

San Dieguito Union High School District
NEW MIDDLE SCHOOL MASTER PLAN
December 2011



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Overview

The new middle school is to be located on an eight-acre parcel adjoining the southeast corner of Canyon Crest Academy (CCA). The school site sits behind a site designated for use as a City park, and therefore does not have direct access from Village Center Loop Road. Additionally, the site elevation is approximately twenty feet lower than the park site making it difficult to see the site from Village Center Loop Road. The site has been graded relatively flat which allows for a great deal of flexibility in the layout of the campus.

The site is bounded to the east by State Route 56. Although noise from traffic on SR 56 is currently at a relatively low level, Caltrans has made allowance for future expansion of the freeway and consideration for that acoustical impact should be accounted for in the planning of the middle school site. Because the site is "landlocked" by the park site, SR56, and CCA, access to the site will need to come from Village Center Loop Road by way of a driveway which would be sited on the eastern edge of the CCA site.

The District has indicated a desire to keep the programs and identities of CCA and the new middle school distinct from one another, and to avoid the implication that attendance at the middle school (which would be determined by attendance boundaries) guarantees acceptance to CCA (a school of choice). A dense grove of trees will be planted to create a "barrier park" to visually reinforce the distinction between the two campuses. This park will also provide a fitness course which could be available to both campuses as well as the surrounding community.

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Goals

The goals for the new Middle School were as follows:

- Create a campus with the capacity for 1,000 students with the possibility of phasing in two 500-student increments.
- Provide a music classroom, art classroom, multi-use room, media center, and a gymnasium with locker rooms .
- Provide facilities and spaces comparable to Carmel Valley Middle School at its reduced enrollment capacity of 1000 students
- Provide technology infrastructure to accommodate the increasing number of wireless devices used by students.
- Provide 21st Century learning environments comparable to those being developed on other middle school campuses in the District

Capacity and the Building Program

The District's methodology for calculating school site capacity assumes a 27:1 student/teacher ratio, and then applies an "efficiency" factor of 85% to accommodate teacher preparation periods which occur in the classroom. The model capacity is shown below:

Teaching Stations:	42 TS @ 27:1 (.85) =	964
Special Education:	2 TS @ 15:1 (1.0) =	30
PE Stations:	4TS @ 27:1 (1.0) =	<u>108</u>
	Total	1102

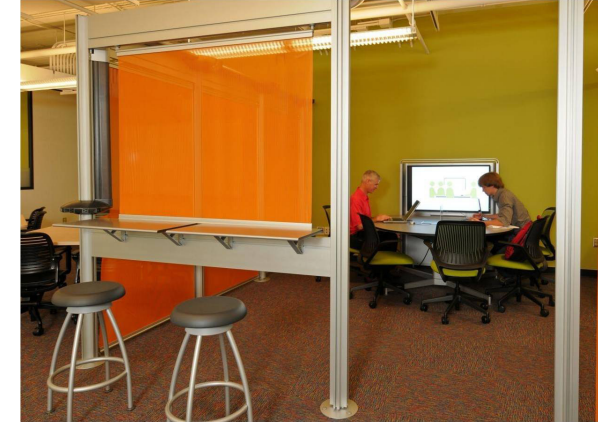
Vision

The vision for the facilities of San Dieguito Union High School District is focused on creating learning environments that embrace variety in teaching and learning styles, are responsive to our rapidly changing world, and will encourage students to be good stewards and citizens of a greater community. The three areas of focus are:

- *Flexible, Adaptable and Technology Rich Facilities*
- *Sustainable, High Performance Environments for Learning*
 - *Community Focused Campuses*

21st Century Learning Environments

*Flexible, adaptable facilities encourage teaching and learning that is responsive to the needs of the user. **Small learning communities**, interactive public spaces and "anytime, anywhere" access to **technology** will expand the boundaries of the traditional classroom setting.*



Areas for individual and small group study are key elements of a 21st century learning environment.

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**Sustainable, High Performance
Environments for Learning**

*The facts have shown that high performance learning environments improves **student performance** and attendance. Sustainably designed facilities are models of **energy efficiency**, but more importantly are teaching tools that **model behavior** for living in our resource challenged world.*



School gardens are an important component of a sustainable school.

