



4

Architectural Review Board

Staff Report

Agenda Date: May 16, 2013

To: Architectural Review Board

From: Clare Campbell, Planner **Department: Planning and Community Environment**

Subject: 500 University Avenue [13PLN-00112]: Request by Thoits Bros. LLC for Preliminary Architectural Review of a new three-story 26,806 square foot commercial building with below grade parking, replacing the existing one-story commercial building. The concept design involves a potential request for a Design Enhancement Exception (DEE) to allow additional height over the limit for a corner tower element. Zone: CD-C(GF)(P).

RECOMMENDATION

Staff recommends that the Architectural Review Board (ARB) conduct a Preliminary Review of the conceptual plans for the project and provide comments on the design to staff and the applicant. No formal action may be taken at a Study Session and comments made are not binding on the City or the applicant. Staff has summarized key issues to provide a framework for comments.

BACKGROUND

Site Information

The 16,606 square foot corner project site has an existing one-story retail building, built in the late 1950's. The site is located close to the northerly edge of the downtown Palo Alto commercial area and is within the Downtown Parking Assessment District. The buildings along University Avenue, moving away from downtown, are predominantly low one-story structures. On Cowper Street the site is separated from the neighboring three-story building by the access driveway to the five-story public parking garage. Running along the back of the site, parallel to University, is a public walkway providing connections to the businesses and the garage. Across the streets, on the other three corners of the intersection, are taller buildings ranging from three to fifteen stories. The existing development does not provide on-site parking and was assessed for 64 spaces associated with the existing 15,899 square foot (sf) building.

Project Description

The applicant's preliminary concept plan includes the demolition of the existing one-story building and the construction of a new three-story, 26,806 square foot commercial building with ground floor retail, two floors of office above, and a below grade garage providing 24 parking spaces.

The concept, as described by the applicant, is to "create a building that is humble and strives to capture the timeless spirit and diversity that is Palo Alto." The Arts and Crafts architectural style is cited as being most influential on the project's design. The project materials for this building include a beige integral color plaster throughout, with stone base treatments on dominant columns, dark brown metal panels and window mullions, and clay tile roof (see plan sheet A2.2, Attachment D).

The new building would have a reduced footprint, as compared to the existing condition, to provide new open space areas such as a new 20 foot wide pedestrian access alley from University Avenue to the public parking structure, wider sidewalks, and an open plaza space. The project concept includes new landscaping elements that replace the existing 13 street trees and adds new planter beds along three of the four building facades. The new plaza would include seat walls and other outdoor amenities.

Please refer to the applicant's project description and plans for additional clarification (Attachment A and D).

DISCUSSION

Zoning Compliance

A summary indicating the project's conformance with the Development Standards of the Commercial Downtown Zone District is provided as Attachment B. The Floor Area Ratio (FAR) standard for development of a 100% commercial project in the CD-C zone district is a 1.0:1 FAR (16,606 sf). Additional floor area for commercial use is allowed with the use of Transferrable Development Rights (TDRs) and the use of a one-time 200 sf bonus [PAMC 18.18.070(a)(1)]. The project's proposed FAR (26,806 sf) would be the maximum allowed utilizing TDRs and the 200 sf bonus.

The project includes a corner tower feature that would exceed the 50 foot height limit for the CD-C zone district. The applicant is requesting consideration of a Design Enhancement Exception (DEE) that would be requested with the formal application, in order to exceed the height limit specifically for this architectural feature.

In addition, the ground-floor plans (sheet A3.2) indicate that possible office use would occur within the building corner that faces Cowper Street and the parking lot driveway. Because this site is within the GF (Ground Floor) Overlay zoning, office use is restricted to a maximum of twenty-five percent of the ground floor area that is *not* fronting on a street. Staff has determined that the conceptual location of office space would not be compliant with the GF requirements and has informed the applicant of this.

Parking

The project concept, with 26,806 sf of FAR, requires a total of 107 parking spaces, and with the inclusion of specific credits, the project qualifies for a reduction in the required on-site parking spaces. The on-site parking spaces required for this project is 22 and the proposed plan includes 24 spaces within the below grade garage, making the project complaint with City's requirements. A detailed breakdown of the parking is included in Attachment B.

Pedestrian Shopping Combining District

The project is required to comply with the Pedestrian Shopping Combining District (P), which requires new construction and building alterations to include design features intended to create pedestrian or shopper interest, to provide weather protection for pedestrians, and to preclude inappropriate or inharmonious building design and siting. The required features include:

- (1) display windows, or retail display areas;
- (2) pedestrian arcades, recessed entryways, or covered recessed areas designed for pedestrian use with an area not less than the length of the adjoining frontage times 1.5 feet; and
- (3) landscaping or architectural design features intended to preclude blank walls or building faces.

The project concept includes large windows for the majority of the ground floor elevations, meeting the retail/display window requirements. The project has 264 linear feet of street frontage, and is therefore required to provide 396 sf of covered recessed area for pedestrian use. The project includes recessed arcades along the Cowper Street and driveway facades, and inset display windows along University Avenue; these elements comply with the recessed area requirement. The project concept also includes wider sidewalks, a new plaza, and new landscaping, all of which enhance the pedestrian friendly qualities of the project.

Downtown Urban Design Guide

The Downtown Urban Design Guide (Guide) provides direction to the applicant, staff and ARB regarding development and design in the downtown area. The Guide divides the downtown area into districts, each having a unique identity and design characteristics. The project site is in the Cowper Center District, which is centered around the intersection of Cowper Street and University Avenue. The Guide identifies the project site as one to be developed with "strong building volumes," and the current proposal appears to be consistent with this goal. Development within the Cowper Center District should help define the eastern end of the downtown area and promote active destination points. The project's design, ground floor retail uses, and amenities (e.g. new walkway and plaza) are consistent with the Guide.

Context-Based Design Considerations and Findings

In addition to Zoning Compliance and Architectural Review approval findings, Context-Based Design Considerations and Findings found in PAMC Chapter 18.18 are applicable to projects in the downtown commercial zone district. The following findings that appear relevant to this project are listed for discussion purposes:

1. Pedestrian and Bicycle Environment: The design of new projects shall promote pedestrian walkability, a bicycle friendly environment, and connectivity through design elements.

2. Street Building Facades: Street facades shall be designed to provide a strong relationship with the sidewalk and the street(s), to create an environment that supports and encourages pedestrian activity through design elements.
3. Massing and Setbacks: Buildings shall be designed to minimize massing and conform to proper setbacks.
4. Project Open Space: Private and public open space shall be provided so that it is usable for the residents, visitors, and/or employees of a site.
5. Sustainability and Green Building Design: Project design and materials to achieve sustainability and green building design should be incorporated into the project. Green building design considers the environment during design and construction.

City Department Comments

The plans were routed to other City departments for review and the written comments provided are included in Attachment C. Based on the preliminary plans provided to staff, no significant issues were raised in the reviews.

ENVIRONMENTAL REVIEW

No environmental review is required for a Preliminary Review as it is not considered a project under the California Environmental Quality Act (CEQA).

