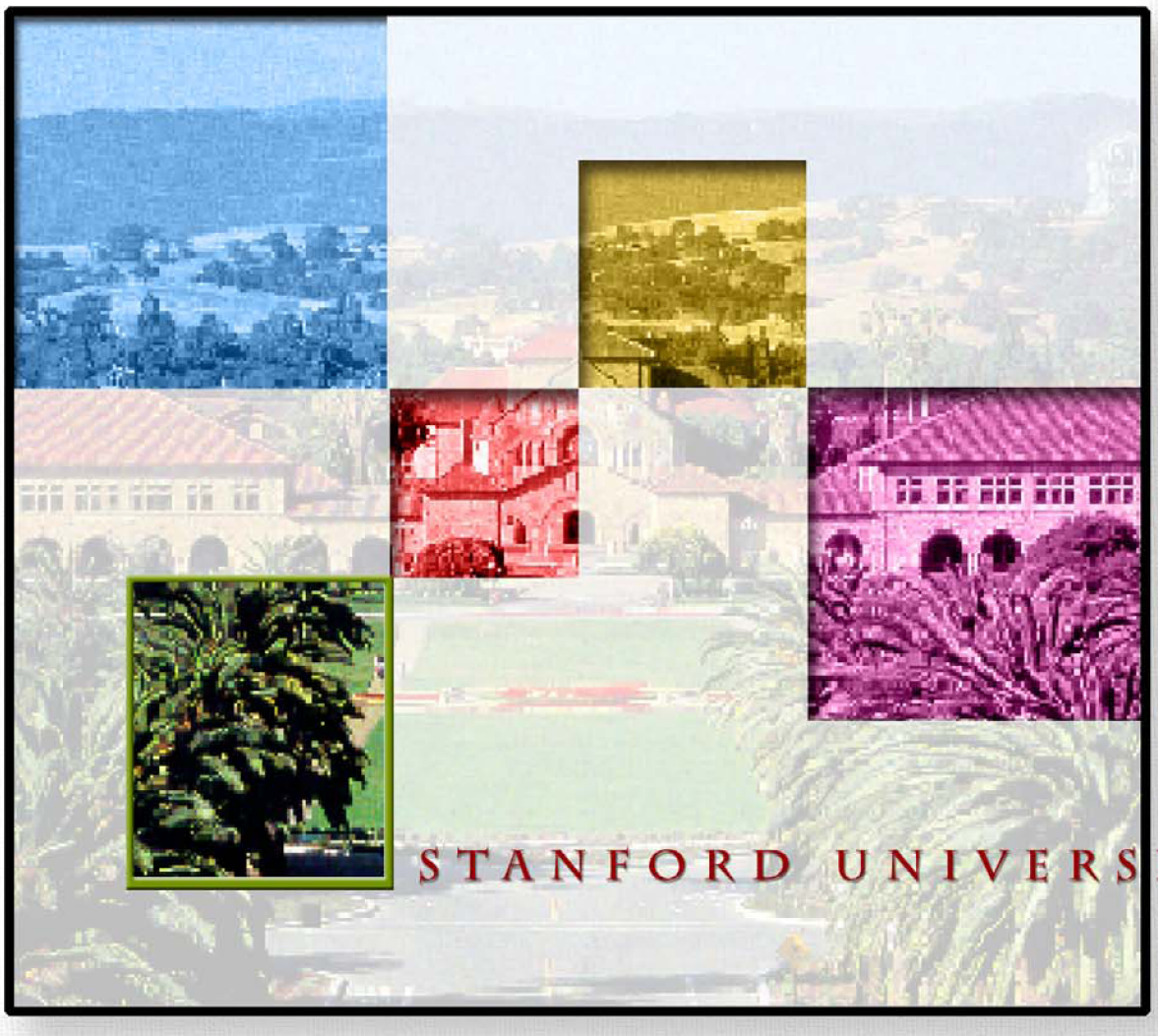
GENERAL USE PERMIT 2000

ANNUAL REPORT NO. 12



COUNTY OF SANTA CLARA
PLANNING OFFICE

June 2013

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The Stanford University, General Use Permit (GUP) 2000 Twelfth Annual Report (AR 12) provides public documentation that summarizes development at Stanford University and required environmental mitigation activity within the unincorporated Santa Clara County, for the monitoring period from September 1, 2011, through August 31, 2012. 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 12. Information on project status and a summary of development through the AR 12 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, sustainable activities initiated and ongoing by Stanford University and a summary of Stanford's approved Alternate Means Program to the County Green Building Ordinance, 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 Santa Clara County Planning Office. For the 12th annual reporting period, Kavitha Kumar, Associate Planner, was the Project Manager for the Santa Clara County Planning Office 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 Kavitha Kumar, Associate Planner, kavitha.kumar@pln.sccgov.org.

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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.

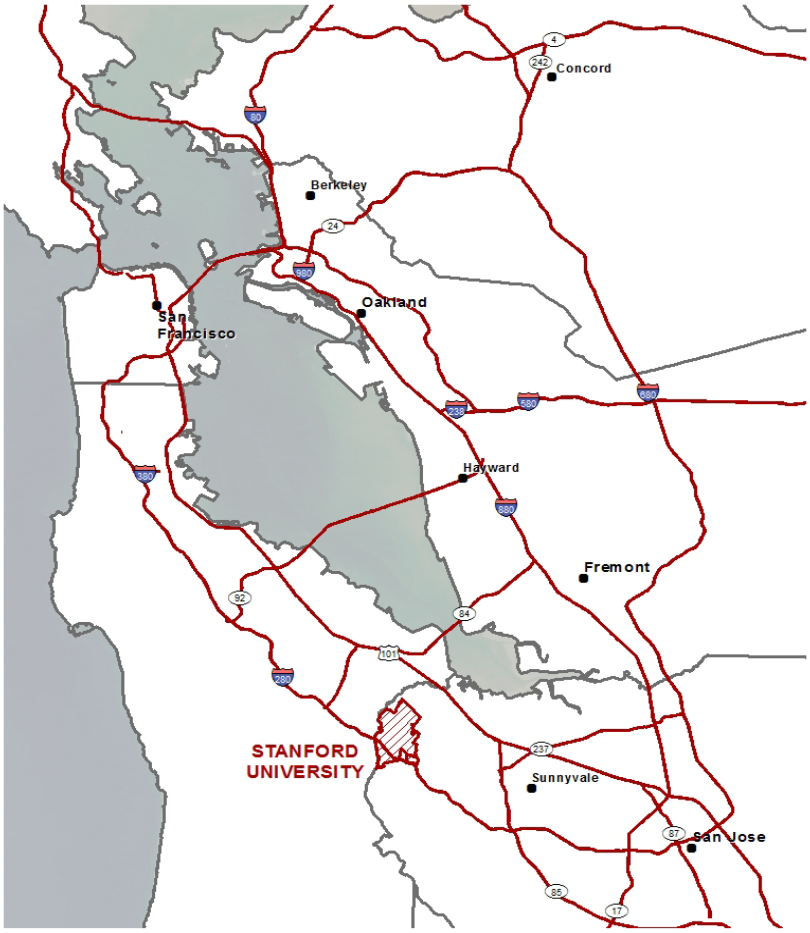


Figure 1 Regional Location

Santa Clara County 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 Santa Clara County. As a result of an extensive public review process, significant changes were made in the proposed CP/GUP. Santa Clara County, 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)

The Board approval of the 2000 GUP and the EIR resulted in mitigation measures. The EIR identified mitigation measures, which 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 Twelfth Annual Report (AR 12) 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, 2011, to August 31, 2012. Activities or projects that occurred after August 31, 2012, are beyond the scope of this Annual Report, but will be presented in the next Annual Report that will cover activities between September 1, 2012, and August 31, 2013.

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 Eleventh 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 Significant Activities – summarizes activities that occurred during the report period that are not GUP-related, but are otherwise relevant to development at Stanford.

VII. 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 2012.

Appendix E – presents the Stanford Sustainability Annual Report.

Appendix F – provides a summary of Stanford's approved Alternate Means Program for the Santa Clara County Green Building Ordinance.

Glossary of Terms

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

AR **Annual Report:** "AR 12" refers to Stanford's 12th annual report on development and compliance with GUP conditions.

ASA **Architectural and Site Approval:** 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 **Small Project Exemption from ASA:** 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 Santa Clara County's 1995 General Plan as they apply to Stanford lands under County jurisdiction.

EIR **Environmental Impact Report:** Documents the result of environmental analyses conducted under CEQA.

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.

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, 2011 and August 31, 2012.

The GUP generally distributes the 2,035,000 sq. ft. of additional academic and academic support facilities among 11 development districts on the Stanford Campus. Map 2 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 gsf to 1,480,268 gsf to allow for the allocation of 120,000 gsf to the DAPER 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 12 reporting period.

TABLE 1
ANNUAL REPORT 12
DISTRIBUTION OF GUP-ALLOWED ACADEMIC AND ACADEMIC SUPPORT DEVELOPMENT[1]

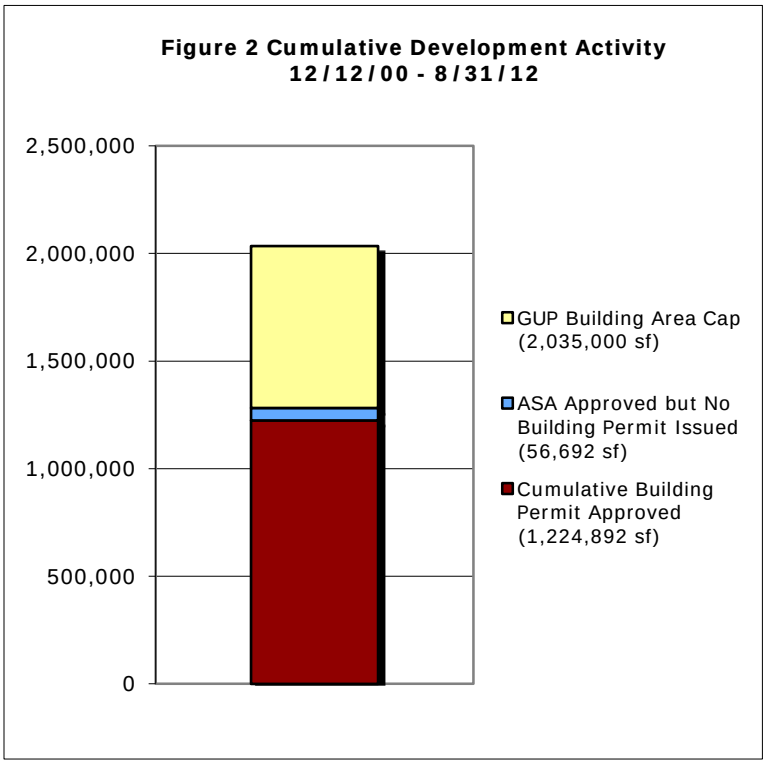
Development District	2000 GUP Building Area Distribution[2] (gsf)	ASA Approved Space (sq. ft.)	Building Permit Approved Space[1] (sq. ft.)	Previous ARs Cumulative Building Permit Approvals (sq. ft.)	Cumulative Total Building Permits Approved[3] (sq. ft.)	GUP Balance Remaining (sq. ft.)
Campus Center	1,404,337	(50,299)	145,380	720,347	865,727	538,610
DAPER & Administrative	370,000	3,345	3,345	312,142	315,487	54,513
East Campus	110,000	0	0	(29,712)	(29,712)	139,712
Quarry	50,000	0	0	0	0	50,000
Lathrop	20,000	0	0	0	0	20,000
West Campus	931	0	0	931	931	0
Foothills	4,732	0	0	3,192	3,192	1,540
Lagunita	75,000	0	75,000	(5,733)	69,267	5,733
Arboretum	0	0	0	0	0	0
San Juan	0	0	0	0	0	0
Total	**2,035,000**	**(46,954)**	**223,725**	**1,001,167**	**1,224,892**	**810,108**

1. Square footage is counted against the GUP building area cap in the reporting year in which the building permits are approved.
2. 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 and AR 9. .
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.

During the AR 12 reporting period, 12 projects received ASA, 11 projects received ASX approvals and one Variance application. The County also processed 11 Resubmittals of projects that were deemed incomplete to take an action.

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.

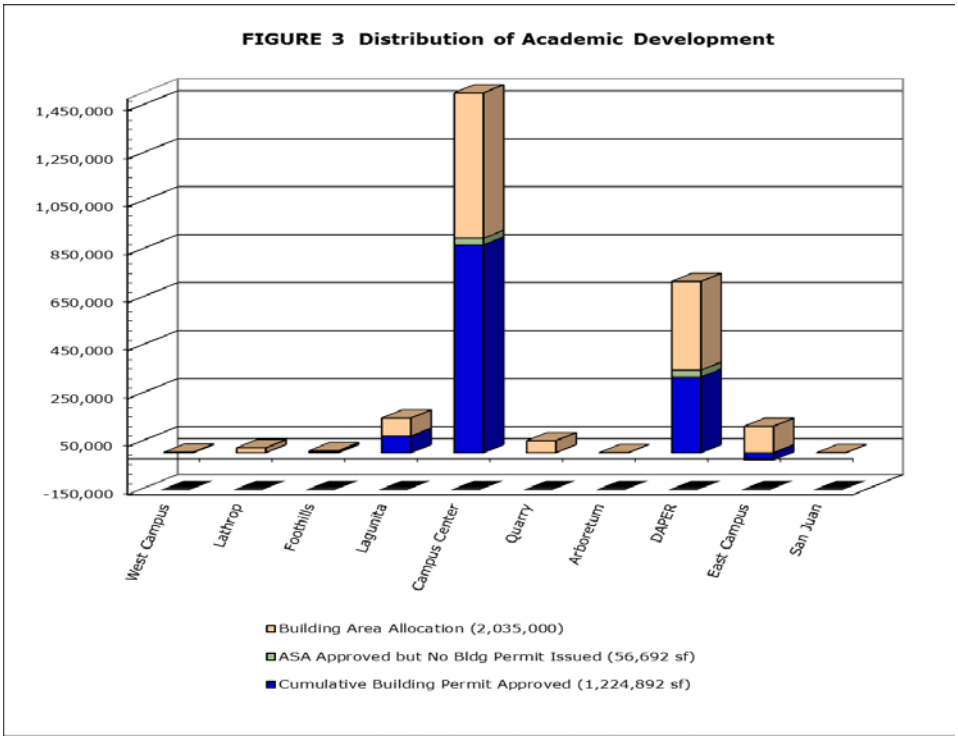
Figure 2 illustrates the cumulative status of development that counts toward the GUP building area cap. The square footage of building permit approvals is cumulative. In contrast, ASA approved square footage is only shown for projects that received ASA and ASX (small project) approval during the current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



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. See Appendix E for a Summary of Stanford's Sustainability Activities during this reporting period.

Figure 3, below, based on data in Table 1, 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 received approval by the ASA committee during the current reporting period. Anticipated projects or projects in the approval process for Annual Report 12 reporting period are noted in Section V, Table 6.

A map of Stanford University's Development District is provided in Map 2 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 gsf 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. There was an increase of 10,560 gsf of temporary trailers during this reporting period for the temporary child care facilities at the Stock Farm parking lot.

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 3,638 gsf remains available.

TABLE 2
ANNUAL REPORT 12
OTHER SPACE CAPS - PROJECT SUMMARY

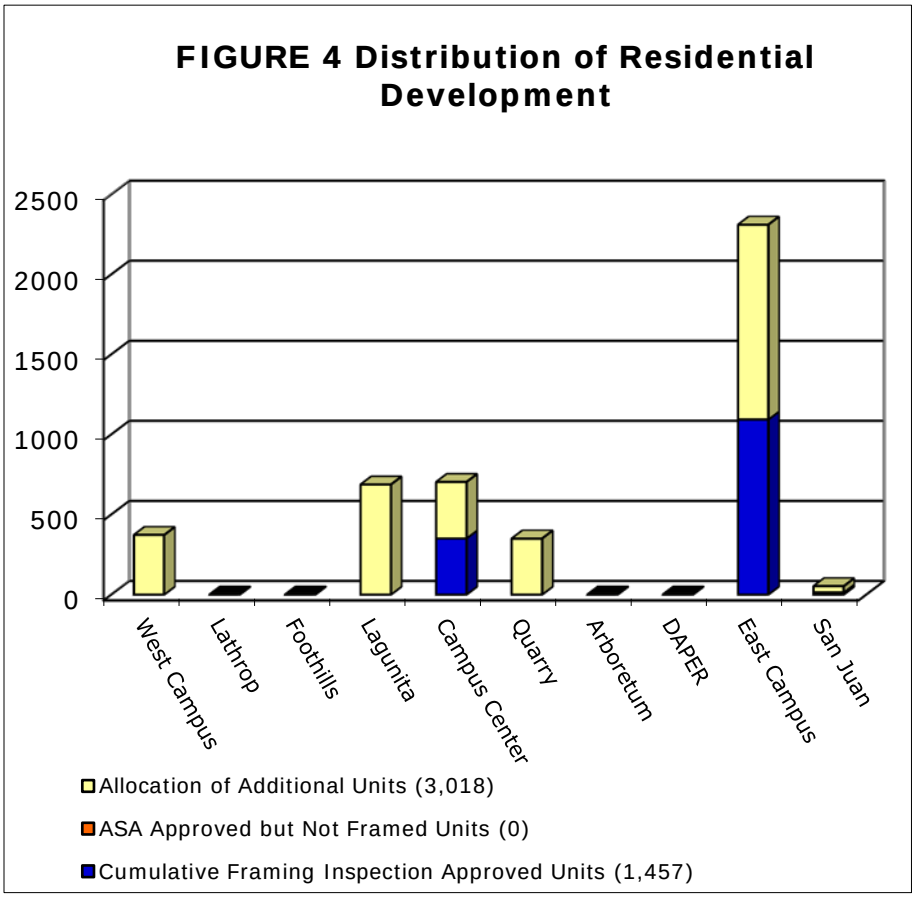
Non-Building Cap Category	Maximum Allowable Square Footage	ASA Approved (sq. ft.)	Building Permit (sq. ft.)	Cumulative Building Permits Approved (sq. ft.) in Previous ARs	Cumulative Total Building Permits Approved (sq. ft.)	Balance Remaining (sq. ft.)
Remaining 1989 GUP Square Footage	92,229	0	0	92,229	92,229	0
Temporary Surge Space	50,000	0	10,560	28,575	39,135	10,865
Childcare/ Community Center	40,000	0	0	36,362	36,362	3,638

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 as shown in Table 3. The GUP identified potential housing sites for students, staff and faculty (Map 3, 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 3. 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).

During the AR 12 reporting period, three housing renovations were approved and constructed, resulting in nine additional student housing units. 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.



There is a total allocation of 3,018 housing units for the campus. As illustrated in Figure 4, the cumulative total number of approved units under the 2000 GUP allocation is 1,457 units. A total of 1,561 housing units remain available under the housing cap.

TABLE 3
ANNUAL REPORT 12
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
West Campus **Stable Site**	372 Faculty/Staff	0	0	0	0
Lathrop	0	0	0	0	0
Foothills	0	0	0	0	0
Lagunita **Driving Range** **Searsville Block** **Mayfield/Row**	195 Faculty/Staff 367 Graduate 125 Undergrad/ Grad	0	0	0	0
Campus Center	352 Graduate	0	351	0	**351**
Quarry **Quarry/Arboretum** **Quarry/El Camino**	 200 Postdoc 150 Postdoc	0	0	0	0
Arboretum	0	0	0	0	0
DAPER & Administrative	0	0	0	0	0
East Campus - **Manzanita** - **Escondido Village** - **Quillen** -	 100 Undergrad/ Graduate 1,043 Graduate 75 Faculty/Staff		1,093	 0	1,093
East Campus Subtotal		**0**	**1,093**	**0**	**1,093**
San Juan **Lower Frenchman's** **Gerona** **Mayfield** **717 Dolores**	 18 Faculty/Staff 12 Faculty/Staff 9 Faculty/Staff	0	4	9	13
San Juan Subtotal		0	4	9	13
Total	**3,018 Allowed[2]**	**0**	**1,448**	**9**	**1,457**

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.
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.

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

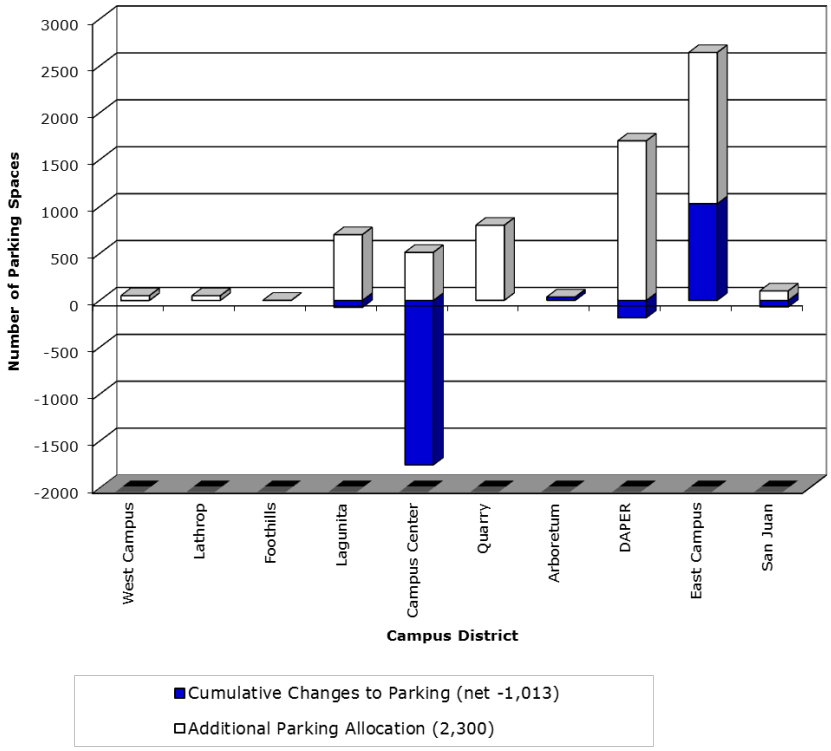


Table 4 presents the changes in parking spaces during the current reporting period, and cumulative increases and decreases in parking spaces on the campus during the AR 1 through AR 12 reporting periods.

