

POLYTECHNIC SCHOOL
PROPOSED MASTER DEVELOPMENT PLAN
2015-2030

ATTACHMENT A

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PROJECT NARRATIVE

I. ABOUT POLYTECHNIC SCHOOL

Poly was founded in 1907 and is an independent, co-educational day school kindergarten through twelfth grade. Approximately 50% of Poly students and 40% of Poly employees reside in Pasadena.

Each year the school admits only 10% of about 1,000 applicants. The school's enrollment cap of 861 students has not been modified since inception in the 1992 master plan despite strong demand to attend Poly.

II. MASTER PLAN SUMMARY

This proposed plan is for fifteen years beginning approximately April 2015.

The school's prior master plan was for ten years and expires April 2015. All requirements of the prior plan have been met - a new parking garage and elimination of the curbside parking district, a net increase in tree count across campus, preservation of cultural resources during construction (buildings and trees), and significant parkway improvements (new street lights, new and additional trees, new sidewalks, rounded street corners) along Catalina, Wilson, Cornell and California.

The school would like to request two things in the 2015-2030 master plan:

1. Future development of the gym buildings to include demolishing the two existing gyms and constructing two new gyms on roughly the same footprint but with the addition of a below-ground level.
2. Increase the student enrollment cap by 9%, from 861 to 941 students, in order to better meet community demand to attend Poly.

III. COMMUNITY INVOLVEMENT

A community meeting was held November 10, 2014, prior to the predevelopment plan review. We intend to hold another community meeting prior to filing of the master development plan.

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IV. FUTURE DEVELOPMENT AREAS

The proposed development area is the existing gym buildings. The timing of this future construction is unknown and subject to fundraising planning. Design has not yet commenced on this project.

A. SITE PLAN OF BUILDINGS – EXISTING, DEMOLISH, NEW

Exhibits 1 and 2 reflect existing buildings, Exhibit 3 reflects buildings to demolish, and Exhibit 4 reflects proposed new buildings.

Building square footage is estimated to increase 38,214, which is almost entirely due to the addition of an underground level to the gyms. The overall footprint of the two gyms will remain roughly the same and in the same location. But, we are providing for a small increase (4,600 square feet) in building footprint as a contingency to final design plans.

B. BUILDING HEIGHTS

Building height limitations for existing structures are shown on Exhibits 2 and 3 and are consistent with the prior master plan.

Exhibit 4 reflects proposed height limits for the new gym buildings. We are asking for a height increase of five feet as a contingency to final design plans.

C. ADJACENT BUILDING MASSING

Exhibits 5 through 8 show massing diagrams for the existing gym buildings and adjacent buildings along Wilson Avenue.

The California Institute of Technology buildings along Wilson Avenue, and to the east of the school's gyms, are of similar massing and height as the school's existing (and proposed) gym buildings.

The remaining adjacent structures to the gym buildings are school structures including the swimming pool complex to the north, maintenance buildings to the south, and the athletic field to the west.

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D. ADJACENT USES / ZONING

Exhibit 9 shows zoning and uses within a 500 foot radius of the proposed development area.

E. BUILDING SETBACKS

Exhibit 10 shows building setbacks approved in the prior master plan. No changes are requested. Fences, walls, mechanical equipment and enclosure, pool equipment and enclosure, power transformer and enclosure, trees, shrubbery and similar features are located within the setback areas.

Consistent with the prior plan, the setback for the field bleachers is two feet from the campus property line. This is in compliance with the permit for the bleachers which required that they be set back ten feet from the curb.

F. DENSITY AND LOT AREA

Table 1 provides the lot area ratio before and after the proposed development.

G. PRELIMINARY CONSTRUCTION ACCESS AND STAGING

Exhibit 12 reflects preliminary construction access and staging for the development area. Final construction access and staging will be determined upon permitting.

H. TREE INVENTORY AND POTENTIAL IMPACTS WITHIN DEVELOPMENT AREA

Exhibit 13 and Table 2 reflect existing trees within the development area along with anticipated construction impacts and tree protection plans.

Preliminary construction staging and access plans have been prepared to avoid impact to all City parkway trees.

One oak tree on school property will be protected in place during construction. The other four trees on school property will most likely require removal during construction in order to provide sufficient clearances for the removal and placement of large beams and structural building elements.

Additional trees will be planted on school property to replace the four trees removed during construction.

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I. DESIGN APPROACH

The design process for the proposed gyms has not yet begun but may begin within 3-5 years. Timing of design is dependent upon determination and timing of a fundraising campaign. Consequently, no design plans exist at this time.

The school has recent history with its current master plan of designing and constructing buildings that relate to the scale and materials of the existing architecture on its campus. The school imagines the design for the new gym buildings will include materials that would complement the surrounding architecture.

V. INCREASE TO STUDENT ENROLLMENT CAP

The proposed plan contemplates increasing the enrollment cap by 80 students, from 861 to 941, to meet community demand. The additional enrollment would be phased-in over three to four years beginning fall 2016.

A. PARKING

The school anticipates additional parking demand of up to 22 student drivers and 12 adult drivers over the term of the plan due to the enrollment increase and other programmatic changes.

