

NEW ELEMENTARY SCHOOL

At Thomas Jefferson Middle School



Project Parameters

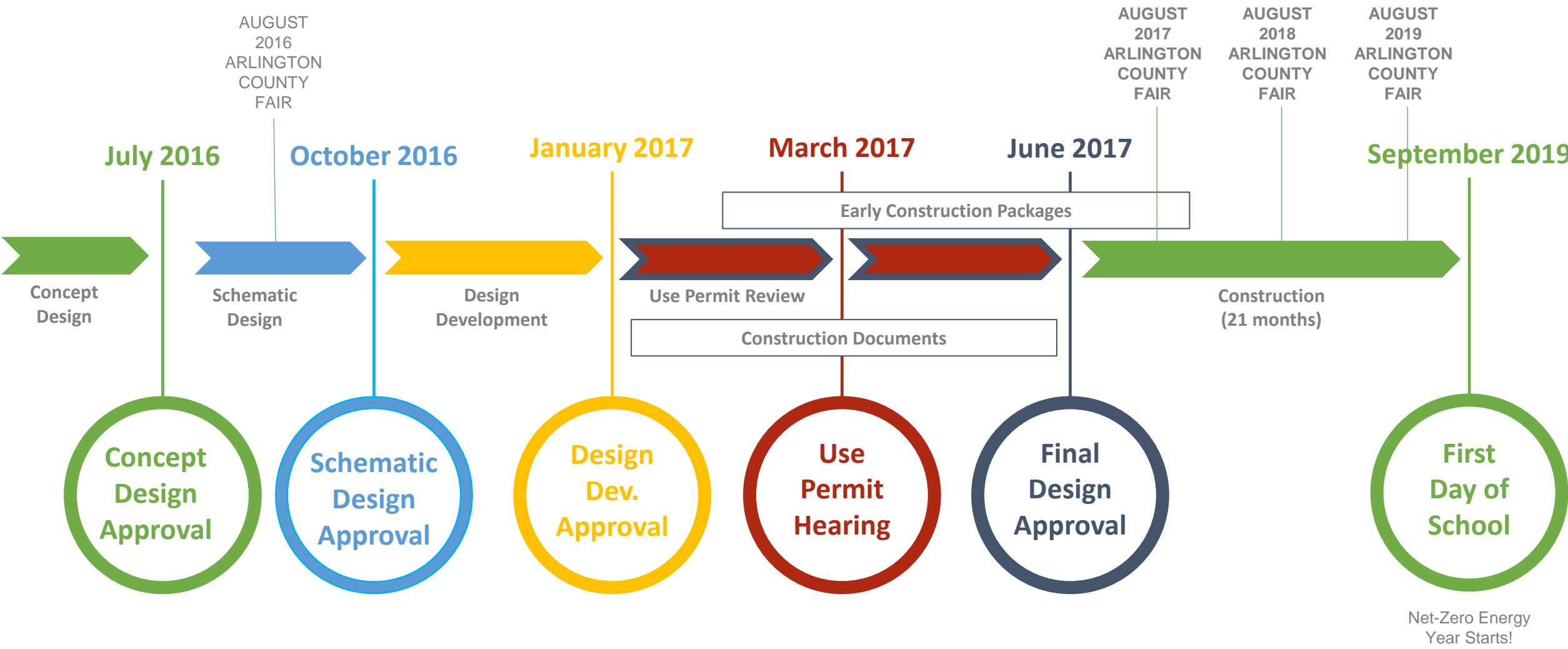
NEW ELEMENTARY SCHOOL At Thomas Jefferson Middle School

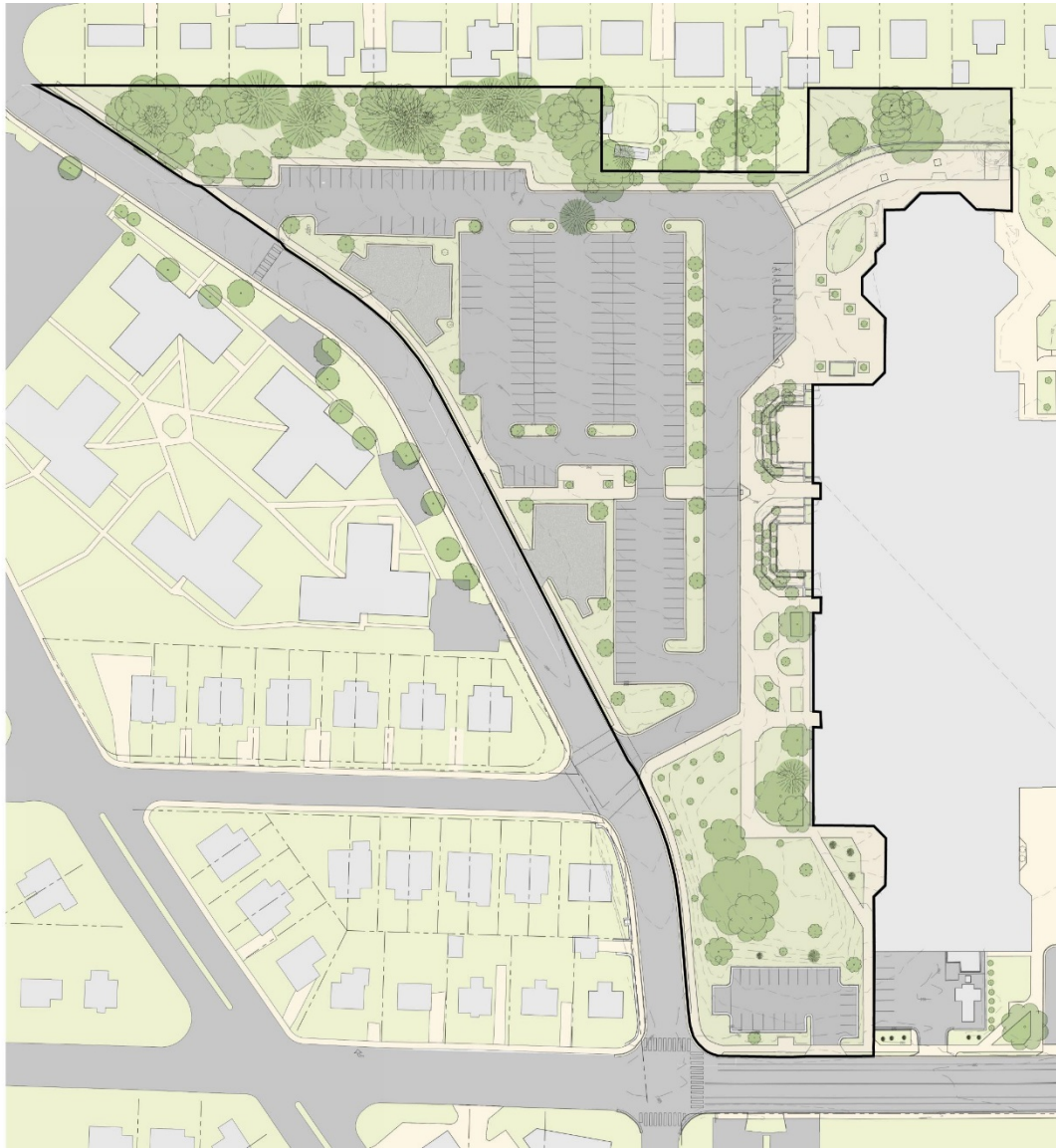
1. New Elementary School for the Henry Community
2. Support Strategic Plan Goal #4 – Provide Optimal Learning Environments
3. Address capacity by providing at least 725 seats
4. Open by start of school 2019
5. Multi-story building in northwest corner of site
6. Structured parking
7. Project cost \$59 million

Project Chronology | Timeline

| | |
|-------------------------|---|
| October 2012 | FY 2013-2022 CIP identifies Kenmore site as the location of a new elementary school |
| June 2014 | FY 2015-2024 CIP identifies Jefferson site as preferred location for a new elementary school |
| September 2014 | County Board appointed TJWG begins |
| January 2015 | TJWG issues Final Report and County Board decides “not now” to a new elementary at the Jefferson site |
| June 2015 | School Board appointed SAWG begins |
| November 2015 | SAWG issues Final Report including a preference to build a new elementary school for Henry at Jefferson |
| December 2015 | School and County Board approves Jefferson as the site for a new elementary school |
| March 2016 | School Board approves first three preferences of the SAWG |
| April to September 2016 | BLPC & PFRC input during Concept and Schematic Design phases |
| November 2016 | Use Permit submission |
| April 2017 | Use Permit hearing |
| July 2017 | Estimated start of construction |
| September 2019 | School Opening |