ATTACHMENTS

- Attachment A: Project Description*
Attachment B: Zoning Compliance Table
Attachment C: City Department Comments
Attachment D: Development Plans (Board Members Only)*

* Prepared by Applicant; all other attachments prepared by Staff

COURTESY COPIES

John Shenk: jshenk@mac.com

Robert Giannini: bgiannini@form4inc.com

Prepared By: Clare Campbell, Planner

Manager Review: Amy French, Chief Planning Official





500 UNIVERSITY AVENUE - Project Narrative

Palo Alto

March 7, 2013

To: City of Palo Alto Planning Division
Architectural Review Board Members

From: John R. Shenk, Applicant and Project Sponsor
Robert Giannini, Architect
Thoits Bros., Inc., Owner

Subject: 500-526 University Avenue, Palo Alto
Preliminary Architectural Review Board Review

On behalf of the owner, Thoits Bros., Inc., of the above referenced property, I am pleased to submit this application for your review and comment. The Thoits family has owned this property for 65 years and has envisioned its redevelopment for many years. We are excited to take this step as it will serve to anchor Downtown's northern gateway, significantly enhance the University/Cowper neighborhood, and provide much needed first class retail and office spaces. We have intentionally stayed within the City's guidelines (Zoning and Design Guidelines) for development of this property so as to respect the community and expedite the approval process.

The Thoits guiding goal for this project is to be sure that this redevelopment will provide a meaningful benefit to the neighbors and to those who visit this part of Palo Alto. You will see that we have thoughtfully accomplished this goal through the land plan and building design. The pedestrian circulation to and from the City's largest public parking garage is vastly improved, underground parking is being provided, and a public plaza/gathering place is created to benefit all.

While maximizing the developable area of the property, our proposed building significantly reduces the building footprint and lot coverage. By doing this we are able to free land for very valuable purposes. A new pedestrian alley between University Avenue and the Webster/Cowper garage is a great amenity. This will be a pleasant and efficient connection for the public supporting our local retailers. The site plan also allows us to create a significant gathering place. We have oriented the new building to be on University and to have a strong corner feature while providing relief to the other sides. The space created on the backside of the building will be used to bring in a specimen tree and to create inviting gathering spaces. The open plaza is south-facing and will be a great place to meet a colleague or friend or to just enjoy a moment in the outdoors.

The University facing ground floor retail has a strong corner, great glass lines, many signage opportunities, and ceiling heights to attract any type of retail establishment. The upper floors are accessed through the northern entry to the building along University, from the underground garage, as well as from the backside.

We request the Board review and comment on the project's massing, site plan (especially the alignment of the public sidewalk along Cowper), architectural style, building materials, signage, circulation patterns, and garage.

PROJECT INFORMATION:

BUILDING

Project Description: New three story building and one level below grade parking garage.

APN: 120-03-030

Zoning: CD-C (GF) (P)

Construction Type: Type III

Occupancy: B, M

Building Codes: 2010 CBC, 2010 Green Building Standards

Fire Sprinklers: Fully Sprinklered Monitored

Area Calculations: Existing Lot Coverage: 15,899 SF
 Proposed Lot Coverage: 7,511 SF

Existing Floor Area: 15,899 SF
 Proposed Floor Area: 26,806 SF

	Allowed Area (sf)	Parking Required at 1 stall / 250 sf
Land Area:	16,606 sf	
Existing Building Area:	15,899 sf	*
Incremental Area Allowed to be 1:1 FAR:	707 sf	3 stalls
TDR (per 18.18.080f(2)):	5,000 sf	**
TDR (per 18.18.080f(2)):	5,000 sf	20 stalls
One Time 200 sf Bonus:	200 sf	***
Total Proposed Building Area:	26,806 sf	23 stalls

Floor Area Ratio (FAR)

Max. Lot FAR 2:1: 2.00

Proposed FAR: 1.61

PARKING

Construction Type:	Type I
Occupancy:	S-2
Required On-Site Parking:	23 stalls
Proposed On-Site Parking:	24 stalls
Parking Level 1A:	12
Parking Level 1B:	12
Parking in Excess of Code Requirements:	1 stalls

* Existing area is exempt from the parking requirement per Palo Alto Municipal Code Section 18.18.090(b)(4) since this property is a part of the Assessment District and has paid its assessments since inception.

** Per Palo Alto Municipal Code Section 18.18.080(g) the first 5,000 sf of floor area transferred to a receiver site shall be exempt from the parking requirements.

*** Per Palo Alto Municipal Code Section 18.18.070(a)(1) a minor bonus for buildings not eligible for historic or seismic bonuses of 200 sf is allowed.

Architectural Design Narrative

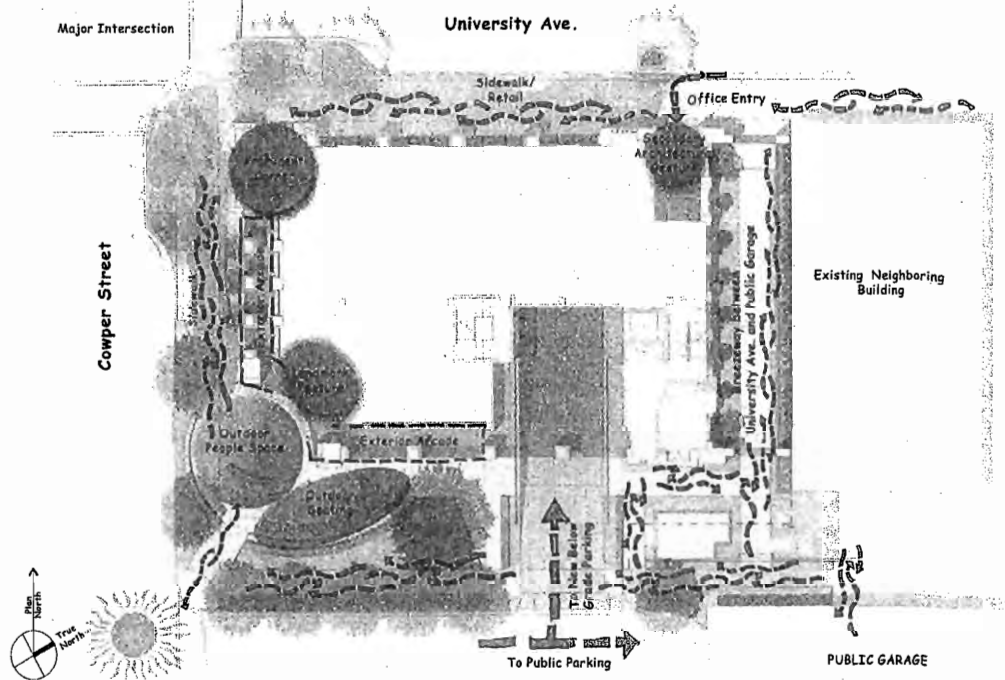
PROJECT OPPORTUNITIES:

This project is located on a very special and unique site in Palo Alto. Consequently it has the opportunity to achieve several exciting goals.

GOALS

- 1) Become a gateway to the northern end of the downtown.
- 2) Enhance the pedestrian experience accessing Cowper and University from the public garage;
- 3) Become the third edge defining what will become a delightful pedestrian outdoor space (Il Fornaio and California Pizza Kitchen's outdoor dining areas being the other two);
- 4) Organize around the existing "trash enclosure" that exists partially on our site, and partially on public property.
- 5) Provide a site and building design that captures the vibrant Palo Alto spirit;
- 6) Become a high quality, long term asset for Palo Alto and the Thoits family through the use of thoughtful materials, details, and proportions.

DESIGN SOLUTION:



The master plan is designed provide a strong retail presence on University and a series of connected outdoor spaces designed to capitalize on the setting and achieve the project objectives.

Following are some specifics:

PARKING OPTIONS & ACCESS:

Enhance the pedestrian experience accessing Cowper and University from the public garage;

Building occupants have the option to park in either the new garage proposed to be constructed under the building, or the adjacent streets, or public garage.

