



**City Council  
Special Meeting  
Monday, October 17, 2022  
5:00 PM  
Council Chamber & Virtual  
**AMENDED AGENDA****

Amended agenda changes appear below in red

Pursuant to [AB 361](#) Palo Alto City Council meetings will be held as “hybrid” meetings with the option to attend by teleconference/video conference or in person. To maximize public safety while still maintaining transparency and public access, members of the public can choose to participate from home or attend in person. Information on how the public may observe and participate in the meeting is located at the end of the agenda. Masks are strongly encouraged if attending in person.

**HOW TO PARTICIPATE**

**VIRTUAL PARTICIPATION**

**[CLICK HERE TO JOIN](https://cityofpaloalto.zoom.us/j/362027238)** (<https://cityofpaloalto.zoom.us/j/362027238>)  
**Meeting ID: 362 027 238 Phone:1(669)900-6833**

The meeting will be broadcast on Cable TV Channel 26, live on YouTube at <https://www.youtube.com/c/cityofpaloalto>, and streamed to Midpen Media Center at <https://midpenmedia.org>.

**TIME ESTIMATES**

Time estimates are provided as part of the Council's effort to manage its time at Council meetings. **Listed times are estimates only and are subject to change at any time, including while the meeting is in progress.** The Council reserves the right to use more or less time on any item, to change the order of items and/or to continue items to another meeting. Particular items may be heard before or after the time estimated on the agenda. This may occur in order to best manage the time at a meeting or to adapt to the participation of the public.

**REVISED PUBLIC COMMENTS**

Public Comments will be accepted both in person and via Zoom for up to three minutes or an amount of time determined by the Chair. All requests to speak will be taken until 5 minutes after the staff's presentation. Written public comments can be submitted in advance to [city.council@cityofpaloalto.org](mailto:city.council@cityofpaloalto.org) and will be provided to the Council and available for inspection on the City's website. Please clearly indicate which agenda item you are referencing in your email subject line.

PowerPoints, videos, or other media to be presented during public comment are accepted only by email to [city.clerk@cityofpaloalto.org](mailto:city.clerk@cityofpaloalto.org) at least 24 hours prior to the meeting. Once received, the City Clerk will have them shared at public comment for the specified item. To uphold strong cybersecurity management practices, USB's or other physical electronic storage devices are not accepted.

## CALL TO ORDER

## SPECIAL ORDERS OF THE DAY (5:00 - 5:10 PM)

1. Cybersecurity Awareness Month Proclamation

## STUDY SESSION (5:10- 7:10 PM)

2. 3400 El CAMINO REAL [22PLN-00227]: Request for Prescreening of the Applicant's Proposal to Rezone the Subject Site From Various Zoning Districts to Planned Housing Zone (PHZ) to Allow Construction of 382 Residential Rental Units (44 studios, 243 one-bedroom, 86 two-bedroom and 9 three-bedroom units) in two Buildings. Environmental Assessment: Not a Project. Zoning District: CS, CS(H), RM-20 (Service Commercial, Hotel, Multi-Family Residential).

Public Letters

Staff Presentation

Applicant Presentation

## AGENDA CHANGES, ADDITIONS AND DELETIONS

## PUBLIC COMMENT (7:10 - 7:30 PM)

*Members of the public may speak to any item NOT on the agenda. Council reserves the right to limit the duration of Oral Communications period to 30 minutes.*

## CONSENT CALENDAR (7:30 - 7:35 PM)

*Items will be voted on in one motion unless removed from the calendar by three Council Members.*

3. Approve Minutes from the September 29, 2022 and October 3, 2022 City Council Meetings

Q&A

4. Approval of Construction Contract Number C23183908 With GSW Construction, Inc., in the Amount of \$995,556 for the Two Turnouts Upgrade Project (WS-07000) on California Avenue and Page Mill Road; Authorization for the City Manager to Negotiate and Execute Related Change Orders Not-to-Exceed \$99,556; and Approval of Budget Amendment in the Water Fund

Q&A

5. Approval of Implementation of the U.S. Environmental Protection Agency-Funded (U.S. EPA) Greening Parking Facilities for a Sustainable Community Project and Approval of Agreement Between City of Palo Alto and City of Santa Clara to Partner on Project, and Approval of a Budget Amendment in the Stormwater Management Fund

CITY MANAGER COMMENTS (7:35 -7:50 PM)

**Presentation**

BREAK (7:50 - 8:00 PM)

**ACTION ITEMS**

*Include: Reports of Committees/Commissions, Ordinances and Resolutions, Public Hearings, Reports of Officials, Unfinished Business and Council Matters.*

6. TEFRA Hearing Regarding Conduit Financing for the Kehillah Jewish High School's for the Partial or Full Refinancing of the 2014 Loan and Financing the Development, Construction, Renovation, Improvement and Equipping of the Corporation's Campus at 3900 Fabian Way, Palo Alto; and Approving the issuance of a Tax-exempt Loan by the California Municipal Finance Authority for this Purpose and Other Matters Relating Thereto (8:00 PM – 8:10 PM)

7. PUBLIC HEARING: Adoption of **Ten** Ordinances That Repeal and Adopt Various Sections of the Palo Alto Municipal Code (PAMC) Related to the 2022 CA Building Codes (CA Code of Regulations Title 24) Update and Proposed Local Amendments; including:

- (1) Chapter 15.04 Incorporating the 2022 CA Fire Code With Local Amendments;
- (2) Chapter 16.04 Incorporating the 2022 CA Building Code With Local Amendments;
- (3) Chapter 16.05 Incorporating the 2022 CA Mechanical Code With Local Amendments;
- (4) Chapter 16.06 Incorporating the 2022 CA Residential Code With Local Amendments and Amending Chapter 16.52 to Align Federal, State, and Local Flood Hazard Regulations;
- (5) Chapter 16.08 Incorporating the 2022 CA Plumbing Code With Local Amendments;
- (6) Chapter 16.16 Incorporating the 2022 CA Electrical Code With Local Amendments;
- (7) Chapter 16.18 Incorporating the 2021 International Swimming Pool and Spa Code With Local Amendments;
- (8) Chapter 16.14 Incorporating the 2022 CA Green Building Standards Code with Local Amendments;

(9) Chapter 16.17 Incorporating the 2022 CA Energy Code Without Local Amendments.

(10) Chapter 16.19 Incorporating the 2022 CA Energy Code With Local Amendments.

Environmental Assessment: Project is Exempt Under CA Environmental Quality Act CEQA Guidelines Sections 15061(b)(3) and 15308.

*Title Updated and Supplemental Report Added. (8:10 – 10:10 PM)*

### COUNCIL MEMBER QUESTIONS, COMMENTS, ANNOUNCEMENTS

*Members of the public may not speak to the item(s)*

### ADJOURNMENT

### INFORMATION REPORTS

*Information reports are provided for informational purposes only to the Council and the public but are not listed for action during this meeting's agenda.*

### OTHER INFORMATION

Standing Committee Meeting

Finance Committee Meeting October 18, 2022

Rail Committee Meeting October 19, 2022

Public Comment Letters

Schedule of Meetings



## **PUBLIC COMMENT INSTRUCTIONS**

Members of the Public may provide public comments to teleconference meetings via email, teleconference, or by phone.

- 1. Written public comments** may be submitted by email to [city.council@cityofpaloalto.org](mailto:city.council@cityofpaloalto.org).
- 2. Spoken public comments using a computer** will be accepted through the teleconference meeting. To address the Council, click on the link below to access a Zoom-based meeting. Please read the following instructions carefully.
  - A. You may download the Zoom client or connect to the meeting in-browser. If using your browser, make sure you are using a current, up-to-date browser: Chrome 30+, Firefox 27+, Microsoft Edge 12+, Safari 7+. Certain functionality may be disabled in older browsers including Internet Explorer.
  - B. You may be asked to enter an email address and name. We request that you identify yourself by name as this will be visible online and will be used to notify you that it is your turn to speak.
  - C. When you wish to speak on an Agenda Item, click on "raise hand." The Clerk will activate and unmute speakers in turn. Speakers will be notified shortly before they are called to speak.
  - D. When called, please limit your remarks to the time limit allotted.
  - E. A timer will be shown on the computer to help keep track of your comments.
- 3. Spoken public comments using a smart phone** will be accepted through the teleconference meeting. To address the Council, download the Zoom application onto your phone from the Apple App Store or Google Play Store and enter the Meeting ID below. Please follow the instructions B-E above.
- 4. Spoken public comments using a phone** use the telephone number listed below. When you wish to speak on an agenda item hit \*9 on your phone so we know that you wish to speak. You will be asked to provide your first and last name before addressing the Council. You will be advised how long you have to speak. When called please limit your remarks to the agenda item and time limit allotted.

[CLICK HERE TO JOIN](#) **Meeting ID: 362 027 238    Phone:1(669)900-6833**



## City of Palo Alto

### City Council Staff Report

(ID # 14866)

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**Meeting Date: 10/17/2022**

**Report Type: Informational Report**

**Title: Cybersecurity Awareness Month Proclamation**

**From: City Manager**

**Lead Department: City Clerk**

There is no staff report for this item, please see attached proclamation.

**Attachments:**

- **Attachment1.a:** Attachment A: Cybersecurity Awareness Month Proclamation 2022



# Proclamation

## CYBERSECURITY AWARENESS MONTH – OCTOBER 2022

**WHEREAS**, the City of Palo Alto has a vital role in identifying, protecting, and responding to cyber threats that may have a significant impact on our residents and collective security and privacy; and

**WHEREAS**, individuals, businesses, nonprofits, government organizations, academic institutions, and the local economy has become increasingly reliant on information systems and technology to conduct business, engage in commerce, access information, communicate, and provide essential services; and

**WHEREAS**, cybersecurity education and awareness are crucial for any individual or organization, and that cybersecurity is essential to digital inclusion; and

**WHEREAS**, a whole community effort is necessary to ensure that all residents of Palo Alto have the skills and opportunity to benefit from digital citizenship; and

**WHEREAS**, a whole community effort is necessary to ensure that all residents of Palo Alto have the skills and opportunity to benefit from digital citizenship; and

**WHEREAS**, Cybersecurity Awareness Month was launched by the National Cyber Security Alliance & the U.S. Department of Homeland Security in October 2004 and now recognized by thousands of organizations including the Federal Government, the Multi-State Information Sharing and Analysis Center, and the National Association of State Chief Information Officers; and

**WHEREAS**, maintaining the security of cyberspace is a shared responsibility in which each of us has a critical role to play by being aware of computer security essentials that will improve the security of the City of Palo Alto's information infrastructure and the economy; and

**WHEREAS**, the national cybersecurity public awareness campaign – See Yourself in Cyber.™ – is implemented through a coalition of private companies, non-profits, government organizations, and academic institutions, and is dedicated to increasing the public's understanding of cyber threats and empowering all Americans to better protect themselves from phishing, viruses, malware, financial loss, and loss of sensitive data.

**NOW, THEREFORE**, I, Pat Burt, Mayor of the City of Palo Alto on behalf of the entire City Council do hereby proclaim that the City of Palo Alto officially supports National Cybersecurity Awareness Month and the National Public Awareness Campaign "See Yourself in Cyber.™"

PRESENTED: October 17, 2022

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**Pat Burt**  
Mayor



## City of Palo Alto City Council Staff Report

(ID # 14796)

**Report Type: Study Session**

**Meeting Date: 10/17/2022**

**Summary Title: 3400 El Camino Real: Prescreening for 382 Rental Units**

**Title: 3400 El CAMINO REAL [22PLN-00227]: Request for Prescreening of the Applicant's Proposal to Rezone the Subject Site From Various Zoning Districts to Planned Housing Zone (PHZ) to Allow Construction of 382 Residential Rental Units (44 studios, 243 one-bedroom, 86 two-bedroom and 9 three-bedroom units) in two Buildings. Environmental Assessment: Not a Project. Zoning District: CS, CS(H), RM-20 (Service Commercial, Hotel, Multi-Family Residential).**

**From: City Manager**

**Lead Department: Planning and Development Services**

### Recommendation

Staff recommends that Council conduct a prescreening and provide informal comments regarding the applicant's request to rezone five parcels located at 3398, 3400, 3490, 3460 El Camino Real, and 556 Matadero Avenue from Service Commercial (CS), Service Commercial with a Hotel Overlay (CS)(H), and Residential Multi-family (RM-20) to a Planned Home Zoning (PHZ).<sup>1</sup> Comments provided during the prescreening process are not binding on the City or the applicant.

### Executive Summary

This prescreening is a request by the applicant to rezone the subject properties, which are currently zoned Service Commercial (CS), Service Commercial with a Hotel Overlay (CS)(H), and Residential Multi-family (RM-20) to "Planned Home Zoning (PHZ)."<sup>1</sup> The project site consists of five parcels totaling 3.6 acres. The project includes the demolition of 55,155 square feet (sf) of hotel facilities and 8,735 sf of eating and drinking facilities; the applicant proposes the construction of one mixed-use building with 316 residential rental units with approximately

<sup>1</sup> Referred to in this report as "Planned Home Zoning" to emphasize the focus on housing as the benefit to the community. PAMC Section 18.38, which outlines the requirement and process for Planned Community (PC) Zoning, remains the underlying code supporting application of this policy.

4,000 sf of retail space (Building A) and a second building which would provide 66 residential units (Building B).

The project is located along El Camino Real within 500 feet of bus transit stops and roughly one mile from the California Avenue Caltrain Station. It is also within the vicinity of office and retail uses as well as within walking distance (0.12 to 0.5 mile) from the Boulware Park and Mayfield Soccer Complex, respectively.

This prescreening application responds to the City Council's expressed interest in learning from home builders what it takes to create more housing opportunities in Palo Alto. Utilizing the Planned Community (PC) zoning process, a PHZ application must meet two initial qualifying criteria established by the City Council: 1) provide 20% of the total units as affordable housing selected from a prescribed menu of options, and 2) provide housing units that meet or exceed the demand generated by any net new jobs.

The project would require a formal rezoning application consistent with Palo Alto Municipal Code (PAMC), Zoning Regulations, Chapter 18.38. The rezoning would allow for a Development Plan with increased height, increased floor area ratio (FAR), and reduced setbacks on El Camino Real in comparison to the CS district regulations as well as increased density compared to the RM-20 requirements. The applicant is also requesting Council to consider reducing the impact fees the applicant would be required to pay.

## **Background**

On February 3, 2020, Council unanimously endorsed using Planned Home Zoning (PHZ) for housing and mixed-use housing projects to help spur housing production. In exchange for deviation from certain standards as allowed under the rezoning, if approved by Council, the project must include at least 20% of the housing units as deed restricted for lower-income households. Moreover, the number of housing units must offset the number of net new commercial jobs that are generated by the project.

In accordance with Palo Alto Municipal Code (PAMC) Section 18.79.030(A), a prescreening review is required for legislative changes, including rezoning, prior to the submittal of a formal application. Pre-screenings are intended to solicit early feedback on proposed projects and, like all study sessions, cannot result in any formal action. Since this proposal may return to the City Council as a formal application, Councilmembers should refrain from forming firm opinions supporting or opposing the project.

## **Project Description**

A location map of the proposed site is included in Attachment A. The preliminary schematic drawings, included in Attachment C, are conceptual, as is appropriate at this stage of project

consideration. As shown in these schematic drawings, the applicant is proposing one mixed-use structure and one exclusively residential structure, which would replace the Driftwood Deli, Cibo Restaurant, and the Creekside Inn. The 392,178 sf proposed development would include approximately 4,000 sf of retail on the ground floor of Building A and 382 residential rental units between Building A and B. Both buildings would be six stories tall and have a total height of 61 feet (64 feet to the top of the mechanical roof screen). The project site consists of five parcels totaling 156,849 sf (3.6 acres). As part of the project, the parcels would be merged.

Access to the pedestrian entrances to the retail and residential uses would be provided from El Camino Real. The building would include two levels of below-grade parking and surface parking resulting in 507 parking stalls. Access to the parking garage would be provided along El Camino Real from a single entrance/exit and from Matadero Avenue at the rear of the site. The site currently has curb cuts along El Camino Real and Matadero Avenue providing a separate entrance and exit along both streets to the site; the curb cut along Matadero Avenue would be moved further West towards 568 Matadero Avenue while the other would remain in the same location. The below-grade parking structure would include 400 parking stalls for both retail and residential uses with the remaining 107 stalls provided at grade. The parking spaces provided would exceed the required 502 spaces, per the current code requirements, by five spaces.

