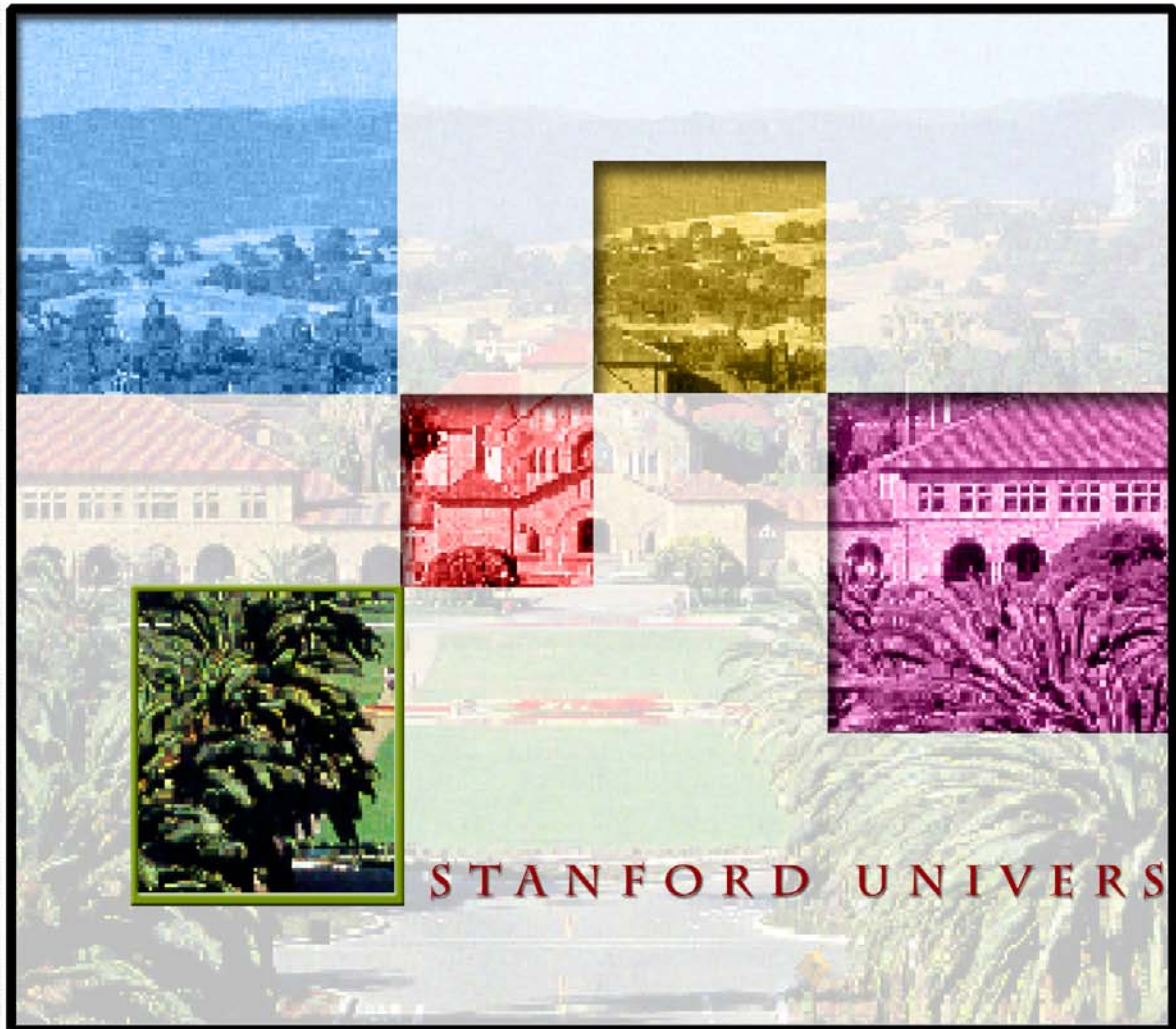


GENERAL USE PERMIT 2000

ANNUAL REPORT NO. 10



COUNTY OF SANTA CLARA
PLANNING OFFICE

June 2011

Prologue	P-1
Section I Introduction	1
Glossary of Terms	4
Section II Development Overview	5
GUP Building Area Cap.....	5
Other Space Caps	8
Housing	9
Parking	12
Section III Overview of Monitoring During Tenth Year	15
GUP Condition A: Building Area.....	15
GUP Condition B: Framework	15
GUP Condition C: Monitoring, Reporting, and Implementation	15
GUP Condition D: Permitting and Environmental Review	16
GUP Condition E: Academic Building Area Review	16
GUP Condition F: Housing	16
GUP Condition G: Transportation	17
GUP Condition H: Parking	18
GUP Condition I: Parks and Recreation Facilities.....	18
GUP Condition J: California Tiger Salamander	19
GUP Condition K: Biological Resources	19
GUP Condition L: Visual Resources	19
GUP Condition M: Hazardous Materials	20
GUP Condition N: Geology and Hydrology	20
GUP Condition O: Cultural Resources.....	20
GUP Condition P: Utilities and Public Services	20
GUP Condition Q: Air Quality	20
GUP Condition R: Noise.....	20
GUP Condition S: Additional GUP Conditions.....	21
Section IV Project Summaries	24
File No. 9963, Bing Concert Hall.....	26
File No. 10085, Arrillaga Family Dining Commons.....	27
File No. 9658, Madera Grove Children's Center: Mulberry House	28
Section V Anticipated Future Development.....	29
Section VI Other Information	
References	31
County of Santa Clara Report Project Team.....	31
Stanford University Data Providers.....	31

Annual Report 10

Tables

Table 1 Annual Report 10 Distribution of GUP-Allowed Academic and Academic Support Devt.	6
Table 2 Annual Report 10 Other Space Caps - Project Summary	9
Table 3 Annual Report 10 Distribution of Residential Development	11
Table 4 Annual Report 10 Distribution of Parking.....	13
Table 5 Annual Report 10 Development Projects Receiving ASA or Other Approval	24
Table 6 Anticipated Projects for Annual Report 11	30

Figures

Figure 1 Regional Location	1
Figure 2 Cumulative Development Activity 12/12/00-8/31/10.....	7
Figure 3 Distribution of Academic Development	8
Figure 4 Distribution of Residential Units	10
Figure 5 Distribution of Parking Spaces	12
Figure 6 Location of AR 10 Projects.....	23
Figure 7 Location of Anticipated Projects	33

Appendices

Appendix A	General Orientation Maps of Stanford Lands and Campus
Appendix B	GUP Conditions and Compliance Activities
Appendix C	Cumulative Projects
Appendix D	Summary Report of Traffic Monitoring
Appendix E	Santa Clara County Board Summary: Sustainable Development Study and Sustainability at Stanford Annual Report

The purpose of this Annual Report (AR) is to provide public documentation that summarizes Stanford University development and required environmental mitigation activity within the jurisdiction of unincorporated Santa Clara County, for the period of September 1, 2009, through August 31, 2010. This report documents both new projects approved during the reporting period and the status of ongoing projects. Information on project status and a summary of development through the AR 10 reporting period is provided in Section II. Section III provides a summary of GUP compliance. Details and illustrations of projects that received ASA approval during this reporting period are provided in Section IV. Section V describes anticipated development, and Section VI provides information on references and the project team. See Appendices A, B, C and D for campus maps, GUP conditions and additional compliance details, summaries of cumulative development on campus, traffic monitoring results, and summary of sustainable activities initiated and ongoing by Stanford University.

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 tenth annual reporting period, Kavitha Kumar was the Santa Clara County Planning Office project manager for the Stanford University environmental mitigation monitoring and reporting program. Specific questions regarding this project or the Stanford Community Plan/General Use Permit/Environmental Impact Report may be directed to Kavitha Kumar. Contact information is included at the end of this report.

THIS PAGE INTENTIONALLY LEFT BLANK

I. Introduction

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.

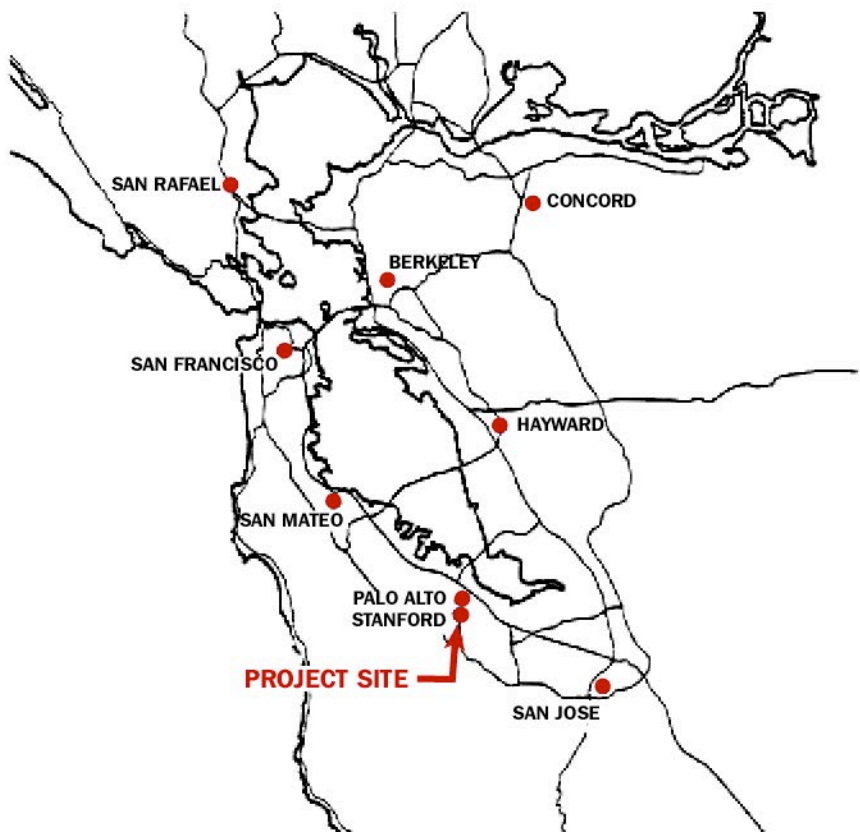


Figure 1 Regional Location

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. These mitigation measures were identified within the EIR, and 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 Tenth Annual Report (“AR 10”) 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, 2009, to August 31, 2010. Activities or projects that occurred after August 31, 2010, are beyond the scope of this Annual Report, but will be presented in the next Annual Report that will cover activities between September 1, 2010, and August 31, 2011.

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

- I. Introduction** - presents the background of the 2000 GUP, its overall requirements, the reporting period of the Annual Report, and the 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 Tenth 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 under the next Annual Report and illustrates their proposed locations.
- VI. Other Information** - presents references for the information used in this Annual Report and the persons involved in its preparation.

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

Appendix B - presents the complete list of 2000 GUP conditions and associated compliance activities.

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 2010.

Appendix E – presents the Stanford Sustainability Annual Report.

Glossary of Terms

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

AR	Annual Report: “AR 10” refers to Stanford's tenth 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 ASA process and public hearing. ASX is a discretionary staff approval process. ASA 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: GUP Condition E.5 requires Stanford to complete and submit to the Planning Office for Board of Supervisor approval a Sustainable Development Study.

II. Development Overview

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 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. Deductions from the 2000 GUP building area cap are made in this annual report for those projects that received building permits between September 1, 2009 and August 31, 2010.

The GUP generally distributes the 2,035,000 sq. ft. of additional academic and academic support facilities among 10 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 10 reporting period.

TABLE 1
ANNUAL REPORT 10
DISTRIBUTION OF GUP-ALLOWED ACADEMIC AND ACADEMIC SUPPORT
DEVELOPMENT¹

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	1,479,337	289,487	139,364	406,260	545,624	933,713
DAPER & Administrative	370,000	(12,688)	(12,688)	324,830	312,142	57,858
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	0	0	0	(5,733)	(5,733)	5,733
Arboretum	0	0	0	0	0	0
San Juan	0	0	0	0	0	0
Total	2,035,000	276,799	126,676	699,768	826,444	1,208,556

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 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. In addition, during AR9 reporting period, 931 gsf was redistributed from the Campus Center District to West Campus District to support the Oak Road Restrooms and Golf Practice Storage Trailer projects.
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.

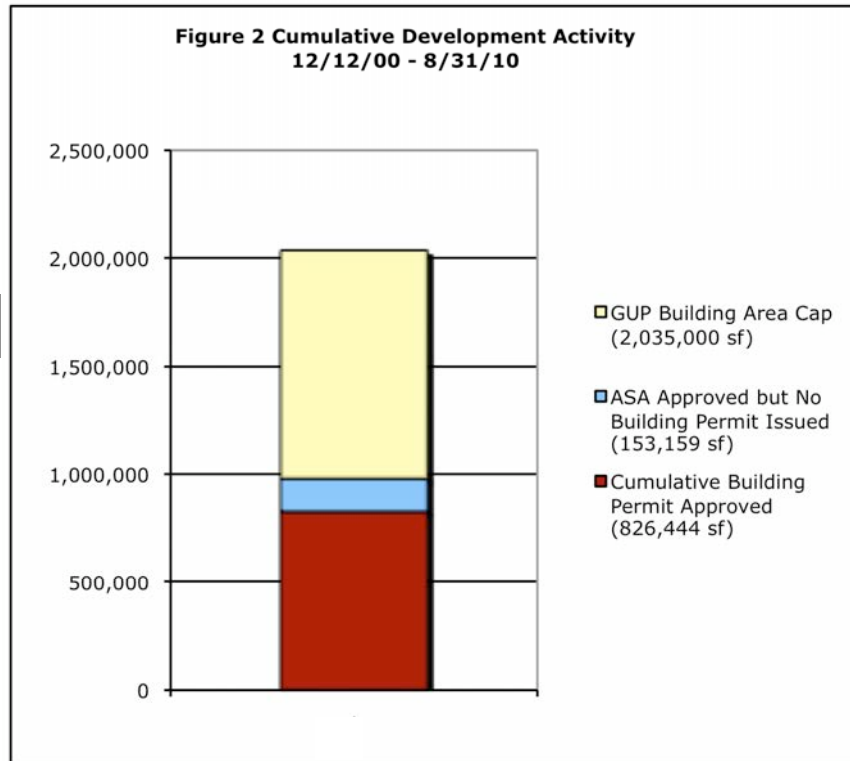
During the AR 10 reporting period, 9 projects received ASA and 12 projects received ASX approvals.

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.

In June 2008, Stanford University Land Use and Environmental Planning Office began work in concert with the Santa Clara County Planning Office on the Stanford University Sustainable Development Study (SDS), pursuant to the requirements contained in Condition E.5.

II. Development Overview

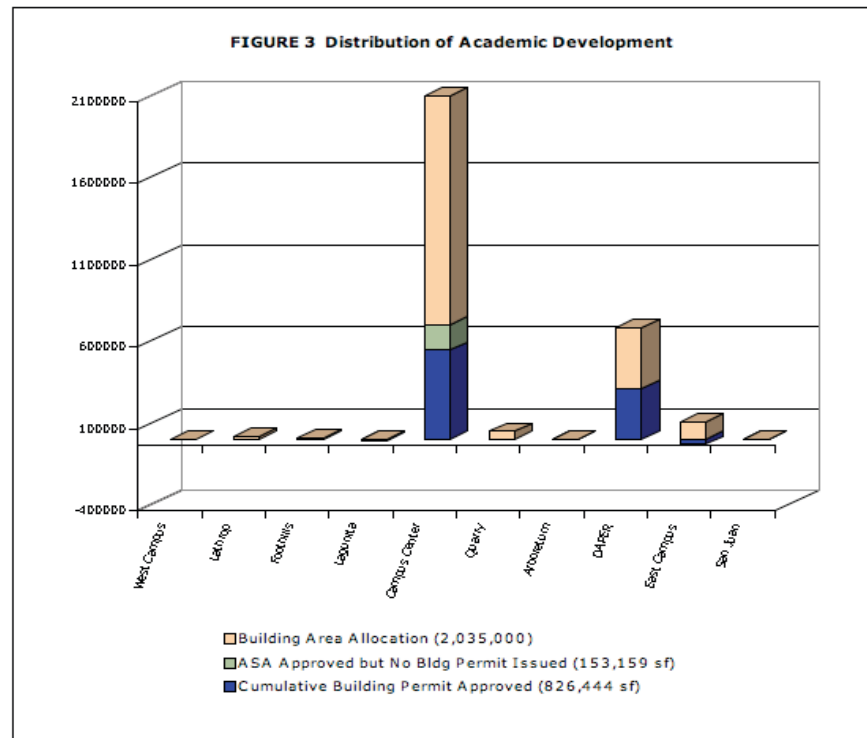
Figure 2 illustrates the cumulative status of development that counts toward the GUP building area cap. The square footage of building permit approvals is cumulative. In contrast, ASA approved square footage is only shown for projects that received ASA approval during the current reporting period.



