4

CITY OF PALO ALTO

Architectural Review Board

Staff Report

Agenda Date: June 20, 2013

To: Architectural Review Board

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

Subject: **2500 El Camino Real [13PLN-00161]:** Request by Stanford Real Estate for Preliminary Architectural Review of a proposed four-story mixed use project with 70 residential units (one, two and three bedroom units) of below market rate rental housing and approximately 7,300 square feet of commercial space. Zone: CS (AS1).

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

Mayfield Development Agreement

In 2005, the City of Palo Alto and Stanford University entered into the Mayfield Development Agreement (MDA). Under the terms of the MDA, Stanford University was to lease to the City of Palo Alto the 6-acre Mayfield site, located at the corner of Page Mill and El Camino Real, for $1 per year for 51 years. Stanford was to construct soccer fields on the Mayfield site at their expense and turn the fields over to the City upon completion, which was done in 2006. In turn, the MDA provided Stanford with vested rights to build 250 housing units on two sites in the Stanford Research Park, where R&D/office buildings exist today. Stanford was also granted the right to relocate 300,000 square feet (sf) of R&D/office space elsewhere in the Stanford Research Park, which is less than the amount of commercial area to be demolished at the future housing sites. In addition, the City accepted the lease of the Mayfield soccer fields as mitigation for any potential community service impacts upon the City resulting from all future development at Stanford, as authorized by the General Use Permit approved by the County of Santa Clara in December of 2000.

As required by the MDA, Stanford must submit applications for Architectural Review for at least 185 of the 250 housing units by the end of 2013. This date was selected based on the timing of the expiration of commercial ground leases on the sites designated for required housing. The designated housing sites are the existing leaseholds commonly known as 2450, 2470, and 2500 El Camino Real (collectively referred to as the "El Camino Sites"), and 1451, 1501 and 1601 California Avenue (collectively referred to as the "California Sites"). All 250 housing units are planned for review by the ARB before the end of 2013.

For additional information regarding the MDA and associated Environmental Impact Report, the complete documents are located on the City's website at:
http://www.cityofpaloalto.org/gov/topics/projects/landuse/mayfield.asp.

Review Process

Stanford has elected to use the AS1 Alternative Development Standards (PAMC 18.60) for the El Camino project and the standard Architectural Review process would apply to the development proposal. The AS1 development standards table [PAMC 18.60.050(A)] outlines the physical constraints for the project and the MDA addresses the review process, which limits the ARB's purview to the following project elements:

- Determine whether the project complies with the AS1 development standards and Architectural Review findings; and

- Review and approve the lighting, noise levels, landscaping, and selection of the exterior materials and finishes of the buildings and other structures.

Site Information

The project site is located on the south side of El Camino Real, one parcel east of California Avenue. The project concept includes a lot merger for three interior lots (2500, 2470, and 2450 El Camino Real), creating a 78,400 sf lot that has primary vehicle access from California Avenue via an access easement used by all the commercial properties fronting El Camino Real on this block. The project site is currently developed with two-story commercial buildings located along the street frontage with no setback from the lot lines, with surface parking located at the rear. The site is surrounded by commercial buildings; a one-story building housing financial services to the west, a six-story office building to the east, and a two-story office building to the south (rear). The project site is across the street from the busy California Avenue Business District, and a short walk to the California Avenue Caltrain station and transit hub.

Project Description

The applicant's preliminary concept plan includes the demolition of the existing two-story building and the construction of a new three and four-story 100,842 sf mixed-use building. The project is divided into two primary building elements that are connected by walkways on the upper levels and a building façade design (El Camino Real) that ties the structures together.

The project includes 70 below market rate (BMR) rental housing units, comprised of 24 one-bedroom, 24 two-bedroom, and 22 three-bedroom units. All the residential units are located on the upper levels of the project. The ground floor includes 7,250 sf of commercial space along the

El Camino Real frontage, an at-grade parking garage for 98 vehicles ("puzzle" car lifts proposed), common spaces for the residents (e.g. laundry, community room, office), and mechanical spaces. The project also includes a surface parking lot for 48 spaces and secure outdoor amenities such as landscaping, open grass courtyard area, and barbecue/outdoor eating and gathering space.

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

DISCUSSION

Zoning Compliance

A summary indicating the project's conformance with the Development Standards of the Alternative Standards Overlay Zone District (AS1) is provided on Sheet G.02 of the project plans (Attachment D). Staff has reviewed the zoning information provided by the applicant and the proposed project concept appears to be in compliance with the applicable development standards.

Parking

The project concept includes the use of "puzzle" car lifts and a request for a 20% reduction in the number of parking spaces provided. Transportation staff will need to study further the use the puzzle car lifts to determine if it is appropriate for this project. Standard car lifts have been approved by the City Transportation Division for projects, but the puzzle car lift has not yet been fully vetted. The review of the lifts and requested parking reduction will be completed with the formal submittal and review of the project.

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, other than the above mentioned parking evaluation.

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:	Project Location Map with Zone Districts
Attachment C:	City Department Comments
Attachment D:	Development Plans (Board Members Only)*

* Prepared by Applicant; all other attachments prepared by Staff

COURTESY COPIES

Christopher Wuthmann: cwuthman@stanford.edu

Prepared By: Clare Campbell, Planner

Manager Review: Amy French, Chief Planning Official

ATTACHMENT A

2500 EL CAMINO REAL
ARB SUBMITTAL FOR PRELIMINARY REVIEW

PROJECT DESCRIPTION

I. PRELIMINARY REVIEW SUBMITTAL IN CONFORMANCE WITH MAYFIELD DEVELOPMENT AGREEMENT

Stanford and its development team are pleased to submit plans for the 2500 El Camino Real development, the features of which are described in Section II below. Section I outlines the process for ARB review as set forth in the Mayfield Development Agreement (MDA).

On May 24, 2005, following Planning Commission and City Council approval, after review and approval of a full Environmental Impact Report, the City of Palo Alto and Stanford University entered into the Mayfield Development Agreement. Under the MDA, Stanford has not only the vested right, but also the obligation to provide at least 50 units of below market rate (BMR) housing.

Under the MDA, Stanford retained the alternate option to satisfy the affordable housing obligation by providing 70 units of BMR housing in a separate 100% affordable rental project on specified sites on El Camino Real. In addition, if Stanford chose to abide by the MDA's specially created "AS1 Alternative Development Standards," the MDA provided that only a very limited Architectural Review Approval would be conducted. Stanford hereby elects to proceed with the 70-unit BMR option in conformance with the AS1 Development Standards. Therefore, ARB's preliminary review is subject to the special architectural review process and limitations described in the MDA. This review allows and requires the ARB to make a recommendation, and the Planning Director to make a determination, on the following points:

- Whether the housing complies with the AS1 Alternative Development Standards
- Lighting
- Noise levels (including equipment screening)
- Landscaping (including trash enclosures)
- Exterior materials and finishes of the buildings and other structures (MDA section 6.4.10)

Accordingly, Stanford requests that ARB's preliminary review focus on these five questions in compliance with the MDA. A copy of the AS1 standards, section 18.60.050, is attached for ease of reference.