#### Surrounding Uses

Adjacent zoning and uses include Research Park (RP) zoned parcels to the North (Rivian and CPI), Commercial Neighborhood (CN) zoned parcels to the East (Dumpling City, CC Restaurant Supply), Commercial Service (CS) and Residential Multi-family (RM-30) zoned parcels to the South (4 Less Smog Check), and Single Family Residential (R-1) zoned parcels to the West. Adjacent buildings vary from one to two stories tall. There is a proposed planning application on file for 3300 El Camino Real (21PLN-00028) to build a new two-story approximately 50,000 sf office building. The site is bisected by Matadero Creek which is a non-channelized creek. Development near the streamside protection area of Matadero Creek requires a geotechnical report to demonstrate that the proposed development would not threaten the stability of the stream bank slope.

#### *Nearby Commercial Properties*

The project site is located adjacent to 607 Hansen Way and in close proximity to 811 Hansen Way. These two properties previously constituted the CPI site, which contains Tier 1 and Tier 2 hazardous materials. Rivian recently occupied the property at 607 Hansen Way. Rivian removed Building 1B from the property and removed the hazardous materials in Building 1A. There was an amortization agreement, per Ordinance 5831, to remove these materials by December 31, 2052. Tier 2 materials are still contained within Building 2 on Parcel 2 (811 Hansen Way) of the site. PAMC 18.20.040(C)(2) and 18.42.200 prohibits the construction of new residential uses within 300 feet of a building containing Tier 2 hazardous materials. Building B, which would be the closer of the two proposed residential buildings, is more than 500 feet from the multi-

family residential use; therefore, the concept plan complies with this requirement.

## Discussion

Staff will prepare a thorough analysis of the zoning and Comprehensive Plan compliance upon submittal of a formal application, if filed. A review of the conceptual plans, however, highlights key concessions that the applicant is requesting.

### Comprehensive Plan Compliance

The Comprehensive Plan designations for these parcels are Multiple-Family Residential (MF) and Service Commercial (CS). In the Comprehensive Plan, Multiple-Family Residential designations are intended for housing development, especially in areas serviced by high-quality transit corridors. Density should be on the lower end of the scale next to single-family residential areas. However, densities higher than what is permitted may be allowed where measurable community benefits will be derived, services and facilities are available, and the net effect could still be consistent with the Comprehensive Plan. Service Commercial areas are typically considered to be commercial corridors where vehicle access is the primary means to access a site. In some locations, residential and mixed-use projects may be appropriate in this land use category given the site's proximity to transit centers and services. The project will abut single-family home properties but will comply with the daylight plane requirements for the R-1 zone district with the proposed design. El Camino Real is considered to be a high-quality transit corridor and two existing VTA bus stops are less than a half-mile walking distance from the property.

Palo Alto has received a housing unit allocation responsibility from the County and State of nearly 6,600 units for the next Housing Element Update. To try and achieve that goal, the City Council has encouraged developers to provide prospective developments through the Prescreening and PHZ processes. These applications provide data points to help the City understand where both large and small housing projects can be placed throughout the City. As a part of the PHZ process, the City has required that any project approved under a PHZ needs to provide at least 20% affordable housing which this project will satisfy if a formal application is submitted.

Looking at current maps, the site appears to be adjacent to the California-Olive-Emerson Plume underground contamination areas. During a formal project review, staff would evaluate whether the site is affected by the COE Plume (that is, whether underground contamination exists on site). In the event contamination exists, the site will need to be cleaned up prior to occupation by any residents on site.

Staff would prepare a thorough analysis of the zoning and comprehensive plan compliance following the submittal of a formal application if an application is filed.

### Zoning Compliance

For projects rezoning to a PHZ, Council has the authority to set the parameters for most development standards, which would be reflected in the tailored ordinance for the new PHZ District. However, for informational purposes, Attachment B compares the development standards under the current CS and RM-20 zone districts with the proposed project. The project is located adjacent to single-family residential uses and would be subject to the special standards outlined in PAMC Section 18.38.150. The elevation drawings show that Building A is set back from the single-family properties by 60 feet while Building B is set back by 45 feet six inches. The elevation drawings also show that both buildings are designed to meet the R-1 daylight plane requirements<sup>2</sup>. However, both buildings would exceed the requirements under PAMC 18.38.150(b) which states that a building is limited to 35 feet if it is within 150 feet of an RE, R-1, R-2, RMD, RM, or applicable PC district.

In comparison to the existing zoning, the applicant is requesting that the new PHZ allow for increases in floor area and height. Specifically, the applicant is requesting a floor area ratio of 2.49:1 where the code allows up to 0.5:1 for RM-20 and 0.6:1 for CS zone districts. The project would exceed the 50-foot height limit by 11 feet. The CS zoning regulations do not set a maximum density for sites along El Camino Real, however, the RM-20 zoning regulations set a maximum density of 20 units per acre. If the more restrictive RM-20 standards determined the maximum density over the 3.6 acres, then only 72 units could be developed on this site. The applicant is proposing 106 units per acre.

The applicant is also proposing a zero foot setback to the property line along El Camino Real where residential units are required to have a 15-foot setback from the property line; though other facilities (e.g. the lobby or other common facilities) may be located closer to the property line provided that a 12-foot effective sidewalk width is maintained. Therefore, the ground floor residential area for this project could be set closer to the property line. If Council supports this reduced setback for the residential units on El Camino Real, then the design could be modified to increase the distance from the single-family residential properties abutting the rear of the parcel.

The proposed mixed-use project provides for two of the most desirable uses along this corridor in accordance with the Comprehensive Plan (retail and housing). This use would replace a commercial development that includes retail and retail-like (retail and restaurant) and hotel uses.

### Retail Preservation

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<sup>2</sup> R-1 Daylight Plane requirements are established at the interior-side property line and rear setback line as shown in Table 2 of PAMC 18.12.040: <https://bit.ly/3cKXNri>



The current 8,735 sf of retail-like uses (Driftwood Deli and Cibo Restaurant) at the site is subject to the retail preservation requirements outlined in PAMC 18.40.180. However, as outlined in PAMC Section 18.40.180(c)(4)(C), a high density (30 or more dwelling units per acre) project located within the CS Zone District, but not within the ground floor (GF) or retail (R) combining district, shall only be required to replace 1,500 sf of existing retail or retail-like use. The project qualifies for this partial exemption. The project would provide 4,000 sf of retail, exceeding the minimum requirement.

#### Housing Inventory Site

The project site is located on five parcels, one of which (3400 El Camino Real) is identified as a housing inventory site. 3400 El Camino Real is identified as having a realistic capacity of 19 units. The project would add 382 housing units on a larger combined parcel, exceeding the identified realistic capacity of the site

#### Multi-Modal Access & Parking

The project is located close to high-frequency transit, including the Valley Transit Authority bus line (with stops at El Camino and Matadero as well as El Camino and Margarita). However, the site is located one mile from the California Avenue Caltrain station.

Further information is needed regarding the on-site circulation and vehicle trips to determine whether the project is consistent with the City's Bicycle and Pedestrian Transportation Plan and other transportation policies such as Council's Local Transportation Impact Analysis Policy adopted on June 15, 2019 (CMR 11256). Matadero Avenue is one of the Safe Routes to School and the impact of an increase in vehicle trips to and from the site would require an evaluation of the safety issues that may arise from this project. This information would be required as part of any formal application.

The proposed project would maintain the existing number of vehicular curb cuts along El Camino Real but would provide two entrance points and one exit point instead of one-way driveways. If a formal project is filed, a permit would be required from Caltrans for any modifications to the existing curb cuts. The design includes on-site space for trash pick-up; therefore, it is assumed that the applicant intends for the City's waste hauler to drive on-site to collect trash from bins instead of bringing the bins out to the curb to be serviced on El Camino Real

#### *Parking*

As noted, the project would include 507 vehicle parking spaces (25 for retail use and 482 for residential use) within two levels of an underground parking garage as well as at grade. Although a loading space is not required for residential uses, staff notes that one loading zone has been provided in this design near the proposed retail space. Short-term bicycle parking is shown throughout the site at grade while long-term spaces are shown on the first and second

levels of the garage. This should be considered as part of any formal application.

#### Inclusionary Requirement and Jobs Housing Imbalance

The site is currently zoned to allow commercial or mixed-uses at the site and there are 10 existing buildings on these properties which are currently being used for hotel, retail, and restaurant uses. These existing buildings would be demolished and replaced with the proposed mixed-use development. This would lead to a 59,890 sf decrease in commercial space. The project would result in a net reduction in jobs (approximately 15 fewer jobs) along with a net increase in housing units (382 housing units).

The project would provide 20%<sup>3</sup> of the units at Below Market Rate in accordance with Council's requirements for projects seeking to rezone using the PHZ process. The proposal would improve the jobs-housing imbalance by providing housing units in an amount that surpasses the jobs created in the retail use at the site.

#### **Policy Implications**

Pre-screenings are intended to solicit early feedback on proposed projects and, like all study sessions, cannot result in any formal action. Therefore, informal comments from Councilmembers would not impart policy. That said, there is interest among other home builders and property owners to learn of the Council's initial reaction to the subject request, which may influence the filing of future prescreening requests.

In addition, Council's feedback on key requests such as the height limit, floor area, setback, and density requests will help to inform whether there is interest in pursuing a rezoning of the subject property and the development standards that may be reflected in that ordinance. A PHZ Ordinance, if approved, may have policy implications that would encourage similar developments of this size.

#### **Resource Impact**

The prescreening and processing of a formal application, if filed, are services paid for by fees from the applicant. Additionally, impact fees are charged on the project to account for the impacts the project would have on public services and infrastructure. If the Council were to waive some or all impact fees for the project, as requested by the applicant, then the City would lose those resources to offset the impacts on public services and infrastructure caused by the project.

The project, as proposed, would impact local tax revenues due to the removal of the retail and

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<sup>3</sup> The applicant has chosen to proceed with Option 1: 5% of the units will be provided at Very Low Income, 5% at Low Income, 5% at Moderate Income, and 5% at the Workforce Housing levels of affordability.

hotel uses at the site. The current commercial uses generate local sales tax revenue and transit occupancy tax revenue for the City. The loss of these uses would result in an annual loss of revenue on the order of \$300,000 to \$1.3 million. In comparison, total sales tax revenue for the City in fiscal year (FY) 2022 was \$32.6 million and transit occupancy tax was \$16.9 million. Offsetting the above loss is the expectation the new development will result in increased property tax assessed valuation (AV) though the magnitude of this increase is unknown. The added AV will have a one percent additional property tax assessment. The City would receive approximately 9.4% of that additional property tax.

## **Timeline**

Following the prescreening review, the applicant will consider Council's comments and determine how they want to proceed. Any formal application to rezone the property to a PHZ would be subject to the Planning and Transportation Commission (PTC), Architectural Review Board, and Council's purview. A Tentative Map and Final Map would also be required and would be subject to review by and recommendation from the Planning and Transportation Commission prior to Council action.

## **Stakeholder Engagement**

The Palo Alto Municipal Code requires notice of this public hearing be published in a local paper and mailed to owners and occupants of property within 600 feet of the subject property at least ten days in advance. Notice of a public hearing for this project was published in the Daily Post on September 9, 2022, which is 10 days in advance of the meeting. Postcard mailing occurred on September 6, 2022, which is 13 days in advance of the meeting.

Staff met with residents about the application and attended the Barron Park Association board meeting in on August 16. At the meeting, staff received feedback from the attending residents. Written comments received are provided as Attachments D and E. A list of comments/concerns received during the 8/16 meeting is below:

1. Potential Presence of Underground Contaminants from COE Plume
2. Traffic Impact from new Units onto Matadero Avenue and El Camino Real
3. Safety Impact from new Traffic on Safe Routes to School path along Matadero Avenue
4. Significant Density with Proposed Project that Appears out of Context with Surrounding uses
5. Height Request Exceeds 50-foot PHZ Height Limit
6. City Council Should Not Waive Development Impact Fees
7. Privacy Impacts from new Units
8. Potential Impacts on Matadero Creek from new Development and Below-Grade Parking Garage

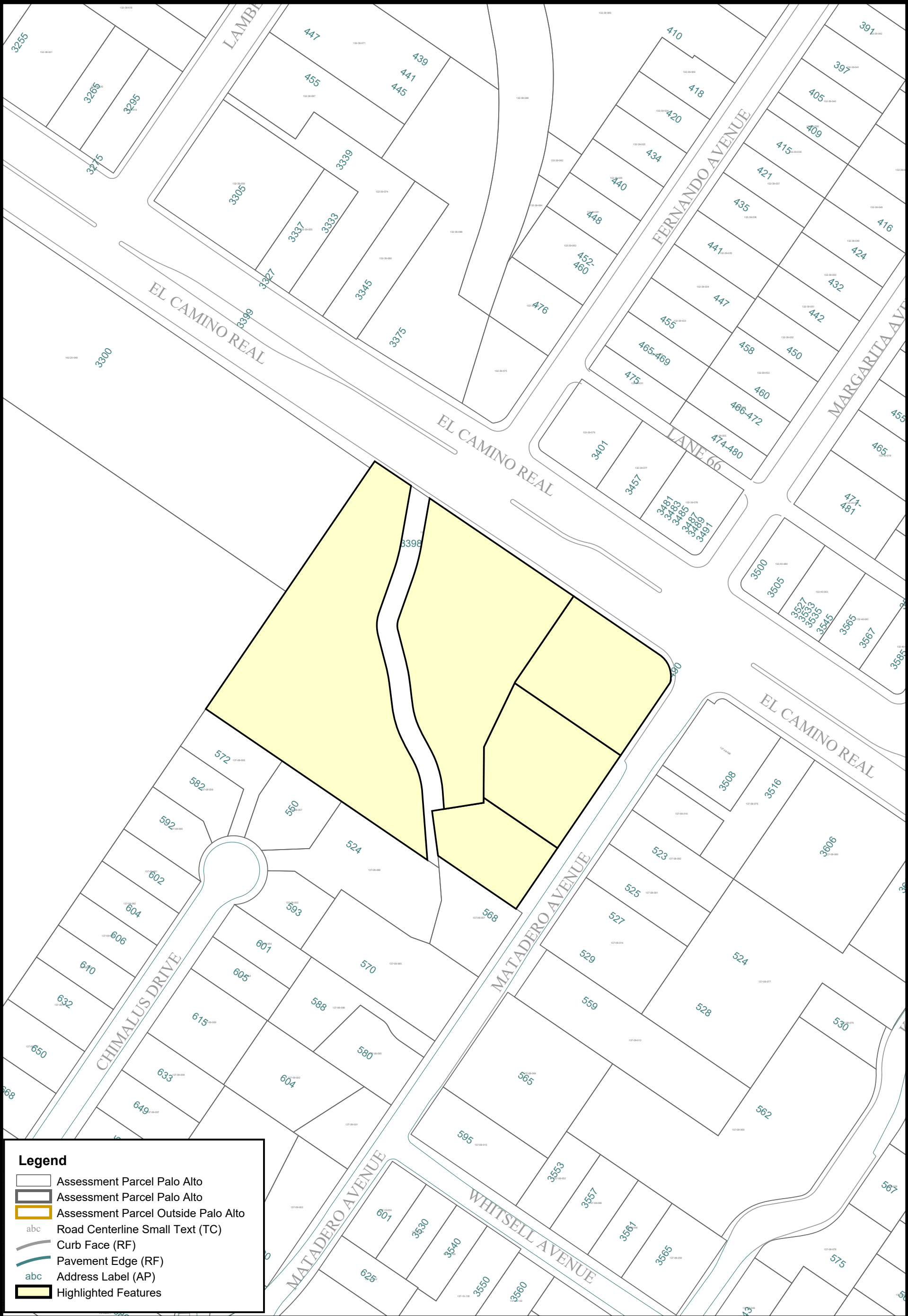
9. Loss of Hotel Space, Transit Occupancy Tax, and Retail – Uncertainty if Existing Retail will Survive Displacement
10. Lack of Existing Grocery and Recreational Spaces near Barron Park
11. Support for Housing at a Lower Density than Proposed

## **Environmental Review**

The prescreening is a preliminary review process in which Councilmembers may provide comments, but no formal action will be taken. Therefore, no review under the California Environmental Quality Action (CEQA) is required at this time. A full review in accordance with CEQA would be initiated with the formal filing of a development application.