The Stanford Community Plan and Condition E.5 require that the 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 that received a building permit or ASA approval during the current reporting period. Anticipated projects for Annual Report 11 are noted in Section VI, Table 6.

A map of Stanford University's Development District is provided Map 2 under 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 the 2,035,000 sq. ft. academic/academic support building area cap designated under the 2000 GUP, the 2000 GUP preserved the remaining 92,229 gsf of 1989 GUP-approved square footage. 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 activities in the form of temporary trailers. There was no addition to surge space in the AR 10 reporting period.

Childcare and Community Centers

The 2000 GUP (Condition A.2.c) allows up to 40,000 sq. ft. of additional building area for the purpose of new childcare or community centers. The ASA for Madera Grove Children's Center, Mulberry House was approved but the building permit was not issued during this reporting period.

II. Development Overview

TABLE 2
ANNUAL REPORT 10
OTHER SPACE CAPS - PROJECT SUMMARY

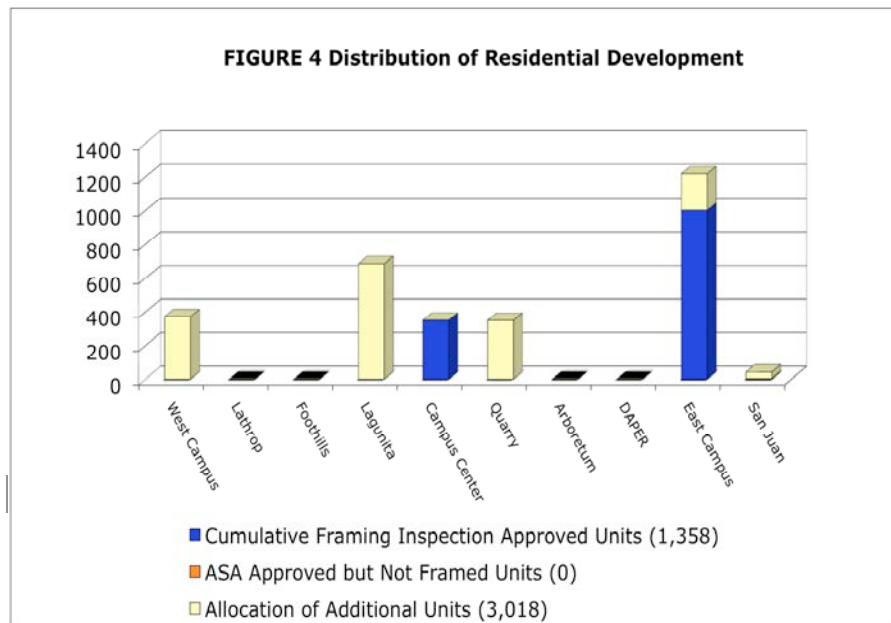
Non-Building Cap Category	Maximum Allowable Square Footage	ASA Approved (sq. ft.)	Building Permit (sq. ft.)	Cumulative Building Permits Approved (sq. ft.) in Previous ARs	Cumulative Total Building Permits Approved (sq. ft.)	Balance Remaining (sq. ft.)
Remaining 1989 GUP Square Footage	92,229	0	0	92,229	92,229	0
Temporary Surge Space	50,000	0	0	28,085	28,085	21,915
Childcare/Community Center	40,000	7,895	0	27,947	28,144	11,856

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 will be distributed among the 10 development districts (see Table 3).

Housing may also be developed on sites other than those shown on Map 3, and 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 2000 GUP Conditions F.2, F.3, and F.4. As explained under 2000 GUP 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 10 reporting period, two housing projects (Olmsted Terrace Faculty Homes – File Number 9923, and Olmsted Road Staff Rental Housing – File Number 9792) were approved. 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. The Olmsted Terrace Faculty Homes and Olmsted Road Staff Rental Housing projects were framed during this reporting period. In addition, two student housing renovation projects resulted in a slight change in housing units.



As illustrated in Figure 4, the cumulative total of approved units under the 2000 GUP allocation is 1,358 units.

The Olmsted Road Staff Rental Housing includes the construction of 25 units of staff housing – 17 single family detached homes and four duplexes.

The Olmsted Terrace Faculty Homes entails the construction of 39 single-family detached houses on lots ranging in area from 3,200 to 7,500 square feet each. The three- and four-bedroom homes will range from approximately 1,930 to 2,400 gsf, and include a two-car garage and a designated guest parking space.

II. Development Overview

TABLE 3
ANNUAL REPORT 10
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 - Crothers - Olmsted Rd Rental - Olmsted Terrace	100 Undergrad/Graduate 1,043 Graduate 75 Faculty/Staff			2 25 39	
East Campus Subtotal		0	937	66	1,003
San Juan Lower Frenchman's Gerona Mayfield 717 Dolores	18 Faculty/Staff 12 Faculty/Staff 9 Faculty/Staff	0	0	4	4
San Juan Subtotal		0	0	4	4
Total	3,018 Allowed ²	0	1,288	70	1,358

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 occurred 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 2000 GUP Condition A.3.c, the building area of parking structures does not count towards the 2000 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

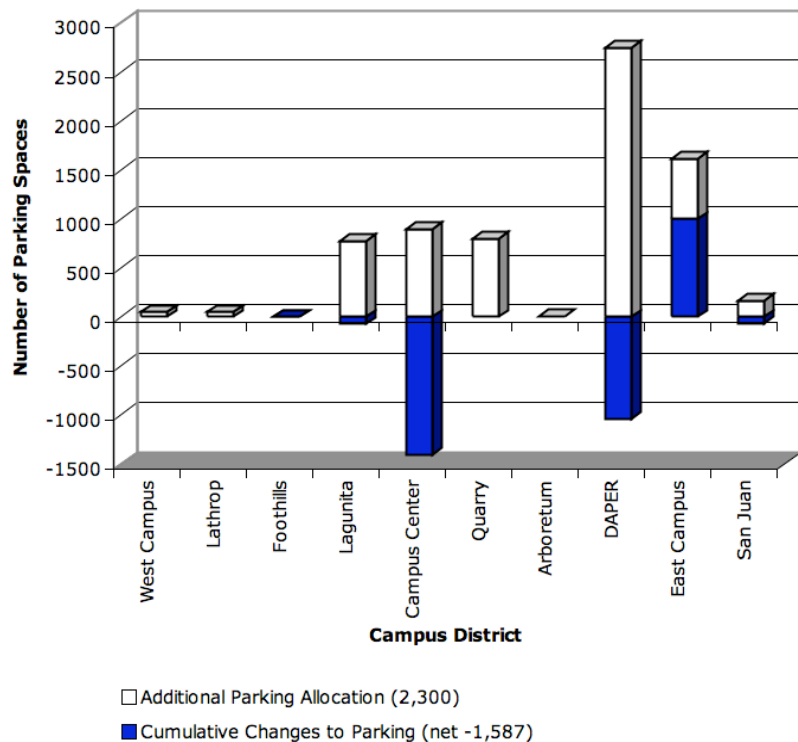


Table 4 presents the changes in parking spaces during the current reporting period, and cumulative increases and decreases in parking spaces on the campus during the AR 1 through AR 10 reporting periods.

As shown in Table 4, several parking projects were implemented in the Arboretum, Campus Center, DAPER & Administrative, East Campus, Lagunita, and San Juan development districts during the AR 10 reporting period that collectively resulted in a net reduction of 56 parking spaces on campus. The cumulative change in the parking inventory is a net decrease of 1,587 parking spaces under the 2000 GUP.

II. Development Overview

TABLE 4
ANNUAL REPORT 10
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 10 Contribution	Previous AR 1-9 Contribution	Cumulative (AR 1 Through Current AR 10)	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	9	(80)	(71)	1,674	771
Campus Center	8,743	(511)	91	(1,495)	(1,404)	7,339	893
Quarry	1,058	800	0	2	2	1,060	798
Arboretum	134	0	(4)	0	(4)	130	4
DAPER & Administrative	2,209	1,700	4	(1,047)	(1,043)	1,166	2,743
East Campus ²	4,731	1,611	(152)	1,153	1,001	5,732	610
San Juan	540	100	(4)	(63)	(67)	473	167
Campus Wide Summary	19,351	2,300 ¹	(56)	(1,531)	(1,587)	17,764	3,887
<p>1. 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.</p> <p>2. Parking allocation in East Campus increased from 900 to 1,611 spaces and decreased in Campus Center from 200 to -511 with the approval of Parking Structure 6 (Munger).</p>							

THIS PAGE INTENTIONALLY LEFT BLANK

III. Overview of Monitoring During Tenth Year

This section provides a summary of activities conducted during the AR 10 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 2000 GUP space expenditure for those projects that received building permits during the AR 10 reporting period. Descriptions and illustrations of projects that received ASA and ASX during the AR 10 reporting period are provided in Section IV.

During the AR 10 reporting period, September 1, 2009 through August 31, 2010:

- 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 21 projects received ASA approval or ASA Small Project Exemption (ASX) during the AR 10 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 completed the data collection, analysis and publication of AR 10 pursuant to the 2000 GUP. Stanford University provides funding for all aspects of the Annual Report preparation, and necessary information included in the report in a timely manner.

The Draft AR 10 will be presented to the Community Resource Group in April 2011 and the final report will be presented to the Planning Commission at the June 2011 public hearing.

GUP Condition D: Permitting and Environmental Review

During the AR 10 reporting period, Stanford received ASA or ASA-Small Project Exemption (ASX) for 21 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 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

Stanford framed the Olmsted Staff Housing and Stanford Avenue Housing for a total of 64 units. During this reporting period, Stanford also renovated Crothers Hall and 717 Dolores Avenue adding a total of 6 housing units. The total number of campus housing units constructed under the 2000 GUP is 1,358.

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

III. Overview of Monitoring During Tenth Year

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 1,358 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 2010, the affordable housing fees are assessed at the rate of \$17.72 per square foot of net new academic or academic support space approved under the building permit. Stanford has made affordable house fee payments to date totaling \$12,738,285.59.

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 involved 6 weeks in the spring and 2 weeks in the fall to monitor Stanford's compliance with the "no-net-new commute trip" standard. This report is available for review at the County and is also available on the County website, (www.sccplanning.org). Results of subsequent 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 2010 Monitoring Report concluded that the adjusted AM inbound count totaled 2,921 vehicles. This represented a decrease of 398 vehicles from the baseline, which falls below the 90% confidence interval by 518 vehicles, and does not represent a significant AM inbound traffic increase. The PM outbound count totaled 3,459 vehicles, which is a decrease of 13 vehicles from the baseline, which is 96 vehicles below the 90 percent confidence interval and 132 vehicles below the 1% established trigger. Therefore no additional mitigation is required.

The 2010 traffic monitoring cordon locations remain the same and are shown on Map A-4, Appendix A. Data and analysis of these

counts, reported in December 2010 (AECOM), are provided in Appendix D of this annual report.

GUP Condition H: Parking

During AR 10 reporting period, all parking projects were in compliance with GUP Condition H. For more information, see 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 3,887 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. Stanford submitted plans for a construction permit for the S1 trail in compliance with the terms of the agreement reached with the County. On June 9, 2006, Committee for Green Foothills filed a lawsuit. Stanford began construction of the S1 trail on June 21, 2006 and halted on July 7, 2006. Stanford did not proceed with the construction of the S1 trail while the lawsuit was pending. The lawsuit was settled in December 2009 with a decision in favor of the County and Stanford. Construction on the S1, Matadero Trail for SCC Parks was resumed in May 2010.

Stanford's proposal for the design and funding of the C1/E12 Alpine Trail improvements was accepted by the Town of Portola Valley in 2009. Environmental review, selection of contractor and securing of permits has been completed. Construction is expected to commence in 2011.

San Mateo County has twice rejected the offer to improve the C1/E12 Alpine Trail. Stanford personnel continue to work with San Mateo County staff to restate the offer. Stanford is required to continue to make an offer until December 2011, per the terms of the 2006 Trails Agreement.

III. Overview of Monitoring During Tenth Year

GUP Condition J: California Tiger Salamander

During AR10, no projects were proposed or constructed within the California Tiger Salamander habitat zone.

In April 2010, the draft Stanford University Habitat Conservation Plan and Draft Environmental Impact Statement 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 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.

GUP Condition K: Biological Resources

Five projects that began construction during the current reporting period required pre-construction surveys for breeding raptors and migratory birds. Bird nests were observed at the Practice Golf Course Irrigation tank project location. Construction was suspended until the birds fledged. For more information, see Appendix B, Condition K.2. No rare plant assessments were conducted on campus during this reporting period.

One project (Madera Grove Children’s Center) approved during this period will affect trees protected by the Stanford Community Plan policies and project-specific conditions of approval. Affected trees have been or will be relocated or replaced in accordance with the Stanford Community Plan Policy SCP-RC (i)7 and other County requirements. Details are provided in Appendix B, Condition K.4.

An arborist conducts annual inspections of the oak trees located at the Stanford Stadium, regarding the effect of irrigation from the redwoods 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 oaks. Stanford is in compliance with this condition. This inspection will continue until 2012.

GUP Condition L: Visual Resources

No significant activity regarding visual resource conditions occurred during this reporting period. None of the projects

Annual Report 10

approved during the AR 10 reporting period included new exterior lighting.

GUP Condition M: Hazardous Materials

During the AR 10 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 10 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 10 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 10 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 no complaints were received. See Appendix B, Condition R for more detail.

III. Overview of Monitoring During Tenth Year

GUP Condition S: Additional GUP Conditions

No other significant activity occurred during this reporting period.
See Annual Reports 1 through 9 for previous activities.

THIS PAGE INTENTIONALLY LEFT BLANK

IV. 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.

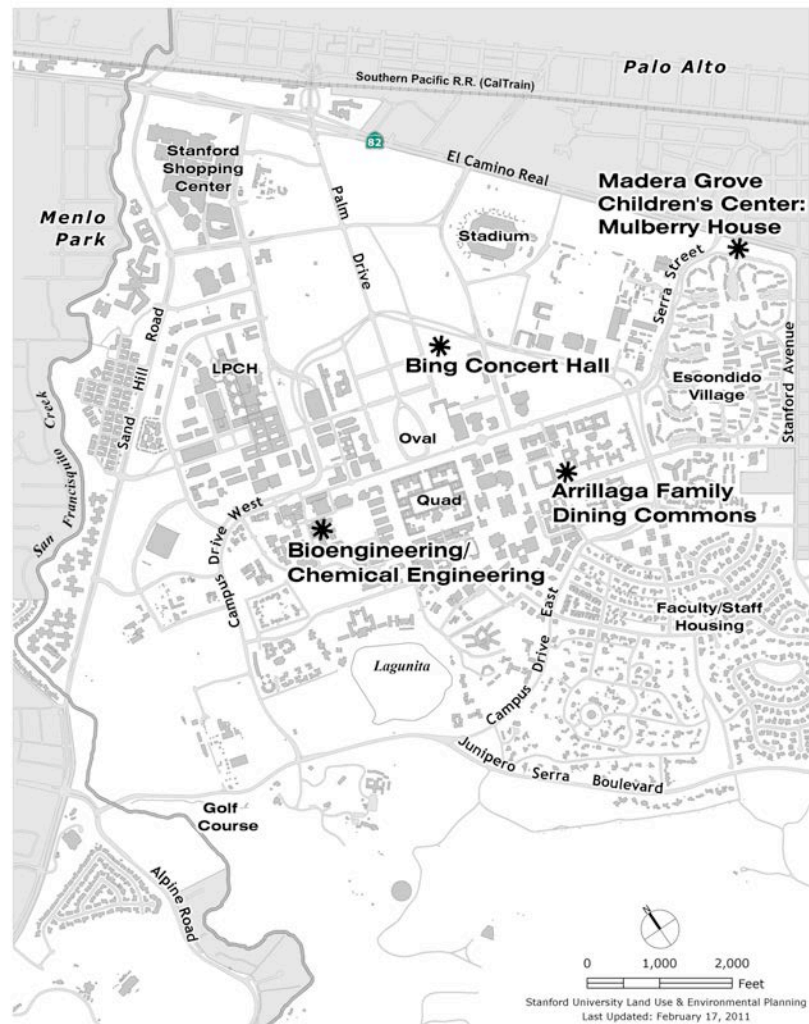


FIGURE 6. Location of Major AR10 Projects

Annual Report 10

TABLE 5
ANNUAL REPORT 10
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						
9844	Peterson Building Renovation	Campus Center	(561)	(661)	(661)	Completed
9849	Mechanical Engineering Building	Campus Center	19,200		Not yet	On Hold
9817	Lorry I. Lokey Stem Cell Research (formerly SIM1)	Campus Center	199,802	N/A	198,734	Completed
9626	Li Ka Shing Center for Learning and Knowledge (LKC) building and Connective Elements	Campus Center	104,000 5,890		104,000 5,890	Completed
	Fairchild Auditorium			(14,600)	(14,600)	
	Welch Rd Modulares			(4,030)	(4,030)	Application in process to reuse
9757	Center for Nanoscale Technology	Campus Center	98,543		99,297	Completed
	Jen-Hsun Huan School of Engineering Center		124,766		125,639	
	Ginzton			(69,714)	(69,714) ¹	Demolition permit process underway
	Terman Engineering			(148,818)	(148,818) ¹	
9730	John A and Cynthia Fry Gunn SIEPR	Campus Center	31,298		31,784	Completed
9916	Volkswagen Automotive Innovation Lab	Campus Center	8,000		8,000	Completed
9949	Oak Road Restrooms	West Campus	499		499	Completed
9973	DAPER Corps Yard	DAPER	N/A	(12,688)	(12,688)	Demolished
9773	Knight Management Center (formerly GSB)	DAPER & Administrative	360,000		331,093	Under construction
	Serra Complex	DAPER & Administrative		(84,000)		Completed
	GSB South	Campus Center		(167,371)		Reuse under study
	Kresge Auditorium	Campus Center		(13,042)		Completed
9996	Neukom Building	Campus Center	59,372		61,014	Under construction
N/A	Cubberley Seismic	Campus Center		(3,654)	(3,654)	Completed