During the AR 12 reporting period, there was a net decrease of 236 parking spaces on campus. The cumulative change in the parking inventory is a net decrease of 1,013 parking spaces under the 2000 GUP.

TABLE 4
ANNUAL REPORT 12
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 12 Contribution	Previous AR 1-11 Contribution	Cumulative (AR 1 Through Current AR 12)	EIR Base and Cumulative (Current Parking Capacity)	
West Campus	191	50	0	(1)	(1)	190	51
Lathrop	0	50	0	0	0	0	50
Foothills	0	0	0	0	0	0	0
Lagunita	1,745	700	(6)	(68)	(74)	1,671	774
Campus Center	8,743	(511)	(248)	(1,505)	(1,753)	6,990	1,242
Quarry	1,058	800	1	0	1	1,059	799
Arboretum	134	36	39	(3)	36	170	0
DAPER & Administrative	2,209	1,664	0	(184)	(184)	2,025	1,848
East Campus[1]	4,731	1,611	(22)	1,053	1,031	5,762	580
San Juan	540	100	0	(69)	(69)	471	169
Campus Wide Summary	19,351	2,300[2]	(236)	(777)	(1,013)	18,338	3,313

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).

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, 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 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.

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III. Overview of Monitoring During Twelfth Year

This section provides a summary of activities conducted during the AR 12 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 12 reporting period. Descriptions and illustrations of projects that received ASA and ASX during the AR 12 reporting period are provided in Section IV.

During the AR 12 reporting period, September 1, 2011 through August 31, 2012:

- 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 23 projects received ASA approval or ASA Small Project Exemption (ASX) during the AR 12 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) 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 12 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 12 was presented to the Community Resource Group in April 2013 and the final report was presented to the Planning Commission at the June 2013 public hearing.

GUP Condition D: Permitting and Environmental Review

During the AR 12 reporting period, Stanford received ASA or ASA Small Project Exemption (ASX) for 23 projects. All of these projects were determined to be consistent with the General Plan land use designations and zoning requirements, and 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. It is beyond the scope of this Annual Report to document every minor violation of County ordinances or other requirements that occur on Stanford University land. As of this Annual Report, there has been no action that would require the County Planning Commission to consider or determine Stanford to be in non-compliance with any GUP condition or mitigation requirement. Stanford University remains in compliance with the GUP.

The zoning enforcement office and building inspection office report that Stanford University is in general compliance with 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.

GUP Condition F: Housing

During this reporting period, Stanford renovated three dorms adding a total of 9 housing units. The total number of campus housing units constructed under the 2000 GUP is 1,457.

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 1,000,000 gsf of academic or academic support area requires a minimum of 1,210 housing units. Stanford University has constructed 1,457 units and is therefore, in compliance with this requirement.

Stanford University has complied with County requests for affordable housing in-lieu payments after building permit issuance and before occupancy. As of May 2012, the affordable housing fees are assessed at the rate of $18.44 per square foot of net new academic or academic support space approved under the building permit. As of August 31, 2012, Stanford has made affordable housing fee payments totaling $18,838,941.96. Six affordable housing projects have been funded so far, with the funding of $16,105,591.00. The six projects built within the 6 mile radius from Stanford Campus boundary have provided 369 affordable housing units, with 157 units restricted to very low income to extremely low income families.

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. Data collection during the AR 12 monitoring period involved 6 weeks in spring 2012 and 2 weeks in fall 2012 to monitor Stanford's compliance with the "no-net-new commute trip" standard. The Stanford University Traffic Monitoring Report 2012 is available for review at the County and is also available on the County website, (www.sccplanning.org). 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 annual Traffic Monitoring Reporting period is the same as the baseline, 6 weeks in the spring and 2 weeks in the fall.

The 2012 Monitoring Report concluded that the adjusted morning (AM) inbound count totaled 3,287 vehicles. This represented a decrease of 32 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 3,590 vehicles, which is an increase of 144 vehicles from the baseline. This increase is above the 90% confidence interval by 35 vehicles and below the one-percent established trigger by one vehicle. However, after applying 301 trip credits submitted by Stanford and verified by the County, the PM peak hour outbound

traffic is 302 trips below the 1% established trigger. Therefore no additional mitigation is required.

The 2012 traffic monitoring cordon locations used for traffic monitoring are shown on Map A-4, Appendix A. Data and analysis of these counts, reported in December 2012, are provided in Appendix D of this annual report.

GUP Condition H: Parking

During AR 12 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 3,313 spaces.

GUP Condition I: Parks and Recreation Facilities

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.

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 Trail (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.

Pending Elements:

All approvals and permits for construction of the C2/ Arastradero Trail in Los Altos Hills are in-hand (with the exception of sign-off from the Town Engineer). Start of construction is scheduled for May 1, 2013 and completion is anticipated in August 2013.

San Mateo County and Stanford did not reach agreement for the San Mateo C1 segment and in February 2012, Stanford paid the County 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. The Board also directed County Administration to negotiate projects agreements for the selected projects and submit approval to the Board consistent with the requirements of CEQA. It is expected that the project agreement for the Stanford Perimeter Trail will be considered by the Board in late 2013 or 2014.

GUP Condition J: California Tiger Salamander

In April 2010, the draft Stanford University Habitat Conservation Plan (HCP) and Draft Environmental Impact Statement (EIS) were released for public review by the U.S. Fish and Wildlife Service and NOAA Fisheries. Santa Clara County submitted a comment letter on August 30, 2010 requesting certain changes to the HCP, and indicating that "[t]he County believes incorporating the changes listed would improve the HCP and would assure the HCP satisfies the GUP condition #J.9." The requested changes were incorporated into the Final HCP. The Final HCP and Final EIS were published on November 23, 2012. It is anticipated that Condition J.9 will be fulfilled in the next reporting period.

GUP Condition K: Biological Resources

Twelve 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.

An arborist conducts annual inspections of the oak trees located at the Stanford Stadium, monitoring the effect of irrigation of the redwood trees planted at the top of the berm. This inspection is conducted in accordance with the ASA conditions of approval for the stadium. The inspection shows that the irrigation is being managed well to keep moisture away from the protected oak trees. Stanford is in compliance with this condition. These inspections concluded in October 2012.

GUP Condition L: Visual Resources

Two projects approved during the reporting period included exterior lighting that would impact the visual resource conditions. The ASA conditions of approval require the lighting be mitigated and limited to the site.

GUP Condition M: Hazardous Materials

During the AR 12 reporting period, no new buildings will include hazardous materials that are regulated by the California Accidental Release Prevention Law.

GUP Condition N: Geology and Hydrology

During the AR 12 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 12 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 12 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 fireworks events occurred during the reporting period. Two events per year are allowed by the GUP. Stanford maintained the noise hotline (650) 723-2281. The University reports that three complaints were received. See Appendix B, Condition R for more detail.

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.

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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 other minor projects that received approval is presented at the end of this section. Figure 6 shows the locations of the major projects.

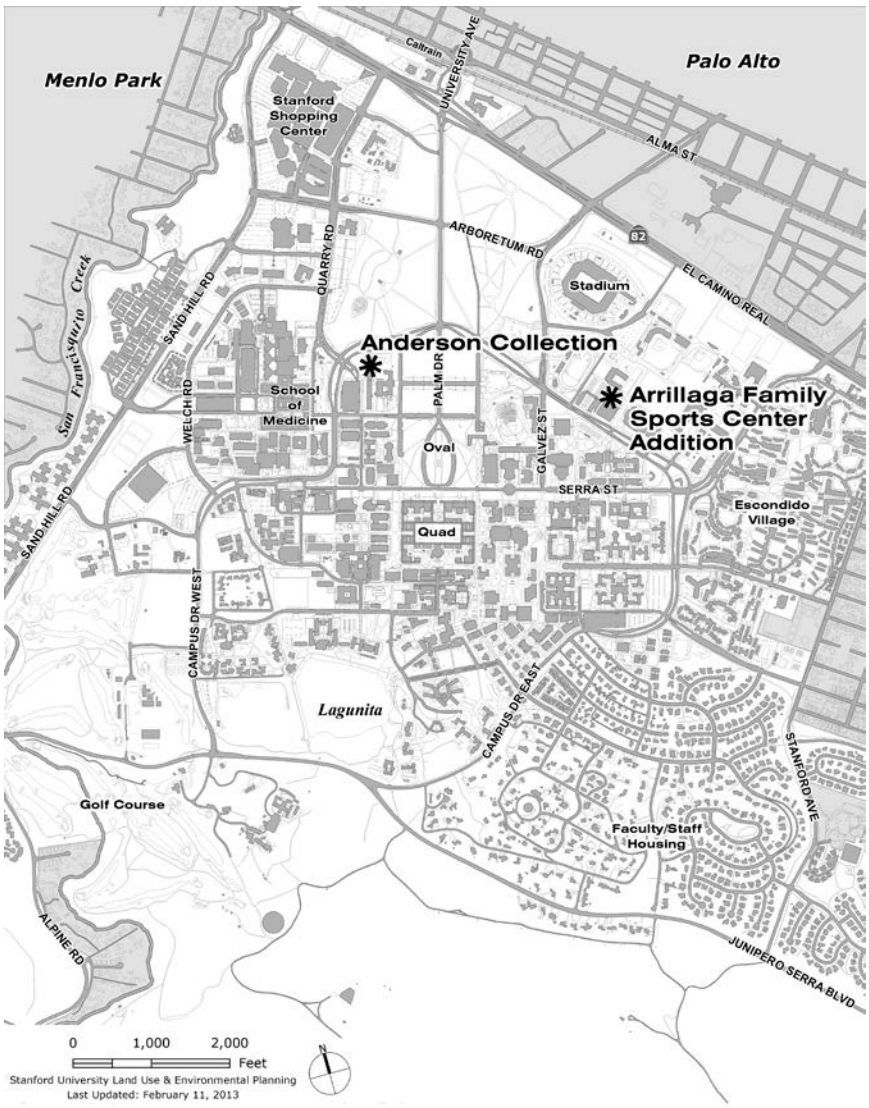

FIGURE 6. Location of Major AR12 Projects

IV. Project Summaries

TABLE 5
ANNUAL REPORT 12
DEVELOPMENT PROJECTS RECEIVING ASA OR OTHER APPROVAL

PC/ File #	Project Name	Development District	ASA gross sq. ft.	Demolition sq. ft.	Bldg. Permit sq. ft.	Development Status
Projects that affect GUP gsf						
9757	Terman Engineering	Campus Center		(148,818)	(148,818)	Demolished
9963	Bing Concert Hall	Campus Center	89,000		78,350 + 7,185 =85,535	Under construction
9697	BioEngineering/ Chemical Engineering	Campus Center	153,159		196,172	Under construction
10177	Arrillaga Outdoor Education and Recreation Center	Lagunita	75,000		75,000	Under construction
10235	Comparative Medicine Pavilion	Campus Center	20,507		20,507	Under construction
10258	Arrillaga Family Sports Center Addition	DAPER & Administration	28,500		Not yet	Awaiting permit
36290	Anatomy building	Campus Center		(66,579)		Demolished
6939	Cagan Soccer locker rooms	DAPER & Administration	3,345		3,345	Under construction
10272	Anderson Collection	Campus Center	28,192		Not yet	Awaiting permit
47307	Cypress Annex	Campus Center		(960)		Demolished
49275	Quonset hut	Campus Center		(3,760)		Demolished
10323	Replacement Central Energy facility	Campus Center	Not yet		Not yet	Awaiting planning approval
9773	SULAIR North repurposing	Campus Center	0		0	Awaiting planning approval
50096	Grounds trailer	DAPER & Administration		Not yet		Awaiting demo permit
Projects that affect Other gsf						
10028	Temporary Child Care relocation	Campus Center	10,560		10,560	Completed
Housing						
10085	Arrillaga Family Dining Commons	East Campus	28,260		28,260	Completed
10289	Hammarskjold	San Juan	1,730		1,730	Under construction
10286	Synergy	San Juan	N/A		N/A	Under construction
10288	Slavianski Dom	San Juan	Not yet		Not yet	Awaiting planning approval
10287	Muwekma-Tah-Ruk	Lagunita	Not yet		Not yet	Awaiting

TABLE 5
ANNUAL REPORT 12
DEVELOPMENT PROJECTS RECEIVING ASA OR OTHER APPROVAL

PC/ File #	Project Name	Development District	ASA gross sq. ft.	Demolition sq. ft.	Bldg. Permit sq. ft.	Development Status
						planning approval
10285	Haus Mitt	San Juan	210		210	Under construction
10284	Phi Sigma	San Juan	420		420	Under construction
10282	Grove House	San Juan	Not yet		Not yet	Awaiting planning approval
10283	Columbae	Lagunita	Not yet		Not yet	Awaiting planning approval
10390	Comstock Graduate Housing	East Campus	Not yet		Not yet	Awaiting planning approval
Site Projects						
6939	Soccer Bleachers	DAPER & Administration	N/A	N/A	N/A	Under construction
1541	Bonair Siding Fuel Storage	DAPER & Administration	N/A	N/A	N/A	Under construction
10182	Hoover Pavilion 60kV site work	Quarry	N/A	N/A	N/A	Under construction
6231	Terman Engineering Landscape	Campus Center	N/A	N/A	N/A	Completed
10209	Golf Course 15/16 fill site	Foothills	N/A	N/A	N/A	On hold
9771	Forsythe Hall Data Center Phase 3	Campus Center	N/A	N/A	N/A	Completed
8409	Cowell Cluster landscaping	East Campus	N/A	N/A	N/A	Completed
9024	Temporary COW for Medical Center	Quarry	N/A	N/A	N/A	Completed
8686	SAE Drainage improvements	Lagunita	N/A	N/A	N/A	Completed
8270	Soccer/LAX Practice Field Lighting	DAPER & Administration	N/A	N/A	N/A	Completed
9996	Arguello Recreation Field	East Campus	N/A	N/A	N/A	Under construction
10279	Galvez Parking Lot	DAPER & Administration	N/A	N/A	N/A	Under construction
10307	Central Process Steam building	Campus Center	N/A	N/A	N/A	Awaiting permit
10308	LPCH Contractor Parking Lot	Quarry	N/A	N/A	N/A	Under construction

IV. Project Summaries

TABLE 5
ANNUAL REPORT 12
DEVELOPMENT PROJECTS RECEIVING ASA OR OTHER APPROVAL

PC/ File #	Project Name	Development District	ASA gross sq. ft.	Demolition sq. ft.	Bldg. Permit sq. ft.	Development Status
10330	Page Mill Road Construction Laydown	Foothills	N/A	N/A	N/A	Awaiting permit
10331	Heat Exchanger 4	Campus Center	N/A	N/A	N/A	Awaiting planning approval

File No. 10272, Anderson Collection

ASA Application Submitted:	02/17/2012
ASA Approved:	07/19/2012
Status as of 08/31/11:	Awaiting Building Permit
Project Description:	The project involves the construction of a 28,192 square foot new building to be constructed north of the existing Cantor Art Center. The Anderson Collection at Stanford (121 paintings by 86 artists) includes some of the foremost examples of post-World War II American art. These works will be housed in the new art gallery. The project redevelops an existing parking lot with a net loss of 68 parking spaces. Six trees over 12 inches in diameter will be relocated. Estimated grading quantities are 650 cubic yards of cut and 650 cubic yards of fill. This project is academic space; therefore the building space included in the project counts against the 2000 GUP building area cap.
Development District:	Campus Center
Type of Project:	Academic
	
Applicable GUP Conditions:	Stanford is currently 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.

IV. Project Summaries

File No. 10258: Arrillaga Family Sports Center Addition

ASA Application Submitted:	12/08/2012
ASA Approved:	02/09/2012
Status as of 08/31/11:	Awaiting Building Permit
Project Description:	The proposed structure is a 28,500 square foot addition to the existing Arrillaga Family Sports Center, which is located in the Athletics area of the Stanford University Campus. The proposed expansion allows the consolidation of the Stanford University football program. Three cedar trees over 12 inches in diameter are slated for removal. No additional parking is proposed for the addition. Estimated grading quantities are 3,000 cubic yards of cut and 500 cubic yards of fill. This project is academic space; therefore the building space included in the project counts against the 2000 GUP building area cap.
Development District:	DAPER and Administration
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.

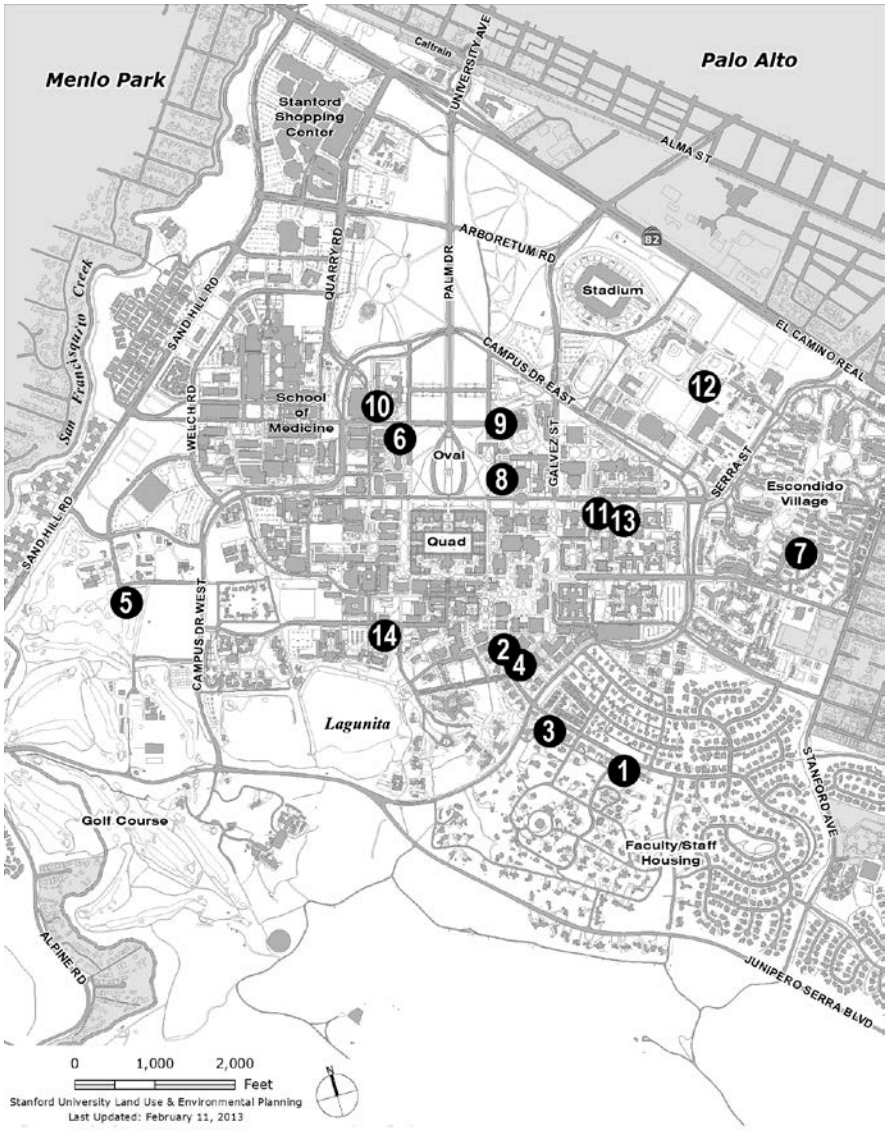

FIGURE 7. Location of Anticipated Projects

Map ID	Project
1	Slavianskii Dom
2	Muwekma-Tah-Ruk
3	Grove House
4	Columbae
5	Replacement Central Energy Facility
6	Heat Exchanger 4
7	Comstock Graduate Housing
8	SULAIR North Repurposing
9	Lasuen Street Parking Lot
10	McMurtry Art building
11	Encina Modular Demolition
12	Field Hockey Bleachers
13	Toyonito demolition
14	Windhover Contemplation Center

V. Anticipated Future Development

TABLE 6
ANTICIPATED PROJECTS FOR ANNUAL REPORT 12

Development District	Project	County File #	ASA Application Submitted	Anticipated ASA Square Footage	Anticipated Housing	Anticipated Parking
ASA Applications Submitted During AR 12, No Approval as of August 31, 2012						
San Juan	Slavanski Dom	10288	3/19/12	961	0	-
Lagunita	Muwekma-Tah-Ruk	10287	3/19/12	450	0	-
San Juan	Grove House	10282	3/19/12	500	0	-
Lagunita	Columbae	10283	3/19/12	950	2	-
Campus Center	Replacement Central Energy Facility	10323	6/1/12	14,715	-	-
Campus Center	Heat Exchanger 4	10331	6/21/12	-	-	-
East Campus	Comstock Graduate Housing	10390	7/7/12	254,258	362	
Campus Center	SULAIR North Repurposing	9773	7/23/12	-	-	-
ASA Applications Anticipated During AR 12 Reporting Period						
Campus Center	Lasuen Street Parking Lot			-	-	7
Campus Center	McMurtry Art building			83,649		

TABLE 6
ANTICIPATED PROJECTS FOR ANNUAL REPORT 12

Development District	Project	County File #	ASA Application Submitted	Anticipated ASA Square Footage	Anticipated Housing	Anticipated Parking
Campus Center	Encina Modular Demolition			(8,400) (21,495)	-	-
DAPER & Administration	Field Hockey Bleachers			2,322	-	-
Campus Center	Toyonito demolition			(13,298)	-	-
Lagunita	Windhover Contemplation Center			3,990	-	-

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Alternate Means Program, County Green Building Ordinance

Santa Clara County adopted a new Green Building Ordinance that became effective January 1, 2011. This ordinance requires new non-residential construction that is greater than 5,000 gsf to meet a LEED certified or equivalent rating, new construction that is greater than 25,000 gsf to meet a LEED Silver or equivalent rating, and water savings of 25% for new construction.