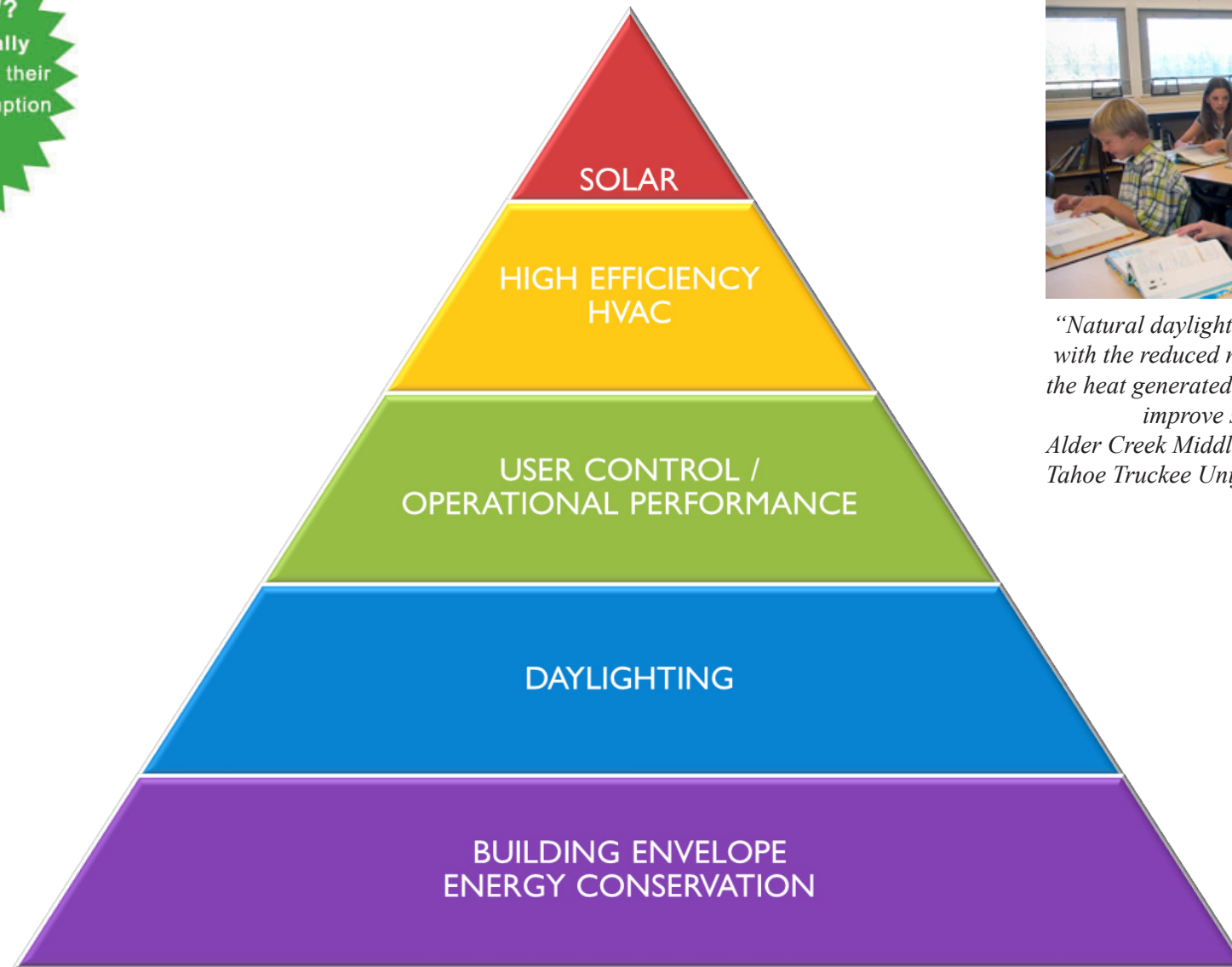
Sustainable, High Performance Learning Environments

San Dieguito Union High School District brought forward a vision for sustainable, high performance learning environments focused on saving energy, improving student performance and on creating future environmental stewards with a strong understanding of the impact of the built environment on the world. The district has already invested in renewable energy resources (solar energy) in its pursuit of their sustainable vision. As the pyramid demonstrates (facing page), solar energy is the proverbial “icing on the cake” in the sustainable movement. As the CVMS moves through the design process, the team will focus on those items that will make the most difference, namely:

- **Building Envelope/Energy Conservation:** The building envelope is the most effective way to save energy. Proper building orientation, high quality building materials (insulation, dual paned windows, etc.) and energy management systems that promote conservation are the most important first steps in sustainably designed buildings. The first and most important goal is to first reduce the demand for energy.
- **Daylighting:** Daylighting, or natural light, when appropriately oriented and controlled saves energy and improves user well being. By reducing the electric lighting needed, energy is saved – both from the reduced electricity and the lowered demand on air conditioning systems when less heat is generated from electric lights. Also, appropriately designed daylighting in classrooms has been proven to improve student performance. This is the most significant benefit to schools.
- **User Control/Operational Performance:** Why do sustainable strategies fail when placed in to operation? The answer is usually in the area of user control. When users have some control of their environment, and understand the system, they are more likely to behave in a way that saves energy. Examples such as thermostat control, lighting controls and appropriate window blinds influence the user’s experience.
- **High Efficiency HVAC:** The more efficient the system, the greater the savings. After demand is reduced to its lowest level, the size of the system can be reduced as well. Displacement ventilation, as an example, is a system that may be considered here as well.
- **Solar:** Solar and other renewable create energy to meet the demand, or a portion of the demand. By reducing demand first, the investment in renewable can be lessened.

The Carmel Valley Middle School starts with proper orientation, taking advantage of the best schemes for natural daylighting. The opportunity for natural ventilation (operable windows) in the temperate climate is an excellent one as well. Renewable, recycled and local material choices are important characteristics of sustainable buildings and will be incorporated where the long term maintenance properties align with the district’s operational goals.

DID YOU KNOW?
People Habitually
Underestimate their
Energy Consumption
by 2.8 times



“Natural daylighting not only reduces energy consumption with the reduced need for electric lighting and by covering the heat generated by electric lighting, it has been proven to improve student academic performance”

*Alder Creek Middle School
Tahoe Truckee Unified School District*

Sustainability (cont'd)

Sustainable design principles are essential to high quality building design. The pyramid at the left reflects an efficient and effective prioritization of these strategies. Especially in the design of public buildings, emphasis is on providing the “biggest bang for the buck” whether in energy (and general fund) savings, improving occupant comfort or bolstering student performance.

For example, the foundation of the pyramid is to first save energy, thereby reducing the overall demand on the system. Next, effective daylighting not only enhances student performance and well being, it also allows lights to be turned off and heat gain in the classrooms to be reduced, saving energy.

User behavior has a big effect on the effectiveness of sustainable design - do they understand the systems and compliment them by say, keeping the lights off?

Creating new energy, with solar or other renewables is the final strategy. Often expensive, good sustainable design should rely on renewables primarily to offset an already minimized demand.

