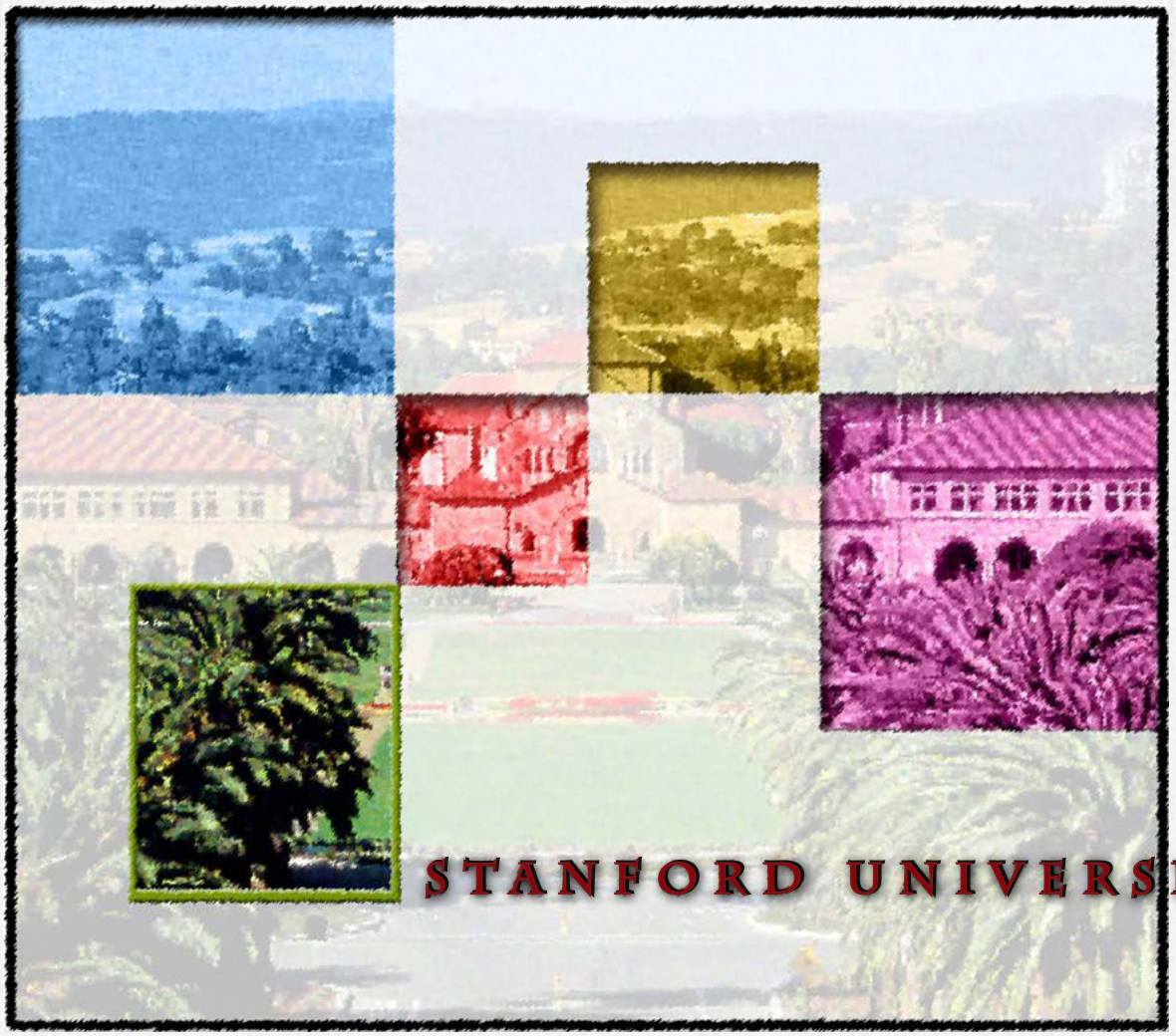
GENERAL USE PERMIT 2000

ANNUAL REPORT NO. 22



COUNTY OF SANTA CLARA
PLANNING OFFICE

June 2023

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Prologue

The Stanford University 2000 General Use Permit (GUP) Twenty-second Annual Report (AR 22) provides public documentation that summarizes development at Stanford University and required environmental mitigation activity within unincorporated Santa Clara County, for the monitoring period from September 1, 2021, through August 31, 2022. This report documents both new projects approved during the reporting period and the status of ongoing projects. Section I provides an introduction and context to the AR 22. Information on project status and a summary of development through the AR 22 reporting period is provided in Section II. Section III provides a summary of GUP compliance. Details and illustrations of projects that received Architecture and Site Approval (ASA) during this reporting period are provided in Section IV. Section V describes anticipated development, Section VI provides information on other significant information in the reporting period, and Section VII provides information on references and the project team.

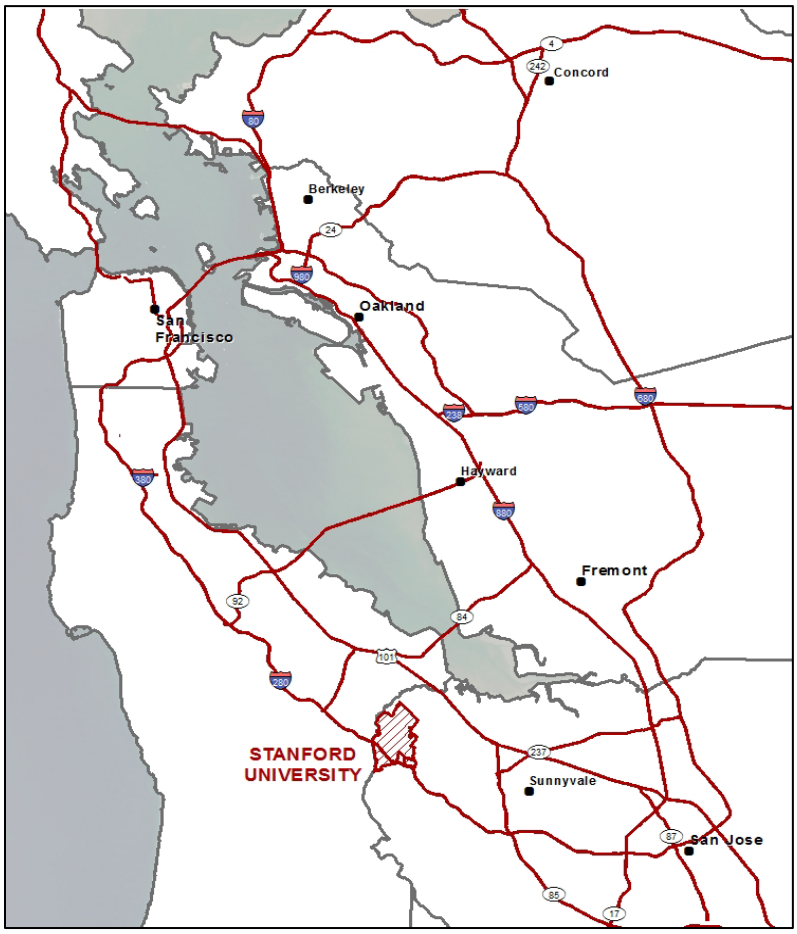
Appendices A, B, C, D, E, and F contain information on campus maps, GUP conditions and additional compliance details, summaries of cumulative development on campus, traffic monitoring results, sustainability activities initiated and ongoing by Stanford University, and a summary of Stanford's approved Alternate Means Programs, respectively.

The production team for this annual report endeavored to make this report user-friendly. If you have comments or questions about the format, you may forward your comments to the County of Santa Clara Planning Office. For the 22nd annual reporting period. Charu Ahluwalia was the County of Santa Clara Planning Office's project manager for the Stanford University environmental mitigation monitoring and reporting program.

Specific questions regarding this report or the Stanford Community Plan, General Use Permit or the Environmental Impact Report may be directed to: Charu Ahluwalia, Senior Planner (email: charu.ahluwalia@pln.sccgov.org).

Stanford University owns 8,180 acres of land, including 4,017 acres within unincorporated Santa Clara County that are subject to the land use jurisdiction and regulatory authority of the County. Please see Map 1 in Appendix A, which shows governmental jurisdiction on Stanford lands. Stanford University is a private institution and is subject to local zoning controls and project approval procedures. Stanford University land in Santa Clara County includes the academic campus, residential areas, and most of the foothills east of Alpine Road.

FIGURE 1: REGIONAL LOCATION



County of Santa Clara guides future use of these lands through (1) the General Plan, (2) the Stanford Community Plan (CP), (3) County Zoning Ordinance, (4) other County ordinances and policies, and (5) the 2000 General Use Permit (GUP).

In November 1999, Stanford University submitted a Draft CP/GUP Application to the County of Santa Clara. As a result of an extensive public review process, significant changes were made in the proposed CP/GUP. The County of Santa Clara, which is the lead agency under the California Environmental Quality Act (CEQA),

prepared a Program Environmental Impact Report (EIR) to disclose the significant environmental effects of development pursuant to the CP/GUP. In December 2000, the County Board of Supervisors certified the EIR and approved the Final CP/GUP (2000 GUP).

The 2000 GUP replaced the 1989 GUP. It is the permit under which Stanford continues its academic and support uses, and authorizes the University to develop the following facilities:

- Academic and academic-support facilities (an additional 2,035,000 net square feet (sq. ft.) plus the square footage remaining under the 1989 GUP)
- Childcare or community centers (an additional 40,000 sq. ft.)
- Temporary trailers and surge space (up to 50,000 sq. ft.)
- Parking structures and lots (2,300 net new parking spaces)
- Housing (3,018 housing units, increased to 4,468 housing units in 2016)

The EIR identified mitigation measures were formally adopted in the Mitigation Monitoring and Reporting Program (MMRP).

GUP Condition D.2 requires Stanford to implement the identified MMRP mitigation requirements as follows:

> "If at any time the County Planning Commission determines that Stanford is not in compliance with one or more conditions of the General Use Permit, it may take corrective action as provided in the County Ordinance Code including, but not limited to, suspension of any future development approvals until such time as the conditions are met. Failure of Stanford to comply with aspects of the Mitigation Monitoring and Reporting Program adopted for the GUP or any specific projects approved under the GUP for which Stanford is responsible shall also constitute a violation of these GUP conditions for which corrective action may be taken as described above."

This Twenty-second Annual Report (AR 22) documents Stanford's development activity and compliance with both the conditions of the 2000 GUP and any specific conditions associated with proposed building projects. It covers the period from September 1, 2021, to August 31, 2022. Activities or projects that occurred after August 31, 2022, are beyond the scope of this Annual Report but will be presented in the next Annual Report that will cover activities between September 1, 2022, and August 31, 2023.

I. Introduction

This report is organized into seven primary sections and six appendices:

I. Introduction - presents the background and overall requirements of the 2000 GUP, the reporting period and organization of the Annual Report, and provides a glossary of terms used in this report.

II. Development Overview - presents major statistics on certain 2000 GUP provisions, including the academic building area cap, the distribution of development, development projects that do not count toward the building area cap, housing, and parking.

III. Overview of Monitoring During Twenty-second Year - summarizes Stanford's activities and status of compliance with 2000 GUP conditions.

IV. Project Summaries - provides summaries of major Stanford projects that received Architectural and Site Approval (ASA) within this Annual Report's reporting period.

V. Anticipated Future Development - lists projects anticipated for submittal/approval during the next Annual Report period. Includes a map showing proposed locations.

VI. Other Information - presents references for the information used in this Annual Report and the persons involved in its preparation.

Appendix A - provides maps to illustrate the general orientation of Stanford University lands and campus.

Appendix B - presents the complete list of 2000 GUP conditions and associated activities in the reporting period.

Appendix C - provides cumulative tables and location maps for building projects, housing projects, parking projects, and grading projects.

Appendix D - provides a summary of the result of traffic monitoring at the Stanford University campus between 2001 and 2022.

Appendix E – presents the Stanford Sustainability Annual Report.

Appendix F – provides a summary of Stanford's approved Alternate Means Programs.

Glossary of Terms

The following terms and acronyms are used in this Annual Report:

AR	**Annual Report:** "AR 22" refers to Stanford's 22nd annual report on development and compliance with GUP conditions.
ASA	**Architecture and Site Approval (ASA):** A procedure established by the County of Santa Clara Zoning Ordinance to review the quality of site and architectural design associated with a proposed project. ASA may establish conditions of approval that change and improve development design.
ASX	**ASA Administrative Review for Minor Projects (ASX):** Projects that are below a certain threshold due to their minimal impact are exempt from the full ASA process and public hearing. ASX is a discretionary staff approval process. ASX may establish conditions of approval that change and improve development design.
CEQA	**California Environmental Quality Act:** The overarching California law under which environmental reviews are conducted.
CP	**Stanford Community Plan:** Plan that refines the policies of the County of Santa Clara's 1995 General Plan as they apply to Stanford lands under County jurisdiction.
DAPER	**Stanford's Department of Athletics, Physical Education and Recreation:** Supports student athletes, and the university's physical education, recreation, and wellness initiatives.
EIR	**Environmental Impact Report:** Documents the result of environmental analyses conducted under CEQA.
FY	**Stanford University's Fiscal Year:** A one-year period from September 1st – August 31.
GUP	**2000 General Use Permit:** Permit issued to Stanford by the County of Santa Clara, which describes the allowable distribution of additional building area, and establishes procedures under which construction may occur and associated measures that must be accomplished before, during and after construction as conditions of approval for development.
NPS	**Non-point source:** Refers to pollution of runoff by diffuse sources, such as vehicle traffic on parking lots or streets.
NSF	**Net square feet:** Total "net" or overall change in square footage. This category designates a total amount of positive or negative square footage for a project, based

	on square footage of total construction ("gross square footage") less any credits for demolition.
SDS	**Sustainable Development Study:** A Study required under GUP Condition E.5 that was submitted by Stanford and approved by the Board of Supervisors in 2009. In 2018, the County prepared a Supplement to the SDS. The Supplement augmented the work previously prepared to identify the maximum planned buildout potential of Stanford lands in unincorporated Santa Clara County.

GUP Building Area Cap

The 2000 GUP (GUP Condition A.1.b) establishes a 2,035,000 net-square-foot building area cap for new academic and academic support uses. The limit applies to most nonresidential development that Stanford proposes to build during the time that this GUP is in effect. Because the exact amount of square footage may change due to design refinements that occur between initial ASA application and subsequent issuance of a building permit, the County requires that the actual square footage deducted from the building area cap be documented at the time a building permit is issued. The cumulative total building area authorized during the reporting period is provided in this annual report for those projects that received building permits between September 1, 2021, and August 31, 2022.

The GUP distributes the 2,035,000 sq.ft. of additional academic and academic support facilities among 11 development districts on the Stanford Campus. Map 3 in Appendix A shows the development districts. The majority of 2000 GUP academic building area is allocated to the Campus Center. The allocation of square footage between the development districts can deviate from the GUP's general allocation as long as the GUP procedures are followed (see GUP Condition E.2). For example, during the AR 8 reporting period, the allocation for Campus Center was revised down from 1,600,268 sq.ft. to 1,480,268 sq.ft. to allow for the allocation of 120,000 sq.ft. to the DAPER (Department of Athletics, Physical Education and Recreation) and Administrative district to accommodate the Knight Management Center and future anticipated projects, which is consistent with the 2000 GUP.

Table 1 lists the development districts, the 2000 GUP allocation of building area for each district, and the amount of academic/academic-support square footage that received ASA or building permit approval in each district during this reporting period. The academic/academic-support projects that do not affect the GUP building area cap are not shown in Table 1. See Section IV, Project Summaries, for additional information on projects that received ASA approval during the AR 22 reporting period.

During the AR 22 reporting period, two projects received ASA approval and there were three ASX projects. Figure 2 illustrates the cumulative status of building-permit-approved square footage for academic/academic-support facilities, including the ASA approved square footage counted during the reporting period, as also shown in Table 1. In addition, it illustrates the remaining allowable square footage for development under the 2000 GUP.

TABLE 1
ANNUAL REPORT 22
DISTRIBUTION OF GUP-ALLOWED ACADEMIC AND ACADEMIC SUPPORT DEVELOPMENT[1]

Development District	2000 GUP Building Area Distribution (sq.ft.)	GUP Building Area Distribution at the end of AR 22[1]	ASA Approved Space in AR 22 (sq. ft.)	Building Permit Approved Space in AR 22[2] (sq. ft.)	Previous ARs Cumulative Building Permit Approvals (sq. ft.)	Cumulative Total Building Permits Approved[3] (sq. ft.)	GUP Balance Remaining (sq. ft.)
Campus Center	1,605,000	1,389,337	201,818	(20,495)	1,160,790	1,140,295	249,042
DAPER & Administrative	250,000	375,796[6]	0	(4,597)	367,470	362,873	12,923
East Campus	110,000	(27,167)[4]	0	0	(30,064)	(30,064)	2,897
Quarry	50,000	165,000	0	0	152,120[5]	152,120	12,880
Lathrop	20,000	20,000	0	(50)	0	0	20,050
West Campus	0	17,341[6]	0	0	17,341	17,341	0
Foothills	0	4,732	0	0	3,135	3,135	1,597
Lagunita	0	89,961	0	0	89,961[5]	89,961	0
Arboretum	0	0	0	0	0	0	0
San Juan	0	0	0	0	0	0	0
Total	**2,035,000**	**2,035,000**	**201,818**	**(25,142)**	**1,760,753[5]**	**1,735,611**	**299,389**

1. 2000 GUP Conditions E.2, 3, and 4 allow for deviations from the building area cap for each district. Any proposed increase in development in a district will be accompanied by an identified corresponding proposed decrease equivalent in building area in one or more of the other districts so that the overall campus-wide GUP building area cap is not exceeded. A cumulative maximum of 15,000 square feet of building area may be located in the Foothills District in a manner consistent with the General Plan and zoning. This amount may not be increased. Redistribution occurred in AR 8, AR 9, AR 11, AR 13, AR 14, AR 17, AR 18, and AR 21.

2. Square footage is counted against the GUP building area cap in the reporting year in which the building permits are approved.

3. Cumulative totals include adjusted results from the current and previous annual reports. Also see Appendix C and/or previous annual reports for more detailed background on these cumulative totals.

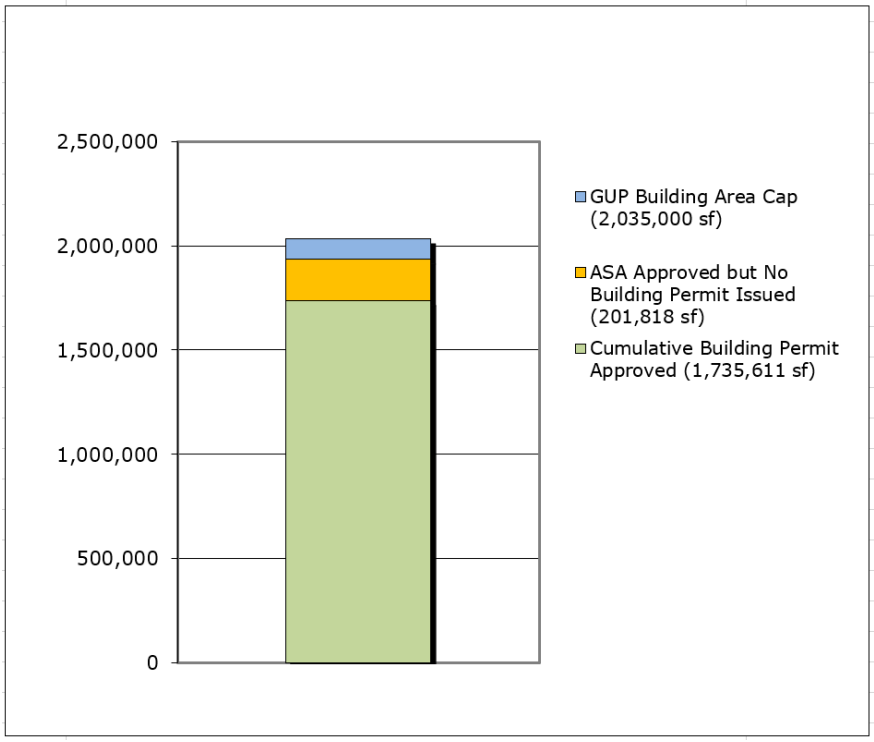
4. The East Campus District has a cumulative credit from previous Annual Reports. In FY 18, when the remaining square footage was transferred to the DAPER District for the Public Safety Building and to the Quarry District for the Center for Academic Medicine, the transfer included all remaining allocation as well as the credit from the net demolition.

5. AR 18 includes a correction to the final square footages of three projects reported in AR 16 and AR 17: The Regional Loading Dock project (AR 16), the Denning House project (AR 17), due to minor design changes or revisions in calculation. AR 19 includes a correction to the square footage of the ChEM-H & SNI project reported in AR 17, which was reduced by 6 sf due to a revision in calculation. AR 20 includes corrections to the square footage of the Center for Academic Medicine and the Academic Advising and Rowing Center, reported in AR 18, due to minor changes to design. These revisions are also noted in Appendix C.

6. In the AR 21 reporting period, the LBRE Replacement Facilities ASA was approved, which includes a GUP square footage redistribution between DAPER and West Campus Districts. Although the redistribution between DAPER and West Campus Districts has occurred with the ASA approval, the redistribution square footage accounting would be reported in Table 1 in the year the demolition/building permits are issued.

Figure 2 illustrates the cumulative status of development that counts toward the GUP building area cap. The square footage of building permit approvals is cumulative. In contrast, ASA approved square footage is only shown for projects that received ASA and ASX (small project) approval during the current reporting period.

FIGURE 2: CUMULATIVE DEVELOPMENT ACTIVITY 12/12/00 - 8/31/22

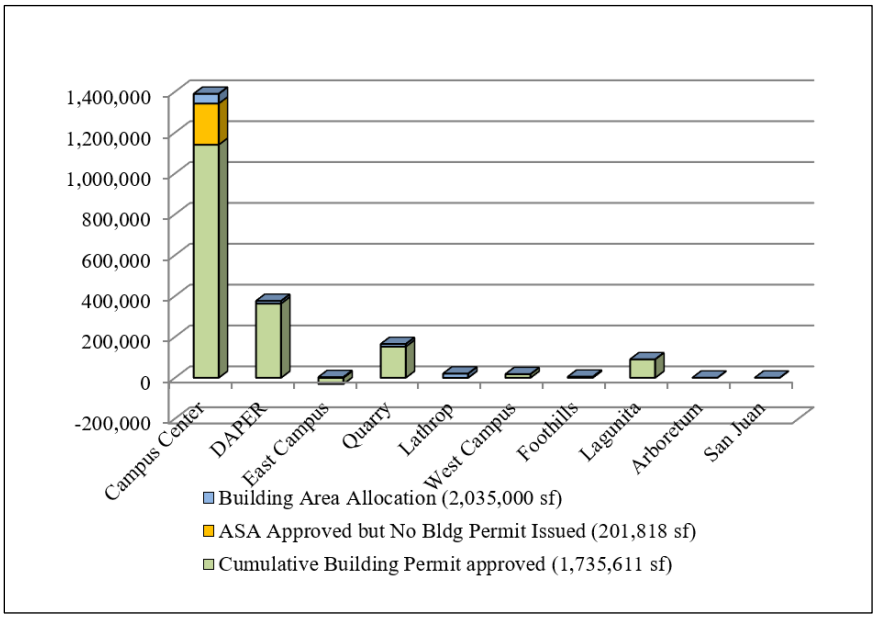


The Stanford Community Plan and GUP Condition E.5 required that a Sustainable Development Study (SDS) be completed and approved prior to acceptance of applications for the second 50% of the academic development allowed under the 2000 GUP. The SDS was presented to the Stanford Community Resource Group (CRG) on November 13, 2008, and to the Planning Commission on November 20, 2008, and was approved by the Board of Supervisors on April 7, 2009. In 2018, the County prepared a Supplement to the Sustainable Development Study. The Supplement augmented the work previously prepared to identify the maximum planned buildout potential of Stanford lands in unincorporated Santa Clara County. The Supplement is available at https://stgenpln.blob.core.windows.net/document/SU_SDS_Supplement.pdf. See Appendix E for a Summary of Stanford's Sustainability Activities during this reporting period.

Figure 3, below, based on data in Table 1 and Figure 2, illustrates the 2000 GUP distribution of academic/academic support square footage throughout the 10 development districts, and the academic/ academic-support square footage authorized by building permits or ASA approval during the current reporting period. Anticipated projects or projects in the approval process for Annual Report 22 reporting period are noted in Section V, Table 6.

FIGURE 3: DISTRIBUTION OF ACADEMIC DEVELOPMENT

A map of Stanford University's Development District is provided in Map 3 in Appendix A. The distribution of GUP-allowed academic and academic-support development is detailed in Table 1.



Other Space Caps

Remaining 1989 GUP Approved Square Footage

In addition to providing a 2,035,000 sq. ft. academic/academic support building area, the 2000 GUP preserved the remaining 92,229 sq. ft. authorized but undeveloped under the 1989 GUP. The remaining 1989 GUP approved square footage was consumed during the Annual Report 5 reporting period.

Temporary Surge Space

The 2000 GUP (Condition A.2.c) allows Stanford University to install up to 50,000 sq. ft. as surge space during construction. Surge space is typically provided by installing modular buildings for a limited time.

Childcare and Community Centers

The 2000 GUP (Condition A.2.c) allows up to 40,000 sq. ft. of building area for the purpose of new childcare or community centers, in addition to the academic/academic support building area. As indicated in Table 2, a total of zero sq. ft. remains available.

TABLE 2
ANNUAL REPORT 22
OTHER SPACE CAPS - PROJECT SUMMARY

Non-Building Cap Category	Maximum Allowable Square Footage	ASA Approved (sq. ft.)	Building Permit (sq. ft.)	Cumulative Building Permits Approved (sq. ft.) from AR 1-AR 21	Cumulative Total Building Permits Approved (sq. ft.) from AR 1-AR 22	Balance Remaining (sq. ft.)
Remaining 1989 GUP Square Footage	92,229	0	0	92,229	92,229	0
Temporary Surge Space	50,000	0	0	0	0	50,000
Childcare/ Community Center	40,000	0	0	40,000	40,000	0

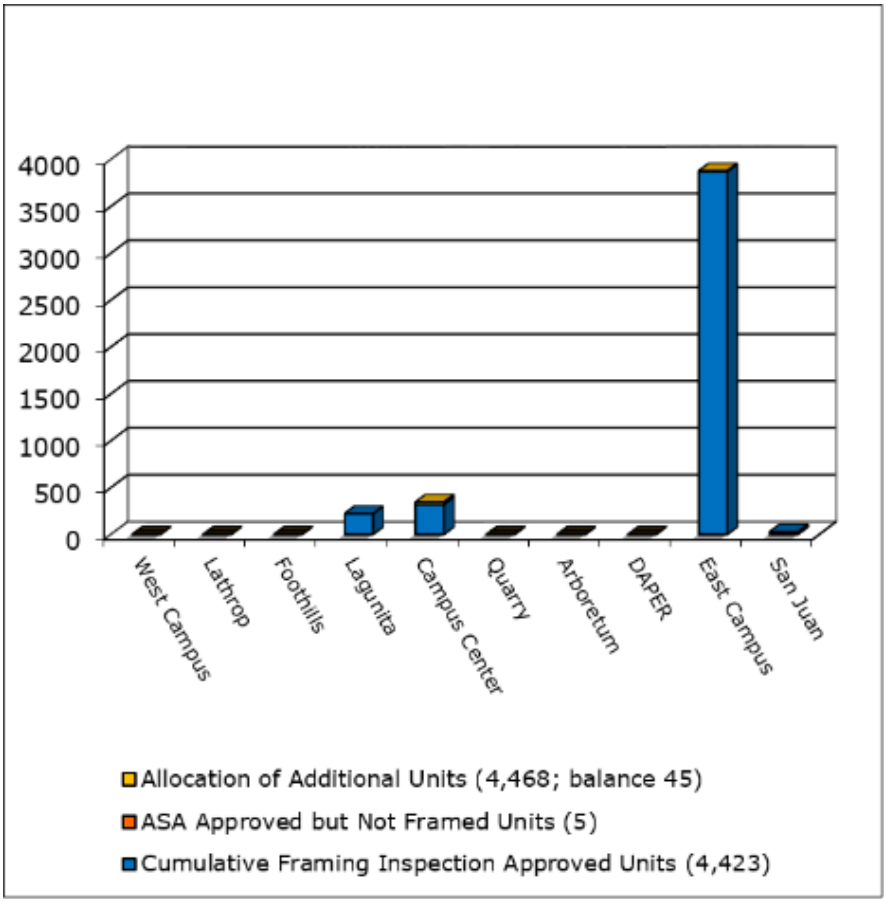
Housing

The 2000 GUP allows for the construction of 3,018 net new housing units on campus, with allocations for faculty and staff, graduate and undergraduate students, and postdoctoral and medical students. In AR 16 reporting period, pursuant to Condition F.7, the Planning Commission approved an additional allocation of 1,450 housing units, for a total allocation of 4,468 housing units, as shown in Table 3. The GUP identified potential housing sites for students, staff, and faculty (Map 4, Appendix A). As with academic/academic support building space, the housing units must be distributed among the 10 development districts (see Table 3).

Housing may also be developed on sites other than those shown on Map 4. The estimated distribution of the type and location of housing among development districts may deviate from the locations described in the 2000 GUP pursuant to Conditions F.2, F.3, and F.4. As explained under Condition A (A.1.c, A.1.d, and A.3.b), the square footage of housing units constructed is tracked but does not count toward the 2000 GUP building area cap (see Table C-2, Appendix C).

For purposes of the housing linkage requirement, as provided in GUP Condition F.8, the housing requirement is counted at the time of the framing inspection.

FIGURE 4: DISTRIBUTION OF RESIDENTIAL DEVELOPMENT



There is currently a total allocation of 4,468 housing units for the campus. As illustrated in Figure 4, the cumulative total number of approved units under the 2000 GUP allocation, which have completed framing inspection, is 4,423 units. A total of 45 housing units remains available under the housing allowance.

TABLE 3
ANNUAL REPORT 21
DISTRIBUTION OF RESIDENTIAL DEVELOPMENT

Development District[1]	Allowable 2000 GUP Net Additional Units	ASA Approved Units but Not Yet Framed	Past Cumulative[2]	Final Framing Inspection Approved Units	Cumulative	Unused 2000 GUP Authorization
West Campus	0	0	0	0	0	0
Lathrop	0	0	0	0	0	0
Foothills	0	0	0	0	0	0
Lagunita **- Driving Range** **- Searsville Block** **- Mayfield/Row**	222	0	220	0	220	2
Campus Center	345	0	318	0	318	27
Quarry **- Quarry/Arboretum** **- Quarry/El Camino**	0	0	0	0	0	0
Arboretum	0	0	0	0	0	0
DAPER & Administrative	0	0	0	0	0	0
East Campus **- Manzanita** **- Escondido Village** **Quillen** **GSB Residences**	3,878	0	3,867	0	3,867	11
San Juan **Lower Frenchman's** **Gerona** **Mayfield**	23	5	18	0	18	5
Total	**4,468 Allowed**[1, 3, 4]	**5**[7]	**4,423**	**0**	**4,423**	**45**

1. Housing may be developed on other sites and development may vary from the estimated distribution with regard to either the type (student, postdoctoral, or faculty/staff) or amount of housing on the site (2000 GUP Conditions F.2, F.3, and F.4). Redistribution was reported in AR 6, AR 13, AR 14, AR 16 and AR 17.

2. Cumulative totals include results from previous annual reports. See Appendix C and/or previous annual reports for more detailed background on these cumulative totals.

3. A GUP amendment was approved on May 5, 2015, to revise the remaining housing allocations by housing types, to provide flexibility in meeting campus housing needs. All remaining unused housing allowances consisting of 228 faculty/staff beds, 3 graduate student bends, and 350 post-doc/medical resident beds, were approved to be usable for any type of university affiliate housing.

4. 1,450 additional housing units were approved on March 24, 2016, pursuant to GUP Condition F.7, in preparation for the Escondido Village Graduate Residences (EVGR) project. At the same time, 566 housing units from various Development Districts were reallocated to the East Campus Development District (194 from Lagunita, 1 from Campus Center, 350 from Quarry, and 21 from San Juan). The ASA for the EVGR project was approved in FY 17.

5. The Kingscote Gardens Renovation was approved on March 30, 2016, removing 33 units from the housing inventory for conversion to academic offices.

6. In September 2018, with further updates in October of 2020, the Board of Supervisors adopted an ordinance (Ordinance No. NS-1200.368) for a 16% inclusionary housing requirement applicable to the Stanford Community Plan Area for residential development projects of three or more units. The ordinance became effective on July 1, 2019. There were no housing projects subject to the inclusionary housing requirement during or after the AR 20 reporting period.

7. In 2019, the Board of Supervisors approved the redistribution of 5 housing units from Campus Center Development District to San Juan Development District, associated with the Cabrillo-Dolores Faculty Housing Project.

Parking

The 2000 GUP allows for 2,300 net new parking spaces above the campus base of 19,351 spaces. As explained in Condition A.3.c, the building area of parking structures does not count towards the GUP academic/academic-support building area cap. As with academic/academic-support building area square footage and housing, the allowed parking spaces have been distributed among the development districts (Table 4 and Figure 5).

FIGURE 5: DISTRIBUTION OF PARKING SPACES

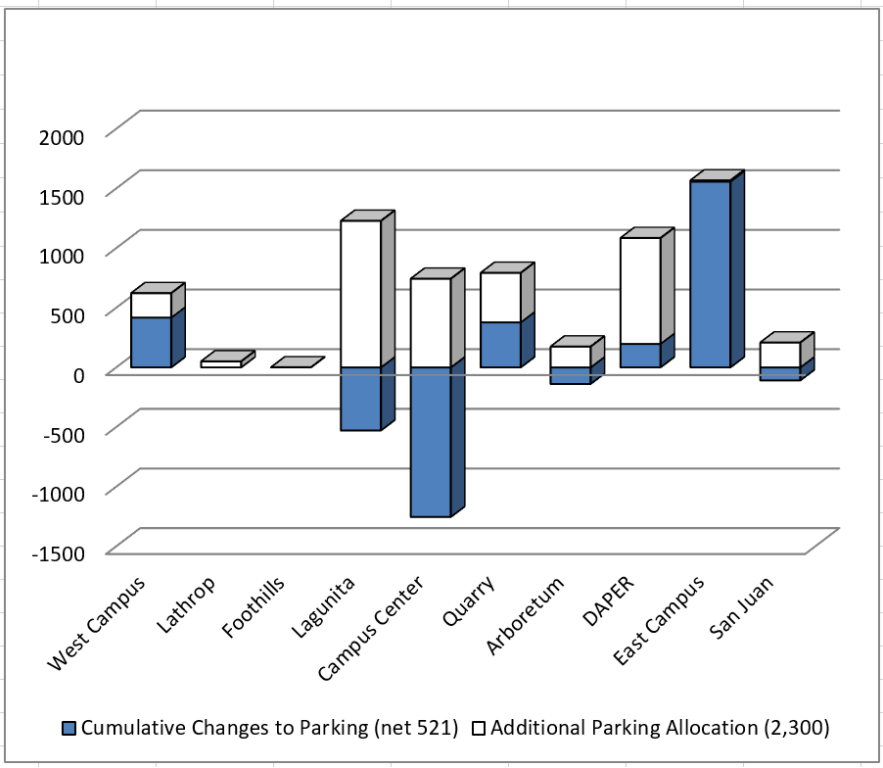


Table 4 presents the changes in parking spaces during the current reporting period, and cumulative increases and decreases in parking spaces on the campus during the AR 1 through AR 22 reporting periods.

During the AR 22 reporting period, there was a net decrease of 59 parking spaces on campus. The cumulative change in the parking inventory is a net increase of 521 parking spaces under the 2000 GUP.

TABLE 4
ANNUAL REPORT 22
DISTRIBUTION OF PARKING

Development District	Base Parking GUP EIR	2000 GUP Allowed Change in Parking Spaces	Changes to Parking Inventory				Unused 2000 GUP Allocation
			AR 22 Contribution	Previous AR 1-21 Contribution	Cumulative (AR 1 Through Current AR 22)	EIR Base and Cumulative (Current Parking Capacity)	
West Campus	191	622	0	417	417	608	205
Lathrop	0	50	0	0	0	0	50
Foothills	0	0	0	0	0	0	0
Lagunita	1,745	700	0	(528)	(528)	1,217	1,228
Campus Center[1]	8,743	(511)	1	(1,254)	(1,253)	7,490	742
Quarry	1,058	800	(8)	385	377	1,435	423
Arboretum	134	36	0	(138)	(138)	(4)	174
DAPER & Administrative	2,209	1,092	(8)	205	197	2,406	895
East Campus[1]	4,731	1,611	(44)	1,601	1,557	6,288	54
San Juan	540	100	0	(108)	(108)	432	208
Campus Wide Summary	19,351	2,300[2]	59	580	521	19,872	1,779[2]

1. Parking allocation in East Campus increased from 900 to 1,611 spaces and decreased in Campus Center from 200 to negative 511 with the approval of Parking Structure 6 (Munger) in AR 8. The reduction of parking spaces in Campus Center was achieved by eliminating Stern Parking Lot and several other parking stalls.

2. According to 2000 GUP Condition H.1, the total net additional parking on campus shall not exceed 2,300 spaces, except for parking provided with any housing that is constructed in excess of 3,018 planned housing units. Also, per GUP Condition H.1, parking constructed as part of and for new faculty/staff housing in areas designated Campus Residential-Low Density and Campus Residential-Medium Density will not count toward the limit for each development district. In order to allow flexibility in the distribution of parking, the GUP also sets an upper limit for new parking in each development district. Some districts will ultimately build less than their GUP allocations. Thus, the sum of unused district allocations is more than the remaining 2000 GUP allocation, which is the campus-wide maximum number of parking spaces that will be built under this GUP.

3. Parking allocation for Arboretum increased from zero to 36 spaces and decreased in DAPER from 1,700 to 1,664 when on-street, non-striped parallel parking was converted to striped, angled parking along the west side of the street, and two-way traffic was converted to one-way northbound traffic in association with the Galvez Parking Lot project.

4. Parking allocation for West Campus increased from 50 to 622 and decreased in DAPER from 1,664 to 1,092 when 611 new surface parking stalls were added to the Searsville Parking lot and 19 on-street parking spaces were removed in West Campus.

5. In FY 16, Stanford conducted a comprehensive quality review of the parking inventory which resulted in the following corrections:
   (i) 61 spaces were removed from the Quarry District inventory (Lot 1-A and Parking Structure 9 next to Hoover Pavilion) as these are in Palo Alto, but entered into the inventory in AR 14 and AR 15 by mistake;
   (ii) 28 faculty/staff-only spaces in the San Juan District within R1S and R3S zoning were removed from the inventory, consistent with the treatment of parking for the faculty subdivision per GUP Condition H.1; and
   (iii) 108 bus storage and staging spaces were removed from the inventory, including 64 spaces at L-20 for storage of Marguerite shuttles in the Campus Center District; 38 spaces at Oak Road for staging of Marguerite, tour bus, charter bus, and authorized oversize vehicle and equipment in the Campus Center District; and 6 spaces for tour bus staging in the Arboretum District. Bus storage and staging areas are not part of the parking inventory that can be used by commuters, campus residents, or the general public, but rather serve to facilitate a mode of transportation that reduces vehicular trips to and from campus.