### **Attachments:**

- |                       |                                                     |
|-----------------------|-----------------------------------------------------|
| <b>Attachment2.a:</b> | <b>Attachment A: Location Map(PDF)</b>              |
| <b>Attachment2.b:</b> | <b>Attachment B: Zoning Comparison Table (DOCX)</b> |
| <b>Attachment2.c:</b> | <b>Attachment C: Project Plans (DOCX)</b>           |
| <b>Attachment2.d:</b> | <b>Attachment D: Public Comments (PDF)</b>          |



**Legend**

Assessment Parcel Palo Alto

Assessment Parcel Palo Alto

Assessment Parcel Outside Palo Alto

abc

Road Centerline Small Text (TC)

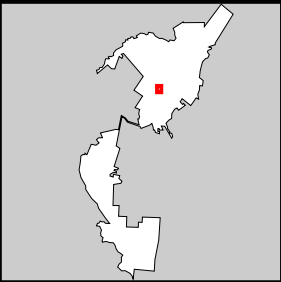
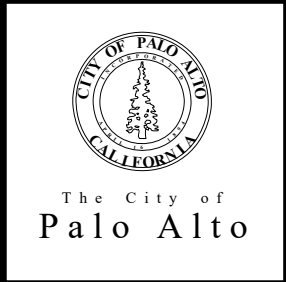
Curb Face (RF)

Pavement Edge (RF)

abc

Address Label (AP)

Highlighted Features



3400 El Camino Real

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

0' 111'

**ATTACHMENT B**  
**ZONING COMPARISON TABLE**  
 3400 El Camino Real, 22PLN-00227

**Table 1: COMPARISON WITH CHAPTER 18.16 (CS DISTRICT)**  
 Mixed-Use Development Standards

| Regulation                                                                                                  | Required                                                                                                 | Existing                                               | Proposed                                                                                  |
|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Minimum Site Area, width and depth                                                                          | None                                                                                                     | 3.6 acres                                              | 3.6 acres                                                                                 |
| Minimum Front Yard                                                                                          | 0-10 feet to create an 8-12 foot effective sidewalk width <sup>(1), (2), (8)</sup>                       | 8 feet                                                 | <b>0 feet (see Build-to-Line)</b>                                                         |
| Rear Yard                                                                                                   | 10 feet for residential; none for commercial                                                             | 7-10 feet                                              | 60 ft, 10 in at Bldg A<br>45 ft, 6 in at Bldg B                                           |
| Interior Side Yard                                                                                          | None                                                                                                     | 30-60 feet                                             | 45 ft, 6 in at Bldg B                                                                     |
| Street Side Yard                                                                                            | 5 feet                                                                                                   | 21-47 feet                                             | 14 ft, 5 in                                                                               |
| Min. yard for lot lines abutting or opposite residential districts or residential PC districts              | 10 feet <sup>(2)</sup>                                                                                   | 7-10 feet                                              | 60 ft, 10 in at Bldg A<br>45 ft, 6 in at Bldg B                                           |
| Build-to-lines                                                                                              | 50% of frontage built to setback on El Camino Real<br>33% of side street built to setback <sup>(7)</sup> |                                                        |                                                                                           |
| Special Setback                                                                                             | None                                                                                                     | Not Applicable                                         | Not Applicable                                                                            |
| Max. Site Coverage                                                                                          | 50%                                                                                                      | 42% (66,451.98 sf)                                     | 39% (61,244 sf)                                                                           |
| Max. Building Height                                                                                        | 35 ft within 150 ft. of a residential district (other than an RM-40 or PC zone)                          | 46                                                     | <b>61 feet to height of sixth floor</b><br><br>Additional 3 feet for mechanical screening |
| Daylight Plane for lot lines abutting one or more residential zone districts other than an RM-40 or PC Zone | None <sup>(6)</sup>                                                                                      | 45 degrees at 10 feet in the air at rear property line | 45 degrees at 10 feet in the air at rear property line                                    |
| Residential Density                                                                                         | 20 Units/Acre except CS sites on El Camino Real have no maximum                                          | Not Applicable (currently exclusively commercial)      | <b>106 Units/AC</b>                                                                       |

|                                               |                                                                                                                             |                      |                              |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------------|
| Max. Floor Area Ratio (FAR)                   | 0.6:1 residential (XXXX sf); 0.4:1 non-residential (total of 1.0:1)<br><br>18.18.060(e)<br>2.0:1 for hotels<br>18.18.060(d) | 2.5:1.0 (392,178 sf) | <b>2.49:1.0 (390,771 sf)</b> |
| Minimum Mixed-use Ground Floor Commercial FAR | 1,500 sf of retail                                                                                                          |                      | 4,000 sf                     |

- (1) No parking or loading space, whether required or optional, shall be located in the first 10 feet adjoining the street property line of any required yard.
- (2) Any minimum front, street side, or interior yard shall be planted and maintained as a landscaped screen excluding areas required for access to the site. A solid wall or fence between 5 and 8 feet in height shall be constructed along any common interior lot line..
- (6) The initial height and slope shall be identical to those of the most restrictive residential zone abutting the site line in question.
- (7) 25 foot driveway access permitted regardless of frontage, build-to requirement does not apply to CC district.
- (8) A 12 foot sidewalk width is required along El Camino Real frontage
- (10) In the CC(2) zone and on CN and CS zoned sites on El Camino Real, there shall be no minimum mixed use ground floor commercial FAR for a residential project, except to the extent that the retail preservation requirements of Section [18.40.180](#) or the retail shopping (R) combining district ([Chapter 18.30\(A\)](#)) applies.

**Table 1: COMPARISON WITH CHAPTER 18.16 (CS DISTRICT) continued**

Exclusively Non-residential Development Standards

| Topic                                     | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Proposed |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| Hours of Operation (18.16.040 (b))        | Businesses with activities any time between the hours of 10:00 p.m. and 6:00 a.m. shall be required to obtain a conditional use permit. The director may apply conditions of approval as are deemed necessary to assure compatibility with the nearby residentially zoned property                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unknown  |
| Outdoor Sales and Storage (18.16.060 (h)) | <p>(3) ... incidental to permitted eating and drinking services shall be permitted subject to the following regulations:</p> <p>(A) Outdoor sales and display shall not occupy a total site area exceeding the gross building floor area on the site, except as authorized by a conditional use permit.</p> <p>(B) Areas used for outdoor sales and display of motor vehicles, boats, campers, camp trailers, trailers, trailer coaches, house cars, or similar conveyances shall meet the minimum design standards applicable to off street parking facilities with respect to paving, grading, drainage, access to public streets and alleys, safety and protective features, lighting, landscaping, and screening.</p> <p>(C) Exterior storage shall be prohibited, unless screened by a solid wall or fence of between 5 and 8 feet in height.</p> | Complies |

|                                        |                                                                                                                                                                                                                                                                                                                                           |         |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| Refuse Disposal Areas<br>(18.40.240)   | (a) Assure that development provides adequate and accessible interior areas or covered exterior enclosures for the storage of refuse in appropriate containers with storage capacity for a maximum of one week, and that refuse disposal structures and enclosures are located as far from abutting residences as is reasonably possible. | Unknown |
| Employee Showers<br>(18.16.060 (j))    | Retail - 0-24,999, none required                                                                                                                                                                                                                                                                                                          | None    |
| Office Use Restrictions<br>(18.16.050) | Total floor area of permitted office uses on a lot shall not exceed 25% of the lot area, provided a lot is permitted between 2,500 and 5,000 sf of office use. The maximum size may be increased with a CUP issued by the Director.                                                                                                       | None    |

**18.16.080 Performance Standards.** All development in the CS district shall comply with the performance criteria outlined in [Chapter 18.40](#) of the Zoning Ordinance, including all mixed use development

**18.16.090 Context-Based Design Criteria.** As further described in a separate attachment, development in a commercial district shall be responsible to its context and compatible with adjacent development, and shall promote the establishment of pedestrian oriented design.

**18.24 Objective Design Standards.** All projects are encouraged to adhere to the City's Objective Design Standards ([18.24](#)). Housing Development Projects may qualify for a streamlined process ([18.77.073](#)).



**Table 2: CONFORMANCE WITH CHAPTER 18.52 (Off-Street Parking and Loading)  
for Eating and Drinking and Hotel Uses\***

| Type            | Required                                                                                                               | Existing                                        | Proposed                            |
|-----------------|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------|
| Vehicle Parking | 1 space for each 60 gross sq. ft. of public service area, plus 1 space for each 200 gross sq. ft. for all other areas. | 138 spaces (Eating and Drinking and Hotel uses) | 25 (Eating and Drinking only)       |
| Bicycle Parking | 1 per 600 sf of public service area, plus 1 per 2,000 sf for other areas                                               | 32 short term spaces for site                   | 3 spaces (Eating and Drinking only) |
| Loading Space   | 0 loading spaces for 0-4,999 sf                                                                                        | 0                                               | 1                                   |

\* On-site employee amenity space is exempted from the parking requirements

**Table 2: CONFORMANCE WITH CHAPTER 18.52 (Off-Street Parking and Loading)  
for Residential Use\***

| Type            | Required                                                                                                                                    | Existing                      | Proposed                         |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------------------------------|
| Vehicle Parking | 1 per micro unit<br>1 per studio unit<br>1 per 1-bedroom unit<br>2 per 2-bedroom or larger unit At least one space per unit must be covered | Residential uses do not exist | 503                              |
| Bicycle Parking | 1 per unit (100% LT); 1 space for each 10 units of guest bike parking (100% ST)                                                             | Residential uses do not exist | 383 spaces (LT); 39 Guest spaces |
| Loading Space   | 0 loading space required for multi-family use                                                                                               | 0                             | 1                                |

## Attachment C

### **Project Plans**

In order to reduce paper consumption, a limited number of hard copy project plans are provided to Board members for their review. The same plans are available to the public, at all hours of the day, via the following online resources.

#### **Directions to review Project plans and environmental documents online:**

1. Go to: [bit.ly/PAwaitingprojects](https://bit.ly/PAwaitingprojects)
2. Scroll down to find “3400 El Camino Real” and click the address link
3. On this project-specific webpage you will find a link to the project plans and other important information

#### **Direct Link to Project Webpage:**

<https://www.cityofpaloalto.org/Events-Directory/Planning-and-Development-Services/3400-El-Camino-Real-22PLN-00227?transfer=786aa7b6-7300-4fbe-8d2e-f26eee002571>

**From:** [Mircea](#)  
**To:** [Council, City](#)  
**Cc:** [Gerhardt, Jodie](#); [Sauls, Garrett](#)  
**Subject:** 3400 El Camino Real -- Sept 19th 2022 City Council Work Study session-Public Comments  
**Date:** Wednesday, September 7, 2022 8:37:27 PM  
**Attachments:** [BPA Letter to City Council 9 07 22.docx.pdf](#)

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**CAUTION: This email originated from outside of the organization. Be cautious of opening attachments and clicking on links.**

Dear Honorable City Council Members,

My name is Mircea Voskerician and I am the property owner residing at 572 Chimalus Dr. Palo Alto which is sharing property line (rear side) with Creekside Inn. I am also a real estate developer and supporting housing developments, affordable housing but nothing this Extreme.

I am in full agreement with all items addressed in the BPA letter.

A couple of things that the city council should discuss for this site:

1. We cannot have a 5 story 50 ft tall building 45 ft from the R1 residential property line as proposed - Show stopper
2. To ensure a "transition" from a 5 story building to 1/2 story single family homes (R1 residential), building B in the rear should be replaced by 3-level townhomes or row homes (Height: 35 ft max)
3. To ensure that future residents have a place to relax/open space the development should grant the city a 1 AC park buffering R1 residential and get credits towards multi family park in lieu fees or other concessions.
4. To ensure privacy towards R1 residential is protected, under the new development, no parking can be allowed "against" the current property line, that entire rear side strip running from the green belt/CPI to Matadero should be dedicated open space/playground and a curtain of dense mature trees (Height: 30 ft as planted) must be planted against the property line as COA's
5. Building must be "massed" on ECR and CPI sides not against R1 residential, all parking must be underground including commercial, residential and guest-residential parking must be properly accounted and calculated so our neighborhood streets are not flooded with cars

This project, if developed, must be a **win-win-win**, developer/city/Barron Park, currently as designed it is a **win-win-lose** for Barron Park and residents of Barron Park must be heard.

Hopefully the city and developer will listen well and address all neighborhood concerns, so city council approval will not have to be reversed by Barron Park residents like Maybell development, while run by the same project manager (Ted O'Hanlon).

Regards,

Mircea Voskerician

572 Chimalus Dr. Palo Alto

**From:** [Tanya](#)  
**To:** [Sauls, Garrett](#)  
**Subject:** Apartment Complex Proposal in Barron Park  
**Date:** Friday, September 9, 2022 1:26:41 PM

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Dear Garrett,

Thanks for attending the Barron Park Association Board Meeting last month. As you know from the Barron Park Association meeting that you attended, our neighbors are passionately in opposition of this proposal. In advance of the September 19 City Council meeting, I wanted to also formally express my strong opposition to the proposal.

My husband and I purchased a home and moved to Barron Park last year. We specifically sought out the Barron Park neighborhood given that it is a quiet and peaceful close-knit community, with minimal congestion.

We were very surprised and dismayed to learn of the massive apartment complex proposal. We have spoken extensively with many of our neighbors, who have also felt shocked and upset about this proposal. I am in agreement with concerns outlined in the letter that the Barron Park Association Board has submitted to the City Council.

Barron Park has two primary entrances, and this proposal will severely increase congestion and wait lines at one of the main entrances into the neighborhood. Matadero Avenue is a designated "Safe Route to School" for children who attend the nearby schools. I worry greatly about the safety of the many children who take this path if there were to be an increase in traffic at this location. The large complex would also pose a major privacy issue for homeowners and renters along Matadero and Chimalus.

Such a proposal would also markedly change the character of this neighborhood. While City Council explores increasing housing in Palo Alto, it is also important to preserve some of the intangible qualities that make Palo Alto special and desirable including quiet/peaceful neighborhoods. Massive apartment complexes, such as the one proposed, in quiet residential neighborhoods would completely deteriorate many of the qualities that make Barron Park beloved.

Finally, I hope this is not a strategy of the developer to begin with an outlandish proposal, which they anticipate would be rejected, and to then follow with another proposal that may still be inappropriate but less extensive as a means to try to get it approved. Such tactics and strategies are not appropriate and should be viewed very unfavorably.

In summary, I am in strong opposition of the proposed apartment complex. This complex would unquestionably have a negative impact on the parks, nearby streets, traffic, and safety of cyclists/pedestrians. The location is not suitable for a project/development of this magnitude and it would entirely disrupt the character of this quiet community.

Sincerely,  
Tanya Gupta

**From:** [John King](#)  
**To:** [Council, City](#)  
**Cc:** [Shikada, Ed](#); [Sauls, Garrett](#); [Nose, Kiely](#); [City Mgr](#); [Lait, Jonathan](#); [McRee, Sarah](#); [BPA-Board](#)  
**Subject:** Barron Park Association letter re: Creekside Inn Development Pre-Screening  
**Date:** Wednesday, September 7, 2022 4:34:40 PM  
**Attachments:** [BPA Letter to City Council 9 07 22.docx.pdf](#)

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Dear City Council:

Please find attached a letter from the Board of Directors of the Barron Park Association in collaboration with numerous concerned residents of Barron Park regarding the Development Proposal of the Creekside Inn property which is scheduled for a Pre-Screening by the City Council during the September 19th City Council Meeting.

The Barron Park Board met through Zoom on August 21st with numerous neighbors for our regular board meeting and were joined by Garrett Sauls from the City Planning Department for a presentation and question and answer session regarding the proposal to develop the Creekside Inn property. This meeting was recorded and posted at <https://bpapaloalto.org/2022/08/21/creekside-inn-project/> should you be interested in viewing it.

The Barron Park Board in collaboration with a number of concerned residents of Barron Park has approved the attached letter for your consideration prior to the September 19th meeting.

Thank you for your review of these concerns.