Stanford submitted an alternate means application requesting the following:

- Review and approval of equivalency to LEED requirements by County staff in lieu of the US Green Building Council.
- Pre-approval of credits that could be achieved on a campus-wide basis.
- The establishment of a "water bank", allowing water savings beyond 25% to be "banked" in lieu of individual building credits. This bank is then available for use on buildings that are not able to meet the 25% threshold.

The alternate means request was approved by Santa Clara County on October 13, 2011. Six projects have successfully utilized the Alternate Means to comply with the County requirements.

As a condition of the alternate means request, Santa Clara County has asked that Stanford provide an annual update on several of the campus-wide credits. This annual update will be provided in Appendix F of the GUP Annual Reports, beginning in Annual Report #11 and continuing into the future.

In 2013, the joint effort of Santa Clara County and Stanford University was recognized by ABAG, with the presentation of the Growing Smarter Together Awards for Public Private Partnership. This will be reported in Annual Report #13.

Section VII. Other Information

References

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

County of Santa Clara Report Project Team

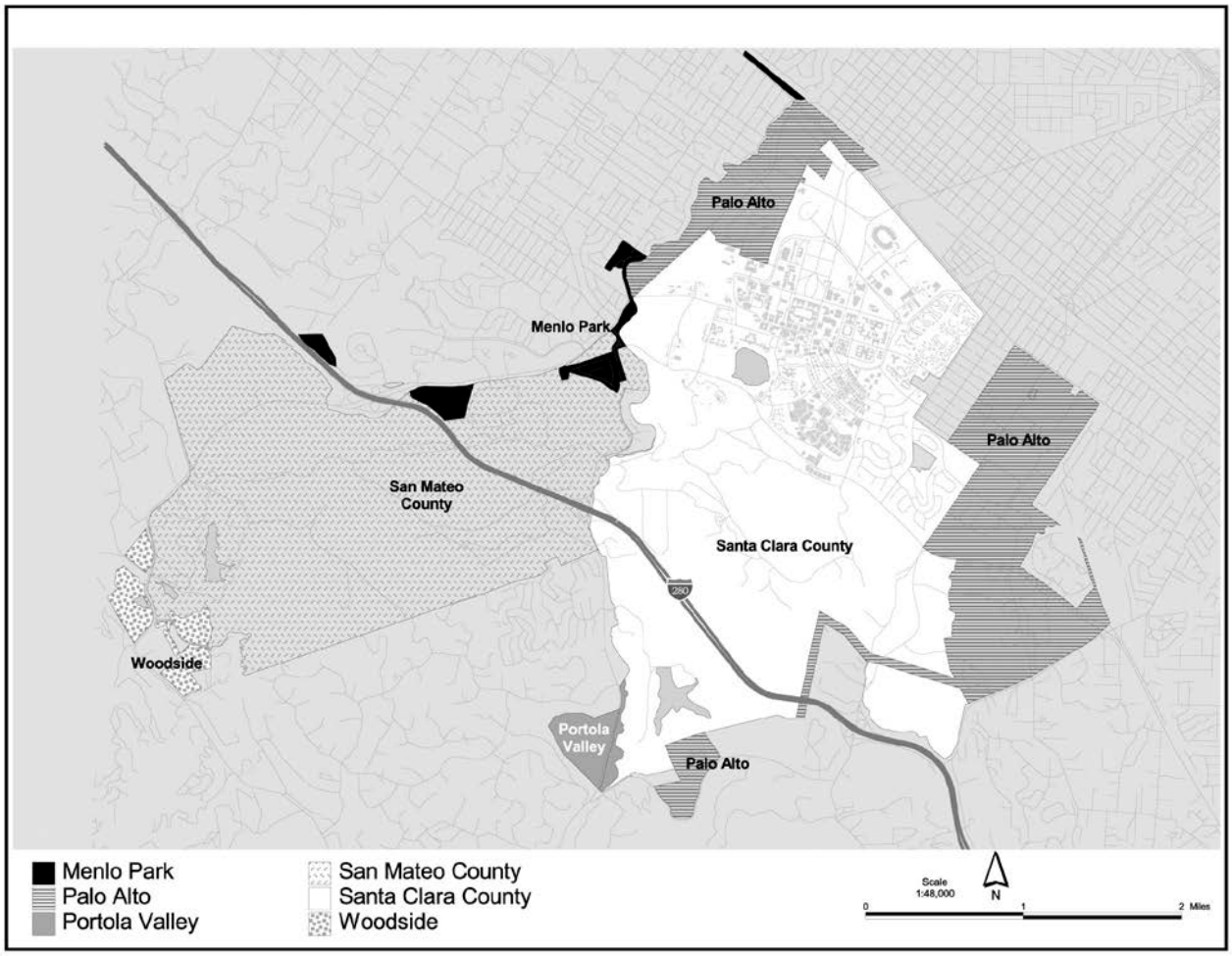
- Kavitha Kumar, Associate Planner (Project Manager: Stanford Environmental Mitigation Monitoring and Reporting Program), Planning Office
  (408) 299-5783/kavitha.kumar@pln.sccgov.org
- Gary Rudholm, Senior Planner, Planning Office
  (408) 299-5747/gary.rudholm@pln.sccgov.org

Stanford University Data Providers

- Charles Carter, Director, Land Use and Environmental Planning
- Catherine Palter, Associate Director, Land Use and Environmental Planning
- Maria Cacho, Senior Environmental Planner/Analyst
- Joe Ryan, GIS Specialist
- Karin Saray Moriarty, Media Specialist

Appendix A
Reference Maps

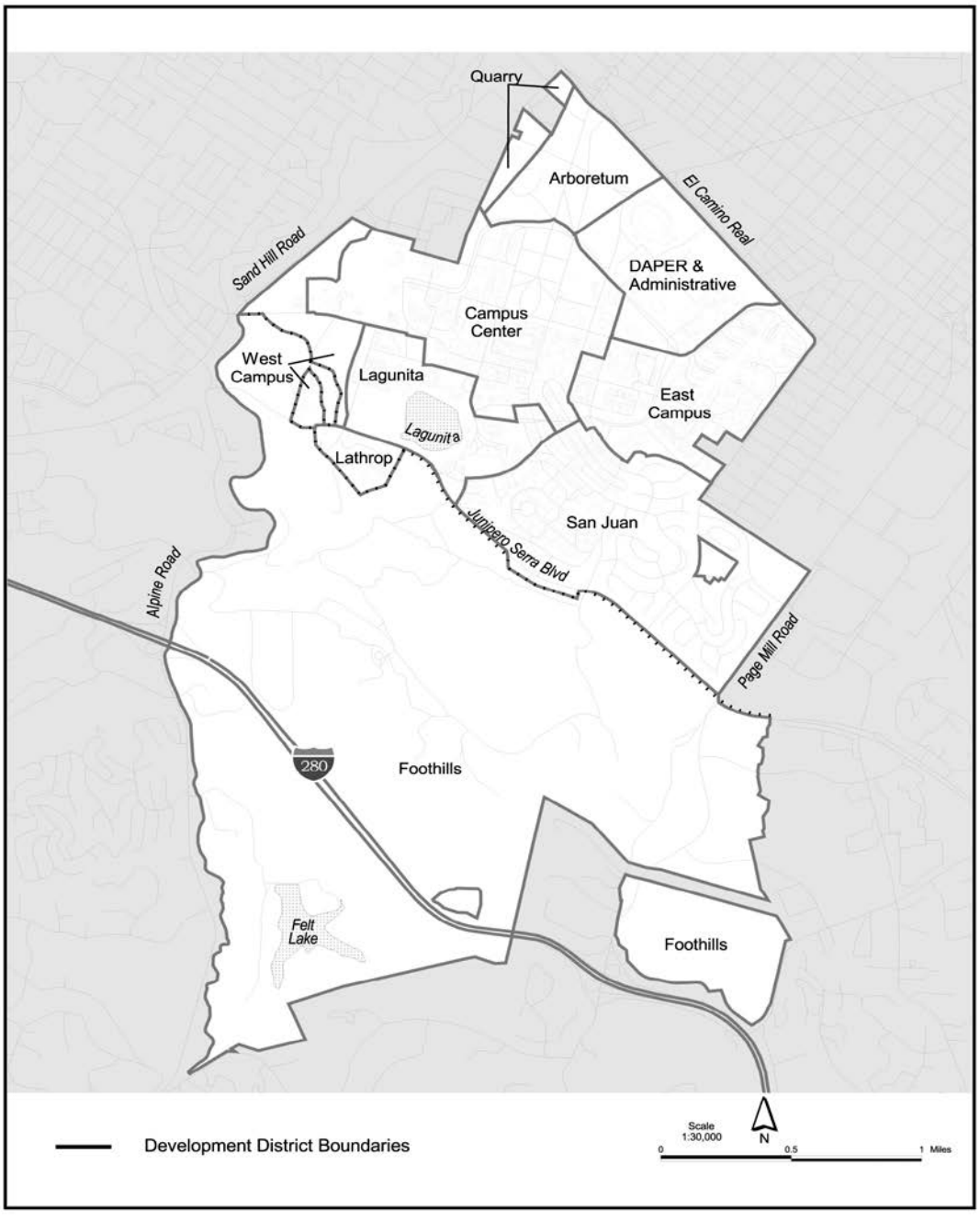
Appendix A
Reference Maps



Source: Stanford University General Use Permit, December 2000

MAP A-1
GOVERNMENTAL JURISDICTIONS ON STANFORD LANDS

Appendix A
Reference Maps

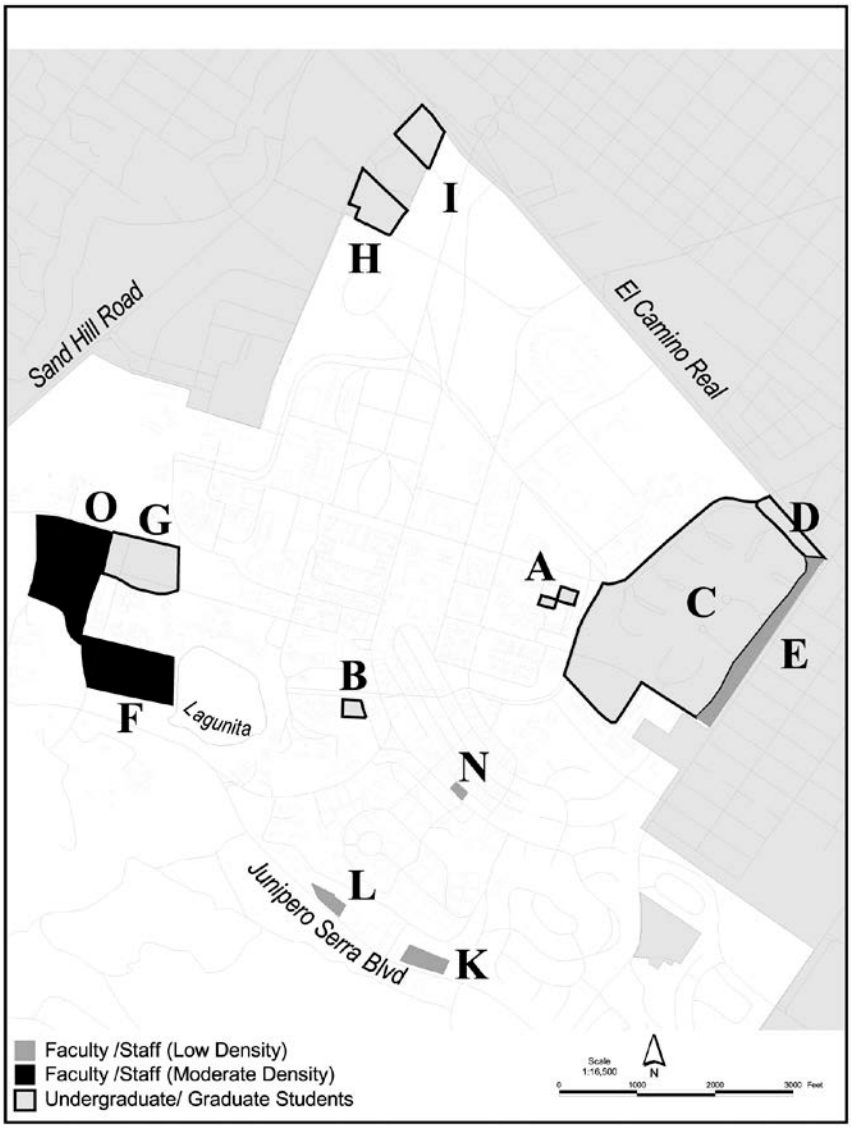


Source: Stanford University General Use Permit, December 2000

MAP A-2
STANFORD UNIVERSITY DEVELOPMENT DISTRICTS

Appendix A
Reference Maps

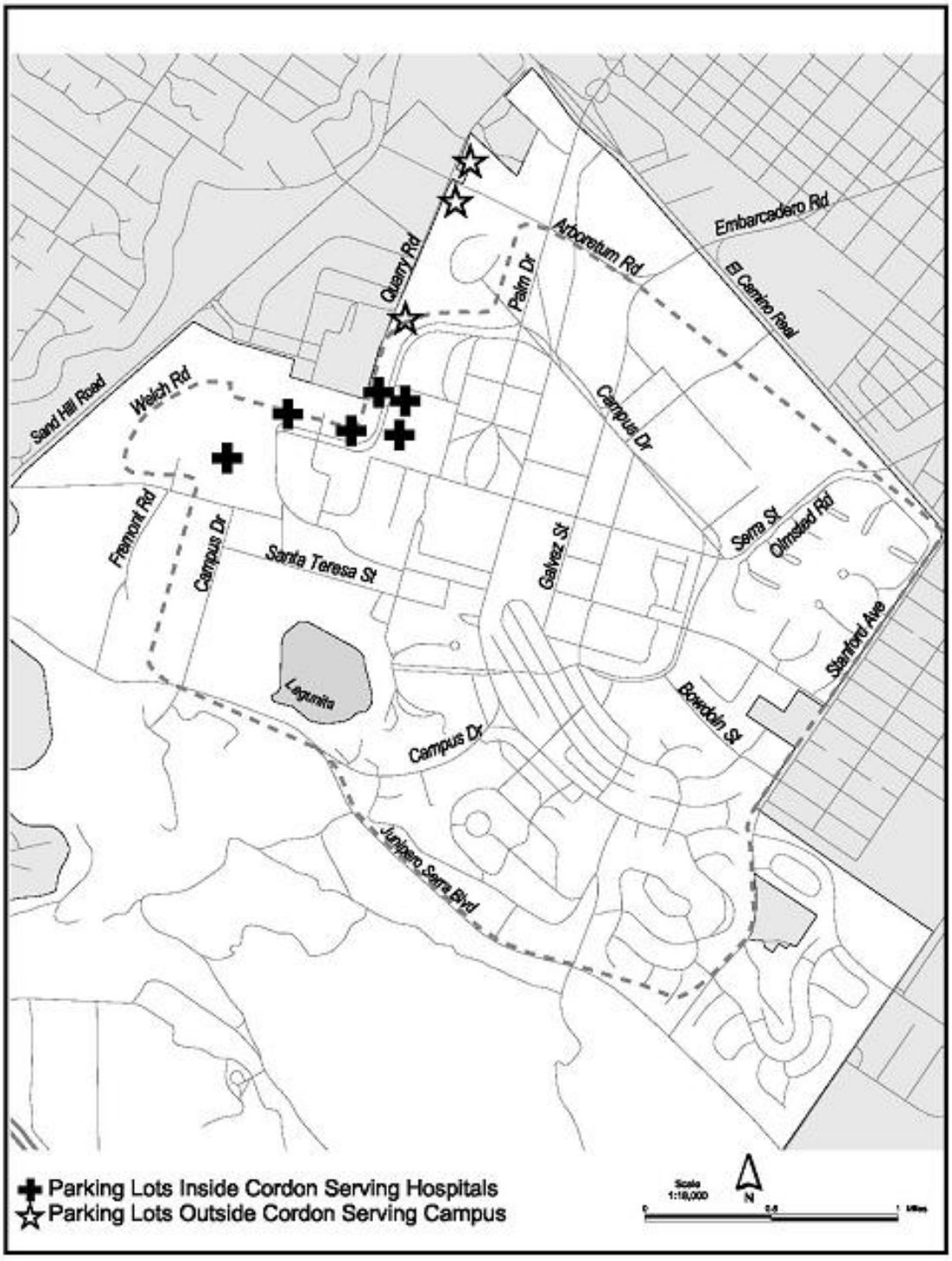
- ***A*** *Manzanita*
- ***B*** *Mayfield/Row*
- ***C*** *Escondido Village*
- ***D*** *Escondido Village*
- ***E*** *Escondido Village*
- ***F*** *Driving Range*
- ***G*** *Searsville Block*
- ***H*** *Quarry/Arboretum*
- ***I*** *Quarry/El Camino*
- ***K*** *Lower Frenchman's*
- ***L*** *Gerona*
- ***N*** *Mayfield*
- ***O*** *Stable Sites*



Source: Stanford University General Use Permit, December 2000

MAP A-3
POTENTIAL HOUSING SITES

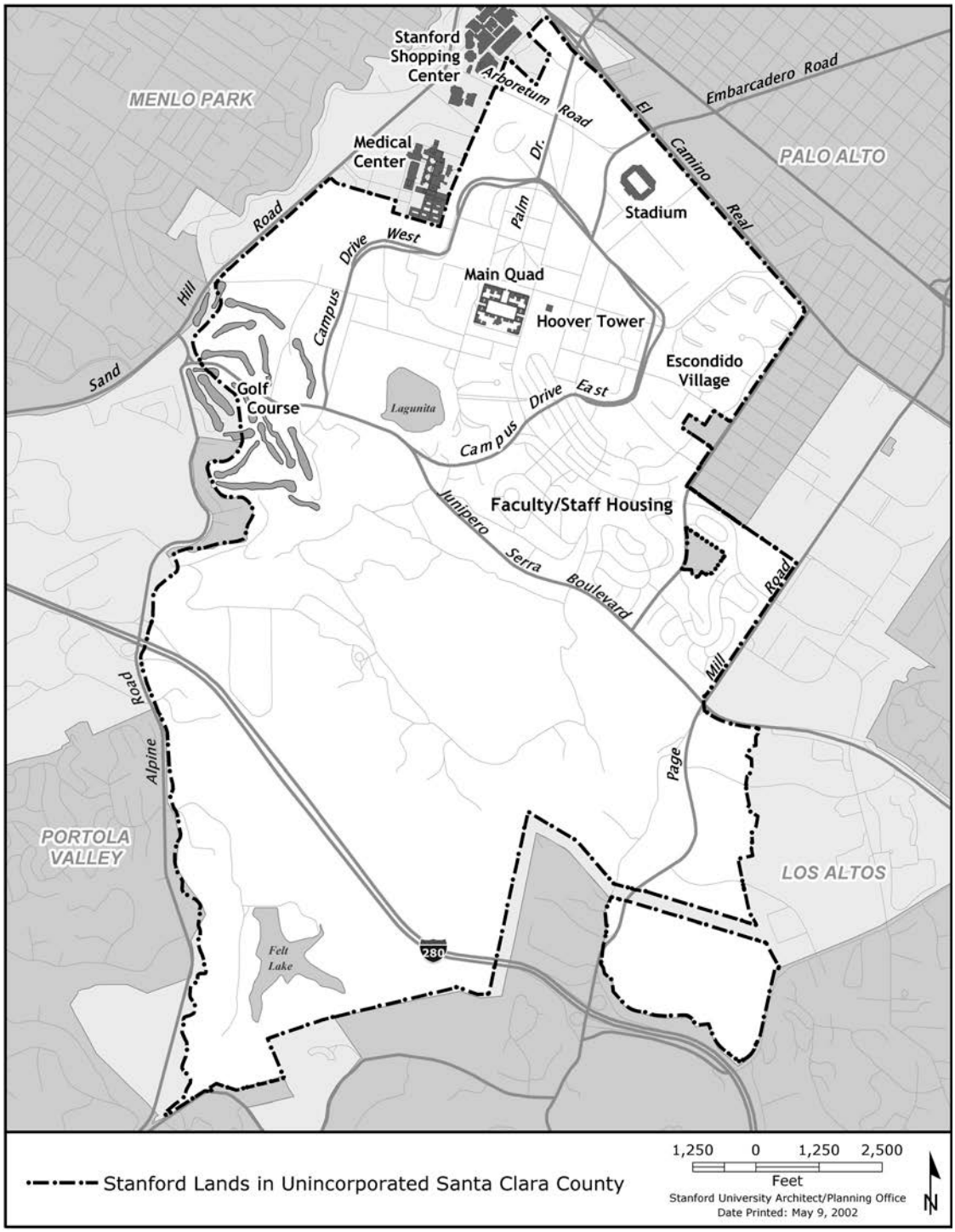
Appendix A
Reference Maps



Source: Stanford University General Use Permit, December 2000

MAP A-4
TRAFFIC MONITORING CORDON BOUNDARIES

Appendix A
Reference Maps



MAP A-5
GENERAL ORIENTATION MAP OF STANFORD UNIVERSITY
(UNINCORPORATED SANTA CLARA COUNTY)