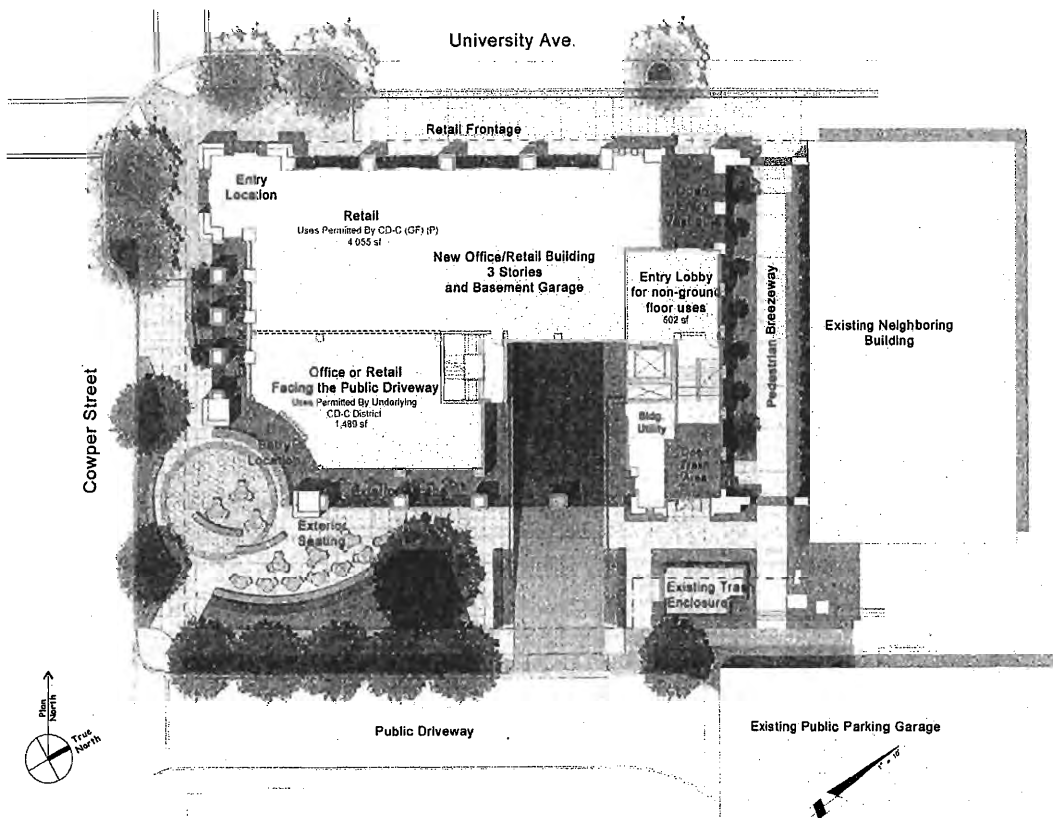
This project will enhance the experience of getting to the street from the public parking garage in two ways. A pedestrian connector alley is proposed on our site between us and our neighbor. Not unlike the existing one at the Tamarine Restaurant, this will provide a direct and pleasant way to get from the garage to the businesses on University Avenue.

The new design addresses and organizes the existing "trash enclosure" area along the short entry road from Cowper to the garage. New paving materials, street trees and a new sunny courtyard at the intersection will make the walk from the garage to Cowper or University more interesting.

NEW SUNNY PLAZA:

Become the third edge defining what will become a delightful pedestrian outdoor space (Il Fornaio and California Pizza Kitchen's outdoor dining areas being the other two);

The proposed building massing scoops away the southeast corner of the building to capture a sunny outdoor space. Through its orientation and welcoming shape it will help a fairly chaotic intersection become a delightful pedestrian place. One has the option to move quickly past on direct sidewalks, or wander through the various plaza spaces shared by the building occupants and the public.

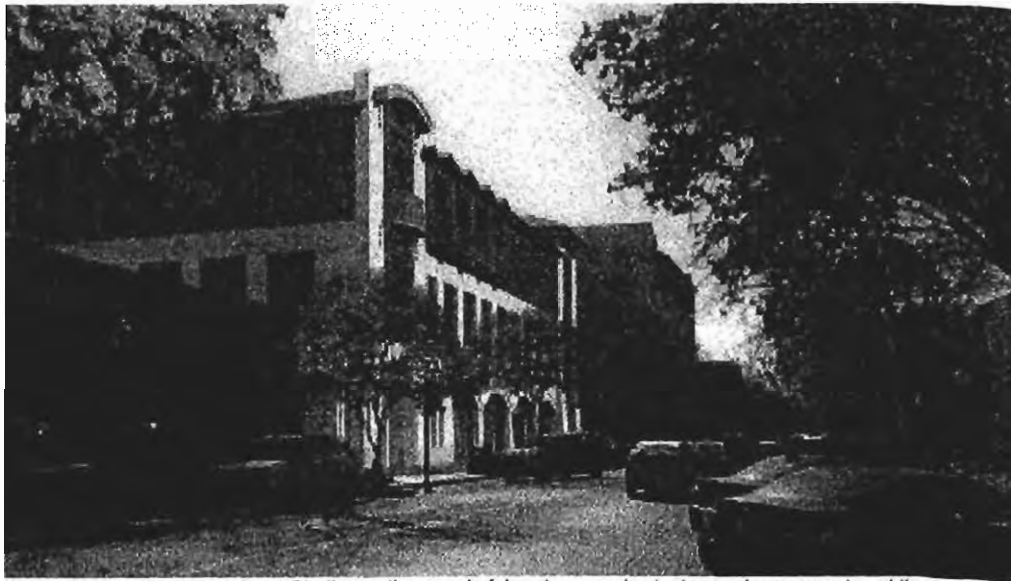


Illustrative Site Plan

Tower becomes a "marker" on University Avenue. Various design elements create a dialog with surrounding buildings on the intersection.



The "Third Edge." South facing outdoor space orienting toward il Formalo and California Pizza Kitchen's outdoor spaces.

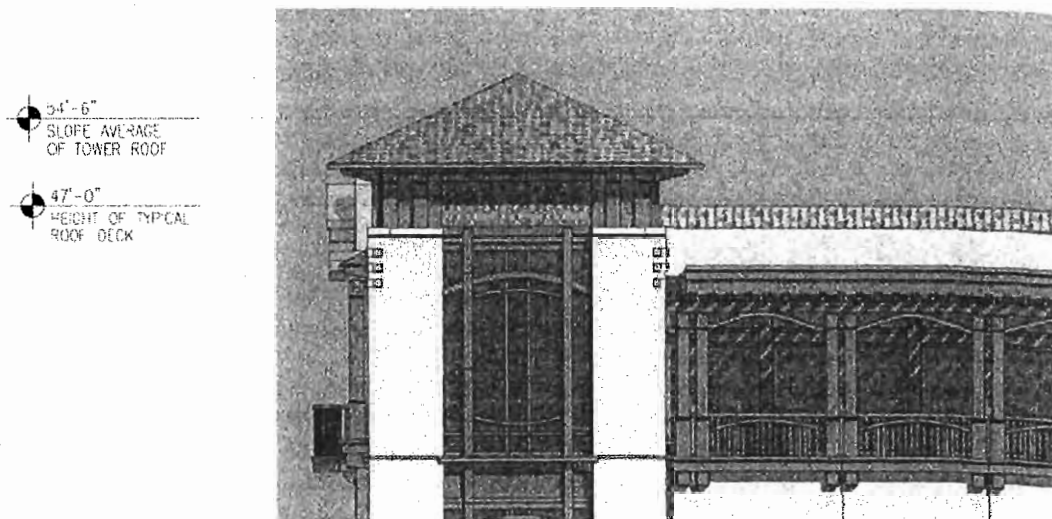


Lobby corner creates a "gateway" to the northern end of downtown, and entry to new breezeway to public garage.