General Schedule | Timeline



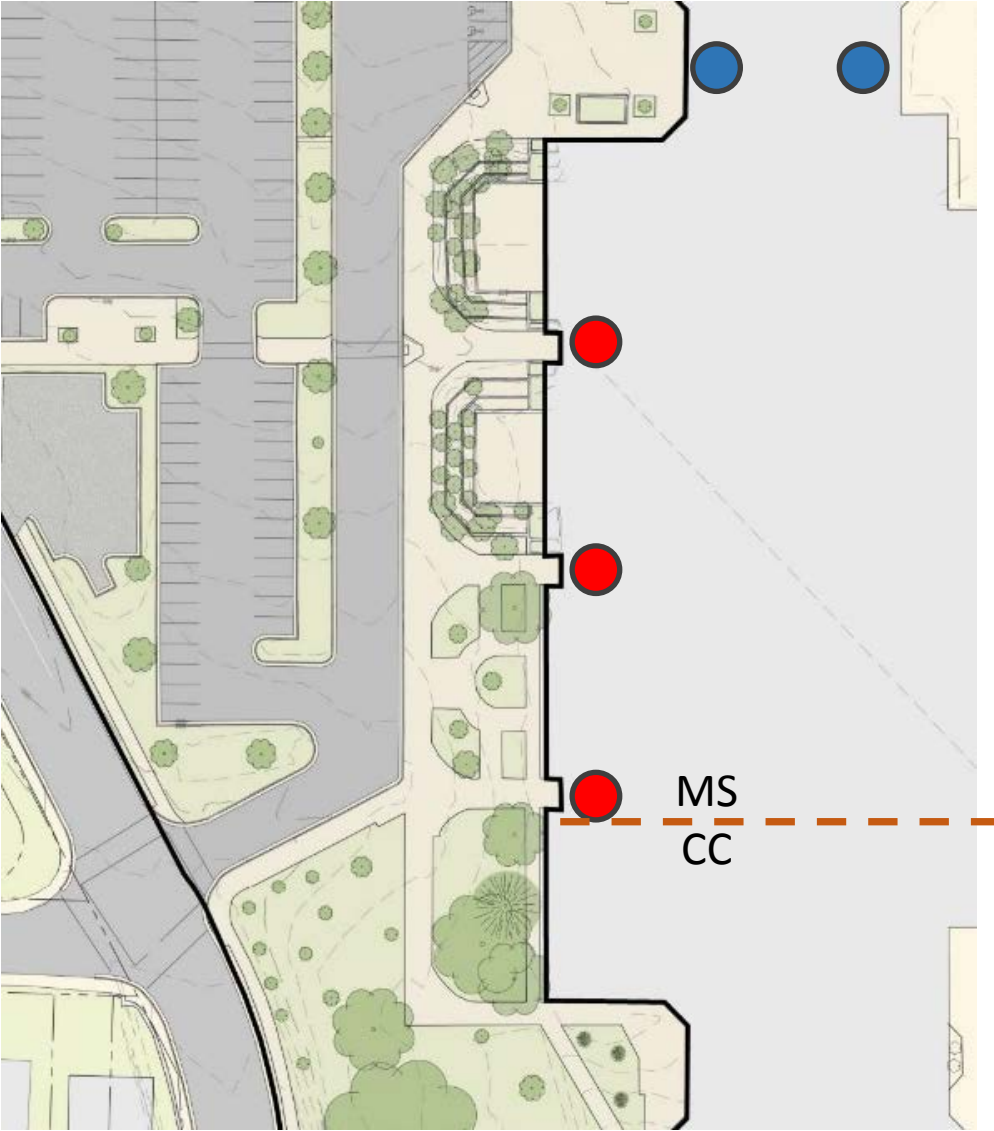


Overall existing site plan

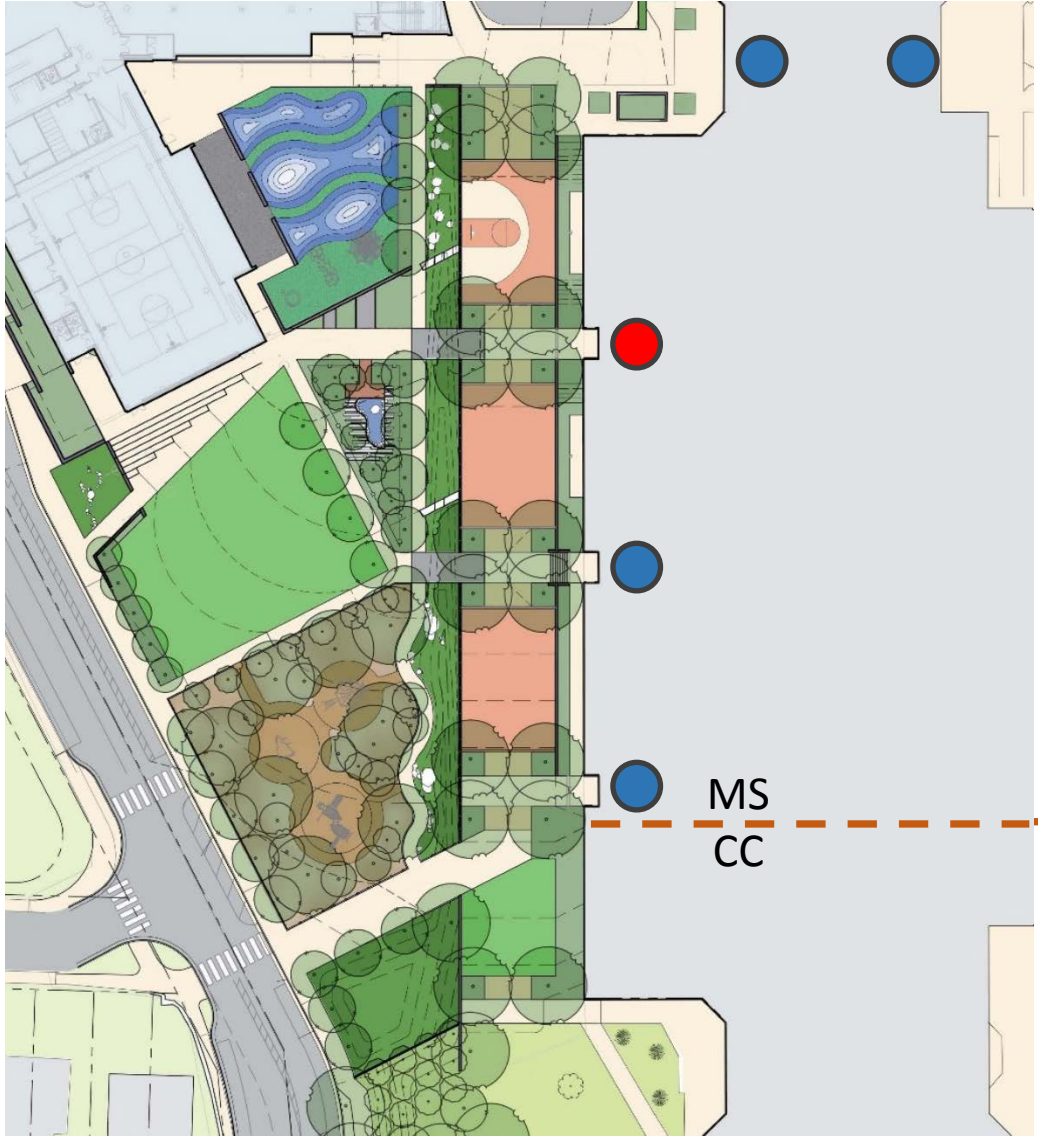


Overall proposed site plan

Existing condition



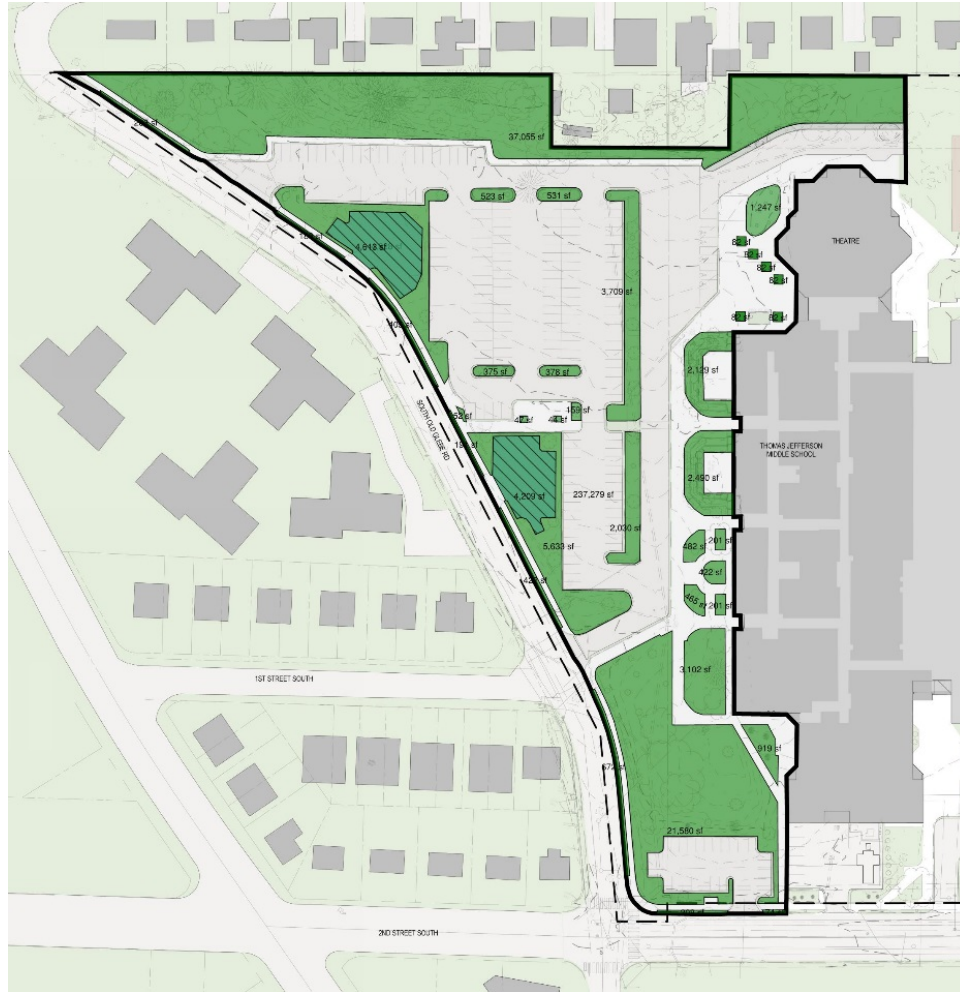
Final Design



Middle school entries

● = non-accessible entrance ● = accessible entrance