II. PROJECT PROPOSAL

The 2500 El Camino Real development will provide 70 one, two, and three-bedroom high-quality BMR rental units as required by the MDA; a 98-space parking garage for the residents; indoor common areas for the residents; a café; and approximately 6,600 square feet of ground-floor space that will be used either for non-profit services supportive of residential use or other

non-residential uses consistent with the AS1 standards. Outdoors, the project will include a 10,600-square-foot, south-facing courtyard and 48 parking spaces in a lushly landscaped surface parking lot, as well as private balconies and decks for residents.

Access to the garage entry and surface parking will be from the existing access easement at the south edge of the site which runs from California Avenue behind 505 California Avenue (commonly known as the location of the Wells Fargo bank) to El Camino Real at 2600 El Camino Real (the location of the Bank of America).

The massing of the project is modulated and broken into discrete volumes to provide a lively urban street-wall edge along the El Camino Real frontage which provides multiple points of access and breaks down the sense of the length of the property. The El Camino Facade is articulated by two separate masses: the 'swoosh' and the 'cube'. The 'swoosh' is 4 stories expressed as a gently curved brick volume, floating above a transparent storefront and is variegated along its length by a subtle gradient of warm colored brick tones that transition from light to dark. The 'cube' mass is 3 stories articulated as a rectangular volume notched at the main entry and cafe and is sheathed with a painted cement fiber panel treatment, patterned through a playful arrangement of reveals as well as window fins that give the openings a perceived depth and shadow. A transparent breezeway connects these two volumes at the upper levels marking the step-down from the 4-story 'swoosh' to the 3-story 'cube' and also marking the main lobby entry, providing a view through to the arcade and courtyard beyond.

Behind the El Camino Real frontage, the building mass wraps and protects a central courtyard, open to the southwest solar exposure. The panelized cement fiberboard facade treatment wraps the outside-facing facades at side courts and the south easement, while a warm, horizontal slat treatment wraps the interior courtyard. The rear facade treatments are further articulated by notched private unit balconies providing private outdoor open space.

Defining the landscape is a central transect running the depth of the property, connecting public areas fronting El Camino Real through the residential heart of the project to the surface lot at the site's south edge. Keying off this at the center of the project is a multipurpose lawn, providing open space for recreation and ample sun for the community garden at the west edge of the courtyard. Existing mature trees to the south of the site will be retained where possible to shade exterior parking areas as well as to provide variety in the lush canopy at the south of the project. Trees to the east and west of the project provide screening to the neighboring properties while maintaining open space at ground level for open circulation and bioswale plantings for storm water management. Trash enclosure will be provided in rooms within the building.

The proposed building uses several complimentary sustainable strategies in design and program. The building will be low-energy and strive to surpass the Title 24 Energy Standards by 15% with the assistance of solar panels on the roof to heat water used by the residents. The project also includes drought-tolerant landscaping and low-impact Best Management Practices to handle storm water runoff on site. This mixed-use affordable housing project is located in direct proximity to SamTrans bus and bike routes in the neighborhood and within walking distance of a CalTrain stop as well as supportive retail services. Additionally, the project includes secure bike parking for 128 bikes, visitor bicycle parking, and facilities for resident to maintain their bikes on site.

III. EXISTING CONDITIONS AND USES

The development site comprises 2450, 2470 and 2500 El Camino Real, which are currently occupied by a total of 39,860 square feet of older office space, a surface parking lot and a portion of the access easement described in Section II above.

C. Zoning if Alternative Site Needed

If, after a building permit has been issued. for the construction of an approved project under the AS1 Overlay District on the El Camino Site, it is determined to be an Infeasible Site because of environmental contamination, then, under the conditions and in the manner described in Section 6.4.2 of the Development Agreement, Stanford may have the AS1 Overlay District removed from its lands and the previous zoning restored.

(Ord. 4871 § 3 (Exh A [part]), 2005)

18.60.060 Alternative Standards Overlay District Two (AS2): Housing at Upper California Site

The purpose of this overlay district is to accommodate single or multiple family housing, or both, on the Upper California Site that benefits from its proximity to an employment center and benefits from its proximity to an employment center and is compatible both with the College Terrace neighborhood across California Avenue, the adjacent office/research uses to the south and south-east, and Stanford University's residential neighborhood to the northwest. Stanford may develop the Upper California Site in phases. The underlying zoning on the Upper California Site, LM Limited Industrial/Research Park with a fifty-foot L Landscape Combining District on the California Avenue frontage, does not apply to the Upper California Site if the property owner elects to proceed under the AS2 standards.

Stanford shall be allowed to develop any portion of the Required Housing on the Upper California Site in such order and sequence as Stanford shall determine, except for Stanford's phasing and timing obligations with respect to Required Housing under the Development. Agreement. It is anticipated that at times during the construction of the Required Housing, portions of the Upper California Site will be occupied with pre-existing limited industrial/research park. non-residential buildings. These buildings will remain legal uses and complying facilities until dates set forth below. Upon completion of the Required Housing developments, the Upper California Site shall be exclusively residential, with child care centers a permitted use, unless Stanford needs to provide a substitute Site for all or a portion of the Upper California Site, as provided in the Development Agreement.