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, 9 housing units received final framing inspection. As of August 31, 2012, the cumulative housing units are 1,457, as shown in Section II (Table 3). During the AR 12 reporting period, there was a net decrease of 236 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. During AR 12, surge space for a temporary child care facility was added, as shown in Section II (Table 2).
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. During AR 12, no additional projects in this category were constructed, as shown in Section II (Table 2).
B.	**Framework**	
B.1.	Development under the GUP must be consistent with the Community Plan and General Plan.	Twenty-three 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

Appendix B
GUP Conditions and Compliance Activities

GUP Condition		Stanford Compliance
		costs associated with report production and distribution) in a timely manner.
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, 2011 to August 31, 2012.
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 12th 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 12 was presented to the CRG on April 11, 2013.
C.2.e.	Presentation of the Annual Report to the Planning Commission in June of each year.	This Annual Report 12 is scheduled for presentation to the Planning Commission at the June 27, 2013 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, 2011 and August 31, 2012.
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) 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.	Twenty-three 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 23 ASA/ASX applications for projects proposed under the 2000 GUP. All approved projects were in compliance with GUP conditions. For additional details, see Section II of this annual report. The Special Conservation Area Plan (Condition K.7) was submitted by Stanford in 2001, but has not been accepted by the County. The County is waiting for the Stanford HCP to be approved and adopted before directing Stanford with specific requirements for

GUP Condition		Stanford Compliance
		modification and re-submittal.
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 environmental assessments were required for any other projects in the 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 District. (See Section IV Project Summaries for details).
E.2.	Deviation from the proposed distribution of academic development.	During the reporting period, redistribution of academic development was not proposed.
E.3.	Maximum allowable development in the Lathrop District shall be 20,000 square feet.	No development was proposed for the Lathrop District during the reporting period.
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. 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.	Three dorm renovation projects adding 9 student units were completed. To date, 1,457 housing units have been built or framed.
F.2.	Other allowed housing sites.	During AR 12 reporting period, no housing projects were proposed on sites other than those designated on Map 3, 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 projects proposed during the reporting period deviated from the GUP distribution of housing.
F.5.	No housing may be constructed in the	No housing projects were proposed for any of these

GUP Condition		Stanford Compliance
	Foothills, Lathrop, or Arboretum districts.	districts during the reporting period.
F.6.	Compliance with affordable housing requirement.	Stanford has complied with the affordable housing requirement. Stanford pays the in-lieu fee for applicable projects prior to occupancy. Stanford University has complied with County requests for in-lieu. As of May 2012, the affordable housing fees are assessed at the rate of $18.44 per square foot of net new academic or academic support space approved under the building permit. Stanford has made affordable housing fee payments to date (as of August 31, 2012) totaling $18,838,941.96. Six affordable housing projects have been funded so far, with the funding of $16,105,591.00. The six projects built within the 6 mile radius from Stanford Campus boundary have provided 369 affordable housing units, with 157 units restricted to very low income to extremely low income families.
F.7.	Allowance for additional housing beyond 3,018 units.	No additional housing was proposed.
F.8.	Housing linkage requirements.	The GUP requires 1,210 housing units to be provided as part of a housing "linkage" to Stanford development of 1,000,000 cumulative sq. ft. of academic square footage. Stanford has constructed a total of 1,457 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.
G.2.	Continued compliance with 1989 GUP transportation requirements.	Stanford continues to offer and further expand the following programs that were in effect during the 1989 GUP: Marguerite shuttle system, carpool incentives, vanpool services, bicycle and pedestrian services, alternative transportation promotional activities, and staff support of alternative transportation programs. Several program changes were made in previous years, which have helped encourage the use of

GUP Condition		Stanford Compliance
		alternative transportation as a means of arriving and departing the campus, and are described fully in AR 9. Changes to the programs are described in subsequent annual reports. In 2011-12, the Zipcar program expanded to 50 cars. Self-serve bike repair stands were installed at additional locations on campus. New bike lockers and bike rack spaces were added around campus. The P&TS website was expanded to include new, updated information. The Marguerite shuttle system was expanded, and now has 18 routes and over 50 buses, with some buses equipped with WiFi. Marguerite ridership grew to over 1.8 million riders, an increase of 24 percent over the previous year. Three new diesel-electric hybrid buses were added to the bus fleet, along with other equipment. Stanford continues to be the only Platinum level recognition of a university from the League of American Bicyclists for the outstanding bicycle friendly environment it has created. The Commute Club, now with over 8,000 members, celebrated its 10 year anniversary.
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.	Year 11 cordon counts were conducted in Spring 2012 and completed in Fall 2012. The average AM trip count was 3,287 and the average PM trip count was 3,590, which is 144 vehicles increase over the baseline. This represents an increase of 35 vehicles over the 90% confidence level. Stanford applied for a trip credit of 301 trips for the PM peak hour outbound traffic. With the application of the trip credits, the PM outbound traffic is 302 trips below the 1% established trigger. These peak hour counts were less than the trip limits established by the 2001 baseline counts with a 90% confidence level and 1% trigger once the trip credits were considered. Therefore, Stanford complied with GUP Condition G.6.
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	The traffic counts were conducted in Spring 2012 and completed in Fall 2012 by the County's traffic

GUP Condition		Stanford Compliance
	volume.	consultant, AECOM Engineering. As described in Appendix D of this report, the results of the 2012 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.
G.8.	Off-campus trip reduction.	During AR 12, Stanford received 301 trip credits for off-campus trip reduction.
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.	Project-specific traffic studies were prepared for Galvez Parking Lot during the reporting period.
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.
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.	The full JSB/Stanford Avenue Multi-Jurisdictional Group did not meet during the reporting period; however, an ad hoc working group including Stanford, the SCRL and County Roads and Airports (CR&A) met on several occasions regarding the JSB traffic calming project. In June 2010, County Supervisor Liz Kniss announced that the County

GUP Condition		Stanford Compliance
		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 August 2011. A draft Initial Study was issued for administrative review in November 2011. A final CEQA document was certified in March 2012. CR&A anticipated starting construction in spring of 2012 but the project has been delayed pending completion of PG&E gas line replacements on JSB in 2013.
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 a net decrease of 236 parking spaces on the campus for a total cumulative decrease since September 1, 2000 of 1,013 spaces. Changes in parking occurred in the Lagunita, Campus Center, Arboretum, East Campus, and Quarry Development Districts. See Section II, Table 4, and Appendix C-3 for details.
H.2.	Residential Parking Permit Program.	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.	On 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. <u>Construction of S1 Trail</u>: 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

GUP Condition		Stanford Compliance
		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. Pending Elements: All approvals and permits for construction of the C2/ Arastradero Trail in Los Altos Hills are in-hand (with the exception of sign-off from the Town Engineer). Start of construction is scheduled for May 1, 2013 and completion is anticipated in August 2013. San Mateo County and Stanford did not reach agreement for the San Mateo C1 segment and in February 2012, Stanford paid the County 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. The Board also directed County Administration to negotiate projects agreements for the selected projects and submit approval to the Board consistent with the requirements of CEQA. It is expected that the project agreement for the Stanford Perimeter Trail will be considered by the Board in late 2013 or 2014.
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.	No habitat protection easements were established.
J.2.	Specifics of habitat protection easements.	No habitat protection easements were established.
J.3.	Creation of breeding ponds for CTS prior to	No development was proposed within 500 meters of

GUP Condition		Stanford Compliance
	issuance of a building permit for a proposed building project on occupied CTS habitat.	Lake Lagunita that would remove occupied habitat.
J.4.	CTS monitoring.	The County contracts with an independent consulting firm, Environmental Science Associates, to perform CTS monitoring as needed.
J.5.	Project specific measures in CTS Management Zone.	None of the projects approved during the reporting period affected CTS habitat.
J.6.	Operational measures required within the CTS Management Zone.	Stanford implemented the required operational measures within the CTS Management Zone.
J.7.	Continued compliance with 1998 CTS Management Agreement.	Stanford continued to comply with the 1998 CTS Management Agreement.
J.8.	CTS passage ways across Junipero Serra Boulevard.	Construction of three CTS tunnels across Junipero Serra Boulevard was completed in November 2003, prior to the GUP deadline of December 11, 2003.
J.9.	U.S. Fish and Wildlife Service permit prior to construction on occupied CTS habitat if CTS is listed as threatened or endangered.	On August 4, 2004, the U.S. Fish and Wildlife Service listed the CTS as threatened in its entire range. Therefore, compliance with the Endangered Species Act is required. Stanford initiated preparation of a Habitat Conservation Plan (HCP) and scoping for the HCP Environment Impact Statement was conducted in Fall 2006. Stanford submitted applications to the U.S. Fish and Wildlife Service and NOAA Fisheries for Incidental Take Permits, supported by the Draft HCP, in April 2008. In April 2010, the draft Stanford University Habitat Conservation Plan and Draft Environmental Impact Statement were released for public review by the federal agencies. Santa Clara County submitted a comment letter on August 30, 2010 requesting certain changes to the HCP, and indicating that "[t]he County believes incorporating the changes listed in Attachment A would improve the HCP and would assure the HCP satisfies the GUP condition #J.9." The requested changes will be incorporated into the Final HCP, which was made available in November 2012.
K.	**Biological Resources**	
K.1.	Special-status plant surveys.	One 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 twelve surveys for breeding raptors and migratory birds potentially affected by Stanford projects.
K.3.	Oak woodland habitat – create or restore at a 1.5:1 ratio for proposed building projects located in oak woodland area.	No projects were proposed within oak woodland habitat, as mapped in the 2000 EIR, during this reporting period.

GUP Condition		Stanford Compliance
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 oak trees greater than 12 inches diameter at breast height (dbh) in the ASA applications for this project.
K.5.	Stanford to hire biological consultant to prepare wetlands description.	Compliance with this requirement was achieved during the AR 3 reporting period. Future wetland delineations may be required in compliance with Army Corps of Engineers guidelines.
K.6.	Updates to CA Natural Diversity Database.	Stanford submitted CNDDB sheets to the County for California tiger salamander (three seasons of data) and California red-legged frog (four years of data) in May 2003. No additional findings have been submitted.
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 Planning Office staff is waiting for the adoption of the Stanford HCP to direct Stanford with specific requirements for modification and re-submittal.
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,* which was 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 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

GUP Condition	Stanford Compliance
	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 57 course offerings. Stanford staff, faculty, and students through both on-line and classroom sessions completed a total of 29,477 trainings. Stanford also extends its training efforts by providing training and information resources on the World Wide Web at http://ehs.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 were updated and submitted to the Santa Clara County Environmental Health Hazardous Materials Compliance Division. 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 met regularly during the reporting period, including holding one public meeting. 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 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

GUP Condition		Stanford Compliance
		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. In FY 2012, EH&S redistributed 109 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 regard 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. 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 of the West Campus detention basins. With these improvements and the detention basins constructed previously in the Matadero watershed, Stanford has mitigated anticipated runoff from a substantial portion of its future development under the 2000 GUP in compliance with Conditions N.2 and N.3.

GUP Condition		Stanford Compliance
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. An initial phase of this plan was implemented when the Stock Farm/Sand Hill Road Detention Basins were completed during the AR 4 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 approved by the Santa Clara Valley Water District 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.
N.5.	Review and approval for storm water/ groundwater recharge facilities.	The ASA and grading or building permit-approved projects during the 12th 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, to avoid impacts with respect to reduced groundwater recharge. Stanford and the County will track whether the cumulative increase in impervious surface is less than the amount that can be mitigated by the constructed basins.
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 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. All projects listed below were either terminated or started from the period September 2, 2011 through August 31, 2012 and can be viewed via the State Board's SMART system

GUP Condition	Stanford Compliance
	located at http://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp. Projects terminated from September 1, 2011 – August 31, 2012 • Stanford 3025 Terman Demolition, WDID #2 43C361889 Projects started/continuing from September 1, 2011 – August 31, 2012 • SESI Temporary Laydown Yard, WDID # 2 41W000807 • Stern Wilbur Recreation Field, WDID # 2 41W000810 • 3235 SESI Piping Distribution Storage, WDID # 2 41C363957 • 3239 Galvez Parking Improvements, WDID # 2 43C363981 • Stanford Concert Hall, WDID # 2 41C357599 • 3119 West Campus Rec Center, WDID # 2 41C361684 • BioEChemE GinztonDemo, WDID # 2 41C360696 • Stanford 3114 Comparative Medicine Pavilion, WDID # 2 41C362972
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 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

GUP Condition		Stanford Compliance
		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.
N.9.	Permit from Santa Clara Valley Water District for any proposed construction, demolition, grading, landscaping within 50-feet of the top of the bank.	In 2007, SCVWD adopted an approach to defer to local permitting agencies for work conducted in creeks, and no longer require SCVWD 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.
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.	The County assessed the historical signification of the Anatomy building and the Quonset Hut before they were demolished.
O.2.	Requirements for remodeling, alteration, or physical effect on structures that are 50 years old or more.	Four housing renovation projects that received ASA were assessed because they were proposed to remodel or alter structures that are more than 50 years old.
O.3.	Archaeological resources map.	The Stanford archaeologist provided draft maps to the County Planning Office in March 2001. 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.
O.4.	Required actions if fossilized shell or bone is uncovered during earth-disturbing activities.	No fossilized shell or bone was uncovered during 2000 GUP construction activities.

GUP Condition		Stanford Compliance
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. 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.
P.3.	Fire protection response times.	The City of Palo Alto did not notify Stanford of lengthened response times or the need to provide new routes.
P.4.	Water conservation and recycling master plan.	Stanford has performed effective conservation outreach and education, as evidenced by County staff discussions with campus facility managers. Stanford also has undertaken numerous water conservation projects, including installation of water misers, toilet retrofits, low flow jet spray nozzles, and Maxicom controls. The County continues to monitor Stanford implementation of the approved master plan as a measure of compliance with this condition. The County consults with the SCVWD to determine compliance. The SCVWD assessment is that Stanford appears to be implementing aggressive water conservation measures. The University has completed the plan and it was approved.
P.5.	Annual daily average water use.	The allowed 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 2011-12 year was 2.16 mgd.
P.6.	Information on wastewater capacity and generation.	Stanford submitted project-specific wastewater capacity information as necessary with ASA application materials.
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	Grading activities associated with 2000 GUP projects that commenced during the reporting period complied

GUP Condition		Stanford Compliance
	for construction activities.	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. No projects crossed the 25,000 square feet of laboratory space and 50 fume hoods threshold.
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 construction hours as specified by the County Noise Ordinance.
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.	Limits on fireworks displays.	The two fireworks events that are permitted under the GUP occurred during the reporting period.
R.5.	Maintenance of hotline for noise complaints.	A noise hotline is maintained (650) 724-4900. Three noise complaints were received during the AR 12 reporting period concerning party noise, loud music, and construction noise. Stanford and the County continue to work with and respond to neighborhood residents and their questions regarding the noise hotline.
S.	**Additional Conditions**	
S.1.	Acceptance of Conditions of Approval.	See Annual Report 1.

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

Appendix C
Cumulative Project

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.

Appendix C
Cumulative Projects

KEY TO MAP C-1 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 12 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 (2000-01)	N/A	None	N/A	0
Annual Report 2 (2001-02)	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 (2002-03)	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 (gsf 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)	

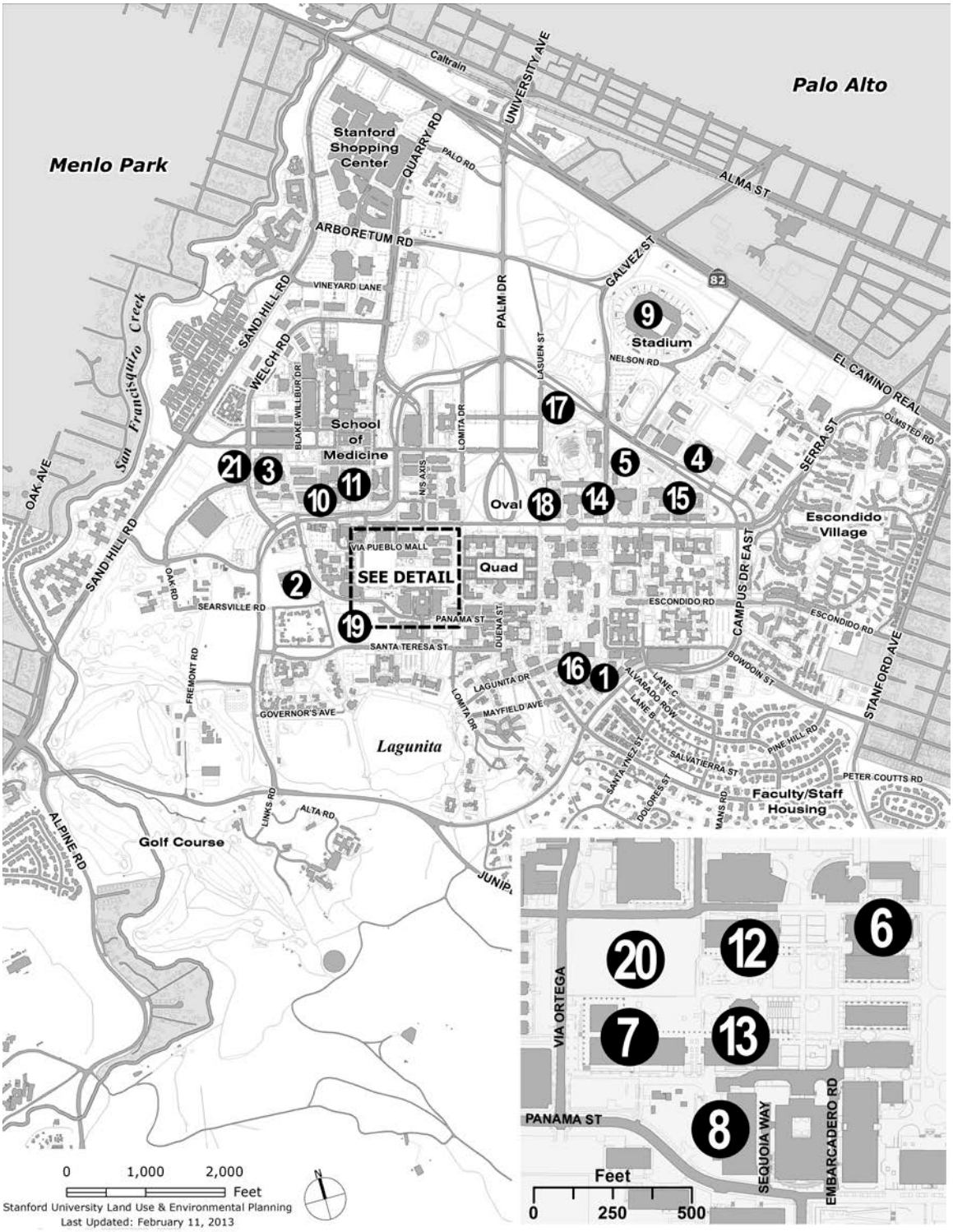
Appendix C
Cumulative Projects

KEY TO MAP C-1
ANNUAL REPORT 1 THROUGH ANNUAL REPORT 12
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 8 (2007-2008) continued	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)		Cobb Track Bleacher addition	3,950	72,776
		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 gsf 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)	
Cumulative Net Contribution toward 2000 GUP Building Cap:				**1,224,892**

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.

*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.