III. Overview of Monitoring During Twenty-second Year

This section provides a summary of activities conducted during the AR 22 reporting period in compliance with 2000 GUP conditions. For a complete discussion of compliance with each 2000 GUP condition, please see Appendix B.

GUP Condition A: Building Area

Section II of this Annual Report provides statistics and distribution of building area by district. It also provides accounting of the 2000 GUP space expenditure for those projects that received building permits during the AR 22 reporting period. Descriptions and illustrations of projects that received ASA and ASX during the AR 22 reporting period are provided in Section IV.

During the AR 22 reporting period, September 1, 2021, through August 31, 2022:

- Stanford did not exceed the GUP building area cap, or the GUP caps for new housing and parking.
- Stanford also remained within the other space caps established under the GUP.

GUP Condition B: Framework

A total of five projects received ASA approval or ASX during the AR 22 reporting period. All were determined to be consistent with General Plan land use designations and zoning. Stanford University paid all costs associated with the work conducted by the County Planning Office in relation to the 2000 GUP (staff time, consultant fees, and the direct costs associated with report production and distribution), mostly in a timely manner.

GUP Condition C: Monitoring, Reporting, and Implementation

The County Planning Office gathered comprehensive data related to Stanford projects, compiled the information, produced and published the AR 22 pursuant to the 2000 GUP. Stanford University provides funding for all aspects of the Annual Report preparation, and necessary information included in the report.

The Draft AR 22 will be presented to the Community Resource Group on April 13, 2023, and the final report will be presented to the Planning Commission at the June 2023 public hearing.

GUP Condition D: Permitting and Environmental Review

During the AR 22 reporting period, Stanford received ASA or ASX for five projects. All of these projects were determined to be consistent with the General Plan land use designations and zoning

requirements and were found to be adequately analyzed in the CP/GUP EIR. See Section II of this Annual Report for the status of each project.

When violations of codes, ordinances, or other requirements occur, they are addressed through appropriate County procedures. During the AR 19 reporting period, a violation was issued by the County involving the Cabrillo-Dolores Subdivision, for unpermitted removal of three oak trees and noncompliance with GUP Condition K.2., relating to preconstruction surveys for nesting raptors and migratory birds. The required replacement trees will be planted following project completion, anticipated to be in AR 23 reporting period.

During the AR 21 reporting period, a combined violation was issued by the County involving three projects (Via Ortega North, Academic Advising and Rowing Center and Serra Roundabout projects), mainly for unpermitted tree removal. Ten protected trees (four oak and six non-oak) were removed without a permit. To return to compliance, Stanford was required to pay a fine of $50,000 ($5,000 per tree removed), to submit modifications to prior approvals proposing tree replacement, and to legalize other work done in violation. The $50,000 fine has been paid by Stanford and a permit modification with the required tree replacement conditions have been issued by the County. Stanford was required to plant forty (40) replacement oak trees and sixty (60) replacement non-oak trees. In the AR 22 reporting period, Stanford planted the required replacement trees.

Stanford University remains in general compliance with the GUP and other County requirements.

GUP Condition E: Academic Building Area Review

Stanford is in compliance with GUP Condition E.5. See Appendices B and E for more detail. Appendix E is provided electronically at https://sustainability-year-in-review.stanford.edu/2022/

GUP Condition F: Housing

During this reporting period, Stanford did not add or remove housing units and 2,020 net new housing units were completed via the Escondido Village Graduate Residences project. The total number of campus housing units constructed under the 2000 GUP is now 4,423. The Cabrillo-Dolores Faculty Housing project is currently under construction and will result in 5 net new housing units.

Currently, Stanford's capacity for providing student-housing units remains equivalent to the capacity identified by Stanford University

at the time of initial occupancy. Stanford's housing need is subject to fluctuation during any given year. Accordingly, Stanford University may redistribute the student population among existing housing facilities in any given year, based on current population and programmatic needs. The County will, as needed, reassess housing availability status with appropriate Stanford University staff. If Stanford University should ever apply for a development permit that would change the number of beds available to students, that action and the change in beds would be reported in the Annual Report.

The 2000 GUP requires Stanford to build additional housing units commensurate with the development of academic/academic-support facilities. The threshold at 1,500,000 sq. ft. of academic or academic -support area requires a minimum of 1,815 housing units. Stanford University has constructed 4,423 units and is therefore in compliance with this requirement.

Stanford has complied with the affordable housing requirements under the GUP conditions for net new academic square footage constructed by paying the in-lieu fee for applicable projects prior to occupancy. An Affordable Housing Fee Square Footage Bank (Square Footage Bank) has been maintained by the County since 2000 for demolition or conversion of projects that remove buildings from GUP allocation square footage. Stanford may use the square footage from the Square Footage Bank and is not required to pay the in-lieu fee because the square footage is not treated as net new academic square footage.

For this reporting period Stanford paid no in-lieu fees and no square footage from the Square Footage Bank was used. As of August 31, 2022, Stanford has made affordable housing fee payments totaling $39,348,456. At the end of AR 22 reporting period, 173,184 square feet remain in the Square Footage Bank.

Five affordable housing projects have been built within a six-mile radius from the Stanford Campus boundary and have provided 286 affordable housing units, with 137 units restricted to very low income to extremely low-income families. In September 2017, $14.5 million of the in-lieu fees was used to partially fund the acquisition and rehabilitation of the Buena Vista Mobile Home Park in Palo Alto. In addition, on April 17, 2018, the County Board of Supervisors approved setting aside $6,000,000 to support the development of a 60- to 100-unit multifamily rental development in Palo Alto for teachers.

GUP Condition G: Transportation

A baseline traffic count to determine the existing level of commute trips entering the campus during the morning peak commute period and leaving the campus during the evening peak commute period

was established in 2001. The baseline is the raw traffic volumes adjusted for hospital parking and cut-through traffic.

A COVID 19 shelter-in-place (SIP) order resulted in the shutdown of Stanford University campus starting March 2020. After the campus closure in 2020, the year 2021 represented a gradual return to normal. The campus remained closed to all students due to the SIP order through the spring of 2021 and reopened in the fall of 2021. Since the fall of 2021, the monitoring program has returned to its normal methodology of collecting the full set of data with additional COVID safety precautions in place, such as compulsory daily check-ins and staff vaccination/testing.

The 2000 GUP Condition G.7.a. requires traffic counts for a minimum of three times per year for an interval of two weeks each time. Since 2003, the established methodology for traffic monitoring program is six weeks in the spring and two weeks in the fall for a total of eight weeks of count data. In 2022, the Stanford monitoring program returned (after the COVID-19 pandemic shut down) to the standard methodology under which the program has been consistently conducted since 2003.

The baseline used to determine compliance with the no-net-new trips included the adjustments; the adjusted traffic volumes were always calculated as part of the monitoring program for that year. In the AR 22 reporting period, the adjustment data was collected for six weeks in spring and two weeks in fall.

In 2022, the monitoring program collected all the data required to compare traffic levels to the baseline. The 2022 Monitoring Report concludes that the adjusted AM inbound fall count totaled 2,315 vehicles. This represents a decrease of 1,004 vehicles below the baseline 2001 AM inbound count. The 2022 PM outbound count of 2,840 vehicles is 606 vehicles below the baseline 2001 PM outbound count. Stanford University is in compliance with the 2000 GUP no-net-new-trips requirement in 2022.

The Stanford University Traffic Monitoring Report 2022 is available for review on the County website, (https://plandev.sccgov.org/policies-programs/stanford-university/2000-general-use-permit/annual-reports). Results of annual traffic monitoring are summarized in Appendix D of this document.

The Annual Report normally reports on activity between September 1 and August 31. However, the typical annual Traffic Monitoring Reporting period is the same as the baseline, 8 weeks for the period of a calendar year.

The 2022 traffic monitoring cordon locations used for traffic monitoring are shown on Figure 1 of the Stanford University Traffic Monitoring Report 2022, available at the aforementioned County website link. Data and analysis of these counts, reported in March 2023, are provided in Appendix D of this annual report.

GUP Condition H: Parking

During AR 22 reporting period, all parking projects were in compliance with GUP Condition H. Detailed information may be found in Section II, Table 4 and Appendix B, Appendix C (Map C-3) and Figure 5. As indicated in this Annual Report, several parking projects were implemented. The cumulative change in the parking inventory remains significantly under the cap set for the 2000 GUP, which allowed a total increase campus-wide of 2,300 spaces. With cumulative reductions, the remaining parking capacity that could be installed under the 2000 GUP parking cap is 1,779 spaces.

GUP Condition I: Parks and Recreation Facilities

Construction of Stanford Perimeter Trail: San Mateo County and Stanford did not reach agreement for the San Mateo C1 segment and in February 2012, Stanford paid County of Santa Clara approximately $10.3 million. In August 2012, the County issued a request for applications for projects that would serve as alternative mitigation measures to address the loss of recreational facilities on the Stanford campus. The County received 15 project applications from six local agencies. The Board of Supervisors declared its intent to fund six of the 15 projects, including $4.5 million to Stanford to construct a perimeter trail along El Camino Real and Stanford Avenue frontages. Stanford subsequently did not accept the grant award for the Stanford Perimeter trail, which was opened to the public in April 2016. The Board also directed County Administration to negotiate project agreements for the selected projects and submit approval to the Board consistent with the requirements of CEQA. A project agreement and appropriation modification for the Adobe Creek / Highway 101 Overcrossing Project were approved by the Board on December 17, 2019, and an appropriation modification for the Ravenswood Bay Trail project was approved by the Board on February 25, 2020.

Further, at the May 12, 2020, Board meeting, the Board declared its intent to fund all or part of seven additional projects relating to alternative mitigation for loss of recreational facilities on the Stanford campus. Project agreements for two of seven projects have been approved, namely the Alpine Trail (Midpeninsula Open Space District), and US 101/ University Avenue Pedestrian/ Bicycle Overcrossing (City of East Palo Alto). Another project agreement

relating to trail work at the Holbrook-Palmer Park in Atherton is expected to go to the Board in April 2023. The remaining projects have a declaration of intent.

GUP Condition J: California Tiger Salamander

The final Stanford University Habitat Conservation Plan (HCP) and Final Environmental Impact Statement (EIS) were published on November 23, 2012, and the HCP was revised in March 2013. On August 13, 2013, the County Board of Supervisors acknowledged the determination that the approved HCP provides equal habitat value and protection for the California Tiger Salamander (CTS). Therefore, the HCP supersedes all conditions in the GUP that address the CTS, implementing Condition J.9 of the GUP.

GUP Condition K: Biological Resources

Four projects that began construction during the current reporting period required pre-construction surveys for breeding raptors and migratory birds. For more information, see Appendix B, Condition K.2. No special status plant assessments were conducted on campus during this reporting period.

During the AR 21 reporting period, a combined violation was issued by the County involving three projects (Via Ortega North, Academic Advising and Rowing Center and Serra Roundabout projects), mainly for unpermitted tree removal. Ten protected trees (four oak and six non-oak) were removed without a permit. Stanford was required to plant forty (40) oak replacement trees and sixty (60) non-oak replacement trees. Stanford planted the required replacement trees in 2022.

GUP Condition L: Visual Resources

Five (5) projects approved during the reporting period included exterior lighting. The ASA conditions of approval required the lighting impacts to be mitigated and limited to the site to be in keeping with the Visual Resources conditions.

GUP Condition M: Hazardous Materials

During the AR 22 reporting period, no new buildings will include hazardous materials that are regulated by the California Accidental Release Prevention Law.

III. Overview of Monitoring During Twenty-second Year

GUP Condition N: Geology and Hydrology

During the AR 22 reporting period, all projects were in compliance with GUP Condition N. See Appendix B, Condition N for more details.

GUP Condition O: Cultural Resources

During the AR 22 reporting period, all projects were in compliance with GUP Condition O. See Appendix B, Condition O for more details.

GUP Condition P: Utilities and Public Services

During the AR 22 reporting period, all projects were in compliance with GUP Condition P. See Appendix B, Condition P for more detail.

GUP Condition Q: Air Quality

All approved projects were required to comply with BAAQMD's permitting, control measures and recommendations as appropriate. See Appendix B, Condition Q for more detail.

GUP Condition R: Noise

Stanford complied with the requirements of the County Noise Ordinance on individual construction projects. Two events per calendar year are allowed by the GUP and additional fireworks events were allowed under separate permits. Stanford continues to meet the GUP Condition by operating the noise hotline at (650) 724-4900, which is intended to log complaints related to outdoor special events and high impact events on campus. The University reports that twenty-three (23) noise complaints were received during the AR 22 reporting period. See Appendix B, Condition R for more detail. Over half of the noise complaints in this reporting period were related to fireworks associated with an athletic event. There were no major athletic events with fireworks displays during the past two years of the COVID 19 shelter-in-place (SIP).

GUP Condition S: Additional GUP Conditions

This condition was a requirement for Stanford University to agree to the GUP conditions of approval within 60 days. This condition was fulfilled in Annual Report 1.

Project Summaries

This section presents brief project summaries of all major projects that received ASA approval or exemption and/or a building permit or demolition permit during the reporting period. A list of projects that received approval is presented at the end of this section. Figure 6 shows the locations of the major projects.

FIGURE 6: LOCATION OF MAJOR ANNUAL REPORT 22 PROJECTS

File No. PLN21-011: Graduate School of Education (GSE) Project

ASA Application Submitted:	01/26/2021
ASA Approved:	Approved 05/05/2022
Status as of 08/31/22:	Planning Approval Obtained. Demolition and Building Permits under review.
Project Description:	The proposed Graduate School of Education (GSE) includes rehabilitation of the existing North Building, demolition of two out of three buildings of the Barnum Center, construction of a new four-story South Building, and associated site improvements. Existing spaces will be redesigned and reconfigured for more efficient use of space and outfitted with the latest technology to support contemporary teaching, learning and educational research. Proposed estimated grading quantities associated with the Grading Approval include 834 cubic yards (c.y.) of cut and 276 c.y. of fill, with a maximum depth of 9 feet. Two (2) oaks and thirteen (13) non-oaks over 12-inches in diameter are proposed for removal. Of these, two (2) oak and three (3) non-oak trees count as protected trees under the 2000 Stanford GUP and would be replaced by six (6) new oak and three (3) new non-oak trees.
Development District:	Campus Center
Type of Project:	Academic

Applicable GUP Conditions:	Stanford is in compliance with Mitigation Monitoring and Reporting Program requirements and GUP Conditions for this project. Detailed summaries of project-related conditions are maintained in County project files.

File No. PLN21-040: Bridge Building (Data Science and Computation Complex)

ASA Application Submitted:	03/24/2021
ASA Approved:	Approved 11/04/2021
Status as of 08/31/21:	Planning Approval Obtained. Building Permits under review.
Project Description:	The project includes construction of a new Bridge Building, and associated site improvements. Located at the corner of Jane Stanford Way and Lomita Mall, the complex will connect the original academic campus with the newer arts, engineering, and medical precincts to the north, south, and west. This central campus location provides close physical adjacencies to the Gates Building and Sequoia Hall, both of which house some of the strongest expected collaborators of the Bridge Complex. Proposed estimated grading quantities associated with the Grading Approval include 13,938 cubic yards (c.y.) of cut and 146 c.y. of fill. Two (2) oak trees and six (6) non-oak trees over 12-inches in diameter are proposed for removal, to be replaced by six (6) new oak trees and six (6) new non-oak trees.
Development District:	Campus Center
Type of Project:	Academic

Applicable GUP Conditions:	Stanford is in compliance with Mitigation Monitoring and Reporting Program requirements and GUP Conditions for this project. Detailed summaries of project-related conditions are maintained in County project files.

TABLE 5
ANNUAL REPORT 22
DEVELOPMENT PROJECTS RECEIVING ASA OR OTHER APPROVAL

PC/ File #	Project Name	Development District	ASA gross sq. ft.	Demolition sq. ft.	Bldg. Permit sq. ft. (New Constr.)	Development Status (as of 08/31/22)
Projects that affect GUP sq.ft.						
10829	Demolition of Herrin Hall	Campus Center		(35,944)		Complete
10829	Demolition of Herrin Labs	Campus Center		(78,047)		Complete
3497	Academic Advising and Rowing Center	Campus Center	23,714		22,622	Complete
11176	EOC/ECH	DAPER & Administrative	7,429		6,701	Under Construction
11218	Gilbert Greenhouse	Campus Center	714		Not yet	ASA Approved obtained; Project on hold
PLN19-0164	George P. Shultz Building	Campus Center	48,643	(48,643)		Under Construction
PLN20-081	LBRE Replacement Facilities	West Campus/ DAPER & Administrative	73,000	(123,922)		ASA Approved, Grading and Building Permit Application under review
PLN20-048	Collaboration Building Project in the CASBS Complex	Lathrop	1,701	(1,751)		ASA Approved, Grading and Building Permit Application under review
DEV21-2192	Redwood Demolition	Campus Center		(20,495)		Demolition Permit Issued
DEV 21-2116, DEV 21-2117, DEV 21-2119	Stanford Stadium Restroom Demolitions (Galvez and El Camino – 3 restrooms)	DAPER & Administrative		(3.231)		Demolition Permit Issued
DEV21-3021	Stanford Stadium Restroom Demolitions (Berm – 5 restrooms)	DAPER & Administrative		(2,282)		Demolition Permit issued
DEV22-0346, DEV22-0347, DEV22-0348, DEV22-0349, DEV22-0350,	Stanford Police Compound Demolitions (3 Trailers and 2 building structures)	DAPER & Administrative		(5,785)		Demolition Permit issued

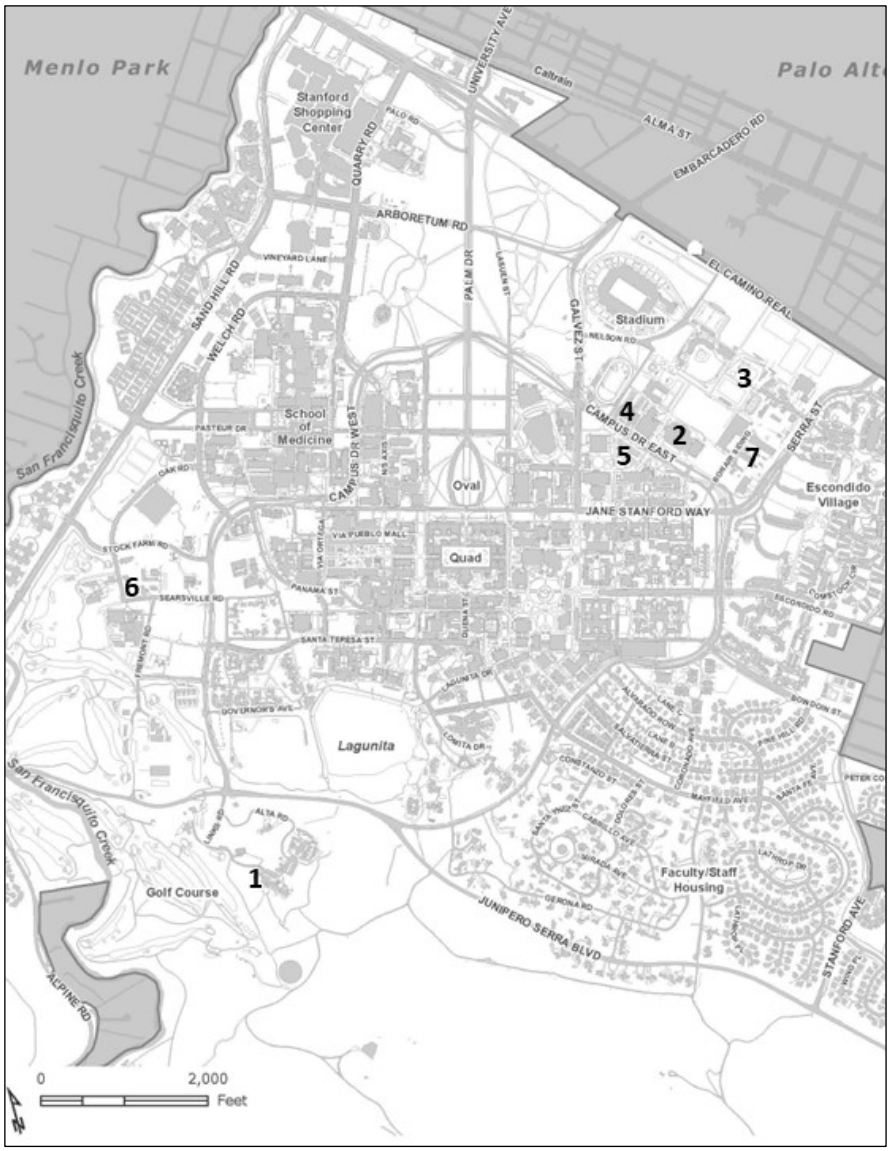
TABLE 5
ANNUAL REPORT 22
DEVELOPMENT PROJECTS RECEIVING ASA OR OTHER APPROVAL

PC/ File #	Project Name	Development District	ASA gross sq. ft.	Demolition sq. ft.	Bldg. Permit sq. ft. (New Constr.)	Development Status (as of 08/31/22)
PLN21-011	Graduate School of Education (GSE)	Campus Center	48,193		Not Yet	ASA Approved
PLN21-040	Bridge Building	Campus Center	157,500		Not Yet	ASA Approved
PLN22-146	Student Observatory Dome Replacement	Lathrop/Foothills	0	0	0	Under Planning Review
Projects that affect other sq.ft.						
None in AR 22						
Housing						
11069	Cabrillo-Dolores Faculty Housing	San Juan	23,448 housing sq.ft.	(5,273) housing sq.ft.	Not yet	Under construction (Retroactive Tree Removal Permit issued in July, 2020)
PLN21-199	Lasuen Row House Rehabilitation	San Juan	0	0	0	ASX Approved
Site Projects						
8972	Serra Roundabout	DAPER & Administrative and East Campus	N/A	N/A	N/A	Under Construction, ASA & Grading Permit Modification Approved for Violation Abatement; Tree Replacement completed
11171	Via Ortega North Project	Campus Center	N/A	N/A	N/A	Under Construction, ASA & Grading Permit Modification Approved for Violation Abatement; Tree Replacement completed
11335	Bonair Pampas Road	DAPER & Administrative	N/A	N/A	N/A	Under Construction

TABLE 5
ANNUAL REPORT 22
DEVELOPMENT PROJECTS RECEIVING ASA OR OTHER APPROVAL

PC/ File #	Project Name	Development District	ASA gross sq. ft.	Demolition sq. ft.	Bldg. Permit sq. ft. (New Constr.)	Development Status (as of 08/31/22)
PLN21-202	Crothers Way-Service Road Extension	Campus Center/ East Campus	N/A	N/A	N/A	ASX Approved
PLN22-021	Stanford Reservoir 1 Pump Station Rehabilitation Project	Foothills	N/A	N/A	N/A	ASX Approved

FIGURE 7: LOCATION OF ANTICIPATED PROJECTS



Map ID	Project
1	Student Observatory Dome Replacement
2	Maples Pavilion Addition
3	Softball Stadium Renovation
4	Varsity Tennis Center
5	Taube South Covered Tennis Courts
6	Oak Road Vehicle Wash Station
7	Existing LBRE Complex Demolition (Boniar Siding)

TABLE 6
ANTICIPATED PROJECTS FOR ANNUAL REPORT 23

County File #	Project	Development District	ASA Application Submitted	Anticipated ASA Square Footage	Anticipated Housing	Anticipated Parking
ASA Applications Submitted During the AR 22 reporting period or earlier, No Approval as of August 31, 2022						
PLN22-146	Student Observatory Dome Replacement	Lathrop/Foothills	08/2022	0	-	-
ASA & Other Applications Anticipated for AR 23 Reporting Period						
PLN22-207	Maples Pavilion Addition	DAPER & Administrative	11/2022	11,659	-	-
PLN23-033	Softball Stadium Renovation	DAPER & Administrative	02/2023	(36,522)	-	-
PLN23-036	Varsity Tennis Center	DAPER & Administrative	02/2023	0	-	-
PLN23-050	Taube South Covered Tennis Courts	DAPER & Administrative	03/2023	0	-	-
PLN23-049	Oak Road Vehicle Wash Station	Campus Center	03/2023	N/A	-	-
	Existing LBRE Complex Demolition (Boniar Siding)	DAPER & Administrative	Not submitted	123,922	-	-

VI. Other Information

References

- County of Santa Clara 2000 Stanford Community Plan/General Use Permit Environmental Impact Report. Prepared by Parsons.
- Stanford University Community Plan. Adopted by County of Santa Clara Board of Supervisors December 12, 2000.
- Stanford University General Use Permit. Approved December 12, 2000.

County of Santa Clara Annual Report Preparers

- Charu Ahluwalia, Senior Planner [(408) 299-5740/ charu.ahluwalia@pln.sccgov.org] (Project Manager: Stanford Environmental Mitigation Monitoring and Reporting Program), County of Santa Clara Planning Office

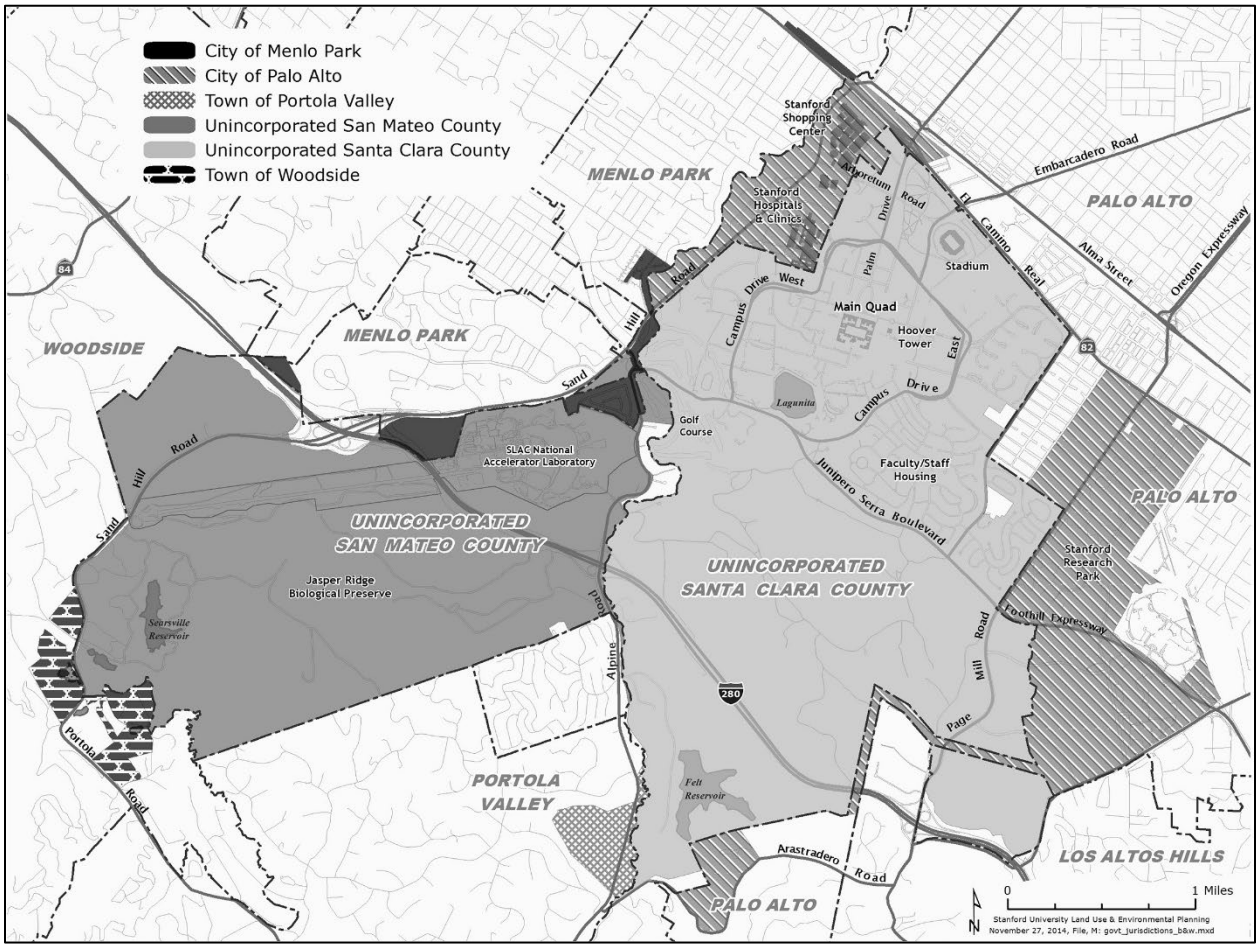
Stanford University Data Providers

- Land Use and Environmental Planning: Erin Efner, Associate Vice President; Jessica von Borck, LEED AP, Executive Director, Land Use Planning; Diana O' Dell, Director, Land Use Planning; Ramya Subramanian, Planner, LEED AP
- Department of Project Management: Laura Goldstein, Executive Director; Project Managers and staff
- Parking & Transportation Services: Brian Shaw, Executive Director; Brian Canada, Parking Operations Coordinator
- Utilities: Julia Nussbaum, Associate Director Water Planning & Stewardship
- Project Management Resources, Residential and Dining Enterprises, Environmental Health & Safety Department, Facilities Operations - Utilities, University Architect/Campus Planning and Design

Appendix A
Reference Maps

Appendix A
Reference Maps

MAP A-1
GOVERNMENTAL JURISDICTIONS ON STANFORD LANDS

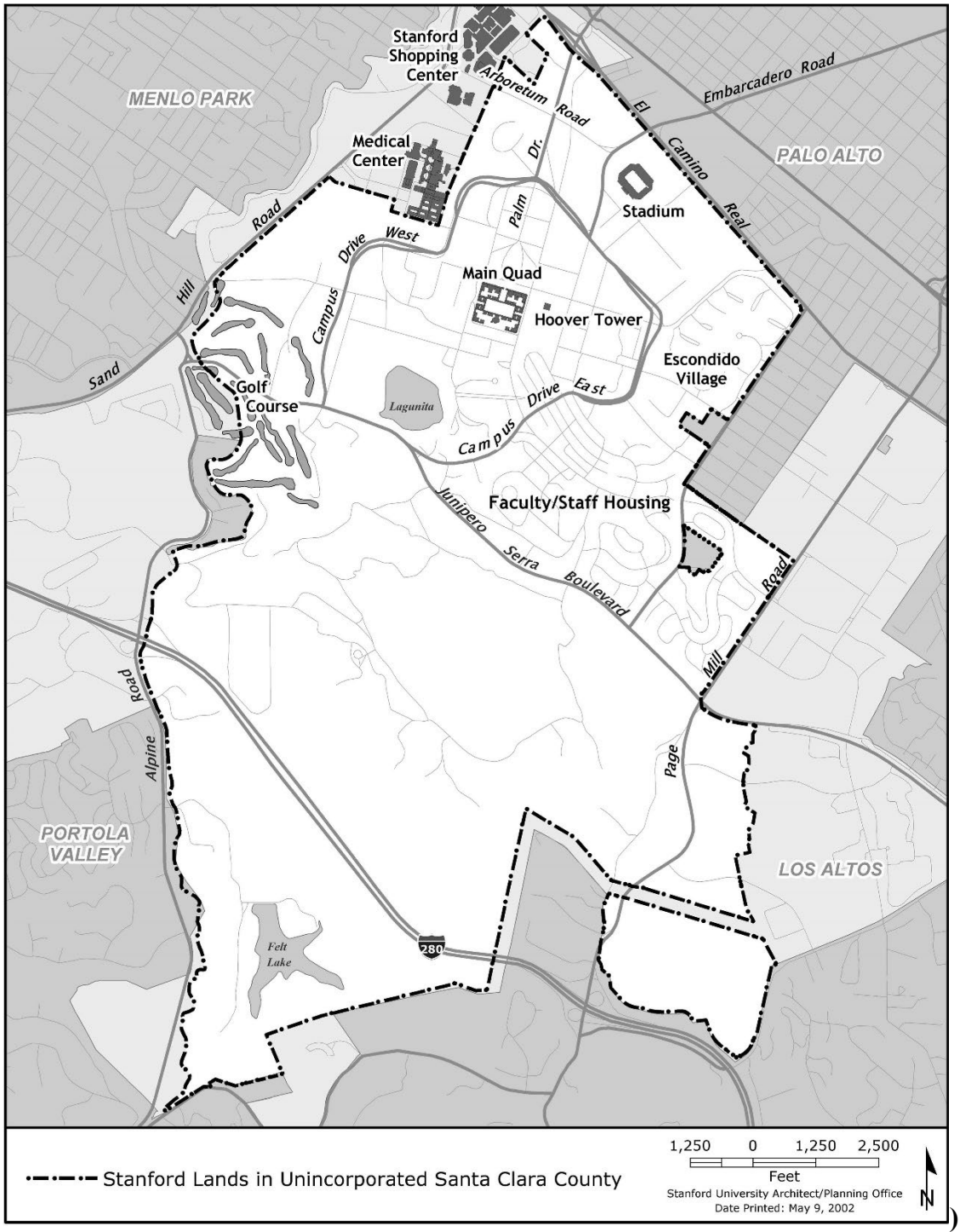


Source: Stanford University 2014

MAP A-2

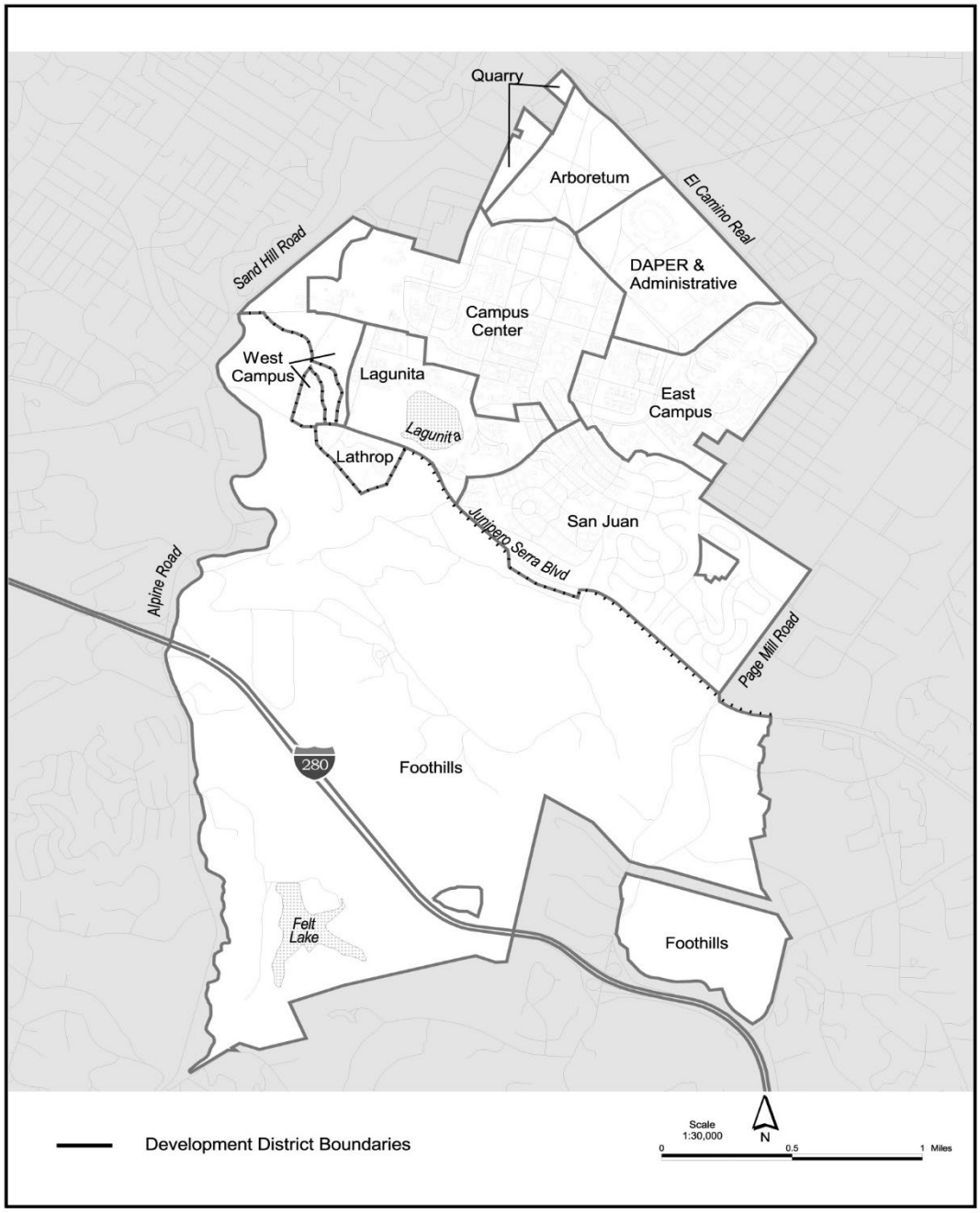
GENERAL ORIENTATION MAP OF STANFORD UNIVERSITY