Master Plan

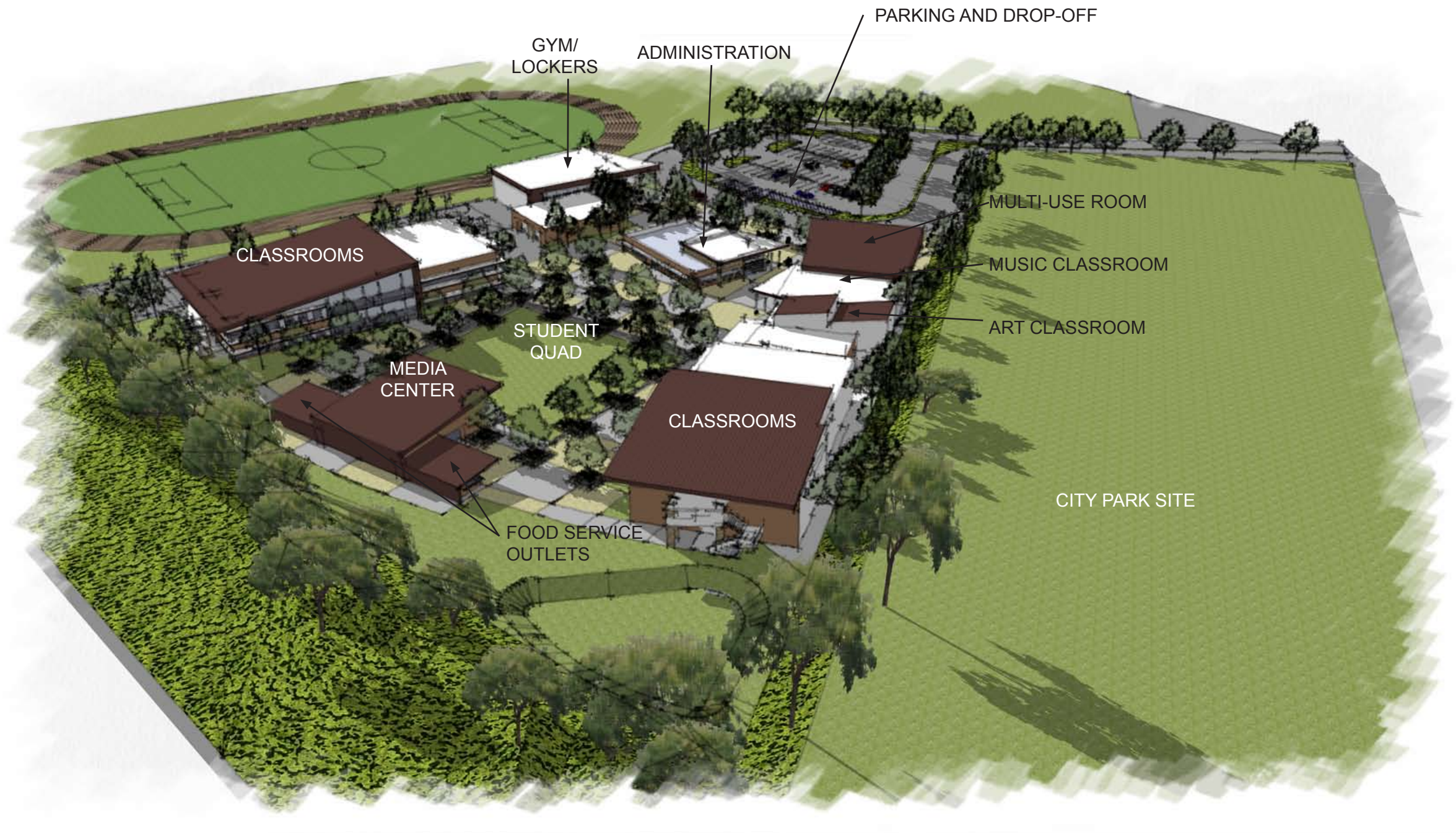
The District's planning has shown a need for a 1,000-student middle school located in the southern portion of the District. The school would be comparable in size and programmatic offerings as Carmel Valley Middle School, with the ability to be phased in two 500-student increments. Core facilities such as the media center, gym, multi-use room, administration, etc. do not lend themselves well to phasing, and will be sized according to their ultimate capacity (1,000 students). Some athletic field space will need to be provided on land currently utilized by CCA.

Because of the relatively small size of the site (8 acres), consideration was given to multi-story development to maintain as much outdoor space as possible and to try to increase the campus' visibility from Village Center Loop Road. Care was taken in planning multi-story buildings to minimize the potential for student injury resulting from horseplay around upper-story balcony railings. Stairways to upper levels will be of adequate size to allow the smooth movement of students between levels during periods between classes.

Through the current master planning process on the District's other campuses, the District has indicated a desire to provide classrooms that are larger than the California Department of Education minimum of 960 square feet. Where possible, the District's intent has been to build classrooms of approximately 1,100 square feet.



Master Plan (cont.)



The campus quad will provide enough space to hold outdoor assemblies for the entire student body and for promotion ceremonies. At the same time it will provide intimate shaded areas for students to congregate in small groups during lunch, with “seating” in the form of low walls, steps and benches. The campus will be able to be monitored with minimal staff, and minimize areas where students can be out of site of staff.

Special education classrooms are integrated into the main campus and are located close to the special education bus drop-off area.