Existing Condition



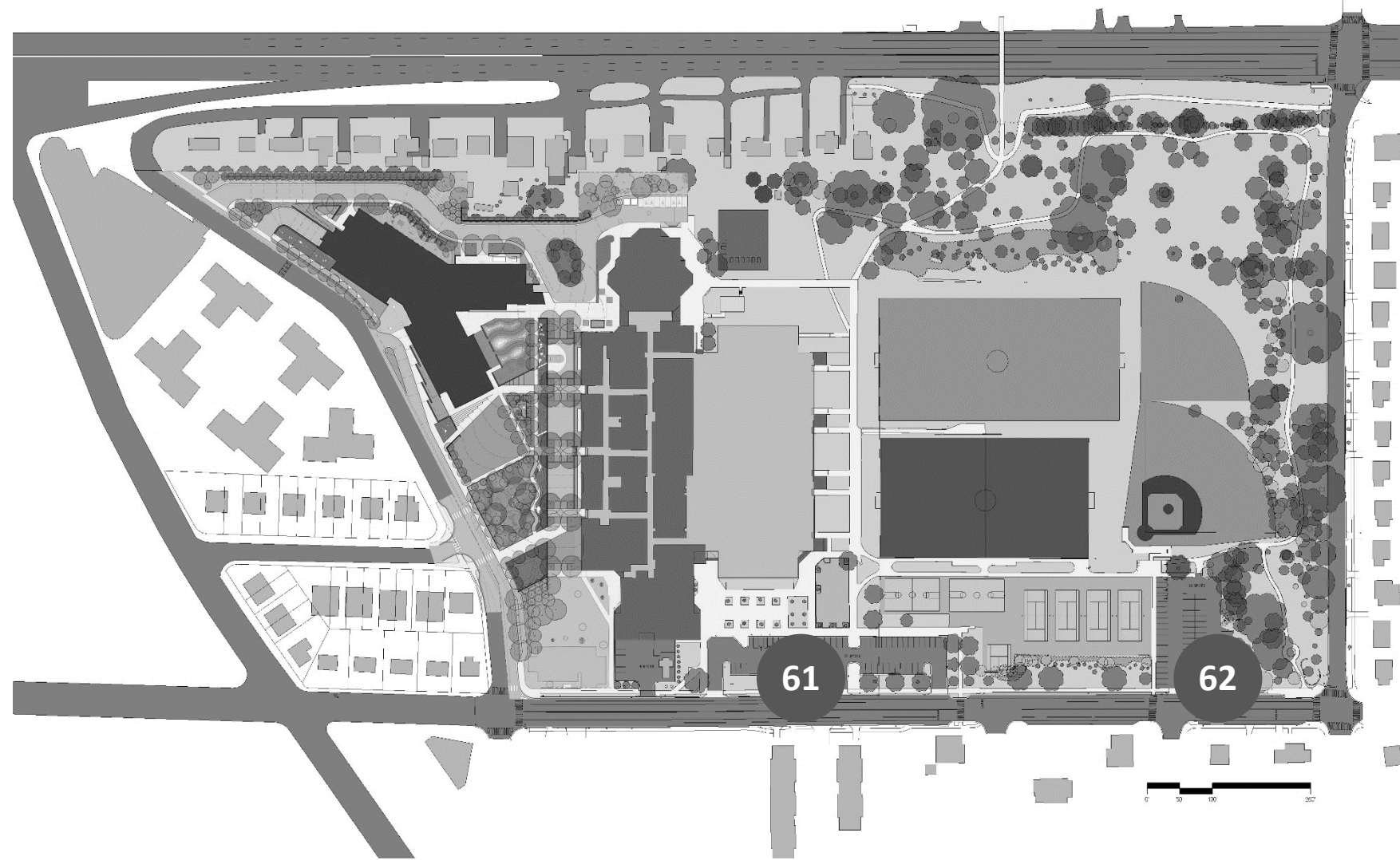
38.6% pervious
3.7% semi
57.7% impervious

Proposed Condition



34.3% pervious
8.8% semi
56.9% impervious

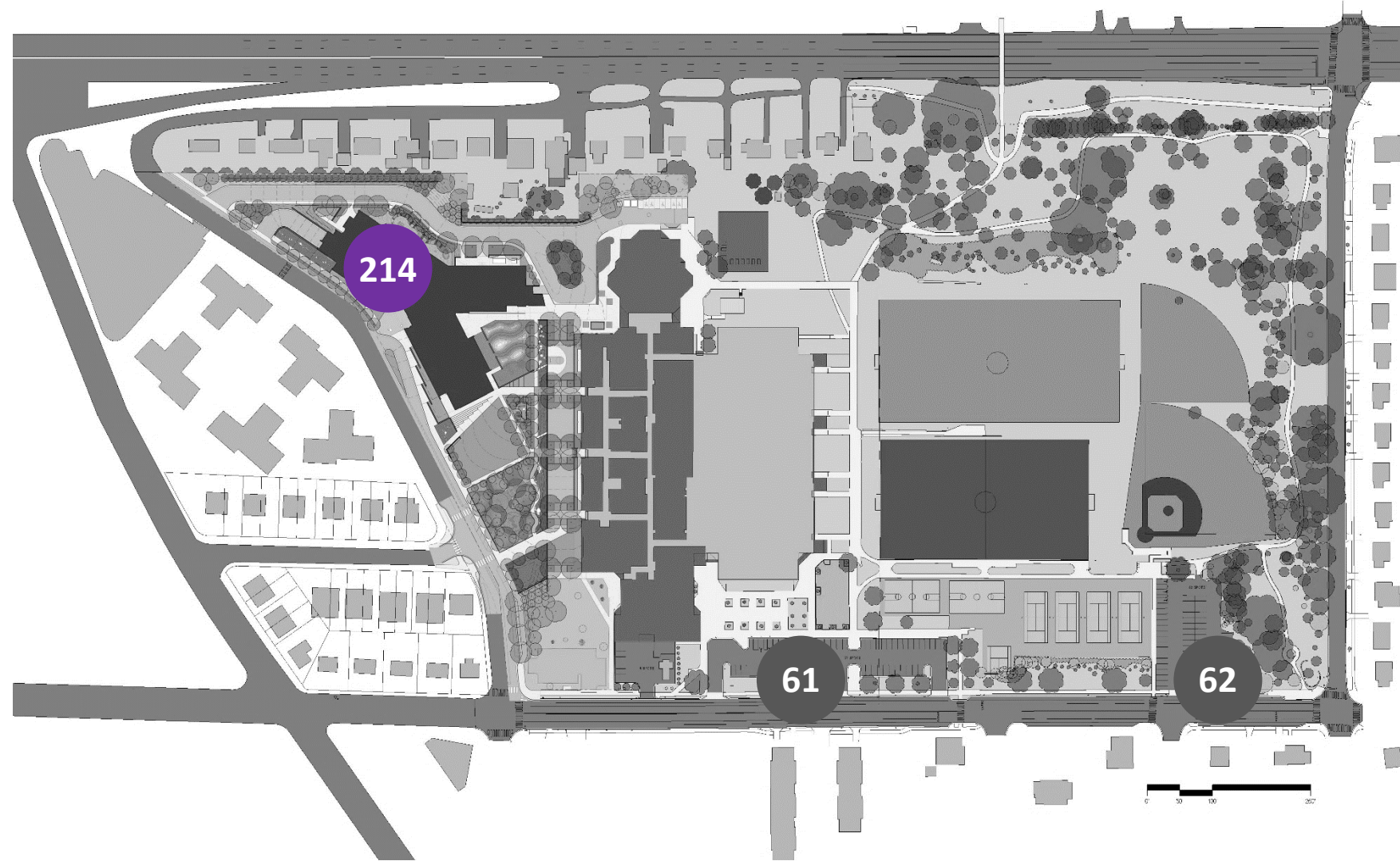
APS Parking Demand:
250 spaces



APS Parking Demand:
250 spaces

APS Proposed Parking
Supply & Occupancy:

214 garage



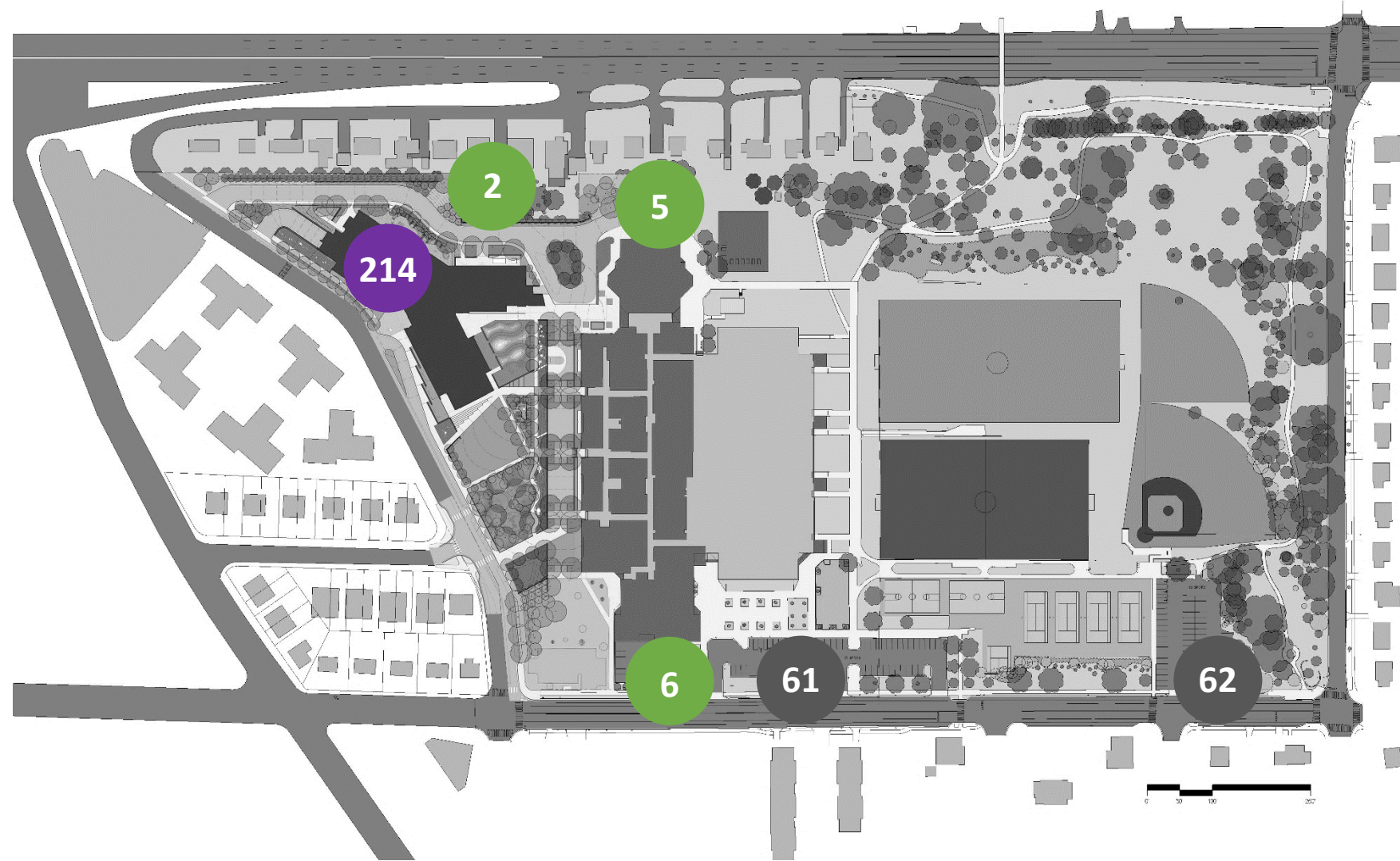
APS Parking Demand:
250 spaces

APS Proposed Parking
Supply & Occupancy:

214 garage

+

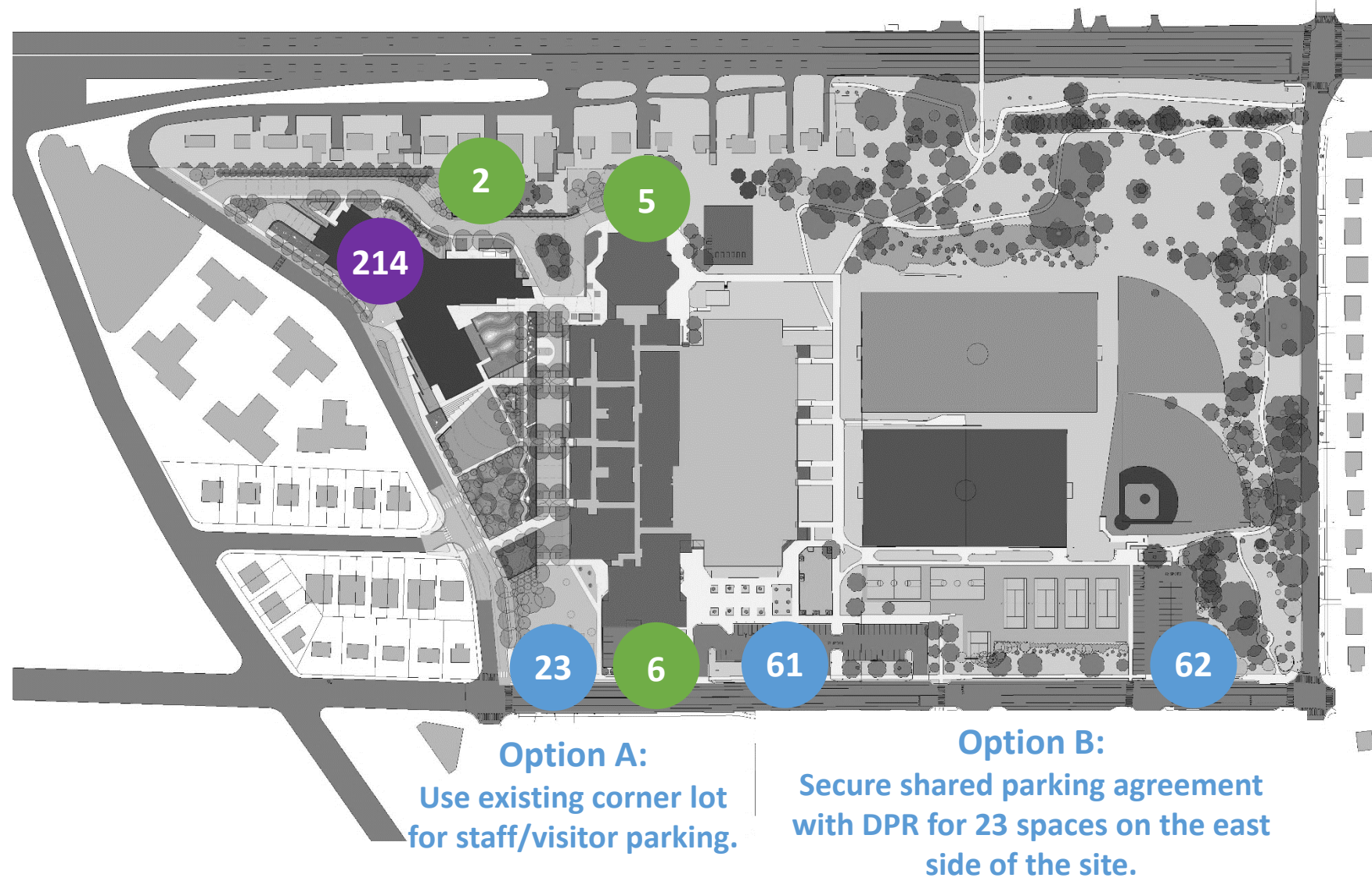
13 surface

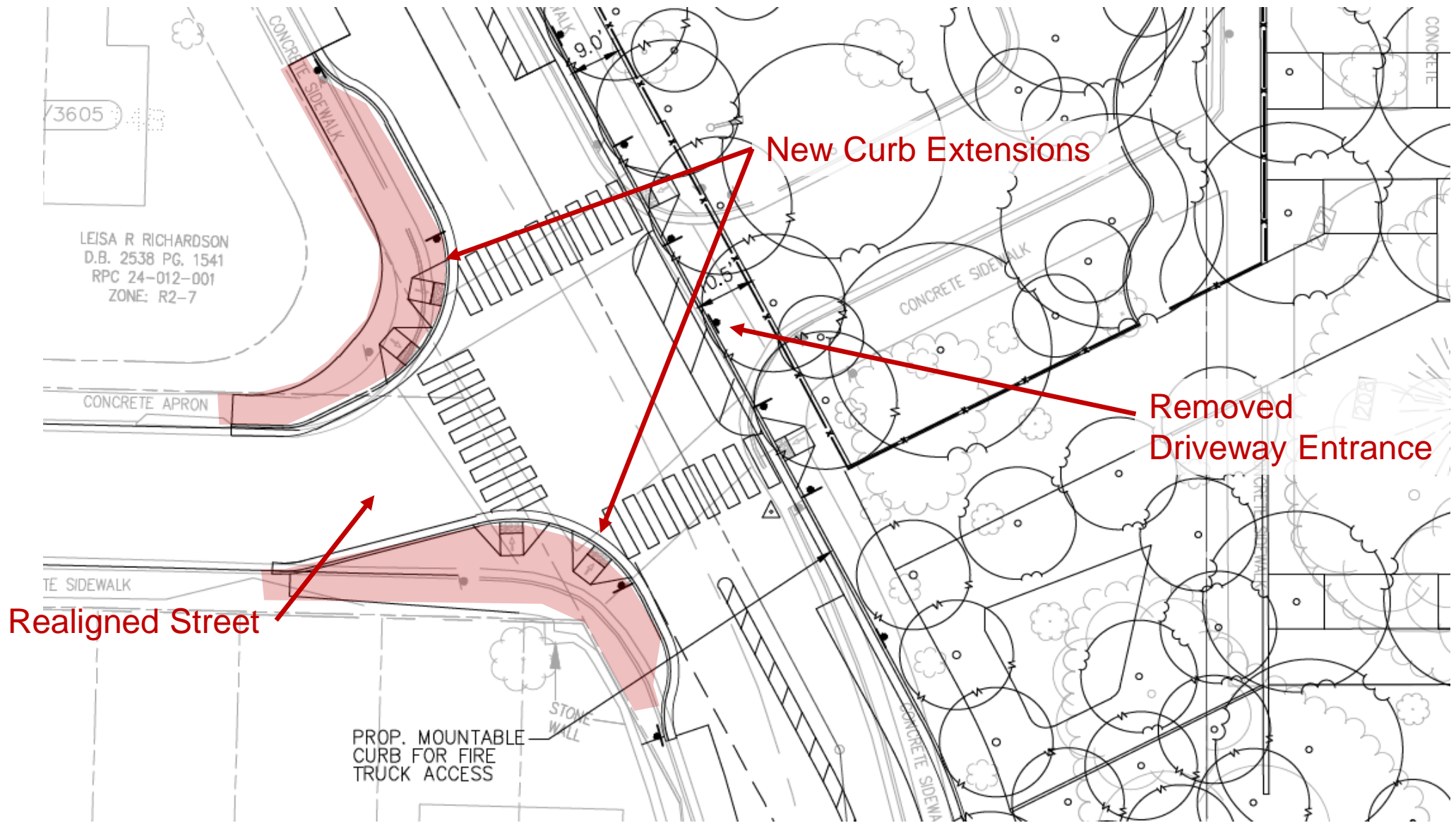


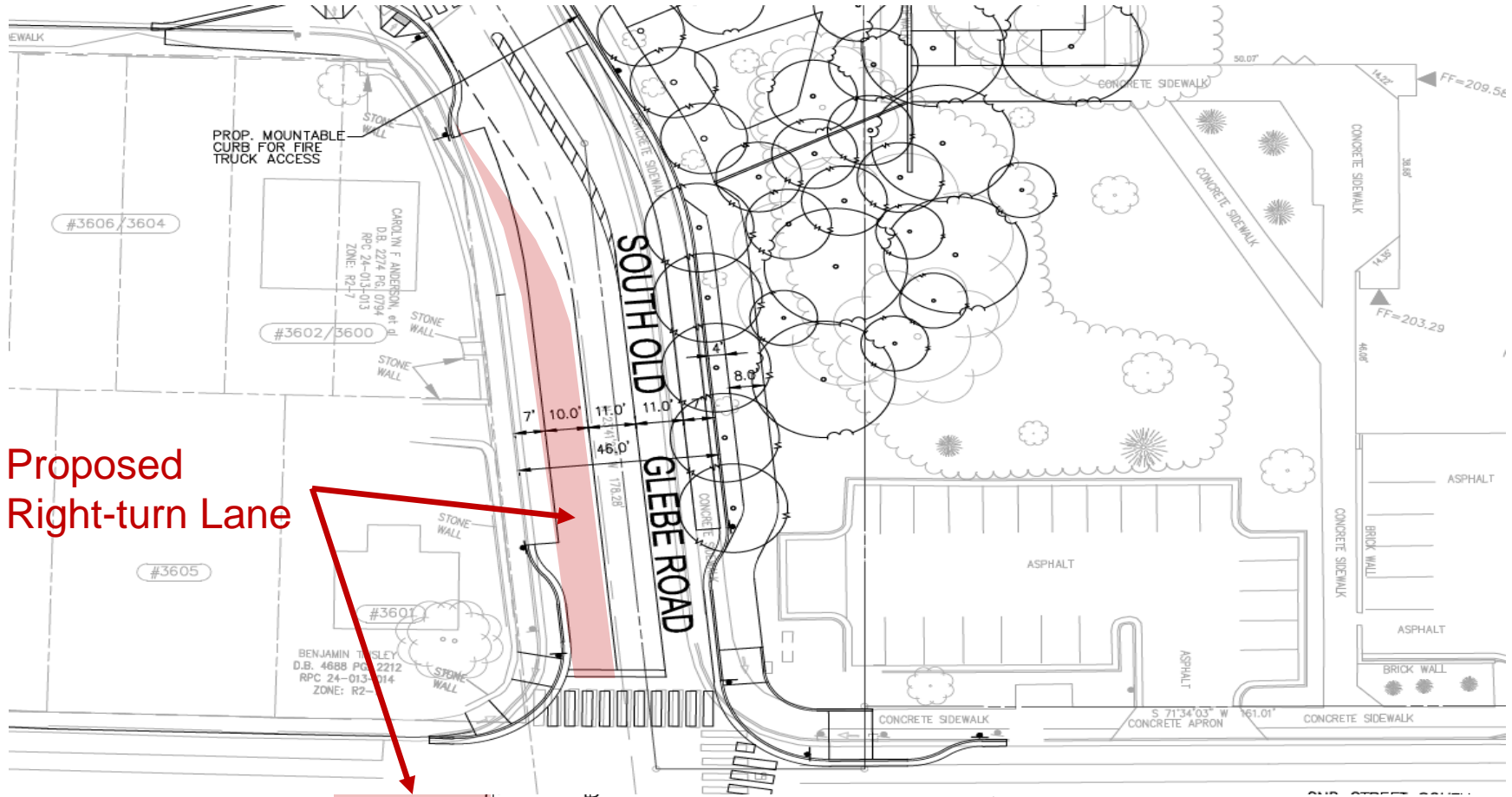
APS Parking Demand:
250 spaces

APS Proposed Parking
Supply & Occupancy:

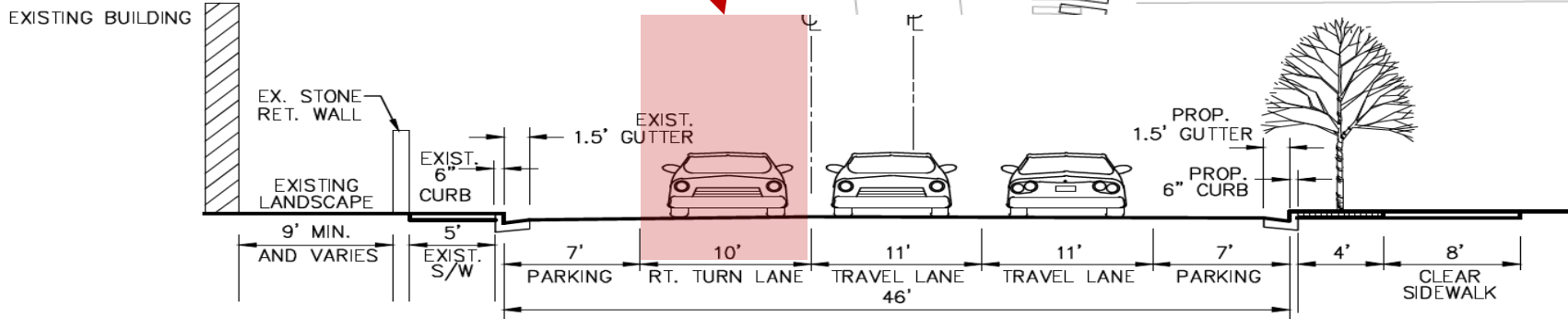
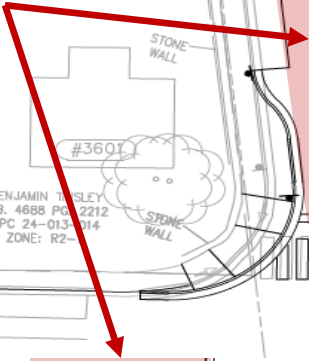
214 garage
+
13 surface
+
23 existing
(option A or B)
=
250 spaces

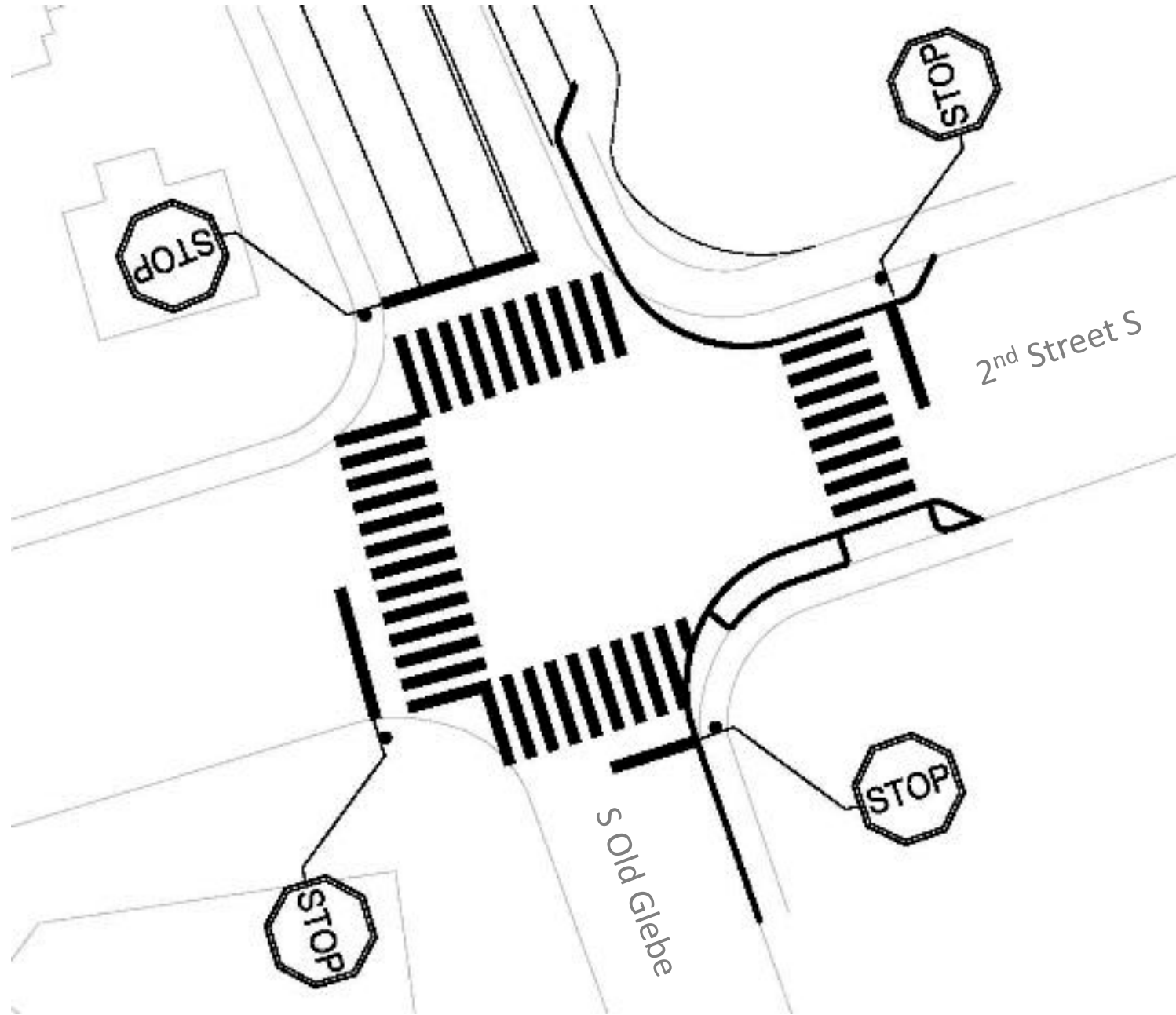






Proposed
Right-turn Lane







Along SOG



North of theater

GEOTHERMAL WELL FIELD

Two-thirds of the south soccer field's length has a well field below it. Prior to building the soccer field, 70 wells were drilled 500 feet into the earth. These wells are spaced 20 feet apart and contain a closed-loop pipe for moving water through earth. The water is always contained within the pipe, but in the process of circulating through the 70,000 linear feet of underground piping, heat is transferred between the water and the earth through the pipe's walls.

