



Master Response to traffic and parking-related comments on 2000 GUP projects

How the Program EIR for the Stanford Community Plan and 2000 General Use Permit (2000 GUP EIR) addresses campus growth overall, and traffic effects in particular

The 2000 GUP EIR evaluated the impacts from the following levels of development:

- Continuation of all existing uses;
- 2,035,000 net new square feet of academic and academic support uses (recognizing that the total new square footage would be a larger quantity because demolitions would be deducted from total new square footage to arrive at “net” new square footage);
- 3,018 net new housing units (later increased to 4,468 net new housing units by way of an addendum; housing does not count as net new square footage);
- 2,300 net new parking spaces (parking structures do not count as net new square footage);
- Completion of remaining building area remaining under the prior 1989 General Use Permit;
- Use of up to 50,000 square feet of temporary trailers;
- Up to 40,000 additional square feet for child care and community centers; and
- Infrastructure and utilities to support ongoing campus use and growth.

The traffic and circulation section of the 2000 GUP EIR provided an evaluation of potential impacts associated with the full buildout of the proposed Stanford Community Plan and 2000 GUP on the multi-modal transportation system surrounding the Stanford campus. The potential impacts were evaluated relative to the operation of public transportation, bicycle and pedestrian transportation, arterial roadways, intersections, freeways, and transportation demand management (TDM) strategies (p. 4.4-1, 2000 GUP CDEIR).

The 2000 GUP EIR determined potential impacts that would result from the implementation of the 2000 General Use Permit, and proposed mitigation measures to reduce those impacts. The mitigation measures and corresponding conditions of approval approached the traffic and circulation impacts in a comprehensive manner, such that individual projects under the 2000 GUP would abide by those required campus-wide mitigations. The most notable mitigation is that Stanford would strive to meet the “no net new commute trips” standard (Condition G.3, “NNNCT”). Other mitigations include funding the proportional cost of intersection improvements if the NNNCT standard is not met over a period of time (Condition G.9), the requirement that certain types of projects would require additional traffic studies (Condition G.11), and that Stanford would provide \$100,000 in funding to the City of Palo Alto for a residential parking permit program (Condition H.2).

Any academic uses to be proposed would be permitted under the framework of the 2000 GUP EIR, the 2000 General Use Permit and its conditions for traffic and circulation. Development that is within the parameters analyzed by the 2000 GUP EIR does not trigger additional CEQA review. GUP Conditions D.5 and G.11 specify the situations under which supplemental traffic studies are required, and the requirements for such studies, to determine whether additional traffic impacts beyond what was analyzed in the 2000 GUP EIR would occur. Notably, campus population increases are not directly relevant to project-specific traffic analyses. Since annual monitoring shows that Stanford is achieving the

no net new commute trips standard, impacts from growth in the total number of campus commuters and residents have been addressed comprehensively.

How the 2000 GUP addresses traffic analyses for individual development projects covered by the 2000 GUP EIR.

The 2000 GUP contains the conditions that must be followed when Stanford proposes an individual development project that is covered by the 2000 GUP EIR and 2000 General Use Permit. The 2000 GUP does not require new stand-alone traffic impact analyses for all individual projects. For most projects, a project-specific traffic study is not required because the 2000 GUP EIR already evaluated full buildout. For the limited types of individual projects that necessitate a project-specific traffic study, the scope of the study is tied to determining whether a new or different impact will result from the project compared to the impacts that already were addressed by the 2000 GUP EIR.

Condition D.5 specifies four types of building projects that require environmental assessment of potential impacts (including impacts on transportation and circulation) to confirm that the impacts were addressed by the 2000 GUP EIR:

- Projects that result in distribution of academic building area that deviates from that identified in GUP Condition E.2.a;
- Projects that will result in distribution of housing that deviates from that identified in GUP Conditions F.4.a and F.4.b;
- Projects that will result in distribution of parking that deviates from that identified in the GUP to the degree specified in Condition H.1; and
- Construction of housing exceeding the 3,018 total units permitted under the GUP (now 4,468 units).

