

STEAM Building Progress

April 12- September 11, 2019

Projects progressing on schedule

- STEAM completion expected August, 2020
- Performing Arts Center/New Alan Harvey Theater completion expected Fall, 2021



Demolition April 2019



Clearing debris



Rough grading for STEAM basement



Preparing the pad for foundation work



Basement foundations



Framing of basement retaining wall, delivery of rebar



Installation of rebar in footings



Tops of anchor rods which will tie the building to bedrock



Forms for pouring concrete for basement walls



Concrete pump pouring basement walls

Structural Elements

The STEAM building foundation is unusually stout. The State has required extensive structural steel reinforcement due to

- Proximity to the Hayward Fault
- Geologic conditions of the site



Footings excavated, rebar install



Basement retaining wall- side view



Nearly 400,000 pounds (200 tons) of rebar will be used for STEAM. This does NOT include structural steel beams



Getting ready for a concrete pour



Anchor bolts tie to rods that go 30-40' into the ground



Testing the strength of anchor rods- at 50,000 lb/ sq inch.



Anchor bolts for the south basement wall



Each rod is apx 1.5"-2" thick



Rebar cage set over the anchor bolts



Each tower has 2500 lbs of rebar



Rods, bolts and cages in place

Milestones Reached (All on Schedule):

Dirt pad for the STEAM basement foundation completed

Footings and under-slab utilities completed

- specialized systems for eliminating acid waste, clay traps
- sanitary sewer lines
- conduit for in-slab power and data lines

Gravel and base rock spread across the area for the foundation

Water-proofing material (“vapor barrier”) installed

Concrete slab poured

Next up: Installation of structural steel columns

Hydronic piping for the building’s in-slab heating and cooling system

Topping slab poured

Summer 2019 Projects

Work Performed Directly by PUSD
(not included in Overaa contract)

Joint Utility Trench

For all Underground Utilities for the STEAM
and Performing Arts Center/New AHT



First day of summer break 2019



Second day of summer break 2019



Stairs to the 20s building- viewed from the top of the 10s



Breezeway- viewed from the top of the 10s



Storm and sewer drains installed first



Conduit for electrical, phone / data, fire alarm, irrigation



Holes bored through concrete wall at library



Storm drain- ramp and 40s building driveway



Fire alarm, communication/ fiber, irrigation controls



PUSD Maintenance self- performing work



Breezeway complete- August 5, 2019

Unforeseen Conditions

in underground utilities work



Deteriorated pipes- PUSD replaced



Old gas lines removed



New backflows and fire line installed



Void under the breezeway



Buried under the stairs of the 20s building

Completion of the underground utilities work for both new buildings was critical for the schedule next summer — to demolish the 10s, start the Performing Arts Center/New AHT, and open the STEAM building

Utilities work completed on time for the start of school this year, despite the range of unforeseen conditions

Economical for PUSD staff to perform work rather than contract this out

Temporary asphalt will be replaced with decorative concrete that ties into campus walkways after the PAC/AHT is complete

District expanded self-performed scope to improve the campus for years to come