When it's cold outside, Discovery's heat pumps take heat from the water and use it to warm the school's inside air. The water is now cooler and it is sent back to the earth to be warmed up. When it's hot outside, the heat pumps pull heat from the school and discharge it into the water. The water is now warmer and it is sent back to the earth to be cooled down.

DISCOVERY 50' TALL
 WASHINGTON MONUMENT 555' TALL
 LINCOLN MEMORIAL 55' TALL
 STATUE OF LIBERTY 305' TALL
 DISCOVERY'S GEOTHERMAL WELLS 500' DEEP

GEOTHERMAL WELL FIELD

SCHOOL HEATING: HEAT IN (red arrow), HEAT OUT (blue arrow)

SCHOOL COOLING: HEAT IN (blue arrow), HEAT OUT (red arrow)

Two permanent wells already drilled down to 560 feet with conductivity results as expected.

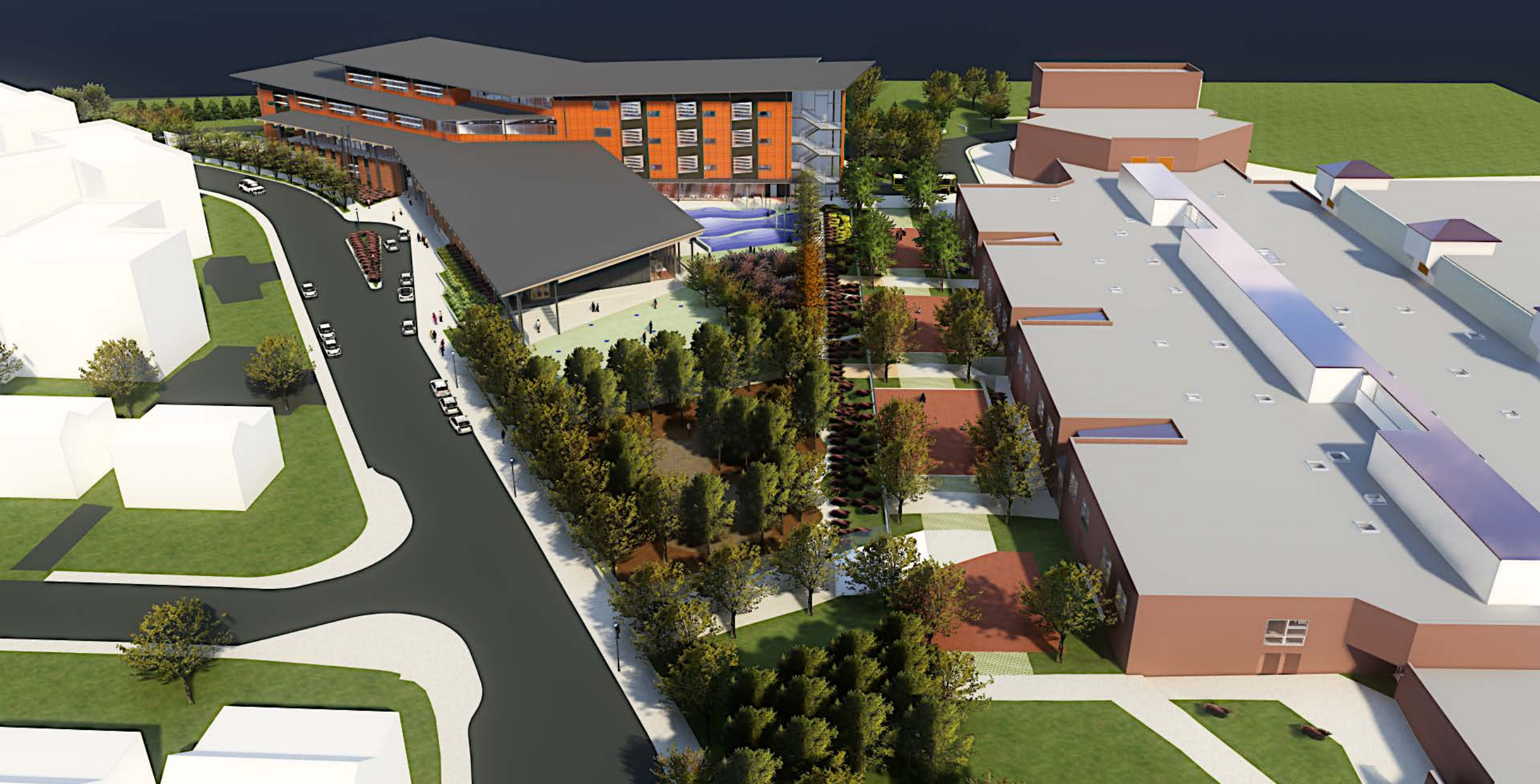
70 more wells will be drilled during construction when the site is fenced off and in full site construction mode.

This is one of the largest energy saving aspects of the project. This also prevents the need for noisy exterior cooling towers, which often draw complaints in the summer