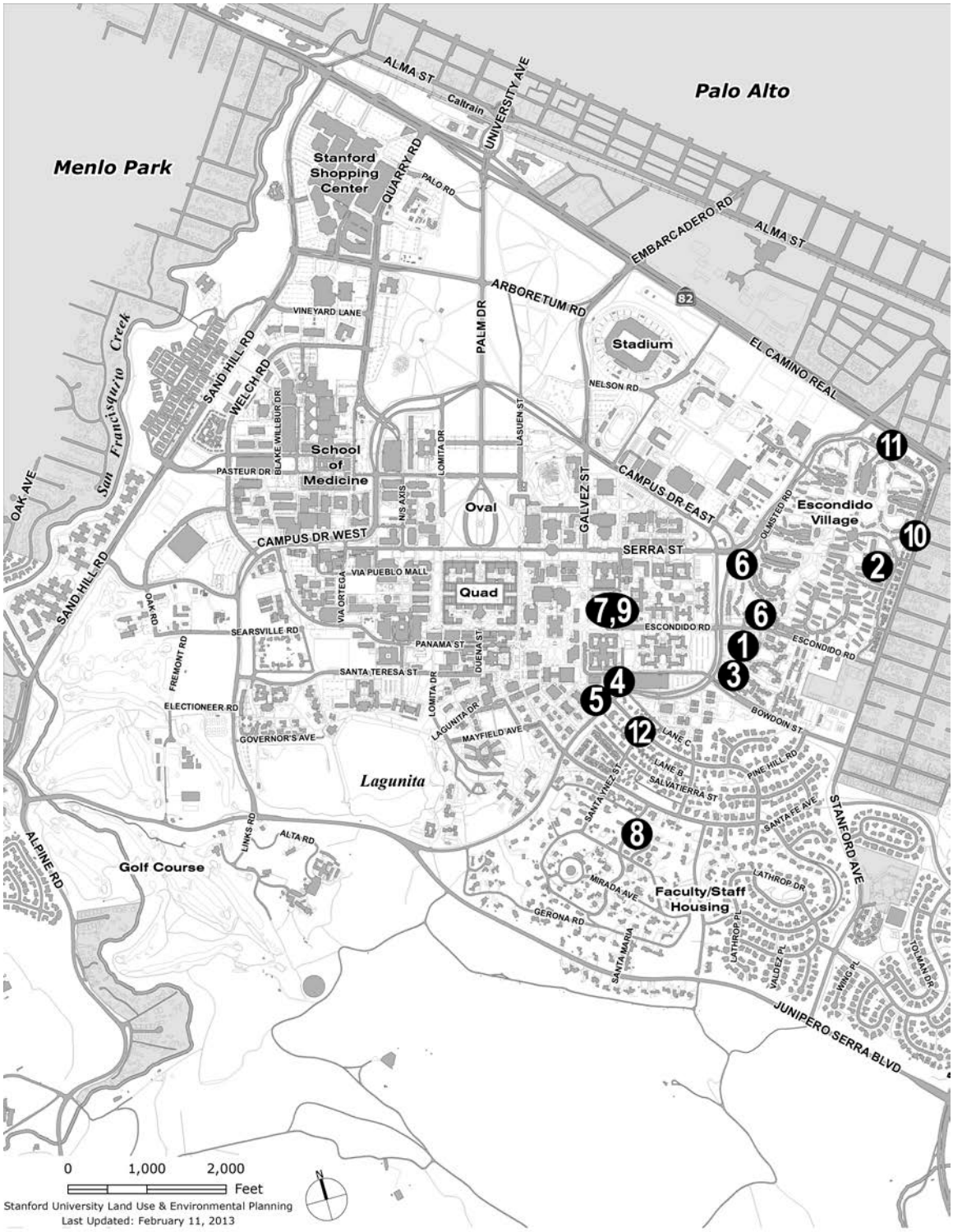
MAP C-1
CUMULATIVE BUILDING PROJECTS THAT AFFECT BUILDING AREA CAP
(GREATER THAN 10,000GSF)

Appendix C
Cumulative Projects

KEY TO MAP C-2 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 12 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		
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		
Cumulative Net Contribution toward 2000 GUP Housing Units			**1,457**	**790,757**	**1,457**	**702**

*Map C-2 illustrates the locations of housing projects that add more than one unit. Individual housing projects are not shown on Map C-2.

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



MAP C-2
CUMULATIVE HOUSING PROJECTS

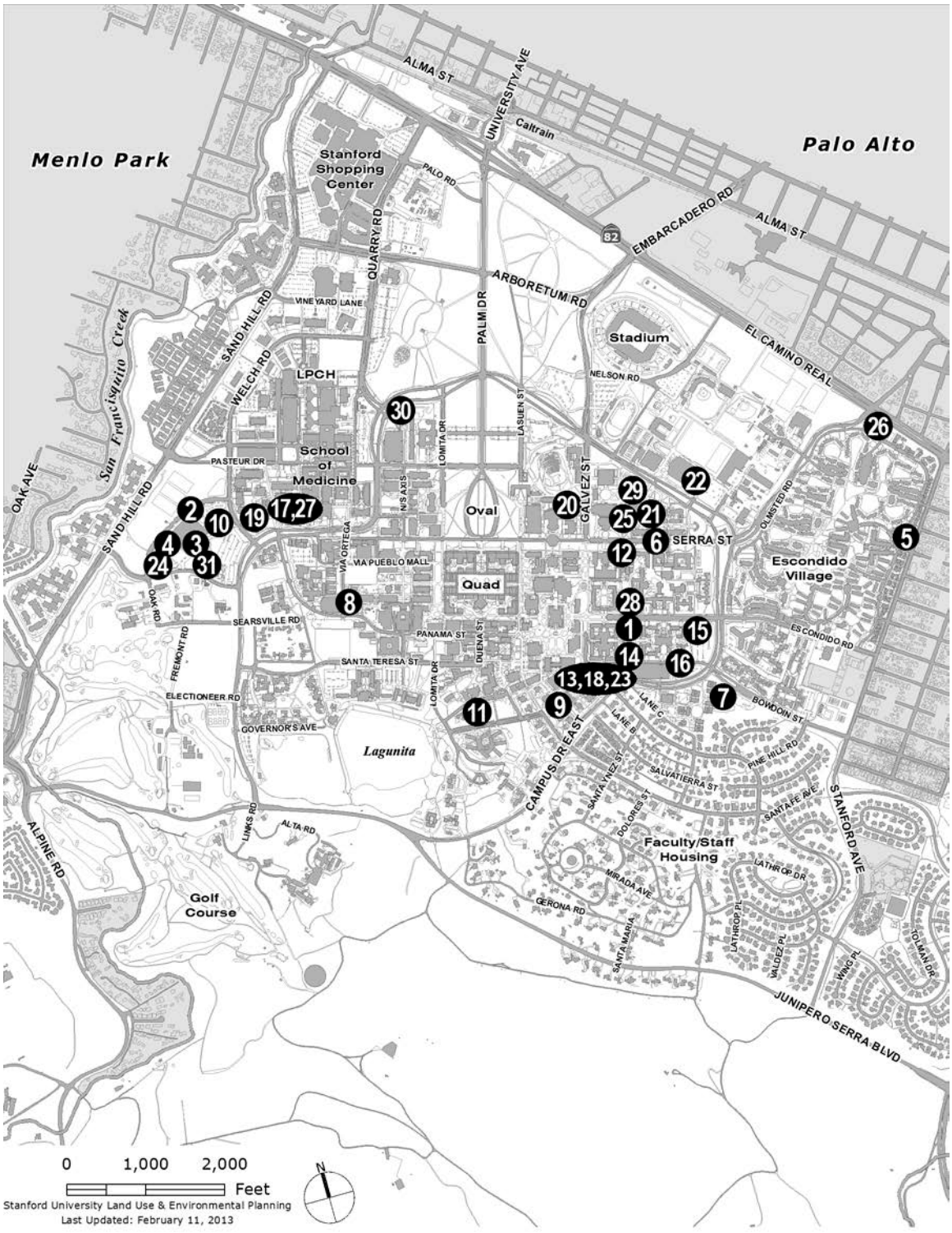
Appendix C
Cumulative Projects

KEY TO MAP C-3 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 12 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)	
		Misc. reconstruction/restripe/ADA	(69)	

Appendix C
Cumulative Projects

KEY TO MAP C-3 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 12 CUMULATIVE PARKING PROJECTS				
Annual Report 7 (2006-2007)	17	Li Ka Shing Center for Learning and Knowledge displacement	(505)	(798)
		Tresidder – Post House Relocation project	34	
	18	Munger Displacement	(369)	
		Misc. Reconstruction/restripe/ADA	42	
Annual Report 8 (2007-2008)		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)	30	Lasuen@Arboretum – Bing and Galvez	54	(221)
	31	Anatomy-McMurty Art - Anderson	(95)	
	32	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)	
Cumulative Net Contribution toward 2000 GUP Parking Cap:				**(1,013)**

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

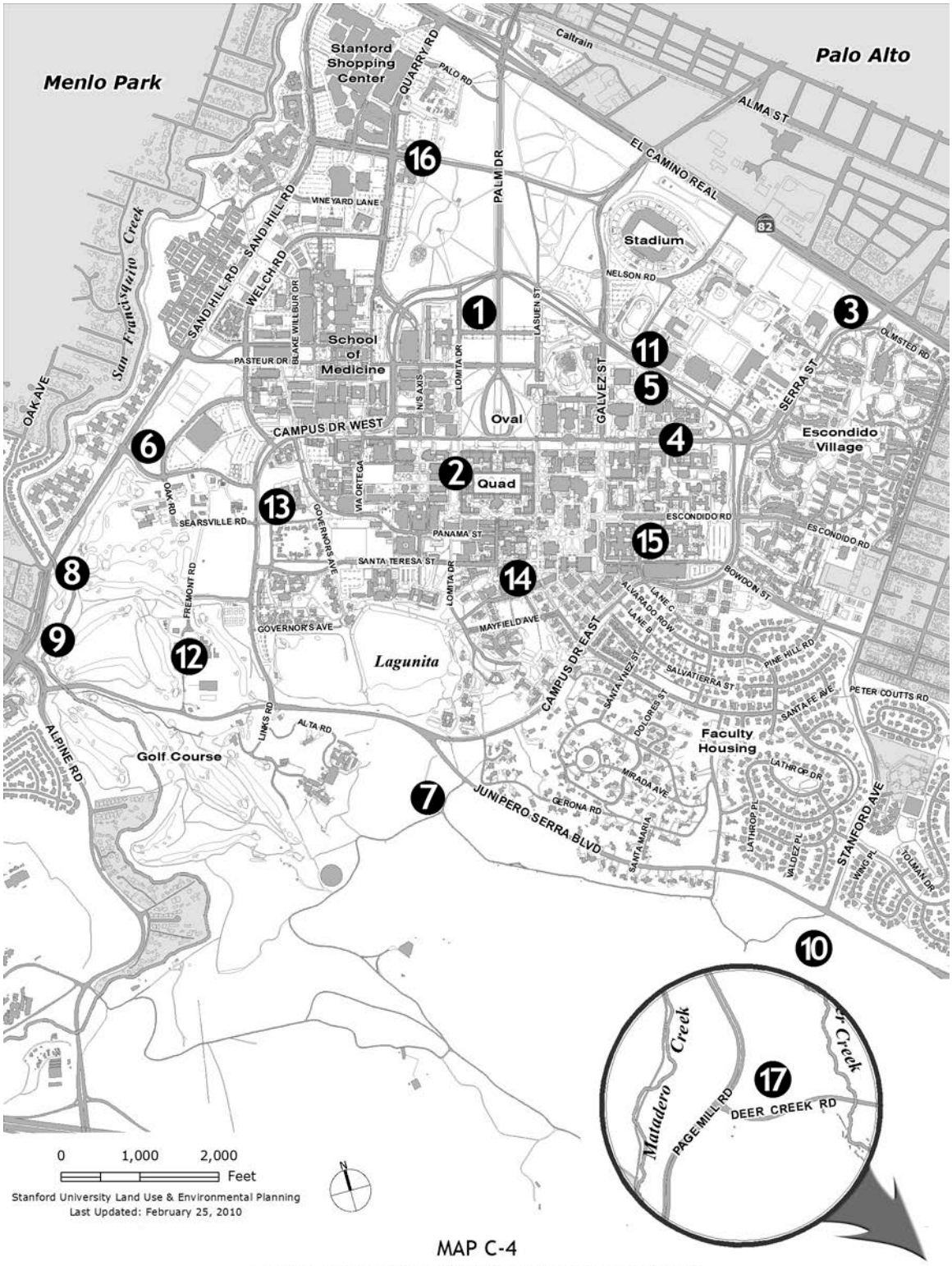


MAP C-3
CUMULATIVE PROJECTS THAT AFFECT PARKING INVENTORY (50 SPACES OR MORE)

Appendix C
Cumulative Projects

KEY TO MAP C-4 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 12 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

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

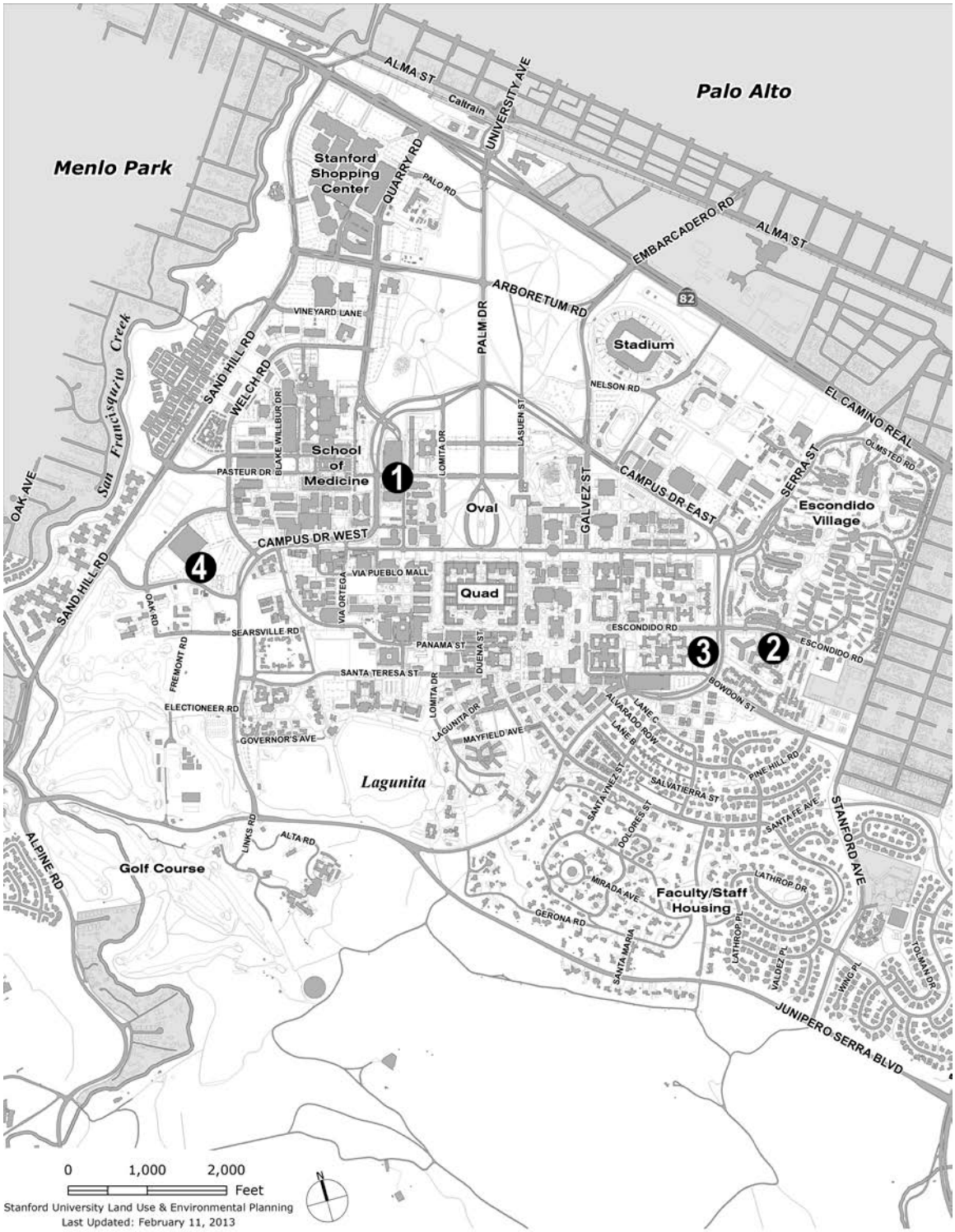
KEY TO MAP C-5
ANNUAL REPORT 1 THROUGH ANNUAL REPORT 12
CUMULATIVE BUILDING PROJECTS THAT DO NOT AFFECT BUILDING AREA CAP*

				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)		Wilbur Modular Removal	(-27,360)		(-27,360)	
		Old Union – Serra	N/A		21,495	
		Old Union – Lomita	N/A		7,680	

KEY TO MAP C-5
ANNUAL REPORT 1 THROUGH ANNUAL REPORT 12
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 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
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 11 (2010-2011)	4	Temporary Child Care Facility	10,560		10,560	
Cumulative Net Square Feet:			**159,121**	**92,229**	**39,135**	**36,362**

*Only projects greater than 10,000 sq. ft. in size are shown on map



MAP C-5
CUMULATIVE BUILDING PROJECTS THAT DO NOT AFFECT BUILDING AREA CAP
(GREATER THAN 10,000GSF)

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Appendix D
Summary Report of Traffic Monitoring
2001-2012

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.

Condition of Approval G.7 outlines the process for establishing the baseline counts and for continuing monitoring in subsequent years. 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 16 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 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.

Monitoring Results

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

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.

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.

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.

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 422 vehicles from the baseline, which is above the 90% confidence interval by 289 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.

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.

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.

The 2008 Monitoring Report concluded that the adjusted AM inbound count totaled 3,020 vehicles, which was a decrease of 419 vehicles from the baseline and did not represent a significant AM inbound traffic increase. The PM outbound count totaled 3,460 vehicles, which was a decrease of 95 vehicles below 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.

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.

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.

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.

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.

Appendix D
Summary of Traffic Monitoring

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	-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	-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	3,413
Baseline-established 90% Confidence Interval (2001)	+/- 120
Baseline-established Significant Traffic Increase (2001)	3,439
Baseline-established 1% Increase Trigger (2001)	3,474
Result	-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 (Falls above the 90% Confidence Interval by 87 vehicles)	+87
Result (Falls above 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 (Falls above the 90% Confidence Interval by 313 vehicles)	+180
Result (Falls above the 1% Trigger by 277 vehicles)	+144

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 381 vehicles)	-419
Result (falls below the 1% increase trigger by 416 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 61 vehicles)	-95
Result (falls below the 1% trigger by 97 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 381 vehicles)	-599
Result (falls below the 1% increase trigger by 416 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 61 vehicles)	-328
Result (falls below the 1% trigger by 97 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

Appendix D
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 (falls above the 90% confidence interval by 188 vehicles)	+188
Result (falls above the 1% increase trigger by 152 vehicles)	+152
2011 trip Credit	-203
Result with trip credits (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 above the 1% increase trigger by 1 vehicle)	-1
2012 Trip Credit	-301
Result with trip credits (falls below the 1% trigger by 302 vehicles)	-302

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 Survey – the last four digits of the license plates of each vehicle entering and exiting the campus is recorded 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 exiting vehicle's license plate with a 15-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. 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 1 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 1 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
2011 - 2012

Annual Report to Santa Clara County

November 2012

Introduction

Sustainability is a core value at Stanford, and the campus continues to make significant investments in and strides toward sustainability at the operational, academic, and programmatic levels.

Central to the academic endeavor has been the Initiative on the Environment and Sustainability, which boosted interdisciplinary research and teaching in all seven of Stanford's schools, as well as in interdisciplinary institutes, centers, and associated programs across campus, in recognition of the fact that solutions to complex challenges demand collaboration across multiple fields. The School of Earth Sciences, the School of Engineering, the Graduate School of Business (GSB), and the School of Medicine (SOM) are leaders in sustainability research and teaching. Leading institutes such as the Stanford Woods Institute for the Environment (Woods, founded in 2006) and the Precourt Institute for Energy (PIE, founded in 2009) serve as the academic integration points and coordination platforms for interdisciplinary research and programs.

Today, all seven schools offer a wide range of environmental and sustainability-related courses and research opportunities. Over 130 faculty members from 40 departments teach more than 750 courses in this arena, including courses designed by or affiliated with Woods and PIE.

The Department of Sustainability and Energy Management (SEM) within Land, Buildings & Real Estate (LBRE) leads initiatives on campus physical infrastructure and programs in energy and climate, water, transportation, building operations, and information systems. The Office of Sustainability (founded in 2008) connects campus departments and entities and works collaboratively with them to steer sustainability-specific initiatives. The Office works on long-range sustainability analysis and planning, evaluation and reporting, communication and outreach, academic integration, behavior-based programs, and governance coordination.

Critical sustainability partners include Residential & Dining Enterprises (R&DE), which houses its own sustainable food and student housing programs; Stanford Recycling Center (run by Peninsula Sanitary Service, Inc., PSSI); University Communications; Government and Community Relations; the Alumni Association; and over 20 student organizations.

Sustainability is not a spectator sport but an opportunity for collective engagement at Stanford. Stanford's sustainability initiatives, like its other initiatives, follow the principle that actions speak louder than goals. This chapter discusses each major topic in terms of key accomplishments, results and trends, academic integration, and offers some insight into the work ahead.

Here are some of the most significant and unique accomplishments featured in "Sustainability at Stanford: A Year in Review, 2011–12".

- Stanford continues to produce leading interdisciplinary research to develop solutions to the world's most pressing environmental problems. Woods, PIE, and others awarded more than $14 million in 2011–12 to innovative new research projects.

- Stanford received a gold rating from the Association for the Advancement of Sustainability in Higher Education (AASHE) under its Sustainability Tracking, Assessment and Rating System (STARS). STARS is the first comprehensive sustainability performance assessment and national rating system developed by and for leaders in higher education sustainability. Of over 1,100 AASHE members, Stanford became one of just 35 to earn a gold rating, the highest level awarded to date.
- Stanford has committed to transforming its energy system through Stanford Energy System Innovations (SESI), which will reduce greenhouse gas (GHG) emissions by 50% and total campus potable water use by 18%. The Board of Trustees approved this $438 million program in December 2011, and implementation started in summer 2012.
- Stanford reduced domestic water use on campus 21% in 2012 from a 2000 baseline, despite adding more than one million gross square feet (GSF) to the building portfolio.
- The GSB's Knight Management Center received formal LEED for New Construction Platinum certification, the highest rating level awarded by the U.S. Green Building Council (USGBC). The 360,000-square-foot facility integrates sustainability into every aspect of its design and operations.
- The employee drive-alone rate dropped to 47%, down from 72% in 2002 at the inception of the formal Transportation Demand Management (TDM)program. Commute-related emissions remain below 1990 levels. The Commute Club celebrated its 10-year anniversary and now includes 8,000 members, compared to just 3,600 when the program started.
- The award-winning Arrillaga Family Dining Commons opened—the first new campus dining hall in nearly two decades. Besides winning first place in the Montague Suite Dreams Design Challenge, the state-of-the-art dining hall is on the cutting edge with initiatives such as Performance Dining and a learning kitchen designed to bring students closer to their food through curriculum enhancements.
- Stanford's waste and recycling program (run by PSSI) doubled the number of food-waste bins located in graduate housing to make home composting more convenient. A pilot office composting program now includes more than 27 collection points and has diverted more than 750 pounds of food waste per month from the landfill.
- Students continued to galvanize the campus community around environmental issues by organizing a number of different events, such as Sustainable Seafood Month, Environment and War Week, and the Art and Science of Sustainability Colloquium.
- A consortium of senior faculty, staff, and student leaders in campus sustainability worked to develop a strategic plan to expand and enhance sustainability over the next five to ten years. Major goals stemming from this effort, dubbed Sustainability 3.0, include leading by example through on- and off-campus actions and maintaining a global influence through sustainability in research, education, and operations.