IV. Project Summaries

TABLE 5
ANNUAL REPORT 10
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
9963	Bing Concert Hall	Campus Center	89,000		78,350	Under construction
9697	BioEngineering/ Chemical Engineering	Campus Center	153,159		Not yet	In design
Projects that affect Other gsf						
9715	SCRA Replacement	East Campus	3,590		3,701	Completed
	Old SCRA			(2,617)	(2,617)	
9658	Madera Grove Children's Center: Mulberry House	East Campus	7,895			Awaiting permit
Housing						
-	Crothers Dorm	Campus Center	N/A		N/A	Completed
-	717 Dolores	San Juan	N/A		N/A	Completed
9923	Olmsted Rd. Staff Rental Housing	East Campus	53,831		53,824	Under Construction
9792	Olmsted Terrace Faculty Homes	East Campus	103,127		103,127	Under construction
10085	Arrillaga Family Dining Commons	East Campus	28,260		28,260	Under construction
Site Projects						
9626	LKC Site Work	Campus Center	N/A	N/A	N/A	Completed
9776	Campus Drive West Realignment	Campus Center	N/A	N/A	N/A	Completed
9820	Steelhead Habitat Enhancement Proj.	Foothills	N/A	N/A	N/A	Completed
9792	Stanford Avenue Storm Drain Relocation	East Campus	N/A	N/A	N/A	Completed
9860 /9861	Cell on Wheels Jenkins / Bowdoin	East Campus & Campus Center	N/A	N/A	N/A	Removed
7352	Practice Golf Water Tank	Foothills	N/A	N/A	N/A	Under construction
various	Cell Tower – DAS	Various	N/A	N/A	N/A	Completed
10023	Jordan Hall Cryovent	Campus Center	N/A	N/A	N/A	Under construction
6512	Athletics Sign Replacement	DAPER & Administration	N/A	N/A	N/A	Completed
6939	Soccer Bleachers	DAPER & Administration	N/A	N/A	N/A	Under construction

Annual Report 10

File No. 9963, Bing Concert Hall

ASA Application Submitted: 02/20/09

ASA Approved: 09/10/09

Status as of 08/31/10: Under Construction

Project Description: The project involves the construction of a 78,350 square foot concert hall that will house approximately 900 seats. It is designed acoustically for a range of music types from small chamber to medium-sized orchestra serving the Stanford University and local communities. The project has an estimated grading of 20,962 cubic yard of cut and 12,474 cubic yard 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. 10085, Arrillaga Family Dining Commons

ASA Application Submitted: 02/26/10

ASA Approved: 05/13/10

Status as of 08/31/10: Unde Construction

Project Description: The project is the construction of a two-story, 28,260 gross square foot undergraduate dining facility for use by the Stanford community. The proposed site is the location of the existing Toyon parking lot adjacent to Toyon Hall. The new dining commons will support Crothers, Crothers Memorial and Toyon Halls (undergraduate student housing facilities). The facility will accommodate up to 400 undergraduate students. The proposed dining facility will complement the adjacent undergraduate housing facilities.

Development District: East Campus

Type of Project: Housing



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.

Annual Report 10

File No. 9658, Madera Grove Children's Center: Mulberry House

ASA Application Submitted: 02/11/10

ASA Approved: 04/08/10

Status as of 08/31/10: Awaiting Building Permit

Project Description: This project is the construction of a two-story, 7,895 gross square foot childcare facility for use by the Stanford community. The facility will accommodate up to 100 children. The proposed Children's Center will complement the existing Madera Grove Children's Center: Acorn Childcare located adjacent to the site.

Development District: East Campus

Type of Project: Childcare



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.

V. Anticipated Future Development

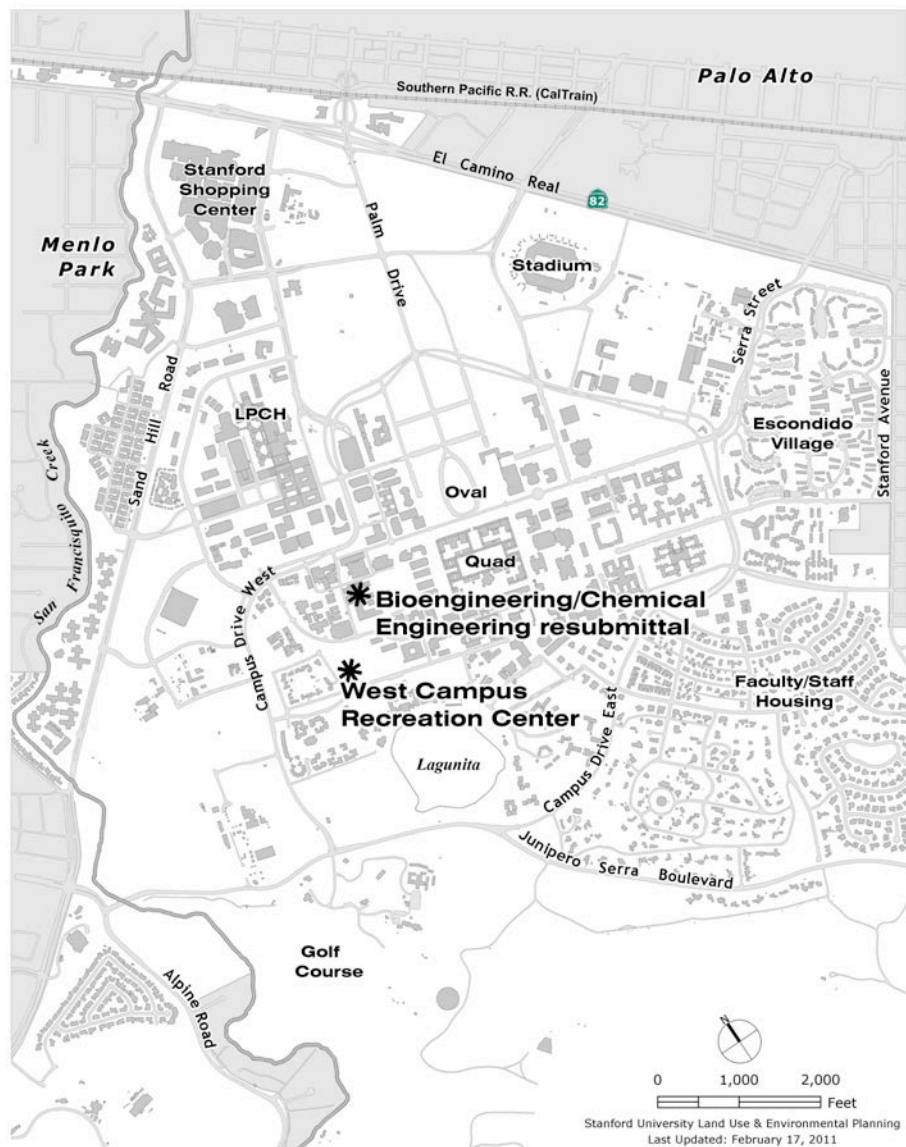


FIGURE 7. Location of Anticipated Projects

TABLE 6
ANTICIPATED PROJECTS FOR ANNUAL REPORT 11

Development District	Project	County File #	ASA Application Submitted	Anticipated ASA Square Footage	Anticipated Housing	Anticipated Parking
ASA Applications Submitted During AR 10, No Approval as of August 31, 2010						
Campus Center	Braun Music Center	1415	8/5/10	167	-	-
Lagunita	Bob Housing	10156	8/24/10	0	-	-
Lagunita	Casa Italia	10155	8/24/10	0	-	-
Lagunita	Storey House	1326	8/24/10	0	-	-
ASA Applications Anticipated During AR 11 Reporting Period						
DAPER & Administration	Bonair Siding Fuel Storage	1541		0		
Campus Center	Terman Site Pocket Park	6231		0		
Lagunita	West Campus Recreation Center	10177		75,000		
Campus Center	BioEngineering/ ChemicalEngineering Major Modification	9697		196,315		
Campus Center	Welch Modulares	5243		4,030		

V. Anticipated Future Development

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
- Gary Rudholm, Senior Planner, Planning Office

Stanford University Data Providers

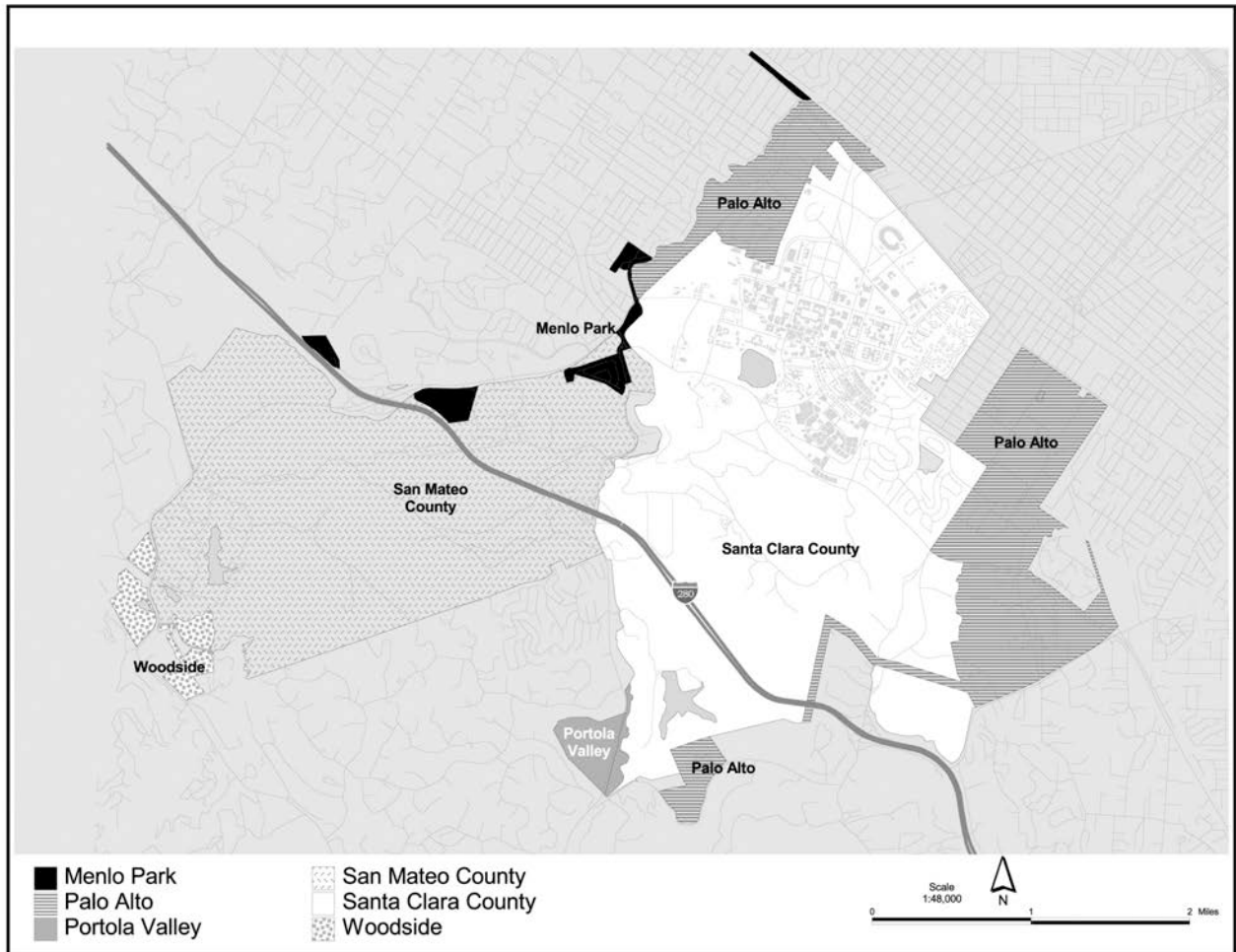
- Charles Carter, Director, Land Use and Environmental Planning
- Catherine Palter, Associate Director, Land Use and Environmental Planning
- Maria Cacho, Senior Environmental Planner/Analyst
- Joe Ryan, GIS Specialist
- Karin Saray Moriarty, Media Specialist

