

krupka.

June 9, 2021

Mr. Sam Herzberg
Contract Planner
Town of Portola Valley
765 Portola Road
Portola Valley, CA 94028

by email only: sherzberg@goodcityco.com

RE: Final Woodside Priory School Traffic and Parking Assessment

Dear Sam:

Krupka Consulting (Consultant) was engaged by the Town of Portola Valley (Client) to assess the potential change in site traffic and parking generation caused by the proposed amendment to the current Conditional Use Permit (CUP) granted to the Woodside Priory School (Applicant) in Portola Valley, California. This letter summarizes the procedures and findings of the assessment and includes Consultant's professional opinion on the matter.

Background

Client is processing an application for an amendment to Applicant's CUP (CUP Amendment). The CUP Amendment proposed the following changes regarding student enrollment, teachers and staff, site parking and academic floor area.

- Maximum student enrollment, measured as *average daily attendance*, would increase from 350 to 394 students (plus 44 students)
- Increase in teachers, from 50 to 55 (plus 5 teachers), and support staff, from 40 to 45 (plus 5 staff)
- Expansion of site parking supply from 261 to 359 spaces (plus 98 spaces) (*Note: According to the CUP Amendment there are currently 306 parking spaces constructed and available on site, which reduces the change in supply to plus 53 spaces*)
- Expansion of building floor area from 204,144 to 205,505 square feet (plus 1,776 square feet) by converting existing modular buildings into permanent facilities for scholastic use

Consultant reviewed the application and previous traffic and parking studies prepared for the CUP and underlying Master Plan.

Consultant also reviewed the Portola Valley Pedestrian Safety Planning Study it conducted in 2019, which was a professional traffic engineering review of school area and major corridor streets with regard to pedestrian safety.¹ This effort observed and cataloged conditions and defined potential conceptual improvements near Woodside Priory School and other Town schools.

¹ Krupka Consulting, Draft Task 4 Results, Portola Valley Pedestrian Safety Planning Study, Revised 7/31/19

Consultant determined the relatively small activity changes called for by the CUP Amendment would likely result in a nominal increase in corresponding traffic and parking generation at the school.

The intent of the traffic assessment was to gauge how much traffic the changes in use would contribute to local streets serving the school, Portola Road and Alpine Avenue. This was sufficient to inform Client's consideration of relevant CUP findings, and no intersection level of service evaluation was necessary. Also, for context, this assessment did not require measurement of vehicle miles traveled (VMT) according to the California Environmental Quality Act (CEQA).

The intent of the parking assessment was to measure how much parking demand would be created by the changes in use, and compare this to the parking supply expansion proposed by the Applicant. This was sufficient to inform Client's consideration of relevant CUP findings.

Assessment

Therefore, Consultant proposed and Client approved an assessment involving the following tasks.

1. Estimate traffic and parking generation for the proposed change in site activity using industry standard references by the Institute of Transportation Engineers (ITE), namely the Trip Generation Manual and Parking Generation Manual.²
2. Estimate relative change in existing daily and peak hour traffic on Portola Road and Alpine Road due to the proposal.
3. Estimate relative change in peak parking demand on site parking due to the proposal.
4. Prepare letter report.

TRAFFIC

Trip Generation - The assessment of trip generation was done using industry standard reference data and procedures in the aforementioned Trip Generation Manual. For private schools, trip generation is presented based on independent variables used in the cataloged studies, including students, building floor area and employees. The resulting trip generation estimate is representative of the project as a whole; no separate consideration of other independent variables, or other activity considerations like on-campus housing for students and staff, is possible. The available data indicated the most appropriate independent variable for this assessment was students.

The estimated trip generation associated with these changes was based on students and was 109 daily vehicle trips, 36 AM peak hour vehicle trips and 26 PM peak hour vehicle trips. Table 1 summarizes the calculations. The above values represent trip generation during school peak hours. It is noted that Table 1 also included estimated trip generation estimates during the peak hours of the adjacent street, which were found to be similar to school peak hour values in the AM peak hour and lower than school peak hour values in the PM peak hour.

² Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition, September 2017; and Parking Generation Manual, 5th Edition, January 2019; Land Use 536 Private School (K-12)

Table 1
ESTIMATED TRIP GENERATION
Woodside Priory School Traffic and Parking Assessment

Activity			Daily		AM Peak Hour of Adjacent Street		PM Peak Hour of Adjacent Street		AM Peak Hour of Generator		PM Peak Hour of Generator	
Land Use	Size	Unit	Rate	Trips	Rate	Total	Rate	Total	Rate	Total	Rate	Total
Private School	44	Students	2.48	109	0.80	35	0.17	7	0.81	36	0.58	26
	(Note 1)											
Notes:	1	Value shown is the projected increase in student population under the proposed CUP Amendment.										
Source:	Krupka Consulting, June 9, 2021; Institute of Transportation Engineers (ITE), <u>Trip Generation Manual, 10th Edition</u> ; Land Use 536 Private School (K-12), September 2017											

Traffic Contribution to Local Streets - Consultant assumed the vehicle trips generated by the CUP Amendment would enter and leave the school campus by direction in proportion to existing traffic. Based on 2019 traffic counts conducted for the Town, peak hour traffic was found to be approximately balanced by direction. Therefore, approximately 55 daily vehicle trips, 18 AM peak hour vehicle trips and 13 PM peak hour vehicle trips would be added to each “leg” (i.e., west and east) of Portola Road. To be conservative, Consultant assumed the same numbers of vehicle trips would be added to Alpine Road north of Portola Road.

Compared to existing traffic, the relative changes in vehicle trips were estimated to be approximately 1% daily and 2% peak hour on Alpine Road and 1% daily and 2% to 3% peak hour on Portola Road. Table 2 summarizes the calculations. These changes are not substantial because they are within typical variations in daily and peak hour traffic on these streets and thus would not be noticeable by drivers.

PARKING

Parking Generation - Similar to trip generation described above, the assessment of parking generation, measured as *peak period parking demand*, was done using industry standard reference data and procedures in the aforementioned Parking Generation Manual. For private schools, parking generation is presented based on the independent variable in the studies, which was students. The resulting parking generation estimate is representative of the project

Table 2
RELATIVE CHANGE IN TRAFFIC
Woodside Priory School Traffic and Parking Assessment

Existing Traffic			
	Daily (vehicles per day)	AM Peak Hour (vehicles per hour)	PM Peak Hour (vehicles per hour)
Alpine Road	7940	790	790
Portola Road	5620	620	620
Relative Contribution (%)			
	Daily (vehicles per day)	AM Peak Hour (vehicles per hour)	PM Peak Hour (vehicles per hour)
Trip Generation	55	18	13
Alpine Road	1%	2%	2%
Portola Road	1%	3%	2%
Source:	Krupka Consulting, June 9, 2021; 2019 Traffic Counts, Town of Portola Valley		

as a whole; no separate consideration of other independent variables, or other activity considerations like on-campus housing for students and staff, is possible.

The estimated parking generation associated with these changes was based on students and was 15 parking spaces. Table 3 summarizes the calculation. This change is not substantial because it would be accommodated by the proposed 53-space increase in parking supply.

OPINION

It is Consultant’s professional opinion that the proposed CUP Amendment will not be substantial relative to existing local street traffic volumes and site parking supply.

Please call me if you have any questions or other requests.

Sincerely,
 KRUPKA CONSULTING

Paul J. Krupka, P.E.
 Sole Proprietor

Registered California Professional Engineer (Traffic TR1574, Civil C47497)

Table 3
ESTIMATED PARKING GENERATION
Woodside Priory School Traffic and Parking Assessment

Activity			Peak Period Parking Demand	
Land Use	Size	Unit	Rate	Total
Private School	44	Students	0.35	15
	(Note 1)			
Notes:	1	Value shown is the projected increase in student population under the proposed CUP Amendment.		
Source:	Krupka Consulting, June 9, 2021; Institute of Transportation Engineers (ITE), <u>Parking Generation Manual, 5th Edition</u> ; Land Use 536 Private School (K-12), January 2019			