LANDSCAPE:

The landscape is characterized by its use of a specimen tree, succulents, low water use natives, and adapted plantings used to define the proposed exterior spaces as well as compliment the building massing. Planting geometries and combinations provide a strong textural composition for viewing and occupancy. Arcades at Cowper and the pedestrian alley (to University) are articulated with select architectural accent plantings such as Yucca, mediterranean fan palm and giant bird of paradise on a rhythm consistent with the building structure and expressive of the arcade arches. Entry and plaza planting heighten the sense of arrival and enhance the Arts & Crafts building massing with tree, shrub, and perennial bed compositions providing definition and/or separation of spaces. Street tree planting maintains existing sycamore trees at the Cowper and University Avenue intersection and introduces additional tree canopy adjacent to the building entry and approach to the public garage. These flowering evergreens and associated bedding shrubs along the garage access drive provide a shaded walk for the pedestrian while effectively screening vehicle traffic. This hedgerow of trees also defines the plaza and serves as a backdrop to a large specimen feature tree.

DESIGN ENHANCEMENT EXEMPTION



We request a DEE for height for only the corner tower element per the above diagram where the current height limit is 50'. The average height of the corner tower is 54'-6". Please refer to Preliminary ARB Package Sheet A2.1 for context. The added height consideration is being requested to maintain the proper proportions for this style building for a tower element. The height impact is minimized due to the sloped roof element and the deeply shadowed detail that supports it. The benefit to the City is getting a punctuation point at the intersection that feels slender and elegant, and not arbitrarily squatty. The balance of the building is well below the 50' height limit.

ZONING COMPLIANCE TABLE
 500 University Avenue / File No. 13PLN-00112
CD-C ZONE

DEVELOPMENT STANDARDS	STANDARD	PROPOSED PROJECT	CONFORMS
Minimum Building Setback			
Front (Cowper St)	None Required	± 4'	Yes
Rear (walkway side)	None Required	± 20'	Yes
Interior Side (driveway side)	None Required	± 25'	Yes
Street Side (University Ave)	None Required	None	Yes
Maximum Site Coverage (building footprint)	None Required	7,511 sf / 45%	Yes
Maximum Height	50'	± 54'-6"	Yes with DEE
Daylight Plane	Same as abutting residential zones	Not Applicable	Yes
Floor Area Ratio (FAR)	16,606 sf (1:1)	26,806 sf	Yes using TDRs and 200 sf Bonus
Parking Requirement (within the Downtown Parking Assessment District)	107 spaces 1 space/250 sf commercial area	24 spaces	Yes*
Bicycle Parking	11 spaces 1 space/commercial 2,500 sf	Long Term: 4 Short Term: 7	Yes

*Parking summary:

Required spaces before credits	107 spaces
Credits	
Assessed spaces (based on 15,899 sf)	- 64 spaces
Transfer of Development Rights (based on 5,000 sf)	-20 spaces
One-time 200 sf bonus [18.18.070(a)(1)]	-1 space
Required Spaces after credits	22 spaces

CITY DEPARTMENT COMMENTS

500 University Avenue [13PLN-00112]

Written comments were provided from the following City departments listed below on the preliminary plans provided. These comments can change with the submittal of the formal application when more project details are made known to city staff.

- Electrical Engineering
- Public Works Trees
- Public Works Engineering
- Transportation
- Water-Gas-Wastewater
- Water Quality

Campbell, Clare

From: Jagannath, Gopal
Sent: Tuesday, April 02, 2013 8:55 AM
To: Campbell, Clare
Cc: Thompson, Jim
Subject: 500 University Avenue, APN:777-77-777, COMPONENTS:13PLN-00112

Clare,

Following are the comments for the above project-

"The Utilities will require space on the private property for installing a pad mounted transformer to serve the proposed building at the above location. Pad mounted transformer location must be shown on the plans. Utilities will require a minimum clearance of 8' in the front and 3' around the transformer. Public Utility Easements shall be granted as required by the City. Any extension of the power distribution lines/relocation of existing utilities or offsite modification that needs to be done for providing electric service to the building will be at applicant's expense. Any non standard installation requested by the applicant shall be treated as a "Special Facilities" and in that case special facility charges will become applicable. Applicant shall provide preliminary electric load calculations for sizing the transformer. Transformer procurement lead time is 6-8 months. Utilities will provide detailed comments and cost estimates when plans are submitted to the Building Department for review and approval".

-Gopal
Ext.4516

Public Works Tree Division – Comments for 500 University

Dave Dockter

April 15, 2013

1. Design standards for all trees, on deck, plazas, sidewalks, etc. All tree shall be providee with the infrastructure to promote optimum shade tree growth using the following standard: 1200 cubic feet of root growing volume for a large canopy shade tree,.

2. Integrate all trees and soil with site drainage and water quality management systems.

3. Logistics plan shall include all tree protection report measures for staging areas, parking lot protection, etc.

4.. SITE PLAN REQUIREMENTS (Reference: CPA Tree Technical Manual, Section 6.35). Applicable to all projects. The site plans must include the minimum information required in the submittal checklist, tree disclosure statement (TDS) and the City Tree Technical Manual (TTM), Section 6.30 and 6.35. One or more of the following elements is not provided for staff review. If the activity is within the dripline, then a tree protection report (TPR) is required for city review. The TPR will review potential impacts and recommend design changes and/or viable mitigation measures. To prepare the report, the architect or engineer shall provide the most recent plans to the project site arborist preparing the TPR and indicate the extent of grading, drainage excavation, below ground utility trenching, foundation and form work; identify the tree protection zone (TPZ) for each tree, restriction areas for access and/or travel over sensitive root areas, irrigation, trenching, landscaping and any other activity or improvements beneath the Regulated Trees. Correct the plan submittal to include:

a) Show all existing conditions of the site, curb cuts, utilities and trees.

b) Preliminary grading and drainage. Provide a plan that includes existing and proposed contours @ 2-foot intervals. Show any excavation proposed in the tree protection zone of regulated tree including neighboring trees overhanging the site. Drainage grading shall be directed away from any oak.

c) Show plan notes for any excavation or activity proposed in the TPZ any regulated tree. Indicate on plans the area and details for removal of existing concrete, grading, new lawn and irrigation system over tree roots with the dripline area, consistent with TTM, Sec.2.40.

d) Show the accurate TPZ fencing placement and specify Type I around the protected trees and Type II fencing around the public street trees, as noted in the tree survey or tree preservation report.

e) Show all existing and proposed utility, telecommunication, driveway construction, transformer and pad size, above and below ground locations within the dripline of any regulated tree. Avoid any reference to utilities within 10 feet of public trees on either side of the sidewalk.

f) Parking Area Shading. PAMC, chapter 18.40.130 (e) requires 50% surface parking shading. Provide a landscape shading plan using the city provided handout template or other qualified method (Handout: insert website)

To: Clare Campbell
From: Woojae Kim
Date: March 26, 2013

**PUBLIC WORKS ENGINEERING
REVIEW COMMENTS FOR
500 UNIVERSITY AVENUE, 13PLN-112 (ARB)**

Here are the review comments from the Public Works Engineering with more comments that may follow during the building permit application review:

PUBLIC ACCESS EASEMENT: Provide public access easement for the Pedestrian Breezeway.

UNDERGROUND GARAGE STRUCTURE: The proposed underground garage structure in entirety will be within the property lines.