THIS PAGE INTENTIONALLY LEFT BLANK

Appendix A

Reference Maps

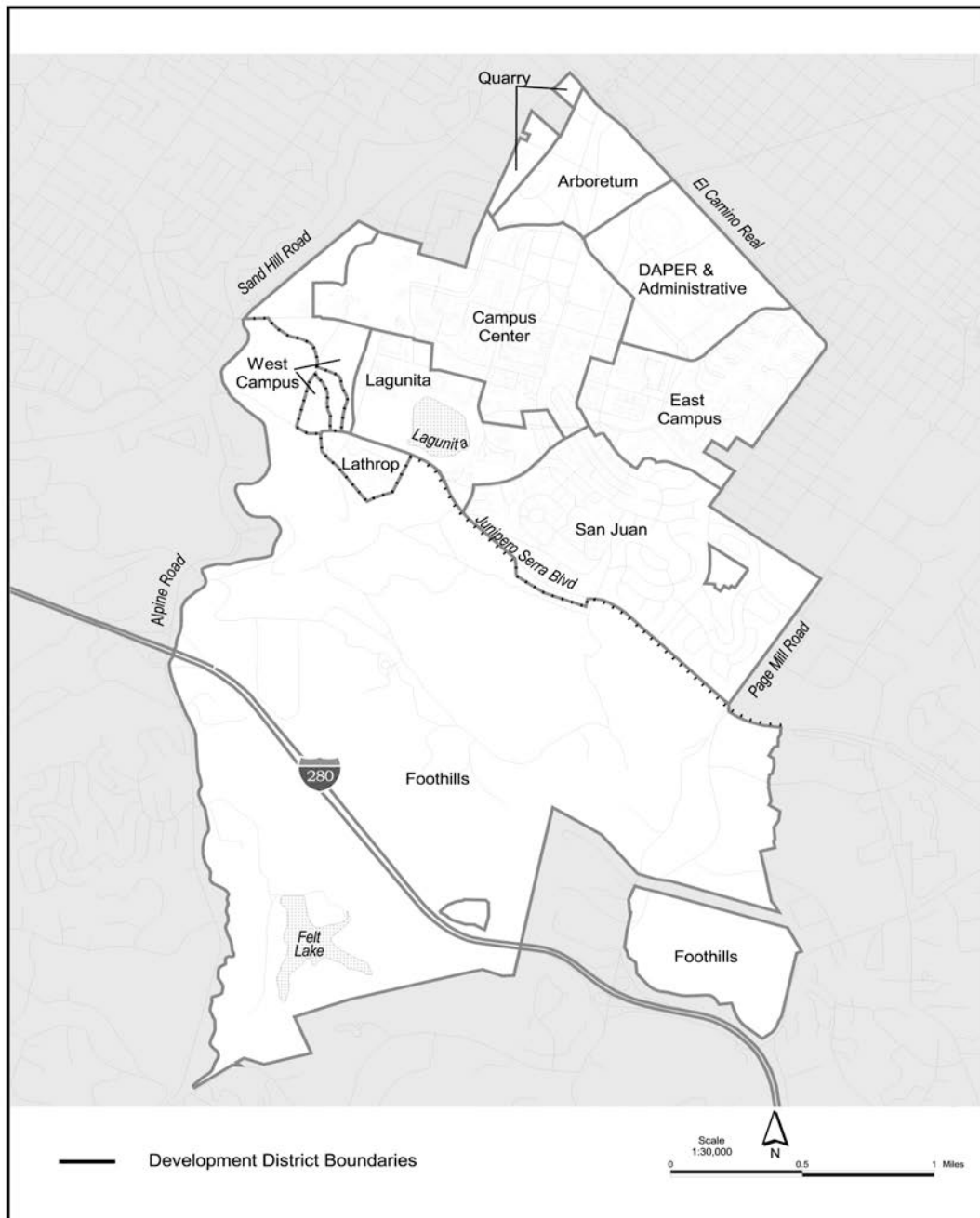
Appendix A Reference Maps



Source: Stanford University General Use Permit, December 2000

MAP A-1
GOVERNMENTAL JURISDICTIONS ON STANFORD LANDS

Appendix A Reference Maps

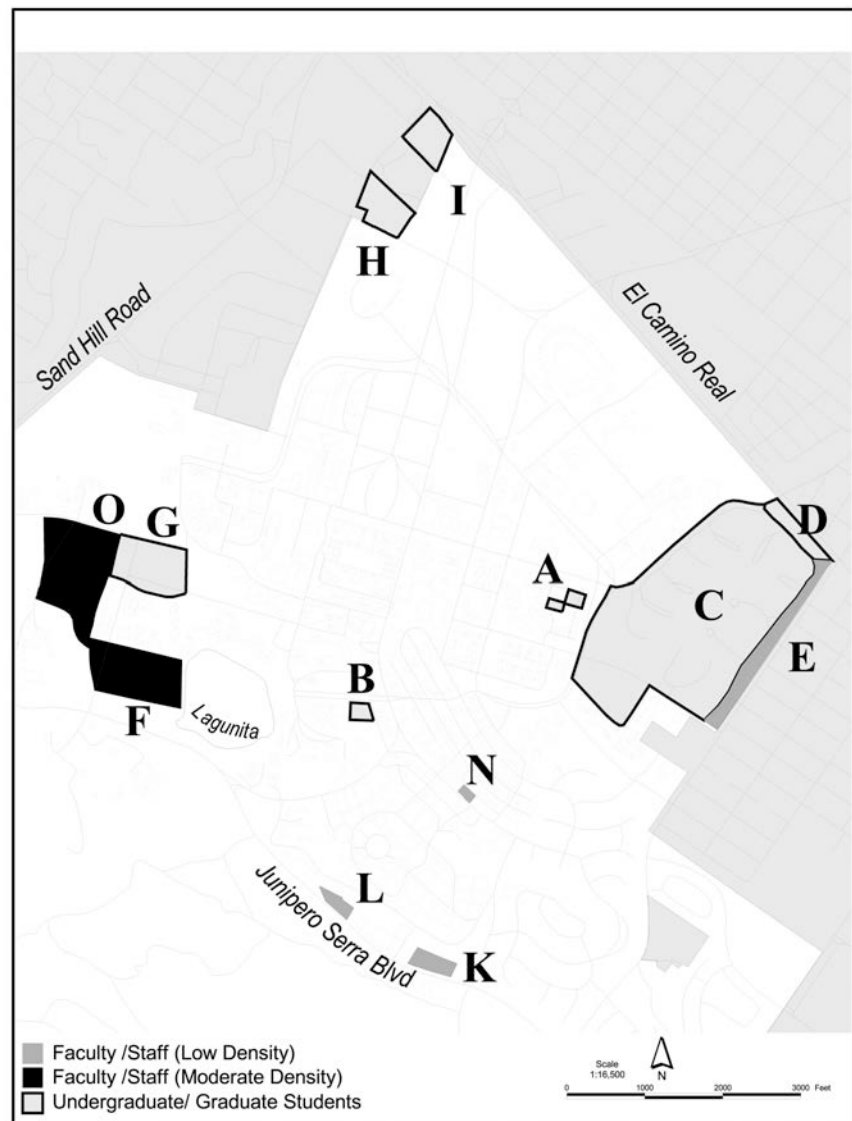


Source: Stanford University General Use Permit, December 2000

MAP A-2
STANFORD UNIVERSITY DEVELOPMENT DISTRICTS

Appendix A Reference Maps

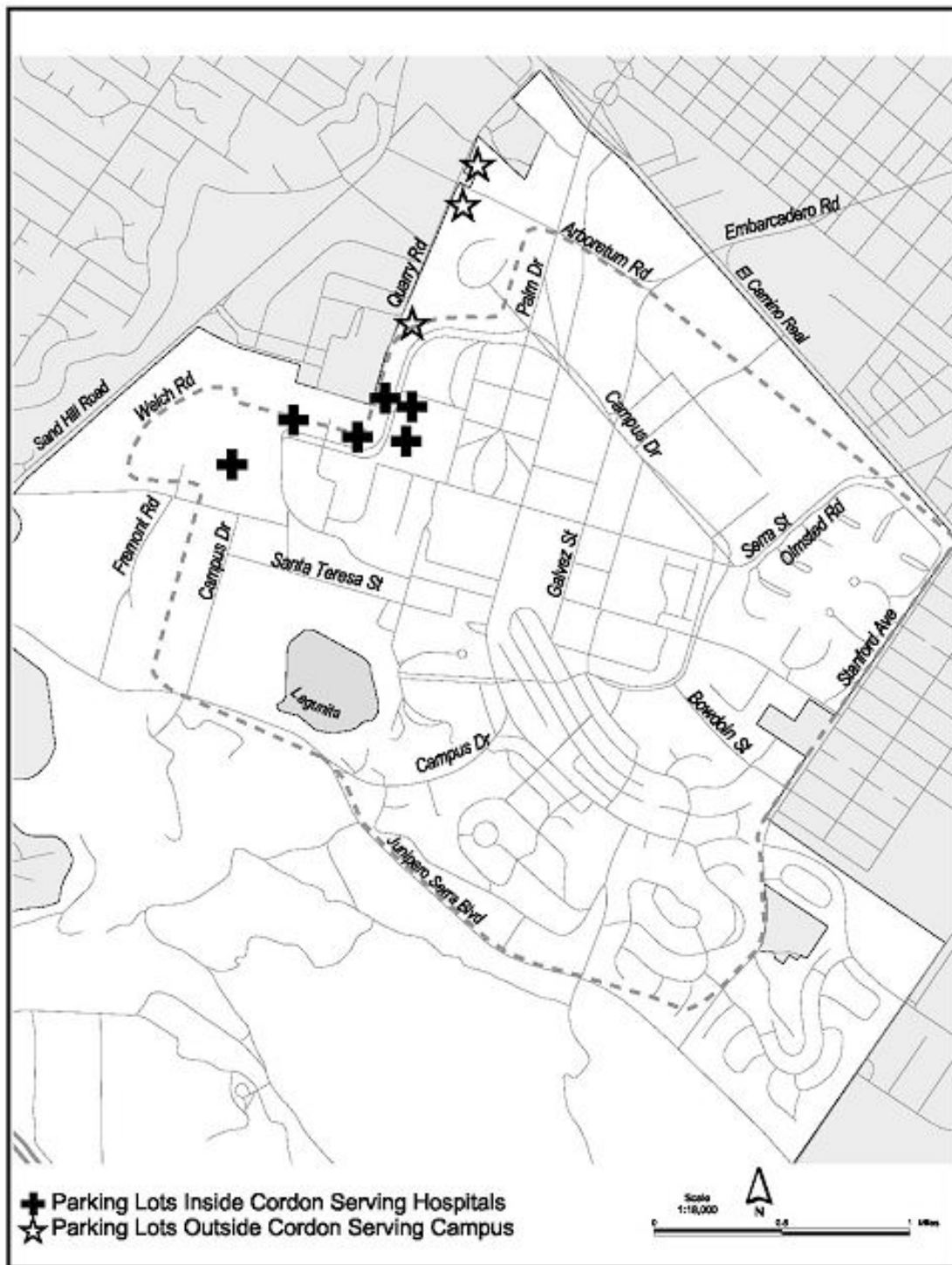
- A** *Manzanita*
- B** *Mayfield/Row*
- C** *Escondido Village*
- D** *Escondido Village*
- E** *Escondido Village*
- F** *Driving Range*
- G** *Searsville Block*
- H** *Quarry/Arboretum*
- I** *Quarry/El Camino*
- K** *Lower Frenchman's*
- L** *Gerona*
- N** *Mayfield*
- O** *Stable Sites*



Source: Stanford University General Use Permit, December 2000

MAP A-3
POTENTIAL HOUSING SITES

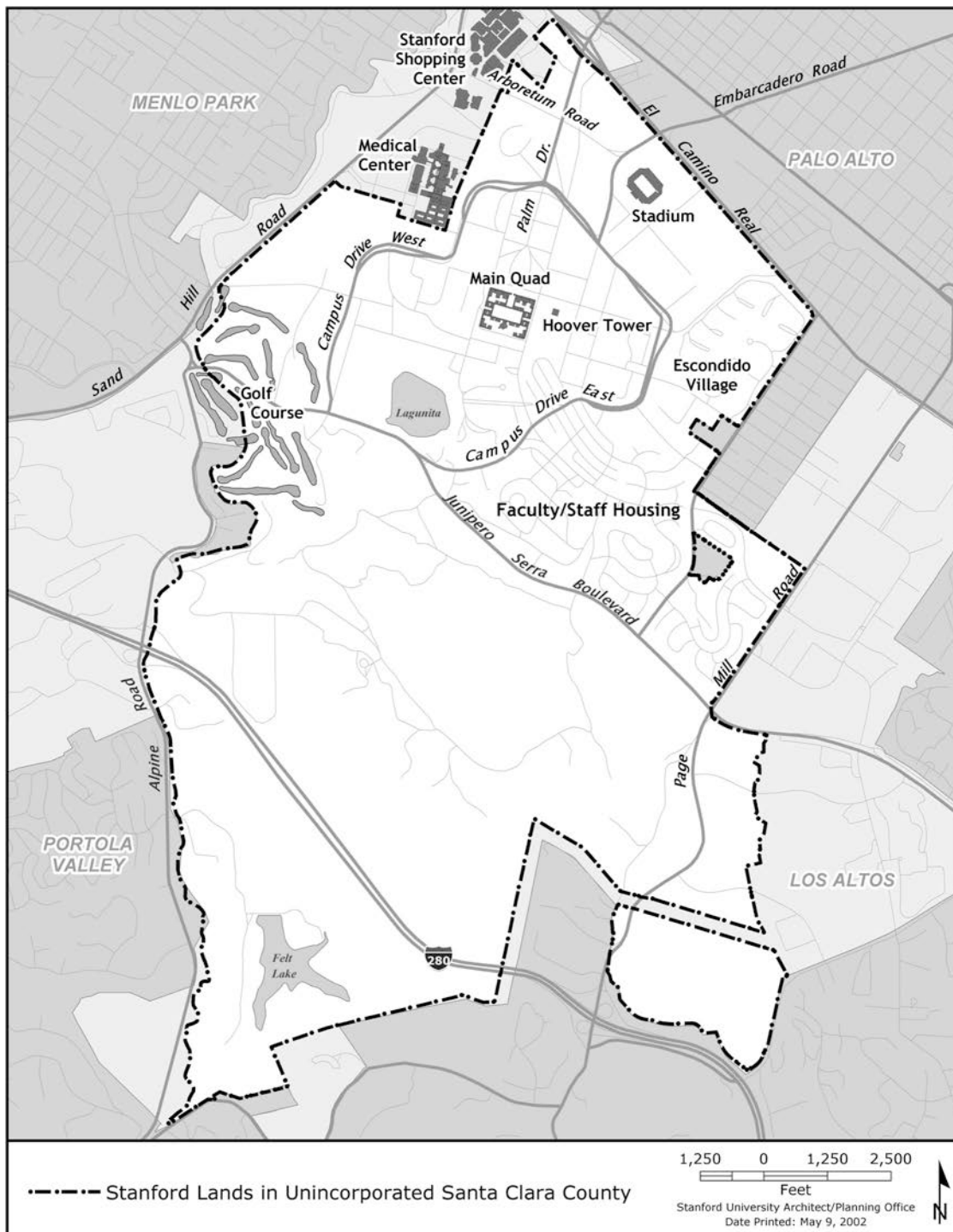
Appendix A Reference Maps



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
(UNINCORPORTATED 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.	<p>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.”</p> <p>During this reporting period, 70 housing units received final framing inspection. As of August 31, 2010, the cumulative housing units are 1,358, as shown in Section II (Table 3).</p> <p>During the AR 10 reporting period, there was a net decrease of 56 parking spaces. Changes that resulted from these projects are enumerated in Section II (Table 4).</p>
A.2.	Building area allowed in addition to the GUP building area cap.	<p>The remaining 1989 GUP approved square footage was consumed during the Annual Report 5 reporting period, per Condition A.2.a.</p> <p>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 10 no changes to surge space occurred, as shown in Section II (Table 2).</p>
A.3.	Construction that does not count toward the GUP building area cap.	<p>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 10 no changes to childcare or community center space occurred, as shown in Section II (Table 2).</p>
B. Framework		
B.1.	Development under the GUP must be consistent with the Community Plan and General Plan.	Twenty-one 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, 2009 to August 31, 2010.
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 tenth 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 10 will be presented to the CRG on April 14, 2011.
C.2.e. Presentation of the Annual Report to the Planning Commission in June of each year.	This Annual Report 10 is scheduled for presentation to the Planning Commission at the June 2, 2011 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, 2009 and August 31, 2010.
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-one projects received ASA/ASX during the reporting period, as described in Section II and detailed in Section IV of this Annual Report. No projects required design review, one project received subdivision approval.
D.2. Compliance with adopted GUP conditions and adopted mitigation measures within the Mitigation Monitoring and Reporting Program (MMRP).	<p>During this reporting period, Stanford submitted 21 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.</p> <p>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</p>

Appendix B

GUP Conditions and Compliance Activities

GUP Condition	Stanford Compliance
	directing Stanford with specific requirements for 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.	The Concert Hall was approved with an Addendum to the GUP EIR to assess additional impacts that were outside the scope of the EIR. No environmental assessments were required 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. Demolitions were approved in DAPER District (see Section IV Project Summaries for details).
E.2. Deviation from the proposed distribution of academic development.	During the reporting period, there were no deviations from the proposed distribution of academic development.
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.	Two housing projects, Olmsted Terrace Faculty Homes and Olmsted Road Staff Rental Housing, received framing inspection during AR 10, and are currently under construction. Crothers and 717 Dolores Avenue housing remodeling projects were completed. To date, 1,358 housing units have been

Appendix B

GUP Conditions and Compliance Activities

GUP Condition		Stanford Compliance
		built or framed.
F.2.	Other allowed housing sites.	During AR 10 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 Foothills, Lathrop, or Arboretum districts.	No housing projects were proposed for any of these districts during the reporting period.
F.6.	Compliance with affordable housing requirement.	Stanford has complied with the affordable housing 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 2010, the affordable housing fees are assessed at the rate of \$17.72 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 totaling \$12,738,258.59.
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 1,358 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

Appendix B

GUP Conditions and Compliance Activities

GUP Condition	Stanford Compliance
	<p>incentives, vanpool services, bicycle and pedestrian services, alternative transportation promotional activities, and staff support of alternative transportation programs.</p> <p>Several program changes were made in previous years, which have helped encourage the use of alternative transportation as a means of arriving and departing the campus, and are described fully in AR 9.</p> <p>In 2009-10, the Zipcar program expanded to 34 Zipcars. A free bike safety class was developed and is now offered twice per month. Self-serve bike repair stands were installed at two locations on campus. Eighty-seven new bike lockers and 800 new bike rack spaces were added around campus. The P&TS website was expanded to include new information related to bike commuting, bike safety, and alternative transportation options. Two diesel-electric hybrid buses were added to the Marguerite shuttle bus fleet. Particulate traps were added to nine transit buses. The Research Park shuttle stop for the Palo Alto Transit Center was relocated from Alma Street to a more convenient location in the transit center. Additional stops were added to two Marguerite routes.</p>
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 9 cordon counts were conducted in Spring 2010 and completed in Fall 2010. The average AM trip count was 2,921 and the average PM trip count was 3,459. These peak hour counts were less than the trip limits established by the 2001 baseline counts with a 90% confidence level and 1% trigger. 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 volume.	The traffic counts were conducted in Spring 2010 and completed in Fall 2010 by the County's traffic consultant, AECOM Engineering. As described in Appendix D of this report, the results of the 2010 counts were analyzed against the baseline counts previously collected, and were determined not to exceed the traffic limits threshold for the AM and PM

Appendix B

GUP Conditions and Compliance Activities

GUP Condition	Stanford Compliance
	peak hour traffic.
G.8. Off-campus trip reduction.	During AR 10, Stanford received 170 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.	No project-specific traffic studies were prepared during the reporting period.
G.12. Construction traffic management plan.	<p>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.</p> <p>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/.</p> <p>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.</p>
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 (R&A) met on several occasions regarding the JSB traffic calming project. In June 2010, County Supervisor Liz Kniss announced that the County Board of Supervisors had approved \$1.5M in funding to complete the project. R&A is managing completion of design and engineering, permitting and approvals, including CEQA review, and providing

Appendix B

GUP Conditions and Compliance Activities

GUP Condition		Stanford Compliance
		schedule updates to Stanford and other interested parties. No certain date of project completion has been established.
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 56 parking spaces on the campus for a total cumulative decrease since September 1, 2000 of 1,587 spaces. Changes in parking occurred in the Lagunita, Campus Center, Arboretum, DAPER & Administrative, East Campus, and San Juan Development Districts. See Section II, Table 4, and Appendix C-3 for details.
H.2.	Residential Parking Permit Program.	<p>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.</p> <p>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.</p>
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 <i>Stanford University Program for the Replacement of Recreational Facilities in the San Juan District</i> . 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.