(UNINCORPORATED SANTA CLARA COUNTY



MAP A-3

STANFORD UNIVERSITY DEVELOPMENT DISTRICTS

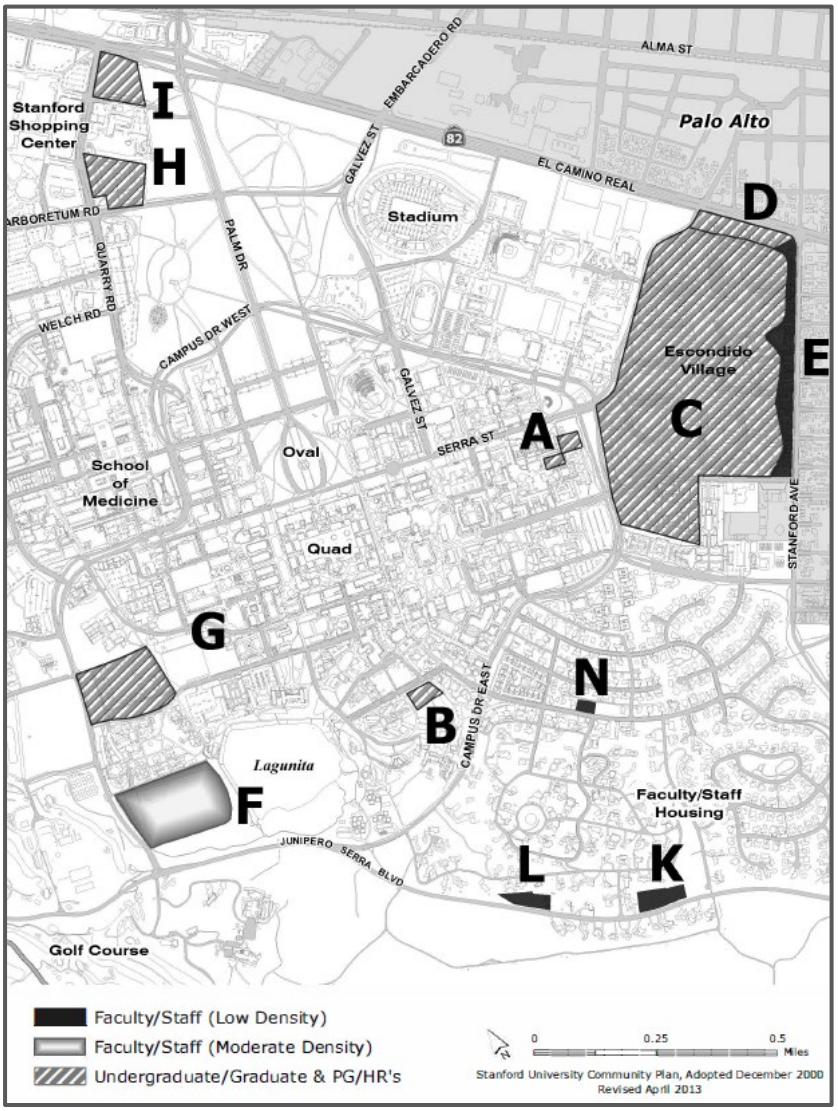


Source: Stanford University General Use Permit, December 2000

MAP A-4

POTENTIAL HOUSING SITES

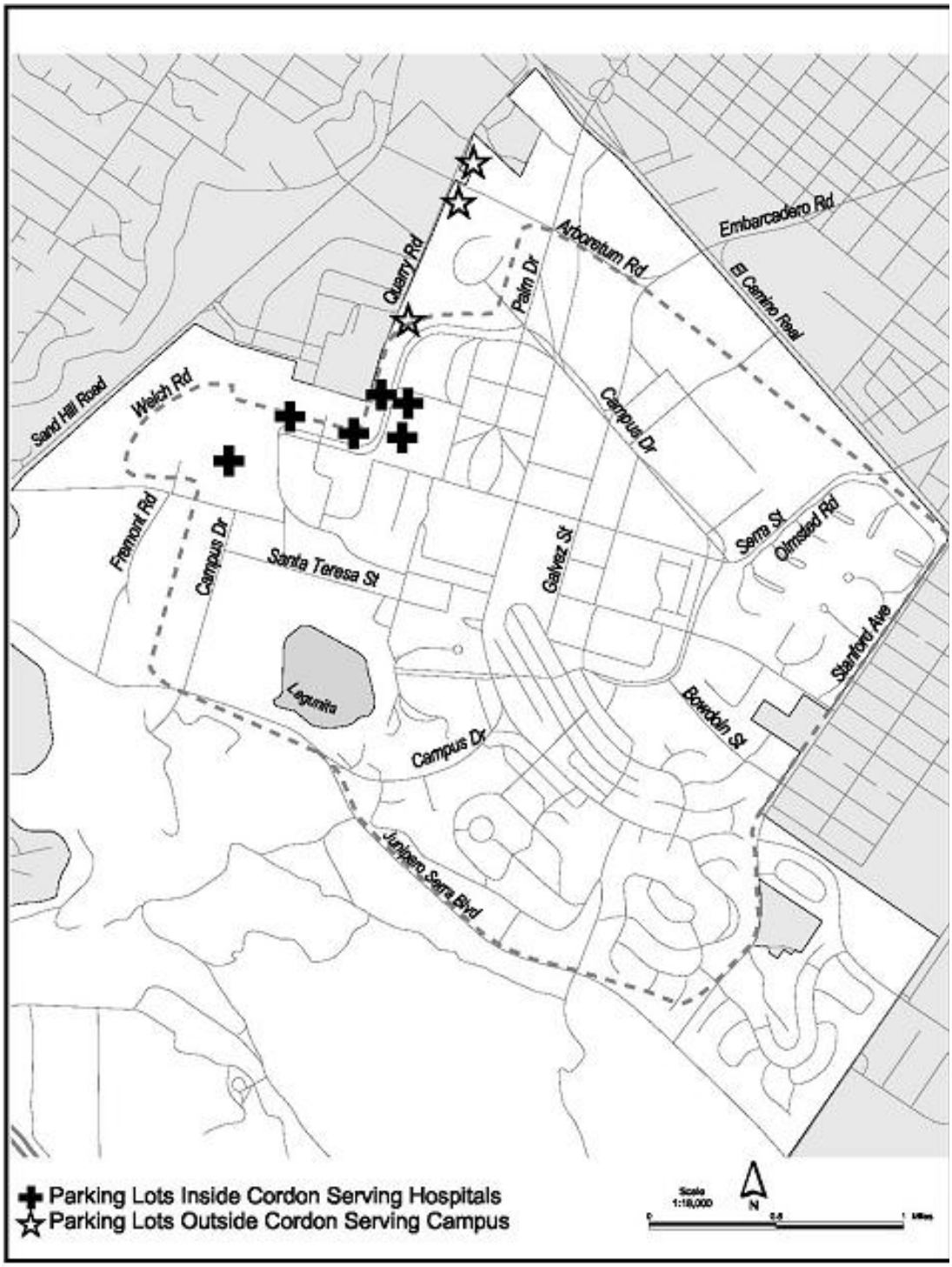
- ***A*** *Manzanita*
- ***B*** *Mayfield/Row*
- ***C*** *Escondido Village: Infill*
- ***D*** *Escondido Village: El Camino Real Frontage*
- ***E*** *Escondido Village: Stanford Avenue*
- ***F*** *Driving Range*
- ***G*** *Searsville Block*
- ***H*** *Quarry/Arboretum*
- ***I*** *Quarry/El Camino*
- ***K*** *Lower Frenchman's*
- ***L*** *Gerona/ Junipero Serra Blvd.*
- ***N*** *Mayfield*



Source: Stanford University Community Plan, Adopted December 2000, Revised April 2013

MAP A-5

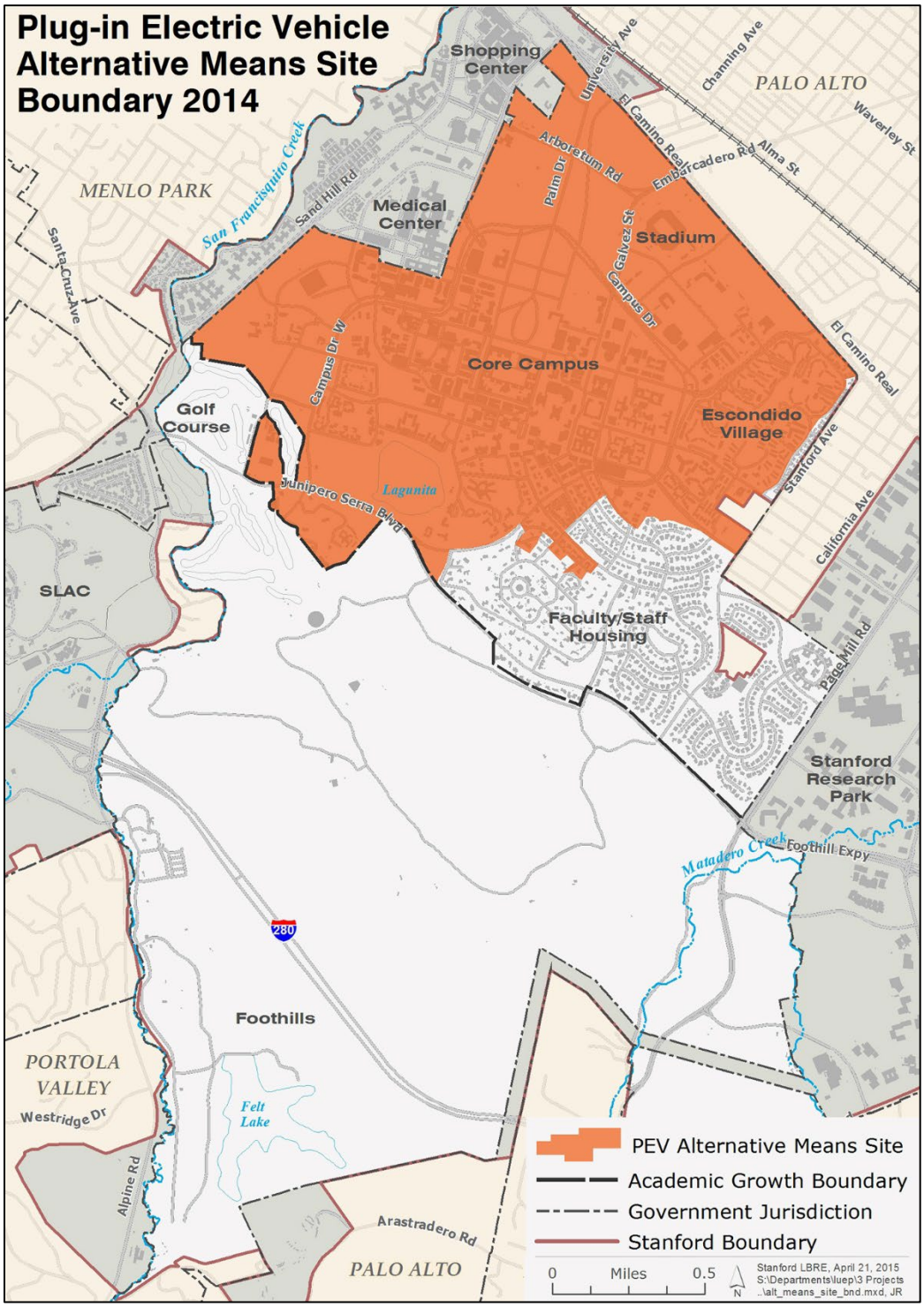
TRAFFIC MONITORING CORDON BOUNDARIES



Source: Stanford University General Use Permit, December 2000

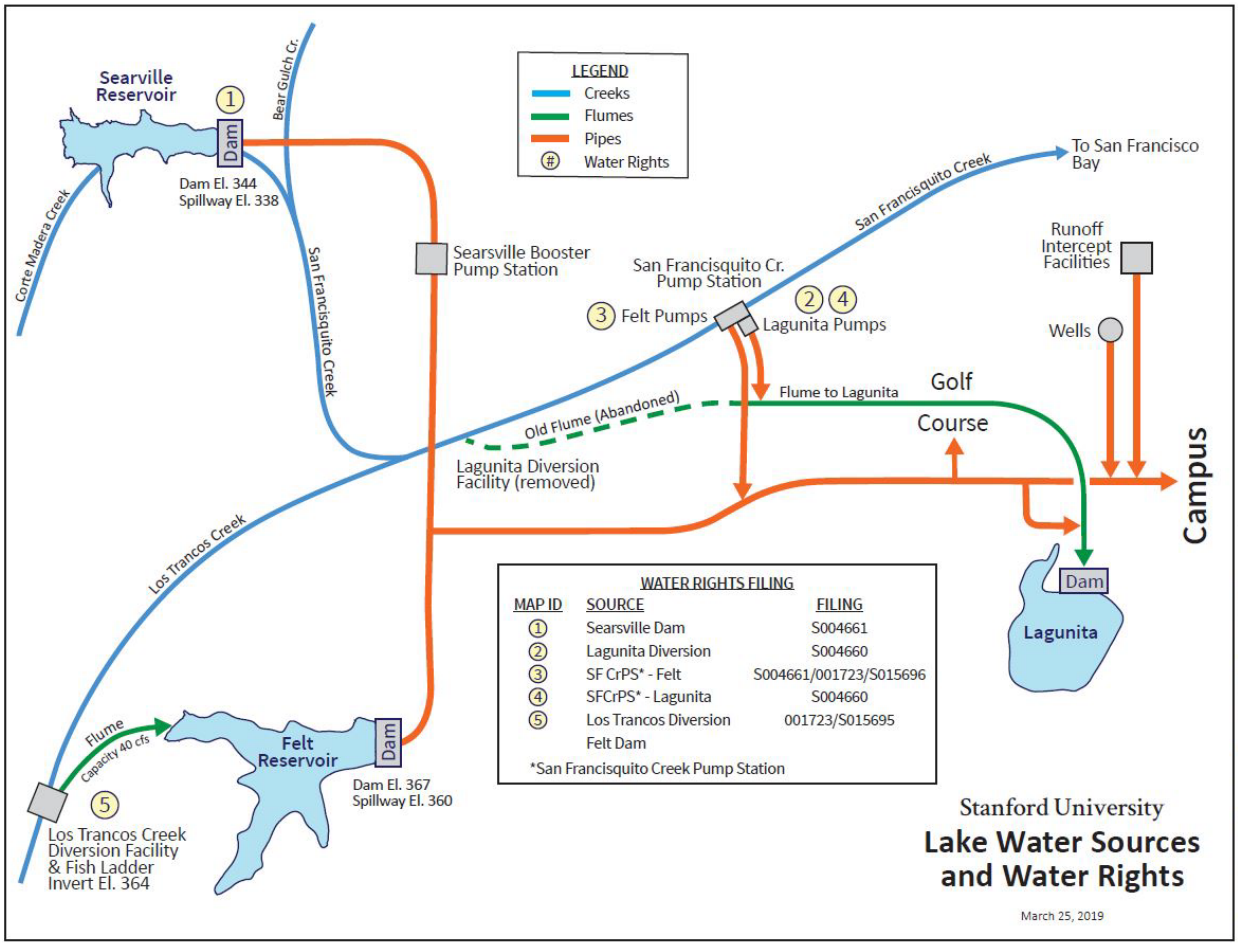
MAP A-6

PLUG-IN ELECTRIC VEHICLES ALTERNATIVE MEANS SITE BOUNDARY 2014



MAP A-7

STANFORD UNIVERSITY'S LAKE WATER SYSTEM



Appendix B
GUP Conditions and Compliance Activities

Appendix B
GUP Conditions and Compliance Activities

GUP Condition		Stanford Compliance
A.	**Building Area**	
A.1.	GUP allowed construction on unincorporated Santa Clara County lands.	Illustrations and details are provided in Section IV of this report of all major projects that received ASA during the current reporting year. Projects are described in detail in the annual report for the period in which ASA was granted; however, academic and support building area is counted against the building area cap in the period during which the project received a building or grading permit. Table 1 in Section II of this annual report shows building area accounting during this reporting period relative to the "GUP building area cap." During this reporting period, no housing units were demolished. As of August 31, 2022, the cumulative number of framed housing units is 4,423, as shown in Section II (Table 3). During the AR 22 reporting period, there was a net decrease of 59 parking spaces. Changes that resulted from these projects are enumerated in Section II (Table 4).
A.2.	Building area allowed in addition to the GUP building area cap.	The remaining 1989 GUP approved square footage was consumed during the Annual Report 5 reporting period, per Condition A.2.a. The 2000 GUP (Condition A.2.c) allows Stanford University to install up to 50,000 sq. ft. as surge space during construction activities in the form of temporary trailers, which shall not be counted towards the GUP building area cap. The surge space balance is currently at 50,000 sq.ft.
A.3.	Construction that does not count toward the GUP building area cap.	The 2000 GUP (Condition A.3.a) allows up to 40,000 sq. ft. of additional building area for the purpose of new childcare or community centers. The balance remaining under childcare and community center is zero square feet.
B.	**Framework**	
B.1.	Development under the GUP must be consistent with the Community Plan and General Plan.	Five ASA/ASX projects were approved consistent with the policies in the Community Plan and the General Plan.
B.2.	Definition of a proposed building project.	No action required.
B.3.	Minimum time duration of GUP (modification possible, subject to County Ordinance).	No action required.
B.4.	Funding of work associated with conditions of GUP.	Stanford paid all costs associated with work conducted by the County Planning Office in relation to the GUP (staff time, consultant fees, and direct costs associated with report production and distribution) in a timely manner.

Appendix B
GUP Conditions and Compliance Activities

GUP Condition		Stanford Compliance
C.	**Monitoring, Reporting, and Implementation**	
C.1.	Preparation of an Annual Report that summarizes Stanford's development over the preceding year, upcoming development, and compliance with GUP conditions.	This Annual Report fulfills Condition C.1. for the reporting period of September 1, 2021, to August 31, 2022.
C.2.a.	County of Santa Clara Planning Office has the responsibility of preparing the Annual Report.	The County Planning Office staff prepared and distributed this 22nd Annual Report pursuant to the 2000 GUP.
C.2.b.	Funding for Annual Report by Stanford.	Stanford provided funding to the Santa Clara County Planning Office for all aspects of this Annual Report in a timely manner.
C.2.c	Stanford to submit information related to Annual Report.	Stanford provided required information for this Annual Report in a timely manner.
C.2.d.	Annual Report presentation to the Community Resource Group (CRG).	The Draft Annual Report 21 was presented to the CRG on April 13, 2023.
C.2.e.	Presentation of the Annual Report to the Planning Commission in June of each year.	This Annual Report 21 is scheduled for presentation to the Planning Commission at the June 2023 public hearing.
C.2.f.	Time period and content of the Annual Report.	This Annual Report documents Stanford's development activity and compliance with 2000 GUP conditions, and any specific conditions, associated with building projects proposed between September 1, 2021, and August 31, 2022.
C.3.	Funding of work associated with implementing tasks identified in the CP and GUP.	Stanford paid all costs associated with work conducted by the County Planning Office in relation to the CP and GUP during this reporting period (including staff time and consultant fees), mostly, in a timely manner.
D.	**Permitting and Environmental Review**	
D.1.	Review of proposed building projects and issuance of all necessary permits and approvals in accordance with County requirements.	Five projects received ASA/ASX during the reporting period, as described in Section II and detailed in Section IV of this Annual Report.
D.2.	Compliance with adopted GUP conditions and adopted mitigation measures within the Mitigation Monitoring and Reporting Program (MMRP).	During this reporting period, Stanford submitted six Planning applications for projects proposed under the 2000 GUP. Five projects received ASA/ASX during the reporting period. Approved projects in AR 22 reporting period were in compliance with GUP conditions. For additional details, see Section II of this annual report. When violations of GUP conditions, codes, ordinances or other requirements occur, they are addressed through appropriate County procedures. During the AR19 reporting period, a violation was issued by the County involving the Cabrillo-Dolores Subdivision, for unpermitted removal of three oak trees and noncompliance with GUP Condition K.2., relating to preconstruction surveys for nesting raptors and

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		migratory birds. The required replacement trees will be planted following project completion, anticipated to be in FY 23. During the AR 21 reporting period, a combined violation was issued by the County involving three projects (Via Ortega North, Academic Advising and Rowing Center and Serra Roundabout projects), mainly for unpermitted tree removal and noncompliance with conditions of approval relating to tree protection (GUP Condition K.4). Ten protected trees (four oak and six non-oak) were removed without a permit. To return to compliance, Stanford was required to pay a fine of $50,000 ($5,000 per tree removed), and plant forty (40) oak replacement trees and sixty (60) non-oak replacement trees. The $50,000 fine has been paid by Stanford and a permit modification with the required tree replacement conditions has been issued by the County. Stanford was required to complete tree replacement planting in the AR 22 reporting period. Stanford planted the required replacement trees in 2022. For additional details, Condition K.4 in Appendix B. Stanford University remains in general compliance with the GUP and other County requirements.
D.3.	Compliance with CEQA requirements.	All projects that received ASA/ASX approval also received adequate CEQA review and clearance during the reporting period as specified in this GUP condition. (See also GUP Conditions D.4 and I.2).
D.4.	Determination of appropriate level of environmental assessment.	Relevant measures identified in the EIR, and incorporated into the GUP, have been incorporated into the conditions of approval for each project. Additional project conditions of approval were included where necessary.
D.5.	Project specific environmental assessment.	No project-specific environmental assessment was submitted during this reporting period.
D.6.	Impact areas to be considered in environmental assessment.	Not applicable.
E.	**Academic Building Area**	
E.1.	Distribution of 2,035,000 square feet of academic and academic support facilities distributed among ten development districts.	During the reporting period, academic/academic support facilities were approved for the Campus Center, Foothills, San Juan and Lathrop Districts. (See Section IV Project Summaries for details).
E.2.	Deviation from the proposed distribution of academic development.	During the reporting period, no redistributions were proposed.
E.3.	Maximum allowable development in the Lathrop District shall be 20,000 square feet.	No development was proposed in the Lathrop Development District during the reporting period.

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E.4.	No academic development allowed in the Arboretum District.	No academic development was proposed for the Arboretum District.
E.5.	Complete and submit a Sustainable Development Study (prior to cumulative development total of more than 1,000,000 net square feet).	The Sustainable Development Study (SDS) was approved by the Board of Supervisors on April 7, 2009. More detail on the SDS process was provided in AR 9. In 2018, the County prepared a Supplement to the Sustainable Development Study. The Supplement augmented the work previously prepared to identify the maximum planned buildout potential of Stanford lands in unincorporated Santa Clara County. The Supplement is available at https://stgenpln.blob.core.windows.net/document/SU_SDS_Supplement.pdf.. Appendix E provides an Annual Report of Stanford's sustainable activities. Stanford is in compliance with GUP Condition E.5.
F.	**Housing**	
F.1.	Type and distribution of the 3,018 housing units allowed under the GUP.	To date, 4,423 net new housing units have been built or framed. In FY 13, a GUP Housing Amendment was proposed to allocate 372 faculty/staff units in West Campus to 166 student units in Lagunita and 206 student units in East Campus. The Amendment was approved on November 26, 2013. In FY 15, a GUP Housing Amendment was submitted to allow all remaining unused housing allocation to be usable for any type of university affiliate housing. The Amendment was approved on May 5, 2015. Redistributions of housing units across development districts were approved during FY 6, 13, 14, 16, 17 and 19.
F.2.	Other allowed housing sites.	During the AR 22 reporting period, there were no housing projects proposed on housing sites other than the designated sites on Map 4, Appendix A.
F.3.	Allowable variation of housing development.	See compliance with GUP Condition F.2 above, and F.4 below.
F.4.	Deviation from estimated housing distribution.	No housing unit redistribution occurred in AR 22 reporting period.
F.5.	No housing may be constructed in the Foothills, Lathrop, or Arboretum districts.	No housing projects were proposed for any of these districts during the reporting period.
F.6.	Compliance with affordable housing requirement.	Stanford has complied with the affordable housing requirements under the GUP conditions for net new academic square footage constructed by paying the in-lieu fee for applicable projects prior to occupancy. An Affordable Housing Fee Square Footage Bank (Square Footage Bank) has been maintained by the County since 2000 for demolition or conversion of projects that remove buildings from GUP allocation square footage. Stanford may use the square footage from the

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		Square Footage Bank and is not required to pay the in-lieu fee because the square footage is not treated as net new academic square footage. For this reporting period Stanford paid no in-lieu fees and no square footage from the Square Footage Bank was used. As of August 31, 2022, Stanford has made affordable housing fee payments totaling $39,348,456. At the end of AR 22 reporting period, 173,184 square feet remain in the Square Footage Bank. Five affordable housing projects have been built within the 6-mile radius from the Stanford Campus boundary, and have provided 286 affordable housing units, with 137 units restricted to very low income to extremely low-income families. In September 2017, $14.5 million of the in-lieu fees was used to partially fund the acquisition and rehabilitation of the Buena Vista Mobile Home Park in Palo Alto. In addition, on April 17, 2018, the County Board of Supervisors approved setting aside $6,000,000 to support the development of a 60- to 100-unit multifamily rental development in Palo Alto for teachers.
F.7.	Allowance for additional housing beyond 3,018 units.	In FY 16, pursuant to GUP Condition F.7, the addition of 1,450 housing units beyond the initial 3,018 unit housing authorization was approved, for the Escondido Village Graduate Residences project. Stanford's new housing authorization is 4,468 units. No additional housing allowance was proposed in the AR 22 reporting period.
F.8.	Housing linkage requirements.	The GUP requires 1,815 housing units to be provided as part of a housing "linkage" to Stanford development of 1,500,000 cumulative sq. ft. of academic square footage. Stanford has constructed a total of 4,423 net new housing units, which complies with the housing linkage requirement.
F.9.	For purposes of the linkage requirement, the County will consider Stanford to have met housing compliance at the time of framing inspection.	The County has and continues to use the framing inspection for determination of the housing linkage requirement.
F.10.	Petition for modification of the housing linkage requirements.	Stanford made no petition for modification of the housing linkage requirement.
F.11.	Adoption of new zoning designations for Campus Residential – Low Density and Campus Residential – Medium Density.	Completed during Annual Report 1 reporting period.
F.12.	Allowed suspension of the housing linkage requirement.	There was no suspension of the housing linkage requirement.
G.	**Transportation**	
G.1.	Intersection modifications.	Completed during Annual Report 1 reporting period.

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G.2.	Continued compliance with 1989 GUP transportation requirements.	Stanford has reported that they continue to offer the following programs that were in effect during the 1989 GUP: free Marguerite shuttle system, carpool app and vanpool incentives, bicycle services and staff support of alternative transportation programs. In 2021-22, Stanford continued to offer the Zipcar car sharing program, with reduced rates and incentives for Stanford members. Stanford continued to maintain the largest university Zipcar fleet in the United States, with 74 Zipcar vehicles at 33 locations. Stanford's free Marguerite shuttle system is open to the public with 19 routes that provide service through the campus and supporting land uses. The total number of riders during AR 22 reporting period was 1.1 million, more than doubling the previous year's ridership. The Marguerite fleet includes 41 electric buses and 5 diesel-electric hybrid buses, and 3 back-up vehicles fueled by diesel. Stanford continues to be designated as a Platinum Bicycle Friendly University and has received three consecutive renewals at the highest level. Stanford's bicycle program accommodates an estimated 13,000 bikes on campus on a normal weekday, with parking capacity for over 19,000 bikes. In a 2021 survey, 19 percent of university commuters, including 36 percent of commuting students, said they bike to campus. To further support sustainable commuting, Stanford continues to offer free vehicle leases and parking for vanpools, free transit passes, for Caltrain, VTA, AC Transit, and SamTrans for eligible commuters, an emergency ride home program, and programs and amenities for bicycle commuters, including secure bike parking, shower and locker facilities on campus, and free bike safety repair stands
G.3.	Mitigation of transportation impacts from additional development and population growth.	The County hired an independent consultant, AECOM Engineering, to complete traffic studies. See Appendix D of this document for a summary of results.
G.4.	No net new commute trips.	A baseline traffic count to determine the existing level of commute trips entering the campus during the morning peak commute period and leaving the campus during the evening peak commute period was established in 2001. The baseline is the raw traffic volumes adjusted for hospital parking and cut-through traffic. A COVID 19 shelter-in-place (SIP) order resulted in the shutdown of Stanford University campus starting March 2020. After the campus closure in 2020, the year 2021 represented a gradual return to normal. The campus remained closed to all students due to the SIP order through the spring of 2021 and reopened in the fall of 2021. Since the fall of 2021, the monitoring program has returned to its normal methodology of

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		collecting the full set of data with additional COVID safety precautions in place, such as compulsory daily check-ins and staff vaccination/testing. The 2000 GUP Condition G.7.a. requires traffic counts for a minimum of three times per year for an interval of two weeks each time. Since 2003, the established methodology for traffic monitoring program is six weeks in the spring and two weeks in the fall for a total of eight weeks of count data. In 2022, the Stanford monitoring program returned (after the COVID-19 pandemic shut down) to the standard methodology under which the program has been consistently conducted since 2003. The baseline used to determine compliance with the no-net-new trips included the adjustments; the adjusted traffic volumes were always calculated as part of the monitoring program for that year. In AR 22 reporting period, the adjustment data was collected for six weeks in spring and two weeks in fall. In 2022, the monitoring program collected all the data required to compare traffic levels to the baseline. The 2022 Monitoring Report concludes that the adjusted AM inbound fall count totaled 2,315 vehicles. This represents a decrease of 1,004 vehicles below the baseline 2001 AM inbound count. The 2022 PM outbound count of 2,840 vehicles is 606 vehicles below the baseline 2001 PM outbound count. Stanford University is in compliance with the 2000 GUP no-net-new-trips requirement in 2022. The Stanford University Traffic Monitoring Report 2022 is available for review on the County website, (https://plandev.sccgov.org/policies-programs/stanford-university/2000-general-use-permit/annual-reports). Results of annual traffic monitoring are summarized in Appendix D of this document.
G.5.	Traffic counts cost.	Stanford submitted all requested funds in a timely manner.
G.6.	Baseline count established prior to construction of first new non-residential structure or by an alternative methodology determined to be more accurate.	Baseline cordon counts were completed during AR 1 and 2 reporting periods.
G.7.	Traffic counts and determination of traffic volume.	Two weeks of (unadjusted) traffic counts were conducted in Spring 2021 and six weeks of adjusted traffic counts in Fall 2021. The counts were conducted by the County's traffic consultant team lead by AECOM Engineering. As described in Appendix D of this report, the results of the 2021 (unadjusted) spring counts were analyzed against the unadjusted counts from the previous 19 years., and were determined not to exceed the traffic limits threshold for the AM and

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	PM peak hour traffic. Results of the fall 2021 adjusted counts were analyzed against the baseline counts previously collected and were determined not to exceed the traffic limits threshold for the AM and PM peak hour traffic, even without the application of any trip credits.
G.8. Off-campus trip reduction.	During FY 21, Stanford was below the 2000 GUP EIR thresholds for vehicle counts. No trip credits were submitted to the County this year by Stanford.
G.9. Monitor cordon count volumes.	A summary report of traffic monitoring is provided as Appendix D to this annual report.
G.10. Neighborhood traffic studies.	No additional neighborhood traffic study requests have been received by the County Planning Office.
G.11. Project-specific traffic studies.	No projects during the reporting period required project-specific traffic studies.
G.12. Construction traffic management plan.	Stanford informed both its Public Safety Office and the University Fire Marshall's Office about site work and schedules for all construction projects that could affect emergency access. The University Fire Marshall's Office has regular coordination meetings with the Palo Alto Fire Department, where they update the Department on any emergency route changes. In addition, Stanford requires, through contract with the general contractors, that emergency vehicle access is always kept available through work areas. The Stanford Contracts office provides a general "Stanford Area truck routes map" to all general contractors and all the associated sub-contractors for the project at the time of contract release. The map also includes pedestrian zones, weight limits, service vehicle parking areas, and loading areas. In addition, Stanford provides copies of the map to contractors that come into the Parking and Transportation office to purchase Service Vehicle permits. This map and others are available on the web at http://transportation.stanford.edu/. The County and Stanford continue to work towards consistent inclusion of a traffic management plan as part of the construction plan set available on site. Stanford reported that no complaints about construction traffic associated with building projects were received during the AR 22 reporting period.
G.13. Special event traffic management plan.	Compliance with this requirement was achieved during the AR 3 reporting period.
G.14. Junipero Serra Boulevard/ Stanford Avenue traffic group.	In June 2010, County Supervisor Liz Kniss announced that the County Board of Supervisors had approved $1.5M in funding to complete the project. CR&A awarded a design contract in March 2011. Construction documents (30% stage) were issued in

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		August 2011. A draft Initial Study was issued for public review in November 2011. A final CEQA document was adopted in March 2012. CR&A anticipated starting construction in spring of 2012. However, due to permitting constraints from the Regional Water Quality Control Board delayed the approval process. Stanford presented a conceptual redesign to CR&A in the Spring of 2015 that could eliminate the permitting constraints. Stanford conducted neighborhood outreach to share the concept with SCRL representatives. The conceptual design was reviewed for engineering feasibility by CR&A in summer 2015. In summer 2016, a CEQA Addendum was completed for the redesign. Final engineering drawings were prepared in FY 17, and the County identified funding to construct the project. Construction began in August 2018 and ended in Fall 2018.
H.	**Parking**	
H.1.	Net additional parking spaces shall not exceed 2,300 spaces, with the exception of parking provided for any housing in excess of 3,018 units.	During the reporting period, changes in parking resulted in an estimated net decrease of 59 parking spaces on the campus for a total cumulative increase since September 1, 2000, of 521 spaces. Changes in parking occurred in the Campus Center, West Campus, Quarry, DAPER and East Campus. See Section II, Table 4, and Appendix C-3 for details.
H.2.	Residential Parking Permit Program.	In 2006, Stanford paid the City of Palo Alto $100,000 towards the development of a Residential Parking Permit Program. Stanford is in compliance with Condition H.2. The City of Palo Alto conducted a College Terrace Parking Permit Program experiment in 2008 and 2009 and subsequently adopted a permanent program in late 2009. The program includes continued monitoring of the parking patterns in the neighborhood.
I.	**Parks and Recreation Facilities**	
I.1.	Improve parks in the San Juan faculty/staff residential area.	At the April 8, 2004, ASA meeting, the ASA Committee accepted the *Stanford University Program for the Replacement of Recreational Facilities in the San Juan District*. Stanford has complied with the requirement to submit the plan, and future compliance will be required through implementation of the plan, if triggered by infill development.
I.2.a.	In consultation with the County Parks and Recreation Department, identify and complete Trail Easements within one year of GUP approval.	Stanford entered into an agreement with the County on January 3, 2006, to construct the S1 trail in Santa Clara County and to make offers to Los Altos Hills for the funding of a trail extension through that town and to the Town of Portola Valley and San Mateo County for improvements to the C1/E12 Alpine Trail.

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	Construction of S1 Trail: Construction of the off-road portions of the S1 trail was completed in May 2011. Santa Clara County accepted the trail easement and the trail opened in May 20, 2011. All aspects of the S1/ Matadero Trail in unincorporated Santa Clara County including trail construction, associated roadway improvements, and dedication of easements are complete. Construction of C1/E12 Trail: Stanford's proposal for the design and funding of the C1/E12 Alpine Trial (segment in Portola Valley) improvements was accepted by the Town of Portola Valley in 2009. All aspects of the C1/E12 Alpine Trial in Portola Valley including trail construction, associated roadway improvements, and dedication of easements are complete. Construction of C2/Arastradero Trail: Construction and trail improvements were completed, and the trail was dedicated on November 1, 2013. The trail links the S1/Matadero Trail (at the Arastradero Road and Purissima Road intersection) to the Pearson-Arastradero Preserve. Construction of Stanford Perimeter Trail: San Mateo County and Stanford did not reach agreement for the San Mateo C1 segment and in February 2012, Stanford paid Santa Clara County approximately $10.3 million. In August 2012, Santa Clara County issued a request for applications for projects that would serve as alternative mitigation measures to address the loss of recreational facilities on the Stanford campus. Santa Clara County received 15 project applications from six local agencies. The Santa Clara County Board of Supervisors declared its intent to fund six of the 15 projects, including $4.5 million to Stanford to construct a perimeter trail along El Camino Real and Stanford Avenue frontages. Stanford subsequently did not accept the grant award for the Stanford Perimeter Trail, which was opened to the public in April 2016. The Board also directed County Administration to negotiate project agreements for the selected projects and submit approval to the Board consistent with the requirements of CEQA. A project agreement and appropriation modification for the Adobe Creek / Highway 101 Overcrossing Project were approved by the Board on December 17, 2019, and an appropriation modification for the Ravenswood Bay Trail project was approved by the Board on February 25, 2020.

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		Further, at the May 12, 2020, Board meeting, the Board declared its intent to fund all or part of seven additional projects relating to alternative mitigation for loss of recreational facilities on the Stanford campus. Project agreements for two of seven projects have been approved, namely the Alpine Trail (Midpeninsula Open Space District), and US 101/ University Avenue Pedestrian/ Bicycle Overcrossing (City of East Palo Alto). Another project agreement relating to trail work at the Holbrook-Palmer Park in Atherton is expected to go to the Board in April 2023. The remaining projects have a declaration of intent.
I.2.b.	Work with County Parks and Recreation Department to identify responsibilities for trail construction, management, and maintenance.	Identification of trail construction, management, and maintenance responsibilities had begun previously, based on Stanford's 2001 proposal (see Condition I.2.a above and "Overview of Monitoring Activities"). A trail management plan for S1 was accepted by Santa Clara County, along with the easement, in May 2011.
J.	**California Tiger Salamander (CTS)**	
J.1.	Habitat protection easements for protection of the CTS.	Condition superseded by Stanford's Habitat Conservation Plan (see Condition J.9).
J.2.	Specifics of habitat protection easements.	Condition superseded by Stanford's Habitat Conservation Plan (see Condition J.9).
J.3.	Creation of breeding ponds for CTS prior to issuance of a building permit for a proposed building project on occupied CTS habitat.	Condition superseded by Stanford's Habitat Conservation Plan (see Condition J.9).
J.4.	CTS monitoring.	Condition superseded by Stanford's Habitat Conservation Plan (see Condition J.9).
J.5.	Project specific measures in CTS Management Zone.	Condition superseded by Stanford's Habitat Conservation Plan (see Condition J.9).
J.6.	Operational measures required within the CTS Management Zone.	Condition superseded by Stanford's Habitat Conservation Plan (see Condition J.9).
J.7.	Continued compliance with 1998 CTS Management Agreement.	Condition superseded by Stanford's Habitat Conservation Plan (see Condition J.9).
J.8.	CTS passageways across Junipero Serra Boulevard.	Condition superseded by Stanford's Habitat Conservation Plan (see Condition J.9).