PLANTER STRIP ALONG COWPER STREET: The planter strip along Cowper Street shown on Sheet MP2.4 does not follow City Standards. Public right-of-way improvements that are not City Standards including decorative sidewalks shall require approval from ARB and the Planning Department. Once approved and before the building permit can be issued, a maintenance agreement shall be executed with the City stating that the owner of the property will maintain the nonstandard components.

OFFSITE IMPROVEMENTS: As part of this project, the applicant, at minimum, will be required to repave (2-inch grind and pave) the full width of University Avenue and Cowper Street and install all new sidewalk, curb, gutter, and driveway approach in the public right-of-way along the property frontage per Public Works' latest standards and/or as instructed by the Public Works Inspector. The plan must note that any work in the right-of-way must be done per Public Works' standards by a licensed contractor who must first obtain a *Permit for Construction in the Public Right-of-Way* ("Street Work Permit") from Public Works at the Development Center.

STREET TREES: The applicant may be required to replace existing and/or add new street trees in the public right-of-way along the property's frontage. Call the Public Works' Arborist at 650-496-5953 to arrange a site visit so he can determine what street tree work will be required for this project. The site plan submitted with the building permit plan set must show the street tree work that the arborist has determined, including the tree species, size, location, staking and irrigation requirements, or include a note that Public Works' arborist has determined no street tree work is required. Any removal, relocation or planting of street trees; or excavation, trenching or pavement within 10 feet of street trees must be approved by the Public Works' Arborist. The plan must note that the applicant must first obtain a *Public Tree Care Permit* for street tree work in the Public Right-of-Way from Public Works' Urban Forestry.

STORM WATER RUNOFF SYNOPSIS: Provide a synopsis of pre and post-development storm water runoff flows and drainage systems. Summarize existing storm water drainage patterns such as where the existing site runoff drains to. Explain the increase in the site storm water runoff flow for post-development. Show justification that the existing City storm water drainage system has the capacity to handle the increase in the flow.

STORM WATER TREATMENT: This project must meet the latest State Regional Water Quality Control Board's (SRWQCB) C.3 provisions. The applicant is required to satisfy

all current storm water discharge regulations and shall provide calculations and documents to verify compliance. All projects that are required to treat storm water will need to treat the permit-specified amount of storm water runoff with the following low impact development (LID) methods: rainwater harvesting and reuse, infiltration, evapotranspiration, or biotreatment. However, biotreatment (filtering storm water through vegetation and soils before discharging to the storm drain system) will be allowed only where harvesting and reuse, infiltration and evapotranspiration are infeasible at the project site. Complete the Infiltration/Harvesting and Use Feasibility Screening Worksheet (Santa Clara Valley Urban Runoff Pollution Prevention Program C.3 Stormwater Handbook - Appendix I). **Vault-based treatment will not be allowed as a stand-alone treatment measure.** Where storm water harvesting and reuse, infiltration, or evapotranspiration are infeasible, vault-based treatment measures may be used in series with biotreatment, for example, to remove trash or other large solids.

Reference: Palo Alto Municipal Code Section 16.11.030(c)

[http://www.scvurppp-w2k.com/permit_c3_docs/c3_handbook_2012/Appendix I-Feasibility_2012.pdf](http://www.scvurppp-w2k.com/permit_c3_docs/c3_handbook_2012/Appendix_I-Feasibility_2012.pdf)

In order to qualify the project as a **Special Project** for LID treatment reduction credit, complete and submit the Special Projects Worksheet (Santa Clara Valley Urban Runoff Pollution Prevention Program C.3 Stormwater Handbook - Appendix J: Special Projects). Any Regulated Project that meets all the criteria for more than one Special Project Category may only use the LID treatment reduction credit allowed under one of the categories.

[http://www.scvurppp-w2k.com/permit_c3_docs/c3_handbook_2012/Appendix J-Special Projects_2012.pdf](http://www.scvurppp-w2k.com/permit_c3_docs/c3_handbook_2012/Appendix_J-Special_Projects_2012.pdf).

The applicant must incorporate permanent storm water pollution prevention measures that treat storm water runoff prior to discharge. The prevention measures shall be reviewed by a qualified **third-party reviewer** who needs to certify that it complies with the Palo Alto Municipal Code requirements. This is required prior to the issuance of a building permit. The third-party reviewer shall be acquired by the applicant and needs to be on the Santa Clara Valley Urban Runoff Pollution Prevention Program's (Program) list of qualified consultants. Any consultant or contractor hired to design/and/or construct a storm water treatment system for the project cannot certify the project as a third-party reviewer.

http://www.scvurppp-w2k.com/consultants2012.htm?zoom_highlight=consultants

Within 45 days of the installation of the required storm water treatment measures and prior to the issuance of an occupancy permit for the building, **third-party reviewer** shall also submit to the City a certification for approval that the project's permanent measures were constructed and installed in accordance to the approved permit drawings. The project must also enter into a maintenance agreement with the City to guarantee the ongoing maintenance of the permanent C.3 storm water discharge compliance measures. The maintenance agreement shall be executed prior to the first building occupancy sign-off.

DRAINS FOR PARKING STRUCTURE: Any drains within the covered floors of the parking structures shall be connected to an oil separator then to sanitary sewer lines. Storm water runoff from any exposed surface without canopies need to be treated as per C.3 requirements.

TRASH ENCLOSURE: New or renovated buildings providing centralized solid waste collection shall provide a covered area for trash enclosure. The area shall be adequately sized for all waste streams and designed with grading or a berm system

to prevent water run-on and runoff from the area. A drain in the trash enclosure area shall be connected to a sanitary sewer line.

GREASE/OIL REMOVAL DEVICE: If there will be a kitchen and food serving area in the new building, any drains in the food service facilities shall be connected to a grease removal device.

The following comments are provided to assist the applicant at the building permit phase. You can obtain various plan set details, forms and guidelines from Public Works at the City's Development Center (285 Hamilton Avenue) or on Public Works' website:

http://www.cityofpaloalto.org/depts/pwd/forms_permits.asp

Include in plans submitted for a building permit:

GRADING & EXCAVATION PERMIT: For excavation of the below grade parking structure, a *Grading and Excavation Permit* needs to be obtained from PWE at the Development Center before the building permit can be issued. Refer to the Public Works' website for "Excavation and Grading Permit Instructions." For the *Grading and Excavation Permit* application, various documents are required including a grading and drainage plan, soils report, Interim and Final erosion and sediment control, storm water pollution prevention plan (SWPPP), engineer-stamped and signed shoring plan, and a copy of the Division of Occupational Safety and Health (DOSH) excavation permit. Refer to our website for "Grading and Excavation Permit Application" and guidelines. Except for the soils report and the DOSH permit, include the required documents and drawings in the building permit set drawings. Indicate the amount of soil to be cut and filled for the project.

<http://www.cityofpaloalto.org/civicax/filebank/documents/11695>

GRADING AND DRAINAGE PLAN: The plan set must include a grading and drainage plan prepared by a licensed professional that includes existing and proposed spot elevations and showing drainage flows to demonstrate proper drainage of the site. Other site utilities may be shown on the grading plan for reference only, and should be so noted. No utility infrastructure should be shown inside the building footprint. Installation of these other utilities will be approved as part of a subsequent Building Permit application.

Site grading, excavation, and other site improvements that disturb large soil areas may only be performed during the regular construction season (from April 16 through October 15th) of each year the permit is active. The site must be stabilized to prevent soil erosion during the wet season. The wet season is defined as the period from October 15 to April 15. Methods of stabilization are to be identified within the Civil sheets of the improvement plans for approval.