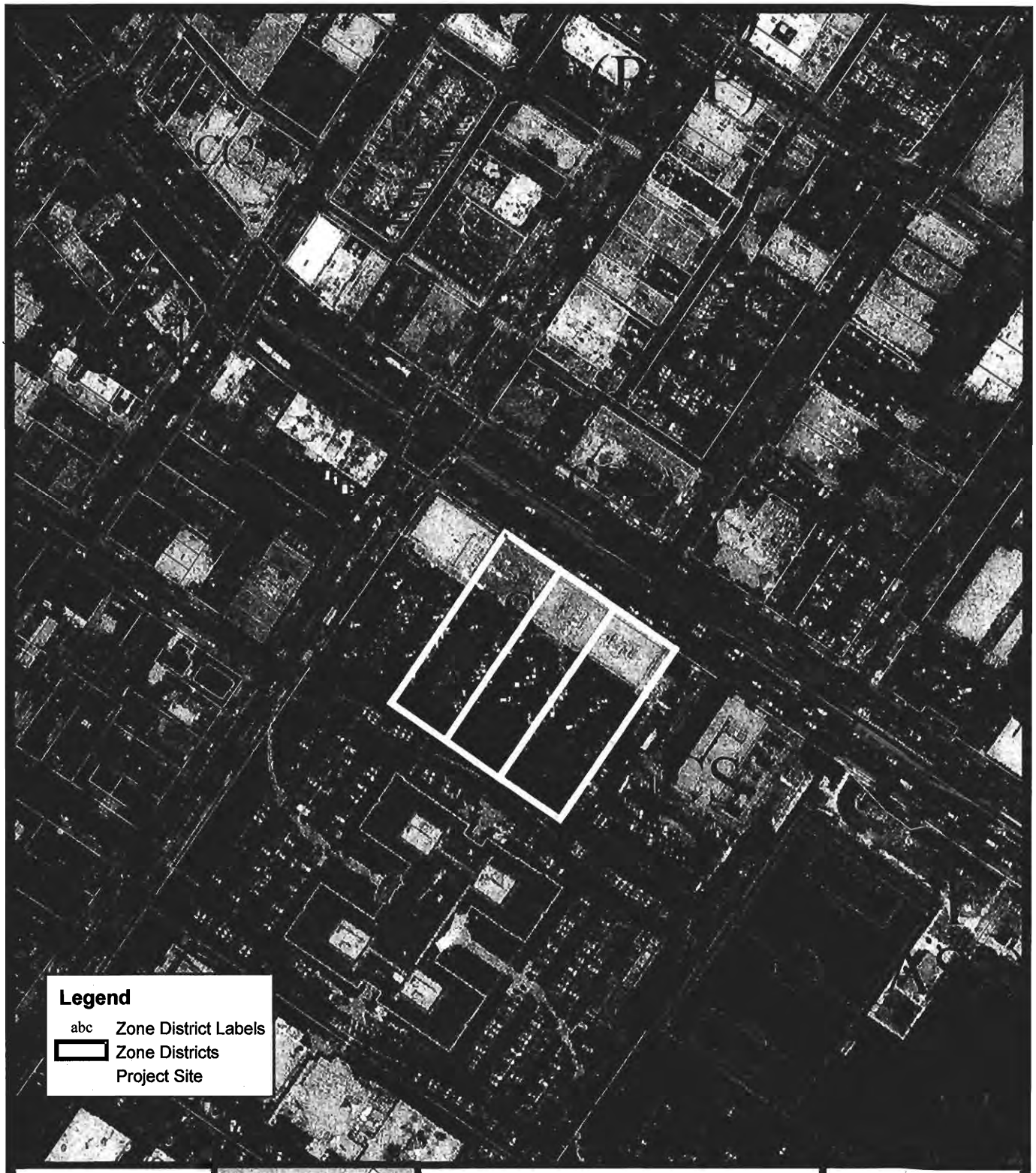
A. AS2 Alternative Development Standards

1. Continuing Standards.

These continuing standards apply to the Upper California Site as a whole. The Upper California Site housing shall at all times during its development, and subsequently, be in compliance with the continuing standards.

Permitted Uses	a) Single-family, two-family, and multiple family residential uses and indoor and outdoor accessory uses customarily incidental to those uses. In the sale or rental of Required Housing, neither Stanford nor its assignees shall discriminate against households with children or on the basis of the age of renters, buyers, or occupants. b) child care center
Conditionally permitted uses	None
Below-market-rate housing	Below-market-rate units shall be provided on- or off-site as provided in the Development Agreement.

[Table Continues on Next Page]



The City of Palo Alto

2500 El Camino Real

This map is a product of the City of Palo Alto GIS

0' 185'

ccampbe, 2013-06-13 13:50:28
(\\cc-maps\gis$\gis\admin\Personal\Planning.mdb)

CITY DEPARTMENT COMMENTS
2500 El Camino Real [13PLN-00161]

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
- Solid Waste
- Transportation
- Fire
- Water Quality

CITY OF PALO ALTO
UTILITIES

ELECTRIC ENGINEERING DIVISION
Conditions of Approval/Comments

PROJECT DATA

Project Address	2500 El Camino Real
Project Description	Mixed used commercial and residential
Submittal(s)	
Date submitted	April 16 2013
Contact Person	Clare Campbell
Address	
Telephone #	50 617 3191
Fax # / Email Address	
Reviewed by:	Henry Nguyen
Date Reviewed:	April 29 2013

The project is/is not approved. See comments below.

SPECIFIC COMMENTS

1. There are 70 residential units. Utilities might require the customer to install AMR (Automatic Meter Reading) meters at the customer's expense.
2. The combined lot is shown to be served by one transformer. What is the rough estimate of the electric demand? Should it require two transformers; there will be additional Special Facility charge for the second service/transformer.
3. The electric meter is shown to be in door. CPAU prefers if it is outdoor where it is accessible 24/7.
4. Easement is required for the transformer as well as the conduits to/from this location. This document shall be signed prior to final energization.
5. Transformer clearance shall be 3 feet all around except the front where it is 8 feet. Bollards shall be installed around the transformer.
6. The current plan calls for trees on top of the electric conduit path. The transformer and conduits shall not be within the drip lines of any tree.
7. Additional fiber optic cable is recommended for future use if possible.
8. Please plan to coordinate the temporary power for construction site with the removal of the existing transformers as well as the installation of the new one.

GENERAL

9. The applicant shall comply with all the Electric Utility Engineering Department service requirements noted during plan review.

10. The applicant shall be responsible for identification and location of all utilities, both public and private, within the work area. Prior to any excavation work at the site, the applicant shall contact Underground Service Alert (USA) at 1-800-227-2600, at least 48 hours prior to beginning work.

11. The applicant shall submit a request to disconnect all existing utility services and/or meters including a signed affidavit of vacancy, on the form provided by the Building Inspection Division. Utilities will be disconnected or removed within 10 working days after receipt of request. The demolition permit will be issued after all utility services and/or meters have been disconnected and removed.

THE FOLLOWING SHALL BE INCORPORATED IN SUBMITTALS FOR ELECTRIC SERVICE

1. A completed Electric Load Sheet and a full set of plans must be included with all applications involving electrical work. The load sheet must be included with the preliminary submittal.

2. Industrial and large commercial customers must allow sufficient lead-time for Electric Utility Engineering and Operations (typically 8-12 weeks after advance engineering fees have been paid) to design and construct the electric service requested.

3. Only one electric service lateral is permitted per parcel. Utilities Rule & Regulation #18.

4. If this project requires padmount transformers, the location of the transformers shall be shown on the site plan and approved by the Utilities Department and the Architectural Review Board. Utilities Rule & Regulations #3 & #16 (see detail comments below).

5. The developer/owner shall provide space for installing padmount equipment (i.e. transformers, switches, and interrupters) and associated substructure as required by the City.

6. The customer shall install all electrical substructures (conduits, boxes and pads) required from the service point to the customer's switchgear. The design and installation shall be according to the City standards and shown on plans. Utilities Rule & Regulations #16 & #18.

7. Location of the electric panel/switchboard shall be shown on the site plan and approved by the Architectural Review Board and Utilities Department.

8. All utility meters, lines, transformers, backflow preventers, and any other required equipment shall be shown on the landscape and irrigation plans and shall show that no conflict will occur between the utilities and landscape materials. In addition, all aboveground equipment shall be screened in a manner that is consistent with the building design and setback requirements.

9. For services larger than 1600 amps, the customer will be required to provide a transition cabinet as the interconnection point between the utility's padmount transformer and the customer's main switchgear. The cabinet design drawings must be submitted to the Electric Utility Engineering Department for review and approval.