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Administration & Campus Entry

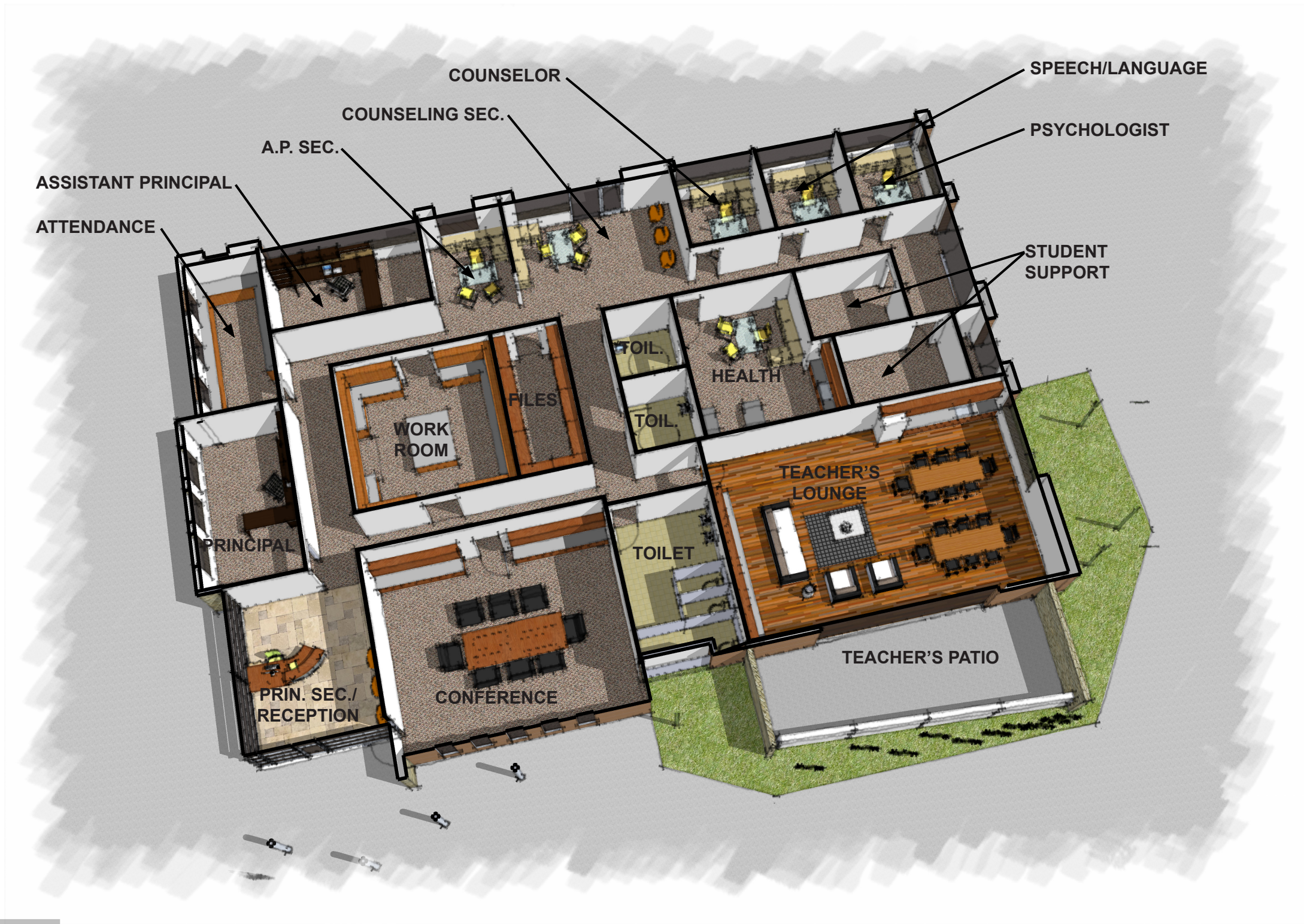
The administration building is located in a way that offers staff a clear view of those who are entering the campus and is easily identifiable by visitors as a check-in point. Student access into and out of the campus will be limited to two points which can be monitored from the administration office without requiring students to pass through the office.

The Attendance Office is located so students may check in after an absence at exterior service windows located at one of the campus entry points

The administration building is situated to allow surveillance of the campus interior from the Assistant Principal's office, and allow immediate access to the campus interior from that office.