SOILS REPORT: A detailed site-specific soil report prepared by a licensed soils or geo-technical engineer must be submitted which includes information on water table and sub-grade construction issues. Measures must be undertaken to render the basement waterproof and able to withstand all projected hydrostatic and soil pressures. No pumping of groundwater is allowed. In general, PWE recommends that structures be constructed in such a way that they do not penetrate existing or projected ground water levels.

DEWATERING: Excavation for sub-grade structures may require dewatering. PWE only allows groundwater drawdown well dewatering. Open pit groundwater dewatering is not allowed. If dewatering is required, the dewatering plan must be submitted to Public Works at Development Center as part of a *Permit for*

Construction in the Public Right-of-Way. Dewatering is only allowed from April through October due to inadequate capacity in our storm drain system. The geotechnical report for this site must list the highest anticipated groundwater level. If the deepest excavation is expected to be within 3 feet of the highest anticipated groundwater level, the contractor can determine the actual groundwater depth immediately prior to excavation by installing piezometers or by drilling exploratory holes. Alternatively, the contractor can excavate and hope not to hit groundwater, but if he does, he must immediately stop excavation and submit a dewatering plan to PWE for approval and install a drawdown well system before he continues to excavate. Public Works may require the water to be tested for contaminants prior to initial discharge and at intervals during dewatering. If testing is required, the contractor must retain an independent testing firm to test the discharge water for the contaminants as specified by Public Works.

BASEMENT DRAINAGE: Due to high groundwater throughout much of the City, PWE prohibiting the pumping and discharging of groundwater. Sub-grade drainage systems such as perforated pipe drainage systems at the exterior of the basement walls or under the slabs are not allowed. PWE recommends that a waterproofing consultant be retained to design and inspect the vapor barrier and waterproofing systems for the basement.

BASEMENT SHORING: Shoring for the basement excavation, including tiebacks, must not extend onto adjacent private property or into the County right-of-way without having first obtained written permission from the private property owners and/or an Encroachment Permit from the County.

BEST MANAGEMENT PRACTICES (BMP's): In order to address potential storm water quality impacts, the plan shall identify BMP's to be incorporated into the Storm Water Pollution Prevention Plan (SWPPP) that will be required for the project. The SWPPP shall include permanent BMP's to be incorporated into the project to protect storm water quality. (Resources and handouts are available from PWE. Specific reference is made to Palo Alto's companion document to "Start at the Source", entitled "Planning Your Land Development Project").

The developer shall require its contractor to incorporate BMP's for storm water pollution prevention in all construction operations, in conformance with the SWPPP prepared for the project. It is unlawful to discharge any construction debris (soil, asphalt, sawcut slurry, paint, chemicals, etc.) or other waste materials into gutters or storm drains. (PAMC Chapter 16.09).

The applicant is required to paint the "No Dumping/Flows to San Francisquito Creek" logo in blue color on a white background, adjacent to all storm drain inlets. Stencils of the logo are available from the Public Works Environmental Compliance Division, which may be contacted at (650) 329-2598. A deposit may be required to secure the return of the stencil. Include the instruction to paint the logos on the construction grading and drainage plan. Include maintenance of these logos in the Hazardous Materials Management Plan, if such a plan is part of this project.

STORM WATER POLLUTION PREVENTION: The City's full-sized "Pollution Prevention - It's Part of the Plan" sheet must be included in the plan set. Copies are available from Development Center or on our website. Also, the applicant must provide a site-specific storm water pollution control plan sheet in the plan set.
<http://www.cityofpaloalto.org/civicax/filebank/documents/2732>

IMPERVIOUS SURFACE AREA: Since the project will be creating or replacing 500 square feet or more of impervious surface, the applicant shall provide calculations of the existing and proposed impervious surface areas. The calculations need to be

filled out in the *Impervious Area Worksheet for Land Developments* form which is available at the Development Center or on our website, then submitted with the building permit application.

<http://www.cityofpaloalto.org/civicax/filebank/documents/2718>

WORK IN THE RIGHT-OF-WAY - If any work is proposed in the public right-of-way, such as sidewalk replacement, driveway approach, curb inlet, storm water connections or utility laterals, the following note shall be included on the *Site Plan* next to the proposed work:

"Any construction within the city right-of-way must have an approved *Permit for Construction in the Public Street* prior to commencement of this work. THE PERFORMANCE OF THIS WORK IS NOT AUTHORIZED BY THE BUILDING PERMIT ISSUANCE BUT SHOWN ON THE BUILDING PERMIT FOR INFORMATION ONLY."

LOGISTICS PLAN: The contractor must submit a logistics plan to PWE prior to commencing work that addresses all impacts to the City's right-of-way, including, but not limited to: pedestrian control, traffic control, truck routes, material deliveries, contractor's parking, concrete pours, crane lifts, work hours, noise control, dust control, storm water pollution prevention, contractor's contact, noticing of affected businesses, and schedule of work. The plan will be part of the building permit submittal.

<http://www.cityofpaloalto.org/civicax/filebank/documents/2719>

FINALIZATION OF BUILDING PERMIT: The Public Works Inspector shall sign off the building permit prior to the finalization of this permit. All off-site improvements shall be finished prior to this sign-off. Similarly, all as-builts, on-site grading, drainage and post-developments BMP's shall be completed prior to sign-off.

Campbell, Clare

From: Rius, Rafael
Sent: Thursday, April 11, 2013 9:41 AM
To: Campbell, Clare
Subject: 500 University Ave - Transportation Comments

Hi Clare,

Here are the transportation comments for this project:

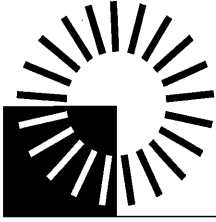
- Provide plan of parking garage with dimensions of aisles, parking stalls, ramps, and long term bike parking.
- Provide bike parking requirements in project information
- Coordinate with staff on short term bike parking at street level.
- Landscaping in vicinity of garage entrances should be 36" in height or lower to ensure sight to pedestrians walking along sidewalk.

- Regional Bike share pod is anticipated to be installed in front of building on University Avenue, replacing two on-street parking spaces

Thanks,
Rafael

Rafael Rius, P.E.

Transportation Project Engineer
City of Palo Alto, Planning and Transportation
250 Hamilton Avenue, 5th Floor
Palo Alto, California 94301
t. 650.329.2305
f. 650.617.3108



CITY OF PALO ALTO
UTILITIES

**CITY OF PALO ALTO UTILITIES DEPARTMENT
WATER - GAS - WASTEWATER ENGINEERING
1007 ELWELL COURT, PALO ALTO, CA 94301
MAIN PHONE: 650/566-4501; FAX: 650/566-4536**

Subject Address: 500 University, Application #13PLN-112

Reviewed By: John Nguy, WGW Util. Eng. Phone: **650/566-4523**

Reviewed date: April 10, 2013

**WATER, GAS & WASTEWATER UTILITIES DEPARTMENT
PLAN REVIEW COMMENTS**

PRIOR TO ISSUANCE OF DEMOLITION PERMIT

1. Prior to demolition, the applicant shall submit the existing water/wastewater fixture unit loads (and building as-built plans to verify the existing loads) to determine the capacity fee credit for the existing load. If the applicant does not submit loads and plans they may not receive credit for the existing water/wastewater fixtures.
2. The applicant shall submit a request to disconnect all utility services and/or meters including a signed affidavit of vacancy. Utilities will be disconnected or removed within 10 working days after receipt of request. The demolition permit will be issued by the building inspection division after all utility services and/or meters have been disconnected and removed.