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J.9.	U.S. Fish and Wildlife Service permit prior to construction on occupied CTS habitat if CTS is listed as threatened or endangered.	The final Stanford University Habitat Conservation Plan (HCP) and Final Environmental Impact Statement (EIS) were published on November 23, 2012, and revised in March 2013. On August 13, 2013, the County Board of Supervisors acknowledged the determination that the HCP provides equal habitat value and protection for the California Tiger Salamander (CTS). Therefore, the HCP supersedes all conditions in the GUP that address the CTS, as stated in Condition J.9.
K.	**Biological Resources**	
K.1.	Special-status plant surveys.	No special species plant surveys were done during this reporting period.
K.2.	Preconstruction surveys for breeding raptors and migratory birds.	The County hired Environmental Science Associates to complete four surveys for breeding raptors and migratory birds potentially affected by Stanford projects. During the AR19 reporting period, a violation relating to the Cabrillo-Dolores Subdivision (in the San Juan neighborhood) was issued by the County. The violation included unpermitted removal of three oak trees and noncompliance with this condition relating to preconstruction surveys for nesting raptors and migratory birds, that were not conducted prior to tree removal. To abate the violation, Stanford was required to pay a fine of $15,000 and submit a retroactive Tree Removal permit application to legalize all work done in violation of the tentative map approval. The $15,000 fine has been paid by Stanford and a Tree Removal permit with conditions was issued by the County on May 12, 2020. Per the approved Tree Permit conditions, replanting of trees at a 10 to 1 ratio is required, to be completed following project completion, anticipated to be in FY 23.
K.3.	Oak woodland habitat – create or restore at a 1.5:1 ratio for proposed building projects located in oak woodland area.	During this reporting period, no trees within oak woodland habitat were proposed for removal.
K.4.	Tree preservation for proposed building projects affected by protected trees.	All projects were conditioned to protect existing trees during construction. Stanford proposed appropriate mitigation for the loss of protected trees greater than 12 inches diameter at breast height (dbh) in the ASA applications for all projects. During the AR 21 reporting period, a combined violation was issued by the County involving three projects (Via Ortega North, Academic Advising and Rowing Center and Serra Roundabout projects), mainly for unpermitted tree removal. Ten protected trees (four oak and six non-oak) were removed without a permit. To return to compliance, Stanford was required to pay a fine of $50,000 ($5,000 per tree

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		removed), submit modifications to prior approvals proposing tree replacement, and legalization of other work done in violation. Per County Ordinance Code Section C16-17, to abate the unpermitted tree removal, replacement of each removed tree with at least 10 trees of like kind and species is required. The $50,000 fine has been paid by Stanford and a permit modification with the required tree replacement conditions has been issued by the County. Stanford was required to plant forty (40) oak replacement trees and sixty (60) non-oak replacement trees. Stanford planted the required replacement trees in 2022.
K.5.	Stanford to hire biological consultant to prepare wetlands description.	Compliance with this requirement was achieved during the AR 3 reporting period. Subsequent wetland delineations are conducted in compliance with Army Corps of Engineers guidelines.
K.6.	Updates to CA Natural Diversity Database.	Stanford submitted CNDDB sheets for the following species to the State in the following years: California red-legged frogs – annually since 2002 California tiger salamanders – annually since 2008
K.7.	Special conservation area plan.	Stanford submitted a "Conservation Program and Management Guidelines for the Special Conservation Areas" to the County on December 11, 2001. The County waited for the Stanford HCP to be approved and adopted before directing Stanford with specific requirements for modification and resubmittal. The Stanford HCP was approved on August 13, 2013 (see Condition J.9). Stanford submitted and the County accepted a revised Special Conservation Area Plan in August 2015, fulfilling Condition K.7.
L.	**Visual Resources**	
L.1.	Streetscape design for El Camino Real prior to or in connection with submitting an application for development along El Camino Real.	During AR 8, Stanford completed and submitted a draft *Plan for the El Camino Real Frontage,* approved by the County of Santa Clara Architectural and Site Approval Committee on April 10, 2008. Stanford is in compliance with Condition L.1.
L.2.	Minimum 25-foot building setback from Stanford Avenue.	No building projects were proposed on Stanford Avenue during the reporting period.
L.3.	Lighting plan for development projects that include exterior light sources.	Project-specific lighting plans were submitted with ASA applications during the reporting period.
L.4.	Development locations in the Lathrop Development District.	No development was proposed in the Lathrop District.
M.	**Hazardous Materials**	
M.1.	Hazardous materials information/Risk Management Plan for each proposed building project.	Hazardous materials information was provided in the ASA applications for all projects proposed or approved during the reporting period. No projects were proposed or approved during the reporting period

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	that triggers the California Accidental Release Prevention (CAL-ARP) law.
M.2. Maintenance of programs for storage, handling, and disposal of hazardous materials.	University Dept. of Environmental, Health and Safety (EH&S) continues to provide key resources in the planning, development, and implementation of effective environmental and health and safety training programs. Where appropriate and possible, EH&S provides in-house training programs that enable University managers and supervisors to deliver health and safety training directly to their staff. Schools, Departments and Principal Investigators provide other levels of training throughout the University. During this reporting period, EH&S maintained a training catalog that included 117 separate training courses. Stanford staff, faculty, and students through both on-line and classroom sessions completed a total of 51,797 trainings. Stanford also extends its training efforts by providing training and information resources on the World Wide Web at http://ehs.stanford.edu. Information on COVID safety can be found at https://healthalerts.stanford.edu. Surveys of campus and medical center labs, shops and studios are conducted on a routine basis to provide compliance assistance regarding hazardous materials, hazardous waste, fire safety, biological safety and chemical safety requirements. Personnel conducting the surveys often work one-on-one with personnel in labs, shops, and studios to help them understand pertinent compliance requirements. Hazardous Materials Management Plans for existing buildings storing hazardous materials are submitted annually to the Santa Clara County Environmental Health Hazardous Materials Compliance Division as online updates via the Cal/EPA California Environmental Reporting System Portal. To facilitate hazardous materials tracking and reporting, Stanford has implemented an on-line chemical inventory database system whereby authenticated chemical users may maintain their hazardous materials inventories, supporting timely and accurate submission of required regulatory reports. The University Committee on Health and Safety meet five times during the reporting period. The committee membership includes a member from the public as well as faculty, staff and students. Issues considered by the committee included environmental, health and safety activities, and initiatives conducted at the SLAC National Accelerator Laboratory. The EH&S Department reviews each set of plans for new structures and those for renovation and/or remodeling of existing structures to help ensure that the risks associated with activities conducted in

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		Stanford's buildings are addressed, and that all facilities projects are undertaken in compliance with applicable environmental and health and safety laws, codes, and regulations. EH&S also conducts Environmental and/or Human Health Risk Assessments for new projects as required by the Bay Area Air Quality Management District and as appropriate as part of the building planning process. EH&S personnel specifically responsible for handling hazardous wastes and for emergency response are trained by certified independent professionals and by professional EH&S staff in accordance with all applicable regulations. The operational waste personnel are augmented and assisted by professional environmental engineers, chemists, and environmental managers. As a part of waste minimization activities, EH&S operates a Surplus Chemical redistribution program, which reduces the disposal of unused chemicals, therefore reducing the amount of hazardous waste generated, and the costs of disposal. Redistribution volumes are dependent on department and laboratory changes, which can vary annually. In FY 2022, EH&S redistributed 357 unneeded chemical containers from laboratory inventories to other campus users.
N.	**Geology and Hydrology**	
N.1.	Compliance with all requirements of the Uniform Building Code, County Geologist, County Building Inspection Office, Stock Farm Monocline Agreement, and others defined under the GUP in regards to reduction of seismic risk.	Stanford is in compliance with Condition N.1 requirements. These are reviewed through the ASA applications submitted and building and grading permits issued during the reporting period. See Section II of this report for project details.
N.2.	Hydrology and drainage study.	The Storm Water Detention Master Plan for the Matadero Creek watershed was submitted by Stanford and accepted by the County during the AR 4 reporting period. Stanford is responsible for implementing phased measures consistent with the plan prior to development of new impervious cover within the watershed. Regarding storm drainage and flood control, Stanford and the County reached agreement on the approach and engineering design criteria for detention provisions to avoid increases in peak runoff flow rate from the campus in the San Francisquito Creek watershed. Stanford continued with implementation of its storm drainage master plan for both detention and protection of campus facilities, engineering the remaining barriers to divert overland flows away from structures to streets and malls, and Phase 1 and II of the West Campus detention basins. With these improvements and the detention basins constructed

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		previously in the Matadero watershed, Stanford has mitigated anticipated runoff from all its development under the 2000 GUP, including the Escondido Village Graduate Residences, in compliance with Conditions N.2 and N.3.
N.3.	Storm water management facilities designed to only store storm water runoff temporarily and not create extended ponding.	The Serra/El Camino Real (ECR) and the West Campus Storm Water Detention Facilities projects are designed to accommodate increases in the 10-year and 100-year storm runoff associated with 2000 GUP development in the Matadero and San Francisquito Creek watersheds respectively. These projects are designed to drain within a couple of days, thereby avoiding extended ponding. The Serra/ ECR Detention Basin was constructed in the AR 2 and AR 3 reporting periods. An initial phase of the West Campus Detention Basins (the Stock Farm/Sand Hill Road Detention Basins) was completed during the AR 4 reporting period. Phase II of the West Campus Detention Basins was completed during AR 16 reporting period.
N.4.	Groundwater recharge study in conjunction with projects located in unconfined zone.	Stanford has prepared and submitted a draft campus-wide groundwater recharge plan that describes the groundwater recharge mitigation approach in coordination with the Santa Clara Valley Water District (Valley Water) and the County. This plan accounts for water from Stanford's Lake Water system that is directed to Lagunita (where it percolates) in an amount that exceeds the cumulative groundwater recharge lost from projects built in the unconfined zone. Map 7 in Appendix A shows the Stanford's Lake Water System. Stanford and County staff finalized this plan on May 27, 2015. The annual groundwater recharge mitigation monitoring report has been submitted to the County for tracking purposes. A copy of this report is available at https://stgenpln.blob.core.windows.net/document/SU_AR22_Groundwater_recharge_mitigation_monitor.pdf
N.5.	Review and approval for storm water/ groundwater recharge facilities.	The ASA and grading or building permit-approved projects during the 22nd annual reporting period are anticipated to result in new impervious surface area in the Matadero Creek and San Francisquito Creek watersheds. The cumulative increase of impervious surfaces on campus has been mitigated by the Serra/ECR detention basins and West Campus detention basins Phase I and II (completed during FY 4 and FY 16 respectively), to avoid impacts with respect to reduced groundwater recharge. Stanford and the County track the cumulative increase in impervious surface against the amount that can be mitigated by the constructed basins.

GUP Condition	Stanford Compliance
N.6. Notice of Intent to State Water Resources Control Board (SWRCB) prepared each year for anticipated projects.	Stanford submitted a Notice of Intent (NOI) to join the State of California General Storm Water Construction Permit on June 29, 2001. Stanford received acceptance on July 10, 2001. An updated NOI was submitted to the State Water Resource Control Board as well as to the San Francisco Bay Regional Water Quality Control Board in accordance with the NPDES General Permit on July 16, 2009. On September 2, 2009, the State Water Resources Control Board adopted a new construction permit for all construction projects over 1 acre. Due to reporting and sampling requirements listed in the new State permit, Stanford has been applying for permit coverage on a project-by-project basis for all new construction over 1 acre. The Construction General Permit was reissued on September 8, 2022, with an effective date of September 1, 2023. Stanford will continue to apply for permit coverage on a project-by-project basis for all new construction over 1 acre. All projects listed below were either terminated, continued, or started from the period September 1, 2021 through August 31, 2022 and can be viewed via the State Board's SMART system located at http://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp. Projects terminated from September 1, 2021 – August 31, 2022: • Serra Mall, WDID # 2 43C382842 Projects started/continuing from September 1, 2021 – August 31, 2022: • Serra Roundabout and Serra Street (formerly named: Serra Roundabout/Serra Street), WDID # 2 43C380436 • Cabrillo Dolores Faculty Housing, WDID # 2 43C387005 • Bridge Building (formerly named Herrin Lab and Hall Demolition, WDID # 2 43C389493 • Lasuen Escondido Circulation Improvements, WDID # 2 43C393564 • LBRE Building and Yard, WDID # 2 43C393312 • 1215 Welch Road School of Medicine, WDID # 2 43C394794 • George P. Shultz Building, WDID # 2 43C395254

GUP Condition		Stanford Compliance
N.7.	Monitor effectiveness of storm water pollution prevention best management practices; monitor at construction sites before and during storm events occurring during construction period.	Each construction site under the 2000 GUP that disturbs one acre or more is permitted through the General Permit for Discharges of Storm Water Runoff Associated with Construction Activity. The information submitted as part of the permit will be updated yearly to reflect the current construction projects. In accordance with that permit, the sites are required to have a Storm Water Pollution Prevention Plan (SWPPP). Each SWPPP outlines the Best Management Practices for preventing storm water pollution on that specific site. To ensure that the BMPs are working and in place, each construction project is required to monitor the construction site and BMPs before, during, and after rain events or weekly, whichever is more frequent. The project is required to maintain inspection logs on site, documenting the monitoring program. Stanford storm water staff visits the sites at least once per month to ensure compliance with BMPs and monitoring. In addition, Stanford is required to send an Annual Compliance Status Report to the State Water Resources Control Board, certifying compliance with the provisions of the General Permit for Discharges of Storm Water Runoff Associated with Construction Activity, including BMPs and monitoring.
N.8.	Surveys to determine presence and location of wells prior to issuance of any building permit or grading permit.	Stanford performed surveys to identify existing wells on building sites with ASA applications as required. Stanford reviews these historic wells surveys with every building project and confirms in the applications that no historic wells not properly closed are at the project location.
N.9.	Permit from Valley Water for any proposed construction, demolition, grading, landscaping within 50-feet of the top of the bank.	In 2007, Valley Water adopted an approach to defer to local permitting agencies for work conducted in creeks, and no longer require Valley Water permits.
N.10	No new land use or practices within the unconfined zone that could pose a threat to the groundwater quality or supply.	In 2009, Stanford mailed an informative pamphlet to all residential leaseholders whose property is located within the unconfined zone. This pamphlet contains valuable information regarding the sensitive nature of these properties with respect to the potential for downward migration of contaminants to groundwater. The pamphlet also provides "Best Management Practices" regarding proper application of landscape chemicals, notifying Stanford of abandoned wells and fuel tanks, and safe management of household chemicals and hazardous waste. Stanford also mailed this pamphlet to all other residential leaseholders that are not located within the unconfined zone as a part of continuing outreach.

GUP Condition		Stanford Compliance
O.	**Cultural Resources**	
O.1.	Assessment of structure with potential historic significance for building projects that involve the demolition of a structure 50 years or older.	Three buildings, namely Barnum Center, Stanford Stadium and the Redwood Building were evaluated and found to be ineligible for listing on the California Register of Historic Resources (thus not to be a historic resource) and were approved for partial demolition/ full demolition.
O.2.	Requirements for remodeling, alteration, or physical effect on structures that are 50 years old or more.	The new Bridge building, which is to be constructed immediately adjacent to the Old Chemistry/ SAPP Center (Historic Resource), and the Main Quad (Historic Resource), along Jane Stanford Way, was reviewed and found to be consistent with the Secretary of Interior Standards for compatibility with the aforementioned historic resources. The project was recommended for approval by the County Historic Heritage Commission (HHC) at the September 23, 2021, public meeting, and received an ASA and Grading Approval by the Zoning Administration on November 5, 2021. With regards to the Graduate School of Education (GSE) project, rehabilitation and modifications to GSE North building (a historic resources), and construction of the new South GSE building (adjacent to the historic North building and in proximity to other historic resources along Lasuen Mall), were both found to be consistent with the Secretary of Interior Standards. The project was recommended for approval by the HHC at the April 21, 2022, public meeting, and received an ASA and Grading Approval by the Zoning Administration in May 5, 2022. The alterations to the Lasuen Row House (historic resource) were found to be consistent with the Secretary of Interior Standards.
O.3.	Archaeological resources map, site-specific analysis, and construction monitoring	The Stanford archaeologist provided draft maps to the County Planning Office in March 2001 and a revision in 2014. These maps show the locations of all known prehistoric and historic archaeological resources in the unincorporated Santa Clara County portion of Stanford land. County and Stanford staffs will continue to work on revision and updates to these maps so they can be utilized by County staff to identify all known cultural resource site boundaries on Stanford land within the County's jurisdiction. All maps and updates will be maintained as confidential records. Stanford conducted archaeological monitoring during construction of Cabrillo-Dolores Housing project and isolated historic artifacts were recovered. Construction is ongoing and a final monitoring report will be filed with the North-West Information Center.

GUP Condition		Stanford Compliance
O.4.	Required actions if fossilized shell or bone is uncovered during earth-disturbing activities.	All projects adjacent to known prehistoric and historic archaeological resources were monitored during construction. No fossilized shell or bone was uncovered during 2000 GUP construction activities.
P.	**Public Services and Utilities**	
P.1.	Law Enforcement Agreement.	"Memorandum of Understanding Regarding Police Services Between Santa Clara County and Stanford University" was signed February 6, 2001, and signed again in May and June of 2007. Per the GUP Condition, Stanford is providing funding for the Stanford Police Department to maintain 32 full-time sworn police officers (one officer per 1,000 daytime population). There was no decrease in the level of police services during the reporting period.
P.2.	Funding of Fire Protection Services.	The City of Palo Alto assesses the city's fire protection needs on an annual basis and adopts a yearly budget for fire protection services. As part of this process, the city identifies Stanford's share of this budget, and Stanford pays its annual allotment. Stanford and the Palo Alto Fire Department have executed an agreement for continued service.
P.3.	Fire protection response times.	The Palo Alto Fire Department has not expressed any concerns regarding lengthened response times in this reporting period. Stanford and the Palo Alto Fire Department have executed an agreement for continued service, which contains provisions to address response times if issues arise.
P.4.	Water conservation and recycling master plan.	Stanford has completed the plan and it was approved in 2008. The University has undertaken numerous water conservation projects, including installation of water misers, toilet retrofits, low flow jet spray nozzles, and Maxicom controls. Stanford has performed effective conservation outreach and education, as evidenced by County staffdiscussions with campus facility managers. The County continues to monitor Stanford implementation of the approved master plan as a measure of compliance with this condition and consults with the Valley Water to determine compliance. The Valley Water assessment is that Stanford appears to be implementing aggressive water conservation measures.
P.5.	Annual daily average water use.	The allowed domestic average daily water allocation from the San Francisco Water Department is 3.033 million gallons per day (mgd). Stanford's average campus domestic water use for the 2021-2022 year was 1.46 mgd.
P.6.	Information on wastewater capacity and generation.	Stanford submitted project-specific wastewater capacity information as necessary with ASA application materials.

GUP Condition		Stanford Compliance
P.7.	Palo Alto Unified School District school impact fees.	Stanford paid school impact fees for all applicable building permits.
P.8.	Community Services Study.	No study was required during this reporting year.
Q.	**Air Quality**	
Q.1.	Compliance with Bay Area Air Quality Management District (BAAQMD) measures for construction activities.	Grading activities associated with 2000 GUP projects that commenced during the reporting period complied with the BAAQMD control measures incorporated into the ASA conditions of approval.
Q.2.	Maintenance of equipment for construction activities.	Stanford requires all construction contractors to properly maintain equipment.
Q.3.	Conduct a risk screening analysis and obtain BAAQMD permit for building projects containing more than 25,000 square feet of laboratory space and 50 fume hoods.[1]	All approved projects were required to comply with BAAQMD's permitting, control measures, and recommendations, as appropriate.
R.	**Noise**	
R.1.a-e	Compliance with County Noise Ordinance during construction activities of each building project.	Construction activities associated with 2000 GUP projects complied with the County Noise Ordinance and incorporated noise reduction measures as required by ASA conditions of approval.
R.2.	Limits on construction hours.	Construction activities associated with 2000 GUP projects were limited to the provisions as specified in the Santa Clara County Noise Ordinance. For construction sites within 150 feet of the City of Palo Alto, construction was limited to the hours of 8:00 a.m. to 7:00 p.m. Monday through Friday, 9:00 a.m. to 7:00 p.m., Saturday, and prohibited on Sundays and holidays, as specified in GUP Condition R.2.
R.3.	Operational noise reduction measures.	ASA-approved building projects incorporated all county-specified noise reduction measures (listed in Section D of the MMRP) and complied with the County Noise Ordinance.
R.4.	Fireworks displays to be limited to no more than two events per calendar year.	Two fireworks display at events per calendar year are permitted under the GUP. All fireworks displays require an entertainment event license from the County's Planning Division. From September 1, 2020, through August 31, 2021, there were no fireworks events. From September 1, 2021, through August 31, 2022, the Spring Baseball game and the San Jose Earthquakes Game received permits for fireworks display. The San Jose Earthquakes Game and associated fireworks display was set back to FY 23.
R.5.	Maintenance of hotline for noise complaints.	Stanford continues to meet the GUP condition by operating the noise hotline at (650) 724-4900, which

[1] Note: Q.3 has been confirmed to match BAAQMD regulations, which requires both triggers in order to do risk screening.

GUP Condition	Stanford Compliance
	was established to log complaints related to outdoor special events and high impact events on campus. Stanford continues to use this hotline to record concerns about noise disruptions and complaints on campus. In FY 17, a change was made in the hotline structure in order to provide callers the option to connect to Stanford Public Safety dispatch at (650) 329-2413 for timely action regarding the complaint, or the caller can log a noise complaint with the operator mailbox. The University reports that twenty-three (23) noise complaint was received during this reporting period. Out of the 23 noise complaints received, nine (9) complaints were from campus residents about noises within residential areas on-campus, such as party noise and loud music. One complaint was regarding noise from the soccer field and one complaint was about noise from landscaping work. Twelve (12) complaints were regarding noise from fireworks associated with Spring Baseball game. There were no major athletic events with fireworks displays during the past 2 years, due to the pandemic. Stanford continues to work with different types of residential communities to maintain acceptable levels of noise and strengthen communications between campus community members.
S. Additional Conditions	
S.1. Acceptance of Conditions of Approval.	See Annual Report 1.

Appendix C
Cumulative Projects

Appendix C
Cumulative Projects

Completed building projects under the GUP cap, housing projects, parking, non-GUP building projects and grading projects are tracked in Appendix C. A map and table are provided for each category to illustrate the project, its location, its square footage/housing units/parking spaces counted toward the GUP cap, and in which annual report period the project was completed. Each table provides a cumulative total of square footage, housing, or parking to-date. A table also provides a cumulative total of non-GUP building projects. Additional backup data is kept on file by Stanford and the County.

Section II of this annual report provides brief descriptions of each project on which there was activity during the current reporting year. Projects listed in Appendix C that were completed in prior years are not reported in the body of the Annual Report. Detailed information on these projects may be found in previous Annual Reports.

KEY TO MAP C-1 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 22 CUMULATIVE BUILDING PROJECTS THAT AFFECT GUP BUILDING AREA CAP				
Fiscal Year	**Map No.***	**Project**	**Built Area (sq. ft.)**	**Net Addition to GUP Building Cap**
Annual Report 1 (2000-2001)	N/A	None	N/A	0
Annual Report 2 (2001-2002)	1	Student Services	20,000	22,790
		Demo Bridge Building	(-2,752)	
		Band Trailer	4,320	
		Demo existing Band Trailer	(-2,160)	
		Rugby Pavilion	3,382	
Annual Report 3 (2002-2003)	2	Carnegie Global Ecology Center	18,164	32,023
		Demolish Carnegie Greenhouses	(-6,161)	
	3	Lucas Center Expansion	20,600	
		Electronics Communications Hub-West	1,500	
		Demolition of Ortho Modular	(-2,080)	
		SoM Trailer Replacement	0	
		Galvez Modular Re-Permit	0	
Annual Report 4 (2003-2004)	4	Maples Pavilion Addition	18,298	92,915
		Demolish Maples Ticket Booth	(-179)	
	5	Arrillaga Family Recreation Center	74,796	
Annual Report 5 (2004-2005)	6	Varian 2	63,869	39,763
		Building 500	3,254	
		Wilbur Modular Ext.	(-27,360)	
Annual Report 6 (2005-2006)	7	Environment and Energy Building	164,087	116,237
		GP-B Modular Demolition	(-8,640)	
		Varian 2 (sq.ft. adjustment from AR 5)	8,305	
	8	HEPL Demolition	(-71,425)	
		Engineering Shed	(-929)	
		Galvez Too	(-4,320)	
	9	Football Stadium Renovations	33,050	
		Munger House Relocations	906	
		Avery Aquatic	1,445	
		Band Trailer	(-4,320)	
		Guard Shelter	42	
		579 Alvarado (Humanities Annex)	(-3,258)	
		Barnum Family Center	2,337	
		Brick Barn	4,690	
		Knoll Trailer A	(-2,912)	
		Knoll Trailer B	(-2,821)	
Annual Report 7 (2006-2007)		None	N/A	0
Annual Report 8 (2007-2008)	10	Lorry I. Lokey Stem Cell Research Building (SIM 1)	198,734	323,264
	11	Li Ka Shing Center for Learning and Knowledge (LKSC)	104,000	
		Demolish Fairchild Auditorium	(-14,600)	
		Demolish Welch Road Modulars	(-4,030)	

KEY TO MAP C-1 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 22 CUMULATIVE BUILDING PROJECTS THAT AFFECT GUP BUILDING AREA CAP				
Fiscal Year	**Map No.***	**Project**	**Built Area (sq. ft.)**	**Net Addition to GUP Building Cap**
	12	Center for Nanoscale Science and Technology	99,297	
		Demolish Ginzton	(-69,714)	
	13	Jen-Hsun Huang School of Engineering Center	125,639	
		Demolish Terman Engineering	(-148,818)	
		Lorry I. Lokey (Stanford Daily) Building	4,783	
		Demolish Storke Building	(-9,040)	
		Li Ka Shing Center for Learning and Knowledge - Connective Elements	5,890	
		Peterson Building Renovation	(-661)	
	14	John A. and Cynthia Fry Gunn SIEPR Building	31,784	
Annual Report 9 (2008-2009)	15	Knight Management Center	331,093	72,776
		Demolish GSB South	(-167,371)	
		Demolish Serra Complex	(-84,000)	
		Demolish Kresge Auditorium	(-13,042)	
		Cobb Track Bleacher addition	3,950	
		Arrillaga Gymnasium and Weight Room	19,951	
		Site 515 Demolition	(-1,540)	
		Volkswagen Automotive Innovation Lab	8,000	
		Oak Road Restrooms	499	
		Golf Practice Storage Trailer	432	
		Cubberley Seismic Project	(-3,654)	
		Press Building Demolition	(-14,303)	
		Recalculation of sq.ft. with Annual Reports 1 through 8	(-7,239)	
Annual Report 10 (2009-2010)	16	Neukom Building	61,014	126,676
	17	Bing Concert Hall	78,350	
		DAPER Corps Yard Demolition	(-12,688)	
Annual Report 11 (2010-2011)		Braun Music Center	167	174,723
		Bing Concert Hall adjustment	7,185	
	18	Retention of GSB South	167,371	
Annual Report 12 (2011-2012)	19	Arrillaga Outdoor Education and Recreation Center	75,000	223,725
	20	Bioengineering and Chemical Engineering	196,172	
	21	Satellite Research Animal Facility	20,507	
		Anatomy demolition	(-66,579)	
		Cagan Soccer locker rooms	3,345	
		Cypress Annex demolition	(960)	
		Quonset Hut demolition	(-3,760)	

KEY TO MAP C-1 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 22 CUMULATIVE BUILDING PROJECTS THAT AFFECT GUP BUILDING AREA CAP				
Fiscal Year	**Map No.***	**Project**	**Built Area (sq. ft.)**	**Net Addition to GUP Building Cap**
Annual Report 13 (2012-2013)		Ford Center Addition (from AR 8)	8,710	165,092
	22	Arrillaga Family Sports Center Addition	27,709	
	23	Anderson Collection at Stanford	30,279	
	24	Replacement Central Energy Facility	14,715	
		Grounds trailer demolition	(-722)	
	25	McMurtry Art - Art History	84,239	
		New Field Hockey Bleachers	2,397	
		Windhover Contemplative Center	3,928	
		Encina Modular Demolition	(-8,400)	
		520/524 Renovation	2,237	
Annual Report 14 (2013-2014)		Northwest Data Center and Communications Hub	3,130	52,735
	26	408 Panama Mall	56,790	
		Educational Farm	864	
		Roble Gym Renovation	544	
		Field Conservation Facility	2,842	
	27	Demolition of Godzilla Trailer	(-11,435)	
Annual Report 15 (2014-2015)	28	Science Teaching & Learning Center – Old Chem	68,151	(-45,179)
		Sunken Diamond New Entry/Locker Room Expansion	3,410	
		Cagan Soccer Field Bleacher Lockers	2,658	
		Maples Pavilion Addition	1,135	
		Softball Field House	2,618	
		Football Stadium New Locker Room	8,966	
		Siebel Varsity Golf Training Complex	3,431	
		Demolish golf storage trailer	(-432)	
		Demolition of old Field Conservation Facility	(-2,821)	
		Meyer Library Demolition	(-124,710)	
		Lasuen Restrooms	1,023	
		Demolition of Central Energy Facility	(-8,715)	
		Hogan Lab Renovation Project	107	
Annual Report 16 (2015-2016)	29	David and Joan Traitel Building, Hoover Institution	50,340	5,092
		Demolition of Cummings Art Building	(-51,024)	
		Demolition of HEPL Powerhouse	(-3,684)	
		Regional Loading Dock Expansion (loading dock and café) [3]	2,366	
		Demolition of Stauffer III	(-19,611)	
		Demolition of Gazebo II	(-1,017)	
		Earth Sciences Courtyard Infill	2,586	
	30	Kingscote Gardens Renovation	20,298	
	31	Bass Biology Building	120,337	

KEY TO MAP C-1 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 22 CUMULATIVE BUILDING PROJECTS THAT AFFECT GUP BUILDING AREA CAP				
Fiscal Year	**Map No.***	**Project**	**Built Area (sq. ft.)**	**Net Addition to GUP Building Cap**
		Demolition of Herrin Hall	(-35,944)	
		Demolition of Herrin Labs	(-78,047)	
		Demolition of Campus Gas Station	(-1,508)	
Annual Report 17 (2016-2017)		Golf Learning Center	295	215,061
	32	ChEM-H & SNI	210,940	
		Home of Champions	2,440	
		Educational Farm Huffington Barn	1,263	
		Organic Chem demolition	(-14,270)	
	33	Denning House	16,471	
	34	Frost Amphitheater renovations	9,707	
		Bonair Huts for East Campus Utilities	(-11,785)	
Annual Report 18 (2017-2018)		Golf 10th Tee restroom	142	206,221
		Demolition of storage shed	(-199)	
		CCSC Child Care Center[3]	13,847	
		Demolition of BKLK	(-4,846)	
		Demolition of existing CCSC	(-6,099)	
		Demolition of Rainbow	(-4,775)	
		Demolition of Pepper Tree	(-1,024)	
	35	Academic Advising and Rowing Center[4]	22,622	
	36	Environmental Health and Safety Expansion	14,087	
		Encina Commons (net demolition)	(-4,121)	
	37	Center for Academic Medicine[4]	152,120	
	38	Public Safety Building	27,196	
		Demolition of Public Safety Annex	(-2,729)	
Annual Report 19 (2018-2019)		District Work Center: Panama site	3,926	12,418
		District Work Center: Roth site	3,926	
		District Work Center: Memorial site	3,926	
		Softball Stadium Improvements	120	
		Stock Farm Greenhouses (construction)	8,352	
		Demolition of Stock Farm Greenhouses	(-7,832)	
Annual Report 20 (2019-2020)	39	Stock Farm Childcare Facility	10.560	14,642
		Chemistry Admin Modular	4,082	
Annual Report 21 (2020-2021)	40	Demolition of Mudd Chemistry	(-76,657)	(-90,221)
	41	Demolition of 1215 Welch Modulars	(-14,340)	
		Gates Building Renovation	776	
Annual Report 22		Lou Henry Hoover Building (Demolition)	(48,643)	

KEY TO MAP C-1
ANNUAL REPORT 1 THROUGH ANNUAL REPORT 22
CUMULATIVE BUILDING PROJECTS THAT AFFECT GUP BUILDING AREA CAP

Fiscal Year	Map No.*	Project	Built Area (sq. ft.)	Net Addition to GUP Building Cap
(2021-2022)	42	George P. Shultz Building	48,643	
		CASBS Restroom (Demolition)	(230)	
		CASBS Storage Shed 12-290A (Demolition)	(780)	
		CASBS Storage Shed 12-290B (Demolition)	(741)	
		CASBS Conference Room	1,701	
		Stanford Stadium Restroom Demolitions (Galvez and El Camino)	(3,231)	
		Stanford Stadium Restroom Demolitions (Berm)	(2,282)	
		Stanford Police Compound Demolitions	(5,785)	
	43	Redwood Demolition	(20,495)	
		EOC/ECH	6,701	
Cumulative Net Contribution toward 2000 GUP Building Cap:				**1,735,611**

1. Projects included at the time of building permit issuance.

2. Cumulative total includes the adjusted results from the recalculations for buildings and demolitions from previous annual reports under the 2000 GUP. Specific adjustments are not reflected in this table at this time.

3. The CCSC Child Care Center also took childcare square footage, please see the Key to Map C-5 for more information.

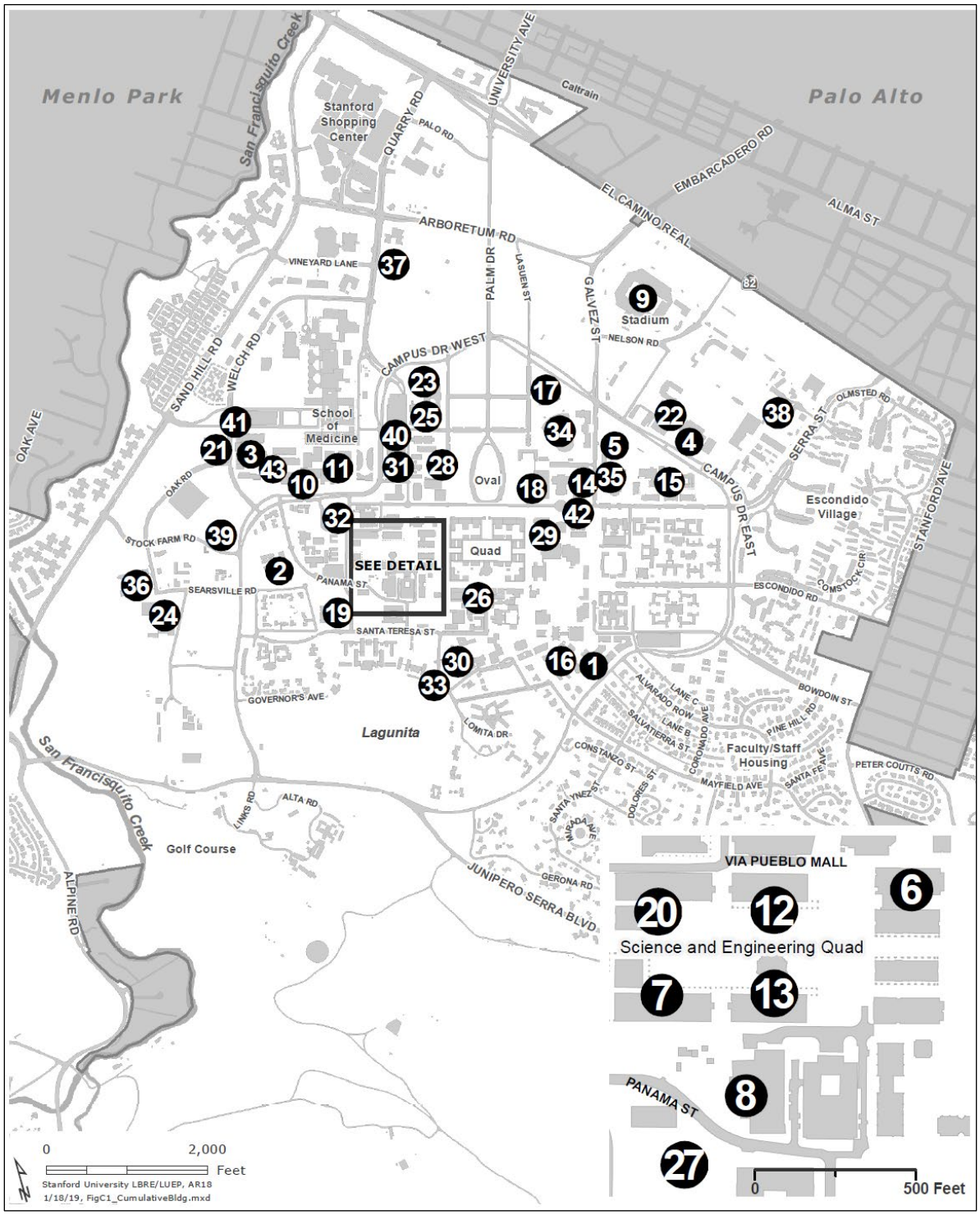
4. AR20 includes a couple corrections to the square footage for two projects. The Center for Academic Medicine was revised to remove 1,701 sf due to minor changes in design. The Academic Advising and Rowing Center was revised to remove 433 sf due to minor changes in design. These revisions are also noted in Table 5 of the Body.

*Map C-1 illustrates the locations of building projects 10,000 sq. ft. or greater. Projects smaller than 10,000 sq. ft. are not shown on Map C-1.

MAP C-1

CUMULATIVE BUILDING PROJECTS THAT AFFECT BUILDING AREA CAP

(GREATER THAN 10,000 GSF)



KEY TO MAP C-2
ANNUAL REPORT 1 THROUGH ANNUAL REPORT 22
CUMULATIVE HOUSING PROJECTS

Fiscal Year	Map No.*	Project	Housing Units	Square Footage	Annual Units	RHNA** Units
Annual Report 1 (2000-01)	1	Mirrielees – Phase I	102	0	102	
Annual Report 2 (2001-02)	2	Escondido Village Studios 5 & 6	281	139,258	331	281
	3	Mirrielees – Phase II	50	0		
		Branner Student Housing Kitchen	0	1,596		
Annual Report 3 (2002-03)	N/A	None	N/A	N/A	0	
Annual Report 4 (2003-04)	N/A	None	N/A	N/A	0	
Annual Report 5 (2004-05)	N/A	None	N/A	N/A	0	
Annual Report 6 (2005-2006)		Drell House (conversion to academic)	(-1)	(-906)	(-8)	(-1)
		579 Alvarado	1	3,258		1
	4	Casa Zapata RF Unit Replacement	(-8)	(-691)		1
Annual Report 7 (2006-2007)		None	N/A	N/A	0	
Annual Report 8 (2007-2008)	5	Munger Graduate Housing	349	267,683[1]	349	209
Annual Report 9 (2008-2009)	5	Munger Graduate Housing	251	192,517[1]	514	147
		Schwab Dining Storage	N/A	464		
	6	Blackwelder/Quillen Dorms	130	N/A		
	7	Crothers Renovation	133	N/A		1
Annual Report 10 (2009-2010)	8	717 Dolores	4	0	70	
	9	Crothers	2	0		
	10	Olmsted Terrace Faculty Housing	39	103,127		39
	11	Olmsted Staff Rental Housing	25	53,831		25
		Arrillaga Family Dining Commons	N/A	28,260		
Annual Report 11 (2010-2011)	6	Quillen Dorm Phase 2	90	N/A	90	
Annual Report 12 (2011-2012)	12	Hammarskjold renovation	7	1,730	9	
		Haus Mitt renovation	1	210		
		Phi Sigma renovation	1	420		
		Grove House Renovation	N/A	500	427	

KEY TO MAP C-2
ANNUAL REPORT 1 THROUGH ANNUAL REPORT 22
CUMULATIVE HOUSING PROJECTS

Fiscal Year	Map No.*	Project	Housing Units	Square Footage	Annual Units	RHNA** Units
Annual Report 13 (2012-2013)		Columbae Renovation	N/A	950		
		Slavianskii Dom Renovation	N/A	961		
		Muwekma-Tah-Ruk Renovation	N/A	450		
	13	Ujamaa	2	N/A		
	14	McFarland	63	N/A		
		EV summer renovation	(-2)	N/A		
	15	Toyonito Demolition	N/A	(-13,298)		
	16	Comstock graduate housing demolition	(-74)	(-30,547)		(-40)
	16	Comstock Graduate Housing	438	256,258		274
Annual Report 14 (2013-2014)		Mars Renovation	1	273	2	
		Sigma Nu Renovation	N/A	628		
		Roth Renovation	1	508		
		Durand Renovation	N/A	675		
Annual Report 15 (2014-2015)	17	Manzanita Park Residence Hall	129	41,805	133	4
	18	Phi Kappa Psi	2	505		
	19	Kairos	2	979		
Annual Report 16 (2015-2016)	20	717 Dolores	2	928	385	
	21	La Maison Francaise	(-2)	871		
	22	GSB Residences	200	124,670		101
	23	New Residences at Lagunita Court	218	74,300		2
	24	Kingscote Gardens Renovation	(-33)	(-20,298)		(-33)
Annual Report 17 (2016-2017)		Lagunita-Eucalipto	1	0	1	
Annual Report 18 (2017-2018)		Muwekma student bedroom conversion	(-2)	0	(-2)	
Annual Report 19 (2018-2019)		None	0	0	0	
Annual Report 20 (2019-2020)	25	Escondido Village Demolitions	(-414)	(-168,920)	2,020	(-188)
	25	Escondido Village Graduate Residences	2,434	1,699,001		1,499
Annual Report 21 (2020-2021)		None	N/A	N/A	0	

KEY TO MAP C-2
ANNUAL REPORT 1 THROUGH ANNUAL REPORT 22
CUMULATIVE HOUSING PROJECTS

Fiscal Year	Map No.*	Project	Housing Units	Square Footage	Annual Units	RHNA** Units
Annual Report 22 (2021-2022)		None	N/A	N/A	0	
Cumulative Net Contribution toward 2000 GUP Housing Units			**4,423**	**2,761,956**	**4,423**	**2,322**

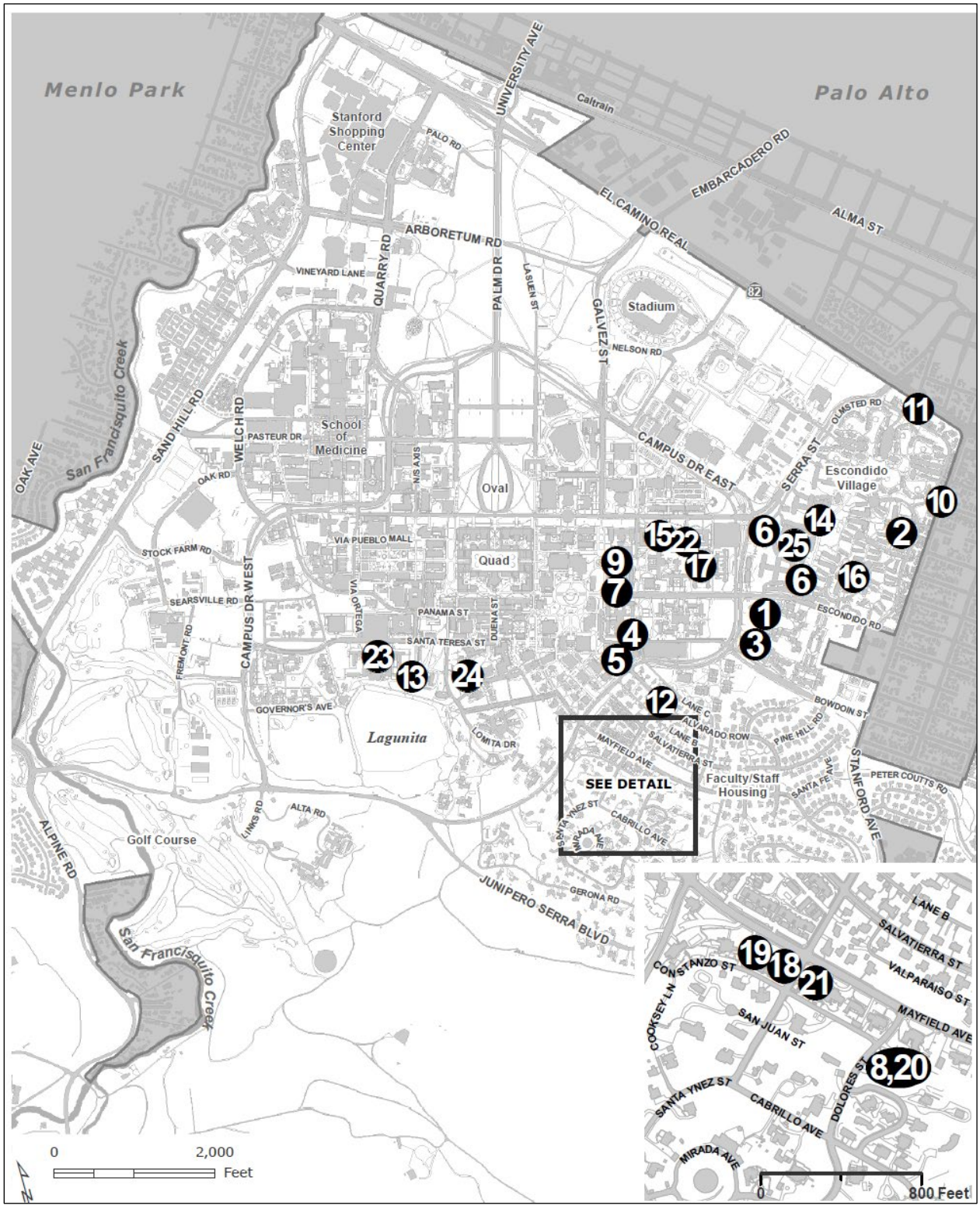
1. Based on an average of 767 square feet per unit constructed for the Munger Graduate Student Housing project.