10. For underground services, no more than four (4) 750 MCM conductors per phase can be connected to the transformer secondary terminals; otherwise, bus duct must be used for connections to padmount transformers. If customer installs a bus duct directly between the transformer secondary terminals and the main switchgear, the installation of a transition cabinet will not be required.

11. The customer is responsible for sizing the service conductors and other required equipment according to the National Electric Code requirements and the City standards. Utilities Rule & Regulation #18.

12. If the customer's total load exceeds 2500 kVA, service shall be provided at the primary voltage of 12,470 volts and the customer shall provide the high voltage switchgear and transformers.

13. For primary services, the standard service protection is a padmount fault interrupter owned an maintained by the City, installed at the customer's expense. The customer must provide and install the pad and associated substructure required for the fault interrupter.

14. Any additional facilities and services requested by the Applicant that are beyond what the utility deems standard facilities will be subject to Special Facilities charges. The Special Facilities charges include the cost of installing the additional facilities as well as the cost of ownership. Utilities Rule & Regulation #20.

15. Projects that require the extension of high voltage primary distribution lines or reinforcement of offsite electric facilities will be at the customer's expense and must be coordinated with the Electric Utility.

DURING CONSTRUCTION

1. Contractors and developers shall obtain permit from the Department of Public Works before digging in the street right-of-way. This includes sidewalks, driveways and planter strips.

2. At least 48 hours prior to starting any excavation, the customer must call Underground Service Alert (USA) at 1-800-227-2600 to have existing underground utilities located and marked. The areas to be check by USA shall be delineated with white paint. All USA markings shall be removed by the customer or contractor when construction is complete.

3. The customer is responsible for installing all on-site substructures (conduits, boxes and pads) required for the electric service. No more than 270 degrees of bends are allowed in a secondary conduit run. All conduits must be sized according to National Electric Code requirements and no 1/2 – inch size conduits are permitted. All off-site substructure work will be constructed by the City at the customer's expense. Where mutually agreed upon by the City and the Applicant, all or part of the off-site substructure work may be constructed by the Applicant.

4. All primary electric conduits shall be concrete encased with the top of the encasement at the depth of 30 inches. No more than 180 degrees of bends are allowed in a primary conduit run. Conduit runs over 500 feet in length require additional pull boxes.

5. All new underground conduits and substructures shall be installed per City standards and shall be inspected by the Electrical Underground Inspector before backfilling.

6. The customer is responsible for installing all underground electric service conductors, bus duct, transition cabinets, and other required equipment. The installation shall meet the National Electric Code and the City Standards.

7. Meter and switchboard requirements shall be in accordance with Electric Utility Service Equipment Requirements Committee (EUSERC) drawings accepted by Utility and CPA standards for meter installations.

8. Shop/factory drawings for switchboards (400A and greater) and associated hardware must be submitted for review and approval prior to installing the switchgear to:

   Gopal Jagannath, P.E.
   Supervising Electric Project Engineer
   Utilities Engineering (Electrical)
   1007 Elwell Court
   Palo Alto, CA 94303

9. Catalog cut sheets may not be substituted for factory drawing submittal.

10. All new underground electric services shall be inspected and approved by both the Building Inspection Division and the Electrical Underground Inspector before energizing.

AFTER CONSTRUCTION & PRIOR TO FINALIZATION

1. The customer shall provide as-built drawings showing the location of all switchboards, conduits (number and size), conductors (number and size), splice boxes, vaults and switch/transformer pads.

PRIOR TO ISSUANCE OF BUILDING OCCUPANCY PERMIT

1. The applicant shall secure a Public Utilities Easement for facilities installed on private property for City use.

2. All required inspections have been completed and approved by both the Building Inspection Division and the Electrical Underground Inspector.
3. All fees must be paid.

4. All Special Facilities contracts or other agreements need to be signed by the City and applicant.

From: Dockter, Dave
Sent: Thursday, June 13, 2013 10:07 AM
To: Campbell, Clare; Passmore, Walter
Subject: FW: Chris-Site Walk w/City 889-0403
When: Wednesday, June 12, 2013 1:30 PM-2:30 PM (UTC-08:00) Pacific Time (US & Canada).
Where: 2450-2500 El Camino-rear parking lot

Clare:

Yesterday's site meeting with the project team went well.

Stanford, arborist, architect were there, notes were taken and the next submittal will be a good base for the environmental review compatibility.

- Gen Notes
  - All front street trees are/will be retained. A very detailed tree protection report (TPR) will be able to navigate that issue (very high curb, sidewalk raze/repl, tree roots).
  - The building is being designed to provide more canopy growth to the west than current.
  - I am supporting Stanford's intent to establish a featured *Redwood Icon Planter* that will be highly visible from El Camino Real—with appropriate design conditions.
    - Provide a graphic sheet showing different alternatives for this area.
    - Integrated seat-wall, planter vault highly strengthened and engineered for a 75 year tree (bio mass)
    - Drainage system that is integrated with the sidewalk plantings back of curb
    - Appropriate upper-story clearances for the future tree growth
    - A shade/shadow study with various tree sizes should be provided to evaluate the success/failure of the effort

You can forward this to the applicant if you wish.

Dave Dockter.

Campbell, Clare

From: Mullen, Jarrett
Sent: Wednesday, May 01, 2013 11:53 AM
To: Campbell, Clare
Subject: PWE Comments and Conditions 2500 El Camino
Attachments: El Camino Real 2500 Comments and Conditions 13PLN-00161.docx; El Camino Real Streetlights.pdf

Hi Clare,

Attached are PWE comments and conditions for the Mayfield agreement housing at 2500 El Camino.

Note that we are asking that they replace the street lights in the right of way on El Camino with the same models that were used at the Stanford Ave/El Camino streetscaping demonstration project and fill in the gaps between the existing street light locations with pedestrian scale lights. I have attached the specs for the lights and also included them in the comment packet I provided the applicants at the DRC meeting. Note that these lights went through ARB review for the Stanford Ave/El Camino streetscaping project.

Jarrett Mullen
City of Palo Alto | PW Engineering Tech
650.329.2676

To: Clare Campbell
From: Jarrett Mullen
Date: 1 May 2013

PUBLIC WORKS ENGINEERING REVIEW COMMENTS FOR 2500 EL CAMINO REAL, 13PLN-00161

Below are comments from the Public Works Engineering Division (PWE). Additional comments may follow pending revised submittal:

OFFSITE IMPROVEMENTS:

SIDEWALK, CURB & GUTTER: As part of this project, the applicant must replace the existing sidewalks, curbs, gutters or driveway approaches in the public right-of-way along the frontages of the property on all streets. Contact the Public Works' inspector at 650-496-6929 to arrange a site visit so the inspector can determine the extent of replacement work. The site plan must show the extent of the replacement work or include a note that Public Works' inspector has determined no work is required. 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 PWE at the Development Center. Additional review from Caltrans may be required. Please see the "Caltrans" note on page 5.

CURB RAMP: According to the site circulation plan, vehicular access will utilize an existing curb cut on California Avenue. The curb ramp shall be removed and replaced unless otherwise instructed by the Public Works inspector.