FOR BUILDING PERMIT

3. The applicant shall submit a completed water-gas-wastewater service connection application - load sheet for each unit for City of Palo Alto Utilities. The applicant must provide all the information requested for utility service demands (water in fixture units/g.p.m., gas in b.t.u.p.h, and sewer in fixture units/g.p.d.). The applicant shall provide the existing (prior) loads, the new loads, and the combined/total loads (the new loads plus any existing loads to remain).
4. The applicant shall submit improvement plans for utility construction. The plans must show the size and location of all underground utilities within the development and the public right of way including meters, backflow preventers, fire service requirements, sewer mains, sewer cleanouts, sewer lift stations and any other required utilities.
5. The applicant must show on the site plan the existence of any auxiliary water supply, (i.e. water well, gray water, recycled water, rain catchment, water storage tank, etc).

6. The applicant shall be responsible for installing and upgrading the existing utility mains and/or services as necessary to handle anticipated peak loads. This responsibility includes all costs associated with the design and construction for the installation/upgrade of the utility mains and/or services.
7. The applicant's engineer shall submit flow calculations and system capacity study showing that the on-site and off-site water and sanitary sewer mains and services will provide the domestic, irrigation, fire flows, and wastewater capacity needed to service the development and adjacent properties during anticipated peak flow demands. Field testing may be required to determine current flows and water pressures on existing mains. Calculations must be signed and stamped by a registered civil engineer.
8. For contractor installed water and wastewater mains or services, the applicant shall submit to the WGW engineering section of the Utilities Department **four** copies of the installation of water and wastewater utilities off-site improvement plans in accordance with the utilities department design criteria. All utility work within the public right-of-way shall be clearly shown on the plans that are prepared, signed and stamped by a registered civil engineer. The contractor shall also submit a complete schedule of work, method of construction and the manufacturer's literature on the materials to be used for approval by the utilities engineering section. The applicant's contractor will not be allowed to begin work until the improvement plan and other submittals have been approved by the water, gas and wastewater engineering section. After the work is complete but prior to sign off, the applicant shall provide record drawings (as-builts) of the contractor installed water and wastewater mains and services per City of Palo Alto Utilities record drawing procedures. For contractor installed services the contractor shall install 3M marker balls at each water or wastewater service tap to the main and at the City clean out for wastewater laterals.
9. An approved reduced pressure principle assembly (RPPA backflow preventer device) is required for all existing and new water connections from Palo Alto Utilities to comply with requirements of California administrative code, title 17, sections 7583 through 7605 inclusive. The RPPA shall be installed on the owner's property and directly behind the water meter within 5 feet of the property line. RPPA's for domestic service shall be lead free. **Show the location of the RPPA on the plans.**
10. An approved reduced pressure detector assembly is required for the existing or new water connection for the fire system to comply with requirements of California administrative code, title 17, sections 7583 through 7605 inclusive (a double detector assembly may be allowed for existing fire sprinkler systems upon the CPAU's approval). reduced pressure detector assemblies shall be installed on the owner's property adjacent to the property line, within 5' of the property line. **Show the location of the reduced pressure detector assembly on the plans.**
11. All backflow preventer devices shall be approved by the WGW engineering division. Inspection by the utilities cross connection inspector is required for the supply pipe between the meter and the assembly.
12. Existing wastewater laterals that are not plastic (ABS, PVC, or PE) shall be replaced at the applicant's expense.
13. Existing water services that are not a currently standard material shall be replaced at the



CITY OF
**PALO
ALTO**

Public Works Department
Environmental Services Division
Watershed Protection Group

PROJECT REVIEW COMMENTS

Date: 3/25/2013
To: Clare Campbell
From: Kirsten Struve, Manager, Environmental Control Programs
Phone: (650) 329-2421

Application Number:
Company Name:
Project Address: 500 University
Palo Alto, CA

We have reviewed the site floor plans for this project. Please note the following issues must be addressed in building plans prior to final approval by this department:

PAMC 16.09.170, 16.09.040 Discharge of Groundwater

Prior approval shall be obtained from the city engineer or designee to discharge water pumped from construction sites to the storm drain. The city engineer or designee may require gravity settling and filtration upon a determination that either or both would improve the water quality of the discharge. Contaminated ground water or water that exceeds state or federal requirements for discharge to navigable waters may not be discharged to the storm drain. Such water may be discharged to the sewer, provided that the discharge limits contained in Palo Alto Municipal Code (16.09.040(m)) are not exceeded and the approval of the superintendent is obtained prior to discharge. The City shall be compensated for any costs it incurs in authorizing such discharge, at the rate set forth in the Municipal Fee Schedule.

PAMC 16.09.180(b)(9) Covered Parking

Drain plumbing for parking garage floor drains must be connected to an oil/water separator with a minimum capacity of 100 gallons, and to the sanitary sewer system

PAMC 16.09.180(b)(10) Dumpsters for New and Remodeled Facilities

New buildings and residential developments providing centralized solid waste collection, except for single-family and duplex residences, shall provide a covered area for a dumpster. The area shall be adequately sized for all waste streams and designed with grading or a berm system to prevent water runoff and runoff from the area.

PAMC 16.09.180(b)(14) Architectural Copper

On and after January 1, 2003, copper metal roofing, copper metal gutters, copper metal down spouts, and copper granule containing asphalt shingles shall not be permitted for use on any residential, commercial or industrial building for which a building permit is required. Copper flashing for use under tiles or slates and small copper ornaments are exempt from this prohibition. Replacement roofing, gutters and downspouts on historic structures are exempt, provided that the roofing material used shall be prepatinated at the factory. For the purposes of this exemption, the definition of "historic" shall be limited to structures designated as Category 1 or Category 2 buildings in the current edition of the Palo Alto Historical and Architectural Resources Report and Inventory.

PAMC 16.09.175(k) (2) Loading Docks

- (i) Loading dock drains to the storm drain system may be allowed if equipped with a fail-safe valve or equivalent device that is kept closed during the non-rainy season and during periods of loading dock operation.
- (ii) Where chemicals, hazardous materials, grease, oil, or waste products are handled or used within the loading dock area, a drain to the storm drain system shall not be allowed. A drain to the sanitary sewer system may be allowed if equipped with a fail-safe valve or equivalent device that is kept closed during the non-rainy season and during periods of loading dock operation. The area in which the drain is located shall be covered or protected from rainwater run-on by berms and/or grading. Appropriate wastewater treatment approved by the Superintendent shall be provided for all rainwater contacting the loading dock site.

PAMC 16.09.180(b)(5) Condensate from HVAC

Condensate lines shall not be connected or allowed to drain to the storm drain system.

16.09.215 Silver Processing (e.g. photoprocessing retail)

Facilities conducting silver processing (photographic or X-ray films) shall either submit a treatment application or waste hauler certification for all spent silver bearing solutions. 650-329-2421.

PAMC 16.09.180(b)(b) Copper Piping

Copper, copper alloys, lead and lead alloys, including brass, shall not be used in sewer lines, connectors, or seals coming in contact with sewage except for domestic waste sink traps and short lengths of associated connecting pipes where alternate materials are not practical. The plans must specify that copper piping will not be used for wastewater plumbing.

PAMC 16.09.220(c)(1) Dental Facilities That Remove or Place Amalgam Fillings

An ISO 11143 certified amalgam separator device shall be installed for each dental vacuum suction system. The installed device must be ISO 11143 certified as capable of removing a minimum of 95 percent of amalgam. The amalgam separator system shall be certified at flow rates comparable to the flow rate of the actual vacuum suction system operation. Neither the separator device nor the related plumbing shall include an automatic flow bypass. For facilities that require an amalgam separator that exceeds the practical capacity of ISO 11143 test methodology, a non-certified separator will be accepted, provided that smaller units from the same manufacturer and of the same technology are ISO-certified.