*Map C-2 illustrates the locations of housing projects that add or remove more than one unit, and have been framed. Individual housing projects are not shown on Map C-2.

**Housing units developed by Stanford are not required to be deed restricted affordable housing units.

MAP C-2

CUMULATIVE HOUSING PROJECTS



KEY TO MAP C-3 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 22 CUMULATIVE PARKING PROJECTS				
Fiscal Year	**Map No.***	**Project**	**Parking Spaces**	**Spaces Subtotal**
Annual Report 1 (2000-01)	1	Removal of Arguello Lot	(-55)	(-29)
	2	Oak Road Angle Parking	52	
		Oak Road Parallel Parking	12	
		Student Services Building	(-38)	
Annual Report 2 (2001-02)		Band Modular Project	23	31
	3	Parking Structure V	97	
	4	Oak Road (Angle to Parallel)	(-66)	
		Closure of Anatomy Lot	(-28)	
		Maples Lot	5	
Annual Report 3 (2002-03)		PS-1 Restriping/ADA	(-29)	394
		Maples Lot	21	
	5	Escondido Village Expansion	212	
	6	Serra Street Reconstruction	50	
		Arguello Lot	37	
		Mirrielees Lot Reconfiguration	(-23)	
	7	Cowell Lot Expansion	154	
		Carnegie Global Center Parking	17	
		Misc. reconstruction/restripe/ADA	(-45)	
Annual Report 4 (2003-2004)		Anatomy Lot Reopening	26	(-91)
		Encina Gym/ Arrillaga Rec Center Construction	(-17)	
		Ventura Lot Closing-CSLI/EPGY Annex Construction	(-21)	
		Housing Maintenance Yard Project	(-25)	
		Graduate Comm. Center Parking Lot	(-35)	
		Misc. reconstruction/restripe/ADA	(-19)	
Annual Report 5 (2004-2005)		Stock Farm Bus Reconfiguration	(-47)	(-159)
		Dudley & Angell Recount	(-20)	
		Mayfield 3 Recount	(-23)	
		Misc. reconstruction/restripe/ADA	(-69)	
Annual Report 6 (2005-2006)	8	Ginzton Lot Closure (for Environment & Energy construction)	(-211)	(-659)
		Humanities Lot (for Old Union Surge Trailers)	(-20)	
		Law School Lot/ House Relocation/ Prep for Munger construction	(-26)	
	9	Mariposa Lot/ Munger Law School/ House Relocation/ Columbae Renovation	(-115)	
	10	Stock Farm Bus Reconfiguration	(-64)	
	11	Tresidder Lot (for House Relocation)	(-138)	
		Dudley & Angell/ Olmsted Road	24	
	12	Eating Clubs Lot (for Old Union Surge)	(-87)	
	13	Stern Lot	(-64)	
	14	Wilbur-Stern Temporary Lot	108	
	15	Wilbur Modulars Removal	131	
	16	Wilbur South Lot (for PS 6)	(-128)	

KEY TO MAP C-3 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 22 CUMULATIVE PARKING PROJECTS				
Fiscal Year	**Map No.***	**Project**	**Parking Spaces**	**Spaces Subtotal**
		Misc. reconstruction/restripe/ADA	(-69)	
Annual Report 7 (2006-2007)	17	Li Ka Shing Center for Learning and Knowledge displacement	(-505)	(-798)
		Tresidder – Post House Relocation project	34	
Annual Report 8 (2007-2008)	18	Munger Displacement	(-369)	
		Misc. Reconstruction/restripe/ADA	42	
		Dean's Lawn reconfiguraton	(-27)	93
	19	Beckman/MSOB Closure for Li Ka Shing Center for Learning and Knowledge construction	(-206)	
	20	Memorial Lot closure for John A. and Cynthia Fry Gunn SIEPR Building	(81)	
	21	Serra closure for Knight Management Center	(-712)	
	22	Maples closure for Athletics Practice Gym	(-75)	
	23	Parking Structure 6	1,185	
		Misc. Reconstruction/restripe/ADA	9	
Annual Report 9 (2008-2009)	24	Oak Road Parking Lot	197	(-313)
	25	Arguello and 651 Serra Closure	(-267)	
		Track House	(-46)	
	26	Barnes & Abrams For Olmsted Road Staff Rental Housing	(-96)	
		Dudley & Angell for Stanford Terrace Faculty Homes	(-42)	
		Miscellaneous reconstruction/restripe/ADA	(-59)	
Annual Report 10 (2009-2010)	27	Beckman Lot reopening	66	(-56)
	28	Toyon lot closure for Arrillaga Family Dining Commons	(-163)	
		Miscellaneous reconstruction/restripe/ADA	41	
Annual Report 11 (2010-2011)		Cypress lot closure for BioE/ChemE	(-44)	810
		Stock Farm West reconfiguration for bus parking	(-20)	
		Roth Way reconfiguration for bus loading	(-36)	
	29	Parking Structure 7	858	
		Dudley & Angell	49	
		Miscellaneous reconstruction/restripe/ADA	3	
Annual Report 12 (2011-2012)		Lasuen@Arboretum – Bing and Galvez	39	(-236)
	30	Anatomy-McMurty Art - Anderson	(-95)	
	31	L-17 (Stockfarm South) – Temp Child Care	(-75)	
		L-25 (Panama) – West Campus Rec Center	(-23)	
		Lasuen – Bing Concert Hall	(-26)	
		L-73 (Stern Annex) – East Campus Rec	(-37)	
		Miscellaneous reconstruction/restripe/ADA	(-19)	
Annual Report 13 (2012-2013)	32	L-20 (Stock Farm West) - SESI Project laydown	(-202)	(-68)
		L-25 (Panama) - West Campus Recreation Center	28	
	33	L-96 (Galvez) - Galvez Event Lot completion	423	
	34	Comstock - Comstock Graduate Housing Project	(-84)	

KEY TO MAP C-3 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 22 CUMULATIVE PARKING PROJECTS				
Fiscal Year	**Map No.***	**Project**	**Parking Spaces**	**Spaces Subtotal**
		L-65 (Cowell @ Bowdoin) - Contractor laydown	(-49)	
	35	L-31 (Roble) - Windhover Project	(-69)	
	36	L-01 (Rectangle) - Parking Structure 9 construc. yard	(-86)	
		Miscellaneous reconstruction/restripe/ADA	(-29)	
Annual Report 14 (2013-2014)	37	Dean's Lawn for SHC Steam Plant	(-106)	526
		Cypress lot reopening	40	
		Panama Lot for Roble Garage	(-27)	
	38	Lomita at Rodin	(-72)	
	36	Rectangle parking Lot reopening	75	
	39	Searsville Lot net loss on Searsville Road	592	
		Miscellaneous reconstruction/restripe/ADA	24	
Annual Report 15 (2014-2015)	40	Lasuen @ Arboretum reconfiguration and partial closure	(-168)	(-695)
		Gates Lot closure for Bio Quad construction	(-32)	
	41	L-20 (Stock Farm West) – removal of laydown, restoration of parking	117	
		Roth Way – Tour bus reconfiguration	32	
	42	L-79, L-81 (GSB Highland Hall project)	(-108)	
	43	L-29, L-31, Santa Teresa @ Lagunita and Santa Teresa @ Sterling (New Residences at Lagunita Court and Roble Field projects)	(-395)	
	44	L-22 (Searsville lot) – Construction laydown	(-126)	
		Miscellaneous reconstruction/restripe/ADA	(-15)	
Annual Report 16 (2015-2016)	45	L-09 (Deans Lawn and Evening Shift)	70	11
		L-25 (Panama) – Via Ortega South roadway construction	(-43)	
		Galvez Roundabout and West Burnham Parking lot reconfigurations	(-23)	
		L-79 (GSB Residences) – parking reconfiguration	21	
	43**	L-29 and L-31 (at Lagunita Court) – reconfiguration	117	
	44**	L-22 (Searsville lot) – construction laydown converted back to permit parking	126	
		Miscellaneous reconstruction/restripe/recount/ADA	(-60)	
		Correction – removing Marguerite, tour bus, charter bus, and authorized oversize vehicle parking and staging spaces from L-20, Oak Road, and Arboretum	(-108)	
		Correction - removing spaces at L-1A and Hoover Pavilion Garage (in Palo Alto)	(-61)	
		Correction - removing Faculty/staff-only parking spaces from residential zoned areas	(-28)	
Annual Report 17 (2016-2017)	46	Parking Structure 10	1160	177
	47	L-21 (Jordan Quad) ChEM-H & SNI project	(-157)	
		L-25 (Panama)	35	

KEY TO MAP C-3 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 22 CUMULATIVE PARKING PROJECTS				
Fiscal Year	**Map No.***	**Project**	**Parking Spaces**	**Spaces Subtotal**
		Kingscote	23	
	48	L-35 (Boat House) Denning House project	(-60)	
		L-31 (Roble Lot)	(-22)	
	49	Parking removed due to Escondido Village Graduate Residences project	Total (-787)	
		Blackwelder	(-186)	
		Hoskins	(-144)	
		Jenkins	(-106)	
		McFarland	(-185)	
		Quillen	(-95)	
		Thoburn	(-71)	
		Miscellaneous reconstruction/restripe/recount/ADA	(-15)	
Annual Report 18 (2017-2018)	50	EH&S Facility Expansion – Partial lot closure during construction	(-49)	(-667)
	51	Serra Mall closure (Serra at Schwab)	(-52)	
		L-65 (Cowell Bowdoin) – Removal of construction trailers	25	
	52	L-2 (Quarry Psychiatry) – Partial closure due to Center for Academic Medicine construction	(-52)	
	53	L-3 (Quarry South) – Closure due to Center for Academic Medicine construction	(-464)	
		Miscellaneous reconstruction/restripe/recount/ADA across campus	(-75)	
Annual Report 19 (2018-2019)	54	Comstock Circle parking changes and East Campus Childcare Center project completion	54	(-29)
		EH&S Facility Expansion – Reopening of L-19 after project completion	23	
		Projects at Bonair Siding displacing parking	(-23)	
	55	Parking removed due to Escondido Village Graduate Residences Project - Quillen	(-61)	
		Miscellaneous reconstruction/restripe/recount 1 ADA across campus	(-22)	
Annual Report 20 (2019-2020)	56	L-25 (Panama) Parking Lot Chiller Project	(-92)	622
		Escondido Road Reconfiguration	(-41)	
	57	Parking added due to Escondido Village Graduate Residences project	Total 755	
		Blackwelder Lot	159	
		EVGR North Lot	75	
		Quillen Lot	153	
		Thoburn Court	57	
		Thoburn Garage	311	
Annual Report 21 (2020-2021)	58	L-21 (Jordan Quad) Parking Lot - Post ChEM-H and Neuroscience Project	59	1,716
	59	Manzanita Field Garage	844	
	60	Center for Academic Medicine (CAM) Garage	818	
	61	L-3 (Quarry South) – CAM Building Project	131	

KEY TO MAP C-3
ANNUAL REPORT 1 THROUGH ANNUAL REPORT 22
CUMULATIVE PARKING PROJECTS

Fiscal Year	Map No.*	Project	Parking Spaces	Spaces Subtotal
	62	Electioneer - Partial closure due to LBRE Replacement Building Project	(-61)	
	63	L-22 (Searsville Lot) - Partial closure due to LBRE Replacement Building Project	(-107)	
		Miscellaneous reconstruction/restripe/recount/ADA across campus	32	
Annual Report 22 (2021-2022)		Bowdoin Street bike lane project	(44)	(59)
		Miscellaneous reconstruction/restripe/recount/ADA across campus	(15)	
Cumulative Net Contribution toward 2000 GUP Parking Cap:				**521**

* Map C-3 illustrates the locations of parking projects that change the parking inventory by more than 50 spaces.

** Location 43 and 44 in AR 15 are listed again in AR 16 due to significant changes in those parking lots.

MAP C-3

CUMULATIVE PROJECTS THAT AFFECT PARKING INVENTORY

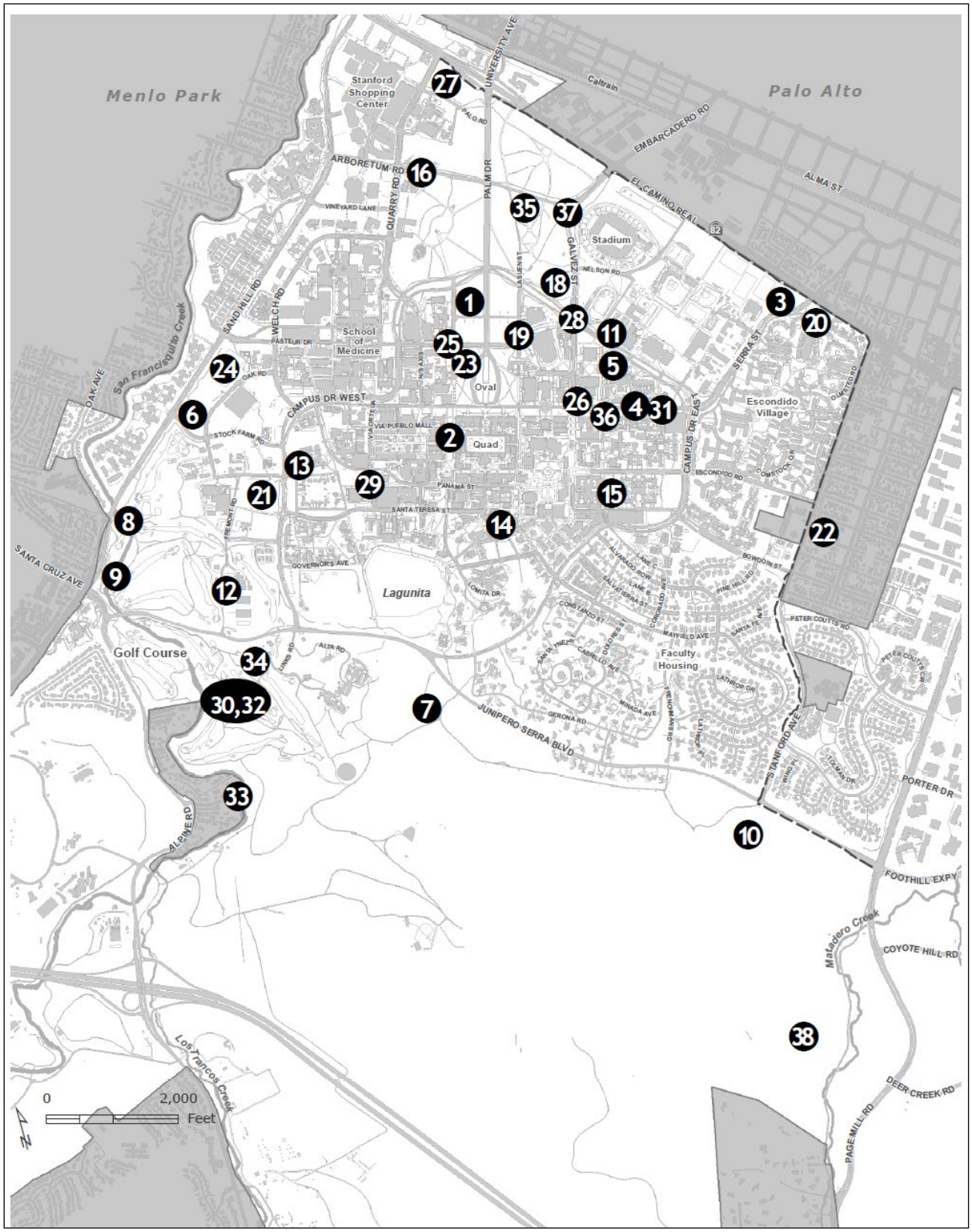
(+/-50 SPACES OR MORE)

KEY TO MAP C-4 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 22 CUMULATIVE GRADING PERMIT PROJECTS		
Fiscal Year	**Map No.**	**Project**
Annual Report 1 (2000-01)	1	Sandstone Sculpture
Annual Report 2 (2001-02)	2	Lomita Mall
	3	Serra/ECR Detention Basin
	4	Serra Street Reconfiguration
	5	Encina Tennis Courts
Annual Report 3 (2002-03)		None
Annual Report 4 (2003-04)	6	West Campus Storm Detention
	7	CTS Breeding Ponds
	8	Hole #3 Golf Cart Bridge Replacement
Annual Report 5 (2004-2005)	9	Hole #4 Golf Cart Bridge Replacement
	10	Temporary Art in Foothills
	11	Taube Tennis Practice Bleachers
Annual Report 6 (2005-2006)	12	Equestrian Center
	13	Carnegie Grading Permit
Annual Report 7 (2006-2007)		None
Annual Report 8 (2007-2008)		None
Annual Report 9 (2008-2009)	14	Dinkelspiel Stage
Annual Report 10 (2009-2010)		None
Annual Report 11 (2010-2011)		None
Annual Report 12 (2011-2012)	15	Arguello Recreation Field
	16	LPCH Contractor Parking Lot
	17	Page Mill Road Construction Laydown
Annual Report 13(2012-2013)	18	Galvez Parking Lot
	19	Lasuen Street Parking Lot
	20	Acorn Parking Lot
Annual Report 14 (2013-2014)	21	Searsville Parking Lot
Annual Report 15 (2014-2015)	22	Stanford Perimeter Trail
	23	Regional Storm Water Treatment Facility
	24	West Campus Detention Basin
	25	Lomita/Roth Parking Lot & Lomita Road
Annual Report 16 (2015-2016)	26	Galvez and Serra St Parking Lot
	27	Palo Lot (laydown)
	28	Galvez Roundabout
	29	Via Ortega South
Annual Report 17 (2016-2017)	30	Stanford Golf Course Renovation (delayed to AR19)
Annual Report 18 (2017-2018)	31	Schwab Drop-off
Annual Report 19 (2018-2019)	32	Golf Course Grading Abatement
	33	Lagunita Diversion Dam Removal and Creek Restoration

KEY TO MAP C-4 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 22 CUMULATIVE GRADING PERMIT PROJECTS		
	34	Golf – 10th Tee Improvements
	35	Arboretum Lasuen Grading Abatement
	36	Serra Mall at Encina
	37	Galvez Arboretum Roundabout
Annual Report 20 (2019-2020)	38	Stanford University Upper Quarry Restoration (Frog Ponds)
Annual Report 21 (2020-2021)		None
Annual Report 22 (2021-2022)		None
Note: These are reported at the time of completion. These are grading projects that were not associated with construction of academic or housing square footage.		

MAP C-4

CUMULATIVE COMPLETED GRADING PROJECTS



KEY TO MAP C-5
ANNUAL REPORT 1 THROUGH ANNUAL REPORT 22
CUMULATIVE BUILDING PROJECTS THAT DO NOT AFFECT BUILDING AREA CAP*

				Applicable Category		
Applicable GUP Condition:				**A.2.a**	**A.2.b**	**A.3**
Fiscal year	**Map No.**	**Project**	**Size (sq. ft.)**	**1989 GUP (sq. ft.)**	**Temporary Surge Space (sq. ft.)**	**Community Childcare Center (sq. ft.)**
Annual Report 1 (2000-01)		None				
Annual Report 2 (2001-02)	1	Lokey Lab	85,063	85,063		
		Demolish Chem Storage	(-2,441)	(-2,441)		
		Demolish Shocktube Lab for ME	(-929)	(-929)		
		CCSC Modular Replacement	768			768
Annual Report 3 (2002-03)		None				
Annual Report 4 (2003-2004)		Maples Surge Trailers	2,688		2,688	
	2	Graduate Community Center	12,000			12,000
		CSLI/EPGY	8,270	8,270		
Annual Report 5 (2004-2005)	3	Wilbur Modular Ext.	27,360		27,360	
		Building 500	2,266	2,266		
		Maples Surge	(-2,688)		(-2,688)	
		Varian Surge	3,050		3,050	
Annual Report 6 (2005-2006)	3	Wilbur Modular Removal	(-27,360)		(-27,360)	
	4	Old Union – Serra	21,495		21,495	
		Old Union – Lomita	7,680		7,680	
Annual Report 7 (2006 – 2007)		Old Union – Lomita Removed	(-7,680)		(-7,680)	
		Durand Surge (formally Varian Surge)	3,050			
		Tower House Rehabilitation	3,241			3,241

KEY TO MAP C-5
ANNUAL REPORT 1 THROUGH ANNUAL REPORT 22
CUMULATIVE BUILDING PROJECTS THAT DO NOT AFFECT BUILDING AREA CAP*

				Applicable Category		
Applicable GUP Condition:				**A.2.a**	**A.2.b**	**A.3**
Fiscal year	**Map No.**	**Project**	**Size (sq. ft.)**	**1989 GUP (sq. ft.)**	**Temporary Surge Space (sq. ft.)**	**Community Childcare Center (sq. ft.)**
Annual Report 8 (2007 – 2008)		Black Community Service Center Addition	2,500			2,500
		GSB Modulars	3,840		3,840	
		SCRA Sports Complex	3,701			3,701
		Demolish old SCRA complex	(-2,617)			(-2,617)
		Madera Grove Childcare Center (Acorn Building)	8,354			8,354
Annual Report 9 (2008-2009)		Recalculation of AR 1 - 8	197			197
Annual Report 10 (2009-2010)		None				
Annual Report 11 (2010-2011)		Welch Road modulars	4,030		4,030	
		GSB Modular demolition	(-3,840)		(-3,840)	
		Madera Gove Childcare Center (Mulberry Building)	8,218			8,218
Annual Report 12 (2011-2012)	5	Temporary Child Care Facility	10,560		10,560	
Annual Report 13 (2012-2013)	4	Encina Modulars Trailer demolition (Old Union – Serra)	(-21,495)		(-21,495)	
		Cowell Lot Construction Trailers	2,584		2,584	
Annual Report 14 (2013-2014)		None				
Annual Report 15 (2014-2015)		Varian Surge (double-counted in AR7)	(-3,050)			
	5	Extension of Temporary Child Care Facility	0 (already counted in AR 12)		0 (already counted in AR 12)	
Annual Report 16 (2015-2016)		Demolition of 315 Campus Dr Modulars (also known as Varian Surge or Durand Surge)	(-3,050)		(--3,050)	
Annual Report 17 (2016-2017)		1215 Welch Rd Modulars (C, D, E) demolition	(-4,030)		(-4,030)	
Annual Report 18		West Campus Surge Trailers	560		560	

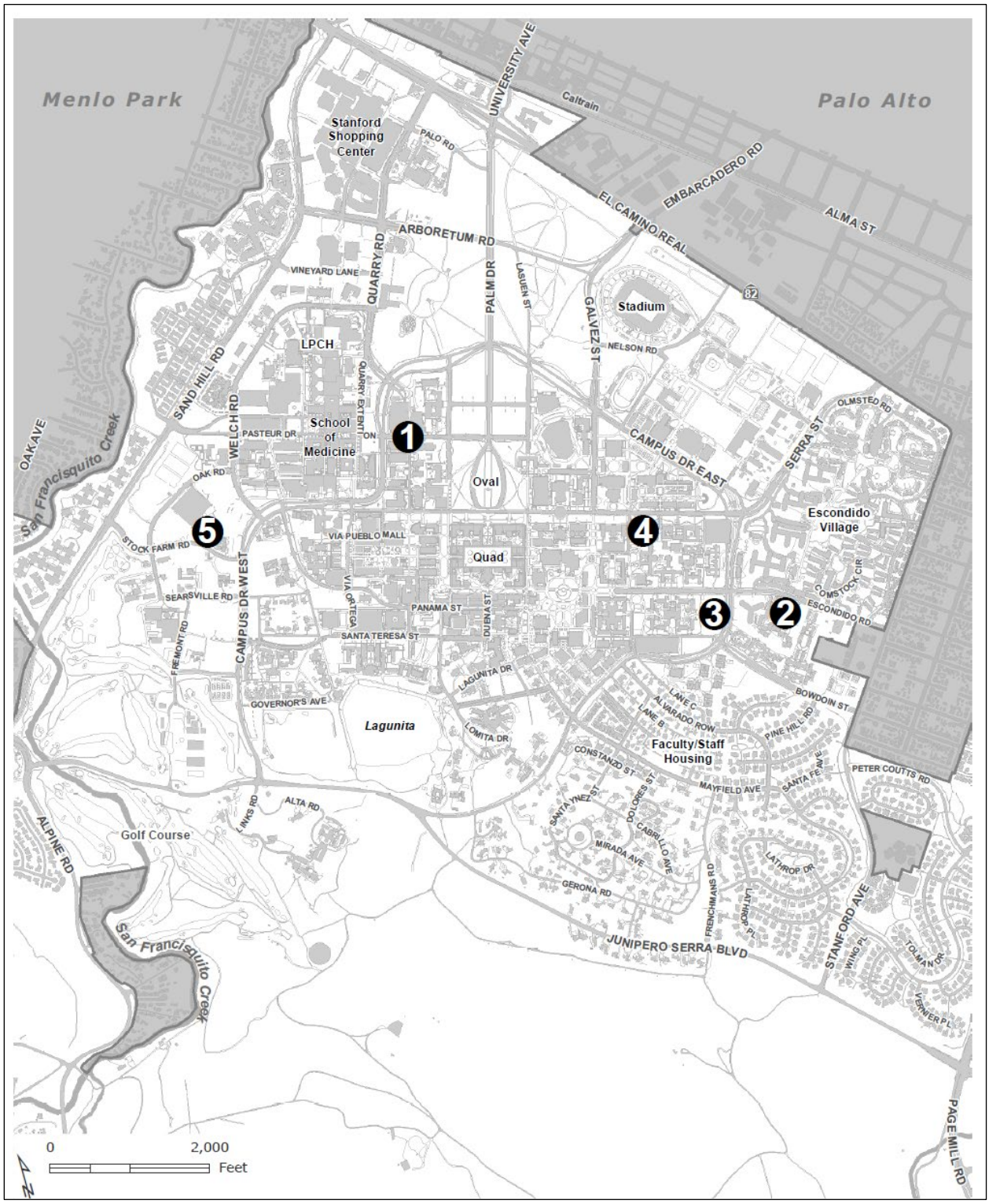
KEY TO MAP C-5
ANNUAL REPORT 1 THROUGH ANNUAL REPORT 22
CUMULATIVE BUILDING PROJECTS THAT DO NOT AFFECT BUILDING AREA CAP*

				Applicable Category		
Applicable GUP Condition:				**A.2.a**	**A.2.b**	**A.3**
Fiscal year	**Map No.**	**Project**	**Size (sq. ft.)**	**1989 GUP (sq. ft.)**	**Temporary Surge Space (sq. ft.)**	**Community Childcare Center (sq. ft.)**
(2017-2018)		Removal of Cowell Lot Construction Trailers	(-2,584)		(-2,584)	
		Demolition of Big Kids Little Kids childcare sf portion	(-768)			(-768)
		CCSC Childcare Project - Use of childcare sf	4,406			4,406
Annual Report 19 (2018-2019)		West Campus Surge Trailers	(-560)		(560)	
Annual Report 20 (2019-2020)	5	Temporary Childcare Facility (later renamed Stock Farm Childcare Facility)	(-10,560)		(-10,560)	
Annual Report 21 (2020-2021)		None				
Annual Report 22 (2021-2022)		None				
Cumulative Net Square Feet:			**132,222**	**92,229**	**0**	**40,000**

MAP C-5

CUMULATIVE BUILDING PROJECTS THAT DO NOT AFFECT BLDG. AREA CAP

(GREATER THAN 10,000 GSF)



Appendix D
Summary Report of Traffic Monitoring, 2001-2022

Appendix D
Summary of Traffic Monitoring

The following tables summarize Stanford Traffic Monitoring to date. The requirements for establishment of the traffic baseline and performing annual comparisons to the baseline are contained within the December 2000 Stanford Community Plan/General Use Permit (GUP)/Environmental Impact Report (EIR) and within the 2000 Stanford General Use Permit.

Methodology for Evaluating Traffic Impacts

The GUP *Condition of Approval G.7* outlined the methodology for gathering baseline counts and monitoring. The process can be summarized as follows:

- Peak hour traffic is counted at least three times per year for a two-week period each time. The three counts shall be averaged to determine the annual traffic level.
- All counts are recorded at the sixteen campus entry and exit points, which form a "cordon" around the campus.
- During the count, license plate numbers are recorded for each entering and exiting vehicle to determine the amount of cut-through (and therefore non-campus) traffic.
- Cordon volumes are adjusted for parking lots within the cordon used by the hospital (these volumes are subtracted from the cordon line counts) and parking lots outside the cordon used by the university (these volumes are added to the cordon line counts).
- A peak hour is then established for the campus based on the counts, adjusted for cut-through and parking lot location.

Condition of Approval G.4 defines the "no net new commute trips" standard as no increase in automobile trips during peak commute times in the peak commute direction, as counted at a defined cordon location around the central campus.

Condition of Approval G.6 defines the peak commute directions as entering the campus in the morning peak commute period and leaving the campus in the evening commute period. The peak commute period is defined as the one-hour period of time between 7 AM and 9 AM and again between 4 PM and 6 PM with the highest volume of traffic, as defined by the counts. Therefore, the two peak hours are considered to be independent events.

Condition of Approval G.9 states that the Planning Office shall monitor the cordon count volumes using the procedures described above. If the cordon counts, as modified by trip reduction credits, exceed the baseline volumes as calculated by the procedures outlined above by 1 percent or more for any two out of three consecutive years, mitigation of impacts to intersections identified in the December 2000 Stanford Community Plan/GUP EIR will be required. Since an increase in traffic during the AM peak hour is independent from an increase in traffic during the PM peak hour, an increase in traffic for two out of three years in one peak hour would trigger the additional elements of the monitoring program without a change, or even with a decrease in the other peak hour. Also a significant increase during one year in the AM and a sufficient increase in the PM for the following year would not trigger additional mitigation.

Appendix D
Summary of Traffic Monitoring

The 90% Confidence Interval means that average traffic during the 8 weeks (40 weekdays), when the traffic data is collected (for purposes of establishing the baseline), will be within the established average traffic counts 90% of the time. This means traffic data collected will be within the Baseline of 3,319 and Upper Range of 3,319 plus 120 trips for the AM counts and Baseline of 3,446 and Upper Range of 3,446 plus 109 trips for the PM counts 90% of the time if there is no statistically significant change in the average traffic. In other words, when the traffic study is conducted under relatively similar traffic conditions, nine times out of ten, the final number will be within the established 90% confidence interval range.

The Table below displays these numbers as formally adopted in 2001 for the 2000 GUP thresholds.

2001 Traffic Baseline and Thresholds

Data Points	Method of Calculation	AM Peak Hour	PM Peak Hour
Baseline (A)	Counted	3,319	3,446
Standard Deviation based on 90% Confidence Interval (B)	Calculated based on daily fluctuations	120	109
Upper Range of Baseline (C)	Number (calculated) C= A + B	3,439	3,555
1 % Trigger - number of trips allowed before penalty (D)	Number (calculated) (D = 1% x C)	35	36
Upper Limit before exceedance taking into account 90% confidence interval with 1% trigger	Calculated (C+D)	3,474	3,591

The 1% trigger was determined through negotiations between the County and Stanford in 2000 during the establishment of the GUP traffic standards. 1% trigger is tied to GUP condition G.9 which states that exceeding this trigger for two out of three years would require intersection improvements, as identified in the mitigation measures.

Appendix D
Summary of Traffic Monitoring

Monitoring Results

Annual Report 1 - Year 2001 – Baseline

The Stanford Traffic Monitoring began in Spring 2001. Monitoring counts are done each calendar year. The 2001 counts serve as the Baseline to which future years are compared.

Annual Report 2 - Year 2002

Two adjustments were made to the 2002 counts that are summarized in this report. On the basis of results of the 2002 counts, following the adjustments, it was concluded that the counts were below the threshold that would indicate an increase in traffic volumes. Stanford thus was found to be in compliance with the "no net new commute trips" GUP requirement for 2002.

An update to the original 2002 Monitoring Report was issued on October 15, 2003. Following the publication of the July 2003 report, Stanford and the County separately analyzed traffic data for the Stanford Homecoming week. Based on consultation with Stanford and independent analysis of County consultant traffic data, the County determined that data collected for the week of Homecoming should not be included in the comparison data set. The rationale for this decision was that Homecoming had been ongoing for years, was not included in the Baseline counts, and would continue to be an annual event. The County communicated to Stanford that other future "large events" would not be excluded from future counts. The revised analysis substituted the week of October 28, 2002, for the previously counted week of October 14, 2002. The results of this change are noted in the table below as the first revision.

Subsequent to the first adjustment to the 2002 Monitoring Report discussed above, Stanford informed the County that additional Marguerite Shuttle runs had been introduced to campus since the completion of the Baseline counts, and thus counted in the Year 1 (2002) comparison counts. This resulted in an increase of 12 vehicles in each peak hour. County staff determined that these new bus lines should be subtracted from the comparison count. The resultant counts are noted in the table below as the second revision.

Annual Report 3- Year 2003

The results of the 2003 counts were also below the threshold that would indicate an increase in traffic volumes. Stanford thus was also found to be in compliance with the "no net new commute trips" requirement for 2003.

Annual Report 4- Year 2004

The results of the 2004 counts were below the threshold that would indicate an increase in traffic volumes for the inbound AM peak hour traffic. However, the 2004 count for the outbound PM peak hour traffic exceeded the threshold by 51 vehicles. On March 2, 2005 Stanford submitted a 2004 Trip Credit Report that was reviewed by Korve Engineering. This report documented a credit of 66 for the increase in the number of bus trips across the cordon points and the number of transit passengers served outside the cordon area in the PM peak hour between the 2001 baseline and 2004. Most of the trip credits claimed are for passengers (primarily Stanford Hospital employees) getting on the shuttle outside the cordon area and traveling to the Palo Alto Caltrain station. Factoring in the trip credit of 66 trips Stanford did not exceed the no net new commute trip standard based on the 2004 Monitoring Program.

Annual Report 5 - Year 2005

The results of the 2005 Monitoring Report concluded that the adjusted AM inbound count totaled 3,383 vehicles. This represented an increase of 64 vehicles, which fell within the 90% confidence interval and did not represent a significant AM inbound traffic increase. The PM outbound count totaled 3,735 vehicles which was an increase of 289 vehicles from the baseline, which is above the 90% confidence interval by 180 vehicles and above the 1% increase trigger by 144 vehicles. Stanford applied for 182 trip credits for the 2005 monitoring period, consistent with the Cordon Count Credit Guidelines.

Annual Report 6 - Year 2006

The 2006 Monitoring Report concluded that the adjusted AM inbound count totaled 3,048 vehicles. This represented a decrease of 271 vehicles from the baseline and does not represent a significant AM inbound traffic increase. The PM outbound count totaled 3,427 vehicles, which was a decrease of 19 vehicles from the baseline, which is 128 vehicles below the 90 percent confidence interval and 164 vehicles below the 1 percent established trigger. Stanford submitted a 2006 Trip Credit Report showing 223.36 trip credits – this report has been received and confirmed by the County's traffic consultant.

Annual Report 7 - Year 2007

The 2007 Monitoring Report concluded that the adjusted AM inbound count totaled 3,058 vehicles, which was a decrease of 261 vehicles from the baseline, this decrease falls below the 90 percent confidence interval by 141 vehicles and did not represent a significant AM inbound traffic increase. The PM outbound count totaled 3,494 vehicles, which was an increase of 48 vehicles from the baseline counts. This increase falls below the 90 percent confidence interval by 61 vehicles and 97 vehicles below the 1 percent established trigger. Stanford submitted a 2007 Trip Credit Report showing 201 trip credits – this report has been received and confirmed by the County's traffic consultant.

Annual Report 8 - Year 2008

The 2008 Monitoring Report concluded that the adjusted AM inbound count totaled 3,020 vehicles, which was a decrease of 299 vehicles from the baseline and did not represent a significant AM inbound traffic increase. The PM outbound count totaled 3,460 vehicles, which was an increase of 14 vehicles above the baseline count and did not represent a significant PM outbound traffic increase. Stanford submitted a 2008 Trip Credit Report showing 240 trip credits – this report has been received and confirmed by the County's traffic consultant.