Respectfully Submitted,

John W. King  
 President of the Barron Park Association  
[johnwadeking@gmail.com](mailto:johnwadeking@gmail.com)  
 650-483-2710

cc: Ed Shikada, City Manager  
 Kiely Nose, Interim Assistant City Manager  
 Jonathan Lait, Director of Planning  
 Sarah McRee, Planning Department Senior Management Analyst  
 Garrett Sauls, Planning Department Staff  
 Barron Park Association Board

**From:** [Dan Farley](#)  
**To:** [Council, City](#)  
**Subject:** Barron Park Hotel Proposal  
**Date:** Friday, September 9, 2022 7:51:15 PM

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Hello City Council Members,  
I would urge you to significantly downsize the Barron Park hotel proposal to the current limits of allowed units.

Two concerns I have are traffic and community.

The El Camino/Matadero intersection cannot handle the traffic increase that the proposed development would bring.

And the preservation of a place for Driftwood Market and Cibo restaurant is important to keep community businesses that serve Barron Park residents via walking.

Thank you,  
Dan Farley

717 Chimalus Drive.  
Palo Alto



September 7, 2022

**To:** The Mayor and City Council, City of Palo Alto

**From:** Board of Directors of the Barron Park Association and concerned residents

**Re:** Reaction to the proposed development of the Creekside Inn, Cibo Restaurant and Driftwood Deli and Market property, 3400 El Camino Real, Palo Alto, CA 94306

\*\*\*

The Barron Park community supports and looks forward to the addition of new housing, especially for “workforce” residents, throughout the City, as suitable sites are designated. However, the present Oxford Capital Group proposal to redevelop the Creekside Inn complex is not feasible in many ways. As proposed, it is massively out of scale and, if implemented, would present a host of density-related, environmental and traffic problems to this area.

We have compiled our reactions to the developer’s proposal from statements and contributions by attendees at neighborhood meetings sponsored by the BPA Board of Directors during the month of August 2022. We provide them below in outline form.

**1. Natural Matadero Creek, mature trees, wildlife corridor, water usage, groundwater**

- a. With a two-level underground garage excavated immediately adjacent to it, how will the City ensure that the developer will preserve and maintain the health and vitality of Matadero Creek and its wildlife, both in the short and the long term? Will this include maintenance and restoration of the existing natural riparian habitat?
- b. This 3.6-acre property currently benefits from many mature trees that ensure privacy, shading and stabilization of the creek banks. These trees must be protected per City ordinance.
- c. Will the developer be required to retain the green belt between the property and the Rivian site, and its other privacy screening?

- d. Because of possible toxic plumes from CPI and other pre-existing industries in the Stanford Research Park, groundwater pollution will have to be monitored on a continuous basis and mitigations applied.

## **2. Environmental Impact Report (EIR)**

In the course of establishing the EIR, the City must demand that the consultant hired complete a Management Transportation Analysis (MTA) and a Sewer Capacity Analysis. Other reports — Arborist Report, Wildlife Report, Historical Report (if the structure is over 50 years old), Phase 2 Report, and Soils/Geotech Report — will also be required for this EIR.

## **3. Small retail business protection**

- a. Current businesses on this site employ approximately 50 people. All these workers will lose their jobs if this project goes forward.
- b. Only one of two retail businesses has been offered a site in the new development, as a smaller Driftwood Deli and Market. Its square footage would be reduced from its current 4,500 sq. ft., with no outdoor seating.
- c. The developer has offered no plan for this thriving business to survive the years of construction, so its offer is hollow. Driftwood Deli and Market and Cibo Restaurant would not recover even if offered a location at the developed site. The time lag is too great. This is not protection of ground floor retail in a Commercial Neighborhood/Commercial Service (CN/CS) zone.
- d. The City will lose the 14% Transient Occupancy Tax (TOT) for the 136-room Creekside Inn.

## **4. Location of the project**

- a. Only two vehicle entrances to the entire property are proposed. This will massively increase congestion and wait lines, both on El Camino Real and on Matadero Avenue. Traffic will increase on neighborhood streets (Whitsell, Josina, Kendall, Barron . . . ) as drivers seek alternate routes to avoid the signal at Matadero.

- b. Matadero and Margarita Avenues are designated Bike Boulevards as well as “Safe Routes to Schools” for students at Barron Park Elementary School, Fletcher Middle School and Gunn High School.
- c. Bikers and walkers to and from the VA and the Stanford Research Park, as well as Stanford employees and students, use these streets to access bike and pedestrian paths to destinations west of Bol Park. Several hundred additional vehicles entering and exiting the proposed two-level underground garage from and onto 17-foot wide Matadero Avenue (with no sidewalks) would seriously exacerbate the situation.
- d. Even without the proposed additional traffic, the signal at El Camino and Matadero currently often takes two to three cycles to cross during higher traffic times. This intersection needs to be modernized in any event, by improving the median and the signal timing.

## 5. Unit sizes

The total number of proposed units is 382: i.e., 44 studios; 243 one-bedroom units; 86 two-bedroom units; and 9 three-bedroom units. This is an unbalanced configuration if the development is to support families.

## 6. Vehicle parking

- a. Residential Preferential Parking (RPP) would need to be instituted for Barron Park streets, to include, but not be limited to: Matadero Ave., Chimalus Dr., Tippawingo St., Josina Ave., Whitsell Ave., Kendall Ave., Barron Ave. and, east of El Camino in Ventura, Margarita Ave. and adjacent streets.
- b. Along with the RPP, a Transportation Management Program, with an agreed upon monitoring schedule, would be required. Due to developer’s unbundled parking plan, tenants will park a second car on the streets to avoid paying for a second parking space in addition to their rent.
- c. The total number of proposed units is 382: 287 studio or one-bedroom units and 95 two- or three-bedroom units. For both market rate and affordable housing, the City mandates one parking space per studio or one-bedroom unit (287 spaces) and

two parking spaces per two-bedroom or larger unit (190 spaces) for a total of 477. The proposal calls for 503 spaces. Setting aside 24 spaces for retail leaves 479 spaces for residents. This is 2 more than the City mandates for the apartment residents. Where will employee, disabled, EV and guest parking be located?

## **7. Residential privacy**

- a. This property is zoned CN/CS. The two proposed buildings are 64 feet high, including mechanical equipment. The building cannot reach 50 feet in height until it is at a 150-foot distance from R1 Residential, that is, from existing fences shared with the present Creekside Inn.
- b. Per Garrett Sauls, at the August 16 neighborhood meeting: For Planned Home Zoning (PHZ), buildings at the height of the proposed project must be 150 feet from R1 homes.
- c. There will be major privacy issues for all homeowners and renters along Matadero Ave. and Chimalus Dr. Apartments in the proposed complex, from the second to the sixth floors, would see into the backyards and interiors of nearby homes and apartments.
- d. Any windows, balconies and rooftop terraces facing neighbors' homes, whether R1 or apartment buildings, must be evaluated for privacy and eliminated if invasive.
- e. Tree privacy screening for neighbors must be a priority.

## **8. Open space**

- a. All the areas where plans show surface parking would need to be reevaluated for "usable open space" building design.
- b. The proposal offers no usable ground-level open space and no area for children to play, safe from El Camino traffic. The proposed "rooftop terraces" cannot be counted toward the open space requirement.
- c. No amenities (gym, clubhouse, picnic area, bike parking, playground, dog park) have been proposed for the residents of this apartment complex.

## 9. Mechanical equipment

The installation of solar panels would be essential. These should be sited to protect the privacy of nearby residents.

While we understand the City of Palo Alto is under immense pressure to provide housing, the City should NOT agree to ANY reduction of Impact Fees as requested by the applicant. The negative impacts on the Barron Park and Ventura neighborhoods — on parks, streets, traffic, vehicle parking, Safe Routes to School, as well as to pedestrians and the environment — are exactly what Impact Fees are meant to mitigate.

If built as proposed, this project will eliminate two local businesses that the surrounding neighborhood relies on, as well as a 136-room hotel that supports business travelers and other visitors to Palo Alto and Stanford and provides revenue to the City and state. The profound impact on the area's water usage, waste management, parking, environment (with potential toxic damage to Matadero Creek), and privacy will disrupt lives, bring unnecessary stressors to the neighborhood and increase traffic tenfold.

Respectfully submitted,

The Board of the Barron Park Association and concerned residents of the community  
Palo Alto, California

**From:** [Satish Katpally](#)  
**To:** [Council, City; Sauls, Garrett](#)  
**Cc:** [Marina Illich Ph.D. NVW](#)  
**Subject:** Concerns about the proposed development of the Creekside Inn, Cibo Restaurant and Driftwood Deli and Market property, 3400 El Camino Real, Palo Alto, CA 94306  
**Date:** Thursday, September 8, 2022 7:18:38 PM  
**Attachments:** [BPA Letter to City Council 9 07 22.docx.pdf](#)

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Dear Council Members,

As a resident of Barron Park, we (my wife and I) are opposed to this proposed development.

We agree with the concerns raised by the Barron Park Association in the attached letter. In particular, we are very concerned about: increasing congestion/traffic at one of the main entrances to Barron Park, increasing traffic on a route that is a designated "Safe Route to School" for children going to the local schools when we already don't have sidewalks on Matadero, the massive size of the development with 382 units, change in the character of the neighborhood which is quiet/peaceful, and loss of the beloved Creekside Inn.

We urge you to reject this proposal.

Sincerely,  
Satish Katpally  
Marina Illich  
Barron Park residents

**From:** [Patricia Steck](#)  
**To:** [Sauls, Garrett](#)  
**Subject:** Creekside Hotel project comments  
**Date:** Tuesday, September 13, 2022 2:32:22 PM

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I appreciate your presentation on zoom, hosted by the B.P. A.

I have lived in Palo Alto for ninety years and Barron Park, on Chimalus, for over sixty years. I agreed with many of the concerns Barron Park residents expressed. The project presented would change our area negatively forever. I am not against appropriately (truly affordable housing—that blends with the character of the neighborhood -no aspect of this project reflects that mind set.)

Pat Steck

**From:** [carol chun](#)  
**To:** [Sauls, Garrett](#)  
**Subject:** Creekside Inn apt building in Barton Park  
**Date:** Friday, September 9, 2022 5:03:51 PM

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Hello,

I would like to express my deep concern and opposition for the massive apartment complex being planned at the Creekside Inn.

I am very concerned about increase in traffic along Matadero, environmental impact on Matafeto Creek and also changes in our neighborhood from a quiet residential area to a busy area.

Thank you for your time.

Carol Chun  
3798 Laguna Ave  
Palo Alto



**From:** [carol chun](#)  
**To:** [Council, City](#)  
**Subject:** Creekside Inn at Barron Park  
**Date:** Friday, September 9, 2022 5:00:38 PM

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---

Hello,

I would like to express my deep concern and opposition for the massive apartment complex being planned at the Creekside Inn.

I am very concerned about increase in traffic along Matadero, environmental impact on Matafeto Creek and also changes in our neighborhood from a quiet residential area to a busy area.

Thank you for your time.

Carol Chun  
3798 Laguna Ave

**From:** [Molly O'Connor](#)  
**To:** [Sauls, Garrett](#); [Council, City](#); [Burt, Patrick](#)  
**Subject:** Creekside Inn Housing Development  
**Date:** Friday, September 9, 2022 5:18:48 PM

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Dear City Council Members,

I am writing to you as a former (and future again in the upcoming years, I'm sure) Palo Alto (renting) resident with a currently large amount of family still there (having had my family live in Barron Park for 70-odd years now) regarding the proposed development at the Creekside Inn site. I generally consider myself a YIMBY - I was fairly offended when Palo Alto opted not to allow new housing development at the former Fry's location and at several locations close to the Caltrain, especially as the evidence suggests that any new housing (including at market rate) will generally lower rents for everyone - while affordable housing is desperately needed, I can no longer reasonably afford to pay rent in Palo Alto on a \$100k salary. For this proposal, however, I would like to ask you to proceed with caution (and not just because of my lifelong devotion to Driftwood) - allowing massive amounts of housing without appropriate parking will not encourage people to use public transit, but will instead cause people to park in every available spot in Barron Park, which is currently quiet, safe, and easy for visitors to find parking in. It would make a large quality of life difference for everyone in the neighborhood, especially the large population of less mobile retirees and the large number of families with young children, if the car density situation were to become unnecessarily competitive and unsafe.

I ask that you will please consider moving forward in your considerations with a responsibility to the current residents of Barron Park with regards to cars and parking in mind, as well as being more generous in allowing housing development in more industrial and still transit-convenient areas along Park Blvd and elsewhere in Palo Alto.

Sincerely yours,  
Molly O'Connor

**From:** [Rob O'Connor](#)  
**To:** [Council, City](#)  
**Subject:** Creekside Inn Housing Proposal  
**Date:** Friday, September 9, 2022 4:58:56 PM

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Dear City Council

I would like to bring to your attention three aspects of the housing proposal at the current site of Creekside Inn at the intersection of El Camino and Matadero.

#### Traffic Hazard

Matadero is a bicycle thoroughfare that channels extensive elementary school traffic. It is already subject to long waits at the signal with gridlock at commute times with traffic emerging onto Matadero from the Creekside. Adding greater than 350 residents and their cars into this mix is not feasible or safe.

#### Parking

The current plan does not provide parking for all the resident automobiles, which would cause a significant overspill of parking into the residential neighborhood, both changing the nature of the residential area and narrowing the streets - making Matadero even more hazardous for bicyclists and auto traffic.

#### Food Desert

Driftwood market is the last remaining market that can be reached on foot by Barron Park residents, in addition to being a truly great locally owned business. The removal of Driftwood would fully cement Barron Park as a food desert where residents need a car to get any food supplies.

In closing, the proposed development includes several multiples of the number of units that would normally be considered acceptable on this site and will cause significant detriment to the local community as proposed. We ask that the council ask the developer to withdraw the current proposal.

Best Regards  
 Rob O'Connor  
 788 Josina Ave

**From:** [Robert Cool](#)  
**To:** [Council, City](#)  
**Subject:** Creekside Inn Property Development  
**Date:** Saturday, September 10, 2022 7:35:18 AM

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Dear Council Members

As a long time resident of Barron Park I welcome the addition of new housing for the working class that contribute so much to our community. I am pleased with the affordable housing about to come on line along El Camino Real, and hope it is but a beginning for more such housing.

Yet, I have grave concerns about the massive housing development proposed for the current Creekside Inn site, and ask you to proceed with extreme caution in assessing the proposal from an outside developer.

My concerns include:

The Creekside Inn is an upscale lodging facility beckoning to professional travelers while offering value to Palo Alto in the form of hotel taxes. Careful consideration should be given to removing it.

Driftwood Market is a bustling family owned business which enjoys local support by providing goods and services not found elsewhere in Barron Park. We should not displace such businesses without careful consideration.

The massive scale of the proposed project threatens the preservation of Matadero Creek and its riparian right away.

No project on this site will garner my support unless there is absolute assurance for the preservation of and continued vitality of Matadero Creek.

Respectfully

Bob Cool

Sent from my iPad

**From:** [Romola Georgia](#)  
**To:** [Council, City](#)  
**Subject:** Creekside Inn Proposal  
**Date:** Friday, September 9, 2022 8:45:06 PM

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September 9, 2022

To Palo Alto City Council Members:

Although I am a great proponent of low and moderate income housing for Palo Alto, I am very dubious about the current proposal. I have read and largely concur with the Barron Park Association letter addressing this issue. Additionally:

1. As a Master Gardener and California Native Plant advocate, I am concerned about preserving Matadero Creek as a wildlife corridor and increasing native plantings in the corridor and throughout Barron Park.
2. For over 40 years my family and many neighbors have depended on the existing businesses. The Creekside Inn has hosted many important community meetings and is a useful voting site as well as housing my parents and many visitors. The Driftwood Market supports the Barron Park Association, most recently providing lunches for the Senior group. Friends and neighbors have worked there, while nearly everyone counts on them for sandwiches and other necessities.
3. It is important to remember that Barron Park has no sidewalks. The entire neighborhood has preserved a "country" (not suburban) feel. Children and the elderly as well as runners and athletes are walking adjacent to traffic which is often too fast. This huge development is not consistent with maintaining our rural environment.

Thank you for your attention,  
Romola Georgia  
Tippawingo St.

September 9, 2022

Dear Garrett and City Council,

We have seen several positive, well-planned projects along El Camino Real and the adjacent area within the last few years. Redevelopment at Barron Park's Creekside site has the potential to be a great asset for the area and our neighborhood, but the current proposal shows no consideration for the surrounding neighborhood and safety of our Barron Park community.