16.09.180(12) Mercury Switches

Mercury switches shall not be installed in sewer or storm drain sumps.

PAMC 16.09.205(a) Cooling Systems, Pools, Spas, Fountains, Boilers and Heat Exchangers

It shall be unlawful to discharge water from cooling systems, pools, spas, fountains boilers and heat exchangers to the storm drain system.

PAMC 16.09.165(h) Storm Drain Labeling

Storm drain inlets shall be clearly marked with the words "No dumping - Flows to Bay," or equivalent.

Undesignated Retail Space:

PAMC 16.09

Newly constructed or improved buildings with all or a portion of the space with undesignated tenants or future use will need to meet all requirements that would have been applicable during design and construction. If such undesignated retail space becomes a food service facility the following requirements must be met:

Designated Food Service Establishment (FSE) Project:

A. Grease Control Device (GCD) Requirements, PAMC Section 16.09.075 & cited Bldg/Plumbing Codes

1. The plans shall specify the manufacturer details and installation details of all proposed GCDs. (CBC 1009.2)
2. GCD(s) shall be sized in accordance with the 2007 California Plumbing Code.
3. GCD(s) shall be installed with a minimum capacity of 500 gallons.
4. GCD sizing calculations shall be included on the plans. See a sizing calculation example below.
5. The size of all GCDs installed shall be equal to or larger than what is specified on the plans.
6. GCDs larger than 50 gallons (100 pounds) shall not be installed in food preparation and storage areas. Santa Clara County Department of Environmental Health prefers GCDs to be installed outside. GCDs shall be installed such that all access points or manholes are readily accessible for inspection, cleaning and removal of all contents. GCDs located outdoors shall be installed in such a manner so as to exclude the entrance of surface and stormwater. (CPC 1009.5)
7. All large, in-ground interceptors shall have a minimum of three manholes to allow visibility of each inlet piping, baffle (divider) wall, baffle piping and outlet piping. The plans shall clearly indicate the number of proposed manholes on the GCD. The Environmental Compliance Division of Public Works Department may authorize variances which allow GCDs with less than three manholes due to manufacture available options or adequate visibility.
8. Sample boxes shall be installed downstream of all GCDs.
9. All GCDs shall be fitted with relief vent(s). (CPC 1002.2 & 1004)
10. GCD(s) installed in vehicle traffic areas shall be rated and indicated on plans.

B. Drainage Fixture Requirements, PAMC Section 16.09.075 & cited Bldg/Plumbing Codes

11. To ensure all FSE drainage fixtures are connected to the correct drain lines, each drainage fixture shall be clearly labeled on the plans. A list of all fixtures and their discharge connection, i.e. sanitary sewer or grease waste line, shall be included on the plans.
12. A list indicating all connections to each proposed GCD shall be included on the plans. This can be incorporated into the sizing calculation.
13. All grease generating drainage fixtures shall connect to a GCD. These include but are not limited to:
 - a. Pre-rinse (scullery) sinks
 - b. Three compartment sinks (pot sinks)
 - c. Drainage fixtures in dishwashing room except for dishwashers shall connect to a GCD
 - d. Examples: trough drains (small drains prior to entering a dishwasher), small drains on busing counters adjacent to pre-rinse sinks or silverware soaking sinks
 - e. Floor drains in dishwashing area and kitchens
 - f. Prep sinks
 - g. Mop (janitor) sinks
 - h. Outside areas designated for equipment washing shall be covered and any drains contained therein shall connect to a GCD.
 - i. Drains in trash/recycling enclosures
 - j. Wok stoves, rotisserie ovens/broilers or other grease generating cooking equipment with drip lines
 - k. Kettles and tilt/braising pans and associated floor drains/sinks
14. The connection of any high temperature discharge lines and non-grease generating drainage fixtures to a GCD is prohibited. The following shall not be connected to a GCD:
 - a. Dishwashers
 - b. Steamers
 - c. Pasta cookers
 - d. Hot lines from buffet counters and kitchens
 - e. Hand sinks
 - f. Ice machine drip lines
 - g. Soda machine drip lines
 - h. Drainage lines in bar areas
15. No garbage disposers (grinders) shall be installed in a FSE. (PAMC 16.09.075(d)).
16. Plumbing lines shall not be installed above any cooking, food preparation and storage areas.
17. Each drainage fixture discharging into a GCD shall be individually trapped and vented. (CPC 1014.5)

C. Covered Dumpsters, Recycling and Tallow Bin Areas PAMC, 16.09.075(q)(2)

18. Newly constructed and remodeled FSEs shall include a covered area for all dumpsters, bins, carts or container used for the collection of trash, recycling, food scraps and waste cooking fats, oils and grease (FOG) or tallow.
19. The area shall be designed and shown on plans to prevent water run-on to the area and runoff from the area.
20. Drains that are installed within the enclosure for recycle and waste bins, dumpsters and tallow bins serving FSEs are optional. Any such drain installed shall be connected to a GCD.
21. If tallow is to be stored outside then an adequately sized, segregated space for a tallow bin shall be included in the covered area.
22. These requirements shall apply to remodeled or converted facilities to the extent that the portion of the facility being remodeled is related to the subject of the requirement.

D. Large Item Cleaning Sink, PAMC 16.09.075(m)(2)(B)

23. FSEs shall have a sink or other area drain which is connected to a GCD and large enough for cleaning the largest kitchen equipment such as floor mats, containers, carts, etc. Recommendation: Generally, sinks or cleaning areas larger than a typical mop/janitor sink are more useful.

E. GCD sizing criteria and an example of a GCD sizing calculation (2007 CPC)

Sizing Criteria:		GCD Sizing:	
Drain Fixtures	DFUs	Total DFUs	GCD Volume (gallons)
Pre-rinse sink	4	8	500
3 compartment sink	3	21	750
2 compartment sink	3	35	1,000
Prep sink	3	90	1,250
Mop/Janitorial sink	3	172	1,500
Floor drain	2	216	2,000
Floor sink	2		

Example GCD Sizing Calculation:

Quantity	Drainage Fixture & Item Number	DFUs	Total
1	Pre-rinse sink, Item 1	4	4
1	3 compartment sink, Item 2	3	3
2	Prep sinks, Item 3 & Floor sink, Item 4	3	6
1	Mop sink, Item 5	3	3
1	Floor trough, Item 6 & tilt skillet, Item 7	2	2
1	Floor trough, Item 6 & steam kettle, Item 8	2	2
1	Floor sink, Item 4 & wok stove, Item 9	2	2
4	Floor drains	2	8
1,000 gallon GCD minimum sized		Total:	30

Note:

- All resubmitted plans to Building Department which include FSE projects shall be resubmitted to Water Quality.
- It is frequently to the FSE's advantage to install the next size larger GCD to allow for more efficient grease discharge prevention and may allow for longer times between cleaning. There are many manufacturers of GCDs which are available in different shapes, sizes and materials (plastic, reinforced fiberglass, reinforced concrete and metal)
- The requirements will assist FSEs with FOG discharge prevention to the sanitary sewer and storm drain pollution prevention. The FSE at all times shall comply with the Sewer Use Ordinance of the Palo Alto Municipal Code. The ordinances include requirements for GCDs, GCD maintenance, drainage fixtures, record keeping and construction projects.