PAVEMENT RESTORATION: Pavement restoration (grind and overlay) within existing access easements and on the full width of California Avenue between El Camino Real and the site driveway is required due to future damage from construction vehicles.

STREETSCAPE DESIGN: Streetscape design elements such as bike racks, trash cans, and decorative street lights will be considered and placed in the public sidewalk per design guidelines outlined in the *El Camino Real Master Plan* and future input from the Architectural Review Board. Existing "cobra head" streetlights shall be replaced with tall decorative lights, and pedestrian scale lights shall be placed between tall lights to provide continuous sidewalk lighting. Sidewalk design and materials shall conform to existing city standards; permeable or decorative pavers as currently proposed are not permitted as sidewalk paving material.

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 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 or tree plan must show street tree work that the arborist has determined including the tree species, size, location, staking and irrigation requirements. 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 in order to

do street tree work, the applicant must first obtain a *Permit for Street Tree Work in the Public Right-of-Way ("Street Tree Permit")* from Public Works' Urban Forestry.

CALTRANS: Caltrans review and approval of this project is required. Caltrans right-of-way across El Camino Real extends from back-of-walk to back-of walk. The City has a maintenance agreement with Caltrans that requires the City to maintain the sidewalk and to issue Street Work Permits for work done on the sidewalks by private contractors. Caltrans has retained the right to review and permit new or proposed abandonments of ingress/egress driveways off El Camino Real as well as the installation of traffic control devices as part of this project. Please include a record of Caltrans approval on the planset submitted for a building permit.

LEASE LINES: The proposed project encompasses three existing lots. Please provide documentation in the form of a plat and legal description that the lease lines were adjusted to reflect the area of the proposed lot.

ACCESS EASEMENTS: The applicant shall provide a public access easement for the new sidewalk area on El Camino Real and in any other locations that are intended for public use. Alternatively, the applicant and property owner may dedicate the area to the city. Additionally, the circulation diagram shows vehicular ingress/egress pathways through the neighboring lot at 2550-2600 El Camino Real. Access easements must be provided to utilize the proposed route for site access.

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 stormwater will need to treat the permit-specified amount of storm water runoff with the following low impact development methods: rainwater harvesting and reuse, infiltration, evapotranspiration, or biotreatment. However, biotreatment (filtering stormwater 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. ***Vault-based treatment will not be allowed as a stand-alone treatment measure.*** Where stormwater 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)

The applicant must incorporate permanent storm water pollution prevention measures that treat storm water runoff that are **site specific**. 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 list of qualified consultants. (**http://www.scvurppp-w2k.com/consultants2012.htm**) 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.

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 permit issuance.

The applicant is required to paint the "No Dumping/Flows to Matadero 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.

SITE-SPECIFC C.3 NOTE: Redwood trees are currently proposed for the stormwater management area along the project frontage. This configuration is likely infeasible. Please consult with CPA Urban Forestry on tree placement within and near stormwater management areas.

BEST MANAGEMENT PRACTICES (BMP's): The applicant is required to submit a conceptual site grading and drainage plan. 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 elements of the PWE-approved conceptual grading and drainage plan shall be incorporated into the building permit plans.

The developer shall require the 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).

PARKING STRUCTURE DRAINS: Drains within the covered floors of the parking structures shall be connected to oil-water separators and sanitary sewer lines. Stormwater runoff from any exposed surface or roof parking areas without canopies need to be treated per C.3 requirements.

GREASE/OIL REMOVAL DEVICE: If there will be a kitchen and food serving area in the commercial spaces, any drains in the food service facilities shall be connected to a grease removal device and located on private property.

LOADING DOCK: Any loading dock areas shall be covered and graded so that no storm water enters and flows through the space. Any runoff from the loading dock area shall be kept isolated from the storm drainage system. If the loading area/dock contains a drain, it shall be connected to the sanitary sewer through a manually operated fail-safe valve.

DUMPSTER AND RECYCLING ENCLOSURES: Please label the location of the dumpster and recycling enclosure for the project. If there will be a separate enclosure for the restaurant, please label the location. All dumpster and recycling areas must be adequately covered.

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/gov/depts/pwd/permits.asp

Include in plans submitted for a building permit:

GRADING & EXCAVATION PERMIT: Please provide a table on the planset showing the amount of soil to be cut/filled. If more than 100 cubic yards is disturbed, stored, disposed of, or used as fill, 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.

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.

SWPPP: If the proposed development will disturb more than one acre of land, the applicant will be required to comply with the State of California's General Permit for Storm Water Discharges Associated with Construction Activity. This entails filing a Notice of Intent to Comply (NOI), paying a filing fee, and preparing and implementing a site specific storm water pollution prevention plan (SWPPP) that addresses both construction-stage and post-construction BMP's for storm water quality protection. The applicant is required to submit two copies of the NOI and the draft SWPPP to PWE for review and approval prior to issuance of the building permit.

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.

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

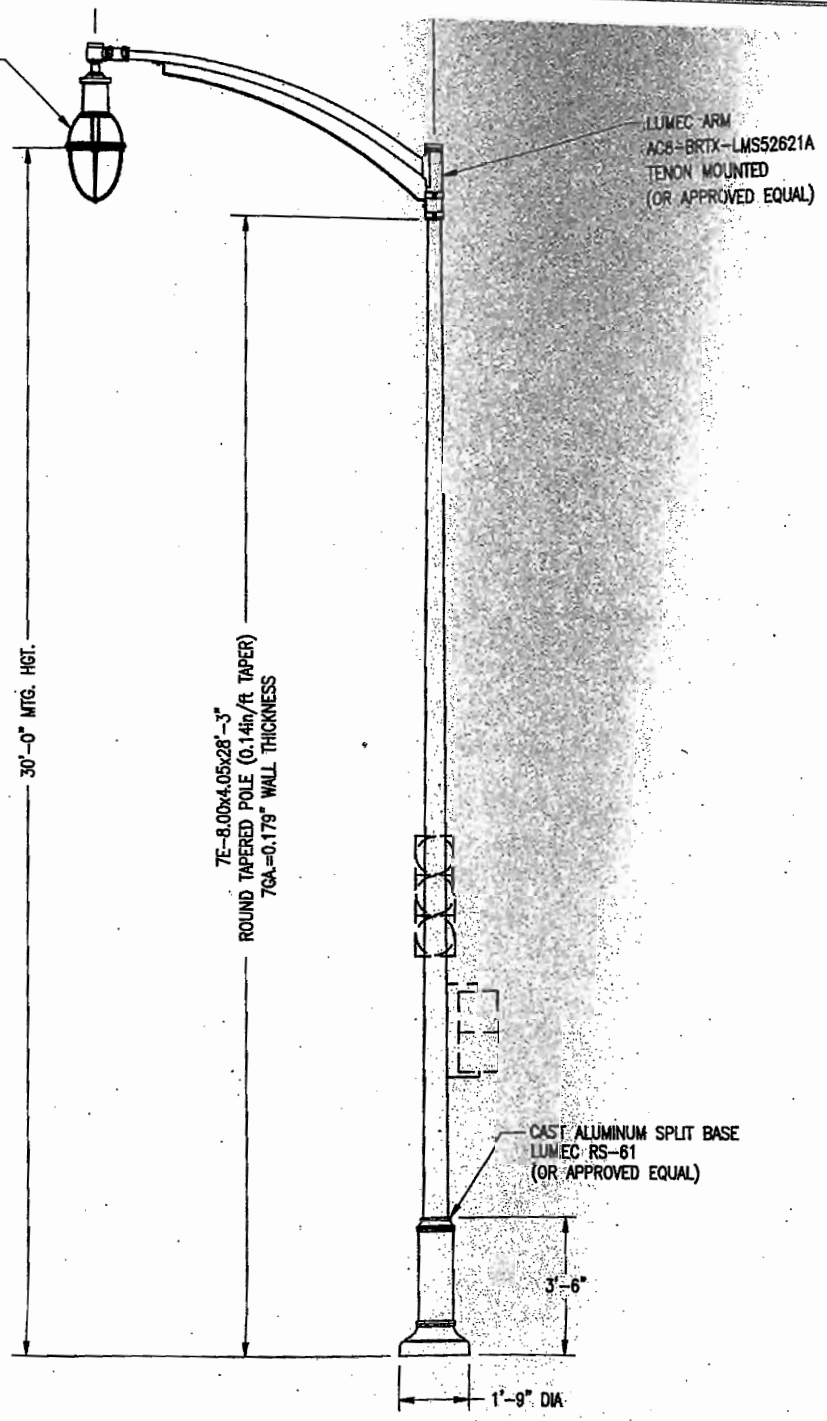
available at the Development Center or on our website, then submitted with the building permit application.