1. The proposed project with massive structures built to the edge of El Camino Real and Matadero Avenue makes no attempt in either architecture or in landscaping to fit in with the character of Barron Park.

For decades, the Barron Park community has dedicated their efforts to protect the natural creek habitat, promote greenery, create native gardens, house a donkey pasture and establish neighborhood parks and parklets.

The current Creekside Inn structure achieves a balance of nature and function with a 5-story building that is properly set back from the property line and surrounded by greenery. The proposed project completely fails in both characteristics.

Any project on this site must incorporate heavy greenery and trees along El Camino and Matadero Avenue as well as within the site. A larger structure needs to be set back further from the street to avoid towering over the site and surroundings.

The current proposal treats the creek flowing through the property as an unfortunate obstacle. This is a stark contrast to the current site plan that incorporates the natural creek & greenery as a unique asset that enhances the existing development.

2. Barron Park has many narrow streets feeding off El Camino Real and Matadero Avenue. The streets cannot absorb increased traffic that will certainly come from this proposed project.

Many nearby streets have no sidewalks, no lane dividers and, with cars parked on both sides, have essentially become single-lane roads. Walking, biking and driving are already difficult and dangerous on these small streets. Increased traffic will greatly exacerbate traffic issues and safety problems.

The proposal plans exit and entry primarily on Matadero Avenue with only one egress on El Camino Real. This will push traffic from the proposed development to detour through the already saturated neighborhood routes. Traffic flow from the proposed project must exit and enter exclusively on El Camino, not Matadero Avenue.

A new traffic lane, taken from the footprint of the site, must be added to El Camino and a new lane must be added to Matadero Avenue so cars can merge, enter and exit safely. A protected bike lane should also be added along Matadero Avenue.

3. Barron Park is not a walkable commercial area. Our neighborhood has no public facilities (libraries, community centers, swimming pools, etc ...) and few functional retail shops, doctor's offices, or grocery stores along this stretch of El Camino.

Our neighborhood is constantly labeled a commercial/retail/walkable/transit-oriented center as a primary reason for why it should be the target for this type of massive development. But those characteristics are being greatly diminished by developers using them for their benefit. Developers demand the up-zoning that comes with being in a retail corridor but fight to minimize retail in their own developments as it cuts into their project profits. Developers demand up-zoning that comes with a 'walkable area' label but do not want to set back their building from the streets so people can have space to walk. Neighbors are bearing the costs of the overdevelopment of a "walkable commercial center", but there is no effort on the city's part for improving our neighborhood to meet those labels.

Since Barron Park lacks public amenities and community facilities, project developers should incorporate a Barron Park Community Center in this project – a legitimate, active community center not a closet-sized room where residents are forced to rent space for \$30/hour as with Palo Alto's recent Alma Plaza Project.

4. The area cannot absorb overflow parking resulting from the overly optimistic parking requirement assumptions outlined in the development proposal. Cars are a necessary part of life in this area and parking for the development needs to be based on this fact.

Public transit in Barron Park is limited to El Camino bus routes and is woefully inadequate and inefficient. Availability of alternate forms of transportation does not eliminate the need for cars or parking. A person can bike to work, take a bus to the mall and still keep a car for weekend travel, occasional emergencies or rainy days. If a car exists at all in a person's life, used daily or otherwise, it needs a parking space on the project site and not left on neighborhood streets.

High rents increase the likelihood that even the studio apartments will be occupied by at least two working and driving individuals. The development needs to provide residents with two free parking spaces per unit. This neighborhood does not have the capacity to absorb overflow from optimistic underestimation of car ownership and parking needs.

The Barron Park neighborhood has already been negatively affected by the City's underestimate of needed parking at our neighborhood residential complexes. The stretch of Los Robles near Buena Vista has essentially become an overflow parking lot with a large section of the street perpetually parked full of cars that the City's Planning Department assured everyone Buena Vista's residents would not have.

While this Creekside site has potential to host a positive community asset, this massively over scale proposal is a poorly planned, thoughtless wreck. The plans are a mess and the City needs to address these issues before moving forward with redevelopment at this site.

Lisa Landers, Barron Park Resident

**From:** [Lisa Landers](#)  
**To:** [Sauls, Garrett](#)  
**Subject:** creekside project concerns  
**Date:** Friday, September 9, 2022 12:11:10 PM  
**Attachments:** [creekside letter v1.4.pdf](#)

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Hi Garrett,

Thanks for taking the time to meet with the BPA.

Attached is a letter outlining some of my concerns.

Regards,  
Lisa Landers  
Barron Park Resident & BPA Board Member



**From:** [Kellie Stafford](#)  
**To:** [Burt, Patrick](#); [Tanaka, Greg](#); [Kou, Lydia](#); [DuBois, Tom](#); [Cormack, Alison](#); [Stone, Greer](#); [Filseth, Eric \(Internal\)](#); [supervisor.simitian@bos.sccgov.org](#); [Sauls, Garrett](#)  
**Subject:** Creekside/Oxford Group development project  
**Date:** Friday, September 9, 2022 4:24:17 PM

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To all it concerns.

My name is Kellie Stafford. I live at 625 Matadero Avenue in Barron Park. I am on the 2nd block down from El Camino and will be directly affected by the Creekside Apartment development.

While I am for housing being built, the proposed project by the Oxford Group will not only NOT supply Palo Alto with the affordable housing it needs, but it will also cause numerous issues that will directly affect the Barron Park neighborhood and its residents.

1. An average teacher in Palo Alto makes approximately \$67,000.00/year. An average "blue collar worker" makes an average of \$57,000.00/year. The development caters to "moderate income" persons making \$80,000.00-\$120,000.00 a year. The persons who need housing the most, will not be able to afford even a studio at the complex.

2. This is not catering to families. Approximately 3/4 of the units are Studio and 1 bedroom apartments. How are we supposed to house people like the ones living in RV's on the side of El Camino? Isn't increasing housing in Palo Alto and California supposed to help those who need it most? This complex will not do that.

3. Parking on ALL Barron Park (BOTH sides of El Camino Real) streets must become residential permit parking only. The complex will offer 1 parking space to each unit and they will have to pay a fee for it. This is quite absurd considering the residents will park on Matadero, Margarita and El Camino. El Camino, although a highway, must have restrictions put on how long a car can be parked along it. All this will cause congestion along El Camino and all the adjoining streets.

4. Safety is a huge concern when it comes to only two entrances and exits from the property. It will cause congestion on both El Camino and Matadero. Matadero is a bike friendly street. Even today with just the hotel, I see near-miss accidents between bikers and cars at least a couple of times a week.

5. There are over 50 old trees on the corner that are over 21" in diameter. The Oxford Group plans to tear down all those trees. This is not allowable and needt to not be overlooked.

6. The City needs to protect the employees that work for Driftwood Market, Cibo and the hotel. While we look to build housing, how did it become ok to destroy small businesses and put 50 people out of work???

I am the 4th generation of my family from Palo Alto. My great grandmother was born on Stanford Avenue. I was born at Stanford Hospital. I attended Barron Park Elementary School, Juana Briones, St. Elizabeth Seton and Gunn High School. If you approve this project you are going against everything that makes Barron Park, Palo Alto a community. You are going against the Comp Plan for Palo Alto; to preserve the neighborhood. Please preserve our neighborhood, your city.

Please do not approve this project and if and when the Oxford Group redo their plans to actually be a part of our neighborhood and truly help our neighbors, do not allow them any tax breaks.

Thank you for your time.  
Kellie Stafford

**From:** [AMY SILVER](#)  
**To:** [Burt, Patrick](#); [Tanaka, Greg](#); [Kou, Lydia](#); [DuBois, Tom](#); [Cormack, Alison](#); [Stone, Greer](#); [Filseth, Eric \(Internal\)](#); [supervisor.simitian@bos.sccgov.org](#); [Sauls, Garrett](#)  
**Subject:** Creekside/Oxford Group Development Project  
**Date:** Tuesday, September 13, 2022 2:42:40 PM

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To all it concerns,

While I am for housing being built, the proposed project by the Oxford Group will not only NOT supply Palo Alto with the affordable housing it needs, but it will also cause numerous issues that will directly affect the Barron Park neighborhood and its residents.

1. An average teacher in Palo Alto makes approximately \$67,000.00/year. An average "blue collar worker" makes an average of \$57,000.00/year. The development caters to "moderate income" persons making \$80,000.00-\$120,000.00 a year. The persons who need housing the most, will not be able to afford even a studio at the complex.
2. This is not catering to families. Approximately 3/4 of the units are Studio and 1 bedroom apartments. How are we supposed to house people like the ones living in RV's on the side of El Camino? Isn't increasing housing in Palo Alto and California supposed to help those who need it most? This complex will not do that.
3. Parking on ALL Barron Park (BOTH sides of El Camino Real) streets must become residential permit parking only. The complex will offer 1 parking space to each unit and they will have to pay a fee for it. This is quite absurd considering the residents will park on Matadero, Margarita and El Camino. El Camino, although a highway, must have restrictions put on how long a car can be parked along it. All this will cause congestion along El Camino and all the adjoining streets.
4. Safety is a huge concern when it comes to only two entrances and exits from the property. It will cause congestion on both El Camino and Matadero. Matadero is a bike friendly street. Even today with just the hotel, I see near-miss accidents between bikers and cars at least a couple of times a week.

5. There are over 50 old trees on the corner that are over 21" in diameter. The Oxford Group plans to tear down all those trees. This is not allowable and needt to not be overlooked.

6. The City needs to protect the employees that work for Driftwood Market, Cibo and the hotel. While we look to build housing, how did it become ok to destroy small businesses and put 50 people out of work???

I grew up in Palo Alto. My mom and brother still live in Palo Alto. I was born at Stanford Hospital. I attended Juana Briones and Gunn High School. If you approve this project you are going against everything that makes Barron Park, Palo Alto a community. You are going against the Comp Plan for Palo Alto; to preserve the neighborhood. Please preserve our neighborhood, your city.

Please do not approve this project and if and when the Oxford Group redo their plans to actually be a part of our neighborhood and truly help our neighbors, do not allow them any tax breaks.

Thank you for your time.  
Amy Silver

**From:** [Star Teachout](#)  
**To:** [Sauls, Garrett](#)  
**Subject:** Input on 3400 ECR/Creekside Development  
**Date:** Friday, September 9, 2022 2:53:13 PM  
**Attachments:** [PaloAlto-Draft-RHNA-1.png](#)

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Thanks for including this in the packet Garrett! I didn't realize the due date was today so I'm afraid I rambled a bit!

Dear City Council,

Thank you for the opportunity to comment on the 3400 el Camino Real/Creekside project being proposed to help meet our RHNA goals. This site could be a very useful addition to our housing resources—especially for very low to low income residents (<50% up to 80% of local median incomes)—but this proposed development is far too large for this site, resulting in probable creek/tree degradation, severe traffic impacts, reduction in neighborhood quality of life, and reduced safety due to its proximity to a busy intersection and the arterial traffic that would flow through neighborhoods and the bicycle boulevard (Safe Routes to School) which does not have bike lanes.

There isn't time to delve into all the assumptions and population projections that HCD/ABAG used as the basis for allocating 441,176 additional housing units to our Bay Area, nor whether the consequences of COVID should prompt a re-evaluation of those assumptions, so below are some brief (but expanded) details about why this proposed project needs to be redesigned, reduced, and resubmitted.

**1. Infrastructure:** *lacking essential services near enough to promote walking/cycling; lacking an adequate road/transit system.*

[FYI: I cycle everywhere within a 3+ mile radius and know the habits of people who live nearby and still drive to Cal Ave.]

**Services:** This locale is not close enough for (non-car) typical daily services—food markets, banking, medical, CalTrain, libraries, etc. without some major connectivity improvements to our bus system, and although our elementary schools have lowered enrollment, our high schools are near or surpassing the capacity for promoting a healthy, connected student body (they are already too large and anonymous). The collection of garbage alone would seem very problematic since the waste vehicles come very early and would have to travel through the narrow meandering path onsite. Noise from the ground level commercial sites should also be closely evaluated.

This project scale would be more appropriate for areas not car-dependent or those with multiple car lanes, public transit, and bike lanes offering safer alternate routes for cycling to services. Examples: the Fry's site, the Varian site on Page Mill (easy access to Foothill/280, or biking down to Cal Ave), or the San Antonio x Middlefield (to Charleston) being discussed. If the state is serious about providing housing, why are they not putting in place the appropriate transportation infrastructure—getting a bicycle lane on ECR and a light rail down the middle!

**Traffic at Matadero x ECR:** It is highly unlikely the on-site circulation and vehicle trips will be consistent with the City's Bicycle and Pedestrian Transportation Plan and the Council's Local Transportation Impact Analysis Policy. The current proposal of 382 units keeps the existing driveway on ECR (@Cibo's) with an immediate traffic light followed by a second one a block away (x Matadero). This would be a severe bottleneck, but even worse is the proposed driveway on Matadero. Currently, just the few cars attempting to get out of the Driftwood Market create havoc with this intersection where cars are quickly turning off ECR often to be faced with a queue of cars attempting to get out onto Matadero and/or onto ECR. Anyone traveling south from this proposed project will avoid this difficult intersection—a current danger to cyclists/peds\*—and drive through the shoulder-less streets of Barron Park, endangering both peds and cyclists. The position of the buildings being built both on ECR and Matadero block the site lines which also makes it more dangerous. It would be much better for the development to purchase an egress on the northside and route traffic onto Hansen Way.

*\*According to the Comprehensive Plan, a bicycle boulevard is a low volume through street where bicycles have priority over automobiles. Conflicts between bicycles and automobiles are minimized and bicycle travel time is reduced by the removal of stop signs and other impediments to bicycle travel. The removal of STOP signs is especially important in Palo Alto due to the large number of stop signs on local and collector streets.*

Palo Alto is already lacking an effective transportation plan, particularly for cross-town travel. Please put some energy and finances into making/promoting a stellar bus/bike system that would serve our city well. This is critical for quality of life and reducing GHGs from car trips, but also for the safety of residents. AND, this provides the infrastructure we need to increase density within our city.

**2. Comprehensive Transportation Plan:** *We need a comprehensive plan which includes projected car-trips and new transportation resources to address additional traffic from recent projects, those underway, and those imminent.*

What with many development projects adding to our city limits, it is reasonable to ask for our city's thoughts on how traffic will flow and be managed in as controlled a way as possible. Just in the Barron Park area these are some of the ones I know about—there are probably more!:

- in process (3225 ECR x Portage 3700 ECR opposite Barron Ave, former 3800 ECR Compadre's site)
- imminent (Fry's, Ventura)
- on your radar (3585 ECR x Matadero, 3600 ECR opposite the 3400 project, the empty lot 4146 ECR, 3903 ECR Star 1 Bank site, Hansen Way, Olive St., Lambert, etc.).

**3. BMR:** The project states that BMR will be between 80-120% of the local income. This is really targeting residents in the moderate to above moderate income brackets rather than the 2,452 in the very low to low brackets.

**Palo Alto Draft RHNA**

| Very Low Income<br>(<50% of Area<br>Median Income) | Low Income<br>(50 – 80% of Area<br>Median Income) | Moderate Income<br>(80-120% of Area<br>Median Income) | Above Moderate<br>Income<br>(>120% of Area<br>Median Income) | Total |
|----------------------------------------------------|---------------------------------------------------|-------------------------------------------------------|--------------------------------------------------------------|-------|
| 1,556                                              | 896                                               | 1,013                                                 | 2,621                                                        | 6,086 |

**4. Environmental:** We are attempting to improve the health of our local ecosystems and humans too. But the request to rezone to allow for increased number of residents, greater building heights, removal of trees, creek impacts from excavation, and even the increase in noise and lights are all problematic with this project. If commercial businesses include restaurants and bars where will they park? I look forward to reading more of the analysis that would be needed for a thorough impact report.

**5. Other:** *Community rooms and ADUs*

I'm sad that we aren't considering the addition of a local youth center/community gathering (indoor) rooms as part of this/any large-scale development projects. We can endure high density if we have the opportunities to come together as a community. From the rare times my knitting group has been able to meet in the Mitchell Park Library study rooms it is apparent how valuable these things are. Please consider ways to include resources to local residents that not only eliminate car trips, but also help us feel part of a community and not simply part of a large residential project.