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Administration

The administration and student services building is the campus “front door.” The entry to the administration will be significant enough so that the school entry is clear to a first time visitor, but welcoming as well. The building program is as follows:

- Principal’s Secretary/Reception 300 sf
- Conference Room 650 sf
- Principal 250 sf
- Attendance 200 sf
- Assistant Principal 225 sf
- Assistant Principal’s Secretary 120 sf
- Workroom 350 sf
- Teachers Lounge 920 sf
- Health Office 300 sf
- Student Support 107 sf & 130 sf
- Counselor’s Office 120 sf
- Counselor’s Secretary 260 sf
- Speech/Language Office 120 sf
- Psychologist’s Office 120 sf
- Files 150 sf
- Toilet Rooms (small) (2) x 70 sf
- Toilet Room (large) 230 sf
- Teachers Patio 350 sf

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Multi-Use/Music/Art

This building will house the campus' music and arts facilities as well as the Multi-Use Room and two SDC classrooms.

The Multi-Use room is located near the front of the campus to allow easy access by the public, and adjacent to the music classroom for convenient access for music performances.

The music classroom will be a large-volume space to provide optimal acoustics for rehearsal. A large lockable instrument storage room will be included.

The art classroom is a large daylighted space with durable and cleanable finishes suitable for a variety of artistic media.

Two Special Day Class classrooms are also located in this building, making SDC students' transition from the special education bus drop area to class easy, while integrating these students into the mainstream of campus activity.



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Classroom Buildings

Due to the compact site, the classroom buildings will be two-story. Circulation in the building will be via an interior corridor. This corridor will vary in width so as to not appear long and monotonous. An interior corridor was chosen over an exterior balcony to prevent the possibility of injury to students resulting from horseplay on the second level. Access to the second level will be by way of two large stairways located on opposite ends of the building.

Each building will have a pair of girls' and boys' restrooms on each level.

Windows will be shaded by deep overhangs in order to minimize heat gain as well as to provide a reflective surface to diffuse sunlight in order to provide natural daylight to classrooms.

There is a large, flat section of roof on each building to provide a location for the installation of photovoltaic panels.

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Gymnasium

The gymnasium building serves Food Service, Physical Education and Athletics. In addition to the Main Gymnasium, with bleacher seating for 500 people, a main basketball floor and two cross-courts, and proposed locker rooms. The main food service kitchen is located here as well. Dining space, as a district standard is provided in covered outdoor areas in and around the student quad.

- Gymnasium 10,630 sf
- Lockers (2) X 1,660 sf
restroom/shower included



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Media Center/Food Service/Quad

Part of the District's plan to create 21st Century Learning Environments is the recognition that the role of traditional libraries on middle school campuses will change. As more library resources become digital versus printed media, the need for storage of print media will diminish. The library will become more of a student union/media center, where students will access online resources from their own devices, working independently or in small groups.

The Media Center will be a large-volume space with pleasant natural daylight. Seating would be soft upholstered chairs and couches. The ambiance would be similar to that of a cafe, where students could eat and work in a more casual setting.