WORK IN THE RIGHT-OF-WAY – The following note shall be included on the *Site Plan* next to proposed work within the public right of way:

"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 attached to a street work permit.

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.



CALTRANS TYPE 15TS (MOD)

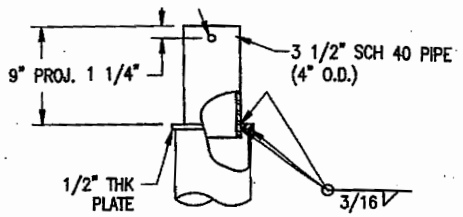
'A FOR DETAILS NOT SHOWN.

I 2001 AASHTO "STANDARD
IL SUPPORTS FOR HIGHWAY SIGNS,
ILS" FOR 100 M.P.H. WIND ZONE.

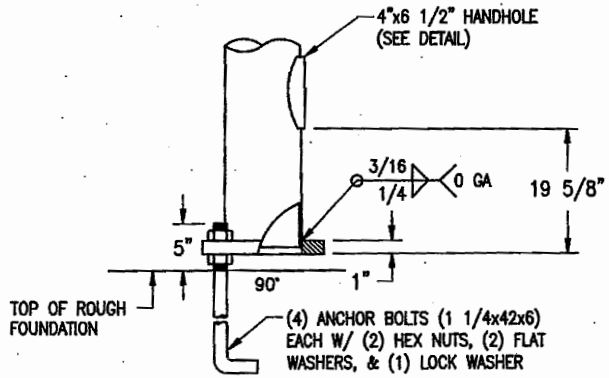
ANCHOR BOLT BETWEEN THE
THE BOTTOM OF THE LEVELING NUT
.T DIAMETER.

DIMENSIONS & ORIENTATIONS
R MANUFACTURING.

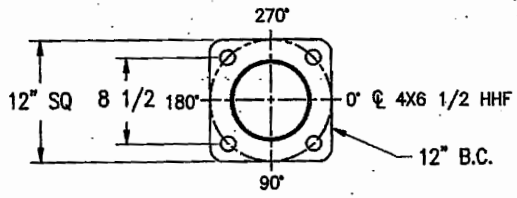
FICATIONS
A595 GR A
A36
A529 GR 50 (PREFERRED)
STM A572 GR 50
STM A709 GR 50
A36 or A1011
A307
A563 GR A
F436
A501 or A53 GR B
-300 SERIES (18-8)
(356F)
SALES ORDER
GALV TO ASTM A153