A recent idea I heard proposed is to grandfather all existing undocumented ADUs and include them in the count. There could be minimal code upgrades required (eg, only electrical, emergency exits), which the city could even subsidize if we are that desperate for adding to the 6000+ goal.

Thanks for considering, and please continue to reach out to residents to build some consensus on these large-scale projects,

Star Teachout  
3550 Whitsell Avenue  
Palo Alto, CA 94306  
[teachout@sonic.net](mailto:teachout@sonic.net)

**From:** [Shiv Shanker Sharma](#)  
**To:** [Council, City; Sauls, Garrett](#)  
**Date:** Friday, September 9, 2022 2:40:15 PM

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Dear City Council Members,

I am writing in regard to the proposal for an enormous apartment complex in Barron Park. I'm writing to express my discontent with the project and, alongside so many in Palo Alto, am expressing strong opposition to it.

I agree with the concerns outlined in the Barron Park Association Board letter submitted to City Council. Some specific concerns that I wish to highlight include:

- This project would be at one of the main entrances into Barron Park. This nearly 400 unit complex will cause major congestion and cause danger to the many children biking/walking to school along this path
- The construction will take considerable time, and there are families and children in the neighborhood who will be very negatively impacted during the construction
- This will create an influx of students on the local schools and create a resource scarcity
- This will alter the nature of the Barron Park community and make it more crowded/congested/busy/loud

Kindly consider my and others' concerns and reject this proposal immediately. There are many other reasons for why this project should not move forward and I'm happy to walk you through them one by one over a zoom or phone call. Others in our neighborhood also feel very passionately against this proposal and the handling of this matter will absolutely be considered when election time comes around.

Sincerely,  
Shiv Sharma

**From:** [Kari H](#)  
**To:** [Council, City](#)  
**Subject:** Proposed Creekside Inn development  
**Date:** Thursday, September 8, 2022 4:11:56 PM

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Hello,

I strongly disagree with the City for considering this development. Obviously, none of you live close to that area or you too would understand the burden this development places on those who own houses in barron park. I guess since the 2 homes I own in Palo Alto are in Greenmeadow I too should ignore why this proposal hurts so many of our community members. Please do not agree to these ridiculous terms. The parking nightmare alone you are condemning these people should weigh heavily on your conscience. Imagine everyday coming home to all the spill over cars, who have no garage space, parked bumper to bumper on your street.

Please do not do this to our neighbors.

Thanks,  
Kari Hodgson



**From:** [joe stafford](#)  
**To:** [Council, City](#)  
**Cc:** [Tomforcouncil@gmail.com](mailto:Tomforcouncil@gmail.com)  
**Subject:** Proposed development of the property at 3400 El Camino Real, Palo Alto  
**Date:** Friday, September 9, 2022 12:15:14 PM

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Ladies & Gentlemen;

I am a 45 year resident living at the corner of Matadero and Josina in Palo Alto.

The proposed development referenced above is “not feasible” to quote the attached September 7 letter to the City Council from the board of the Barron Park Association (BPA).

In fact, the proposal conforms to the “New York Realtor-Trump school” which advises:  
“If you want to negotiate to end with your opponent’s “nearly unacceptable” position - Start with “Outrageous”.

I commend the effort of the BPA Board for a thorough review of the numerous, serious failings of the Oxford Capital Group’s proposal.

However, from the standpoint of a resident who would be directly affected, I view the proposal as simply Outrageous.

One which should be declined without further discussion.

Respectfully  
Jonas Stafford  
655 Josina Ave  
Palo Alto, Ca  
650 493 3289

**From:** [Bill Kelly](#)  
**To:** [Sauls, Garrett](#); [Council, City](#)  
**Cc:** [Lisa Kelly](#)  
**Subject:** Proposed project at the Creekside Inn  
**Date:** Thursday, September 8, 2022 7:31:30 AM

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Dear City Council and Planning Commission,

We are very concerned about the scale of the project proposed for the Creekside Inn. As a 30 year resident of Chimalus Drive, we have deep concerns over the height of the project as it will impact the privacy of our neighbors on Chimalus, on the overall size of the project as it will severely impact our egress from Barron Park, finally we're very concerned about bike safety on Madadero avenue.

The sightlines for the upper stories of this project would overlook our backyards. This seems an overly intrusive for the city to approve this project. Could a tree buffer between the project and Chimalus be devised? Or some other remediation of the view?

Currently, visitors exiting the Creekside Inn in their vehicles often don't understand that they are entering a street, and they pull out without looking. Several years ago, this street was declared a bike superhighway for children transiting to Gunn and Barron Park School. This was done, despite making no changes to the narrow road. Vehicles on Matadero road often travel at speeds 15-20 miles over the speed limit, even with speed bumps. When the speed bumps were installed, they were effective, however, a few weeks after they were installed, the bumps were lowered, and we have seen modern cars like Tesla's take the new bumps at 40 miles per hour without impact. Adding possibly hundreds of cars to the morning commute would at the Matadero interchange would make this egress unusable for existing residence and dangerous to school children on bikes.

We are committed to increasing housing in Palo Alto, and if a project could adhere to current zoning requirements that would be beneficial for Palo Alto, but this project is way out of scale.

Bill & Lisa Kelly  
 632 Chimalus Dr.  
 Palo Alto CA 94306

**From:** [John Schwarz](#)  
**To:** [Sauls, Garrett](#)  
**Subject:** Re: 3400 ECR - Email List?  
**Date:** Tuesday, August 16, 2022 8:43:00 AM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image004.png](#)  
[image005.png](#)  
[image006.png](#)  
[image007.png](#)  
[image008.png](#)  
[image010.png](#)  
[image011.png](#)  
[image012.png](#)  
[image013.png](#)

Hi Garrett,

OK, that is very helpful, thanks again!

John

---

**From:** "Sauls, Garrett" <[Garrett.Sauls@CityofPaloAlto.org](mailto:Garrett.Sauls@CityofPaloAlto.org)>  
**Date:** Tuesday, August 16, 2022 at 8:40 AM  
**To:** John Schwarz <[John@jhsconsult.com](mailto:John@jhsconsult.com)>  
**Subject:** RE: 3400 ECR - Email List?

Hi John,

We have not had a meeting for 3400 El Camino Real yet, but we plan to target the September 19 City Council meeting. At that meeting, we will learn whether the Council is supportive of this design approach or not which will inform the applicant to pursue the application or drop it.

My colleague Emily Foley is reviewing the application at 70 Encina Avenue: [Emily.Foley@CityofPaloAlto.org](mailto:Emily.Foley@CityofPaloAlto.org).

Best regards,



**Garrett Sauls**  
 Planner  
 Planning and Development Services Department  
 (650) 329-2471 | [Garrett.Sauls@CityofPaloAlto.org](mailto:Garrett.Sauls@CityofPaloAlto.org)



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**From:** John Schwarz <[John@jhsconsult.com](mailto:John@jhsconsult.com)>  
**Sent:** Tuesday, August 16, 2022 8:27 AM  
**To:** Sauls, Garrett <[Garrett.Sauls@CityofPaloAlto.org](mailto:Garrett.Sauls@CityofPaloAlto.org)>  
**Subject:** Re: 3400 ECR - Email List?

You don't often get email from [john@jhsconsult.com](mailto:john@jhsconsult.com). [Learn why this is important](#)

Hi Garrett,

OK, thank you. I was thinking there might be an email list for future hearing updates, etc., but I will just check the web pages periodically. I did visit the project pages and was wondering what had transpired at the July 14 meeting for 3400 ECR. Is there anything you can tell me about the feedback received or next steps for that one?

I will reach out to Claire too. Is the 70 Encina Ave. project assigned to someone else?

Thanks very much for the help. Have a nice day.

John Schwarz  
 (408) 623-1595  
[john@jhsconsult.com](mailto:john@jhsconsult.com)

---

**From:** "Sauls, Garrett" <[Garrett.Sauls@CityofPaloAlto.org](mailto:Garrett.Sauls@CityofPaloAlto.org)>  
**Date:** Tuesday, August 16, 2022 at 8:03 AM  
**To:** John Schwarz <[John@jhsconsult.com](mailto:John@jhsconsult.com)>  
**Subject:** RE: 3400 ECR - Email List?

Hi John,

I don't believe that there are emails lists created for each individual project. Instead, there are project webpages that are periodically updated.

<https://www.cityofpaloalto.org/Events-Directory/Planning-and-Development-Services/3400-El-Camino-Real-22PLN-00227?transfer=786aa7b6-7300-4f8e-8d2e-f26eee002571>

If you are interested in contacting the project planner for 3001 El Camino Real's project, their contact information is here: Claire Raybould – [Claire.Raybould@CityofPaloAlto.org](mailto:Claire.Raybould@CityofPaloAlto.org). She can give you updates on the project timeline.

Best regards,



**Garrett Sauls**  
Planner  
Planning and Development Services Department  
(650) 329-2471 | [Garrett.Sauls@CityofPaloAlto.org](mailto:Garrett.Sauls@CityofPaloAlto.org)



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**From:** John Schwarz <[john@jhsconsult.com](mailto:john@jhsconsult.com)>  
**Sent:** Monday, August 15, 2022 4:25 PM  
**To:** Sauls, Garrett <[Garrett.Sauls@CityofPaloAlto.org](mailto:Garrett.Sauls@CityofPaloAlto.org)>  
**Subject:** 3400 ECR - Email List?

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Hi Garrett,

My name is John Schwarz, and I am a planning/env. consultant in the area. I am just tracking some of the pending PHZ-type projects in Palo Alto, and I wanted to ask if you could please add me to the email list for any updates re: the 3400 El Camino Real Project.

Also, I am not sure if you are the planner involved with either the 3001-3017 El Camino Real or 70 Encina Ave. projects, but if you could also add me to the update list (or pass this along to the relevant planners) for those, that would be great.

Thank you!

John Schwarz  
**JHS Consulting**  
(408) 623-1595  
[john@jhsconsult.com](mailto:john@jhsconsult.com)

**From:** [Winter Dellenbach](#)  
**To:** [Sauls, Garrett](#)  
**Subject:** Re: 3400 El Camino - Creekside  
**Date:** Monday, July 25, 2022 3:43:36 PM  
**Attachments:** [image011.png](#)  
[image012.png](#)  
[image014.png](#)  
[image005.png](#)  
[image015.png](#)  
[image008.png](#)

These are 2020 maps that are sent out periodically to interested residents and a couple very we informed on this subject. Glad this was helpful, Garrett. I am sure not any kind of expert on this.

I do know that developer have been caught by surprise more than once - facebook site that College Park residents uncovered (I think) and now the Foot Locker site. I really don't want this one to be a 3rd and don't want BP residents to have to hire its own expert.

As I said in our meeting, a reasonable size proposal, respectful of the Creek, recognizing the actual constraints of the site could be good. But by adding that many people/units and the height/density/underground garage needed to achieve it just blows out one of two main entryways (also Los Robles) to Barron Park. If the developer shows actual understanding and respect for legitimate community needs and uses, housing there could be a welcome addition to BP and Ventura neighborhoods. But it is far from that now.  
 Wiinter

On Jul 25, 2022, at 9:28 AM, Sauls, Garrett <[Garrett.Sauls@CityofPaloAlto.org](mailto:Garrett.Sauls@CityofPaloAlto.org)> wrote:

Hi Winter,

I'm happy that I was able to see you again and answer your questions. It looks like our data layer was last updated in 2004 so the maps you share below would be more recent. If this application becomes a formal project, I'll be sure to have our environmental consultant evaluate this issue thoroughly.

Best regards,



**Garrett Sauls**  
 Planner  
 Planning and Development Services Department  
 (650) 329-2471 | [Garrett.Sauls@CityofPaloAlto.org](mailto:Garrett.Sauls@CityofPaloAlto.org)

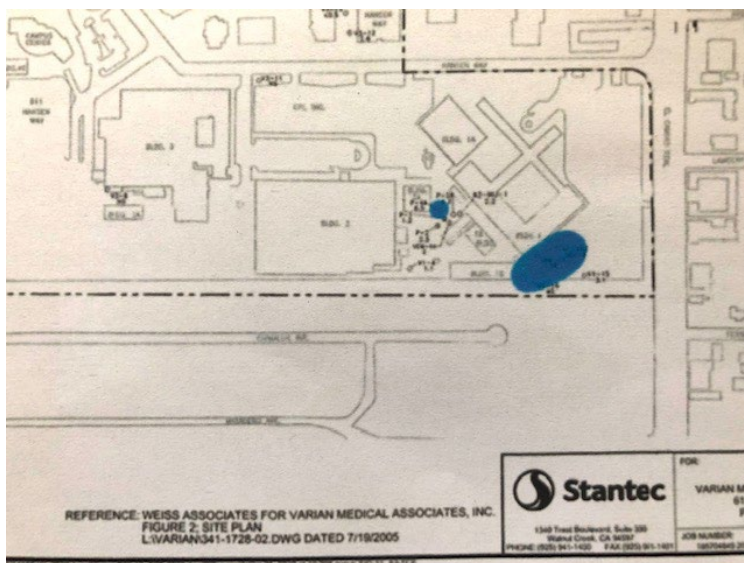
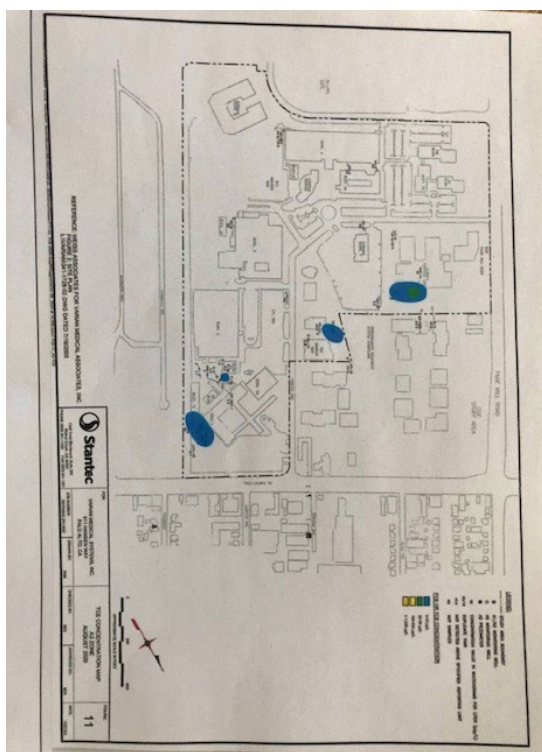


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**From:** Winter Dellenbach <[wintergery@earthlink.net](mailto:wintergery@earthlink.net)>  
**Sent:** Wednesday, July 20, 2022 6:38 PM  
**To:** Sauls, Garrett <[Garrett.Sauls@CityofPaloAlto.org](mailto:Garrett.Sauls@CityofPaloAlto.org)>  
**Subject:** 3400 El Camino - Creekside

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Here's the map I meant to bring to our meeting. Maybe it's the same as you showed us - or not? Let me know if it's different, please. It's so close to site!  
 You were very generous with your time today, Garrett. And patient.  
 Thank you for all the many questions of ours we you answered.  
 Winter Dellenbach  
 650 269-1917



**From:** [Sauls, Garrett](#)  
**To:** [Chris Steck](#)  
**Subject:** RE: 3400 El Camino Real project comments  
**Date:** Tuesday, August 30, 2022 12:20:40 PM  
**Attachments:** [image016.png](#)  
[image017.png](#)  
[image019.png](#)  
[image027.png](#)  
[image002.png](#)  
[image004.png](#)  
[image008.png](#)  
[image009.png](#)  
[image011.png](#)  
[image020.png](#)  
[image021.png](#)

Hi Chris,

Thanks for your understanding. I agree that a meeting between the applicant and community would be important if a formal project comes forward. All comments I receive will be added to the packet for the item which should be published 11 days in advance of the City Council meeting. That will be September 8 assuming the item isn't pushed to a later date or the packet is delayed for staff to finish some items.

I haven't seen anything from what you are talking about. Feel free to share it so I can look into it more.