Condition G.11 specifies a second set of projects which require project-specific traffic studies. The Condition states that these studies “shall address trip distribution (to determine whether distribution would be substantially different from the distribution assumed in the 2000 GUP EIR), project safety, effects of the project on nearby streets and intersections, pedestrian and bicycle facilities, parking, and transit.” The projects triggering these project-specific traffic studies are as follows:

- Addition of housing in Escondido Village, including but not limited to housing along El Camino Real adjacent to Escondido Village, that exceeds 100 units;
- West Campus and Lagunita faculty/staff housing development;
- Performing Arts Center;
- Expansion/ replacement of basketball arena;
- Stanford Avenue faculty/staff housing; and
- Parking lots or structures with a net increase in spaces of 400 or more.

Traffic impacts are not dependent on the location of academic building projects, because the occupants of these buildings will travel to parking areas, not to the building themselves, and large parking areas are subject to Condition G11.

Project-specific traffic studies prepared to satisfy either Condition D.5 or Condition G.11 include two components that are designed to determine whether the individual project would result in significant impacts beyond those identified in the 2000 GUP EIR: (a) a screening analysis to determine whether the project will distribute traffic in a manner that is substantially different from the distribution assumptions in the 2000 GUP EIR; and (b) an analysis of localized circulation and traffic safety in the immediate vicinity of project driveways.

A 12-page methodology for project-specific traffic impact analyses was approved by County staff in 2002. It has been attached to all project-specific traffic studies since then, and these studies have been accepted in connection with subsequent project Architectural and Site Approvals.

As noted in the methodology, the purpose of the **project-specific traffic study** is to:

- a. Assess whether the characteristics of the applicable project might cause impacts at the 2000 GUP EIR intersections in excess of what the GUP EIR predicted would occur, and
- b. If additional significant impact might reasonably occur [at those intersections], to quantify the impact and, if significant, identify appropriate mitigation.
- c. Provide an analysis of localized access and circulation near the project site.

The first two components above are provided in the **GUP EIR intersection evaluation study**. This study is conducted in two stages.

The project-specific traffic study starts with a **screening analysis** which determines whether the project would increase the amount of parking or housing in any area of campus to a level greater than anticipated in the 2000 GUP EIR. The Stage A screening analysis provides a description of the Project's effect on the running total of parking spaces (for parking projects) or residential units (for housing projects) added to the Campus under the 2000 GUP. The "cumulative running totals" of built/approved parking spaces or residential units by campus development district are compared to the totals analyzed in the GUP EIR. Under the methodology agreed upon by Stanford and the County of Santa Clara, if the running total exceeds the GUP EIR build-out total in any area, a Stage B analysis would be prepared as described below.

The Stage B analysis provides a comparison of the intersection volumes at the GUP analysis intersections using the GUP EIR trip generation and distribution assumptions with the intersections volumes that would result from the cumulative running totals identified in the Stage A screening analysis. As originally envisioned in the Conditions of Approval, the report would identify the number of trips the Project would add to each GUP intersection, as well as the cumulative running total of other GUP projects approved to date. The running total would be compared to the GUP build-out trip total as reported in the GUP EIR. If the current total exceeds the GUP EIR build-out total at any intersection, further Stage B impact analysis would be conducted at the affected intersections.

As individual projects have been assessed under the GUP, only one has required a Stage B assessment (the Escondido Village Graduate Residences).

The third component is provided in the **localized access and circulation study** that focuses on safety and efficiency related to operations and safety at the project site and at crossings within ¼ mile of the site.

The analysis covers “project design details related to operations and safety of driveways, parking lots, access-point dimensions and access controls, emergency access, loading areas for passengers and material deliveries/pick-up, street frontages, on-street parking/loading, and bus stops. It will also address bike lanes, bike racks and storage, sidewalks, and paths adjacent to and near the project site. Analysis methods will involve application of relevant County, City and/or Caltrans design standards, and techniques described in AASHTO and the Highway Capacity Manual.”