Appendix B

GUP Conditions and Compliance Activities

GUP Condition	Stanford Compliance
<p>I.2.a. In consultation with the County Parks and Recreation Department, identify and complete Trail Easements within one year of GUP approval.</p>	<p>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. Stanford submitted plans for a construction permit for the S1 trail in compliance with the term of the agreement reached with the County. On June 9, 2006, Committee for Green Foothills filed a lawsuit. Stanford began construction of the S1 trail on June 21, 2006 and halted on July 7, 2006. Stanford did not proceed with the construction of the S1 trail while the lawsuit was pending. The lawsuit was settled in December 2009 with a decision in favor of the County and Stanford. Construction on the S1, Matadero Trail for SCC Parks resumed in May 2010. Construction was substantially completed and signed easements and a management plan were submitted to County Parks within the reporting period. County Parks subsequently inspected the trail construction and requested additional improvement to address drainage, erosion and signage. Stanford made additional improvements and is awaiting a final inspection and acceptance of the trail easement by SCC Parks, which will be reported in AR 11. Bike lane additions to Deer Creek Road were among the S1 improvements. Stanford is awaiting approval of the roadway changes, including necessary right-of-way additions by County Department of Roads and Airports and City of Palo Alto Public Works.</p> <p>Stanford worked with the Town of Los Altos Hills to fund improvement to the existing C2 trail and provide linkage from the terminus of the Matadero trail to the Palo Alto Arastradero Preserve. A final trail agreement, design and permitting are anticipated to be complete in time to allow construction in 2011.</p> <p>Stanford's proposal for the design and funding of the C1/E12 Alpine Trail improvements was accepted by the Town of Portola Valley in 2009. Environmental review, selection of contractor and securing of permits has been completed. Construction is expected to commence in 2011.</p> <p>San Mateo County twice rejected an offer to improve the C1/E12 Alpine Trail. Stanford personnel continue to work with San Mateo County staff to restate the offer through December 2011, per the terms of the 2006 Trails Agreement.</p>
<p>I.2.b. Work with County Parks and Recreation Department to identify responsibilities for</p>	<p>Identification of trail construction, management, and maintenance responsibilities had begun previously,</p>

Appendix B

GUP Conditions and Compliance Activities

GUP Condition		Stanford Compliance
trail construction, management and maintenance.		based on Stanford's 2001 proposal (see Condition I.2.a above and "Overview of Monitoring Activities"). A trail management plan for S-1 was submitted during the reporting period and Stanford is awaiting a final acceptance by County Parks.
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 issuance of a building permit for a proposed building project on occupied CTS habitat.	No development was proposed within 500 meters of 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.

Appendix B

GUP Conditions and Compliance Activities

GUP Condition	Stanford Compliance
<p>J.9. U.S. Fish and Wildlife Service permit prior to construction on occupied CTS habitat if CTS is listed as threatened or endangered.</p>	<p>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.</p> <p>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 is expected to be completed in Summer 2011.</p>
<p>K. Biological Resources</p>	
<p>K.1. Special-status plant surveys.</p>	<p>The County hired Environmental Science Associates to complete a special status plant survey for one project site located within modified oak woodland habitat during the reporting period. The results showed negative findings for rare plants on the site. This project complied with the special-status plant survey condition.</p>
<p>K.2. Preconstruction surveys for breeding raptors and migratory birds.</p>	<p>The County hired Environmental Science Associates to complete five surveys for breeding raptors and migratory birds potentially affected by Stanford projects. Pre-construction raptor surveys were completed for a number of projects that either received ASA or began construction during the reporting period. One breeding bird nest was found during a survey conducted at the Stanford Golf Course Irrigation Tank project site conducted during the reporting period and subsequently, mitigation measures were implemented. See file number 7352-09A for project detail.</p>
<p>K.3. Oak woodland habitat – create or restore at a 1.5:1 ratio for proposed building projects located in oak woodland area.</p>	<p>No projects were proposed within oak woodland habitat, as mapped in the 2000 EIR, during this reporting period.</p>
<p>K.4. Tree preservation for proposed building projects affected by protected trees.</p>	<p>One project, Madera Grove Children’s Center approved during this period will affect trees protected by the Stanford Community Plan policies and project specific Conditions of approval. Affected trees have</p>

Appendix B

GUP Conditions and Compliance Activities

GUP Condition	Stanford Compliance
	<p>been or will be relocated or replaced in accordance with the Stanford Community Plan Policy SCP-RC (i)7 and other County requirements.</p> <p>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.</p>
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 CNDDDB 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 <i>Plan For The El Camino Real Frontage</i> , 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

Appendix B

GUP Conditions and Compliance Activities

GUP Condition	Stanford Compliance
	<p>programs. Where appropriate and possible, EH&S provides in-house training programs that enable University managers and supervisors to deliver health and safety training directly to their staff. Schools, Departments and Principal Investigators provide other levels of training throughout the University. During this reporting period, EH&S maintained a training catalog that included 59 course offerings. Stanford staff, faculty, and students through both on-line and classroom sessions completed a total of 19,532 trainings. Stanford also extends its training efforts by providing training and information resources on the World Wide Web at http://ehs.stanford.edu.</p> <p>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.</p> <p>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.</p> <p>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 Stanford Linear Accelerator Center (SLAC).</p> <p>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</p>

Appendix B

GUP Conditions and Compliance Activities

GUP Condition	Stanford Compliance
	<p>Assessments for new projects as required by the Bay Area Air Quality Management District and as appropriate as part of the building planning process.</p> <p>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 2010, EH&S redistributed over 70 unneeded chemical containers from laboratory inventories to other campus users.</p>
N. Geology and Hydrology	
<p>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.</p>	<p>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.</p>
<p>N.2. Hydrology and drainage study.</p>	<p>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.</p> <p>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.</p>

Appendix B

GUP Conditions and Compliance Activities

GUP Condition	Stanford Compliance
<p>N.3. Storm water management facilities designed to only store storm water runoff temporarily and not create extended ponding.</p>	<p>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.</p> <p>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.</p>
<p>N.4. Groundwater recharge study in conjunction with projects located in unconfined zone.</p>	<p>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.</p>
<p>N.5. Review and approval for storm water/ groundwater recharge facilities.</p>	<p>The ASA and grading or building permit-approved projects during the tenth 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 continue to address this issue on a project-by-project basis.</p>
<p>N.6. Notice of Intent to State Water Resources Control Board (SWRCB) prepared each year for anticipated projects.</p>	<p>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. The updated NOI outlines completed projects, projects under construction, and planned future projects.</p> <p>The following projects were terminated from Stanford's construction storm water permit during the period of July 1, 2009 – January 1, 2011. A final Notice of Termination (NOT) letter will be submitted to the San Francisco Regional Water Quality Control Board with all projects that were covered under the original permit from 2001 to June 30, 2010. There</p>

Appendix B

GUP Conditions and Compliance Activities

GUP Condition	Stanford Compliance
	<p>are two remaining projects (Knight Management Center and Olmsted Terrace Housing) covered under this original permit. The remaining projects will be completed by April 2011 and the NOT will be submitted at that time.</p> <p><u>July 1, 2009 – January 1, 2011 Terminated Projects</u></p> <ul style="list-style-type: none"> • Learning and Knowledge Center (LKC), project # 2425 • SIM 1, project # 2574 • Volkswagen Automotive Innovation Facility, project # 2804 • SIEPR Building, project # 2821, • SOE Center/Nanoscale Technology (SEQ2), project # 2849 • Campus Drive West Realignment, project # 2852 • SCRA Expansion (Pool/Tennis), project # 2869 • Nano Center, project # 2883 • Munger Graduate Residences, project # 4773 <p>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 will apply for permit coverage on a project-by-project basis for all new construction over 1acre. In the past, Stanford held one permit for all construction projects. The following on-going Stanford projects were transferred individually into the new Construction Storm Water Permit as of July 1, 2010. These projects can be viewed via the State Board's SMART system located at http://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp.</p> <ul style="list-style-type: none"> • Knight/Olmsted Terrace, WDID #2 43C316041 (original Stanford stormwater construction permit) • Neukom Building, WDID # 2 41C355607 • Bing Concert Hall, WDID # 2 41C357599 • Arrillaga Family Dining Commons, WDID # 2 41C358332
<p>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.</p>	<p>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</p>

Appendix B

GUP Conditions and Compliance Activities

GUP Condition	Stanford Compliance
	<p>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.</p> <p>In addition, Stanford is required to send an Annual Compliance Status Report to the State Water Resources Control Board, certifying compliance with the provisions of the General Permit for Discharges of Storm Water Runoff Associated with Construction Activity, including BMPs and monitoring.</p>
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.	An archaeological investigation of the Men’s Gymnasium ruin was completed at the Bing Concert Hall site.
O.2. Requirements for remodeling, alteration, or physical effect on structures that are 50 years old or more.	Two projects (Storey House and Cooksey Cottage) proposed to remodel or alter structures that are more than 50 years old. DPR Form 700 forms were prepared for both projects. The construction of these

Appendix B

GUP Conditions and Compliance Activities

GUP Condition	Stanford Compliance
	projects complied with Secretary of the Interior Standards.
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.
P. Public Services and Utilities	
P.1. Law Enforcement Agreement.	<p>"Memorandum of Understanding Regarding Police Services Between Santa Clara County and Stanford University" was signed February 6, 2001.</p> <p>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>
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

Appendix B

GUP Conditions and Compliance Activities

GUP Condition	Stanford Compliance
	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 2009-10 year was 2.14 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 for construction activities.	Grading activities associated with 2000 GUP projects that commenced during the reporting period complied with the BAAQMD control measures incorporated into the ASA conditions of approval.
Q.2. Maintenance of equipment for construction activities.	Stanford requires all construction contractors to properly maintain equipment.
Q.3. Conduct a risk screening analysis and obtain BAAQMD permit for building projects containing more than 25,000 square feet of laboratory space and 50 fume hoods. ¹	All approved projects were required to comply with BAAQMD's permitting, control measures, and recommendations, as appropriate. 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. One noise complaint was received during the AR 10

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

Appendix B

GUP Conditions and Compliance Activities

GUP Condition	Stanford Compliance
	reporting period. 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.

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 8 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 Modulares	(4,030)	

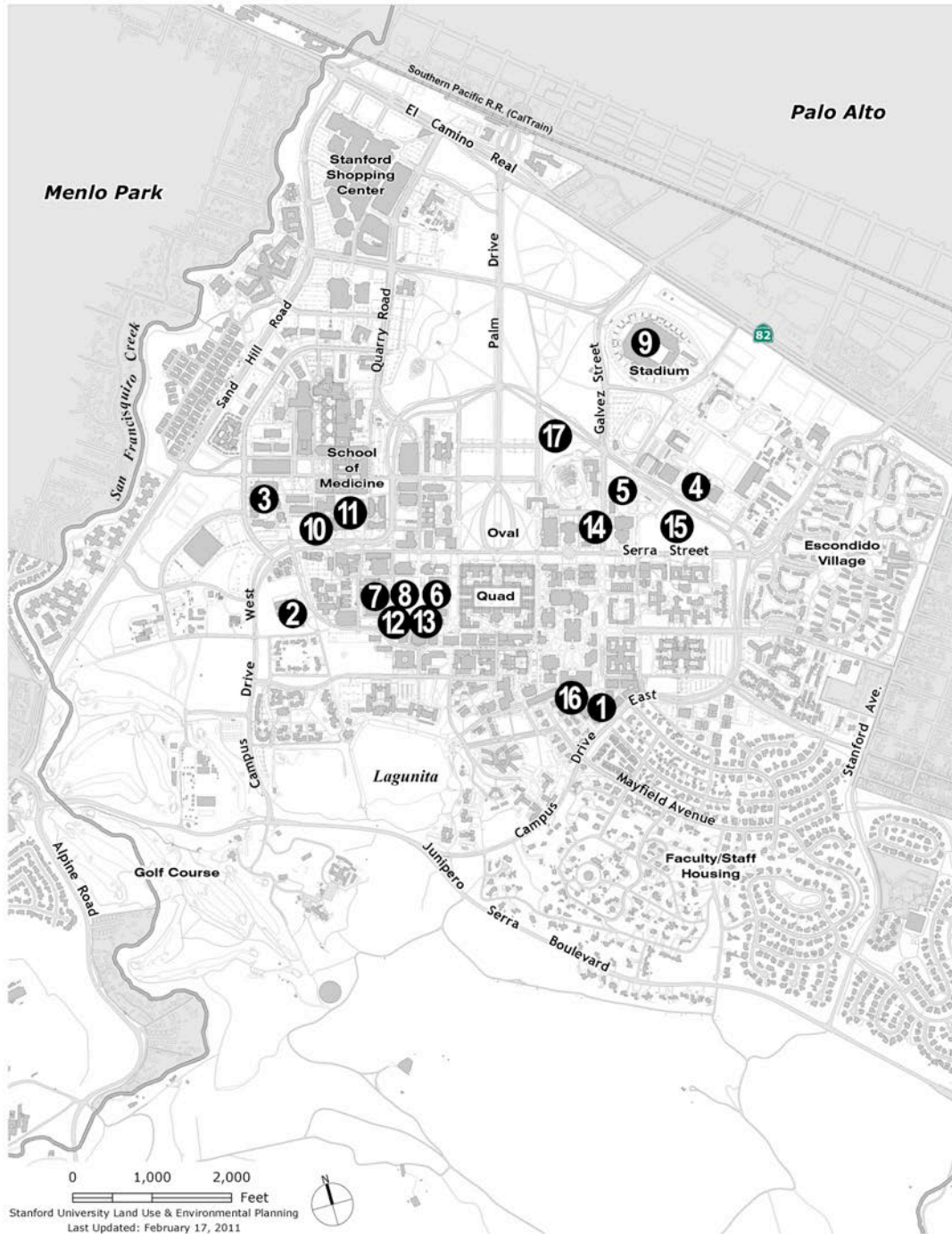
Appendix C

Cumulative Projects

KEY TO MAP C-1 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 8 CUMULATIVE BUILDING PROJECTS THAT AFFECT GUP BUILDING AREA CAP				
Fiscal Year	Map No.*	Project	Built Area (sq. ft.)	Net Addition to GUP Building Cap
	12	Center for Nanoscale Science and Technology	99,297	
		Demolish Ginzton	(69,714)	
	13	Jen-Hsun Huang School of Engineering Center	125,639	
		Demolish Terman Engineering	(148,818)	
		Lorry I. Lokey (Stanford Daily) Building	4,783	
		Demolish Storke Building	(9,040)	
		Li Ka Shing Center for Learning and Knowledge - Connective Elements	5,890	
		Peterson Building Renovation	(661)	
	14	John A. and Cynthia Fry Gunn SIEPR Building	31,784	
Annual Report 9 (2008-2009)	15	Knight Management Center Demolish GSB South Demolish Serra Complex Demolish Kresge Auditorium	331,093 (167,371) (84,000) (13,042)	72,776
		Cobb Track Bleacher addition	3,950	
		Arrillaga Gymnasium and Weight Room	19,951	
		Site 515 Demolition	(1,540)	
		Volkswagen Automotive Innovation Lab	8,000	
		Oak Road Restrooms	499	
		Golf Practice Storage Trailer	432	
		Cubberley Seismic Project	(3,654)	
		Press Building Demolition	(14,303)	
Annual Report 10 (2009-2010)		Recalculation of gsf with Annual Reports 1 through 8	(7,239)	126,676
	16	Neukom Building	61,014	
	17	Bing Concert Hall	78,350	
		DAPER Corps Yard Demolition	(12,688)	
Cumulative Net Contribution toward 2000 GUP Building Cap:				826,444
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.				