Annual Report 9 - Year 2009

The 2009 Monitoring Report concluded that the adjusted AM inbound count totaled 2,840 vehicles, which was a decrease of 479 vehicles from the baseline and did not represent a significant AM inbound traffic increase. The PM outbound count totaled 3,227 vehicles, which was a decrease of 219 vehicles below the baseline count and did not represent a significant PM outbound traffic increase.

Annual Report 10 - Year 2010

The 2010 Monitoring Report concluded that the adjusted AM inbound count totaled 2,921 vehicles, which was a decrease of 553 vehicles from the baseline and did not represent a significant

AM inbound traffic increase. The PM outbound count totaled 3,459 vehicles, which was a decrease of 132 vehicles below the baseline count and did not represent a significant PM outbound traffic increase.

Annual Report 11 - Year 2011

The 2011 Monitoring Report concluded that the adjusted AM inbound count totaled 3,081 vehicles, which was a decrease of 393 vehicles from the baseline and did not represent a significant AM inbound traffic increase. The PM outbound count totaled 3,743 vehicles, which was a decrease of 51 vehicles below the baseline count, after the trip credit was applied, and did not represent a significant PM outbound traffic increase.

Annual Report 12 - Year 2012

The 2012 Monitoring Report concluded that the adjusted AM inbound count totaled 3,287 vehicles, which was a decrease of 187 vehicles from the baseline and did not represent a significant AM inbound traffic increase. The PM outbound count totaled 3,590 vehicles, which was a decrease of 302 vehicles below the baseline count, after the trip credit was applied, and did not represent a significant PM outbound traffic increase.

Annual Report 13 - Year 2013

The 2013 Monitoring Report concluded that the adjusted morning (AM) inbound count totaled 3,332 vehicles which was an increase of 13 vehicles from the baseline, which falls within the 90% confidence interval, and does not represent a significant AM inbound traffic increase. The afternoon (PM) outbound count totaled 3,744 vehicles, which is an increase of 298 vehicles from the baseline. However, after applying 339 trip credits submitted by Stanford and verified by the County, the PM peak hour outbound traffic is 186 trips below the 1% established trigger.

Annual Report 14 - Year 2014

The 2014 Monitoring Report concluded that the adjusted morning (AM) inbound count totaled 3,336 vehicles which was an increase of 17 vehicles from the baseline, which falls within the 90% confidence interval, and does not represent a significant AM inbound traffic increase. The afternoon (PM) outbound count totaled 3,696 vehicles, which is an increase of 250 vehicles from the baseline. However, after applying 402 trip credits submitted by Stanford and verified by the County, the PM peak hour outbound traffic is 297 trips below the 1% established trigger.

Annual Report 15 - Year 2015

The 2015 Monitoring Report concluded that the adjusted morning (AM) inbound count totaled 3,142 vehicles which was a decrease of 297 vehicles from the baseline, which falls below the 90% confidence interval, and does not represent a significant AM inbound traffic increase. The afternoon (PM) outbound count totaled 3,257 vehicles, which is a decrease of 298 vehicles from the baseline, and also falls below the 90% confidence interval and does not represent a significant PM outbound traffic increase. After applying 844 trip credits submitted by Stanford and verified by the County, the PM peak hour outbound traffic is 1,178 trips below the 1% established trigger.

Annual Report 16 - Year 2016

The 2016 Monitoring Report concluded that the adjusted morning (AM) inbound count totaled 3,170 vehicles which was a decrease of 149 vehicles from the baseline, which falls below the 90% confidence interval, and does not represent a significant AM inbound traffic increase. The

afternoon (PM) outbound count totaled 3,316 vehicles, which is a decrease of 130 vehicles from the baseline, and also falls below the 90% confidence interval and does not represent a significant PM outbound traffic increase. After applying 543 trip credits submitted by Stanford and verified by the County, the PM peak hour outbound traffic is 818 trips below the 1% established trigger.

Annual Report 17 - Year 2017

The 2017 Monitoring Report concluded that the adjusted morning (AM) inbound count totaled 3,202 vehicles which was a decrease of 117 vehicles from the baseline, which falls below the 90% confidence interval, and does not represent a significant AM inbound traffic increase. The afternoon (PM) outbound count totaled 3,324 vehicles, which is a decrease of 122 vehicles from the baseline, and also falls below the 90% confidence interval and does not represent a significant PM outbound traffic increase. Therefore, Stanford met the No Net New Commute Trips standard. Stanford choose not to submit trip credits to the County this year as it was not required to meet the standard.

Annual Report 18 - Year 2018

The 2018 Monitoring Report concluded that the adjusted morning (AM) inbound count totaled 3,575 vehicles which is 256 vehicles higher than the baseline 2001 AM count; 136 vehicles above than the upper boundary of the 90% confidence interval, and 101 vehicles above the established 1 percent trigger. Because the AM peak hour traffic is above the trigger, Stanford Trip Credits are applied to the total to bring the number into compliance with the metric. The 2018 Trip Credits total is 595 Trip Credits. The afternoon (PM) outbound count totaled 3,509 vehicles, which is 63 vehicles higher than the 2001 baseline; 46 vehicles lower than the upper boundary of the 90% confidence interval and does not represent a significant PM outbound traffic increase. With Stanford's approved trip credits, Stanford met the No Net New Commute Trips standard.

Annual Report 19 - Year 2019

The 2019 Monitoring Report concluded that the adjusted morning (AM) inbound count totaled 3,193 vehicles which is 126 vehicles lower than the baseline 2001 AM count; 246 vehicles lower than the upper boundary of the 90% confidence interval, and does not represent a significant AM inbound traffic increase. The afternoon (PM) outbound count totaled 3,292 vehicles, which is 154 vehicles below than the 2001 baseline; 263 vehicles lower than the upper boundary of the 90% confidence interval and does not represent a significant PM outbound traffic increase. Therefore, Stanford met the No Net New Commute Trips standard. Stanford choose not to submit trip credits to the County this year as it was not required to meet the standard.

Annual Report 20 - Year 2020

Year 20 was a highly unusual year because of the COVID-19 pandemic. A COVID-19 shelter-in-place order was issued in March of 2020 and continued through the year. This resulted in the Stanford campus shutting down to limit the spread of the virus. The Spring 2020 Stanford traffic monitoring was cancelled because the campus was closed due to the County's shelter-in-place requirements. In Fall 2020, the County approved the use of a reduced traffic monitoring program for a period of 2 weeks to count raw traffic volumes only and confirm assumptions and observations in significant reduction in traffic volumes.

The 2000 GUP Condition G.7.a. requires traffic counts for a minimum of three times per year for an interval of 2 weeks each time. Since 2003, the established methodology for traffic monitoring

program is 6 weeks in the spring and two weeks in the fall for a total of 8 weeks of count data. However, given the pandemic, the County determined that 2 weeks of raw traffic counts would be sufficient to demonstrate that the traffic volumes, due to the pandemic, campus closures and statewide shelter-in-place orders, were well below the historic traffic volumes from 2001.

The baseline used to determine compliance with the no-net-new trips included the adjustments; the adjusted traffic volumes were always calculated as part of the monitoring program for that year. In FY 20, the adjustment data was also not collected because of the COVID-19 pandemic.

County hired traffic consultant, AECOM, compared the raw, unadjusted data with the newly compiled historic raw, unadjusted data from the previous 19 years. Two weeks of data in the fall of 2020 found an average AM peak-hour traffic volume of 1,747. This is compared with the AM peak-hour average of 4,091 from the previous 19 years of data. Two weeks of data in the fall of 2020 found an average PM peak-hour traffic volume of 2,045. This is compared with the PM peak-hour average of 4,355 from the previous 19 years of data. Thus, 2020 raw traffic counts during the pandemic showed traffic at less than half of normal levels. Results determined that raw traffic counts for 2020 do not exceed the historic raw averages for the AM and PM peak hour traffic.

Annual Report 21 - Year 2021

Due to the COVID-19 pandemic and the resulting shelter-in-place order, traffic data that was collected for two weeks in spring of 2021 included raw cordon counts only, with no parking or cut-through adjustments. In fall of 2021, the Stanford University campus was re-opened with safety restrictions in place. This allowed for collection of traffic data for 6 weeks with adjustment of raw traffic counts for both the parking permit and cut-through traffic.

Two weeks of data in the spring of 2021 found an average (unadjusted) AM peak-hour traffic volume of 2,280. This is compared with the AM (unadjusted) peak-hour average of 4,091 from the 19 years of data when there was not a public health crisis. Two weeks of data in the spring of 2021 found an average (unadjusted) PM peak-hour traffic volume of 2,584. This is compared with the PM (unadjusted) peak-hour average of 4,355 from the 19 years of data collected under normal conditions. Thus, spring 2021 (unadjusted) traffic counts during pandemic conditions showed traffic at slightly more than half of normal levels.

In the fall, the monitoring program collected all the data required to compare traffic levels to the baseline. The 2021 Monitoring Report concludes that the adjusted AM inbound fall count totaled 2,719 vehicles. This represents a decrease of 600 vehicles from baseline; it is 720 vehicles below the 90 percent confidence interval and 755 vehicles below the 1 percent established trigger. The PM outbound fall count totaled 2,892 vehicles, which is a decrease of 554 vehicles from the baseline; it is below the 90-percent confidence interval by 663 vehicles and below the one-percent increase trigger by 699 vehicles. Stanford University is in compliance with the 2000 GUP no-net-new-trips requirement in 2021, and trip credits were not needed.

Annual Report 22 - Year 2022

2022 represents the first year of a full return-to-normal traffic monitoring program after the COVID-19 pandemic campus shut down that began in March 2020.

The 2022 Monitoring Report concluded that the adjusted morning (AM) inbound count totaled 2,315 vehicles which is 1,004 vehicles lower than the baseline 2001 AM count; 1,124 vehicles lower than the upper boundary of the 90% confidence interval and does not represent a significant

AM inbound traffic increase. The afternoon (PM) outbound count totaled 2,840 vehicles, which is 606 vehicles below than the 2001 baseline; 715 vehicles lower than the upper boundary of the 90% confidence interval and does not represent a significant PM outbound traffic increase. Therefore, Stanford University is in compliance with the 2000 GUP No Net New Commute Trips standard in 2022, and trip credits were not needed.

2001 Baseline

Original Publication Date: **July 2002**
Updated Publication Date: **October 15, 2003**

Changes between the July 2002 and October 2003 reports were minor editorial corrections.

Inbound AM:	
Adjusted Average 2002 Count	3,319
90% Confidence Interval (2001)	+/- 120
Significant Traffic Increase (2001)	3,439
1% Increase Trigger (2001)	3,474
Outbound PM:	
Adjusted Average 2002 Count	3,446
90% Confidence Interval (2001)	+/- 109
Significant Traffic Increase (2001)	3,555
1% Increase Trigger (2001)	3,591

2002 Monitoring Report

Original Publication Date: **December 2002**
Updated Publication Date: **October 15, 2003**

Inbound AM:	**Original Data**	**First Revision Data**	**Second Revision Data**
Adjusted Average 2002 Count	3,390	3,287	3,275
Baseline-established 90% Confidence Interval (2001)	+/-120	+/-120	+/-120
Baseline-established Significant Traffic Increase (2001)	3,439	3,439	3,439
Baseline-established 1% Increase Trigger (2001)	3,474	3,474	3,474
Result	-84	-187	-199

Outbound PM:	**Original Data**	**First Revision Data**	**Second Revision Data**
Adjusted Average 2002 Count	3,678	3,598	3,586
Baseline-established 90% Confidence Interval (2001)	+/-109	+/-109	+/-109
Baseline-established Significant Traffic Increase (2001)	3,555	3,555	3,555
Baseline-established 1% Increase Trigger (2001)	3,591	3,591	3,591
Result	+87	+7	-5

Appendix D
Summary of Traffic Monitoring

2003 Monitoring Report

Original Publication Date: **January 29, 2004**

The following table summarizes the results of traffic monitoring for 2003.

Inbound AM:	
Adjusted Average 2003 Count	3,413
Baseline-established 90% Confidence Interval (2001)	+/- 120
Baseline-established Significant Traffic Increase (2001)	3,439
Baseline-established 1% Increase Trigger (2001)	3,474
Result (falls below the 90% Confidence Interval by 26 vehicles)	-26
Result (falls below the 1% Trigger by 61 vehicles)	-61
Outbound PM:	
Adjusted Average 2003 Count	3,476
Baseline-established 90% Confidence Interval (2001)	+/- 109
Baseline-established Significant Traffic Increase (2001)	3,555
Baseline-established 1% Increase Trigger (2001)	3,591
Result (falls below the 90% Confidence Interval by 79 vehicles)	-79
Result (falls below the 1% Trigger by 115 vehicles)	-115

2004 Monitoring Report

Original Publication Date: **January 18, 2005**

The following table summarizes the results of traffic monitoring for 2004.

Inbound AM:	
Adjusted Average 2004 Count	3,176
Baseline-established 90% Confidence Interval (2001)	+/- 120
Baseline-established Significant Traffic Increase (2001)	3,439
Baseline-established 1% Increase Trigger (2001)	3,474
Result (falls below the 90% Confidence Interval by 263 vehicles)	-263
Result (falls below the 1% Trigger by 298 vehicles)	-298
Outbound PM:	
Adjusted Average 2004 Count	3,642
Baseline-established 90% Confidence Interval (2001)	+/- 109
Baseline-established Significant Traffic Increase (2001)	3,555
Baseline-established 1% Increase Trigger (2001)	3,591
Result (exceeds the 90% Confidence Interval by 87 vehicles)	+87
Result (exceeds the 1% Trigger by 51 vehicles)	+51
2004 Trip Credit	-66
Result with Trip Credit (falls below the 1% Trigger by 15 vehicles)	-15

Appendix D
Summary of Traffic Monitoring

2005 Monitoring Report

Original Publication Date: **December 21, 2005**

The following table summarizes the results of traffic monitoring for 2005.

Inbound AM:	
Adjusted Average 2005 Count	3,383
Baseline-established 90% Confidence Interval (2001)	+/- 120
Baseline-established Significant Traffic Increase (2001)	3,439
Baseline-established 1% Increase Trigger (2001)	3,474
Result (Falls below the 90% Confidence Interval by 56 vehicles)	-56
Result (Falls below the 1% Trigger by 91 vehicles)	-91
Outbound PM:	
Adjusted Average 2005 Count	3,735
Baseline-established 90% Confidence Interval (2001)	+/- 109
Baseline-established Significant Traffic Increase (2001)	3,555
Baseline-established 1% Increase Trigger (2001)	3,591
Result (exceeds the 90% Confidence Interval by 180 vehicles)	+180
Result (exceeds the 1% Trigger by 144 vehicles)	+144
2005 Trip Credit	-174
Result with Trip Credit (falls below the 1% trigger by 30 vehicles)	-30

2006 Monitoring Report

Original Publication Date: **November 20, 2006**

The following table summarizes the results of traffic monitoring for 2006.

Inbound AM:	
Adjusted Average 2006 Count	3,048
Baseline-established 90% Confidence Interval (2001)	+/- 120
Baseline-established Significant Traffic Increase (2001)	3,439
Baseline-established 1% Increase Trigger (2001)	3,474
Result (falls below the 90% confidence interval by 391 vehicles)	-391
Result (falls below the 1% increase trigger by 426 vehicles)	-426
Outbound PM:	
Adjusted Average 2006 Count	3,427
Baseline-established 90% Confidence Interval (2001)	+/- 109
Baseline-established Significant Traffic Increase (2001)	3,555
Baseline-established 1% Increase Trigger (2001)	3,591
Result (falls below the 90% confidence interval by 128 vehicles)	-128
Result (falls below the 1% trigger by 164 vehicles)	-164

Appendix D
Summary of Traffic Monitoring

2007 Monitoring Report

Original Publication Date: **November 2007**

The following table summarizes the results of traffic monitoring for 2007.

Inbound AM:	
Adjusted Average 2007 Count	3,058
Baseline-established 90% Confidence Interval (2001)	+/- 120
Baseline-established Significant Traffic Increase (2001)	3,439
Baseline-established 1% Increase Trigger (2001)	3,474
Result (falls below the 90% confidence interval by 381 vehicles)	-381
Result (falls below the 1% increase trigger by 416 vehicles)	-416
Outbound PM:	
Adjusted Average 2007 Count	3,494
Baseline-established 90% Confidence Interval (2001)	+/- 109
Baseline-established Significant Traffic Increase (2001)	3,555
Baseline-established 1% Increase Trigger (2001)	3,591
Result (falls below the 90% confidence interval by 61 vehicles)	-61
Result (falls below the 1% trigger by 97 vehicles)	-97

2008 Monitoring Report

Original Publication Date: **November 2008**

The following table summarizes the results of traffic monitoring for 2008.

Inbound AM:	
Adjusted Average 2008 Count	3,020
Baseline-established 90% Confidence Interval (2001)	+/- 120
Baseline-established Significant Traffic Increase (2001)	3,439
Baseline-established 1% Increase Trigger (2001)	3,474
Result (falls below the 90% confidence interval by 419 vehicles)	-419
Result (falls below the 1% increase trigger by 454 vehicles)	-454
Outbound PM:	
Adjusted Average 2008 Count	3,460
Baseline-established 90% Confidence Interval (2001)	+/- 109
Baseline-established Significant Traffic Increase (2001)	3,555
Baseline-established 1% Increase Trigger (2001)	3,591
Result (falls below the 90% confidence interval by 95 vehicles)	-95
Result (falls below the 1% trigger by 131 vehicles)	-131

Appendix D
Summary of Traffic Monitoring

2009 Monitoring Report

Original Publication Date: **November 2009**

The following table summarizes the results of traffic monitoring for 2009.

Inbound AM:	
Adjusted Average 2009 Count	2,840
Baseline-established 90% Confidence Interval (2001)	+/- 120
Baseline-established Significant Traffic Increase (2001)	3,439
Baseline-established 1% Increase Trigger (2001)	3,474
Result (falls below the 90% confidence interval by 599 vehicles)	-599
Result (falls below the 1% increase trigger by 634 vehicles)	-634
Outbound PM:	
Adjusted Average 2009 Count	3,227
Baseline-established 90% Confidence Interval (2001)	+/- 109
Baseline-established Significant Traffic Increase (2001)	3,555
Baseline-established 1% Increase Trigger (2001)	3,591
Result (falls below the 90% confidence interval by 328 vehicles)	-328
Result (falls below the 1% trigger by 364 vehicles)	-364

2010 Monitoring Report

Original Publication Date: **December 2010**

The following table summarizes the results of traffic monitoring for 2010

Inbound AM:	
Adjusted average 2010 count	2,921
Baseline-established 90% confidence interval (2001)	+/- 120
Baseline-established significant traffic increase (2001)	3,439
Baseline-established 1% increase trigger (2001)	3,474
Result (falls below the 90% confidence interval by 518 vehicles)	-518
Result (falls below the 1% increase trigger by 553 vehicles)	-553
Outbound PM:	
Adjusted average 2010 count	3,459
Baseline-established 90% confidence interval (2001)	+/- 109
Baseline-established significant traffic increase (2001)	3,555
Baseline-established 1% increase trigger (2001)	3,591
Result (falls below the 90% confidence interval by 96 vehicles)	-96
Result (falls below the 1% increase trigger by 132 vehicles)	-132

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Summary of Traffic Monitoring

2011 Monitoring Report

Original Publication Date: **December 2011**

The following table summarizes the results of traffic monitoring for 2011

Inbound AM:	
Adjusted average 2011 count	3,081
Baseline-established 90% confidence interval (2001)	+/- 120
Baseline-established significant traffic increase (2001)	3,439
Baseline-established 1% increase trigger (2001)	3,474
Result (falls below the 90% confidence interval by 358 vehicles)	-358
Result (falls below the 1% increase trigger by 393 vehicles)	-393
Outbound PM:	
Adjusted average 2011 count	3,743
Baseline-established 90% confidence interval (2001)	+/- 109
Baseline-established significant traffic increase (2001)	3,555
Baseline-established 1% increase trigger (2001)	3,591
Result (exceeds the 90% confidence interval by 188 vehicles)	+188
Result (exceeds the 1% increase trigger by 152 vehicles)	+152
2011 Trip Credit	-203
Result with Trip Credit (falls below the 1% trigger by 51 vehicles)	-51

2012 Monitoring Report

Original Publication Date: **December 2012**

The following table summarizes the results of traffic monitoring for 2012

Inbound AM:	
Adjusted average 2012 count	3,287
Baseline-established 90% confidence interval (2001)	+/- 120
Baseline-established significant traffic increase (2001)	3,439
Baseline-established 1% increase trigger (2001)	3,474
Result (falls below the 90% confidence interval by 152 vehicles)	-152
Result (falls below the 1% increase trigger by 187 vehicles)	-187
Outbound PM:	
Adjusted average 2012 count	3,590
Baseline-established 90% confidence interval (2001)	+/- 109
Baseline-established significant traffic increase (2001)	3,555
Baseline-established 1% increase trigger (2001)	3,591
Result (exceeds the 90% confidence interval by 35 vehicles)	+35
Result (falls below the 1% increase trigger by 1 vehicle)	-1
2012 Trip Credit	-301
Result with Trip Credit (falls below the 1% trigger by 302 vehicles)	-302

2013 Monitoring Report

Original Publication Date: **March 2014**

The following table summarizes the results of traffic monitoring for 2013

Inbound AM:	
Adjusted average 2013 count	3,332
Baseline-established 90% confidence interval (2001)	+/- 120
Baseline-established significant traffic increase (2001)	3,439
Baseline-established 1% increase trigger (2001)	3,474
Result (falls below the 90% confidence interval by 107 vehicles)	-107
Result (falls below the 1% increase trigger by 142 vehicles)	-142
Outbound PM:	
Adjusted average 2013 count	3,744
Baseline-established 90% confidence interval (2001)	+/- 109
Baseline-established significant traffic increase (2001)	3,555
Baseline-established 1% increase trigger (2001)	3,591
Result (falls above the 90% confidence interval by 189 vehicles)	+189
Result (falls above the 1% increase trigger by 152 vehicles)	+153
2013 Trip Credit	-339
Result with Trip Credit (falls below the 1% trigger by 51 vehicles)	-186

2014 Monitoring Report

Original Publication Date: **April 2015**

The following table summarizes the results of traffic monitoring for 2014

Inbound AM:	
Adjusted average 2014 count	3,336
Baseline-established 90% confidence interval (2001)	+/- 120
Baseline-established significant traffic increase (2001)	3,439
Baseline-established 1% increase trigger (2001)	3,474
Result (falls below the 90% confidence interval by 103 vehicles)	-103
Result (falls below the 1% increase trigger by 138 vehicles)	-138
Outbound PM:	
Adjusted average 2014 count	3,696
Baseline-established 90% confidence interval (2001)	+/- 109
Baseline-established significant traffic increase (2001)	3,555
Baseline-established 1% increase trigger (2001)	3,591
Result (exceeds the 90% confidence interval by 141 vehicles)	+141
Result (exceeds the 1% increase trigger by 105 vehicles)	+105
2014 Trip Credit	-402
Result with Trip Credit (falls below the 1% trigger by 297 vehicles)	-297

2015 Monitoring Report

Original Publication Date: **February 2016**

The following table summarizes the results of traffic monitoring for 2015

Inbound AM:	
Adjusted average 2015 count	3,142
Baseline-established 90% confidence interval (2001)	+/- 120
Baseline-established significant traffic increase (2001)	3,439
Baseline-established 1% increase trigger (2001)	3,474
Result (falls below the 90% confidence interval by 297 vehicles)	-297
Result (falls below the 1% increase trigger by 332 vehicles)	-332
Outbound PM:	
Adjusted average 2015 count	3,257
Baseline-established 90% confidence interval (2001)	+/- 109
Baseline-established significant traffic increase (2001)	3,555
Baseline-established 1% increase trigger (2001)	3,591
Result (falls below the 90% confidence interval by 298 vehicles)	-298
Result (falls below the 1% increase trigger by 334 vehicles)	-334
2015 Trip Credit	-844
Result with Trip Credit (falls below the 1% trigger by 1,178 vehicles)	-1,178

2016 Monitoring Report

Original Publication Date: **March 2017**

The following table summarizes the results of traffic monitoring for 2016

Inbound AM:	
Adjusted average 2016 count	3,170
Baseline-established 90% confidence interval (2001)	+/- 120
Baseline-established significant traffic increase (2001)	3,439
Baseline-established 1% increase trigger (2001)	3,474
Result (falls below the 90% confidence interval by 269 vehicles)	-269
Result (falls below the 1% increase trigger by 304 vehicles)	-304
2016 Trip Credit	-461
Result with Trip Credit (falls below the 1% trigger by 765 vehicles)	-765
Outbound PM:	
Adjusted average 2016 count	3,316
Baseline-established 90% confidence interval (2001)	+/- 109
Baseline-established significant traffic increase (2001)	3,555
Baseline-established 1% increase trigger (2001)	3,591
Result (falls below the 90% confidence interval by 239 vehicles)	-239
Result (falls below the 1% increase trigger by 275 vehicles)	-275
2016 Trip Credit	-543
Result with Trip Credit (falls below the 1% trigger by 818 vehicles)	-818

2017 Monitoring Report

Original Publication Date: **January 2018**

The following table summarizes the results of traffic monitoring for 2017

Inbound AM:	
Adjusted average 2017 count	3,202
Baseline-established 90% confidence interval (2001)	+/- 120
Baseline-established significant traffic increase (2001)	3,439
Baseline-established 1% increase trigger (2001)	3,474
Result (falls below the 90% confidence interval by 237 vehicles)	-237
Result (falls below the 1% increase trigger by 272 vehicles)	-272
2017 Trip Credit	-0
Result with Trip Credit	-0
Outbound PM:	
Adjusted average 2016 count	3,324
Baseline-established 90% confidence interval (2001)	+/- 109
Baseline-established significant traffic increase (2001)	3,555
Baseline-established 1% increase trigger (2001)	3,591
Result (falls below the 90% confidence interval by 231 vehicles)	-231
Result (falls below the 1% increase trigger by 267 vehicles)	-267
2017 Trip Credit	-0
Result with Trip Credit	-0

2018 Monitoring Report

Original Publication Date: **May 2018**

The following table summarizes the results of traffic monitoring for 2018

Inbound AM:	
Adjusted average 2018 count	3,575
Baseline-established 90% confidence interval (2001)	+/- 120
Baseline-established significant traffic increase (2001)	3,439
Baseline-established 1% increase trigger (2001)	3,474
Result (exceeds the 90% confidence interval by 136 vehicles)	136
Result (exceeds the 1% increase trigger by 101 vehicles)	101
2018 Trip Credit	-595
Result with Trip Credit	-494
Outbound PM:	
Adjusted average 2018 count	3,509
Baseline-established 90% confidence interval (2001)	+/- 109
Baseline-established significant traffic increase (2001)	3,555
Baseline-established 1% increase trigger (2001)	3,591
Result (falls below the 90% confidence interval by 46 vehicles)	-46
Result (falls below the 1% increase trigger by 82 vehicles)	-82
2018 Trip Credit	-
Result with Trip Credit	0

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2019 Monitoring Report

Original Publication Date: **March 2020**

The following table summarizes the results of traffic monitoring for 2019

Inbound AM:

Adjusted average 2019 count	3,193
Baseline-established 90% confidence interval (2001)	+/- 120
Baseline-established significant traffic increase (2001)	3,439
Baseline-established 1% increase trigger (2001)	3,474
Result (falls below the 90% confidence interval by 246 vehicles)	-246
Result (falls below the 1% increase trigger by 281 vehicles)	-281
2019 Trip Credit	-0
Result with Trip Credit	0

Outbound PM:

Adjusted average 2019 count	3,292
Baseline-established 90% confidence interval (2001)	+/- 109
Baseline-established significant traffic increase (2001)	3,555
Baseline-established 1% increase trigger (2001)	3,591
Result (falls below the 90% confidence interval by 263 vehicles)	-263
Result (falls below the 1% increase trigger by 229 vehicles)	-299
2019 Trip Credit	-0
Result with Trip Credit	0

2020 Monitoring Report

Original Publication Date: **March 2021**

Year 20 was a highly unusual year because of the COVID-19 pandemic. The Spring 2020 Stanford traffic monitoring was cancelled because the campus was closed due to the County's shelter-in-place requirements. In Fall 2020, reduced traffic monitoring was conducted for a period of 2 weeks.

For year 2020, only raw, unadjusted data was obtained. In typical years, parking and license plate data is collected to adjust traffic volumes to capture just university traffic through the cordon (i.e., removing hospital affiliated parking inside the cordon, adding in university affiliated parking outside the cordon, and removing cut-through traffic from the cordon). However, these tasks could not be performed in 2020 due to COVID-19 related restrictions. Hence, the raw, unadjusted data was compared with the newly compiled historic raw, unadjusted data from the previous 19 years. The raw unadjusted average counts do not represent an adopted traffic baseline. Count dates for the 2020 Monitoring Report were week of September 28, 2020 and week of October 5, 2020. The following table summarizes the results of traffic monitoring program for 2020.

Inbound AM:

Average historic raw (unadjusted) peak traffic count (2001-2019)	4,091
Average raw (unadjusted) peak traffic count (2020)	1,747
Result (falls below the average historic (unadjusted) peak raw traffic count by 2,344 vehicles)	-2,344

Outbound PM:

Average historic raw (unadjusted) peak traffic count (2001-2019)	4,355
Average raw (unadjusted) peak traffic count (2020)	2,045
Result (falls below the average historic (unadjusted) peak raw traffic count by 2,310 vehicles)	-2,310

2021 Monitoring Report

Original Publication Date: **March 2022**

The following table summarizes the results of traffic monitoring for 2021*

Inbound AM:	
Adjusted average 2021 count	2,719
Baseline-established 90% confidence interval (2001)	+/- 120
Baseline-established significant traffic increase (2001)	3,439
Baseline-established 1% increase trigger (2001)	3,474
Result (falls below the 90% confidence interval by 720 vehicles)	-720
Result (falls below the 1% increase trigger by 755 vehicles)	-755
2021 Trip Credit	-0
Result with Trip Credit	0
Outbound PM:	
Adjusted average 2021 count	2,892
Baseline-established 90% confidence interval (2001)	+/- 109
Baseline-established significant traffic increase (2001)	3,555
Baseline-established 1% increase trigger (2001)	3,591
Result (falls below the 90% confidence interval by 663 vehicles)	-663
Result (falls below the 1% increase trigger by 699 vehicles)	-699
2021 Trip Credit	-0
Result with Trip Credit	0

* This is a summary of traffic data collected in Fall 2021. Spring 2021 traffic data was not used as it included raw cordon counts only, with no parking or cut-through adjustments.

2022 Monitoring Report

Original Publication Date: **March 2023**

The following table summarizes the results of traffic monitoring for 2022

Inbound AM:	
Adjusted average 2022 count	2,315
Baseline-established 90% confidence interval (2001)	+/- 120
Baseline-established significant traffic increase (2001)	3,439
Baseline-established 1% increase trigger (2001)	3,474
Result (falls below the 90% confidence interval by 246 vehicles)	-1,124
Result (falls below the 1% increase trigger by 281 vehicles)	-1,159
2022 Trip Credit	-0
Result with Trip Credit	0
Outbound PM:	
Adjusted average 2022 count	2,840
Baseline-established 90% confidence interval (2001)	+/- 109
Baseline-established significant traffic increase (2001)	3,555
Baseline-established 1% increase trigger (2001)	3,591
Result (falls below the 90% confidence interval by 263 vehicles)	-715
Result (falls below the 1% increase trigger by 229 vehicles)	-751
2022 Trip Credit	-0
Result with Trip Credit	0

Appendix D
Summary of Traffic Monitoring

Definitions

The following definitions are provided to assist in understanding for procedures of the Stanford Traffic Monitoring.

Adjusted Traffic – The raw traffic counts defined below are adjusted to add in University traffic that does not cross the cordon, and to subtract hospital traffic that does cross the cordon, and cut-through traffic through the campus that is not university related. The adjusted traffic volumes are used to compare the Baseline traffic volumes to subsequent year volumes to assess potential changes in commute traffic volumes.

AM Peak Hour – The 60-minute time period with the highest volume of traffic within the 2-hour AM Peak Period. During the AM Peak Period, traffic counts are aggregated by 15-minute increments. The AM Peak Hour is the highest four consecutive 15-minute intervals during the Peak Period for all 16 entrance/exit points combined.

AM Peak Period – The 2-hour period beginning at 7:00 AM and ending at 9:00 AM. The AM Peak Hour is calculated for traffic volumes collected during the AM Peak Period.

Average Count – Traffic data are collected for 16 entry and exit points. The entering data are averaged for the AM peak, and the existing data are averaged for the PM peak. The average counts are used to compare one year to a subsequent year to determine if a change in traffic volumes has occurred.

Baseline – The Baseline traffic data are the counts from calendar year 2001, the first year of monitoring after approval of the Stanford GUP in 2000. Subsequent year's counts are compared to the Baseline to determine if the GUP condition requiring no net new commute trips is being satisfied.

Cordon Line – A cordon line is an imaginary line that completely encircles an area and crosses all roads leading into and out of the area. By counting traffic volumes on the cordon by direction, the amount of traffic entering the area and exiting the area can be determined. For Stanford traffic monitoring, the cordon line surrounds the campus and crosses all entry and exit roads, such that all vehicles entering and exiting the campus can be counted.

License Plate Recognition – In 2018, Stanford University moved to a virtual permit platform that uses license plate recognition technology. This change has altered the way some of the data are collected for the monitoring report. Tube counters in the road continue to count the raw number of trips through the cordon. Parking lot data, now conducted through license plate recognition technology, calculates the absolute percentage of vehicles that are affiliated with the hospitals versus the absolute percentage of vehicles that are affiliated with the university during the morning and afternoon peak interval. While Stanford has expressed a preference for this data to be applied as a relative percentage rather than an absolute proportion, the County has determined that this adjustment should continue to be applied as an absolute proportion because this is the established methodology and because it is the more conservative treatment of the data. The parking-permit license-plate scanning is one of two adjustments to the cordon counts. This adjustment modifies the data to account for campus-affiliated vehicles parked outside the cordon (an increase to the raw total) and hospital-affiliated vehicles parked inside the cordon (a decrease for the raw total).

License Plate Survey – The last four digits of the license plates of each vehicle entering and exiting the campus is recorded by the County's traffic consultant, AECOM Engineering, for one

day during each week of traffic counts. The time period during which each identified vehicles enters and exits the campus cordon is also recorded. If an entering vehicle's license plate matches an existing vehicle's license plate with a 20-minute interval, that vehicle is assumed to represent a cut-through trip (i.e, not campus-related) and is subtracted from the total traffic count for Stanford since it does not represent traffic related to Stanford. In order for a vehicle trip to be identified as "cut-through", it must be identified by license plate match as having entered via one roadway and exited via another. If a car is identified by license plate match as using the same entering and exiting roadway, the trip purpose is assumed to be to drop-off a passenger within the campus, and the trip is assumed to be Stanford related and is not subtracted from the trip count total.

PM Peak Hour – The 60-minute time period during which the highest volume of traffic is counted, within the 2-hour PM Peak Period. During the Peak Period, traffic counts are aggregated by 15-minute increments. The PM Peak Hour is the highest four consecutive 15-minute interval during the Peak Period for all 16 entrance/exit points combined.

PM Peak Period – The 2-hour period beginning at 4:00 PM and ending at 6:00 PM. The PM Peak Hour is calculated for traffic volumes collected during the PM Peak Period.

Raw Data – The total traffic volumes counted at the cordon line before adjustments are made known as unadjusted volumes. Adjustments are made to the raw data to subtract hospital parking within the cordon, and cut-through traffic from the total count, and to add university parking outside the cordon to the total count, in order to accurately account for traffic attributable to Stanford University.

Significant Traffic Increase – In comparing the change in traffic volumes between the Baseline and subsequent years, only statistically significant changes are considered. The following parameters define how a significant traffic increase is calculated:

- Ninety Percent Confidence Interval – A confidence interval is calculated to determine if a subsequent set of data is statistically different from the Baseline data. The County selected a 90-percent confidence interval as the significance threshold. Based on the daily variation in the Baseline counts, the 90-percent confidence interval for the AM peak hour is +/- 120 vehicles. The 90-percent confidence interval for the PM peak hour is +/- 109 vehicles. Therefore, if a subsequent year count exceeds the Baseline count by more than 120 vehicles, there is a 90 percent likelihood that the increase in traffic volumes has increased significantly.
- One Percent Increase Trigger – The one percent trigger is a second criterion for identifying significant increases in traffic volume. Condition of Approval G.9 stipulates that if traffic volumes increase above the Baseline volumes by one percent or more in two out of three consecutive years, this will "trigger" a requirement for additional mitigation.

Trip Credits – *Condition of Approval G.8* specifies that the County will recognize and "credit" Stanford off-campus trip reduction efforts after the approval data of the GUP (December 12, 2000), but not before, within a specified area surrounding the campus. These credits can be used to offset a significant increase in peak hour traffic into and out of the campus. Specific guidelines have been established that define how credits can be applied. An example of a credit would be Stanford providing bus service to someone traveling from the Caltrain Station to the hospital. By reducing overall travel in the area around the campus, Stanford can receive a credit against increases in travel onto the campus.

Appendix E
Sustainability at Stanford Annual Report

SUSTAINABILITY AT STANFORD

2021 - 22 YEAR IN REVIEW


“The issue of climate change and the need to create a sustainable future for our planet and for our children and their children is the defining issue of the 21st century, and we as a university have a responsibility to tackle it head on.”

Stanford President Marc Tessier-Lavigne and
Stanford Provost Persis Drell

SUSTAINABILITY AT STANFORD

INTRODUCTION - 2021-2022

At the beginning of the academic year, despite the lingering impacts of the pandemic, we came back to campus eager to pursue the excitement of new beginnings and build on the momentum from the previous year.

A prime example of this is the **Stanford Doerr School of Sustainability**, the university's first new school in more than 75 years, which officially launched this September to advance scholarship critical to the long-term prosperity of the planet. The school has a distinctive three-part structure that includes rigorous academic departments, interdisciplinary institutes, and a **Sustainability Accelerator** to drive technology and policy solutions at a global scale. Through its education and research, the school will dramatically amplify the university's impact in tackling the urgent climate and sustainability challenges facing all people.

Another one of Stanford's Long-Range Vision commitments is on its way to fruition. The Office of Sustainability ushered in a Zero Waste Building Systems Transition that elicits full campus community participation. These new initiatives ensure greater progress towards **diverting 90% of campus waste from the landfill**. Stanford also continues to make headway with other goals such as **reducing Scope 1 and 2 greenhouse gas emissions by 80%** by 2025 and eliminating Scope 1, 2, and 3 greenhouse gas emissions by 2050. As a step toward these goals, Stanford achieved 100% renewable electricity in March with the addition of a second solar generating station, which includes a 50-megawatt battery energy storage system with 200 MWh of power storage capacity.

The recently launched **Scope 3 Emissions Program**, sponsored by the vice president of business affairs, worked with several units across campus this past year to evaluate Scope 3 emissions and establish a path for their reduction and mitigation of the university's indirect emissions.

Stanford carries on the environmental stewardship and social responsibility standards of its first-of-its-kind, dual verified **Climate Bond Certified and Sustainability bond**, which was issued in **May 2021**, and is used for qualifying capital projects. This work includes the ongoing efforts with the **IDEAL initiative** and completion of chilled water expansion at the Central Energy Facility. Stanford also renewed its Platinum rated status through the **Sustainability Tracking, Assessment, & Rating System (STARS)** administered by the Association for the Advancement of Sustainability in Higher Education (AASHE) and is currently one of only ten U.S. institutions to earn this highest place among research institutions, among 1,100+ institutions reporting.