- Celebrating Sustainability, the first event focused on sustainability and planned jointly by operational and academic entities, unveiled the common goals, strategies, and actions that will guide sustainability at Stanford in future years.

This appendix is a snapshot of various activities and accomplishments by various academic and operational departments for use in the GUP Annual Report. Some of them are big initiatives, others are small. Some programs are for long-term implementation, others completed this year. All activities are strategic, inclusive, and collaborative parts of the integrated and flourishing culture of sustainability at Stanford. A more detailed description of all of Stanford's sustainability programs is provided in
Sustainable Stanford: A Year in Review 2011-12, available at the Sustainable Stanford website at
<http://sustainable.stanford.edu/sites/sustainable.stanford.edu/files/documents/Sustainability_YIR_11-12.pdf>.

Sustainability in Campus Operations

The first set of featured topics focuses on the operational milestones and performance achievements during academic year 2011–12.

Since 2000, Stanford has maintained detailed performance records in the key operational areas of energy, greenhouse gas (GHG) emissions, transportation, waste, and water. As the table below shows, the campus has either maintained or lowered consumption per usable square foot (USF) in all areas, despite growth and the addition of nearly one million square feet of high-intensity research laboratory space.

Operational Sustainability Metrics Summary

Metric	Trend	Baseline Year
Total Energy Use	11%	2000
Total Energy Intensity	6%	2000
Greenhouse Gas Emissions	8%	2007*
Greenhouse Gas Intensity	0.7%	2007*
Landfilled Waste	30%	2000
Drive-Alone Rate	25%	2002*
Domestic Water Use	21%	2000
Domestic Water Intensity	33%	2000

* Years other than 2000 denote formal program start dates and/or the earliest years for which metrics are available.

The next page provides a more detailed review of operational metrics with annual consumption breakdown starting in 2000, the baseline year for most data.

Stanford remains vigilant in analyzing these performance metrics to calibrate operations decisions and management approaches, quantify the impacts of conservation programs, and tailor future initiatives to meet specific campus needs. The topics that follow provide detailed discussions and more specific metrics for each area.

Each topic featured in this report is fundamentally interconnected with other topics, either in planning or in implementation. Hence, the topics are presented with those interconnections and interdependencies in mind and are flagged with related topic icons.

We hope you enjoy all of them.

STANFORD UNIVERSITY OPERATIONAL SUSTAINABILITY METRICS

Sustainability Area	Metrics	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Energy													
Electricity	kwh (in millions)	175.4	175.1	176.3	180.8	186.8	190.3	194.5	198.2	198.9	198.9	206.2	207.8
	kwh/usf [1]	17.4	17.0	16.8	17.2	17.4	17.6	17.8	18.1	18.1	17.6	17.4	17.4
Steam	lbs (in millions)	798.7	847.7	860.5	865.4	878.8	904.4	876.1	858.4	883.5	825.7	848.2	839.0
	lbs/usf	90.6	96.9	98.5	99.1	97.9	99.9	96.2	92.8	95.0	85.8	83.3	82.1
Chilled Water	ton-hr (in millions)	48.0	48.0	49.8	54.3	59.9	55.4	53.5	53.6	56.3	56.2	52.8	55.1
	ton-hr/usf	6.6	6.7	6.9	7.5	7.9	7.1	6.8	6.7	7.0	6.8	5.9	6.2
Greenhouse Gas Emissions													
Publicly Reported Emissions [2]	$MTCO_2$	n/a	n/a	n/a	n/a	n/a	n/a	168,400	182,900	180,700	182,400	195,800	198,300 [3]
Emissions Intensity	lbs of CO_2/gsf [4]	n/a	n/a	n/a	n/a	n/a	n/a	25.53	26.64	26.48	27.48	27.23	26.45
Waste Minimization													
Total Diverted	tons	11,276	11,300	11,587	11,047	13,629	12,668	14,732	13,193	14,686	15,251	14,261	12,814
Total Landfilled	tons	11,495	10,194	10,429	9,533	9,262	9,094	9,558	8,820	8,180	8,384	8,104	7,995
Total Waste Stream	tons	22,771	21,494	22,016	20,580	22,891	21,762	24,290	22,014	22,866	23,635	22,369	20,809
Diversion Rate		50%	53%	53%	54%	60%	58%	61%	60%	64%	65%	64%	62%
Transportation													
Commuter Drive-Alone Rate (employees only)		n/a	n/a	72%	65%	63%	58%	54%	52%	51%	48%	48%	46%
Commuter Drive-Alone Rate (all off-campus commuters)		n/a	n/a	n/a	60%	59%	54%	50%	46%	46%	42%	42%	39%
Food Purchasing													
Sustainable Food Purchases [5]		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	41.9%	43.6%
		00/01	**01/02**	**02/03**	**03/04**	**04/05**	**05/06**	**06/07**	**07/08**	**08/09**	**09/10**	**10/11**	**11/12**
Water													
Domestic	gals (in millions)	997.2	862.8	840.1	921.1	843.1	811.8	832.4	841.8	778.6	780.8	774.7	786.7
	gals/usf	96.1	81.5	77.7	85.0	76.6	73.1	74.4	74.8	69.3	67.4	63.8	64.5
Lake	gals (in millions)	431.4	406.6	362.7	364.2	332.1	270.5	347.2	446.8	378.8	375.2	391.3	430.7

Note:

1. In 2010 Stanford transitioned to USF in lieu of GSF since tracked campus GSF data now include attic areas and other spaces not normally used or conditioned. Thus, USF represents utility service area more accurately, and this table has been revised with USF starting in 2000. Service areas for electricity, steam, chilled water, and domestic water are different, and USF served by electricity and domestic water excludes parking structures.
2. Emissions for 2006–2009 verified per the California Climate Action Registry General Reporting Protocol, including de minimis emissions. Emissions for 2010 verified per the Climate Registry General Reporting Protocol, including simplified estimation (de minimis equivalent) emissions.
3. Emissions for 2011 per the Climate Registry General Reporting Protocol, including simplified estimation (de minimis equivalent) emissions; verification pending.
4. GSF included in the emissions intensity calculation corresponds to the properties included in the emissions inventory as defined by the operational control boundary method.
5. Calculations for sustainable food purchasing by Stanford Dining correspond to the criteria defined by the AASHE STARS program. These include food and beverages grown or processed within 250 miles of campus and/or third-party certified (USDA Certified Organic, Marine Stewardship Council Blue Ecolabel, Food Alliance, Fair Trade, Certified Humane Raised and Handled).

Stanford Energy System Innovations (SESI) Begins

Background

In December 2011, Stanford's Board of Trustees approved the SESI program, designed to meet the university's future energy needs while reducing greenhouse gas emissions and water consumption. Conceived in the Department of Sustainability and Energy Management (SEM) and in implementation with the Department of Project Management (DPM), Campus Architect's Office, Land Use & Environmental Planning, Zones Management, Building and Grounds Maintenance (BGM), and many other departments, the SESI program is an all-hands Land, Buildings & Real Estate (LBRE) engagement that will deliver immense benefits for Stanford University in decades to come.

Due to the significant overlap between campus heating and cooling demands, a replacement central energy facility (RCEF) will include an innovative heat recovery design that is significantly more efficient than the existing cogeneration process. In the future, heat collected from buildings via the chilled-water loop will be captured for reuse, minimizing the use of conventional chillers to discharge waste heat via cooling towers. Heat recovery chillers will move the heat collected from the chilled-water loop to a new hot-water loop that will replace Stanford's aging steam distribution system.

Benefits

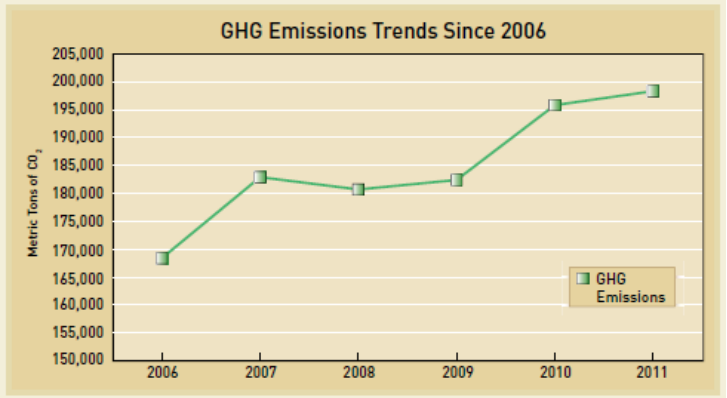
The $438 million project represents a significant transformation of the university energy supply from 100% fossil-fuel-based cogeneration to a more efficient electric heat recovery system. Key benefits of the SESI program are as follows:

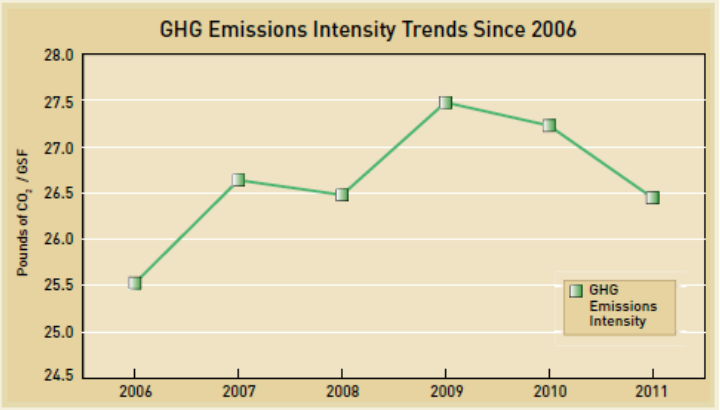
- As the RCEF comes online, the campus will reduce its carbon emissions to at least 50% below 1990 levels. Simultaneously, an electricity-dependent energy supply system will offer higher reliability, lower cost, and greater flexibility for green power procurement. Having achieved direct access to the California electricity market in early 2011, Stanford is now developing opportunities for a more economic and environmentally sound power portfolio.
- Due to the significant opportunity for heat recovery, and the lower line losses of hot water compared to steam piping, the new energy system will be 70% more efficient than the combined heat and power process of the current cogeneration facility.
- Since the majority of the waste heat from the chilled-water loop will be reused rather than discharged via evaporative cooling towers, total campus potable water use will be reduced by 18%.
- The SESI program is the best-cost option compared to continuation of the current

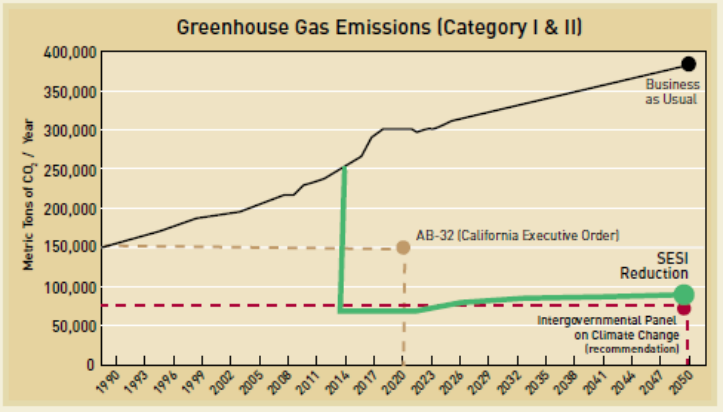
cogeneration system, with a net additional $100 million capital investment projected to yield $300 million over the next 40 years.

The Road to Carbon Reduction

In 2010, for the fifth consecutive year, Stanford completed and certified its public inventory of Scope I and Scope II CO_2 emissions. The 2010 inventory was verified through the Climate Registry (TCR); this organization has replaced the California Climate Action Registry (CCAR), to which Stanford submitted its inventories from 2006 to 2009. In 2010 net emissions increased, a reflection of campus growth and increased research building intensity. Newly available electricity consumption data for Falk and the GALE buildings (Grant, Always, Lane, and Edwards) were captured for the first time and increased the emissions total. Differences between CCAR and TCR reporting protocols on emissions from leased spaces also explain part of the increase.







Stanford reported approximately 198,300 metric tons of CO_2 emissions for 2011 (verification pending). These emissions remained relatively flat, with a slight increase due to occupancy of newly constructed buildings and increased emissions from leased spaces.

Nevertheless, emissions intensity is now lower than it was in 2007, which confirms the efficiency of Stanford's new high-performance buildings. Emissions will also

dramatically decrease in coming years as a result of the SESI program, dropping to 50% below 1990 levels upon completion of construction in 2015.

Academic Integration

The Energy and Climate Plan, which was first released in 2008 and evolved into SESI, has been a high-priority study and has incorporated various faculty peer reviews from inception through approval. The first faculty GHG task force convened in 2009 to review the initial plan. Throughout 2011, the heat recovery scheme and proposed financial models were extensively peer reviewed by faculty from the School of Engineering and the Graduate School of Business (GSB), as well as a Board of Trustees advisory committee.

SESI program studies have also periodically engaged graduate student researchers to supplement industry findings, verify models, and assist with other assessments. Most recently, SEM partnered with the Stanford Solar and Wind Energy Project, a student group, to carry out studies on the campus solar potential. Solar photovoltaic (PV) integration is one aspect of SESI currently under investigation, and the students assisted in analyzing data while gaining practical hands-on experience. Stanford staff will continue to partner with students and faculty as SESI proceeds.

Implementation

The implementation of the SESI program involves significant work throughout the campus between 2012 and 2015. DPM is managing design and construction for both the hot-water pipe installation and the heat recovery-based RCEF. This year, engineering firms completed the design for the RCEF, equipment manufacturers were selected, a general contracting firm was hired, and phased utility-level construction began on the new hot-water piping that will be installed throughout campus by 2015. See additional details below:

- Over the course of implementation, more than 20 miles of hot-water pipe will be installed, and equipment in the mechanical rooms of 155 buildings will be modified to allow them to use hot water for heating instead of steam. This work will be carefully sequenced in multiple phases to minimize disruption to campus life. The first of seven phases has recently been completed, and subsequent phases have begun.
- As each phase of piping and building conversion is completed, that section of campus will be moved off steam to hot water via a regional heat exchanger that will convert steam from the existing cogeneration plant to hot water at a district level.
- Once all phases of the conversion are complete, a full transition from the cogeneration plant to the RCEF will be made, the regional heat exchange stations will be removed, and the cogeneration plant will be decommissioned and deconstructed.
- The RCEF will be an all-electric, state-of-the-art heat recovery plant featuring both hot- and cold-water thermal storage. SEM will operate it with a new automated

control system invented at Stanford (patent pending) and currently under commercial development by a startup company (ROOT3). This will allow the plant to operate autonomously and will assure optimal operation through predictive economic dispatching based on load and market electricity pricing forecasts.

Campus Outreach and Coordination

The SESI program is the most pervasive utility-scale construction project in campus history. DPM and the Office of Sustainability launched a comprehensive outreach effort and met with over 30 campus departments and entities to coordinate the scheduling and timing of the phased construction.

The SESI website launched in the summer of 2012 to provide an avenue for interested community members to learn about the program and follow associated construction on a real-time map. It also includes project fact sheets and links to related articles. Most notably, it contains an interactive campus map that shows the current and future construction zones and project progress.

In addition, a revised version of the popular educational video contains an expanded section on SESI, including heat recovery and other benefits.

More Information:

http://sesi.stanford.edu
http://sustainable.stanford.edu/climate_action
http://sustainable.stanford.edu/climate_video

Further Strides in Energy Efficiency

Background

Since 2010, a redesigned Facilities Energy Management (FEM) team has been responsible for coordinating the university's efforts to reduce energy use in existing buildings and to incorporate energy efficiency best practices into all new buildings. The team works with BGM and zones to ensure buildings are operated efficiently and manages multiple programs that offer technical as well as financial assistance to facility managers, department leads, and building occupants to encourage implementation of energy efficiency projects.

Results

The Whole Building Energy Retrofit Program seeks to reduce energy consumption in Stanford's most energy-intensive buildings. The Packard Electrical Engineering building retrofit, completed in 2012, included upgrades
to the heating, ventilation, and air conditioning (HVAC) system and controls.

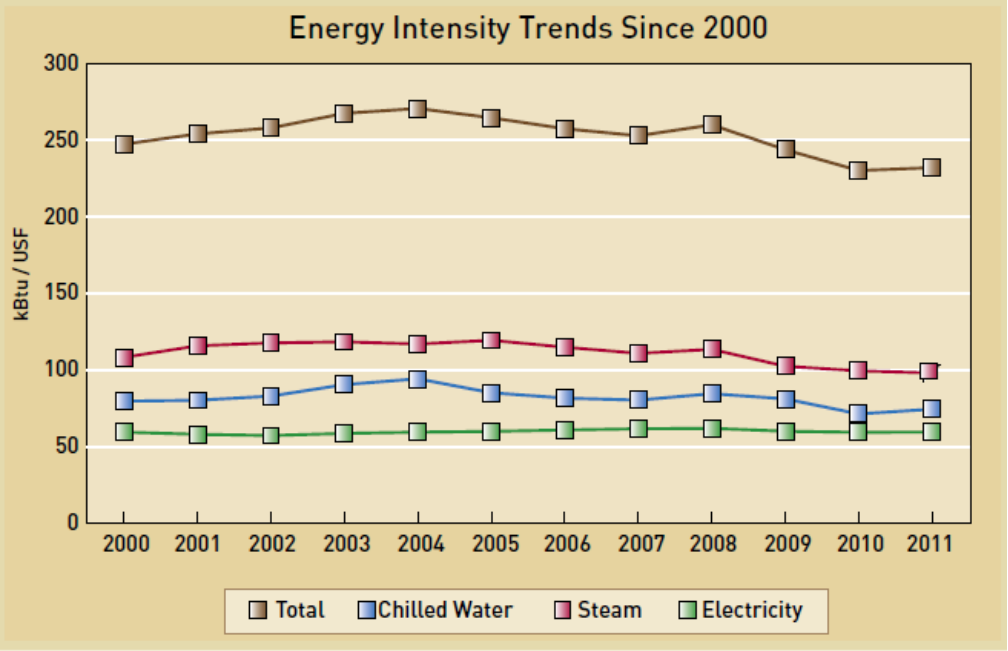
This $30 million capital program began in 2004 to address the 12 largest energy-consuming campus buildings and now includes the top 26, which represent 60% of total campus energy use. Retrofits have been completed in 13 buildings thus far and have saved more than $3 million a year in energy costs. The program has also yielded over $2 million in financial incentives via Pacific Gas & Electric rebates.

Since 1993, the Energy Retrofit Program has provided rebates to Stanford Utility users who install efficiency upgrades within their facilities. Rebates cover some or all of the costs of the upgrade projects, depending on the project payback period. Projects completed in 2011-12 include an LED lighting retrofit in the Herrin Hall Biology Greenhouses, high-efficiency air filter upgrades at the Keck Science Building, and the addition of variable-speed drives to motors at the Arrillaga Center for Sports & Recreation.

Launched in 2008, the Sustainable IT Program promotes the adoption of energy-efficient IT technologies and management practices. Since this collaborative program began, Stanford has saved over $850,000 per year in utility costs through measures like server virtualization, desktop energy management, and redesigned server rooms. In 2012, its server virtualization incentive program targeted all business units on campus that use or manage server racks and data centers. The program provides rebates for each physical server converted to a virtual environment.

The two-week winter break continued to be an opportunity to save energy and reduce operating expenses. The 2011–12 winter curtailment effort allowed Stanford to avoid $266,000 in utility charges. The cumulative net energy cost savings since 2001 total $2.5 million.

Operations staff continue to monitor building performance, looking for improvement opportunities related to operating schedules, HVAC set points, and maintenance work. Program highlights for 2012 include the launch of the new Building Holistic Maintenance Program and the completion of 23 building HVAC recommissioning projects. In addition, the staff continued to refine the Building Systems Performance Evaluation, which is used to probe, inspect, and monitor various sensors in HVAC systems. This allows operations technicians to remotely control, adjust, and repair room settings to meet user needs and optimize performance. The cumulative effect of all these energy efficiency programs can be seen in the fact that overall energy intensity (kBtu/USF) remains less than it was in 2000, despite the addition of nearly one million square feet of new energy-intensive laboratory space. This suggests that the suite of energy-saving programs targeting large-scale building retrofits, small-scale retrofits, and HVAC controls, coupled with new construction standards, has curbed the rate of increase in energy intensity.