The County-approved analysis methodology for the project-specific traffic studies does not require that the studies include analyses of parking locations, parking quantities, or any components of Stanford’s TDM program, which are monitored through other conditions of approval (and described more below). This is because, as explained below, the 2000 GUP EIR and 2000 GUP recognize that the campus is operated as a holistic unit. Campus populations and programs shift between buildings, parking locations change over time and individual buildings are not connected to specific parking lots. Travel demand is managed comprehensively on a campus-wide basis.

How the 2000 General Use Permit addresses parking

When Santa Clara County issued the 2000 General Use Permit, there were approximately 19,350 parking spaces on campus. The 2000 GUP EIR found that buildout of the 2000 GUP would have a less-than-significant impact on parking or access to parking. The EIR noted that not providing sufficient parking could result in Stanford commuters parking in surrounding neighborhoods. The EIR also noted that allowing no more than the then-current parking ratio on campus would reduce the degree to which added parking would encourage automobile trips, and referenced the Transportation Demand Management program.

When the County Board of Supervisors approved the 2000 General Use Permit, it authorized construction of up to 2,300 net new parking spaces on the campus – which roughly equated to the number of parking spaces needed to meet the projected increase in campus demand. The County chose not to require a minimum number of parking spaces, or to require a specific ratio of parking to building square footage to be maintained. Instead, the County left it to Stanford to determine how much parking should be provided, so long as the total number of spaces remained within the overall parking cap established by the General Use Permit. Stanford has not exhausted the 2000 General Use Permit parking authorization.

Stanford’s parking system is managed comprehensively and monitored on a district allocation basis, rather than building-by-building or lot utilization. Condition H.1 of the 2000 GUP implemented maximum net additional parking spaces allowed per development district. The number of parking spaces within a given lot or surface area changes over time as restriping occurs, spaces are removed from the inventory so that that the land can be used for other purposes, or spaces are added. Changes to the existing parking inventory in each district are reported in every Annual Report to demonstrate continued compliance with the maximum parking allocation per district.

Spillover Parking

The most recent analysis of spillover parking was presented in the 2018 General Use Permit Consolidated Environmental Impact Report (CDEIR) prepared by Santa Clara County, ESA Associates, and AECOM. This analysis includes a description of the existing and pending parking programs in the neighborhoods surrounding the Stanford campus lands in unincorporated Santa Clara County. The areas are illustrated in CDEIR Figure 5.15-21. As illustrated in the figure, the residential parking permit areas cover the neighborhoods where accessing a Marguerite stop would be most likely to occur. Although parking in these neighborhoods may have occurred before restrictions were initiated, the communities have since put in parking restrictions such as time limits or parking permit programs to prevent parking in neighborhoods. The analysis concluded that these programs would continue to prevent new development and growth at the Stanford campus from resulting in significant spillover project (p. 5.15-176, 2018 GUP CDEIR).

Stanford's management of its parking inventory

The University strives to provide enough parking to serve the demand generated by faculty, staff, students and a wide range of visitor types, while actively encouraging its employees, residents, and visitors to travel via means other than driving alone (p. 4.4-89, 2000 GUP CDEIR). This is achieved both through provision of physical parking spaces, pricing of those parking spaces, TDM programs, shifts in permit designations and locations, and other mechanisms.

Parking is distributed throughout the Stanford campus, with the exception of the pedestrian campus core. The campus includes six parking structures and several dozen surface lots. Paid visitor parking is provided in most of the larger lots and structures. All but two parking structures (Via Ortega and the Roble Field) are located directly off Campus Drive or outside the Campus Drive loop.

While there have been new parking structures constructed under the 2000 General Use Permit, until this year they have largely replaced other parking facilities on campus. Stanford has been replacing surface parking in the campus core with structures outside the campus core, with the goal of removing vehicles from the pedestrian areas of campus, and maximizing opportunities for infill development. For example, in Academic Year 2014/15, 395 parking spaces in lots along Santa Teresa were removed for construction projects. These spaces were replaced in the Roble Field Garage that opened in 2017.