TENON MOUNT POLE TOP DETAIL

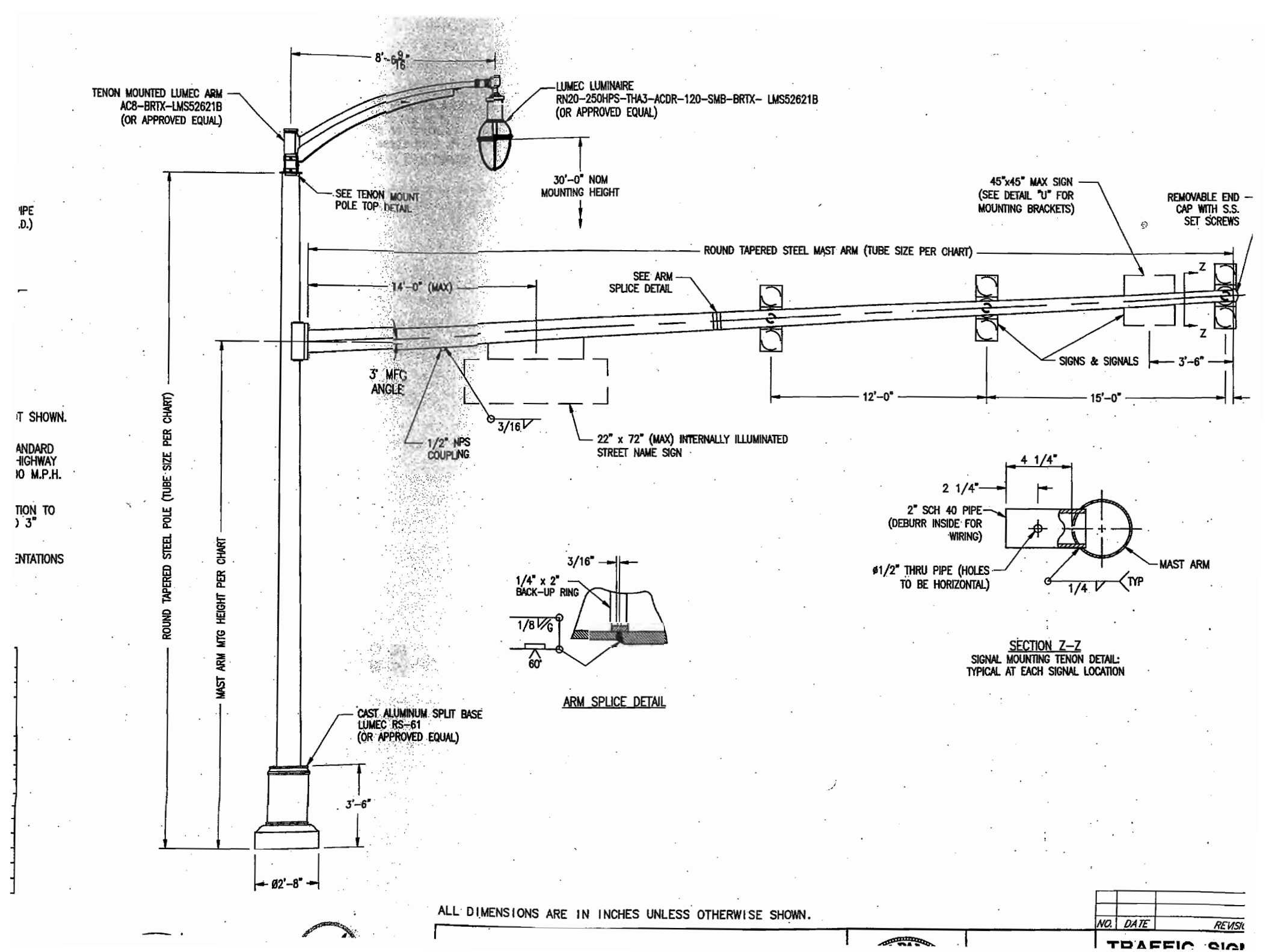


BASE CONNECTION DETAIL



BASE PLATE DETAIL

F



ARM SPLICE DETAIL

SECTION Z-Z
SIGNAL MOUNTING TENON DETAIL:
TYPICAL AT EACH SIGNAL LOCATION

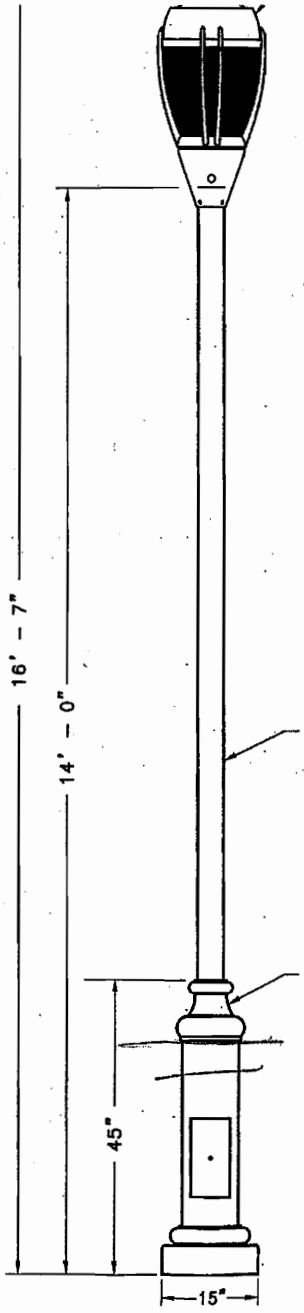
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.

NO.	DATE	REVISI

TRAFFIC SIGN

RE NOMINAL.

, SEE ROADWAY
SHEET C-4.

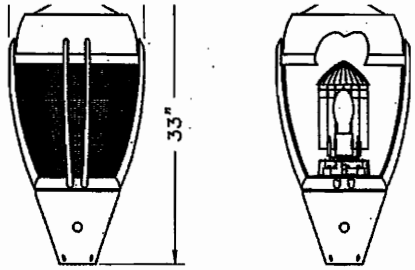


COLOR:
~~BLACK~~ Textured Bronze

POLE:
4" ROUND STRAIGHT SMOOTH,
0.188" WALL THICKNESS,
6005-T5 ALUMINUM ALLOY
PHILIPS HADCO CP6563
(OR APPROVED EQUAL)

BASE:
CAST ALUMINUM
PHILIPS HADCO
#356HM ALLOY
(OR APPROVED EQUAL)

BASE DETAIL:
REFERENCE TEMPLATE
#T01700913



LUMINAIRE SPECIFICATIONS

GLOBE:
TYPE V, NARROW BODY, ACRYLIC

FASTENERS:
ALLEN HEAD SET SCREWS

COLOR:
BLACK

REFLECTOR:
SM REFLECTOR W/ H.S.S.

PHOTO CONTROL:
TWIST-LOCK RECEPT.

SOCKET:
MOGUL

WATTAGE:
100W HPS

VOLTAGE:
120V

DECORATIVE PEDESTRIAN LIGHTING

NO.	DATE

CITY OF PALO ALTO

Public Works Department
Environmental Services Division
Zero Waste / Solid Waste Group

PROJECT REVIEW COMMENTS

Date: May 9, 2013
To: Clare Campbell
From: Matthew Krupp, Administrator, Zero Waste / Solid Waste
Phone: (650) 496-5958

Application Number:
Company Name
Project Address: 2500 El Camino
Palo Alto, CA

We have reviewed the preliminary plans for this project. By complying with the following ordinances and recommendations, this development proposal will help Palo Alto achieve its Zero Waste goals reducing materials sent to landfills, maximizing recycling, and lowering the communities' greenhouse gas emissions while ensuring quality garbage, recycling, and compostables service. Please note the following issues must be addressed in building plans prior to final approval by this department:

General Comments:

- Service Levels for both enclosures: Garbage – 3-yard bin, Recycling – 4-yard bin, Compostables – 2-yard bin.

PAMC 18.23.020 Trash Disposal and Recycling

(A) Assure that development provides adequate and accessible interior areas or exterior enclosures for the storage of trash and recyclable materials in appropriate containers, and that trash disposal and recycling areas are located as far from abutting residences as is reasonably possible. (B) Requirements: (i) Trash disposal and recyclable areas shall be accessible to all residents or users of the property. (ii) Recycling facilities shall be located, sized, and designed to encourage and facilitate convenient use. (iii) Trash disposal and recyclable areas shall be screened from public view by masonry or other opaque and durable material, and shall be enclosed and covered. Gates or other controlled access shall be provided where feasible. Chain link enclosures are strongly discouraged. (iv) Trash disposal and recycling structures shall be architecturally compatible with the design of the project. (v) The design, construction and accessibility of recycling areas and enclosures shall be subject to approval by the architectural review board, in accordance with design guidelines adopted by that board and approved by the city council pursuant to Section 18.76.020.

PAMC 5.20.120 Recycling storage design requirements

The design of any new, substantially remodeled, or expanded building or other facility shall provide for proper storage, handling, and accessibility which will accommodate the solid waste and recyclable materials loading anticipated and which will allow for the efficient and safe collection. The design shall comply with the applicable provisions of Sections 18.22.100, 18.24.100, 18.26.100, 18.32.080, 18.37.080, 18.41.080, 18.43.080, 18.45.080, 18.49.140, 18.55.080, 18.60.080, and 18.68.170 of Title 18 of this code.