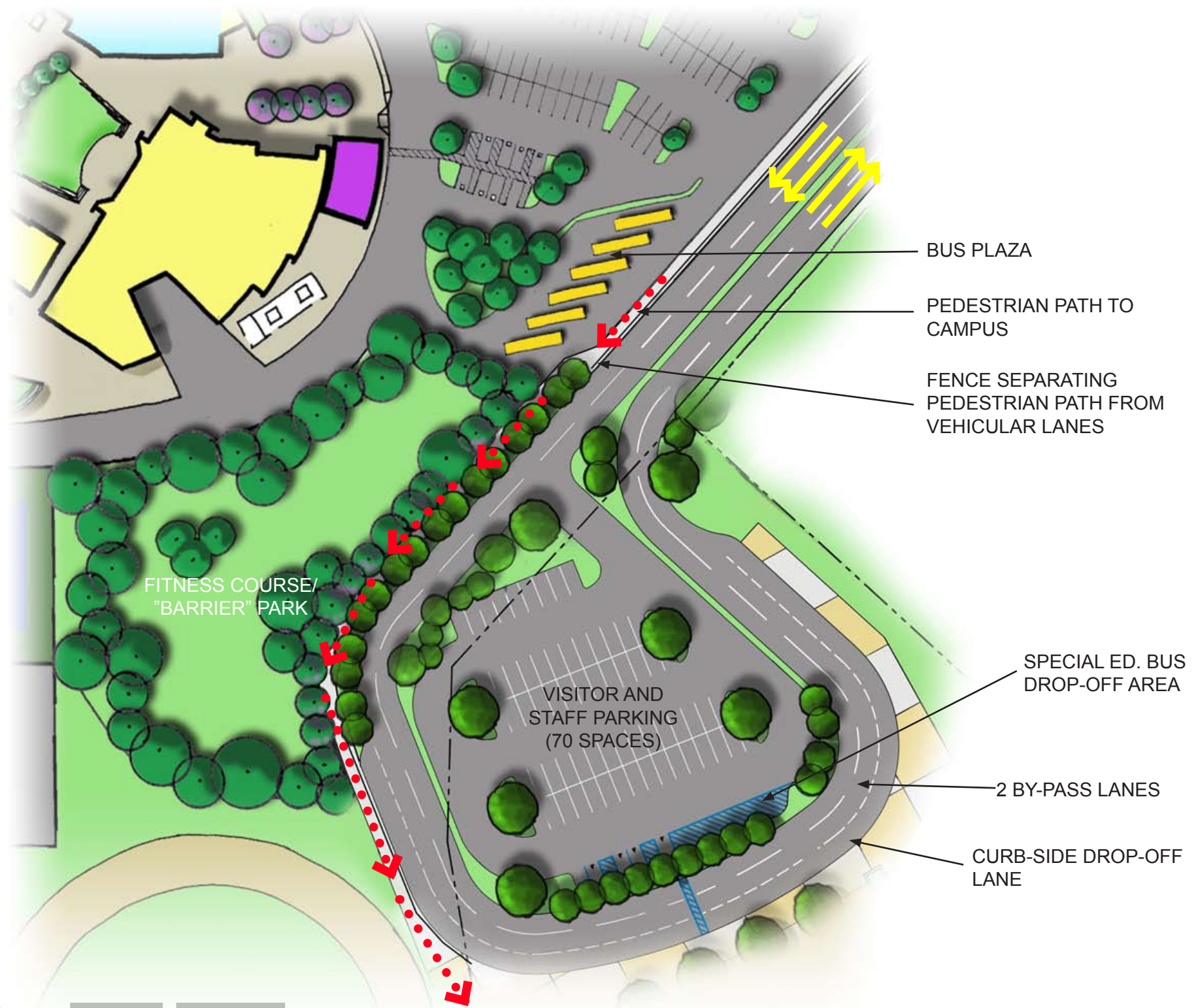


Media Center/Food Service/Quad (cont.)

Two food service outlets will flank the Media Center, providing walk-up service for students in close proximity to the campus quad. Food storage and light preparation areas will be shared between the two outlets and the Media Center cafe.

“Seating” in the new quad space will consist of steps and planter walls that create natural places for students to sit, either alone or in small groups. Large paved areas will be available for table seating. A large open green area oriented toward the “stage” at the back of the Media Center will provide the opportunity for large student body gatherings or for audience seating for 8th Grade Promotion ceremonies.

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Parking & Student Drop-off

Because the site is “landlocked” by the park site, SR56, and CCA, access to the site will need to come from Village Center Loop Road by way of a driveway which would be sited on the eastern edge of the CCA site.

This single point of entry to the site presents some significant challenges as a large number of middle school students come to school via bus or parental drop-off. Careful consideration was given to accommodating the volume of traffic that will queue up to the campus twice daily, as well as the need to keep bus traffic separated from parent drop-off traffic and to keep pedestrians and bicyclists safe from both. In order to separate the bus traffic from parental traffic, a bus plaza will be provided using space in the CCA visitor parking area. Busses will approach the bus plaza from across the CCA campus using the CCA bus route. Students will go between the bus plaza and the campus entry via a pathway which will be separated from the vehicular lanes with a fence to prevent students from “short-cutting” through traffic.

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