Other notable performance trends include the following:

- Electricity consumption per USF has remained relatively constant even as energy-intensive research functions and computing needs have increased.
- Steam consumption per USF has also remained relatively flat. A notable decrease starting in 2009 correlates with the completion of major HVAC upgrade projects in multiple buildings.
- Chilled-water consumption per USF increased through 2004 but is now trending downward. This also illustrates the benefits of energy retrofits in multiple large buildings.

Academic Integration

The FEM team engages frequently with research faculty to better understand energy demand inherent to their work and tailors program offerings accordingly:

- FEM staff regularly interact with faculty in the Center for Integrated Facility Engineering (CIFE). FEM team members serve as guest speakers for CIFE courses, help review student projects, and provide feedback on the research needs associated with the operation of high-performance buildings. In 2012, FEM and CIFE began collaborating to explore the development of improved automated fault detection and diagnostic systems. The goal was to leverage the growing inventory of operating data within existing building control systems to identify opportunities for energy savings. CIFE is focusing on the research aspects, and FEM is evaluating commercial solutions already on the market.
- Stanford's Energy Conservation Incentive Program, established in 2004, provides schools and administrative units a financial incentive to use less electricity. The

program sets budgets based on past consumption and lets participants "cash in" unused kilowatt-hours; those that exceed their electricity budgets pay the difference out of their own funds. Based on the program's success, FEM began working with schools and administrative units in 2012 to recalibrate electricity allotments and incentivize participants to reduce consumption further.

- Since 2009, FEM has partnered with the School of Medicine (SOM) to offer financial incentives to all campus labs that put biological samples into room-temperature storage and dispose of old ultra-low-temperature freezers. The Cash for Clunkers program makes it easy to try room-temperature storage technology, and participants can earn rebates up to $13,000.

More Information:

http://sustainable.stanford.edu/buildings

http://sustainableit.stanford.edu

http://lbre.stanford.edu/sem/energy_conservation

Strong Performance in Water Efficiency and Conservation

Background

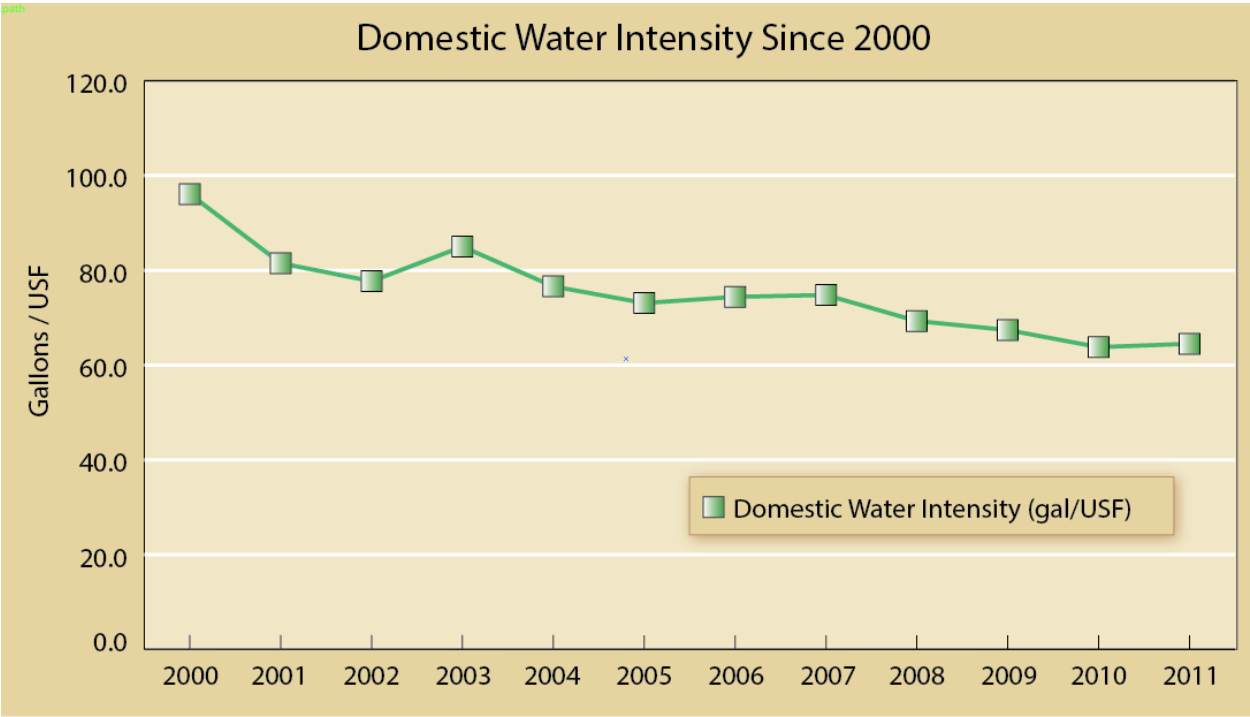
Stanford practices sustainable water use by managing available resources to meet its needs while preserving ecological systems and this vital resource for future generations. Stanford has improved campus surface water supplies, developed innovative alternative water supplies, and continued water conservation efforts for its buildings and grounds.

Results

As of 2012, Stanford has reduced domestic water use on campus 21% from a 2000 baseline, despite adding more than one million GSF to the building portfolio. The 2003 Water Conservation Master Plan originally identified 14 water conservation measures for campus; more than 20 are employed today. Additional results include the following:

- Staff from the School of Medicine and SEM collaborated to complete a retrofit of equipment-washing infrastructure. The changes included reverse-osmosis water reuse for quenching hot wastewater from washing equipment. The improvements are projected to save 2.5 million gallons of water and over $39,000 in domestic and wastewater costs per year. The payback period is less than eight years.

- Six weather-based controllers were installed at landscaped areas surrounding the Li Ka Shing Center for Learning and Knowledge (LKSC), Lorry I. Lokey Stem Cell Research Building (SIM1), and Center for Clinical Sciences Research. As a result, LKSC reduced its outdoor water consumption by over 140,000 gallons during the first month after installation compared to the same month the prior year. The project is expected to reduce water consumption by approximately 24% across the entire area of deployment.
- Conservation measures implemented at the Bing Nursery School included a change in the rotor spray nozzles to reduce the spray pattern radius and precipitation rate, additional irrigation valves to separate hydrozones and better align with plant watering requirements, and a return to irrigation control via a Maxicom weather-based system. These changes are expected to yield a minimum water savings of 15% annually.
- The water conservation program unveiled an interactive map that details water conservation retrofit projects from 2002 to the present. A variety of sorting parameters allow users to quickly search more than 300 indoor and outdoor projects linked to the map. Clicking on the map's icons provides details on the water-efficient equipment installed during retrofit projects, as well as the estimated water savings, when available. The map also includes general water profiles for each new building opened since 2007.
- Stanford staff coordinated with local plumbing-product representatives to test new and innovative water-efficient fixtures as part of an ongoing demonstration program. Since 2010, the program has field-tested over
  20 different low-flow fixtures, including toilets, urinals, showerheads,
  and faucets.
- In 2011, the water conservation program started testing real-time monitoring technology to identify water use on a more granular basis and define specific end uses, such as irrigation specific to landscape areas or use by research equipment. This monitoring has provided time-of-water-use information directly to customers involved in the study, which has resulted in greater attention and increased water efficiency.
- Most of the toilets, faucets, showers, and urinals in academic buildings have been retrofitted to more efficient, low-flow models. Building retrofits eliminated once-through cooling and water use for house vacuum systems in research lab buildings. Landscaping in academic areas makes use of evapotranspiration irrigation controllers.



The chart above shows the cumulative effect of these projects. Stanford has reduced domestic water consumption by 21% and domestic water intensity by 33% since 2000.

Academic Integration

In 2011, a joint steering committee of faculty and staff was formed to oversee a study being conducted by staff from various departments to determine the best future for Searsville Dam and Reservoir. The Stanford-owned dam, located in Jasper Ridge Biological Preserve, was built in 1892 and the reservoir provides water for campus irrigation.

The committee is cochaired by Chris Field, founding director of the Carnegie Institution's Department of Global Ecology, professor of biology and environmental earth system science, and faculty director of Jasper Ridge Biological Preserve, and Jean McCown, director of community relations. It includes five scholars who specialize in environmental science, history, and law, as well as staff members who work in such areas as university land use, sustainability, and water resources. In the 2011–12 academic year, the study began drawing on the technical expertise of consultants specializing in areas including engineering and hydrology, ecosystems, cultural and biological resources, and land use and environmental planning to help sort through the complex technical and legal issues involved in deciding the dam's future.

This comprehensive, multidisciplinary effort is expected to span approximately two years and will consider factors such as research and academic programs at Jasper Ridge, the university's water supply and storage needs, biological diversity both above and below the dam, impacts on flood risk to the surrounding communities, and the costs of dam removal or ongoing management and maintenance. The study will cover some 20 subtopics, including dam structure and long-term integrity, downstream impacts of changes in sediment management, fish passage, and archeological resources. It will examine all viable alternatives for the facility,

including the dam itself and its accumulated sediment, and potential ways to replace its functions. Possible actions the study will consider include dredging the reservoir and altering or removing the dam.

More Information:

http://lbre.stanford.edu/sem/water_conservation
http://sustainable.stanford.edu/water_initiatives
http://news.stanford.edu/news/2012/march/searsville-dam-committee-030712.html

Excellence in Building Design, Construction & Renovations

Background

Buildings represent one of the university's greatest sustainability opportunities and challenges. Energy generation for building heating, cooling, and electricity accounts for the majority of Stanford's carbon emissions—and from 2000 to 2025, the university expects to build two million square feet of academic facilities, as well as housing for 2,400 students, faculty, and staff. To evolve as a center of learning, pursue world-changing research, and respond to pressing environmental concerns, Stanford designs and creates buildings that use resources wisely and provide healthy, productive learning environments.

The Department of Project Management (DPM) oversees major construction on campus. Advancements in high-performance building design, construction, and renovation continue to ensure that Stanford delivers and maintains new facilities in accordance with its project delivery process manual. The manual incorporates sustainability through the guidelines for life cycle cost analysis, the guidelines for sustainable buildings, salvage and recycling programs, and a strong emphasis on commissioning. In 2008, Stanford updated the guidelines for sustainable buildings to include aggressive energy and water reduction goals. New construction and major renovation projects on campus are now expected to use 30% less energy than building codes allow and consume 25% less potable water than comparable campus buildings. In addition, Stanford continues to explore methods to increase space efficiency to reduce the need for new construction.

Results

In March 2012, the Knight Management Center, home to the Graduate School of Business, received formal LEED for New Construction Platinum certification, the highest rating awarded by the U.S. Green Building Council. The 360,000-square-foot facility integrates sustainability in every aspect of its design and operation. Its eight buildings are oriented on an east-west axis to maximize natural daylight while minimizing heat gain. They were also designed to exceed

current energy efficiency standards by 42%, and the university's largest solar array supplies 12.5% of the facility's electricity. Rainwater is captured and used for landscape irrigation, and as a result of this and other water efficiency measures, the Knight Management Center uses 80% less water than comparable campus buildings.

Additional highlights from new construction and major renovation projects are described below.

- A central theme of openness characterizes the law school's newly opened William H. Neukom Building. Sustainability strategies such as maximized use of natural light, automated control systems, natural ventilation, ceiling fans, high-efficiency glazing, and trellis shading contribute to a level of energy use projected to be 30% less than code. The building's exterior features rainwater harvesting and native plant species.
- Construction of the fourth and final building in the Science and Engineering Quad is now under way, and the building is expected to perform even better than its predecessors, including the Jerry Yang and Akiko Yamazaki Environment and Energy Building, which currently uses 42% less energy and consumes 90% less potable water than permitted by code.
- A post-occupancy engineering study of SIM1 confirmed that the building has exceeded the project goal of being 34% more energy-efficient than code. Its HVAC system, designed to eliminate the typical inefficient cycle of overcooling and local reheat, coupled with an optimized control strategy, led to energy performance 43% better than code.
- A recent space utilization analysis for the School of Engineering resulted in renovation of more than 250,000 square feet along Panama Mall in buildings such as Peterson Lab, Durand, and Mitchell. The study resulted in plan changes that reduced the total square footage proposed for the Science and Engineering Quad by more than 20%, avoiding the need for approximately 100,000 square feet of new construction.
- Stanford recently submitted several new project designs for approval under California's new green building standard, CALGreen, including the West Campus Recreation Center and the Bioengineering and Chemical Engineering Building. Stanford continues to incorporate local and state requirements into its best practices.
- Construction began on several components of the Stanford University Medical Center (SUMC) Renewal Project, including the Welch Road Utility Project, renovation of the Hoover Pavilion, and site work for the Lucile Packard Children's Hospital (LPCH) expansion. Both the LPCH expansion and the new Stanford Hospital are expected to achieve LEED-NC Silver equivalency.

Academic Integration

Collaboration with faculty and research staff, particularly in the programming of interdisciplinary space, remains a DPM hallmark. The school/department user group is the

program advocate throughout each project. This group may include the dean/director, faculty, staff, and/or students. It designates a representative who is responsible for gathering and disseminating information, communicating it from the project team to the group and vice versa, within project schedule constraints. The DPM project manager coordinates directly with this representative. DPM relies on this collaboration to express the needs of the program to the Stanford University administration and to manage communication and decision making within the school/department.

More Information:

http://sesi.stanford.edu
http://lbre.stanford.edu/dpm/our_projects
http://sustainable.stanford.edu/green_buildings

New and Improved Offerings in Transportation

Background

As an essential part of its drive for sustainability, Stanford runs one of the most comprehensive programs in the country to reduce university-related traffic impacts. This year, Stanford's Transportation Demand Management program (TDM) reached a milestone: The Stanford Commute Club, which rewards commuters for using sustainable transportation, celebrated its tenth year. The program has grown from 3,600 members to 8,000, with each member currently receiving up to $300 a year from Stanford for commuting primarily by alternative transportation. The university's free Marguerite shuttle annual ridership has risen to 1.8 million. Stanford has also introduced new programs, including car sharing, which has grown from three Zipcars in 2007 to 46 today, making it one of the largest university Zipcar programs in the nation.

These TDM advances, coupled with extensive marketing outreach and promotions, enabled Stanford to reduce its drive-alone rate from 72% in 2002 to 47% in 2012, with more than half of university employee commuters now primarily using sustainable transportation. Demand for parking at Stanford has dropped more than 6% since 2002, despite campus growth.

In addition, Stanford is transitioning to more sustainable fleet vehicles, increasing shuttle route efficiency, expanding electric vehicle (EV) charging station availability on campus, and continuing to enhance its bicycle
program infrastructure.

Results

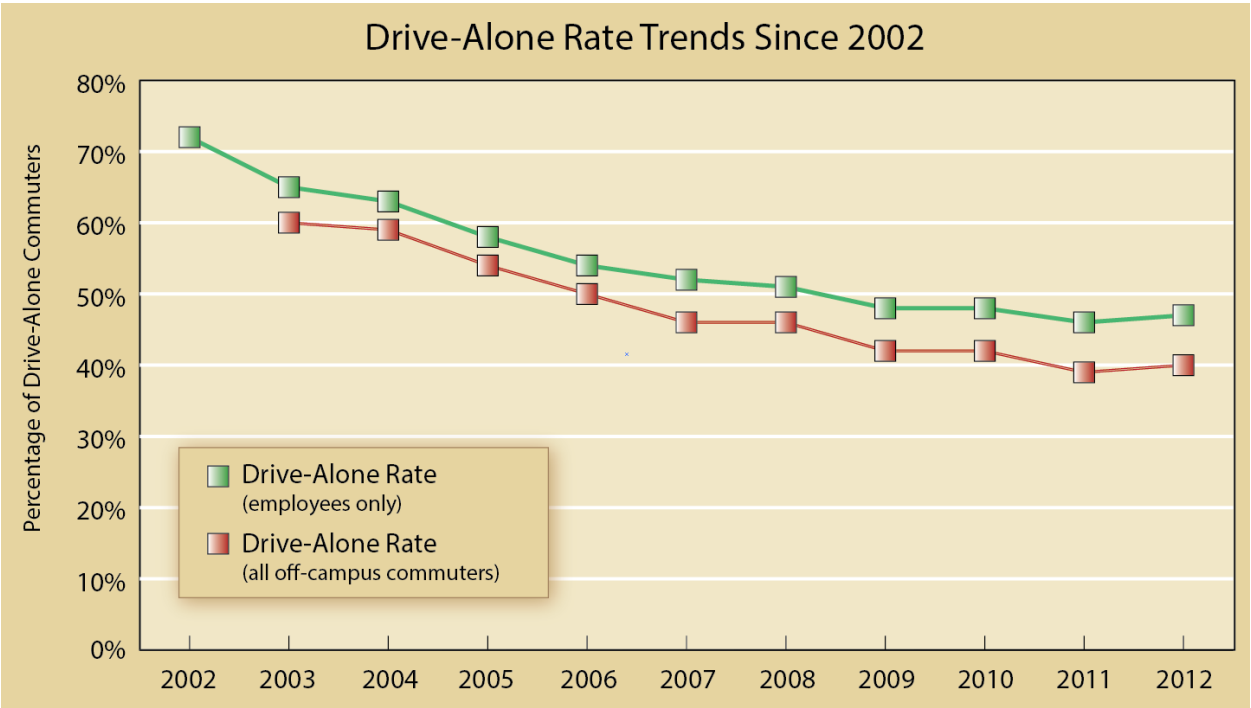
In academic year 2011–12, the university continued to expand its sustainable transportation efforts, including its long-term planning and its signature
bicycle program.

The university has drafted a long-term Transportation Sustainability Plan, which is currently under review. The plan expands on the successful TDM program and positions Stanford not only to continue to satisfy the 2000 General Use Permit's trip-limit goals, but also to reduce transportation-related emissions, satisfy impending state and national regulations, and be poised for transportation-related carbon reduction programs.

Designated the nation's first and only Platinum-Level Bicycle-Friendly University in 2011, Stanford expanded its bicycle program to accommodate the estimated 13,000 bikes on campus each day. The expansion included new bike racks—there are more than 18,000 on campus—and new bicycle safety repair stands that offer free tools for bicyclists to pump up tires and make minor repairs.

The 2011–12 performance achievements are listed below:

- In 2012, the employee drive-alone rate dropped to 47%, compared to 72% in 2002 at the inception of the formal TDM program. More than 2,000 Stanford commuters started using alternative transportation during this period. Commute-related emissions remain below 1990 levels. The Commute Club celebrated its 10-year anniversary and has more than doubled its membership since 2002.
- Marguerite shuttle passenger numbers rose again, from 1.4 million in 2010 to 1.8 million in 2011. Stanford increased fuel conservation and reduced emissions and operating costs by adding three 38-passenger diesel-electric hybrid buses. By replacing other buses with fuel-efficient Sprinter vans on selected routes, the university reduced emissions by 132 metric tons and fuel consumption by 13,000 gallons.



- In 2012, Stanford partnered with transit agencies to offer new express bus service

and discounted train tickets and passes to encourage more commuters to ride mass transit. SLAC partnered with Zimride, a car-sharing service, to increase carpooling amongst employees.

- Stanford worked with AC Transit to establish a new Dumbarton Express bus service to the campus directly from the East Bay, where the existing Line U East Bay Express service had operated at capacity for years due to high demand. Both express bus services are free to eligible Stanford commuters.
- In partnership with Altamont Commuter Express (ACE), Stanford now offers a 50% discount to Stanford faculty, staff, and students who purchase ACE train monthly passes and 20-trip tickets.
- Over one-third of Stanford's 1,300 fleet vehicles are electric, and the number of hybrid vehicles increases each year. The fleet also includes one experimental solar vehicle. The Marguerite shuttle fleet includes five diesel-electric hybrid buses and 48 buses fueled by biodiesel.

Academic Integration

To reduce traffic congestion and vehicle emissions, in April 2012 Stanford launched Capri (Congestion and Parking Relief Incentives), an innovative research pilot project that uses radio-frequency identification technology to track when participating commuters enter and exit campus. Participants who commute during off-peak times receive credits that they can redeem in a game that offers multiple opportunities to win cash prizes.

The research project's director, Balaji Prabhakar, professor of electrical engineering and computer science, worked with Stanford graduate students and Stanford Parking & Transportation Services to secure a grant from the U.S. Department of Transportation and implement the program at Stanford. The research team's goal is to change commuter behavior. In the process, they hope to determine what the optimum incentives are, how to incorporate a game to engage and motivate commuters, and how to leverage social networks to encourage and increase participation.

More Information:

http://transportation.stanford.edu
http://capri.stanford.edu
http://commuteclub.stanford.edu

Minimizing Stanford's Waste

Background

Minimizing waste contributes to a more sustainable Stanford. By using less, reusing more, recycling, and composting, the university saves energy, conserves water, reduces pollution, reduces GHG emissions, and preserves natural resources. Stanford has increased its landfill diversion rate from 30% in 1994 to 62% in 2011, and reduced its landfilled tonnage to an all-time low.