All Services:

1. Collection vehicle access (vertical clearance, street width and turnaround space) and street parking are common issues pertaining to new developments. Adequate space must be provided for vehicle access.
2. Weight limit for all drivable areas to be accessed by the solid waste vehicles (roads, driveways, pads) must be rated to 60,000 lbs. This includes areas where permeable pavement is used.
3. Containers must be within 25 feet of service area or charges will apply.
4. Carts and bins must be able to roll without obstacles or curbs to reach service areas "no jumping curbs"

Garbage, Recycling, and Yard Waste/Compostables cart/bin location and sizing

The proposed commercial development must follow the requirements for recycling container space[1]. Project plans must show the placement of recycling containers, for example, within the details of the solid waste enclosures. Collection space should be provided for built-in recycling containers/storage on each floor/office or alcoves for the placement of recycling containers.

- Enclosure and access should be designed for equal access to all three waste streams – garbage, recycling, and compostables.
- Collection cannot be performed in underground. Underground bins locations require a minimum of 77" of vertical clearance. Pull out charges will apply. In instances where push services are not available (e.g., hauler driver cannot push containers up or down ramps), the property owner will be responsible for placing solid waste containers in an accessible location for collection.
- All service areas must have a clearance height of 20' for bin service.
- New enclosures should consider rubber bumpers to reduce ware and tear on walls.

For questions regarding garbage, recycling, and compostables collection issues, contact Green Waste of Palo Alto (650) 493-4894.

Restaurants and food service establishments only:
Please contact Green Waste of Palo Alto (650) 493-4894 to maximize the collection of compostables in food preparation areas and customer areas.

For more information about compostable food service products and options to redirect extra food to social welfare organizations, please contact City of Palo Alto Zero Waste at (650) 496-5910.

PAMC 5.24.030 Construction and Demolition Debris (CDD)

Covered projects shall comply with construction and demolition debris diversion rates and other requirements established in Chapter 16.14 (California Green Building Code). In addition, all debris generated by a covered project must haul 100 percent of the debris not salvaged for reuse to an approved facility as set forth in this chapter.

Contact the City of Palo Alto's Green Building Coordinator for assistance on how to recycle construction and demolition debris from the project, including information on where to conveniently recycle the material.

1 In accordance with the California Public Resources Code, Chapter 18, Articles 1 and 2

Campbell, Clare

From: Rius, Rafael
Sent: Friday, May 03, 2013 9:00 AM
To: Campbell, Clare
Subject: Transportation Comments - 2500 El Camino Real

Hi Clare – Here are our transportation comments for the 2500 El Camino Real Project

- Concerns with configuration of Tandem Lift parking system
    - Tandem parking limited to 25% of parking supply, and generally not allowed with the lift systems. Additional (off line) discussions needed.

- Show configuration 70 secure Class 1 (long term) bike parking spaces (no vertical/hang racks). Secure bike rooms limited to 20 bike spaces per room.
- Provide short term (racks) near main entrances for commercial uses.
- Drive aisles should be 25' wide adjacent to 90 degree parking
- Assumed 20% parking must be justified with appropriate Transportation Demand Management (TDM) plan to be approved by City staff.
- Accessible parking spaces need to be 18.0' x 9.0'
- Coordinate El Camino Real sidewalk frontage with current El Camino Real design guidelines.

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

Campbell, Clare

From: Simpkinson, Gordon
Sent: Thursday, April 25, 2013 4:12 PM
To: Campbell, Clare
Subject: Fire Comments: 13PLN-00161, 2500 El Camino Real

Hello Clare,

Fire recommends approval of this project with the following conditions:

1. Fire Sprinkler coverage for stacked parking shall include sprinkler protection beneath the upper car.

2. The fire hydrant at the rear of the property along the shall be flushed and flow tested and verified to be Clow Rich model 76 or equivalent. Hydrant shall be upgraded if it does not meet this configuration.

3. An approved, walkable surface shall be provided for fire ladder access to each escape/rescue window.

4. Approved roof access shall be provided for both structures. If hatches are provided, a minimum opening of 3 ft. x 4 ft. is required.

Thanks,

Gordon

CITY OF
PALO
ALTO

Public Works Department
Environmental Services Division
Watershed Protection Group

PROJECT REVIEW COMMENTS

Date: 04/25/2013
To: Clare Campbell
From: Kirsten Struve, Manager, Environmental Control Programs
Phone: (650) 329-2421

Application Number:
Company Name
Project Address: 2500 El Camino
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
The project is located in an area of suspected or known groundwater contamination with Volatile Organic Compounds (VOCs). If groundwater is encountered then the plans must include the following procedure for construction dewatering:

Prior to discharge of any water from construction dewatering, the water shall be tested for volatile organic compounds (VOCs) using EPA Method 601/602 or Method 624. The analytical results of the VOC testing shall be transmitted to the Regional Water Quality Control Plant (RWQCP) 650-329-2598. Contaminated ground water that exceeds state or federal requirements for discharge to navigable waters may not be discharged to the storm drain system or creeks. If the concentrations of pollutants exceed the applicable limits for discharge to the storm drain system then an Exceptional Discharge Permit must be obtained from the RWQCP prior to discharge to the sanitary sewer system. If the VOC concentrations exceed the toxic organics discharge limits contained in the Palo Alto Municipal Code (16.09.040(m)) a treatment system for removal of VOCs will also be required prior to discharge to the sanitary sewer. Additionally, any water discharged to the sanitary sewer system or storm drain system must be free of sediment.

PAMC 16.09.180(b)(11) Carwash Required
New Multi-family residential units and residential development projects with 25 or more units shall provide a covered area for occupants to wash their vehicles. A drain shall be installed to capture all vehicle wash waters and shall be connected to an oil/water separator prior to discharge to the sanitary sewer system. The oil/water separator shall be cleaned at a frequency of at least once every six months or more frequently if recommended by the manufacturer or the Superintendent. Oil/water separators shall have a minimum capacity of 100 gallons. The area shall be graded or bermed in such a manner as to prevent the discharge of storm water to the sanitary sewer system;

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 runon 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 16.09.180(b)(5) Condensate from HVAC
Condensate lines shall not be connected or allowed to drain to the storm drain system.

PAMC 16.09.205 Cooling Towers
No person shall discharge or add to the sanitary sewer system or storm drain system, or add to a cooling system, pool, spa, fountain, boiler or heat exchanger, any substance that contains any of the following:

(1) Copper in excess of 2.0 mg/liter;
(2) Any tri-butyl tin compound in excess of 0.10 mg/liter;
(3) Chromium in excess of 2.0 mg/liter.
(4) Zinc in excess of 2.0 mg/liter; or
(5) Molybdenum in excess of 2.0 mg/liter.

The above limits shall apply to any of the above-listed substances prior to dilution with the cooling system, pool, spa or fountain water.

A flow meter shall be installed to measure the volume of blowdown water from the new cooling tower. Cooling systems discharging greater than 2,000 gallons per day are required to meet a copper discharge limit of 0.25 milligrams per liter.

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.

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:

Drain Fixtures	DFUs
Pre-rinse sink	4
3 compartment sink	3
2 compartment sink	3
Prep sink	3
Mop/Janitorial sink	3
Floor drain	2
Floor sink	2

GCD Sizing:

Total DFUs	GCD Volume (gallons)
8	500
21	750
35	1,000
90	1,250
172	1,500
216	2,000

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.