Appendix C

Cumulative Projects



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 8 CUMULATIVE HOUSING PROJECTS					
Fiscal Year	Map No.*	Project	Housing Units	Square Footage	Annual 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
	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)
		579 Alvarado	1	3,258	
	4	Casa Zapata RF Unit Replacement	-8	(-691)	
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
Annual Report 9 (2008-2009)	5	Munger Graduate Housing	251	192,517 ¹	514
		Schwab Dining Storage	N/A	464	
	6	Blackwelder/Quillen Dorms	130	N/A	
	7	Crothers Renovation	133	N/A	
Annual Report 10 (2009-20010)	8	717 Dolores	4	0	70
	9	Crothers	2	0	
	10	Olmsted Terrace Faculty Housing	39	103,127	
	11	Olmsted Staff Rental Housing	25	53,831	
		Arrillaga Family Dining Commons	N/A	28,260	
Cumulative Net Contribution toward 2000 GUP Housing Units			1,358	788,397	1,358

*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.

Appendix C

Cumulative Projects



MAP C-2
CUMULATIVE HOUSING PROJECTS

Appendix C

Cumulative Projects

KEY TO MAP C-3 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 8 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)	
Annual Report 3 (2002-03)		Maples Lot	5	394
		PS-1 Restriping/ADA	(29)	
		Maples Lot	21	
	5	Escondido Village Expansion	212	
	6	Serra Street Reconstruction	50	
		Arguello Lot	37	
		Mirrieles Lot Reconfiguration	(23)	
	7	Cowell Lot Expansion	154	
Annual Report 4 (2003-2004)		Carnegie Global Center Parking	17	(91)
		Misc. reconstruction/restripe/ADA	(45)	
		Anatomy Lot Reopening	26	
		Encina Gym/ Arrillaga Rec Center Construction	(17)	
		Ventura Lot Closing-CSLI/EPGY Annex Construction	(21)	
		Housing Maintenance Yard Project	(25)	
Annual Report 5 (2004-2005)		Graduate Comm. Center Parking Lot	(35)	(159)
		Misc. reconstruction/restripe/ADA	(19)	
		Stock Farm Bus Reconfiguration	(47)	
		Dudley & Angell Recount	(20)	
Annual Report 6 (2005-2006)		Mayfield 3 Recount	(23)	(659)
		Misc. reconstruction/restripe/ADA	(69)	
	8	Ginzton Lot Closure (for Environment & Energy construction)	(211)	
		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 Modulares Removal	131	
	16	Wilbur South Lot (for PS 6)	(128)	
		Misc. reconstruction/restripe/ADA	(69)	

Appendix C

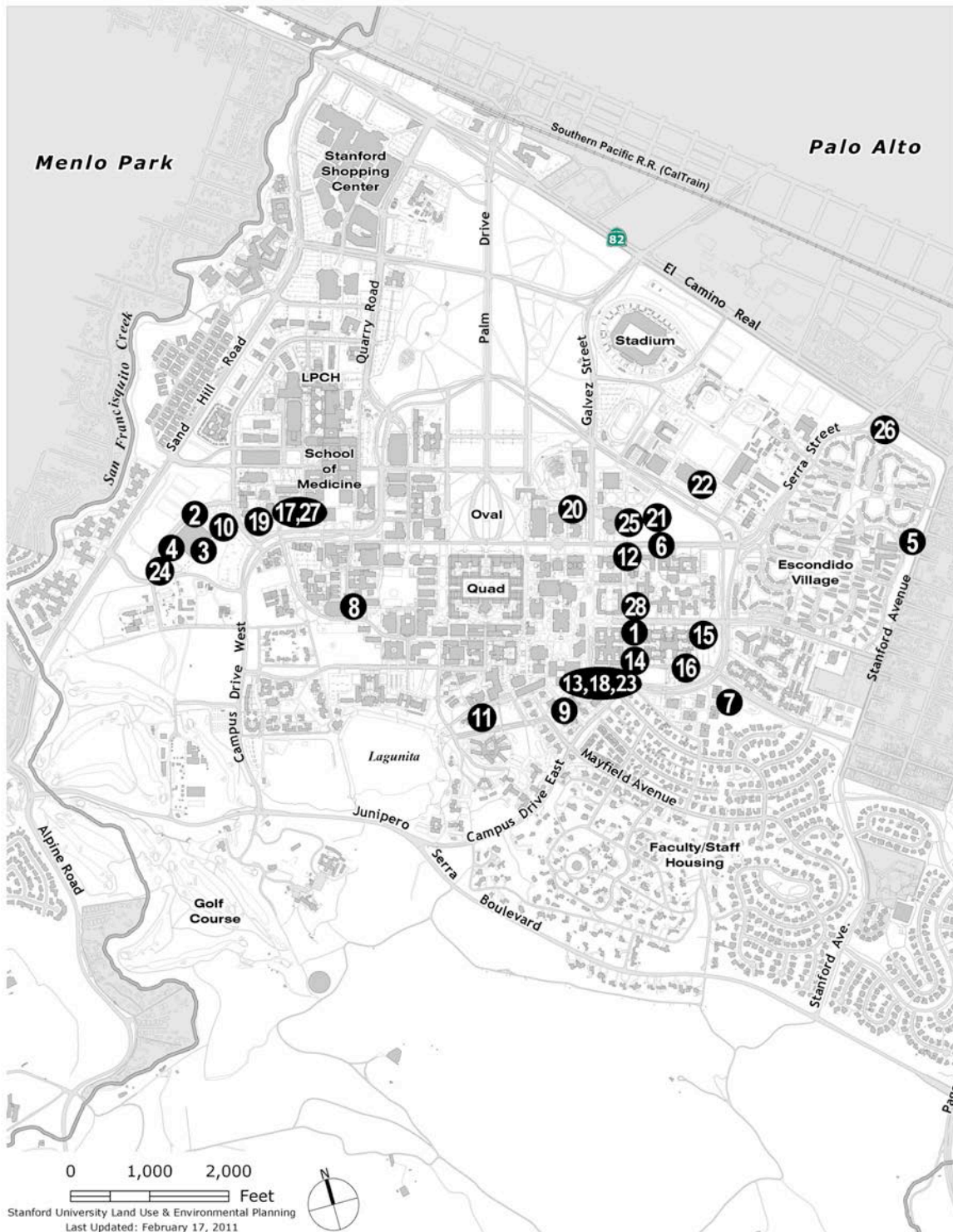
Cumulative Projects

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	
Cumulative Net Contribution toward 2000 GUP Parking Cap:				(1,587)

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

Appendix C

Cumulative Projects



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

Appendix C

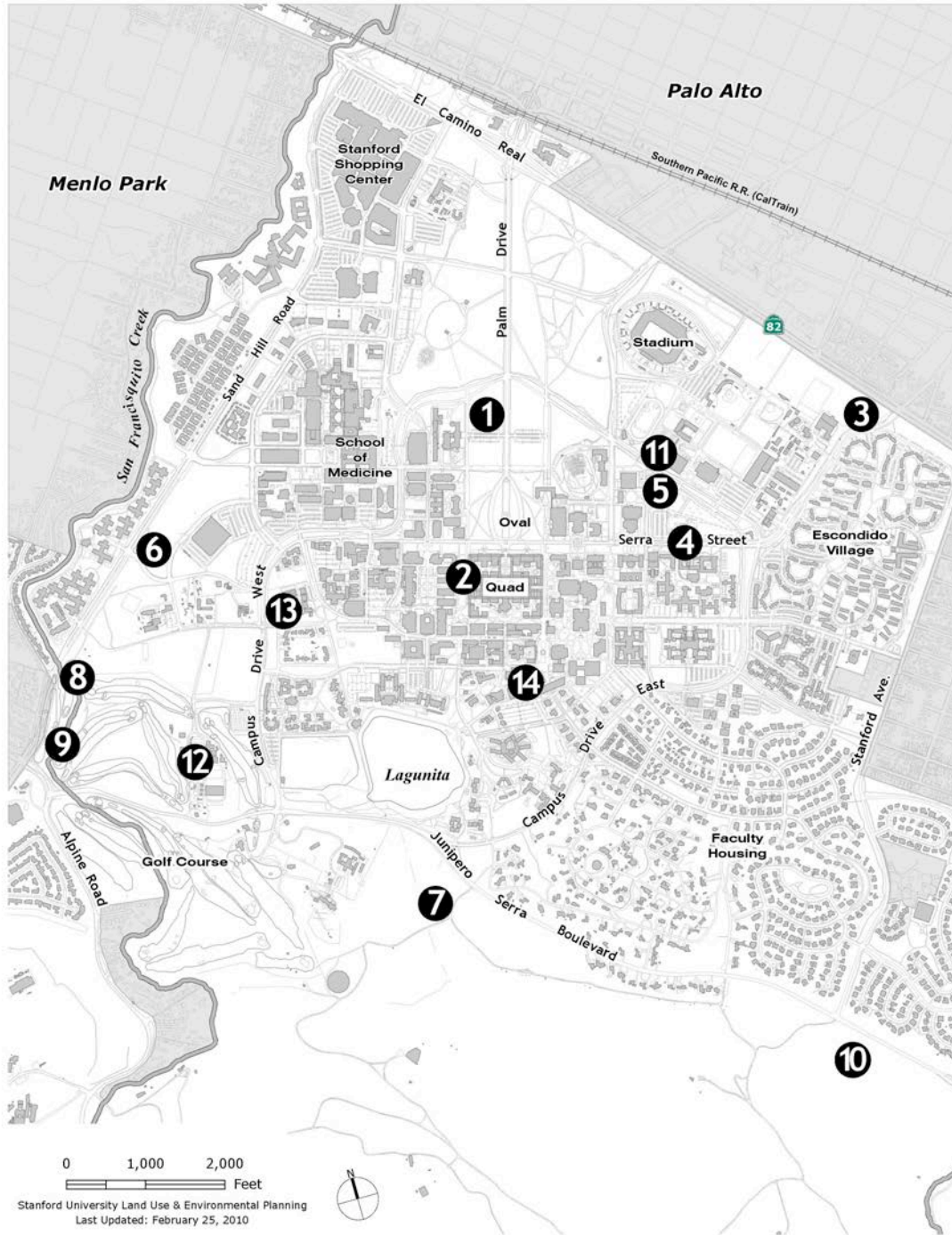
Cumulative Projects

KEY TO MAP C-4 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 8 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

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.

Appendix C

Cumulative Projects



MAP C-4
CUMULATIVE COMPLETED GRADING PROJECTS

Appendix C

Cumulative Projects

KEY TO MAP C-5 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 8 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	
		Wilbur Modular Removal	(-27,360)		(-27,360)	
Annual Report 6 (2005-2006)		Old Union – Serra	N/A		21,495	
		Old Union – Lomita	N/A		7,680	

Appendix C

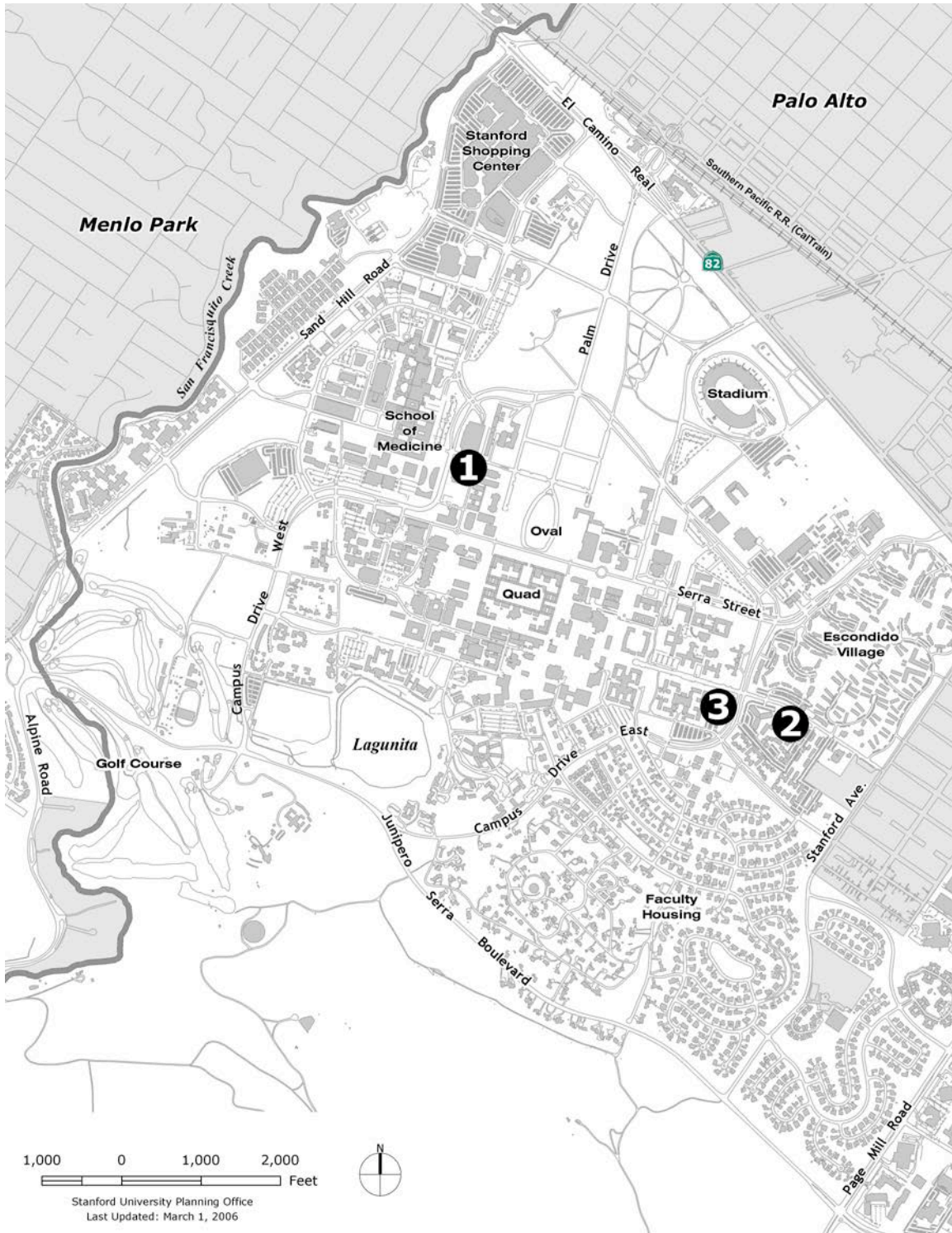
Cumulative Projects

KEY TO MAP C-5 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 8 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 Modulares	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
Annual Report 10 (2009-2010)		None				
Cumulative Net Square Feet:			148,561	92,229	28,385	28,144

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

Appendix C

Cumulative Projects



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

THIS PAGE INTENTIONALLY LEFT BLANK

Appendix D
Summary Report of Traffic Monitoring
2001-2010

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.

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

	Original Data	First Revision Data	Second Revision Data
<u>Inbound AM:</u>			
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
	Original Data	First Revision Data	Second Revision Data
<u>Outbound PM:</u>			
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

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

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

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

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

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

THIS PAGE INTENTIONALLY LEFT BLANK

Appendix E
County of Santa Clara Board Summary - Sustainable Development Study
Sustainability at Stanford Annual Report

Sustainability at Stanford

2009 - 2010

Annual Report to Santa Clara County

November 2010



28

Introduction

Sustainability is a core value at Stanford – demonstrated in academics, operations, communications, and events. The campus is making significant investment and strides in all aspects of sustainability. In academic year 2009-2010, sustainability initiatives continued in the areas of energy efficiency, water efficiency, waste reduction, high performance building construction, transportation demand management, and sustainable food. Complementary to operational efficiency, distinct and education-oriented programmatic initiatives are underway to make sustainability more actionable and visible in campus life. With a quick overview of the leadership and governance process, this summary report provides key accomplishment in this arena along with relevant metrics in the operational and programmatic areas.