With perseverance, bright minds, and an innovative spirit, all members of the Stanford community–faculty or student scholar, operational staff, and alumni–plays a role in shaping the sustainable future of the university and its broader community. The report below showcases exciting efforts that not only build on past work but also strive to break new ground.

Aurora Winslade

Aurora Winslade
Director, Office of Sustainability
Department of Sustainability and Energy Management (SEM)

THINKING GLOBALLY, ACTING LOCALLY

UN SUSTAINABLE DEVELOPMENT GOALS

In 2015, the United Nations adopted a plan to help create a prosperous future for the planet and guide the UN's work through 2030. The agenda establishes **17 Sustainable Development Goals (SDGs)** toward which countries are working. The SDGs cover a broad range of topics and help countries and industries consider the impacts of their operations in a uniform manner. **Throughout this report, you will see icons where Stanford's work to innovate solutions maps and aligns with the SDGs.**

CULTIVATING KNOWLEDGE FOR PLANETARY CHALLENGES

ACADEMICS

On September 1st, 2022, Stanford launched its first new school in more than 70 years as the Stanford Doerr School of Sustainability–recognizing a $1.1 billion gift from John and Ann Doerr–dedicated to creating a future where humans and nature thrive in concert and in perpetuity.

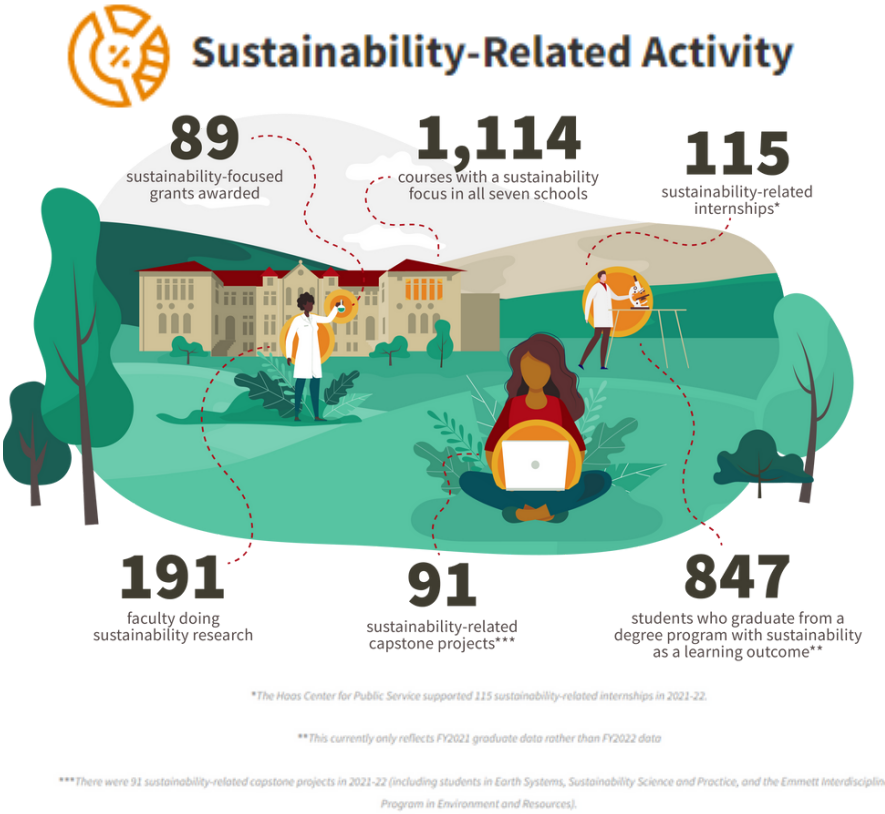
Galvanized by the September 2022 launch of the **Doerr School of Sustainability** – Stanford's first new school in 75years – sustainability research and teaching continued to expand and deepen during 2021-22. AAn extensive planning process engaged faculty, staff, and students from across the university, leading to the launch of faculty cluster hires in climate science, sustainable development, and environmental justice; new courses to fill gaps in existing sustainability and climate curricula; and the creation of a new **Sustainability Accelerator** that has already funded **30 multidisciplinary projects** involving partnerships at global, regional and local scales.

The academic year also saw the expansion of environmental justice education with the launch of a new environmental justice minor, as well as the premiere of an environmental justice teaching workshop and creation of an **Oceans Department**, and more. Thirty-one community-engaged learning courses connected Stanford students with local organizations to develop innovative sustainability solutions. With leadership from the **Haas Center for Public Service** and the **Office of Community Engagemen**t, Stanford regularly partners with local and regional communities on research and other projects that have broad implications beyond the Stanford campus.

For example, the **Partnerships for Climate Justice in the Bay Area (PCJ in the Bay)** initiative supports partnerships between community organizations and the Stanford community through community engaged-courses, fellowships, research, and volunteer opportunities. Examples include honors' research on clean air centers in support of a local organization seeking to build resilience to wildfire smoke, and a project to help design communications materials about climate risks in East Palo Alto, and PhD-level research about the intersection of equity and greenhouse gas emissions inventories to inform state-wide climate change policy.

Living-laboratory opportunities in sustainability, including internships, class projects, and research, abound across the university. For example, the **Scope 3 Emissions Program** partnered with a group of student volunteers to develop a proposal for an **air travel carbon fee** at Stanford. Similarly, a Residential & Dining Enterprises (R&DE) student intern developed and broadcasted a proposal for an on-campus compost facility. These opportunities and many others across campus help educate students on applying sustainability concepts in the real world.

Additionally, the **Environmental Justice Working Group** (EJWG), an intergenerational collective of faculty, staff, and students, has been working to embed environmental justice (EJ) into research, teaching, and community engagement at Stanford. This initiative is critical to ensuring that Stanford's sustainability efforts can succeed by attending to problems of structural inequity and systemic racism. This work includes creating a culture within our EJ community at Stanford that prioritizes healing and repair for frontline communities that have been historically marginalized in environmental spaces. During 2021-22, the EJWG has continued to build a cross-campus EJ hub to support synergies across multiple learning communities. It has also worked to create a template for integrating EJ into the foundation of the new school of sustainability.



The EJWG has also led the development of EJ curriculum, including a gateway Introduction to Environmental Justice course and an Environmental Justice minor that launched in fall 2021 through the Earth Systems Program. In addition, the group has continued to support faculty-led community-engaged research, research grants to graduate students, and events. These include the EJ Education and Teaching Workshop in September 2021, the Joint Research Workshop on EJ and Human-Planetary Health, and the fourth annual EJ Symposium in November 2021.These workshops helped us to launch our **National EJ Teaching and Curriculum database and website**, serving teachers, scholars, community leaders and other experts advancing EJ movements. The EJWG has also developed critical infrastructure for EJ research, outreach, and academic and community collaboration, including the **EJ and Human Rights Lab**, an **email listserv** with 650+ participants, a **quarterly newsletter**, and an **EJ Blog** series – student blogs gave a platform to vibrant local-to-global EJ initiatives from the Caribbean, Hong Kong, Rural India, and the Russian Arctic to Detroit, San Francisco, Chicago, and the Klamath River. Building upon this foundation, during 2021-22, the EJWG worked to ensure that education and engagement around environmental justice would be an integral part of the new Doerr School of Sustainability. A recent accelerator grant will enable the EJWG to build further support for EJ education and research in collaboration with community partners for 2022-23. Together with the **Haas Center for Public Service**, the group has built regional connections with other Bay Area universities and colleges, especially cross-institutional partners in the Northern California Environmental Justice Network of Community-Academic Partnerships.

ACADEMIC PARTNERS

- Stanford Woods Institute for the Environment
- Precourt Institute for Energy
- Haas Center for Public Service
- Hasso Plattner Institute of Design
- Freeman Spogli Institute for International Studies
- Graduate School of Business
- Graduate School of Education
- School of Earth, Energy & Environmental Sciences
- School of Engineering
- School of Humanities and Sciences
- School of Law
- School of Medicine
- Doerr School of Sustainability
- Environmental Justice Working Group

LEADING ORGANIZATIONAL CHANGE

CENTRAL OFFICE

Savings from the Office of Sustainability's comprehensive conservation programs in 2021-22 totaled nearly $500,000, close to the annual savings from some building retrofit projects.

Stanford is a Platinum-rated institution through the **Sustainability Tracking, Assessment, & Rating System (STARS)** administered by the national Association for the Advancement of Sustainability in Higher Education (AASHE). With a weighted rating of 85.88% across criteria for academia, administration, operations, and coordination, Stanford is one of ten U.S. institutions to earn this highest rating. Stanford is featured in the **AASHE Sustainable Campus Index** as a top performer in Diversity & Affordability (1st), Energy (2nd), Curriculum (5th), Food & Dining (5th), Doctoral institutions [overall] (7th), and Water (tied for 9th place).

In conjunction with tracking and reporting the institution's sustainability activities, the Office also continues to steward progress toward the three sustainability targets laid out in the Long-Range Vision: reaching zero waste (defined as 90% diversion or higher) by 2030, reducing Scope 1 and 2 emissions to 80% below peak by 2025, and achieving net zero emissions by 2050. We've been able to make great strides with our emissions commitment–not only due to Stanford Energy System Innovations, affectionately known as SESI, but also to Stanford's second solar generating station, which came online in March 2022. This 63-megawatt system with 200 megawatt hours (MWh) of power storage capacity, along with 5 megawatts of campus rooftop solar power and the first solar generating station of 54 megawatts, produces renewable electricity equivalent to the university's annual consumption.

While continuing to press forward on the university's commitments, the Office of Sustainability, like many other departments across campus, is in a time of transition. The Office has been rebuilding and restructuring its team and is in the midst of an internal strategic planning process that will extend into 2023. Through a campus-wide engagement strategy, the Office is receiving input from 125+ academic and operational sustainability partners and collaborators that will guide its work and programs over the coming years.

The Office of Sustainability Strategic Plan will focus on achieving Stanford's:
1. Carbon neutrality and zero waste goals,
2. Impact as a global leader in sustainability operations, research, and education,
3. Goals to advance climate resilience,
4. Ambitions to expand and formalize its offerings as a living lab, and
5. Stewarding the Sustainable Stanford brand and sharing best practices.

Stanford Energy System Innovations — SESI

Moreover, to showcase one of Stanford's best use cases of the university functioning as a living lab, Sustainability and Energy Management (SEM) premiered a refresh video of SESI. The SEM department also broadened its scope by embracing a new campus unit, Resiliency and Response and began more formally partnering with the **Office of Community Engagement** to feature external relationships and projects. The **My Cardinal Green** program, which incentivizes the campus community to incorporate sustainable behaviors into daily life, has continued to promote actions for those working or studying at home, as well as behaviors that impact campus life. The platform, along with the Sustainable Stanford website and brand, will evolve with the Office's internal strategic planning process.

2021-22 CENTRAL OFFICE HIGHLIGHTS

- Stanford transitions to 100 percent renewable electricity
- Stanford Energy System Innovations - SESI
- Sustainable Stanford on Instagram
- Office of Community Engagement Hub Map
- AASHE Sustainable Campus Index

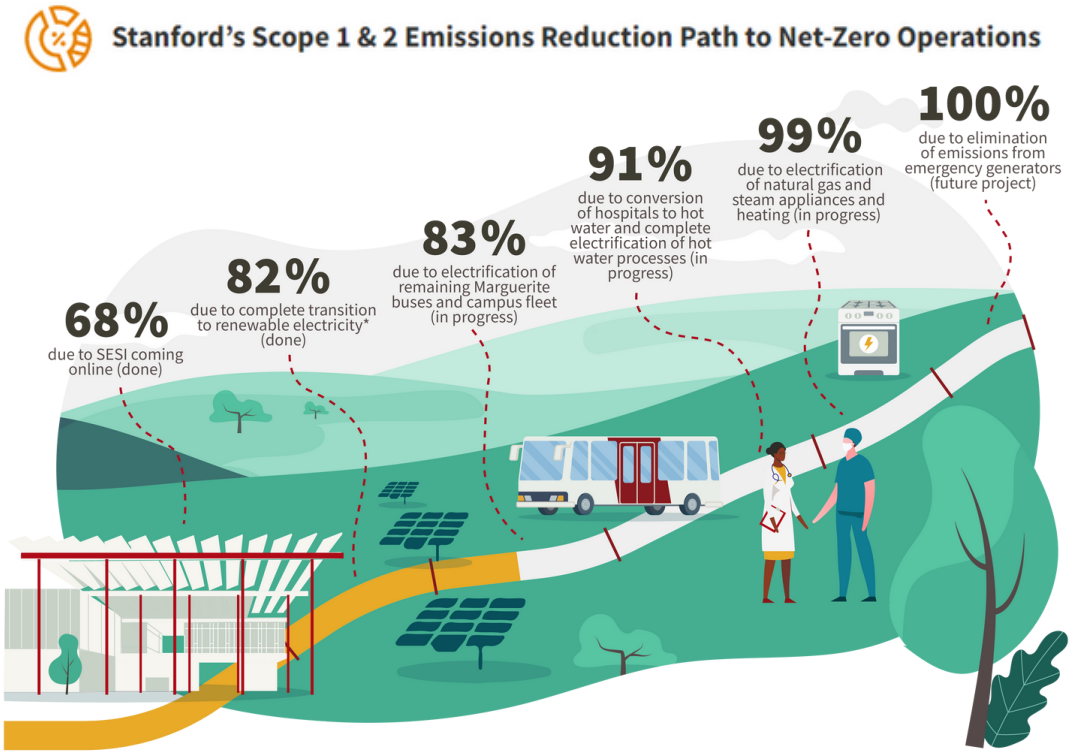
INNOVATIVE CARBON-FREE SOLUTIONS

CLIMATE AND ENERGY

In 2021, Stanford powered the campus with 69% renewable electricity, and it will utilize 100% renewable electricity by the end of 2022.

In June 2020, the Board of Trustees passed a resolution calling for the university to eliminate its Scope 1, 2, and 3 greenhouse gas emissions by 2050.

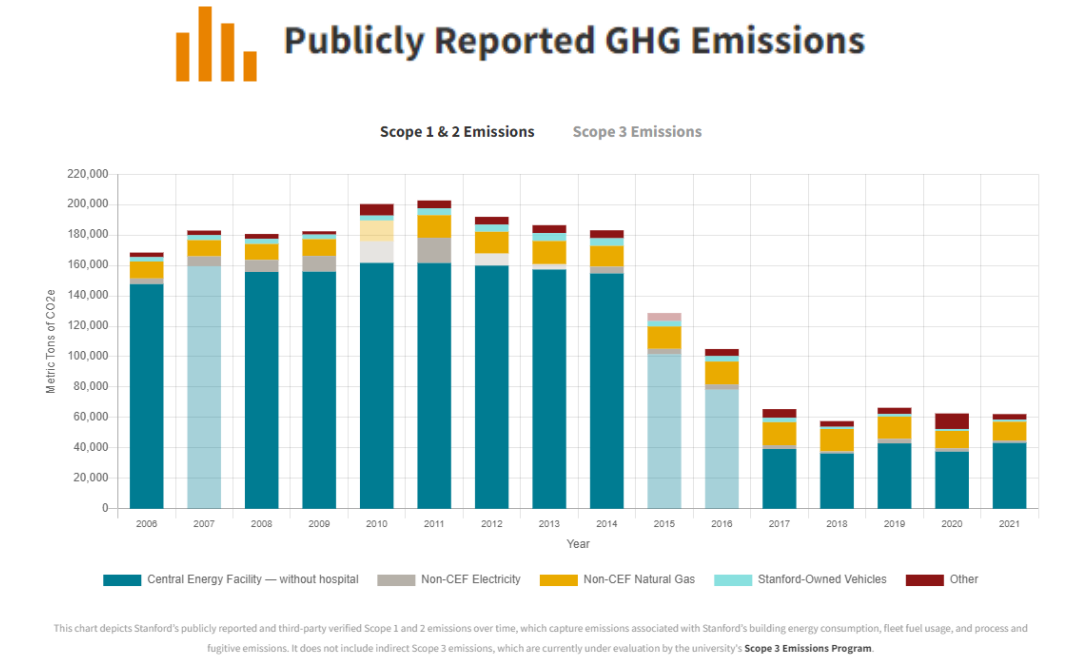
Scope 1 and 2 emissions include direct emissions from the university's energy, fuel, and refrigerant use, as well as those from some minor sources. Over the past decade, Stanford has reduced these emissions by 69%, and it is on track to eliminate 100% of them. In contrast, Scope 3 emissions come from activities influenced but not directly controlled by university operations, including purchased goods and services, **construction**, **business travel**, **student travel**, **employee commuting**, **leases**, **fuel and energy activities**, and **waste**.

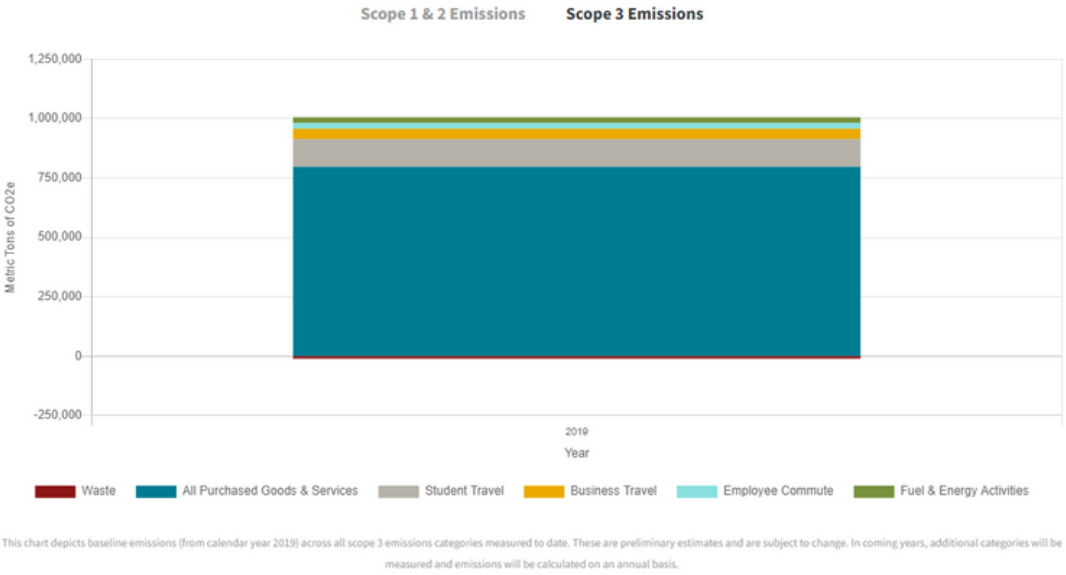


Launched in 2021, the **Scope 3 Emissions Program** in Business Affairs is systematically measuring emissions in each of these categories, quantifying the emissions impact of existing reduction programs across the university, and developing new mitigation strategies, with a goal not only to achieve Stanford's net-zero target, but also to establish a path other institutions can follow. In 2021-22, the program released white papers documenting the definitions, boundaries, and calculation methodologies in four categories and worked closely with campus stakeholders and student teams to explore options for reducing emissions.

On the energy supply side, Stanford's Energy Operations Department made more great strides to help the campus operate more resiliently through permanent, expanded chiller equipment at the Central Energy Facility (CEF). Having reliable and efficient energy to power the research being done on campus helps to eliminate disruption to teaching and research during heat waves and threats of power outages.

This added cooling capacity is a key component of the **Stanford Energy System Innovations (SESI)** program, which was launched in 2015. SESI enables the transition of the campus energy supply from a fossil fuel system to an electrically powered heating and cooling system. The university achieved a major milestone under SESI in 2022, transitioning to 100% renewable electricity as its **second solar plant went online**.





This will help the university meet its stated goal of reducing Scope 1 and 2 emissions by 80% by 2025 compared to a 2011 baseline. SESI is a prime example of Stanford's modeling of environmentally and economically sustainable heating and cooling systems at a district level.

2021-22 CLIMATE & ENERGY HIGHLIGHTS

- **Stanford transitions to 100 percent renewable electricity as second solar plant goes online**
- **Stanford Receives Platinum Ranking for Greenhouse Gas Emissions Reporting**
- **How you can help reduce our campus carbon footprint (and your own!)**

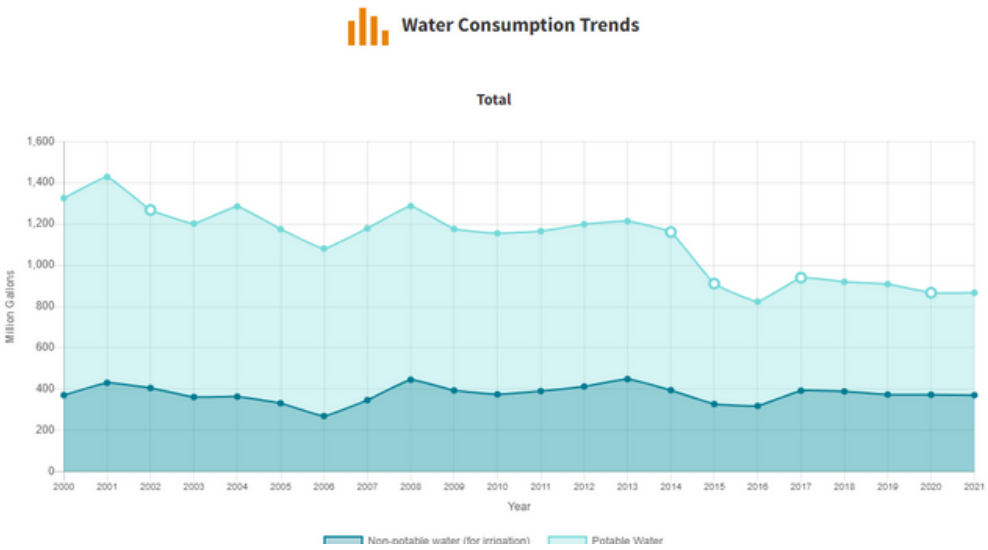
STEWARDING VITAL WATER RESOURCES

WATER

In 2021, potable water use stayed the same and non-potable water use decreased by 1% compared to the previous year.

Stanford has an expansive history of efficient water management practices. These are stewarded by the **Water Resources and Civil Infrastructure (WRCI) group**, which also manages water quality, water systems infrastructure, roads, bridges, and dams on university land. The group proactively works to meet the needs of both the university community and the ecological systems Stanford encompasses.

Since the university's water conservation program began in 2001, it has reduced total campus potable water use by 48%. All major campus water customers have achieved **significant reductions in water consumption** compared to the previous pre-drought baseline of 2013. With fewer people on campus due to the COVID-19 pandemic shelter-in-place orders, water use on campus was reduced even further. Future water planning efforts continue through the active development of a Sustainable Water Management Plan, for which WRCI has completed nearly 20 technical studies related to alternative water supplies, demand projection, and water conservation.



2021-22 WATER HIGHLIGHTS

- WaterSmart
- Water Quality on Campus
- East Campus Stormwater Capture
- Reduced Water Use on Campus
- Stanford's Response to Drought
- Leak Notifications
- Leaks in Lab Buildings

SYSTEMIC CHANGES TOWARDS ZERO WASTE

WASTE

In 2021, Stanford recovered 11,197 tons of waste, including 181 tons of reusable materials, 2,663 tons of recyclables, 7,167 tons of organics, and 873 tons of construction and demolition material.

Since the initial launch of the Stanford recycling program in the 1970s, there have been immense improvements in recycling and composting throughout the campus and the world at large. With advancement in technology and continuous effort throughout, Stanford's waste diversion rates have soared, and the university now diverts about two-thirds of its waste from the landfill. For the second year in a row, Stanford won the top award for the Per Capita Category for Large Campus in the **Campus Race to Zero Waste competition** (formerly known as RecycleMania).

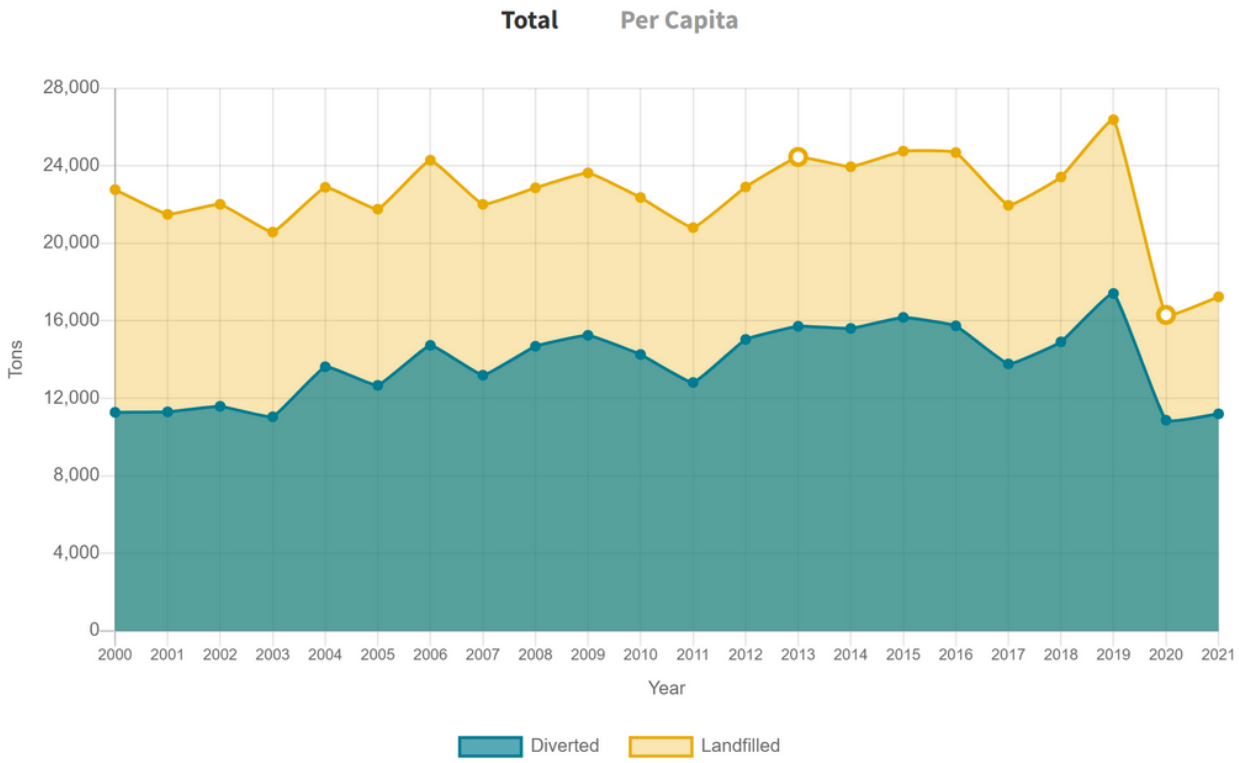
For the last decade, Stanford's diversion rates have been stable around 65%. In order to achieve our Zero Waste by 2030 goal, the Office has set in motion significant programmatic changes to the overall waste system that adopt best practices and industry standards. In conjunction with these changes, the Office launched a Zero Waste Campus Committee in July 2022. The committee will act as an advisory board, providing guidance for the Office.

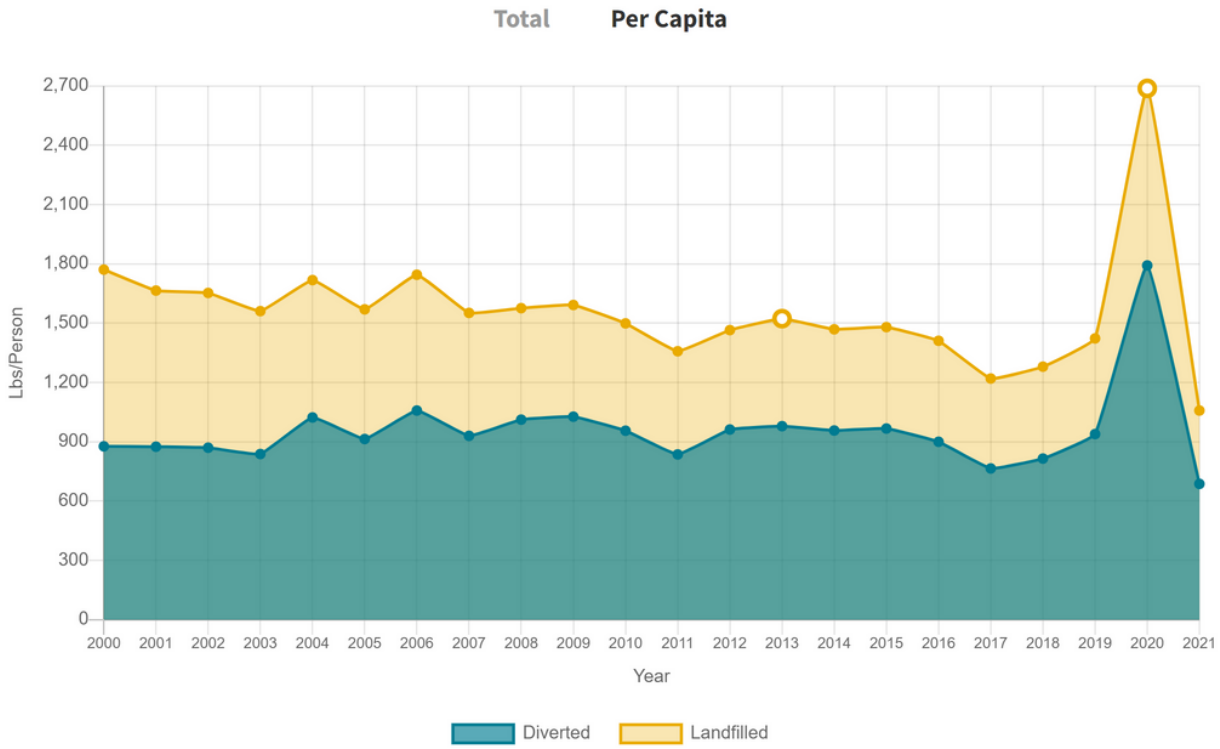
The Zero Waste Building Systems Transition will help streamline the collection system, increase efficiency, and incorporate best practices. This program transition was initially piloted in 14 buildings across campus. On average, the diversion rate of the buildings increased by 38%, proving the effectiveness of the systemic changes adopted under the program. These include:

- Use of centralized waste stations and self-service of desk-side bins. Daily service to labs, kitchens, conference rooms, and common spaces has continued and will not change.
- Switch to single-stream recycling (combining paper with plastics, metal, and glass)
- Centralized collection of flattened corrugated cardboard in or next to recycling bins
- Compostables collection in break rooms and kitchens
- Collection of paper towels from restrooms as compostables
- Custodial removal of all recyclables, compostables, and landfill waste from common spaces in buildings daily (5x/week)

The past year's incoming class was the first to be offered a **waste sorting training** through Axess as part of New Student Orientation. Over 850 students participated in the training which taught proper sorting and introduced resources to reduce waste generation. The Office of Sustainability partnered with **Students for a Sustainable Stanford**, the **Associated Students of Stanford University (ASSU)**, and **Residential & Dining Enterprises** to educate and encourage students to contribute to our Zero Waste by 2030 goal.

Historical Waste Minimization





2021-22 WASTE HIGHLIGHTS

- Stanford wins 1st place for Per Capita Recycling in Campus Race for Zero Waste
- Zero Waste Building and Behavior Program
- New Student Orientation Mandatory Sustainability Training (Stanford Login Required)
- All About No Waste community

PIONEERING ENERGY MANAGEMENT SOLUTIONS

ENERGY DEMAND

In 2021-22, Stanford completed more than 30 energy retrofit projects, avoiding more than $530,000 in energy costs. As of 2020, Stanford had reduced energy intensity on campus 36% from a 2000 baseline.

The Facilities Energy Management (FEM) team utilizes multiple dynamic operating systems and efficiency programs to optimize energy consumption in existing buildings and incorporates best practices into all new buildings. The past year saw the reoccupancy of many buildings on campus following the COVID-19 shutdowns. This presented the unique opportunity to revisit the HVAC scheduling in these buildings to rightsize the operating hours to match the latest programmatic needs of the occupants. Upgraded control systems allow much more granularity in provision of heating and cooling. For example, COOLER program research suggests that cooling rooms even 2 degrees less when they are unoccupied could yield measurable savings in chilled water.

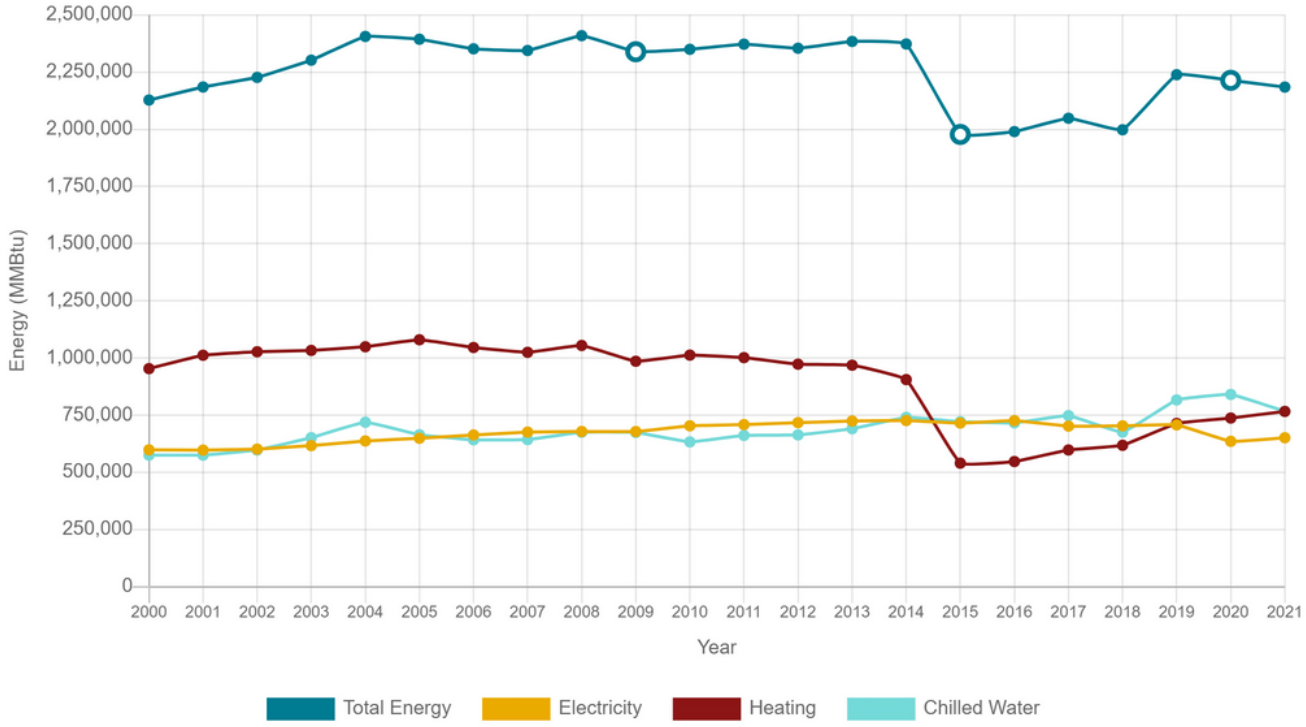
More than 50 buildings on the main campus now rely on a new building automation system equipped to use advanced fault detection and diagnostic tools. These tools enable smart analytics on multiple fronts, including building commissioning, new-construction post-occupancy studies, chilled and hot water return temperature management, chilled water resilience planning, and tracking of ventilation modes for air handlers.

In 2022, FEM's various energy retrofit programs achieved $530,000 in new annual energy cost savings. Efficiency upgrades included an array of measures and project sizes. Examples include the LED lighting upgrades at School of Medicine, ongoing commissioning of air handlers at Stanford Hospital and the main campus, and high-efficiency ultra-low temperature freezers in labs across campus.

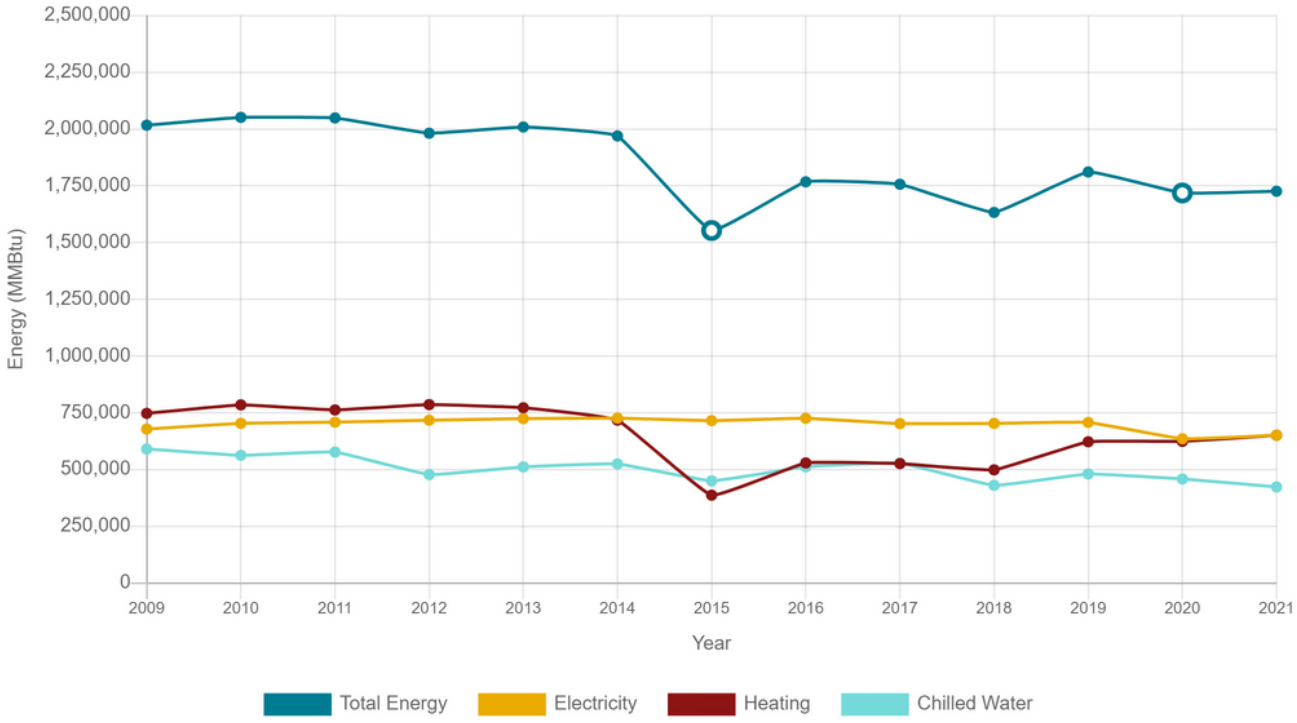
The FEM team has also been growing the young Return Temperature Optimization Program (RTOP). With thermal heating and cooling energy being delivered to buildings via water from the Central Energy Facility (CEF), managing the flow of water is a critical task. Using energy efficiently at buildings now also entails using the heating and cooling water efficiently. The CEF and the water distribution systems are most efficient when the buildings maximize the amount of energy they draw from each gallon of water received, just as a car is when it gets the most miles from a gallon of gas. For heating water, this means that the buildings pull as much heat as possible from the water, thereby returning the coolest water possible to the distribution system. Effectively managing return temperatures significantly reduces the volume of water that must be distributed across campus. For reference, most buildings could still reduce heating and cooling water flows by 10% to 50% while still meeting heating and cooling needs. Such building improvements can dramatically expand the capacity of existing distribution systems, thereby saving millions of dollars in system expansions and avoiding construction disruptions to campus.