Based on data from the campus parking inventory for Fall 2015, approximately 86 percent of campus spaces were occupied on a typical day (i.e., Monday and Thursday) when Stanford was in session, which indicates that there is enough supply. Stanford's parking demand is not static; a wide array of visitors associated with meetings, special events, performances, cultural attractions, and athletic events causes parking occupancy to fluctuate by day, time, and location.

The total number of active campus commuter and residential permits has declined from a high of nearly 21,000 permits sold in 2004-2005 to fewer than 18,000 sold in 2015-2016. During this time frame, enrollment in the Stanford Commute Club has steadily increased, more than doubling since 2004-2005. These two trends reflect Stanford's development of a robust TDM program to incentivize commuters to forego traveling to the campus in single occupancy vehicles. Most notably, permit sales have declined, even as the square footage of the campus has increased under the 2000 General Use Permit.

Stanford has many tools that it uses to shift parking utilization, to connect campus destinations to parking areas, and to incentivize commuters to use alternative modes of transportation. The parking management program is dynamic, and responsive to shifts in demand.

Stanford can shift commuters currently parking in a given lot to other nearby garages and surface lots that are underutilized or are opening up by designating parking zones through parking restriction and permits. There are over 2,500 new parking spaces that will become available on campus in 2020, under prior project approvals. These new spaces include the garage under the new Center for Academic Medicine (CAM) on the west side of campus, which will be operational in late 2020. The CAM garage is about 830 spaces, plus nearly 150 surface spaces, for a total addition of 980 commuter parking spaces. These spaces will be designated for parking permit types and restriction based on the proposed users and the demand in the area. The new spaces also include the Thoburn garage, Manzanita garage, and surface spaces associated with the Escondido Village Graduate Residences project, which have either opened or will open in Fall 2020, adding over 1,600 spaces to the East Campus area, which will be designated for campus user groups based upon forecasted demand.

The campus parking is dynamic, and the supply is continuously analyzed by the Stanford parking team to ensure that parking demand and utilization is balanced across campus. The management team uses tools such as prioritizing ridesharing spaces (i.e., vanpool and carpool spaces), higher-priced A permits and further-out C permits to shift parking between facilities.

While the parking management team determines parking allocations across campus, commuters and residents can shift parking locations to address utilization and their parking needs as well. For example, some employees who work on the core academic areas of campus may choose to park in the newer Manzanita Garage and CAM garages, freeing up spaces in the Roth garage, Stock Farm Garage and Lot-17, as well as the Via Ortega Garage and Roble Field Garage. This in turn will enable current users of the Searsville lot with work locations closer to the center of campus to park in lots more convenient for them, freeing up spaces in the Searsville lot for commuters who work near that lot.

Stanford can also connect all areas of campus to available parking facilities through its robust network of bicycle infrastructure, pedestrian pathways and Marguerite shuttles.

Stanford's management of its transportation demand management (TDM) tools

In addition to managing its parking inventory, Stanford also manages parking demand through its transportation demand management programs. Stanford has a wide range of TDM tools that it manages and employs to meet the “no net new commute trips” standard specified by the 2000 GUP and benefit the Stanford and external communities.

As reported in the 2000 GUP EIR, with updates available on the Stanford Transportation website (<https://transportation.stanford.edu/>), and each GUP Annual Report, Stanford's toolbox includes parking fees, the Marguerite Shuttle, carpool and vanpool services, the Clean Air Cash financial incentive for not driving alone, bicycle services, guaranteed ride home, new employee orientation, and staffing to assist employees with customized alternative commutes.

With commuter data from its databases and tools such as commute surveys, Stanford has been able to make adjustments to its tools over the years, such as introducing new programs and technologies, and

adjusting the parking permits issued. This is an iterative process that takes an understanding of commuter behavior, to targeting and piloting strategies, and evaluating and adapting where needed.

Stanford's TDM program has been successful in decreasing the drive-alone rate of Stanford commuters from 69% in 2003 to 42% in 2019. This meant that while Stanford increased its academic facilities as permitted under the 2000 GUP, the number of vehicles coming to the campus has remained consistent over the last two decades.