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 meet a timely need. However, 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***, available at the Sustainable Stanford website at

http://sustainable.stanford.edu/publications_and_reports.

Leadership Design & Sustainability Planning Process

Central to the academic endeavor is the *Initiative on the Environment and Sustainability*. It supports interdisciplinary research and teaching in all seven of Stanford's schools, as well as in centers, institutes and programs across campus, in recognition of the fact that solutions to complex challenges demand collaboration across multiple fields.

To further strengthen operational sustainability, in late 2007, the Department of Sustainability and Energy Management (SEM) was formed that brought Utilities, Parking & Transportation, and Sustainability Programs under one administrative roof. SEM leads sustainability decisions in campus infrastructure and programs in the areas of energy & climate, water, transportation, waste (in coordination with Peninsula Sanitary Services Inc), green buildings programs, Sustainable IT, and many more. This team of professionals makes up *Sustainable Stanford* - a campus-wide initiative to steer, connect, support and streamline all sustainability efforts to fulfill President Hennessy's belief that "Sustainability must become a core value in everything we do."

Sustainable Stanford is also the central coordination and strategic hub for the various Sustainability Working Teams (SWTs) that officially began in 2008. SWTs bring together campus operations leaders, faculty with related subject matter expertise, students, and other

interested members of the Stanford community to advance progress in each of the major elements of the Sustainable Stanford program, including:

- Green Buildings,
- Transportation,
- Energy & Atmosphere,
- Water,
- Waste Minimization,
- Green Procurement and Food Supply,
- Communications & Campus Community Relations, Evaluation & Reporting, and
- Green Funding.

The SWTs began work in April 2008 with a charter to define sustainability in each of the environmental areas and in 2009 moved into development of long range master plans that provide options for maintaining campus operations in environmentally sustainable ways. Stanford's Energy & Climate Plan was submitted to campus executive leadership in May 2009 and draft master plans for Water and Transportation are now going through internal review. Residential & Dining Enterprises (RD&E), which includes Stanford Dining and Student Housing, has consistently taken steps towards sustainability by reducing food waste and encouraging energy and water conservation. Additionally, the Stanford Recycling Center run by Peninsula Sanitary Services Inc (PSSI) is implementing programs to guide the campus towards a zero-waste goal.

Operational units within Land, Buildings and Real Estate (LBRE) providing major assistance in developing and implementing these plans include the Department of Project Management, Land Use and Environmental Planning, Capital Planning and Space Management, University Architect and Planning Office, and Buildings & Grounds Maintenance. Major support and collaboration for these efforts is also provided by university Communications, Government and Community Relations, Woods Institute, School of Earth Sciences, Precourt Institute, Residential and Dining Enterprises, School of Medicine, Graduate School of Business, Alumni Association, and many others.

Sustainable Stanford - Operational Milestones

Energy Efficiency

In FY 2008-2009, completion of major capital energy efficiency retrofits to existing buildings coupled with aggressive energy and water conservation programs further increased campus physical plant efficiency and reduced operating costs. Stanford continued to carry out the successful whole building retrofit program with completion of engineering design and start of retrofits to several major buildings including Beckman, Forsythe, Green West, Gilbert Biology, and Cantor Arts Museum. Monitoring of buildings completed over the last 2 years including Stauffer 1, Stauffer 2, and Gates confirmed expected annual energy savings of 21% to 46%. In 2009, a new solar electricity system for the president's house was installed. Aggressive non-capital energy conservation work also continued through the continuation of the building monitoring leak detection and operating schedule optimization programs; Energy Retrofit Program (ERP); and energy efficiency improvements gained through Zones Management deferred maintenance projects. New program innovations included development of a blanket agreement and installation of new state-of-the-art high efficiency building electrical transformers; establishment of the Sustainable Information Technology Program through joint collaboration and funding with the IT Department; and completion of a pilot study with the School of Medicine on an innovative new Room Temperature Storage alternative to freezers for biological samples such as DNA, RNA, and e coli specimens.

Organizational changes were made in 2010 to consolidate the facilities energy management program and staff previously located in three different facilities divisions (Zones Management, Buildings and Grounds Maintenance, and Utilities) into a new and integrated division called Facilities Energy Management (FEM). FEM will ensure buildings and associated processes are operated efficiently and that new facilities incorporate operational and energy use best practices from the start. In FY 2009-2010 the Whole Building Retrofit Projects continued to address the 24 largest energy users on campus. At present eight projects have been completed, four are in construction, and six are in either Phase I or Phase II design. The six remaining buildings will be addressed in 2011. The Sustainable IT program continued to expand and achieve success with data center efficiency programs and end-user computer operation. A Desktop Power Management system, first deployed in 2007 and configured to turn off monitors and put computers to sleep when not in use, is now required for network registration and appears on 10,000 machines, an estimated 65% campus-wide adoption rate. Participation in the FY10 "Cash for Clunkers" Room Temperature Biological Storage exceeded expectations for freezer retirement and coordinated a successful research symposium on the benefits of room temperature storage.

Climate Action

In FY 2010 Stanford completed and certified the public greenhouse gas (GHG) inventory for 2008 with the California Climate Action Registry (CCAR). This is the third consecutive year Stanford has been a member of the CCAR and filed official GHG inventories.

Stanford also completed development of a long range campus Energy and Climate Plan, now available at < http://sustainable.stanford.edu/climate_action>. This plan calls for achieving aggressive new efficiency standards set in 2007 for Stanford's upcoming new building projects; continuance and expansion of major energy conservation programs for our existing buildings; and significant changes in campus energy supply.

Stanford's Energy & Climate Plan, released in October 2009, is advancing its efforts in energy efficiency under a balanced approach between energy supply and energy demand that maximizes the university's return on its substantial investment. On the demand side it achieves aggressive new efficiency standards for new building projects; and continuance and expansion of major energy conservation programs. On the supply side, it proposes replacement of the current cogeneration plant with an innovative heat recovery 'regeneration' plant that will capture low grade/ waste heat from the buildings and convert it to usable heat for the buildings. Proceeding with implementation of this plan, engineering firms with expertise in heat recovery technology completed detailed conceptual design of the new regeneration system. SEM also completed a full inventory of campus building HVAC systems, developed an in-house advanced computerized central energy facility energy model, and installed and tested a ground source heat exchange well.

This proposal will require significant up-front capital investment and could take from 5 to 10 years to implement, but will yield major cost, GHG, and water use reductions for the university over the long term. The plan has been reviewed by noted faculty experts focused on global GHG reduction goals and strategies, and endorsed by the president and provost and under periodic review with the Board of Trustees.

Water Conservation

In FY 2010 Stanford advanced sustainability in campus water use through improvements to campus surface water supplies; development of innovative alternative water supplies; and continued water conservation efforts in campus buildings. Dredging of Felt Reservoir was completed in fall 2009 to restore historic water capacity, as a sustainable campus surface water supply. Stanford also completed construction of a reclaimed water facility that utilizes cooling tower blow down at the Central Energy facility to provide water for toilet flushing in the SEQ2 and GSB complexes, as well as recently opened School of Medicine buildings, which represents an additional 870,000 GSF of service area. Water conservation efforts also continued through replacement of old bathroom fixtures with modern low flow units. New for 2009, a 1/8-liter per flush urinal was piloted with great success as an alternative to waterless urinals.

The 2009 Energy and Climate Plan's proposed infrastructural changes will reduce the campus' water consumption by 18% due to the 70% reduction in water evaporated via the cooling towers. Stanford achieved a 21% reduction in domestic water use on campus in FY2010 compared with FY2000, despite more than 1 million additional GSF added to the building portfolio. The number of water conservation measures has increased from the original 14 identified in the 2003 Water Conservation Master Plan to more than 20 today. More than 80% of the campus landscape receives irrigation from non-potable sources. Increased outreach and programs for faculty/staff housing now include partnerships with local water agencies to increase available rebates for turf replacement, high-efficiency laundry machines, toilet replacement, and irrigation controllers. Water conservation pilot projects now underway include: ultra-low-flow shower heads in athletic facilities, soil moisture sensors at the golf course and in community parks on campus, and ultra-low-flow pre-rinse stations in food service kitchens (all pre-rinse stations already have significantly lower flow rates than code allows).

The Sustainability Working Team on Water is in the process of formalizing a long-range water sustainability plan which establishes a definition, goals, and strategies for long-term water sustainability at Stanford, setting the course for water resources preservation, water budgeting, water conservation and demand reduction, water supplies and infrastructure master planning, and water management education. These are being considered in the broader context of total sustainability of Stanford's and the region's water and energy resources, and the local hydrologic environment and corresponding ecosystems dependent on those resources

Green Buildings

Advancements in green building design, construction, and operation continue to assure that Stanford delivers and maintains high performing new facilities for the university in accordance with the Guidelines for Sustainable Buildings. The new Graduate School of Business, the Knight Management Center, will open in March 2011, and is seeking LEED-NC Platinum certification. The design submittal is now complete, and the 330,000 GSF development will achieve higher standards than those outlined in Stanford's Guidelines for Sustainable Buildings. The second and third buildings in the Science and Engineering Quad complex opened in FY10, and both are expected to perform better than their predecessor, Y2E2, which currently uses 42% less energy and consumes 90% less water than code. Two recently completed School of Medicine buildings, LKSC and SIM1, prove that highly technical programmatic requirements and can benefit from high-performance design and construction. Advanced space utilization programs, including strategic partnerships with sustainable office equipment vendors, have reclaimed 5% to 10% of previously wasted existing space with each move. Fees are now assessed to departments when space is not wholly utilized per guidelines.

Transportation

In 2010, Stanford continued its success in Transportation Demand Management, Alternative Transportation for those that do commute, and migration of the campus fleet to more sustainable vehicles. .

The employee drive-alone rated dropped to 48% compared to 72% in 2002 at the inception of the formal Transportation Demand Management (TDM) program. Commute-related emissions are steadily below 1990 levels. The draft long-term Sustainable Transportation Master Plan is currently undergoing internal review. The plan expands on the university's successful TDM program and positions Stanford not only to continue to meet the 2000 General Use Permit's trip-limit goals, but also to reduce transportation-related emissions, meet impending state and national regulations, and be poised for transportation-related carbon offset programs.

Waste Minimization

In FY 2010 Stanford's waste minimization efforts continued with additional outfitting of public trash cans with recycling receptacles, including newly designed multi-purpose furnishings and even pilot-testing solar-powered recycling compactors. Work continued to expand the food waste composting program to offices and non-university cafes. New sustainability guidelines for minimizing waste at special events such as Commencement and Reunion Homecoming were developed and disseminated campus-wide, and special efforts to 'green' Commencement were made through a collaborative effort from many departments and featured on Stanford's main website.

Stanford achieved an all-time high 65% diversion rate, a significant step towards the 75% diversion interim goal en route to zero waste. In the RecycleMania 2010 contest, Stanford scored in the top 25 in 6 of the 8 categories: per capita (21); gorilla (3); paper (11); cardboard (20); bottles and cans (23); and food waste (6). An expanded composting service now includes all dining-halls and campus eateries, as well as many student row houses and offices. Three campus eateries are undergoing a "zero waste" pilot project.

Green Procurement and Food Services

SEM collaborated with university Procurement and vendors on several Strategic Sourcing Initiatives related to sustainability including information technology equipment, office furniture, and sub-zero cold storage equipment. Consistent with Stanford's sustainability goals, the Procurement Department has developed Environmentally Preferable Purchasing (EPP) Guidelines. The purpose of these guidelines is to support and facilitate the purchase of products, services and materials that minimize the harmful effects to the environment from their production, transportation, use and disposition. SEM collaborated with Residential and Dining Enterprises on various facets of the sustainable foods initiatives, including education on food procurement and practices at New Student Orientation Events.

Stanford Dining continued collaboration with faculty and students to provide educational experiences in the dining halls including: vegetarian/vegan signage; flags indicating local, organic, or otherwise sustainable offerings; and in-depth guidance regarding composting. The Sustainable Seafood Initiative also reached new milestones—Stanford now makes 62% of seafood purchases from the Monterey Bay Aquarium Seafood Watch “green” category and another 12% from the “yellow” category.

A summary of operational metrics from 2000 until 2009 is presented in a chart format in Appendix 1.

Sustainable Stanford – Programmatic Milestones

Sustainable Stanford continued to foster collaboration amongst a wide cross section of the university, Stanford Linear Accelerator Center, Stanford Hospital and Clinics, and Lucile Packard Children's Hospital communities in the advancement of campus sustainability through the Sustainability Working Group, which continues to meet every month. Following the roadmap set out in 2008, Sustainability Working Teams comprised of campus operations leaders and faculty completed redesign of short- and long-term plans for managing energy, water and transportation services to the university to achieve sustainability through innovation and adept business practice. More detailed information on initiatives, programs and awards can be found at the Sustainable Stanford website. Specific programmatic milestones include:

Evaluations and Reporting

In FY 09 Sustainable Stanford increased evaluation, reporting, and outreach efforts that resulted in several significant awards for the university in sustainability, including Campus Sustainability Leader and Honor Roll by the Sustainable Endowment Institute (2008 and 2009), Discovery Communications, Sierra Magazine, and Greenopia.

For the third time in FY10, the Sustainable Endowments Institute awarded Stanford its highest rating, recognizing the University both as an "overall college sustainability leader" and a "campus sustainability leader" for outstanding achievement in all operational areas. In August 2010 Sierra Magazine rated Stanford 5th on the Cool Schools Ranking, which included survey responses from 162 institutions. Stanford earned perfect scores in the Waste, Investment, and Other Initiatives categories, and performed strongly in the Academics, Transportation, Purchasing, and Administration categories.

Interdepartmental Collaboration

Building relationships with other administrative departments, faculty, and students, and community outreach to advance sustainability in support the university's mission of education, research, and outreach is a fundamental ingredient in Stanford's sustainability program. This was achieved through joint work on the SWG, SWTs, and via projects such as the GHG task force, conference & events participation, and regular sharing of information. Initiatives ranged from organization and participation in lectures, tours, panels and conferences to direct work on campus sustainability through the SWTs. Sustainable Stanford also worked with the President's Office, Events and Labor services, Residential and Dining Enterprise, and others to promote green catering and services for commencement, homecoming, and other marquee events.

Sustainable Stanford remains the coordination and strategic hub for the interdisciplinary Sustainability Working Group and the various Sustainability Working Teams (SWTs) that formed in 2008. SWTs bring together campus operations leaders, faculty with related subject matter expertise, and students to advance progress in each of the major elements of *Sustainable Stanford*, including: Energy & Atmosphere, Green Buildings, Transportation, Water, Waste

Minimization, Green Procurement and Food Supply, Communications & Campus Community Relations, and Green Funds for students. Major support for these efforts are provided by various operational units within LBRE, University Communications, Government and Community Relations, Woods Institute, Precourt Institute, Stanford Recycling Center run by Peninsula Sanitary Services Inc, Residential and Dining Enterprises; School of Medicine; Graduate School of Business, School of Earth Sciences, Alumni Association; and many others.

Existing Building-Level Sustainability—Behavioral Programs

In 2009, Sustainable Stanford and partners launched an individual, action-based resource conservation program at Stanford Schools and Departments that can be exercised at a building level. This program complements efficiency improvement at the infrastructure level, and jointly accomplishes carbon footprint reduction goals. The occupant awareness and action directly contributes to resource conservation, lower utility bills, and acknowledgement of a environmentally sustainable campus experience, consistent with the university's commitment to sustainability. The program offers pilot design, an audit walk-through, a 'green action menu' customized for Schools or Departments, and building selection and evaluation criteria. Best practices observed in pilots conducted throughout 2009 (Building 170, Alumni Center and IT Services) are incorporated in program design and show sustained reduction in energy use in office buildings ranging between 5%-15%.

Campus Communications

In 2009 Sustainable Stanford expanded a robust Communications and Community Relations program for sustainability with completion of the Sustainable Stanford website (<http://sustainable.stanford.edu>). In January 2009, Sustainable Stanford launched the Cardinal Green newsletter, the campus and community's source for news on campus sustainability efforts and accomplishments. The newsletter provides an ongoing forum for sustainability teams and topics, and will be used to promote sustainability activities throughout our community (<http://sustainable.stanford.edu/newsletter>).