Exhibit 14 shows onsite parking locations. The additional parking demand noted above will be parked on-site with existing capacity and at a nearby, offsite facility which is used to accommodate some of the student parking in order to maintain an inventory of on-site visitor spaces throughout the day.

The school also utilizes its sports field and a nearby, offsite facility to supplement event parking. One hour parking on curbsides abutting school property is occasionally used for short-term visitations.

B. STUDENT DROP-OFF AND PICK-UP

Exhibit 15 shows the locations used for the drop-off and pick-up of students. Several locations are utilized to soften the intensity at any one location. Adults are present in the morning and afternoon to oversee safety and logistics.

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C. TRAFFIC

Table 3 reflects the enrollment increase and traffic mitigation measures by grade level. While the enrollment cap is school-wide, the exhibit reflects targeted (e.g. anticipated) enrollment and mitigation allocated to grade level.

The school for years has had measures in place to reduce the number of vehicle commuters and to manage vehicle traffic in an efficient manner. Recently, additional measures were implemented to reduce the impacts of the proposed enrollment increase. New and existing traffic mitigation measures are as follows:

1. Poly began a school bus program fall 2014 and currently has one bus in service with 12 to 15 passengers. The school subsidizes the cost of the program and anticipates daily ridership ranging 25 to 30 students by fall 2016, the beginning of the proposed enrollment cap increase.
2. In winter 2014 the school approved an increase to its van fleet from 7 to 10 vans over a one-year period. These additional vans will reduce the number of volunteer vehicles coming to campus for student trips.
3. Preferential parking is available for rideshare participants.
4. Several events are held each year to encourage and reward rideshare, walk or bike to work participants.
5. Start and end times for the three school divisions are staggered to spread out the vehicle trips to campus.
6. Staff is present during drop-off and pick-up to supervise and assist loading and unloading of students.
7. The school employs security guards for major events to guide visitors to designated parking areas and avoid neighborhood streets.
8. Signs are posted during major events to remind visitors to park in designated areas and to avoid parking on neighboring streets.
9. Visiting buses are instructed to approach the school going south on Wilson Avenue, turnaround in the Garland parking lot, and exit going north on Wilson Avenue so as to avoid neighborhood streets.

**TABLE 1 - Density Ratio
Polytechnic School
2015 Master Development Plan**

	With Existing Buildings	With Proposed Buildings
Lot Area Ratio:		
Building footprint square feet	159,922	164,522
Lot square feet	593,650	593,650
Ratio	26.9%	27.7%

TABLE 2 - TREE INVENTORY AT DEVELOPMENT AREA
Polytechnic School
2015 Master Development Plan

Tree #	Common Name	Scientific Name	Diameter	Height	Canopy Spread	<i>X - Remove</i>	<i>R - Remain</i>	Private
						Proposed Status	Tree or Parkway	
1	Sweet Gum	Liquidambar styraciflua	10 inches	40 ft	25 ft	X / replace		Private
2	Sweet Gum	Liquidambar styraciflua	9 inches	40 ft	25 ft	X / replace		Private
3	Sweet Gum	Liquidambar styraciflua	2 inches	15 ft	5 ft	X / replace		Private
4	Sweet Gum	Liquidambar styraciflua	2 inches	15 ft	5 ft	X / replace		Private
5	Valley Oak	Quercus lobata	16 inches	40 ft	45 ft		R / protect in place	Private
6	Southern Live Oak	Quercus virginiana	3 inches	12 ft	6 ft		R	Parkway
7	Southern Live Oak	Quercus virginiana	4 inches	20 ft	10 ft		R	Parkway
8	Southern Live Oak	Quercus virginiana	3 inches	15 ft	6 ft		R	Parkway
9	Southern Live Oak	Quercus virginiana	4 inches	20 ft	12 ft		R	Parkway
10	Southern Live Oak	Quercus virginiana	3 inches	15 ft	6 ft		R	Parkway
11	Southern Live Oak	Quercus virginiana	5 inches	25 ft	12 ft		R	Parkway
12	Southern Live Oak	Quercus virginiana	2 inches	15 ft	6 ft		R	Parkway
13	Southern Live Oak	Quercus virginiana	2 inches	15 ft	5 ft		R	Parkway
14	Southern Live Oak	Quercus virginiana	3 inches	20 ft	10 ft		R	Parkway

**TABLE 3 - Enrollment Cap Increase
Polytechnic School
2015 Master Development Plan**

I. Phasing of Enrollment Increase:

Existing cap	861
Proposed new cap	941
Enrollment increase - fully phased	<u>80</u>

Anticipated Phasing:

2016-17 school year	+27	
2017-18 school year	+54	cumulative
2018-19 school year	+67	cumulative
2019-20 school year	+80	cumulative

II. Enrollment Impacts by Grade:

	K-5	6-8	9-12	Total
Existing targets	270	209	382	861
New targets	270	237	434	941
Enrollment increase	0	28	52	80

Measures to Reduce Vehicles:

Rideshare, walk, bike	15%	(4)	(8)	(12)
New bus program		(5)	(10)	(25)
Net incr / (decr) in vehicles		(5)	14	43
		-1.9%	6.6%	9.0%
				5.0%