Example of construction signage









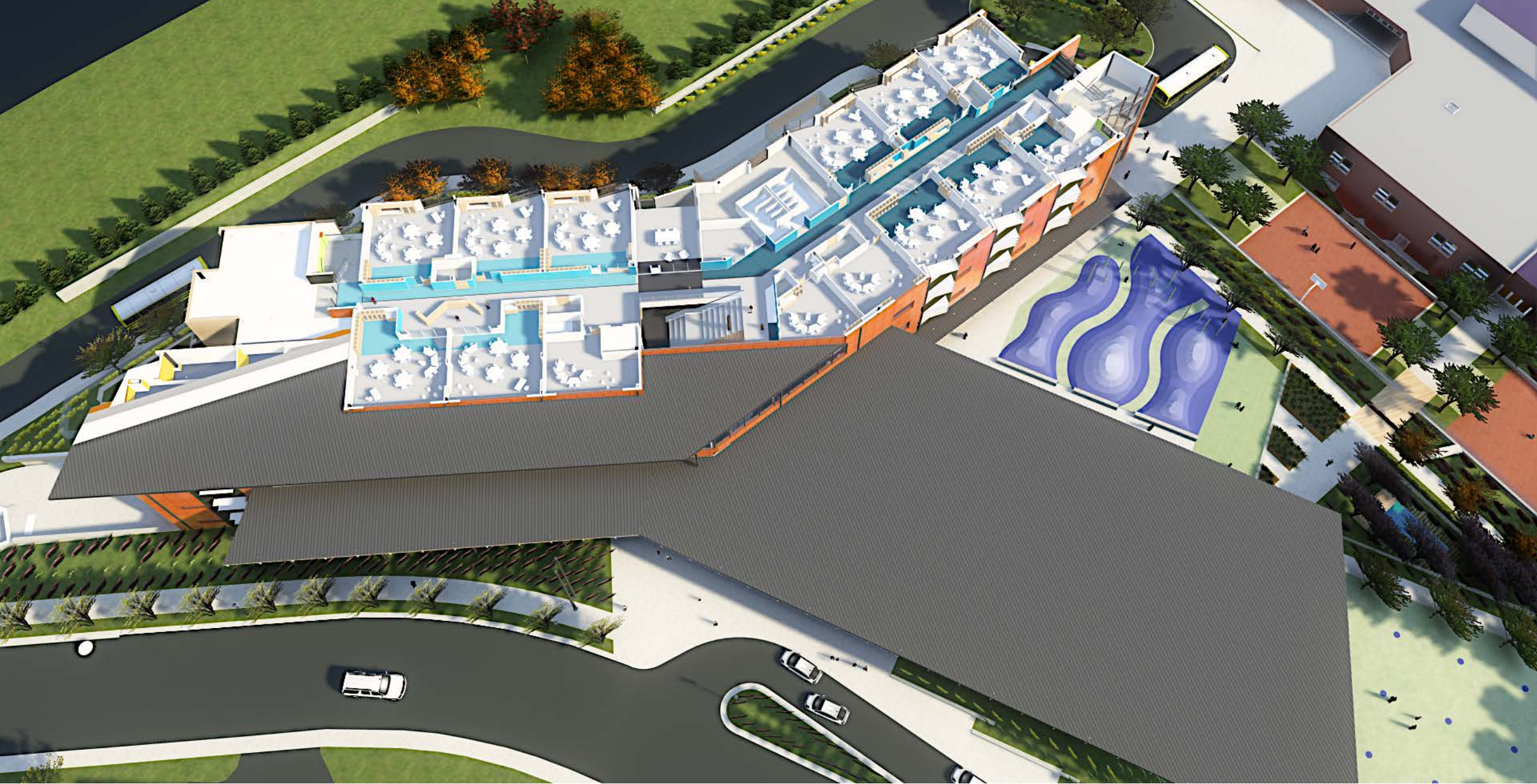


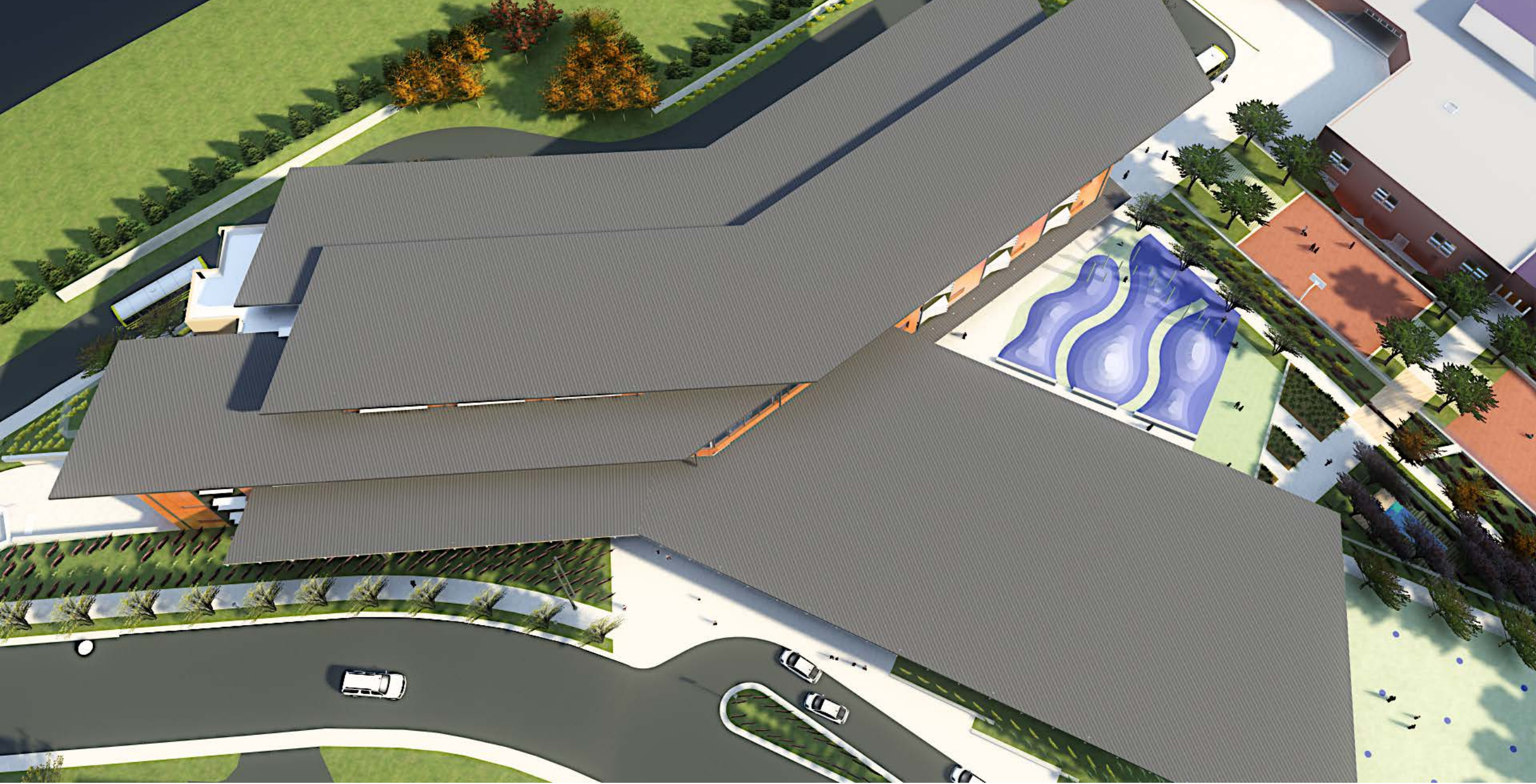


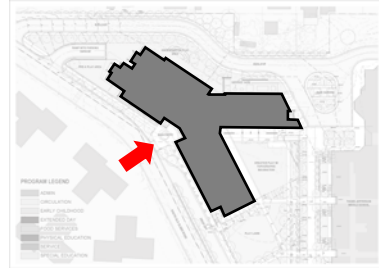


