Here is a sampling of department, and on- and off-campus community outreach efforts and participation in university-wide academic and administrative programs and events related to sustainability in FY 2010:

- Hosting student Town Hall meeting on campus-wide sustainability initiatives
- Giving six presentations (posters, panels, and papers) at the 2010 AASHE Conference
- Guest Lecturer for the School of Earth Sciences' course "Reducing Stanford's Carbon Footprint"
- Panelist at Silicon Valley Energy Summit, co-sponsored by the Silicon Valley Leadership Group and the Precourt Energy Efficiency Center

- Presenter at the 2010 Walk the Farm Tour
- Published Green Event Guidelines, entitled *Greening Events at Stanford*
- Launched “Sustainability on the Farm” Tours at major campus events
- Presented at US Energy Association

Student Training and Education

Advancement of support for sustainability education also began with the hiring student interns by the Sustainability Programs group and the development of formal educational (non-salaried) student internships between LBRE, the School of Earth Sciences, the Woods Institute, and other academic units.

Sustainable Stanford regularly holds office hours and provides a steady communication platform for various student activities to provide strategic guidance. For the incoming class of 2013 and current students, Sustainable Stanford produced the first ever Student’s Guide to Sustainable Living at Stanford

http://sustainable.stanford.edu/sites/sustainable.stanford.edu/files/documents/SustainableLiving_at_Stanford_New.pdf.

Formal educational (non-salaried) student internships and weekly office hours continued in FY2010 to encourage a steady communication platform for various student activities and sustainability staff to provide strategic guidance. For the incoming class of 2014 the Student’s Guide to Sustainable Living at Stanford was updated and included in electronic pre-orientation materials.¹ A sustainability overview and service learning class CEE/ES 109 launched in winter 2010. The first overarching local sustainability course offered by Stanford, CEE/ES 109 aimed to engage students in employing sustainability within an institution, and featured more than 20 Stanford faculty and staff who lectured on topics that included energy efficiency, water use, waste management, sustainable food, and transportation systems. It also trained student sustainability coordinators to assist with the Building-Level Sustainability Program. More information is available here http://sustainable.stanford.edu/buildings_initiatives.

Green Fund

The Stanford Student [Green Fund](#) continued operation in FY10. The committee received 19 applications that totaled a little over \$100k in requested funds. The committee chose winners based on the projects’ potential to achieve intended goals as well as enable students to actively participate in making a contribution towards campus sustainability. Awarded grants totaled close to \$30,000 and consisted of projects addressing waste management signage, solar hot water heaters, real-time electricity monitoring in dorms, and rainwater capture for composting support during the dry months. The final reports are posted here

¹ <http://sustainable.stanford.edu/students>

http://sustainable.stanford.edu/green_fund and the Green Fund will continue in FY11 with paid student interns as committee leaders.

Summary of Stanford Program Awards and Recognition

Stanford has been recognized for leadership in operational sustainability by the Sustainable Endowment Institute (www.greenreportcard.com), Discovery Communications, and Greenopia.com. See more information about external evaluations in <http://sustainable.stanford.edu>.

Stanford continues to receive local and national recognition for its sustainability achievements and leadership. The following awards and accomplishments showcase both the diversity and depth of Stanford's sustainability programs.

3rd Party Evaluations

Sustainable Endowment Institute 2007, 2009 and 2010: Honor Roll, top 25 schools in North America

US Green Building Council and Princeton Review 2010: Stanford is included in The Princeton Review's Guide to 286 Green Colleges, produced in partnership with the U.S. Green Building Council (USGBC) and released on Earth Day 2010.

Discovery Communications Honor Roll 2009: Achieved a Top 10 ranking.

Sierra Magazine in 2010: Achieved a 5th place ranking out of 135 schools surveyed.

Greenopia Top 10 in 2009: Achieved a Top 10 ranking out of 100 schools surveyed.

ENERGY

Y2E2 photovoltaic project, \$38,000 rebate from PG&E (2009)

1st Place, 2008-2009 ASHRAE X Technology Award for the Stauffer Chemistry Building HVAC retrofit project

Avery Aquatic Center pump retrofit project, \$110,000 rebate from PG&E (2009)

Business Continuity Data Center, \$48,000 rebate from PG&E (2009)

School of Medicine Server Virtualization Project, \$8,988 rebate from PG&E (2009)

Stauffer Physical Chemistry Buildings HVAC retrofit project, \$110,000 rebate from PG&E

(2008)

Desktop Power Management, \$55,000 rebate from PG&E (2008)

Stauffer Chemistry Building HVAC retrofit project, \$180,000 rebate from PG&E (2007)

Honorable Mention, Flex Your Power Awards (2005)

Reservoir 2 photovoltaic project, \$135,000 rebate from PG&E (2004)

WATER

Clean Bay Award, Palo Alto Regional Water Quality Control Plant (1997–2010)

Silicon Valley Water Conservation Award in the Large Organization category (2009)

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

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

FOOD

Stanford Hospitality and Auxiliaries: Stanford Catering Chef Andrew Mayne was an invited chef at the Monterey Bay Aquarium's "Cooking for Solutions" Event (2009)

Stanford Dining: Stanford Dining's Executive Director Eric Montell served as a judge for the Acterra Sustainability Awards (2008 and 2009)

Stanford Dining: Acterra Business Environmental Award for Sustainability (2007)

Special Congressional Recognition –Anna Eshoo (2007)

Leadership in Applying Green Building Design- PG&E (2006)

Stanford Dining: one of the first university food service operations in the United States certified as a green business by Santa Clara County (2004)

BUILDINGS

The Silicon Valley Business Journal's "Green Project of the Year": The New Graduate School of Business' new Knight Management Center was recognized for its deep commitment to sustainability, from the photovoltaic panels that will supply 12.5% of the center's annual electricity needs, to the 80% reduction in water use compared to similar campus buildings. The project is currently on track to receive a LEED-NC Platinum Certification upon occupancy in March 2011.

ASHRAE Technology Award, Honorable Mention, for the Stauffer Building I Laboratory VAV Conversion (2010)

Merit Award, for the Science & Engineering Quad (SEQ2) with Boora Architects—Planning for a District or Campus Component, Society for Campus and University Planning (2010)

Best Green Building in the Bay Area, for Environment + Energy Building, the San Francisco Business Times (March 2008)

Top Ten Green Projects, for Jasper Ridge Field Station, 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)

TRANSPORTATION

Best Workplaces for Commuters, U.S. Environmental Protection Agency (EPA)/Center for Urban Transportation Research at the University of Florida (2002 – 2010)

Innovative Transportation Solutions Award, WTS San Francisco Bay Area Chapter (2009)

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

Bicycle Friendly Community, League of American Bicyclists (2003–2007; achieved Gold Level in 2008–2010)

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

Association for Commuter Transportation Leadership Award for non-elected individual or private organization (2006)

Best of Universities and Colleges and Gold Prize for Transportation Coordinator, EPA/Department of Transportation Best Workplaces for Commuters' Race to Excellence (2006)

"Top 50" Award for Regional Transportation, employer category, Bay Area Council (2004)

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

WASTE

In the **RecycleMania 2010** contest, Stanford scored in the top 25 in 6 of the 8 categories: per capita (21); gorilla (3); paper (11); cardboard (20); bottles and cans (23); and food waste (6)

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

In the **RecycleMania 2009** contest, Stanford scored in the top 20 in the 5 of the 8 categories: per capita (16); gorilla (3); paper (9); cardboard (17); and food waste (6)

1st Place, Gorilla Prize, RecycleMania Contest for Colleges and Universities for highest gross weight (1.24 million pounds) of diverted recyclables (2008)

2nd Place, Gorilla Prize, RecycleMania Contest for Colleges and Universities for second highest gross weight (1.356 million pounds) of diverted recyclables and **3rd Place** for paper recycling (25.38 pounds per person) (2007)

EPA Environmental Achievement Award for Battery Recycling and Mercury Thermometer Replacement Program by Environmental Health and Safety. (2002)

ENVIRONMENTAL HEALTH AND SAFETY

Campus Safety, Health and Environmental Management Association (CSHEMA) awards for Environmental Health and Safety. The 3 categories include: Complete Environmental Health and Safety Award of Honor (highest award) 2009, Award of Recognition- Unique & Innovative Safety Program 2004; and Home Page Award 2003.

LAND

Site Design for Storm Water Pollution Prevention, Santa Clara Valley Urban Runoff Pollution Prevention Program (2007)

Governor's Historic Preservation Award, for Historic Houses Project of faculty houses, State of California (2007)

Special Recognition, for oak reforestation project partnership, U.S. Congress (2006). The project also received commendations from the State Assembly and Senate, and San Mateo and Santa Clara counties.

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

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

Attachment 1: Summary of Operational Metrics (2000-2009)

Sustainability Area	Metric	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Energy											
Electricity	kwh	164,793,000	166,793,000	174,390,000	179,464,000	185,460,000	186,055,000	192,850,000	194,139,000	195,761,000	198,867,000
	kwh/gsf	14.3	14.2	14.5	15.0	15.1	14.9	15.5	15.6	15.6	15.6
Steam	lbs	828,805,000	826,688,000	867,112,000	878,889,000	881,314,000	902,945,000	846,306,000	864,305,000	875,563,000	825,661,000
	lbs/gsf	83.0	82.7	86.9	88.6	86.5	87.0	81.9	83.6	83.3	76.4
Chilled Water	ton-hr	48,127,000	49,394,000	51,074,000	56,915,000	58,401,000	54,160,000	52,495,000	56,978,000	57,124,000	56,227,000
	ton-hr/gsf	5.8	6.0	6.2	6.9	6.7	6.1	5.9	6.4	6.3	6.0
Greenhouse Gas Emissions											
(publicly reported to Registry)	Metrics tons	n/a	n/a	n/a	n/a	n/a	n/a	165,000	180,000	177,500	in progress
Waste minimization											
Total Waste Reduction and Recycling	tons	11,276	11,300	11,587	11,047	13,629	12,668	14,732	13,193	14,686	15,251
Total Landfilled	tons	11,495	10,194	10,429	9,533	9,262	9,094	9,558	8,820	8,180	8,384
Total Discards	tons	22,771	21,494	22,016	20,580	22,891	21,762	24,290	22,014	22,866	23,635
Diversion Rate		50%	53%	53%	54%	60%	58%	61%	60%	64%	65%
Transportation											
Commuter drive alone rate (employees)	rate	n/a	n/a	72%	65%	63%	58%	54%	52%	51%	48%
Commuter drive alone rate (all*)	rate	n/a	n/a	n/a	60%	59%	54%	50%	46%	46%	43%
Water											
Domestic	FY00-01	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	
	gals	997,183,000	862,795,000	840,132,000	921,125,000	843,081,000	811,757,000	832,417,000	841,782,000	778,589,000	780,810,000
	gals/gsf	84.2	71.4	67.9	74.5	66.7	63.6	65.1	65.2	59.9	58.9
Lake	gals	431,426,000	406,634,000	362,740,000	364,159,000	332,149,000	270,526,000	347,163,000	446,777,000	378,799,000	375,156,000
Note: The Energy and Water numbers in billions are rounded off to the nearest thousands. * employees, off-campus students, postdocs											

Note: The gross square footage (GSF) numbers are slightly different for electricity, steam, chilled water, and domestic water based on service areas and accounting methods.

Trends

Energy/GSF

- Electricity/GSF consumption has increased over time with more energy intense research functions and computing needs, especially in newer lab buildings on campus. However, Stanford has a suite of energy-saving programs targeting large-scale building retrofits; small-scale retrofits; heating, ventilation and air-conditioning (HVAC) controls; and new construction standards that are reducing the rate of increase in energy intensity despite the growth. For example, the University has allocated \$15 million for major capital improvements to the most energy-intensive buildings on campus in order to reduce energy demand. In 2008, Stauffer Chemistry Building (2) was retrofitted to convert existing constant volume lab spaces to variable air volume, so that only the amount of air needed for safe ventilation and temperature control is supplied. While the preconstruction energy savings from this retrofit were estimated to be 38%, the actual energy savings was 44% (annually on a Btu basis). A predecessor and identical project was completed at Stauffer Chemistry Building (1) in June 2007. It led to a 35% drop in electricity use, 43% cut in steam use, and 62% fall in chilled water use. The remaining retrofits are scheduled for completion by 2012. All together, the improvements are expected to save \$4.2 million annually and reduce total energy use in these buildings by 28%. The program is anticipated to continue until the top 25 energy-using buildings on campus are upgraded.
- The steam/GSF consumption trend remains relatively flat over time, with a decrease in 2009. No major upgrades have been done to the steam system during this time. Typically, increasing electricity/GSF decreases the need for building heating. The flat trend or decline in use over time can be attributed to that and/or weather variations during that period.
- Chilled water consumption/GSF increased and now on a declining trend. Typically, increasing electricity/GSF adds to building cooling needs offsetting energy retrofit projects, but chilled water consumption/GSF is also significantly impacted by annual weather variations.

As a part of the new Energy and Climate Plan², the campus will move to replace the current cogeneration plant with an innovative heat recovery plant that will capture low grade waste heat from the buildings and convert it to usable heat for the buildings. This is possible by taking advantage of the existing district heating and cooling system that supports the university's 125 largest buildings and would result in central plant energy efficiency with corresponding GHG reductions. The proposal will dramatically reduce the need for fossil fuel to generate electricity, eliminating unwanted heat release into the atmosphere and reducing campus water use. In an ongoing pursuit of sustainability, the Regeneration scheme will move Stanford into a new energy era with significantly lower costs, GHG emissions, and water use.

² Information at < http://sustainable.stanford.edu/climate_action>

Tons of Greenhouse Gas Emissions

The university joined the California Climate Action Registry in 2006. The GHG emissions from commuting (as a part of the Transportation Demand Management Program) are already below the 1990 levels.

The overall GHG emissions, however, increased from 2006 to 2007 but the overall GHG emissions in 2008 were slightly lower than the 2007 inventory. Further analysis of the 2008 results shows that emissions within specific categories remained largely the same. Despite continued increases in energy intensity without research buildings, the decrease could be attributed to Stanford's energy conservation programs (http://sustainable.stanford.edu/energy_initiatives).

Stanford submitted all 2009 data to CARROT (the California Climate Action Registry reporting tool) at the end of May 2010. At this time the university anticipates the GHG inventory will not change significantly from the certified 2008 data. Similar to the comparison between 2007 and 2008 results, Stanford's energy conservation programs (http://sustainable.stanford.edu/energy_initiatives) seem to be stabilizing emissions despite campus growth and increased research building intensity.

The emissions increase between 2006 and 2007 was due to:

- A change in equipment dispatched by Cardinal Cogeneration to produce chilled water for the University. In 2006, renovation of the chilled water plant meant greater use of electric-driven chillers, whereas in 2007, Cardinal Cogen reverted to economic dispatch, which meant greater use of steam-driven chillers. Steam-driven chillers are less efficient than electric-driven chillers, so energy use per unit of chilled water produced (and associated emissions) was higher in 2007.
- Increase of campus electricity use as a number of new buildings came online in 2007. There have been increases in energy intensity (KWH/GSF) in research buildings, e.g., the Mechanical Engineering Research Lab.

The new Energy and Climate Plan will dramatically reduce the need for fossil fuel to generate electricity, eliminating unwanted heat release into the atmosphere and reducing campus water use.

Waste Diversion Rate

The Waste Reduction and Recycling Program serves all academic and athletic areas, student housing and dining, faculty and staff housing, the Stanford hospitals, Stanford Linear Accelerator Center, and construction sites. The program has increased Stanford's diversion rate (waste diverted from landfill, as a percentage of total waste) from 30% in 1994 to more than 65% in 2009, as we aim for 75% diversion and beyond towards an ultimate zero-waste goal.

Drive Alone Rate

More than 2,000 Stanford commuters switched to alternative transportation between 2002 and 2010. Stanford's Transportation Demand Management program has resulted in a drop in Stanford's employee drive-alone rate from 72 percent in 2002 to 48 percent today.

Water in Gallons/GSF

Stanford's water conservation, reuse and recycling program has reduced domestic water consumption by 21% since 2000, despite significant growth in facilities served. At Stanford dining facilities, replacing standard dishwashers with trough conveyers that constantly recycle water cut water use by about 142 gallons per hour—a 51% savings. Replacing once-through cooling systems in laboratories with circulation systems that reuse the cold water has saved about 0.174 million gallons per day. The university completed 50 water efficiency retrofit projects from 2001 through 2008 and increased the number of water conservation measures from 14 in 2003 to 20 implemented today.

As a part of the new Energy and Climate Plan, by reusing heat rejected from the buildings instead of using evaporative cooling to eject it to the atmosphere, an 18% savings in total campus water use will also be achieved.