Best regards,



**Garrett Sauls**  
 Planner  
 Planning and Development Services Department  
 (650) 329-2471 | [Garrett.Sauls@CityofPaloAlto.org](mailto:Garrett.Sauls@CityofPaloAlto.org)



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**From:** Chris Steck <[angesdeux@sbcglobal.net](mailto:angesdeux@sbcglobal.net)>  
**Sent:** Tuesday, August 23, 2022 2:23 PM  
**To:** Sauls, Garrett <[Garrett.Sauls@CityofPaloAlto.org](mailto:Garrett.Sauls@CityofPaloAlto.org)>  
**Subject:** Re: 3400 El Camino Real project comments

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Thanks for your response Garrett. I understand your reasoning for the developer not being at the last BPA meeting. It's obviously a subject all the neighbors who attended and many more who weren't at the meeting who didn't know about it are very passionate about. I retired after thirty years with Mountain View and I was involved in a lot of those kinds of meetings where things went south quickly when you got passionate residents together with determined developers. But at some point, in my mind the earlier the better in the process, the two sides have to meet to get both sides out if a process is going to proceed more smoothly than if they never meet. Am I correct in assuming that all of the neighbor comments you receive before the council meeting next month will be in the "packet" that council and the developer will receive prior to the meeting? How do I go about finding that packet online prior to the meeting? Did you say it's available ten days before the meeting? On a related subject, have you seen the stories in the paper about the large proposed development on Winchester in San Jose? From those accounts it sounds like a case of how not to proceed if you're trying to get buy in from all parties.

Thanks again,  
 Chris

Sent from my iPhone

On Aug 23, 2022, at 12:58 PM, Sauls, Garrett <[Garrett.Sauls@cityofpaloalto.org](mailto:Garrett.Sauls@cityofpaloalto.org)> wrote:

Hi Chris,

Thank you for following up and being involved in the discussion. You are correct that I spoke with one of the Transportation managers about comments I received for the neighboring site at 3300 El Camino Real. The Santa Clara Valley Water District did not want hardscaping to be located along the easement area that buffers the Research Park and Barron Park properties in that application. However, I am uncertain if they would be open to some other means to create a pathway (such as decomposed granite) that might provide equal maintenance access for them and bike/pedestrian access for City residents or Research Park tenants. The transportation manager did indicate that the potential pathway is not formally recognized in our Bike Master Plan but that they don't want to rule out the possibility that it could eventually become something at some point in the future.

The reason that the applicant wasn't in attendance was my fault. I didn't pass along the information to them as I wanted to give the residents an opportunity to learn about the project from City staff. I wasn't sure if the meeting would devolve with the applicant being present and given that it was not a meeting the City set up themselves, I also felt it would be weird to try and co-opt the meeting for ourselves to act as an intermediary between the residents and the applicant given it was Barron Park's HOA meeting and we were just guests. I hope you can understand, but there was no ill-will from the applicant to attend, they simply weren't aware in this case.

Best regards,

**Garrett Sauls**  
 Planner  
 Planning and Development Services Department  
 (650) 329-2471 | [Garrett.Sauls@CityofPaloAlto.org](mailto:Garrett.Sauls@CityofPaloAlto.org)



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**From:** Chris Steck <[angesdeux@sbcglobal.net](mailto:angesdeux@sbcglobal.net)>  
**Sent:** Saturday, August 20, 2022 1:35 PM  
**To:** Sauls, Garrett <[Garrett.Sauls@CityofPaloAlto.org](mailto:Garrett.Sauls@CityofPaloAlto.org)>  
**Subject:** 3400 El Camino Real project comments

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Garrett:

First wanted to thank you for a very clear, easy to understand presentation for the Barron Park Association meeting this past Tuesday. Prior to the meeting I was informed that the notice of the meeting hadn't been posted as usual on the BPA website so many residents weren't aware of the fact the project was going to be discussed. Many more neighbors I've spoken to since said they would have attended if they'd been made aware. I also wanted to clarify your response when I asked you about the possibility of a bike path being installed in the green belt behind the homes on Chimalus down to El Camino. Based on your explanation, we came away with the thought that a paved path wouldn't be permitted in the area. You also indicated you'd informed the City Transportation department of those restrictions. Can you confirm I got that information straight and who in the Transportation department was informed of that information?

With regard to comments about the proposed project. I thought it was interesting that no one from Oxford chose to attend the meeting. Has anyone from Oxford met with you/other City representatives yet to talk about any requirements/issues associated with the site? This is another example at this stage of a project being brought forward without any interaction with the neighborhood group that stands to be most impacted by the project and the developer proposing the project. Of the more than dozen residents that spoke at the meeting, only a couple seemed to voice any support at all for the project. Everyone else voiced concern(s). I shared a number of the concerns that were voiced. In no particular order of importance, I'd be concerned about the status of the creek during the project, how the creek would be maintained after the project and what would happen to any groundwater encountered during the construction of the project. Undoubtedly the traffic study will show impacts to traffic on Matadero that can't be mitigated. Already there are traffic issues in the area. Mornings at times, traffic on Matadero is backed up enough it takes two or more signal cycles to get onto El Camino. Guests at that time coming out of Creekside Inn frequently pull out onto Matadero blocking traffic trying to get into the neighborhood until the signal turns green and they can pull into the line for El Camino. The "pedestrian beacons" on El Camino as one of the neighbors called them aren't tied into the timing of the traffic lights. As a result, rush hour traffic frequently backs all the way into the Matadero/El Camino intersection when the beacon turns red preventing any traffic from Matadero the ability to pull onto El Camino even though their light is green. Parking of extra tenant vehicles would surely be an issue. Much like the current problem with Buena Vista vehicles, their solution is to park in the retail lot out front, along El Camino, up Los Robles and onto the side streets into the neighborhood. Undoubtedly the same issue would happen here. El Camino, up Matadero and onto the neighborhood side streets. Can the current utility infrastructure accommodate a project of this size? Can the schools? Set back requirements aren't being met. Height limitations are being exceeded. New buffers would have to be created between the project and existing neighbors that would take time to establish. Loss of the existing retail (Driftwood Market). Where would they go during construction? Would they be able to afford to come back? These are just a variety of the concerns I had at this time with the preliminary understanding I have of the project at this time. Appreciate hearing back from you soon on the bike path issue/question.

Chris Steck  
 878 Chimalus Drive



**From:** John King  
**To:** Sauls, Garrett  
**Cc:** Winter Dellenbach  
**Subject:** Re: Creekside Development Proposal  
**Date:** Wednesday, July 13, 2022 11:17:43 AM  
**Attachments:** image001.png  
 image005.png  
 image017.png  
 image002.png  
 image004.png  
 image020.png  
 image006.png  
 image044.png  
 image033.png  
 image043.png  
 image012.png  
 image032.png

Just to confirm we are meeting next Wednesday July 20th at 1:30pm correct?

On Wed, Jul 13, 2022 at 11:13 AM Sauls, Garrett <[Garrett.Sauls@cityofpaloalto.org](mailto:Garrett.Sauls@cityofpaloalto.org)> wrote:

See you both then next Wednesday. Have a good weekend!



**Garrett Sauls**

Planner

Planning and Development Services Department

(650) 329-2471 | [Garrett.Sauls@CityofPaloAlto.org](mailto:Garrett.Sauls@CityofPaloAlto.org)



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**From:** Winter Dellenbach <[wintergergy@earthlink.net](mailto:wintergergy@earthlink.net)>  
**Sent:** Wednesday, July 13, 2022 11:03 AM  
**To:** Sauls, Garrett <[Garrett.Sauls@CityofPaloAlto.org](mailto:Garrett.Sauls@CityofPaloAlto.org)>  
**Cc:** John King <[johnwadeking@gmail.com](mailto:johnwadeking@gmail.com)>  
**Subject:** Re: Creekside Development Proposal

OK Garret - John has confirmed - we can meet with you at 1:30 on the 24th at the Dev. Center. I reserved the time slot.

See you then - thanks so much.

Winter

On Jul 13, 2022, at 10:38 AM, Sauls, Garrett <[Garrett.Sauls@CityofPaloAlto.org](mailto:Garrett.Sauls@CityofPaloAlto.org)> wrote:

Hi Winter,

Whether in person or virtual we can review the plans. We do not keep any physical plans anymore after we transitioned to digital submittals. I am on the counter next Wednesday from 1:30pm-4:30pm so you are welcome to see if there are any available in-person appointments at the DC: <https://outlook.office365.com/owa/calendar/DevelopmentCenterInPersonAppointmentA@cityofpaloalto.org/bookings/>. We are not doing in person appointments other than these at the moment.

Best regards,



**Garrett Sauls**

Planner

Planning and Development Services Department

(650) 329-2471 | [Garrett.Sauls@CityofPaloAlto.org](mailto:Garrett.Sauls@CityofPaloAlto.org)



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**From:** Winter Dellenbach <[wintergery@earthlink.net](mailto:wintergery@earthlink.net)>  
**Sent:** Wednesday, July 13, 2022 10:32 AM  
**To:** Sauls, Garrett <[Garrett.Sauls@CityofPaloAlto.org](mailto:Garrett.Sauls@CityofPaloAlto.org)>  
**Cc:** John King <[johnwadeking@gmail.com](mailto:johnwadeking@gmail.com)>  
**Subject:** Re: Creekside Development Proposal

Hi Garret - may I butt in here - we would really like to review the actually plans with you - flip the pages so to speak. Make sure we understand the details. May we have an in-person meeting? Are you doing those?

Winter

On Jul 13, 2022, at 10:27 AM, Sauls, Garrett <[Garrett.Sauls@CityofPaloAlto.org](mailto:Garrett.Sauls@CityofPaloAlto.org)> wrote:

Hi John,

I am available virtually anytime after 1:00pm on Tuesday. The other times I am in meetings. If you would like, I can also see if I'm available to attend your board meeting to talk about the project and answer questions.

Let me know what works for you. I can send a meeting invite for next Tuesday if you have a specific time after 1:00pm you are looking for.

Best regards,



Garrett Sauls

Planner

Planning and Development Services Department

(650) 329-2471 | [Garrett.Sauls@CityofPaloAlto.org](mailto:Garrett.Sauls@CityofPaloAlto.org)



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**From:** John King <[johnwadeking@gmail.com](mailto:johnwadeking@gmail.com)>  
**Sent:** Wednesday, July 13, 2022 10:05 AM  
**To:** Sauls, Garrett <[Garrett.Sauls@CityofPaloAlto.org](mailto:Garrett.Sauls@CityofPaloAlto.org)>; Winter Dellenbach <[wintergery@earthlink.net](mailto:wintergery@earthlink.net)>  
**Subject:** Creekside Development Proposal

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Hi Garrett- Thank you for sharing the link to the proposed development at the Creekside Inn location at [3400 El Camino Real, Palo Alto](#).

I am the current President of the Barron Park Association. Our board will be meeting early next month to review the development proposal and in advance of that meeting, I would like to meet with you to review the proposal so I can be prepared to have a solid discussion on this proposal with our board.

I would also be having Winter Dellenbach, cc'ed on this email, who has advocated on behalf of the Barron Park Association with me at that meeting.

Would you be able to meet sometime next week? Some available times are below:

July 18 after 2:30

July 19 after 1PM

July 20 after 2:30

I would appreciate your time on this as it's a very important issue for the neighborhood.

Thank you!

--

--

John W. King  
Keller Williams Realty Palo Alto  
505 Hamilton Avenue, Suite 100  
Palo Alto, CA. 94301  
[johnwadeking@gmail.com](mailto:johnwadeking@gmail.com)  
650-483-2710  
DRE# 00868208

**From:** [Kellie Stafford](#)  
**To:** [Burt, Patrick](#); [Tanaka, Greg](#); [Kou, Lydia](#); [DuBois, Tom](#); [Cormack, Alison](#); [Stone, Greer](#); [Filseth, Eric \(Internal\)](#); [supervisor.simitian@bos.sccgov.org](mailto:supervisor.simitian@bos.sccgov.org); [Sauls, Garrett](#)  
**Subject:** Re: Creekside/Oxford Group development project - with addendum  
**Date:** Saturday, September 10, 2022 7:58:12 AM  
**Attachments:** [BPA Letter to City Council 9 07 22.docx.pdf](#)

Some people who received this message don't often get email from [kkstafford72@gmail.com](mailto:kkstafford72@gmail.com).

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My apologies for not including the Barron Park Association's original letter for those who may not have received it on Friday. Our formal review of the property development at the Creekside Inn is attached.

Have a nice weekend.  
 Kellie Stafford  
 625 Matadero Ave.  
 Barron Park, Palo Alto

On Fri, Sep 9, 2022 at 4:23 PM Kellie Stafford <[kkstafford72@gmail.com](mailto:kkstafford72@gmail.com)> wrote:

To all it concerns.

My name is Kellie Stafford. I live at 625 Matadero Avenue in Barron Park. I am on the 2nd block down from El Camino and will be directly affected by the Creekside Apartment development.

While I am for housing being built, the proposed project by the Oxford Group will not only NOT supply Palo Alto with the affordable housing it needs, but it will also cause numerous issues that will directly affect the Barron Park neighborhood and its residents.

1. An average teacher in Palo Alto makes approximately \$67,000.00/year. An average "blue collar worker" makes an average of \$57,000.00/year. The development caters to "moderate income" persons making \$80,000.00-\$120,000.00 a year. The persons who need housing the most, will not be able to afford even a studio at the complex.

2. This is not catering to families. Approximately 3/4 of the units are Studio and 1 bedroom apartments. How are we supposed to house people like the ones living in RV's on the side of El Camino? Isn't increasing housing in Palo Alto and California supposed to help those who need it most? This complex will not do that.

3. Parking on ALL Barron Park (BOTH sides of El Camino Real) streets must become residential permit parking only. The complex will offer 1 parking space to each unit and they will have to pay a fee for it. This is quite absurd considering the residents will park on Matadero, Margarita and El Camino. El Camino, although a highway, must have restrictions put on how long a car can be parked along it. All

this will cause congestion along El Camino and all the adjoining streets.

4. Safety is a huge concern when it comes to only two entrances and exits from the property. It will cause congestion on both El Camino and Matadero. Matadero is a bike friendly street. Even today with just the hotel, I see near-miss accidents between bikers and cars at least a couple of times a week.

5. There are over 50 old trees on the corner that are over 21" in diameter. The Oxford Group plans to tear down all those trees. This is not allowable and need to not be overlooked.

6. The City needs to protect the employees that work for Driftwood Market, Cibo and the hotel. While we look to build housing, how did it become ok to destroy small businesses and put 50 people out of work???

I am the 4th generation of my family from Palo Alto. My great grandmother was born on Stanford Avenue. I was born at Stanford Hospital. I attended Barron Park Elementary School, Juana Briones, St. Elizabeth Seton and Gunn High School. If you approve this project you are going against everything that makes Barron Park, Palo Alto a community. You are going against the Comp Plan for Palo Alto; to preserve the neighborhood. Please preserve our neighborhood, your city.

Please do not approve this project and if and when the Oxford Group redo their plans to actually be a part of our neighborhood and truly help our neighbors, do not allow them any tax breaks.

Thank you for your time.  
Kellie Stafford

**From:** Art Liberman  
**To:** Sauls, Garrett  
**Cc:** Star-Lack, Sylvia; Arce, Oray; Elson, Penny  
**Subject:** Re: Information on the Matadero Bypass channel  
**Date:** Thursday, August 25, 2022 7:14:46 PM  
**Attachments:** [image009.png](#)  
[image010.png](#)  
[image012.png](#)  
[image002.png](#)  
[image004.png](#)  
[image008.png](#)  
[image011.png](#)

Thank you Garret. I offered the schematic images of the of the underground bypass culvert for your interest; presumably you have full engineering drawings from the water district. I was really inquiring about whether the Planning review of 3300 El Camino includes the possibility of a future bicycle connection. As you must be aware, it is only when developers propose new projects does the City have any leverage to insist on new bicycle access thorough or to the property. With the explosion of bicycling and growing popularity of e-bikes and the other new micro-mobility systems (e-skateboards, e-scooters) in our area, this is an increasingly important aspect of new proposed office and residential developments in the Research Park and elsewhere in the City. Facilitating bicycle access and insuring that the plans incentivize their use is something that Planners, like you, need to insist upon. This may not be a factor in your review of the 3300 El Camino project, but must be kept in mind for other projects.

About future bikeway plans. Will there be a bikeway route in the Water District easement (the greenbelt)? There's a lot of uncertainty now (and the Water District requirement of no hardscape over the buried channel reduces the chances). I am aware of the uncertainties of new bikeway plans from PABAC meetings and from communication with Office of Transportation staff. I know there will be a new Bicycle and Pedestrian Transportation Plan (BPTP), though there is uncertainty as to when we will have that in hand. As I mentioned, PABAC participated in advising the City staff on the elements of the new BPTP. A consultant, who is not yet on board, will fill in the details of the plan with specific suggestions for improvements to current bikeways and for some new routes, and that could take a year or two. There will be community meetings once the consultant has completed the plan and Commissions and Council review. That adds additional time and additional layers of uncertainty.