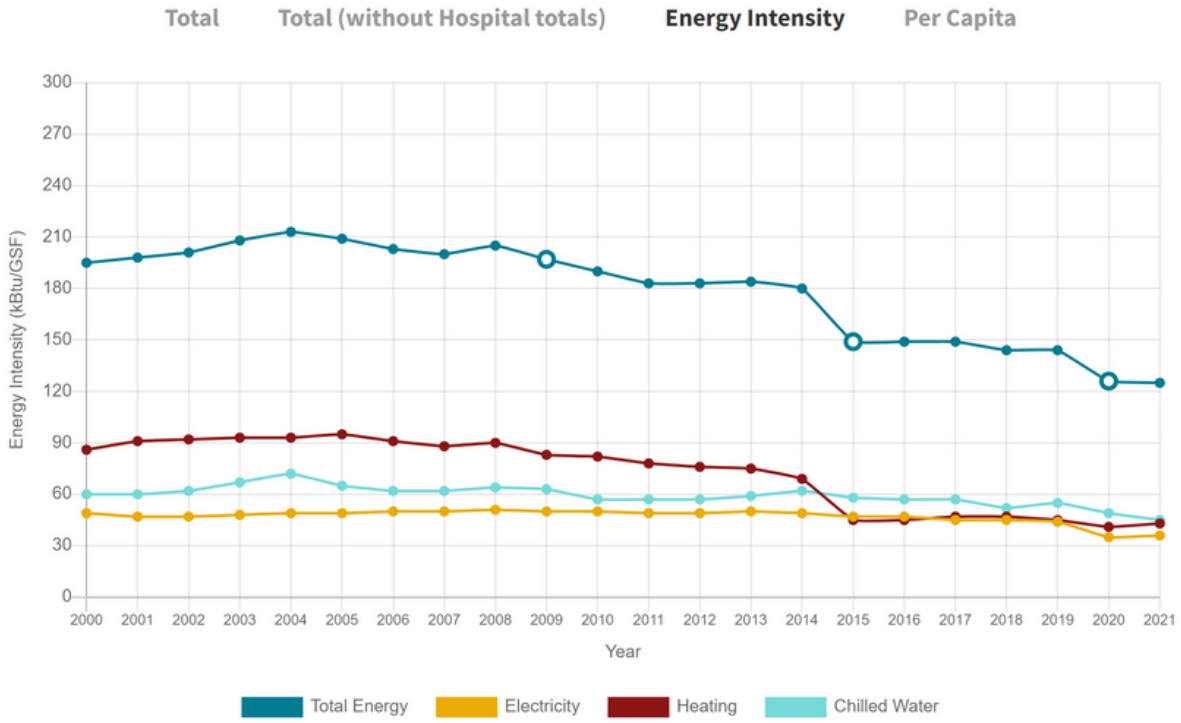
Energy Demand Charts

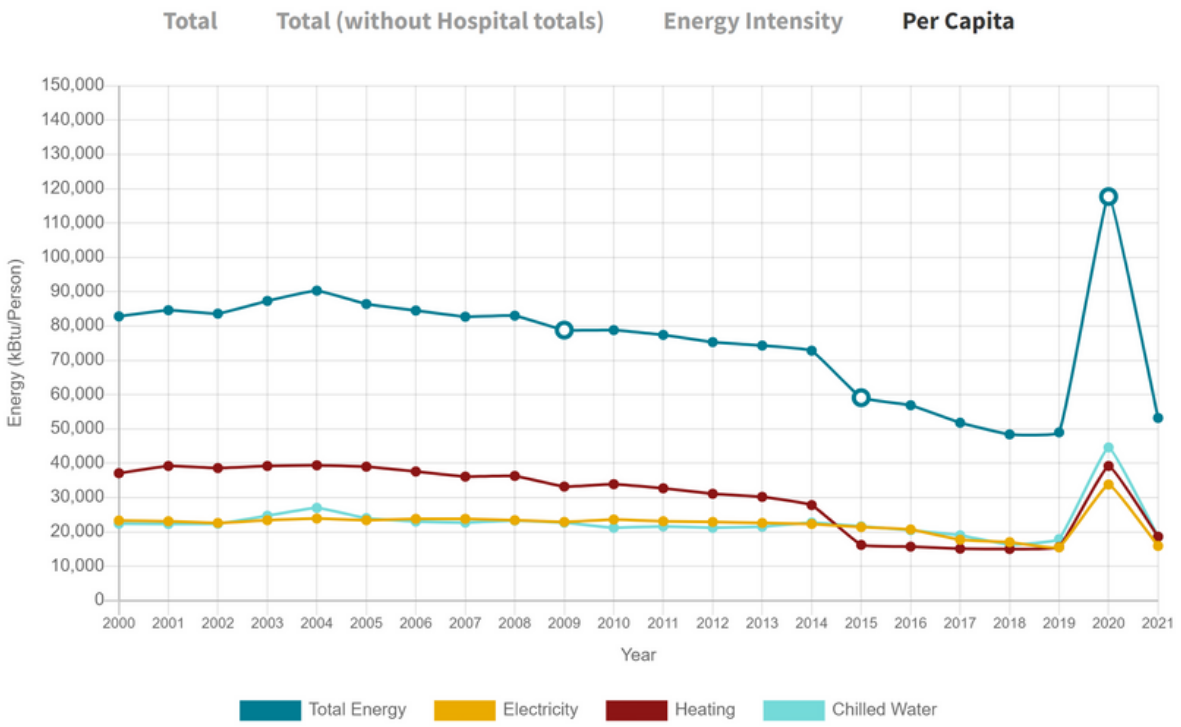
Total | Total (without Hospital totals) | Energy Intensity | Per Capita



Total | **Total (without Hospital totals)** | Energy Intensity | Per Capita







2021-22 ENERGY DEMAND HIGHLIGHTS

- Gates Gets an Energy-Efficiency Refresh
- School of Medicine Lights the Way!
- Color Me Bright: Softball Gets LEDS
- Rebates for a Lab Staple
- COOLER Summer 2022 Update

LIVING AND EATING SUSTAINABLY

FOOD & LIVING

In 2021-2022, R&DE Stanford Dining doubled down on its food waste reduction target; released two pioneering thought leadership publications in support of climate-smart dining; relaunched public programming for the Stanford Food Institute (SFI); hosted its inaugural cohort of SFI interns; earned acclaim for its plant-forward culinary leadership; and deepened partnerships with Drawdown Labs, REGEN1, Food Tank, and the Menus of Change University Research Collaborative.

Residential & Dining Enterprises (R&DE) houses 15,000 residents and serves 25,000 meals per day across its more than 375 facilities for dining, catering, and hospitality. R&DE collaborates with faculty, students, and staff to foster behavior change, reduce energy and water consumption and waste production, educate students through teaching academic classes and hosting community events, and integrate long-term sustainability thinking into how it operates. **R&DE Stanford Dining** prioritizes sustainably produced, local, organic, humanely raised, and fairly traded food, as well as food from family-owned farms and sustainable fisheries. R&DE's efforts directly influence student learning and the overall campus culture, as well as the lives of Stanford's students as they move into new communities after graduation.

R&DE Stanford Dining's award-winning sustainable food program—**One Plate, One Planet**—collaborates on many aspects of complex global food systems, from equitable supply chains, climate-smart dining, and regenerative agriculture to reducing food waste and shifting diets towards plant-forward options. One Plate, One Planet represents six pillars:

- Climate-smart dining, especially food waste reduction and plant-forward diets;
- Racial equity and supporting Black businesses;
- Curbing deforestation through supply chain pressure;
- Thriving oceans;
- Catalyzing a circular economy of food; and
- Embracing systems thinking, upstream thinking, and minimizing unintended consequences.

Stanford Dining believes that each plate it serves and each meal students eat offers the opportunity to create a better future for this planet together. Stanford Dining demonstrates that sustainable, ethical, and healthy food systems can be deployed at scale, while simultaneously inspiring the next generation to improve how Earth's precious resources are managed.

In 2021-22, R&DE relaunched public programming offered by the Stanford Food Institute (SFI), which was a resounding success in the campus community. An in-person event, "From Temple Cuisine to Campus Dining and Home Cooking: Korean Temple Food—Flavors & How-Tos," was hosted at the O'Donohue Family Stanford Educational Farm and featured inspiring plant-forward culinary education from Jeong Kwan Seunim, world-renowned chef and Buddhist nun. A virtual event, "Every Job a Climate Job," was held in collaboration with Drawdown Labs and the Stanford Doerr School of Sustainability.

Jeong Kwan and her assistant Yoon Hee Kim at the O'Donohue Family Stanford Educational Farm. Photo Credit: Dexter Simpson

In support of the academic mission of the university, and across the institute's three core pillars—research, education, and flavor and innovation—SFI collaborates with faculty and students at all seven schools on campus. This year, R&DE also welcomed the inaugural cohort of SFI interns. Students gained real-world experience across Stanford Dining's operations and programs; they also conducted Impact Projects covering nutrition and sustainability topics such as food waste messaging and student perceptions of plant-based proteins.

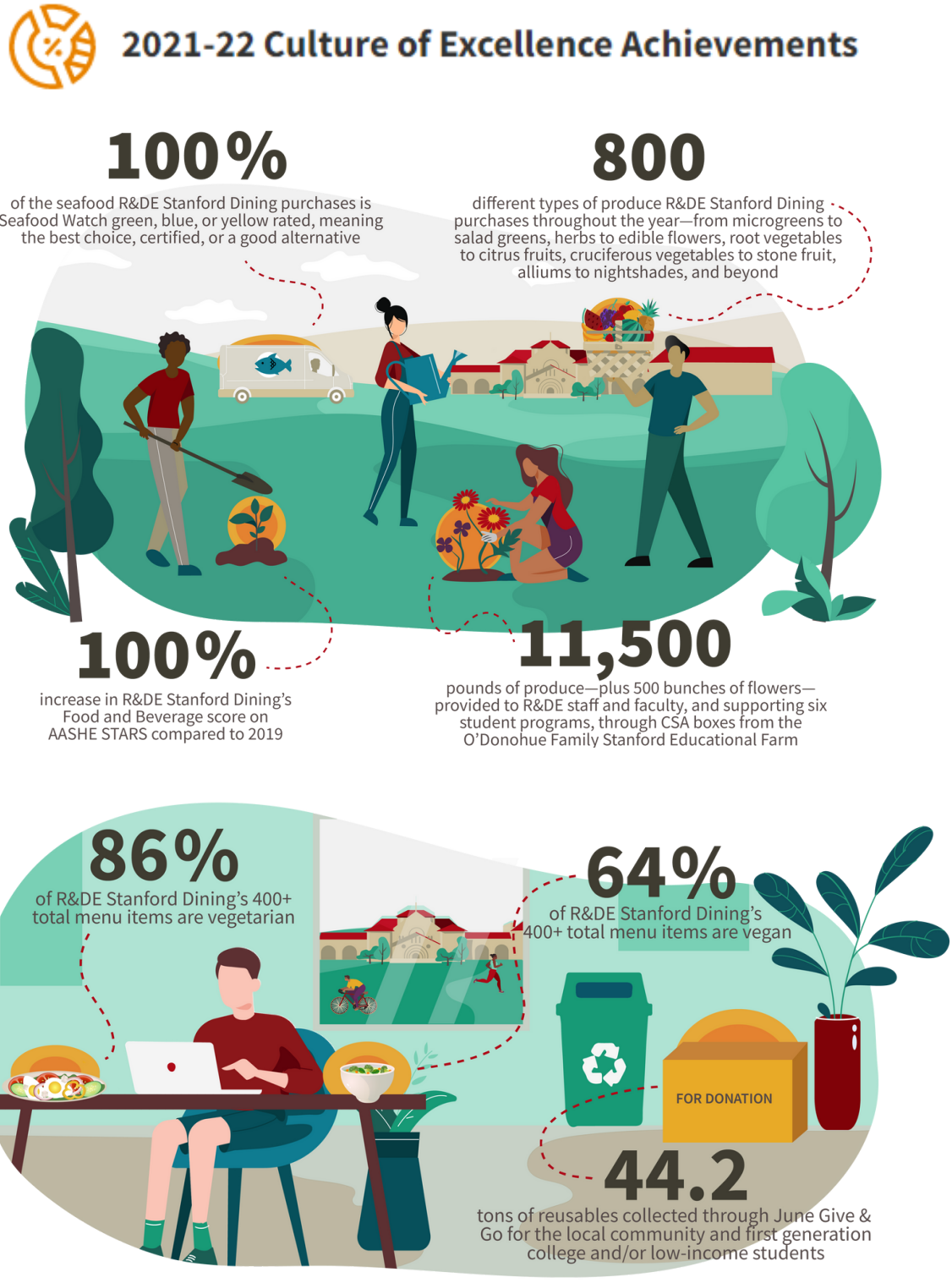
Continuing this year, R&DE promoted a new sustainability concierge service. Students can text and get immediate responses on issues such as how to sort a particular item of waste, how to use a green cleaning machine, or how to operate their thermostat. R&DE's **Cardinal Clean** program expanded access to a free, powerful, and green laundry detergent and cleaning solution to students at the Wilbur and Stern complexes. In total, more than 3,000 students have access. In addition, in support of the university's net-zero emissions goal, the Murray House kitchen was converted from gas to electric cooking appliances. To further explore opportunities to electrify commercial kitchens on campus, SFI has begun collaborating with Rob Jackson—professor, Earth System Science, and senior fellow, Stanford Woods Institute and Precourt Institute for Energy—to study the benefits of and barriers to transitioning from gas to electric.

To build upon that legacy of work and provide further thought leadership to other institutions surrounding these two climate imperatives, this year R&DE Stanford Dining released two pioneering publications:

The **Food Waste Prevention Playbook** captures the full array of strategies R&DE Stanford Dining employs to not only reduce food waste but prevent it in the first place—from committing to long-term action to collecting and analyzing data, from cultivating a culture of food waste prevention and engaging students to operationalizing best practices.

Chef Tami Lin juicing pineapple cores–a creative upcycling technique to reduce food waste. Photo Credit: Alice Pyo

The **Food Choice Architecture Playbook** outlines strategies for promoting a healthier and more sustainable campus food environment, with a focus on enabling plant-forward food choices. R&DE Stanford Dining knows that the campus food environment plays a critical role in determining the health and well-being of students and the environmental impact of food programs. Food choice architecture encompasses all aspects of how foods are offered and framed in the dining halls, and how these considerations influence food selection. R&DE Stanford Dining utilizes food choice architecture strategies to design health and sustainability into dining programs, making healthier and more sustainable choices easier, more prominent, and more desirable while still offering a wide range of food options.



R&DE is a critical contributor in achieving the university's zero waste and climate goals. For example, R&DE Stanford Dining is proud to serve as the pilot for the university's **Scope 3 Emissions Program**. Within its One Plate, One Planet pillar of climate-smart dining, R&DE Stanford Dining has long focused on reducing food waste and advancing plant-forward diets—two of the top climate solutions globally, according to *Project Drawdown*.

Across its dining halls, R&DE Stanford Dining expanded its food waste reduction initiatives in 2021-22, utilizing multi-level strategies centered on source reduction, strategic portion design, food waste monitoring, student engagement campaigns, and food recovery and donation. These initiatives will help the division reach its target to further reduce food waste by 25% by the end of 2022. R&DE continues to partner with a student-led group, Stanford Food Recovery, and local food recovery partners such as Daylight Foodsto donate surplus food from dining halls, cafes, and concessions to food-insecure families. R&DE manages the food pantry program for undergraduate and graduate students and their affiliates who self-identify as food insecure, in collaboration with the Graduate Student Council, the ASSU, and the Stanford Solidarity Network. The program has distributed over 600,000 pounds of food to the Stanford community since its inception in August 2019.

A systematic analysis to identify opportunities for efficiencies is a focus across R&DE operations. R&DE continued to experiment with, and promote, several new technologies with residents, including smart thermostats and sensors that track air quality and thermal comfort, and it has worked with students to develop their own sensors that monitor waste production and service.

2021-22 FOOD AND LIVING HIGHLIGHTS

- **Dr. Shirley J. Everett, senior associate vice provost of R&DE and senior adviser to the provost on equity and inclusion, wins the coveted Cuthbertson Award** The award honored her more than 30 years of distinguished leadership and service to Stanford, including her vital role in supporting students through the residential learning mission of the university and for building R&DE to be the "industry gold standard."
- **R&DE Stanford Dining's leadership on climate-smart dining featured in Edible Silicon Valley**
- **"Buddhist Nun Jeong Kwan Seunim teaches Korean temple cuisine at the Farm"**
- **Christina Betondo, senior associate director of student culinary excellence for R&DE Stanford Dining, wins 2022 Produce Excellence in Foodservice Award for Colleges & Universities**
- **Groundbreaking consumer insights report—2022 Plant-Forward Opportunity Report—published by Menus of Change University Research Collaborative, in partnership with Datassential, The Culinary Institute of America, and Food for Climate League**
- **"How Stanford Dining cultivates a culture of camaraderie in an industry scarred by mental health issues"**
- **"How Campus Dining Supports Stanford's New Neighborhood Model"**
- **Sophie Egan. director of SFI and Sustainable Food Systems, named to Food Tank's Academic Working Group**

DECONSTRUCTING BUILDINGS

BUILDINGS

In 2021, Stanford's biggest construction sites were actually "destruction" projects, responsibly demolishing several buildings that had come to the end of their useful lives.

The built environment at Stanford is critical in supporting the academic mission, providing appealing, functional spaces that enable cross-disciplinary collaboration to connect research, practice, and action around some of the world's most pressing challenges. **The Department of Project Management (DPM)** oversees major construction on campus and continually works to elevate the application of sustainable practices in building and design. Its **holistic method of benchmarking** drives improvement so that each new building coming online can perform better than the last. Lessons learned from post-occupancy studies of each new building inform the target-setting process for future buildings.

Herrin Hall

DPM focused on demolishing buildings this year in order to pave the way for future construction, namely Herrin Hall and Herrin Labs, Mudd Chemistry, and the Lou Henry Hoover Building. The projects diverted at least 11,000 tons of demolition waste to concrete and steel recyclers. Additionally, Stanford completed an **embodied carbon study** in design and construction projects.

2021-22 BUILDING HIGHLIGHTS

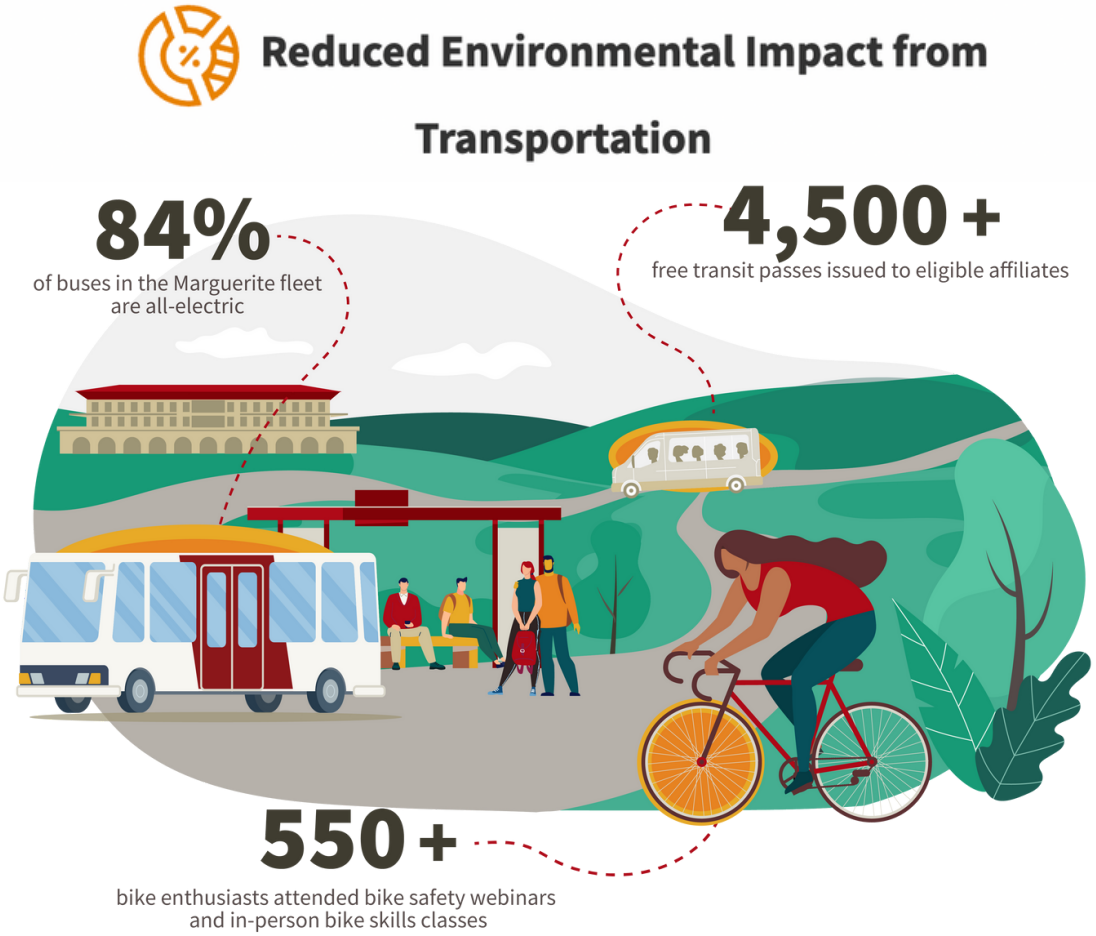
- Deconstructing Herrin Hall and Herrin Labs
- Deconstructing Mudd Chemistry
- Deconstructing Lou Henry Hoover Building
- Embodied Carbon in Buildings

EXPANDED SUSTAINABLE TRANSPORTATION OPTIONS

TRANSPORTATION

In 2021, some 61% of campus commuters (employees and commuting students) utilized sustainable transportation options on a regular basis.

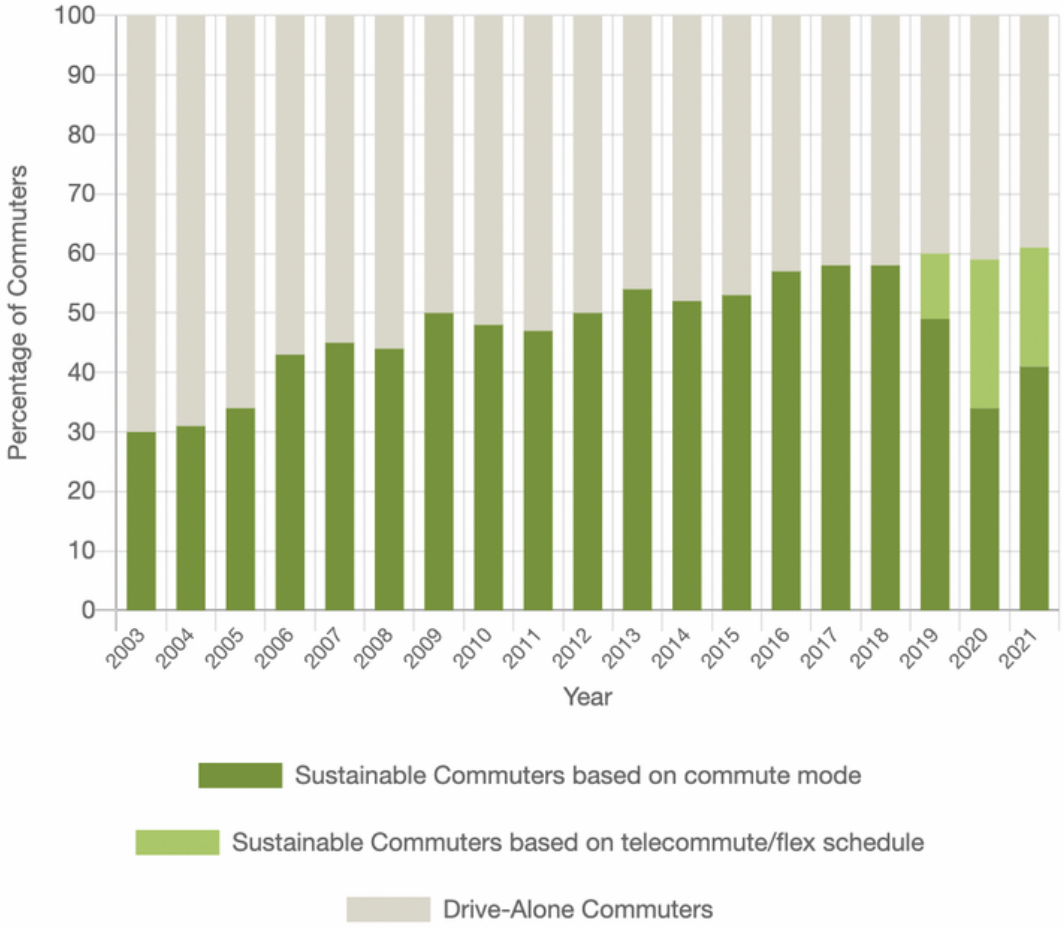
Stanford is committed to achieving the "No Net New Peak-Hour Commute Trips" standard, which is defined by the Stanford Community Plan as no additional trips above a measured baseline during peak commute hours in the campus commute direction. Stanford has met and plans to continue to meet this standard, as described in its **General Use Permit**.



Stanford's Transportation Demand Management (TDM) program consists of innovative approaches for getting students, faculty, and staff to campus by means other than single-occupancy vehicles. Spearheaded by Stanford Transportation, the TDM program aims to reduce university-related traffic impacts, emissions, and parking demand while the campus continues to grow.

In 2021, many Stanford employees worked hybrid schedules, and some Stanford Transportation programs were adjusted to reflect the new norm.

Rate of Sustainable Transportation Commuters



In 2019, Sustainable Commuters data began being parsed by telecommute data and commute mode. The percentage of Sustainable Commuters data did not decline from 2018 to 2019.

2021-22 TRANSPORTATION HIGHLIGHTS

- Stanford Receives its Third Platinum Bicycle Friendly University Award
- Introducing the Latest Addition to Our Fleet: Petite Marguerite
- New Bike Lane Pilot on Santa Teresa
- Stanford Recognized as One of the Best Workplaces for Commuters in 2022
- International Parking & Mobility Institute (IPMI) Recognized Stanford Transportation as Organization of the Year
- Executive Director Brian Shaw Was Recognized as the James M. Hunnicutt, CAPP, Industry Professional of the Year
- 2021 Year at a Glance

ACKNOWLEDGEMENTS

Sustainable Stanford thanks all its campus partners for contributing content for the 2021-2022 Year in Review, and for their ongoing efforts to create a more sustainable campus environment.

Photo and Video Credits

Alice Pyo
Andrew Brodhead
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Jose Mercado
Linda Cicero
Michael Huang
Patrick Archie
Susan Vargas

Appendix F
Stanford Alternative Means Programs
2001-2022

Appendix F
Stanford Alternative Means Programs

F.1 Annual Reporting of Select LEED Credits

SSc4.1-4, Alternative Transportation

Reference annual GUP reporting on net trips during peak commuting hours

Stanford's annual reporting on "no net new commute trips" is provided in Appendix B (Condition G.4) and in Appendix D.

Submit an updated Transportation Demand Management Program document or similar narrative that describes alternative transportation services.

Stanford's annual reporting on the TDM Program is provided in Appendix B (Condition G.2).

WEc1, Water Efficient Landscaping

Report the annual percentage of surface water (non-potable) vs. groundwater (potable) water in the lake water irrigation system.

Lakewater Irrigation System Supply Sources					
	Non-potable (Surface Water and other sources)		Potable (Groundwater)		Total
Year	Quantity (acre-feet)	Percentage	Quantity (acre-feet)	Percentage	Quantity (acre-feet)
2010	809	70%	342	30%	1,151
2011	1,019	85%	182	15%	1,201
2012	1,032	82%	238	18%	1,270
2013	1,056	77%	311	23%	1,367
2014	72	6%	1,142	94%	1,214
2015	364	34%	721	66%	1,085
2016	215	24%	690	76%	905
2017	585	56%	456	44%	1,041
2018	684 total (588 surface water; 96 dewatering)	55% total (47% surface water; 8% dewatering)	554	45%	1,238
2019	896 total (518 surface water; 354 dewatering; 23 stormwater)	73% total (43% surface water; 29% dewatering; 2% stormwater)	323	27%	1,219
2020	824 total (746 surface water; 70 dewatering; 9 stormwater)	69% total (62% surface water; 6% dewatering;	373	31%	1,198

		1% stormwater)			
2021	63 total (19 surface water; 43 stormwater)	5% total (2% surface water; 4% stormwater)	1,175	95%	1,237
2022	60 total (17 surface water; 42 stormwater)	5% total (1% surface water; 4% stormwater)	1,118	95%	1,178

The increased use of groundwater in the lake water irrigation system between 2014 - 2016, and in 2021-2022 was due to drought. Groundwater wells were pumped to meet demand within the lake water irrigation system and to fill storage within Felt Lake. The majority of campus lake water irrigation demand was met by groundwater sources. The overall annual percentages do not reflect the Surface Water/Groundwater breakdown that occurred on a monthly basis (where a blend of both sources was used). However, the average groundwater percentage of the total lake water irrigation system is 58% over the last 5 years, and 50% over the last 12 years (since 2010). "Abnormal" years were considered in the calculations for the Alternative Means approach, and Stanford demonstrated that with or without abnormal years, Stanford met the credit requirements for WEc1. Other "abnormal years" included 2006, when Felt Lake was drained, and 2007, when sediment removal at Felt Lake, and groundwater pumping was higher than normal. 2014 through 2016 are other examples of "abnormal years" with drought.

Note: The sources of water contributing to the lake water irrigation system have been tracked through various methods in order to fit within reporting formats, including that of Bay Area Water Supply & Conservation Agency (BAWSCA) and GUP reporting. Prior to 2015, the volume entering storage was subtracted from total surface water diverted and water used from storage. In 2015, water added to storage was subtracted from the metered groundwater or surface water source to better account for the source contributing to storage. Prior to 2016, all water coming from storage was assumed to be surface water. In order to better reflect the sources of water used in the lake water irrigation system, beginning in 2016 the source of stored water is being accounted for by tracking the volume of groundwater that enters and is used from storage. Assumptions for this new method include a starting point of zero groundwater in the non-potable irrigation system storage as of July 2013, surface water entering storage first, and groundwater used from storage first.

Alternative water supplies were introduced and tracked since 2020:

- Beginning in 2018, captured construction dewatering was used as an alternative water supply for irrigation (non-potable source). The construction projects stopped pumping dewatering water in October 2019.

- Beginning in 2019, stormwater capture was used as an alternative water supply for irrigation (non-potable source). In FY 22, stormwater capture accounted for 4% of the source supply for the lake water system.

EAp3, Fundamental Refrigerant Management

Report when phase-out of CFC refrigerants in the central plant is complete.

The scheduled phase-out described in EAp3 has not changed. The demolition of the central energy plant began in FY 15 and was complete by November 2015. Therefore, the prohibited CFC refrigerant has been removed.

This will also indicate when EAc4, Enhanced Refrigerant Management, may be submitted for campus-wide pre-approval.

Since the Central Energy Plant was demolished by November 2015, Stanford may now submit this credit for approval.

MRp1, Storage & Collection of Recyclables; MRc2.1-2.2, Construction Waste Management

Confirm that PSSI is still Stanford University's waste contractor, and that PSSI's waste diversion programs are ongoing.

PSSI is Stanford University's waste contractor for all construction projects on campus, and their waste diversion programs are ongoing. Stanford's construction and demolition waste diversion rate for fiscal year 2022 was 87.7%, meeting both the minimum 50% diversion rate and the 75% diversion rate to maintain two credits under MRc2 for the campus as a whole.

Reference reporting already sent to the County under the Solid Waste Management Act of CA (AB 939).

Stanford submitted the County of Santa Clara Countywide AB 939 Quarterly Summary to the Santa Clara County Integrated Waste Management Program on or before March 15, June 15, September 15, and December 15, 2022.

IDc1.3, Green Housekeeping

Confirm that Unicco is Stanford University's cleaning service provider.

UG2 is the current provider of comprehensive green janitorial services to Stanford University.

IDc1.4, Green Campus Operations Education

Provide update on any new green campus operations, education campaigns, newsletters, or other forms of green campus operations education.

The description of green campus operations provided in the Green Building Ordinance materials did not change during this year.

ISc1.6, Green Dining

Provide an update on any green dining initiatives or education.

The description of green dining initiatives and education provided in the Green Building Ordinance materials did not change during this year.

Water Reduction Credits

Report on 'water bank' balance using water calculation template.

Appendix F
Stanford Alternative Means Programs

The reporting period for this credit is July 1 to June 30, to coincide with Stanford's annual GUP water consumption reporting period for SFPUC purchases and water conservation projects.

Water Bank Balance			
Year	**Projects**	**Change (mgd)**	**Cumulative Balance (mgd)**
2010	Previous Projects under GUP	0.683880	0.683880
2011	Water conservation projects	0.012446	0.696326
2012	Water conservation projects	0.009141	0.705467
2013	Water conservation projects	0.017884	0.723351
2014	Water conservation projects	0.018824	0.742175
2015	Water conservation projects and SESI	0.422232	1.164407
2016	Water conservation projects and new building projects	0.005922	1.1703287
2017	Water conservation projects and new building projects	0.001648	1.1719765
2018	Water conservation projects and new building projects	0.0007520	1.172464
2019	Water conservation projects	0.0060580	1.178522
2020	Water conservation projects	0.0140223	1.192544
2021	Water conservation projects	0.0041739	1.196718
2022	Water conservation projects	0.0028607	1.199579

* SESI: Stanford Energy Systems Innovations

F.2 Annual Reporting of Plug-In Electric Vehicle Charging Systems

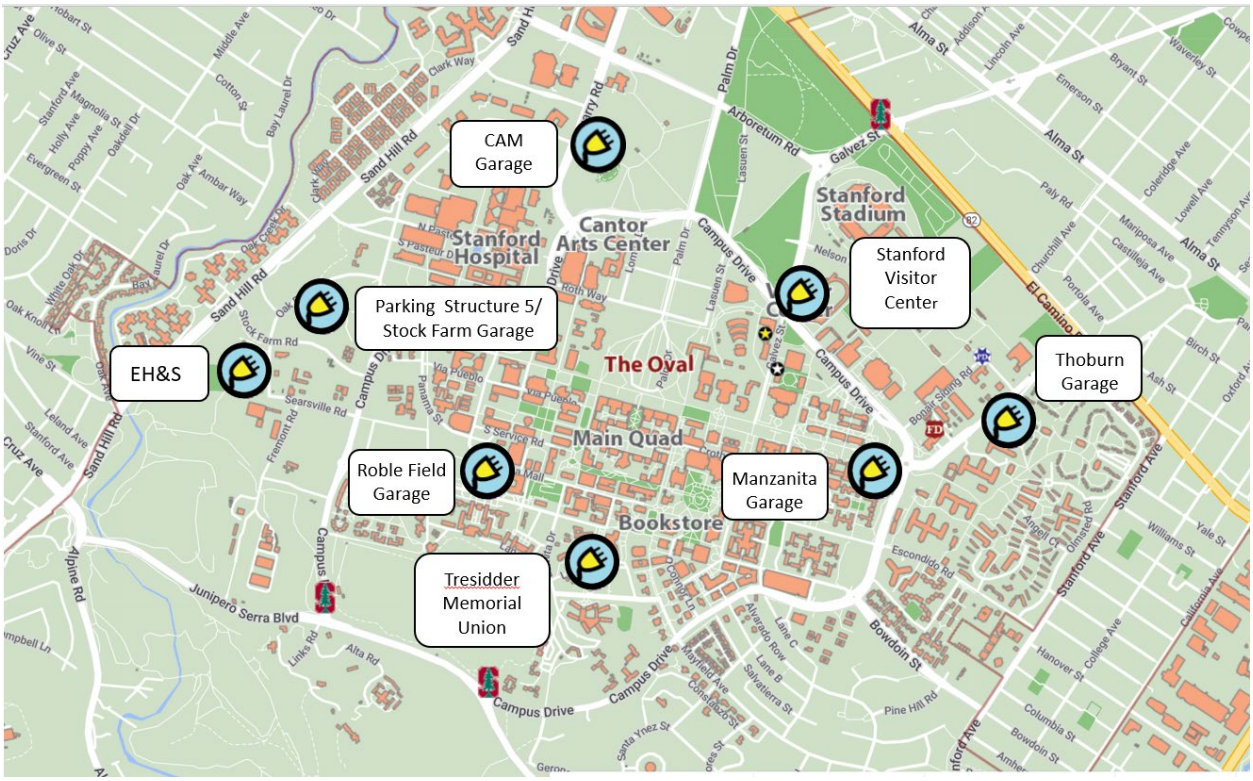
The parking baseline is the total number of parking spaces recorded within the site boundary, in Annual Report 13 (18,270 spaces), plus all projects approved from September 1, 2013 to February 14, 2014 (Acorn parking lot, 12 net new spaces; Searsville parking lot, 592 spaces), or a total of **18,874 spaces**. As of February 14, 2014, there were six parking spaces that had access to EV charging on-campus that counted towards meeting the Ordinance (see Figure F-1).

As of August 31, 2022, the total number of parking spaces on campus is 19,872, which is 998 below the baseline number of spaces, and Stanford had 103 EV charging spaces on campus. Therefore, Stanford is in compliance with the County of Santa Clara's Ordinance for plug-in electric vehicle charging systems.

Date	Parking spaces tally	No. of spaces above baseline	No. of EV charging spaces required by PEV Ordinance	No. of EV charging spaces on campus	In compliance with PEV Ordinance
End of FY 13 (August 31, 2013)	18,270	N/A	N/A	N/A	N/A
Baseline as of February 14, 2014	18,874	0	0	6	Yes
End of FY 14 (August 31, 2014)	18,796	(78)	0	6	Yes
End of FY 15 (August 31, 2015)	18,101	(773)	0	14	Yes
End of FY 16 (August 31, 2016)	18,112	(762)	0	24	Yes
End of FY 17 (August 31, 2017)	18,289	(585)	0	78	Yes
End of FY 18 (August 31, 2018)	17,622	(1,252)	0	78	Yes
End of FY 19 (August 31, 2019)	17,593	(1,281)	0	78	Yes
End of FY 20 (August 31, 2020)	18,215	(659)	0	82	Yes
End of FY 21 (August 31, 2021)	19,931	1,057	11	94	Yes
End of FY 22 (August 31, 2022)	19,872	998	10	103	Yes

Note: All spaces are mixed-use parking lots.

FIGURE F-1: CURRENT EV CHARGER LOCATIONS AS OF AUGUST 31, 2022



Locations	Number of Ports	Charging Type
Parking Structure 5 / Stock Farm Garage	16	Level 2
Stanford Visitor Center	4	Level 2
Tresidder Memorial Union	4	Level 2
Roble Field Garage	54	Level 2
Thoburn Garage	4	Level 2
Manzanita Field Garage	12	Level 2
Center for Academic Medicine (CAM) Garage	8	Level 2
EH&S	1	Level 2
Total	**103**	