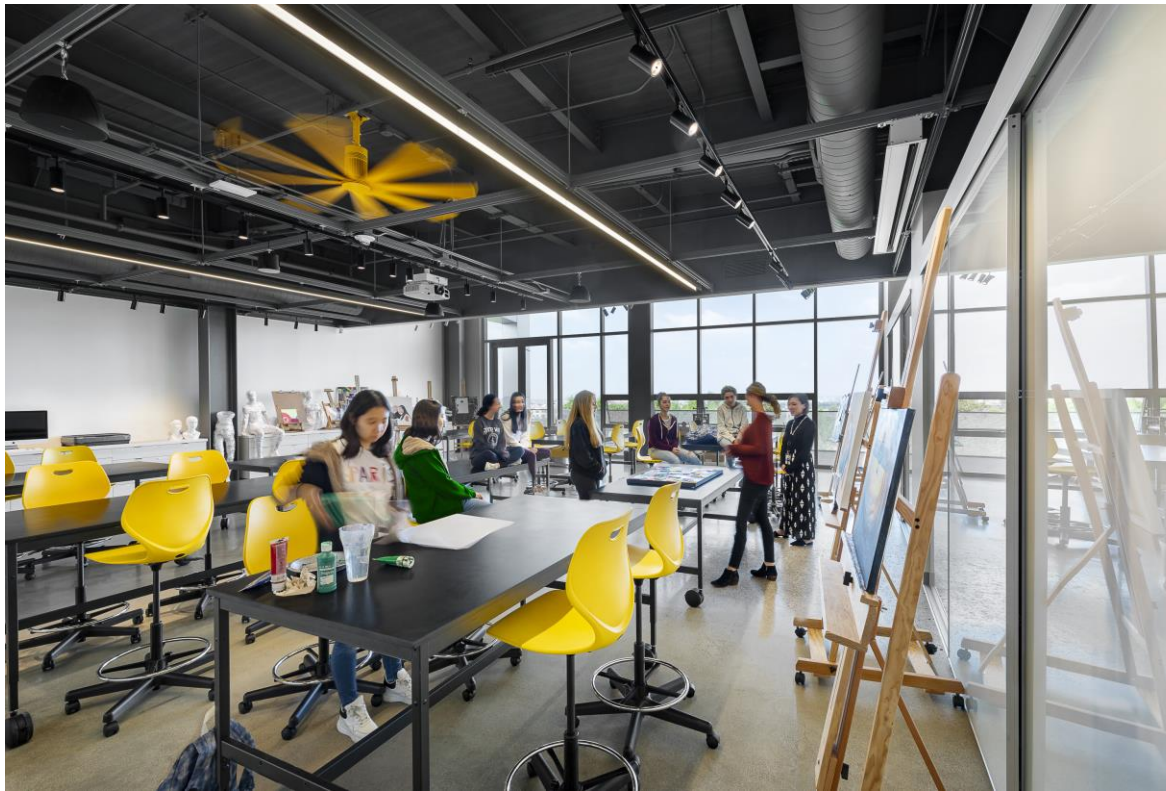
16'

EDUCATIONAL ENVIRONMENT

Specialized Labs are designed to support the current and future programs of the school. Surrounding a double-height blackbox recording space are engineering, science, film, and arts labs. These spaces are durable and flexible, with utilities around the perimeter and throughout the ceiling space, while furniture is mobile and able to be rearranged as projects or programs change. Every lab has operable windows and natural windows that students can operate.

ENGINEERING LAB

The “huddle” allows for group collaboration and brainstorming in an environment more conducive to conversation, while the roof of it creates a highly-desired social space: a rooftop deck, taking advantage of the amazing natural views of the city.



The 2D art studio is designed to function as both studio and gallery, also taking advantage of a rooftop deck for painting as well as gallery showings.

The architecture and landscape design created social gathering spaces that appeal to high-school students; small groups gravitate toward built in and mobile seating under shade and trees while an amphitheater accommodates larger group gathering as well as academic discussions or performances.

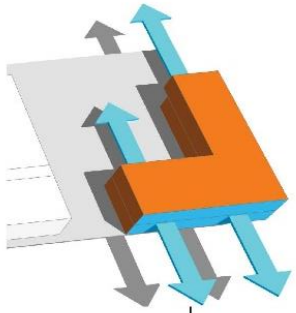
INTEGRATION STRATEGIES

PERMEABLE QUAD

Water run-off is collected in the center of quad and percolated through bio-retention ponds, which double as learning opportunities.

EFFICIENT BUILDING

A narrow building footprint maximizes use of site and takes advantage of sun, wind, and views.