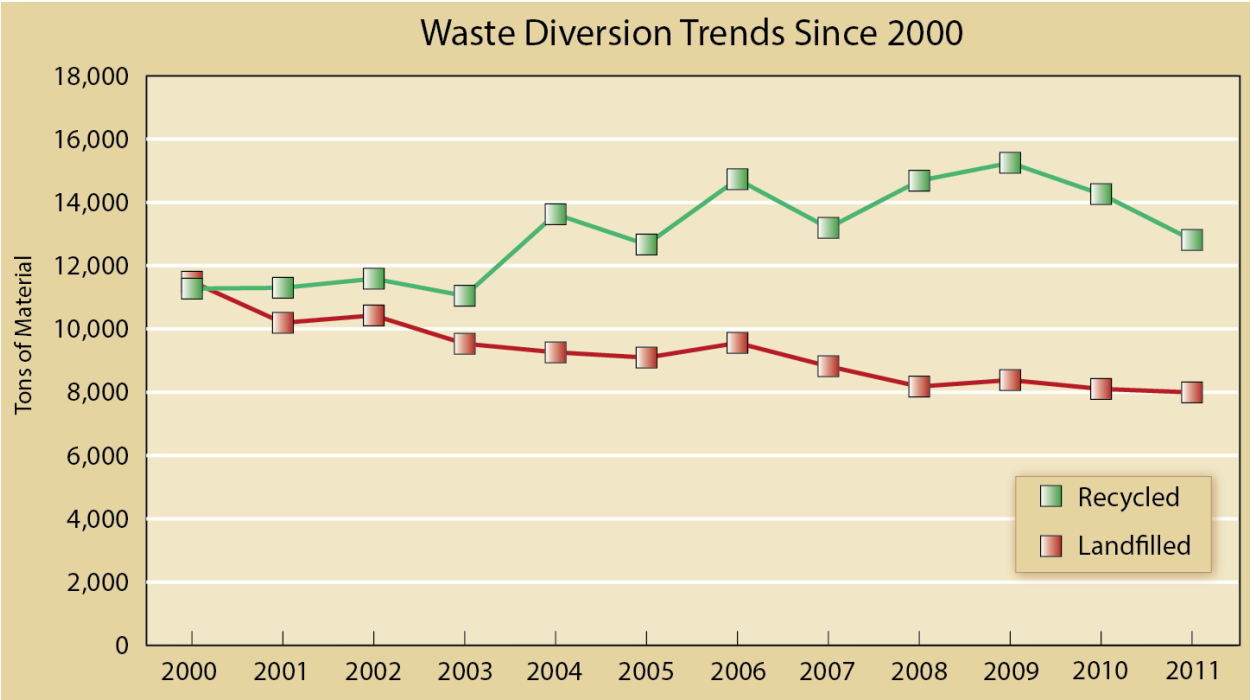
Stanford's waste reduction, recycling, and composting program serves all academic and athletic areas, student housing and dining, faculty and staff housing, Stanford University Medical Center (SUMC), SLAC National Accelerator Laboratory, and construction sites. The university continually improves and expands recycling and composting collection activities, identifies new markets for waste materials and recyclables, and raises awareness so that "reduce, reuse, recycle, and compost" becomes an ingrained set of behaviors. Stanford partners with Peninsula Sanitary Service, Inc. (PSSI), its recycling and waste management service provider, to reduce waste, increase landfill diversion, and move closer to zero-waste (defined as at least 90% diversion).

Results

Efforts to reduce waste have steadily decreased the total amount of material Stanford sends to the landfill. Just under 8,000 tons were landfilled in 2011, the lowest value recorded since tracking formally began. This year:

- Stanford's diversion rate (waste diverted from the landfill, as a percentage of total waste) increased from 30% in 1994 to 62% in 2011. Stanford continues to pursue a 75% diversion rate as an interim step towards the ultimate goal of zero-waste.
- Stanford doubled the number of food-waste bins in graduate housing to make it easier for graduate students to compost in their homes. A pilot office composting program now includes more than 27 collection points and has diverted more than 750 pounds of food waste per month from the landfill. The program is expected to expand to other buildings throughout the coming academic year. A comprehensive composting program also began at the Bing Nursery School with the hope that it will be expanded to other nursery schools on campus.
- A deskside recycling and mini–trash can program was implemented in nine buildings, making paper recycling more convenient.
- SLAC National Accelerator Laboratory implemented a pilot zero-waste program and developed a campaign to decrease bottled-water use.
- Waste reduction has become a part of campus culture in many different areas, including construction. This year's demolition of the Terman Building was able to divert 99.6% of building components from the landfill.

- PSSI became the provider of garbage, compost, and recycling bins at campus events, enabling the organization to more strongly encourage event managers to set up "zero-waste" stations that include a recycling and compost bin next to every landfill bin and improved signage for bin lids. Trash bins now clearly state that they accept landfill-bound items only, to provide a clear and strong contrast with the recycling and composting bins.
- The services offered in faculty and staff housing now include regular collection of hazardous waste (batteries, paint, CFLs, oil, and oil filters) and the opportunity to compost food scraps and food-soiled paper in the yard-trimmings bins.



- Regular waste audits of campus buildings continued to provide valuable information to the Stanford community. More than 50% of the items Stanford sends to the landfill are either recyclable or compostable. Food waste makes up the largest percentage of material sent to the landfill and remains the primary target for program development.
- In the RecycleMania 2012 contest, Stanford received record pledges and scored in the top 30 in six of the eight categories: per capita (28th); gorilla (9th); paper (16th); cardboard (14th); bottles and cans (19th); and food waste (14th).

Academic Integration

PSSI regularly partners with faculty and student groups to conduct waste audits across campus. These events enable the campus community to experience Stanford's waste story in a hands-on setting while providing valuable data to PSSI about the content of campus landfill bins. PSSI engages students who have ideas for improving Stanford's waste program. In 2009, Student

Green Fund grant recipients partnered with PSSI to design new labels for all campus waste bins based upon focus group feedback and other research. This past year, PSSI organized a trip for students to visit the Newby Island Compost Facility, where Stanford sends its compostable materials. In addition, PSSI helped students with projects and coursework by advising them on the design of new collection bins, studying material flows for an anaerobic digester, providing support in setting up a reuse store, and taking part in student videos and journalism projects.

More Information:

http://recycling.stanford.edu

http://sustainability.stanford.edu/waste

Enriched Sustainable Food and Housing Programs

Background

Residential & Dining Enterprises (R&DE) leads sustainability for students through its programs in dining and housing, and thus directly impacts student learning, lifestyles, and campus culture. Stanford Dining and Stanford Hospitality & Auxiliaries, divisions of R&DE, serve more than four million meals on campus annually. Through its Sustainable Food Program, R&DE continues to create a positive impact through education, collaboration with campus partners, and innovative operational initiatives. Student Housing, also a division of R&DE, houses nearly all undergraduate students and more than 50% of graduate students on campus. Student Housing recently invested in a full-time staff member dedicated to managing its new Sustainability and Conservation Program Office. The goal of the office is to reduce Student Housing's environmental footprint and provide a foundation for generations of students to lead sustainable lifestyles not only on campus but after graduation.

Results

The largest provider of food services on campus, Stanford Dining manages all of the university's dining halls and about 25% of its cafés. Stanford Dining strives to serve as an educational resource for students, teaching them about nutrition, wellness, and sustainable food systems through dining hall programming. While providing fresh and delicious meals, it decreases pollution from pesticides and chemicals, reduces energy use, and supports local small businesses. Several other campus food services, such as co-ops, row houses, and private cafés, are also committed to sustainable purchasing and practices. Key enhancements in the 2011–12 academic year include the following:

- Stanford students welcomed the October opening of the award-winning Arrillaga Family Dining Commons, the first new campus dining hall in nearly two decades. Besides winning first place in the Montague Suite Dreams Design Challenge, the state-of-the-art dining hall is on the cutting edge with initiatives such as Performance

Dining and a gluten-free pilot program. The dining hall features a special learning kitchen designed
to bring students closer to their food through cooking demonstrations
and new curriculum.

- The addition of Niman Ranch pork and organic apples to its portfolio of sustainable food purchasing initiatives helped increase Stanford Dining's overall percentage of sustainable food to 43.6% by cost.
- In partnership with the Stanford Farm Project, several hundred undergraduate and graduate students participated in Farm to Fork, an informal series of talks and workshops on everything from the intricacies of the Farm Bill to how to make and cook tofu.
- A new student-initiated course, Earth Systems 11SI: "Grow It, Cook It, Eat It," was offered in spring quarter. The course pioneered the integration of practical culinary and food education with a theoretical framework for analyzing the food system.
- As part of its ongoing focus on waste reduction, Stanford Dining implemented LeanPath, a food waste tracking system, which helped to reduce both food costs and ecological impact by eliminating significant quantities of preconsumer food waste from dining hall kitchens.
- In 2012, Stanford Dining participated in Food Day, a national event that aims to galvanize the community around the issue of food systems change. Students from the Stanford Farm Project, the Graduate School of Business (GSB) Farm Club, Stanford Glean, Students for a Sustainable Stanford, and other groups organized the day around four themes: wellness, ecology, community, and farmers and workers.
- Stanford Catering Executive Chef Andrew Mayne and Stanford Dining Sustainable Food Program Manager Matt Rothe were invited to the Monterey Bay Aquarium's prestigious "Cooking for Solutions," an annual event that includes a two-day conference hosted by the Sustainable Foods Institute. Stanford was the only university food service provider invited.

Academic Integration

The university's Dining Ambassador (DA) program trains students to build and promote better community in the dining halls. DAs help to create a vibrant and active student dining community by promoting wellness, healthy eating, sustainability, and residential life through community-building activities and educational experiences, all while being part of a team proudly serving great food.

Stanford Dining also hosts events throughout the year to increase education and awareness about food issues, often in partnership with student groups and faculty researching similar topics. Examples include Know Your Food Week, Climate-Conscious Food Week, and Seafood Sustainability Week. At each of these events, student volunteers help provide information and resources to their classmates about food issues.

Faculty regularly collaborate with Stanford Dining to provide educational opportunities to students. Examples include two classes developed in 2011–12, "Principles and Practices of Sustainable Agriculture" and "Grow It, Cook It, Eat It." Both classes exceeded expectations and brought key food system issues to light in a creative and hands-on learning environment.

In addition, Stanford Dining hires a group of student gardeners each year to maintain a series of organic gardens across campus. These gardens, strategically located adjacent to campus dining halls, are designed to provide an experiential model of the food system for students to observe at every meal.

Student Housing also partners with students to enhance environmental programming within the dorms. The Green Living Council is a group of dorm environmental representatives who educate their peers about sustainable living and work to improve the sustainability of their dorms or houses.

More Information:

http://www.stanford.edu/dept/rde/cgi-bin/drupal/rde/sustainability

Recognition & Awards

Stanford's long history of sustainability-focused operations and academic research has been recognized by regional, national, and international organizations. The spectrum of Stanford's awards and commendations highlights the multifaceted nature of sustainability and spans a wide range of topics. Presented below are selections of the most significant campus sustainability initiatives to receive formal recognition.

Third-Party Evaluations of Sustainable Stanford

Gold Rating, Sustainability Tracking, Assessment, and Rating System, the highest overall campus sustainability rating level awarded to date by the Association for the Advancement of Sustainability in Higher Education (2012)

Sustainability Champion Best Practice Award, for Fahmida Ahmed, Office of Sustainability Director, California Higher Education Sustainability Conference (2012)

U.S. Green Building Council and Princeton Review's *Guide to Green Colleges*, ranking among the best of more than 700 colleges and universities surveyed (2010, 2011, and 2012)

***Newsweek* Magazine's Greenest Schools,** second place in a composite of Sustainable Endowments Institute, *Sierra* magazine, and other rankings (2011)

Sustainable Endowments Institute, top-tier ranking as an Overall College Sustainability Leader on College Sustainability Report Card (2007, 2009, 2010, and 2011)

***Sierra* Magazine "Cool Schools,"** third place (2012); fifth place (2010 and 2011); A- grade and 26th place (2009)

Greenopia "Three Leaves," top 10 ranking out of 100 schools surveyed (2009)

Discovery Communications Honor Roll, top 10 ranking (2009)

Buildings

First Place, ASHRAE Technology Award, for the Environment and Energy Building (Y2E2) in the new institutional building category (2011)

Design Award of Excellence, for Stanford Law School, William H. Neukom Building, Society of American Registered Architects (2011)

Green Project of the Year, for Graduate School of Business, Knight Management Center, *Silicon Valley Business Journal* (2010)

Top Ten Green Projects, for Carnegie Institution's Global Ecology Research Center, American Institute of Architects Committee on the Environment (2007)

Best Green Building in the Bay Area, for Y2E2, *San Francisco Business Times* (2008)

Leadership in Applying Green Building Design, for Stanford Dining, PG&E (2006)

Top Ten Green Projects, for Leslie Shao-Ming Sun Field Station at Jasper Ridge Biological Preserve, American Institute of Architects Committee on the Environment (2005)

Energy & Sustainability Award, for Jasper Ridge Field Station, American Institute of Architects, San Francisco Chapter (2005)

Energy

Project Awards

Honorable Mention, ASHRAE Technology Award, for Stauffer Building I laboratory variable air volume (VAV) conversion in the existing institutional building category (2010)

Honorable Mention, Flex Your Power Awards (2005)

Project Rebates from PG&E

Knight Management Center, $192,339 rebate (2012)

Nanoscale Science and Engineering, $17,588 rebate (2012)

Huang Engineering Center, $30,092 rebate (2012)

Green Library Bing Wing HVAC Retrofit, $181,518 rebate (2011)

Beckman Center Laboratory VAV Conversion, $632,505 rebate (2011)

Gilbert Biology Laboratory VAV Conversion, $709,808 rebate (2011)

Psychiatry Academic & Clinic Building Lighting Retrofit, $10,786 rebate (2011)

Cantor Art Center Retrofit, $122,000 rebate (2011)

Alumni Center Window Film Installation, $11,000 rebate (2011)

Parking Structures 2 and 6 Lighting Retrofit, $13,000 rebate (2010)

Y2E2 Photovoltaic Installation, $38,000 rebate (2009)

Avery Aquatic Center Pump Retrofit, $110,000 rebate (2009)

Business Continuity Data Center, $48,000 rebate (2009)

School of Medicine Server Virtualization, $8,988 rebate (2009)

Stauffer Building II Laboratory VAV Conversion, $110,000 rebate (2008)

Desktop Power Management, $55,000 rebate (2008)

Stauffer Building I Laboratory VAV Conversion, $180,000 rebate (2007)

Reservoir 2 Photovoltaic Installation, $135,000 rebate (2004)

Food

Second Place Sustainability Award for Education and Outreach, for Stanford Dining, National Association of College & University Food Services (2012)

Distinguished Guests, Sustainable Food Showcase, Cooking for Solutions, Matthew Rothe, Sustainable Food Program coordinator, and Andrew Mayne, Stanford Catering Executive Chef, Monterey Bay Aquarium (2011 and 2012)

Judge, Acterra Sustainability Awards, Matthew Rothe, Sustainable Food Program Manager (2011 and 2012) and Eric Montell, Executive Director of Stanford Dining (2008–2010)

Finalist, Real Food Challenge Administrator or Faculty Member of the Year Award, Matthew Rothe, Sustainable Food Program Manager (2011)

Sourcing Sustainable Seafood Panelist, National Restaurant Association, Eric Montell, Executive Director of Stanford Dining (2011)

Business Environmental Award, for Stanford Dining, Acterra (2007)

Special Congressional Recognition, for Stanford Dining, Congresswoman Anna Eshoo (2007)

Green Business Certification, Stanford Dining, one of the first such certifications for a university food service operation in the United States, Santa Clara County (2004)

Land, Landscape, and Grounds

Certificate of Recognition, for the student group SEEDS and its work to protect the fragile environment around Lagunita, Ecological Society of America (2012)

Merit Award, with Boora Architects, for the Science and Engineering Quad, Planning for a District or Campus Component, Society for College and University Planning (2010)

Preservation Design Award, for Stanford Arizona Garden**,** California Preservation Foundation (2008)

Governor's Historic Preservation Award, for faculty houses, historic houses project category, State of California (2007)

Community Partnership Award, for oak tree planting for the second hundred years, California State Senate (2006)

Special Recognition, for oak reforestation project partnership, U.S. Congress (2006)

Seismic Strengthening & Historic Restoration Award, National Trust for Historic Preservation (2001)

Design Award, for stabilization and preservation of the Frank Lloyd Wright–designed Hanna House, California Preservation Foundation (2001)

Merit Award, for the Department of Athletics, Physical Education, and Recreation Plan, American Society of Landscape Architects (1999)

Merit Award, for Palm Drive restoration, American Society of Landscape Architects (1995)

Research (Stanford Woods Institute Faculty Awards)

Barbara Block wins award for marine monitoring: Stanford Woods Institute Senior Fellow Barbara Block, the Charles & Elizabeth Prothro Professor in Marine Sciences at Stanford, received a Rolex Award for Enterprise for her plan to monitor large predators off the coast of California. (June 2012)

Steven Gorelick elected to National Academy of Engineering: Steven Gorelick, the Cyrus F. Tolman Professor in Environmental Earth System Science and senior fellow at Stanford Woods

Institute, was one of 66 new members elected to the National Academy of Engineering. (February 2012)

Gretchen Daily wins Prince Albert II Biodiversity Award: Gretchen Daily, the Bing Professor in Environmental Science and senior fellow at the Stanford Woods Institute received the biodiversity award given annually by the Prince Albert II of Monaco Foundation. (October 2011)

Faculty receive grant to study solar plants: Stanford Woods Institute Fellows Chris Field, Noah Diffenbaugh, and David Lobell received a grant from the TomKat Center for Sustainable Energy and the Precourt Institute for Energy at Stanford to study the effects of large solar plants on land and water resources in the American Southwest. (September 2011)

Transportation

Platinum-Level Bicycle Friendly University, League of American Bicyclists (2011–2015)

Best Workplaces for Commuters, U.S. Environmental Protection Agency/Center for Urban Transportation Research at the University of Florida (2002–2012)

Gold Prize, Race to Excellence, U.S. Environmental Protection Agency/Center for Urban Transportation Research at the University of Florida (2006, 2009, 2010, and 2011)

Best of Universities and Colleges, Race to Excellence, U.S. Environmental Protection Agency/Center for Urban Transportation Research at the University of Florida (2006 and 2011)

Innovative Transportation Solutions Award, Women's Transportation Seminar, San Francisco Bay Area Chapter (2009)

Excellence in Motion, Award of Merit, Metropolitan Transportation Commission (2008)

Gold-Level Bicycle Friendly Community, League of American Bicyclists (2008–2012)

Bicycle Friendly Community, League of American Bicyclists (2003–2007)

Green Business Award, for Stanford Fleet Garage, recognizing commitment to environmentally responsible operations, County of Santa Clara (2004–2007)

Leadership Award, for nonelected individual or private organization, Association for Commuter Transportation (2006)

Top 50 Award, for regional transportation, employer category, Bay Area Council (2004)

Certificate of Special Congressional Recognition, for alternative transportation (1997, 2004)

Commendation, for alternative transportation**,** County of Santa Clara (1997, 2004)

Business Environmental Award, Acterra (2004)

Clean Air Award, Breathe California, formerly American Lung Association of the Bay Area (2003)

Certificate of Appreciation, Bay Area Air Quality Management District (2002)

Founding Member, U.S. Environmental Protection Agency/Department of Transportation Commuter Choice Leadership Initiative (2001)

Waste

RecycleMania Results

2012: top 30 in six of the eight categories: per capita (28); gorilla (9); paper (16); cardboard (14); bottles and cans (19); and food waste (14)

2011: top 20 in six of the eight categories: per capita (16); gorilla (2); paper (11); cardboard (12); bottles and cans (16); and food waste (17)

2010: top 25 in six of the eight categories: per capita (21); gorilla (3); paper (11); cardboard (20); bottles and cans (23); and food waste (6)

2009: top 20 in five of the eight categories: per capita (16); gorilla (3); paper (9); cardboard (17); and food waste (6)

2008: top 10 in six of the eight categories: per capita (7); gorilla (1); paper (5); cardboard (8); bottles and cans (10); and food waste (8)

2007: top 20 in six of the eight categories: per capita (14); gorilla (2); paper (3); cardboard (9); bottles and cans (18); and food waste (13)

Program Awards

College/University Recycling Award, American Forest and Paper Association (2009)

Environmental Achievement Award, for Environmental Health and Safety battery recycling and mercury thermometer replacement program, Environmental Protection Agency (2002)

Outstanding School Program Award, National Recycling Coalition (2002)

Water

Silicon Valley Water Conservation Award, large organization category (2009)

Clean Bay Business Award, for Stanford Golf Course Maintenance Shop and Stanford Fleet Garage and Service Station, Palo Alto Regional Water Quality Control Plant (2001–2012)

Leadership Recognition, for eliminating use of antibacterial soaps, Palo Alto Regional Water Quality Control Plant (2007)

Santa Clara Valley Urban Runoff Pollution Prevention Program Award, for site design for storm water pollution prevention at Stanford Stadium (2007)

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Appendix F
Summary of Alternate Means Program, Santa Clara County Green Building Ordinance

APPENDIX F
STANFORD ALTERNATIVE MEANS
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 lakewater vs. potable water in the lakewater irrigation system
The groundwater percentage in the lakewater system remained under 50 percent.

Lakewater Irrigation System Supply Sources				
	Surface Water		Groundwater	
Year	Quantity (acre-feet)	Percentage	Quantity (acre-feet)	Percentage
2010	882	72%	336	28%
2011	1,054	89%	134	11%
2012	1,032	82%	238	18%

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 central energy plant will be free of prohibited CFC refrigerant by 2015.

This will also indicate when EAc4, Enhanced Refrigerant Management, may be submitted for campus-wide pre-approval.
The Central Energy Plant refrigeration calculation described in EAp4 has not changed. Each building will continue to fill out the template to show full compliance with this credit.

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, and their waste diversion programs are ongoing.

Appendix F
Stanford Alternative Means

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 2, May 30, August 30, and November 30, 2012.

IDc1.3, Green Housekeeping

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

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.
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. There were no building projects that affected the water bank balance during this period.

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