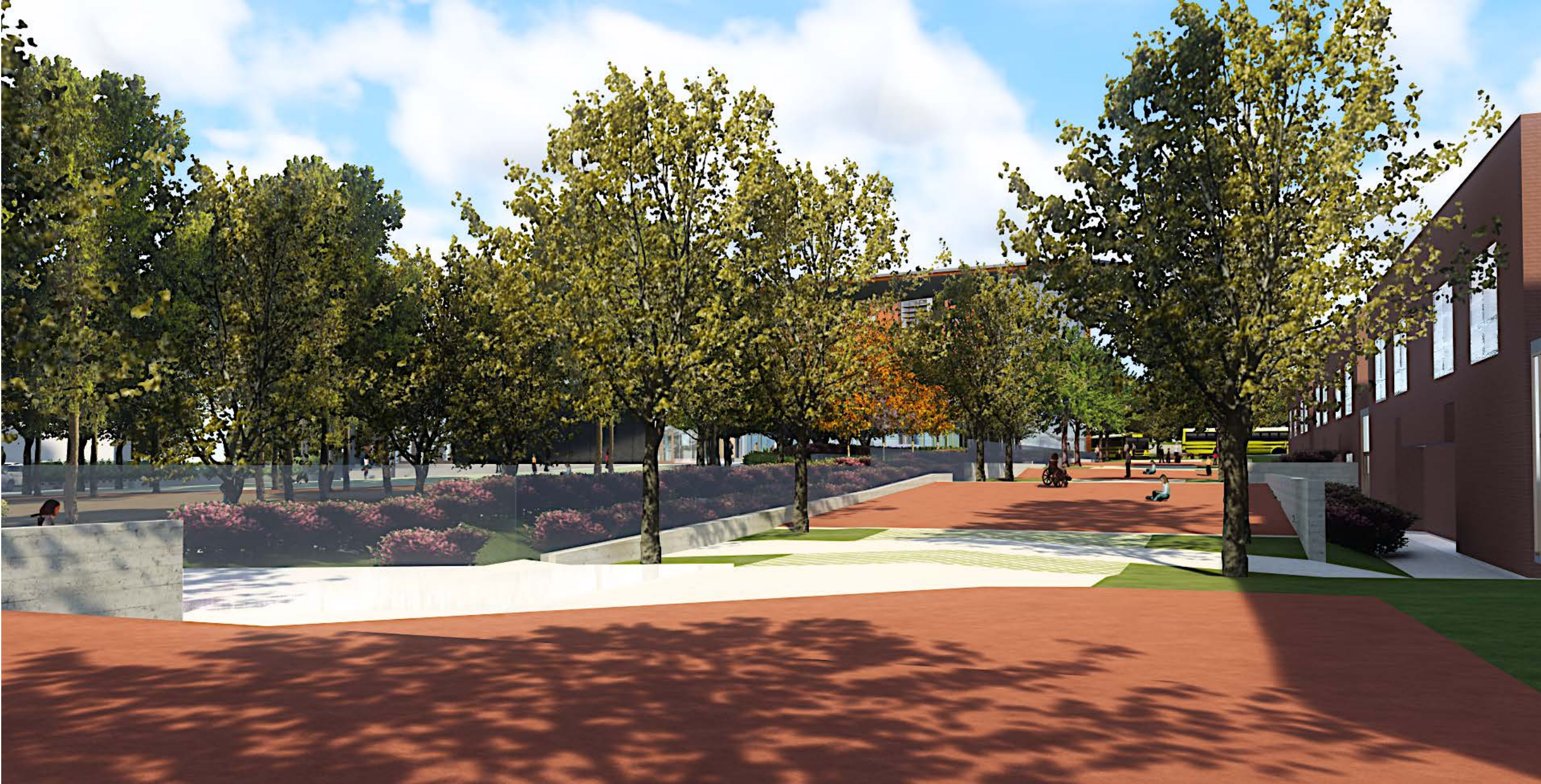




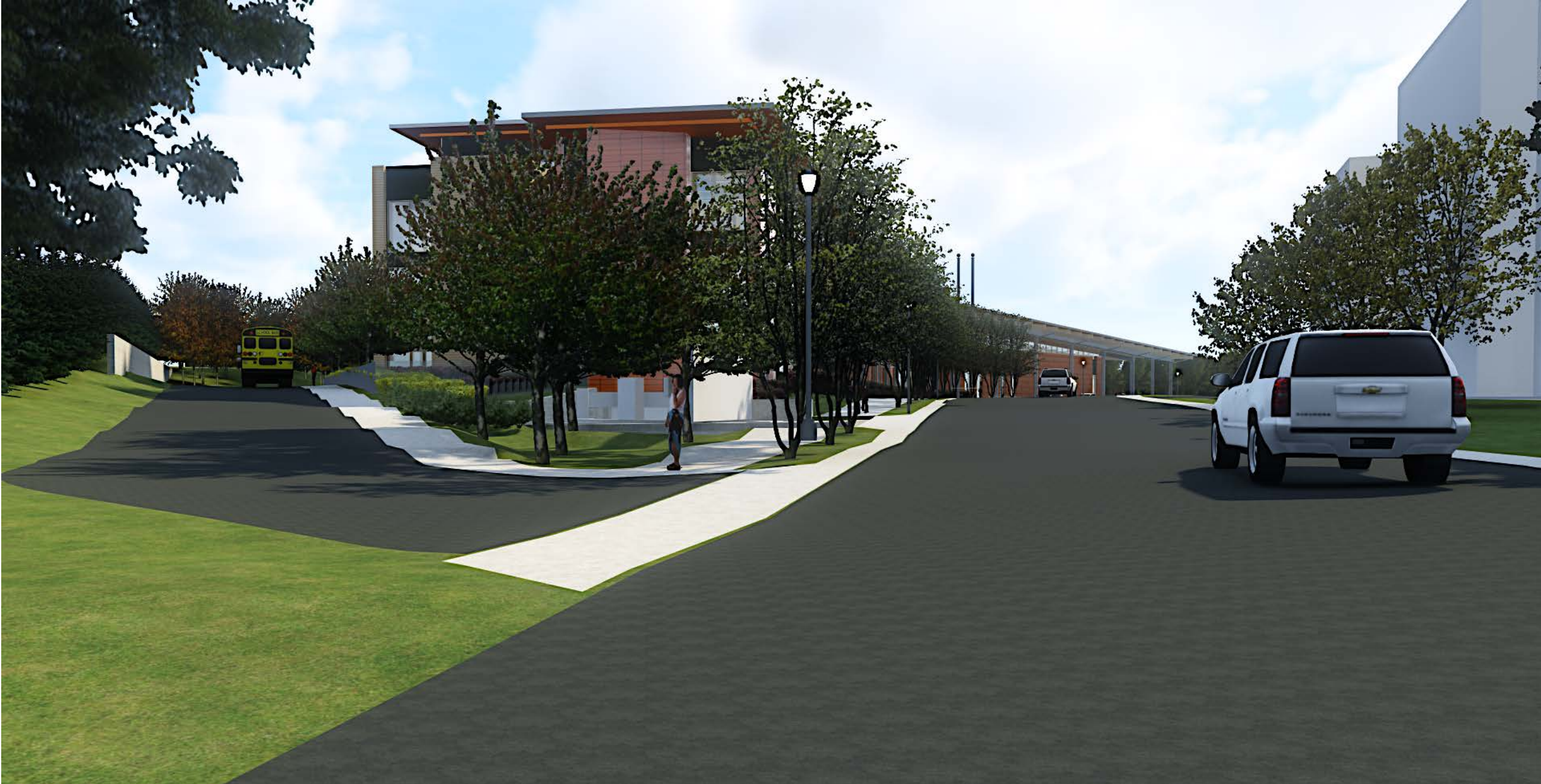




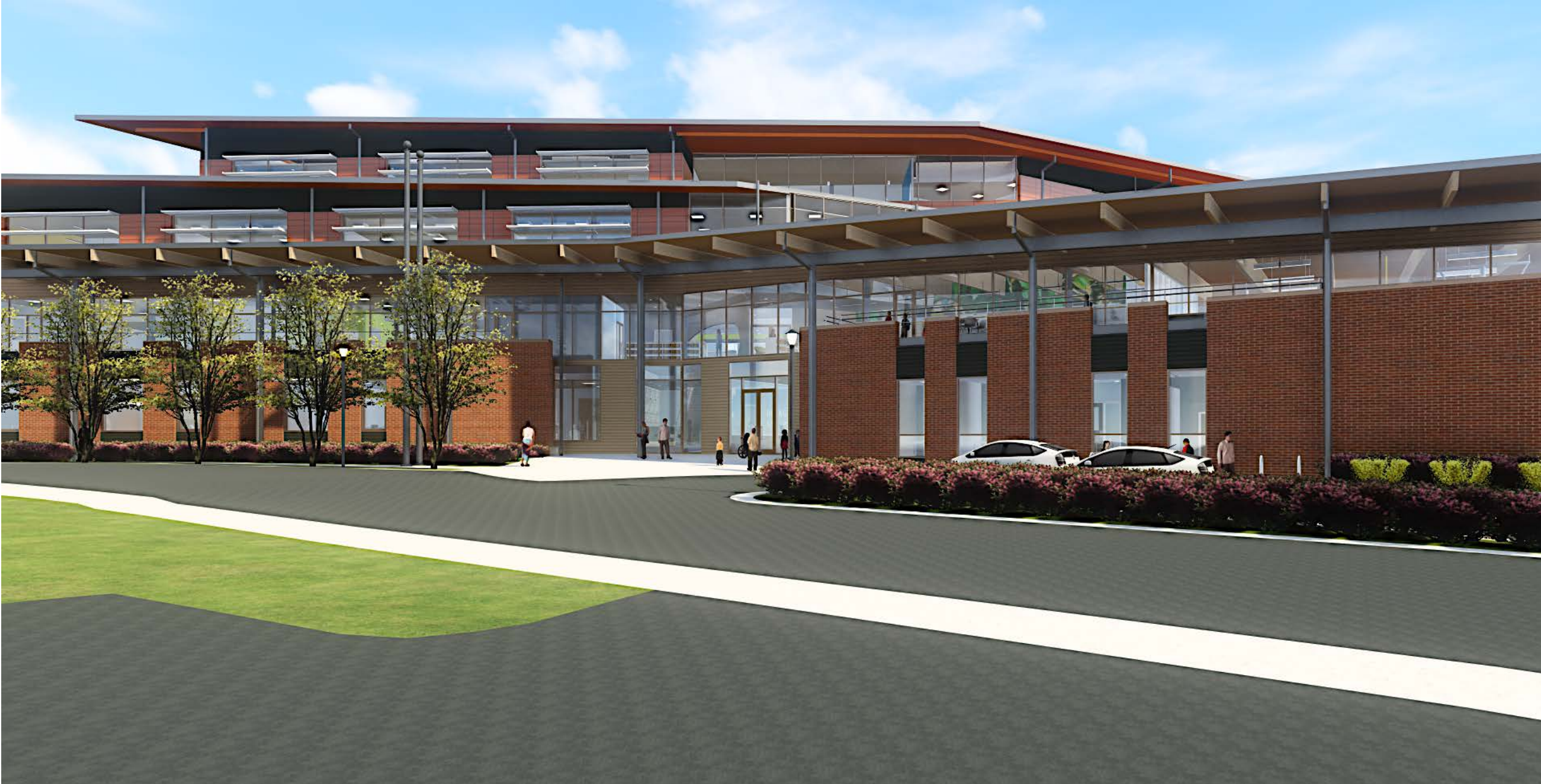


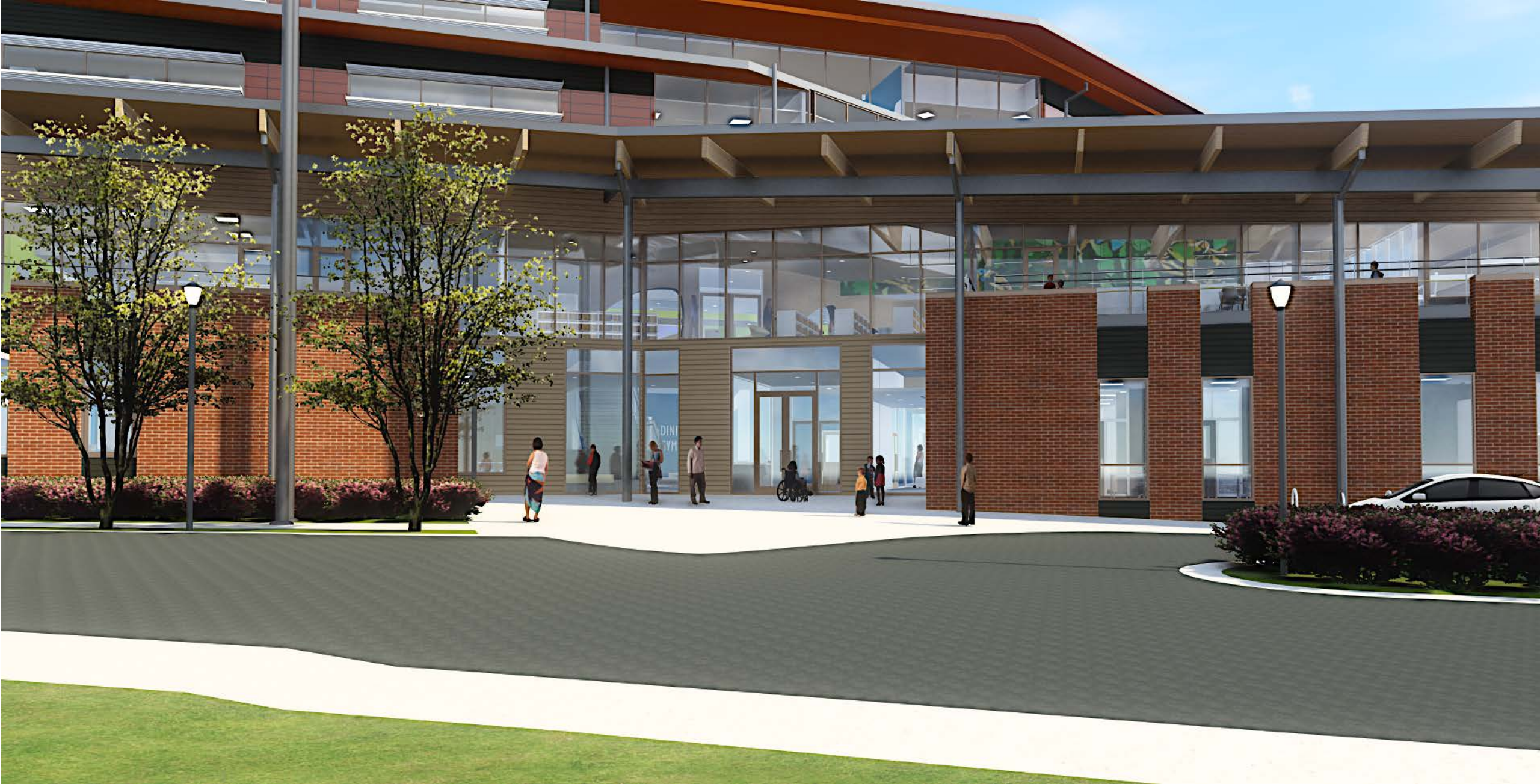


































Questions/Discussion