NATURAL VENTILATION

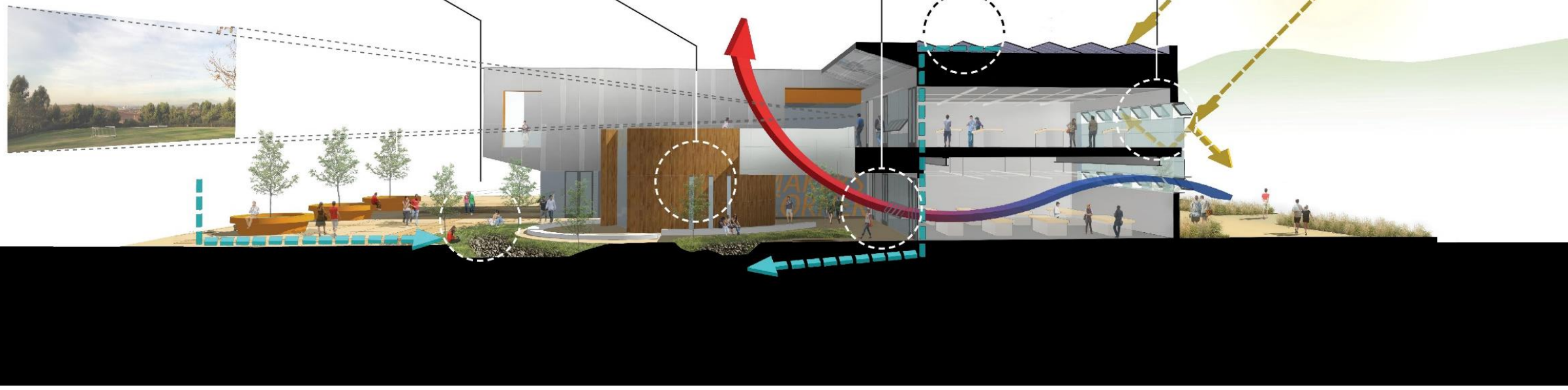
Operable windows open to receive prevailing breezes on south and promote air circulation in classroom spaces.

RENEWABLE ENERGY

Consolidated mechanical system on roof well allows to maximize photovoltaic array for onsite renewable energy.

IMFORMED SUN CONTROL

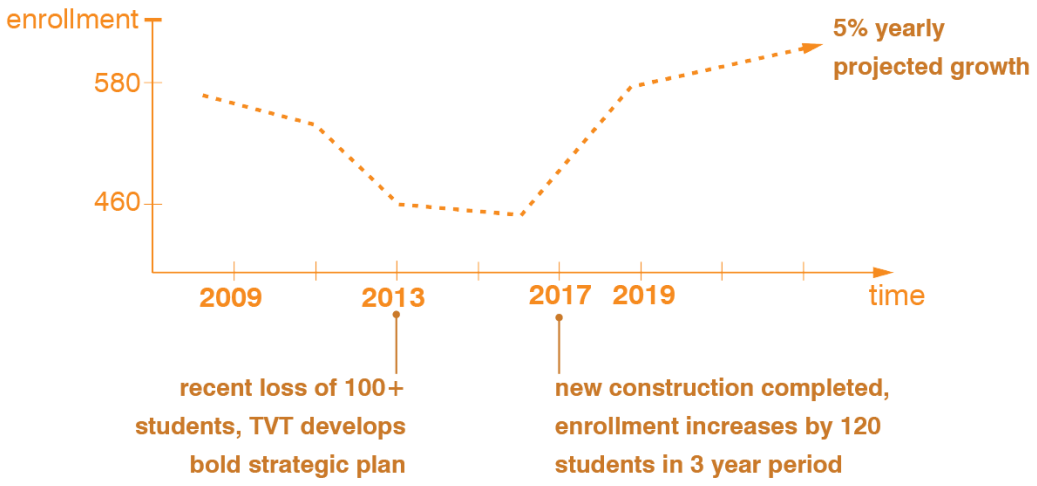
Passive solar protection via integrated frosted glass sunshades, optimized to reduce heat gain on south facade.



Since the buildings' opening in 2017, the school has flourished with 120 students gained.

An enrollment increase of over 5% is expected for the 2019-20 school year.
After its most recent accreditation visit, TVT's efforts to achieve academic excellence were validated by receiving the maximum accreditation length of seven years.

The new programs have sparked connections with the engineering programs at the University of California, Irvine and Chapman University as they have assisted in developing a highly sophisticated engineering program for the high school.



The new STEaM building has expanded the upper school curriculum capabilities with specialized labs, and improved the upper school student's experience though the creation of social gathering and collaboration spaces.


TRUTH
RESPECT
KINDNESS
REPAIR
THE WORLD
JUSTICE
COMMUNITY
VALUES