Thank you again for your consideration and for your time in responding to my inquiry.

Art Liberman

On Tuesday, August 23, 2022 at 12:36:51 PM PDT, Sauls, Garrett <garrett.sauls@cityofpaloalto.org> wrote:

Hi Art,

Thanks for sharing this information. I spoke with Sylvia about this and she indicated that the pathway from the images you shared is not currently on the Master Bike Plan for the City. It sounds like there was a site visit that occurred between some managers from the City, SCVWD, and one of the city's mayors some time ago where there was support expressed behind this potential route. I can't speak to Transportation staff's ability to take on this work but my recent involvement was mostly related to my project at 3300 El Camino Real (ECR). As I mentioned last week, through their review of the 3300 ECR project, staff from SCVWD indicated that they did not want hardscape over the area where their underground RCB culvert was located for maintenance purposes where the applicant had proposed a small patio. If that desire is shared for the "greenbelt" area, then it may be that a decomposed granite path is acceptable. That discussion will need to continue with the Office of Transportation and SCVWD.

There is no bike path proposed as a part of the 3300 ECR project along the shared parcel line to 3400 ECR.

If you have any questions, please let me know.

Best regards,



**Garrett Sauls**

Planner

Planning and Development Services Department

(650) 329-2471 | [Garrett.Sauls@CityofPaloAlto.org](mailto:Garrett.Sauls@CityofPaloAlto.org)



[NEW Parcel Report](#) | [Palo Alto Municipal Code](#) | [Online Permitting System](#) | [Planning Application Forms & Handouts](#) | [Planning Applications Mapped](#)

**From:** Art Liberman <art\_liberman@yahoo.com>  
**Sent:** Wednesday, August 17, 2022 1:36 PM  
**To:** Sauls, Garrett <Garrett.Sauls@CityofPaloAlto.org>  
**Subject:** Information on the Matadero Bypass channel

**CAUTION: This email originated from outside of the organization. Be cautious of opening attachments and clicking on links.**

Garrett

As part of your work analyzing the planning application for 3300 El Camino, I understand that you are examining the issues with a bike path in the Water District Easement on Stanford land behind homes on Chimalus.

Let me inform you about my interest. I live on Chimalus, but on the opposite side of the street from the homes that back up to the Research Park. I am interested in biking and the bike path connections as I am the Vice-Chair of PABAC, the citizen advisory Pedestrian and Bicycle Advisory Committee (PABAC), though I want to

emphasize that I am writing here as an individual private citizen

I heard you say last night, at the BPA meeting discussion on the Creekside apartment project, that the buried concrete Bypass channel in the easement would prevent hardscape should a path along that easement be decided upon by the City.

I would like to know whether you can say publicly whether the planning for 3300 El Camino involves a bicycle connection to a proposed path in the easement and whether the City is requiring other bicycle connections.

I have found some information that may be useful to you about the Bypass channel in the Water District Archive, a 1988 report a Planning Study, Engineer's Report and Final Negative Declaration.

[https://archive.org/details/csjvwd\\_000816/mode/2up](https://archive.org/details/csjvwd_000816/mode/2up)

The report is a series of images. What the Chimalus residents call the 'Greenbelt, the land between their homes that back up to the Research Park, is called the Stanford Channel Easement in this report.

Here are the links to pages from this report that mention the section of the Matadero Channel bypass from El Camino to the bike path (the section that goes between Matadero and Hanover).

[https://ia803105.us.archive.org/BookReader/BookReaderImages.php?zip=/9/items/csjvwd\\_000816/csjvwd\\_000816\\_access\\_ip2.zip&file=csjvwd\\_000816\\_access\\_ip2/csjvwd\\_000816\\_access\\_0105.jp2&id=csjvwd\\_000816&scale=4&rotate=0](https://ia803105.us.archive.org/BookReader/BookReaderImages.php?zip=/9/items/csjvwd_000816/csjvwd_000816_access_ip2.zip&file=csjvwd_000816_access_ip2/csjvwd_000816_access_0105.jp2&id=csjvwd_000816&scale=4&rotate=0)

[https://ia803105.us.archive.org/BookReader/BookReaderImages.php?zip=/9/items/csjvwd\\_000816/csjvwd\\_000816\\_access\\_ip2.zip&file=csjvwd\\_000816\\_access\\_ip2/csjvwd\\_000816\\_access\\_0106.jp2&id=csjvwd\\_000816&scale=4&rotate=0](https://ia803105.us.archive.org/BookReader/BookReaderImages.php?zip=/9/items/csjvwd_000816/csjvwd_000816_access_ip2.zip&file=csjvwd_000816_access_ip2/csjvwd_000816_access_0106.jp2&id=csjvwd_000816&scale=4&rotate=0)

[https://ia803105.us.archive.org/BookReader/BookReaderImages.php?zip=/9/items/csjvwd\\_000816/csjvwd\\_000816\\_access\\_ip2.zip&file=csjvwd\\_000816\\_access\\_ip2/csjvwd\\_000816\\_access\\_0107.jp2&id=csjvwd\\_000816&scale=4&rotate=0](https://ia803105.us.archive.org/BookReader/BookReaderImages.php?zip=/9/items/csjvwd_000816/csjvwd_000816_access_ip2.zip&file=csjvwd_000816_access_ip2/csjvwd_000816_access_0107.jp2&id=csjvwd_000816&scale=4&rotate=0)

[https://ia803105.us.archive.org/BookReader/BookReaderImages.php?zip=/9/items/csjvwd\\_000816/csjvwd\\_000816\\_access\\_ip2.zip&file=csjvwd\\_000816\\_access\\_ip2/csjvwd\\_000816\\_access\\_0108.jp2&id=csjvwd\\_000816&scale=4&rotate=0](https://ia803105.us.archive.org/BookReader/BookReaderImages.php?zip=/9/items/csjvwd_000816/csjvwd_000816_access_ip2.zip&file=csjvwd_000816_access_ip2/csjvwd_000816_access_0108.jp2&id=csjvwd_000816&scale=4&rotate=0)

The top figure in the last image gives a cross sectional view of the location buried bypass channel.

I hope this information is useful to you. PABAC has worked with Office of Transportation staff members Ozzy Arce and Sylvia Star-Lack to produce a framework and statement of work for the update to the Bicycle and Pedestrian Transportation Plan that will soon be issued as an RFP, seeking a consultant to create the plan. The work by the consultant to create the plan is estimated to take 12 to 18 mos. Hopefully that plan will include improved network for bicycle and pedestrian connections in the Research Park. PABAC members are always interested in improved bicycle and pedestrian connections within and to the properties in the Research Park.

Art Liberman

751 Chimalus

**From:** [Cheryl Lilienstein](#)  
**To:** [Sauls, Garrett](#); [Council, City](#)  
**Subject:** RE: Proposal for The Creekside Inn property on El Camino  
**Date:** Friday, August 26, 2022 8:33:19 AM

Some people who received this message don't often get email from chnlilienstein@gmail.com.  
[Learn why this is important](#)

**CAUTION: This email originated from outside of the organization. Be cautious of opening attachments and clicking on links.**

Dear City Council Members and Garrett Sauls,

Regarding the proposed project on the Creekside Inn property on El Camino and Matadero. You should reject it outright, and refuse to waste your time entertaining developers who are “testing the waters” with massive development proposals such as this.

The present zoning would allow 150 units, and that’s way more than enough for a site of that size. Do not rezone this property. This project has no workforce housing, which is one of the goals of Palo Alto, isn’t it?

Packing nearly 400 units, 6 stories, and building 2 levels of underground parking—on THAT corner, on THIS property with mature trees and a creek running through it !!— is truly a waste of planning staff time and tax dollars. Likely, mitigations will be so expensive the apartments could not possibly pencil out to be affordable.

Everyone I know is disgusted by the scale of this proposal, the destruction of a beautiful site, and the developer’s maximalist plan and lack of caring about the inappropriateness of this site for a project of this scale. Does the council care about our environment, or not? Does the council care about anyone’s privacy rights and property rights, or not? I hope the council will quash this proposal and tell the developer to stick to the rules.

Consider the similarities to Mr O’Hanlon's Maybell proposal: many children biking to school, no sidewalks, bottleneck traffic, and THIS property has the added risk of underground VOC chemical issues, the creek, and adding 500 cars exiting onto Matadero, one of the few bicycle route/exit streets from the neighborhood and spillover parking as a recipe for kids getting hit by cars. And no workforce housing? Why waste your time?

Council: Rather than permitting the destruction of the hotel, deli, and restaurant that adds value to our neighborhood, maybe the city could be more proactive in improving the affordable housing stock by purchasing this property and using it with minor modifications for workforce housing, and open the existing pool as recreation/public space for the Barron Park neighborhood. It’s a pleasant environment, a nice property. And if Governor Newsom can commandeer motels to house the homeless, why can’t Palo Alto use EXISTING buildings to solve some housing problems? You DO have some funds for this, no?

Although this is an adjacent — but connected— issue, please recall: There are NO LONGER ANY public recreational options or services for people living west of Alma. Adding nearly 400 apartments to what is already a food and public services desert is WRONG.

Consider which public groups will oppose development or be adversely impacted by adding 400 units to this site... Along with voters and taxpayers...



1. Santa Clara Water District
2. Low income housing advocates
3. Parents whose kids bike to school
4. Neighbors whose privacy will be eliminated
5. People trying to get to work or home who live in the neighborhood
6. Canopy
7. Bike safety advocates
8. Fire safety/ emergency response
9. VOC watchdogs
10. Public utilities: water, sewage
11. Schools

Please, reject the zoning change request. Use this property for workforce housing. Scale it back, save the trees, protect the safety of the streets, the privacy of the neighbors, and the safety of kids on bikes.

Sincerely,  
Cheryl Lilienstein

**From:** [Ken Bencala](#)  
**To:** [Council, City](#)  
**Cc:** [sally.oneil@gmail.com](mailto:sally.oneil@gmail.com); [johnwadeking@gmail.com](mailto:johnwadeking@gmail.com)  
**Subject:** Resident Comment  
**Date:** Friday, September 9, 2022 2:14:54 PM  
**Attachments:** [Resident Comment 09 09 22 Creekside Height and Profile.docx](#)  
[Resident Comment 09 09 22 Creekside Riparian Preservation and Protection.docx](#)

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Some people who received this message don't often get email from kenbnc@hotmail.com. [Learn why this is important](#)

**CAUTION: This email originated from outside of the organization. Be cautious of opening attachments and clicking on links.**

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Attached please find 2 files with 'Reaction to the proposed development of the Creekside Inn property, 3400 El Camino Real, Palo Alto, CA 94306'.

Ken Bencala  
Sally O'Neil  
Barron Park Residents

**From:** [Annette Glanckopf](#)  
**To:** [Council, City](#)  
**Cc:** [Sauls, Garrett](#); [Clerk, City](#)  
**Subject:** Send back to drawing board - Replacement of Creekside Inn with Apartments  
**Date:** Sunday, September 11, 2022 2:03:00 PM

You don't often get email from annette\_g@att.net. [Learn why this is important](#)

**CAUTION: This email originated from outside of the organization. Be cautious of opening attachments and clicking on links.**

I wanted to comment on the proposed development of the Creekside Inn site.

I don't want to lose the driftwood market and the Creekside Inn, I realize we do need more housing. However, this project needs to go back to the drawing board.

The Barron Park Association has made numerous cogent points against this development for you to consider.

Some significant points include

- 1) the 64 foot height exceeds the city height limit. The buildings will overlook surrounding residential homes destroying privacy.
- 2) increased traffic in an area that already is congested
- 3) lack of parking for residents (at 1 space per unit which is est \$150/mo). People will park on Matadero etc, exasperating traffic issues and cause increasing issues in pedestrian and bike safety
- 4) destruction of the beautiful habitat and mature heritage trees so close to the creek. I am also concerned about the impact on wildlife.
- 5) loss of 2 important retail businesses, so important to Barron Park. The hotel is where I have my guests stay when they visit Palo Alto

I totally support the conclusion to the Barron Park letter to council:

"The profound impact on the area's water usage, waste management, parking, environment (with potential toxic damage to Matadero Creek), and privacy will disrupt lives, bring unnecessary stressors to the neighborhood and increase traffic tenfold."

This project should be rejected for a re-write.

Do not allow the proposed exceptions.

Do not re-zone,

Do not waive fees.

respectfully submitted,  
Annette Glanckopf



**City of Palo Alto**  
**Office of the City Clerk**  
**City Council CAO Report**

**(ID # 14831)**

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**Meeting Date: 10/17/2022**

**Report Type: Consent Calendar**

**Title:** **Approve Minutes from the September 29, 2022 and October 3, 2022 City Council Meetings**

**From:** **Lesley Milton, City Clerk**

Staff recommends Council to review and approve the minutes as presented.

**ATTACHMENTS:**

- **Attachment3.a:** Attachment A: 20220927amCCsm (PDF)
- **Attachment3.b:** Attachment B: 20221003amCCsm (PDF)



# CITY COUNCIL DRAFT ACTION MINUTES

Special Meeting  
September 27, 2022

The City Council of the City of Palo Alto met on this date in the Council Chambers and by virtual teleconference at 5:00 P.M.

Present in person: Burt, Cormack, DuBois, Filseth, Stone, Tanaka

Present Virtually: None

Absent: Kou

## Closed Session

1. CONFERENCE WITH LABOR NEGOTIATORS City Designated Representatives: City Manager and his Designees Pursuant to Merit System Rules and Regulations (Ed Shikada, Kiely Nose, Sandra Blanch, Nicholas Raisch, Tori Anthony, Molly Stump, and Terence Howzell) Employee Organization: Service Employees International Union, (SEIU) Local 521, Utilities Management and Professional Association of Palo Alto (UMPAPA) Palo Alto Peace Officers' Association (PAPOA), Palo Alto Police Management Association (PMA), International Association of Fire Fighters (IAFF) local 1319, Palo Alto Fire Chiefs Association (FCA), Management and Professional Employees (MGMT) ; Authority: Government Code Section 54957.6 (a)

**MOTION:** Council Member Cormack moved, seconded by Mayor Burt to adjourn to Closed Session.

**MOTION PASSED:** 7-0

Council went into Closed Session at 5:03 P.M.

Council returned from Closed Session at 6:30 P.M.

Mayor Burt announced there was no reportable action.

## Special Order of the Day

2. 2022 US Mayor Climate Protection Award Recognition

**ACTION:** None Taken

# DRAFT ACTION MINUTES

3. Palo Alto Art Center and Palo Alto Art Center Foundation presentation of Fire Transforms exhibit and Climate Connections series

**ACTION: None Taken**

## Agenda Changes, Additions and Deletions

None.

## Consent Calendar

Council Member Tanaka registered a no vote on Agenda Item Number 5.

**MOTION:** Council Member DuBois moved, seconded by Mayor Burt to approve Agenda Item Numbers 4-9.

4. Approve Minutes from the September 12, 2022 City Council Meetings
5. Approval of Outage Management System (OMS) Contract C23184285 With Milsoft Solutions Inc. in the Amount Not to Exceed \$625,994 Over a 5-Year Term
6. Adoption of **Resolution 10072** Approving and Attesting to the Veracity of the City's 2021 Annual Power Source Disclosure and Power Content Label Reports
7. Approval of a First Amendment to Lease Between KG-Bryant, LLC, and the City of Palo Alto for the Premises Located at 526 Bryant Street for an Initial 12-month Term, at a Starting Base Rent of \$5,616.11 per Month and Increasing 3 Percent Annually
8. SECOND READING: Adoption of **Ordinance 5561** for Renovation of the Mitchell Park Dog Park as Recommended by the Parks and Recreation Commission (FIRST READING: September 12, 2022 PASSED: 7-0)
9. SECOND READING: **Adoption of Ordinance 5562** Approving the Police Department's Military Equipment Use Policy Under AB 481 (FIRST READING: September 12, 2022 PASSED 7-0)

**MOTION PASSED ITEMS 4, 6-9: 7-0**

**MOTION PASSED ITEMS 5: 6-1, Tanaka no**

# DRAFT ACTION MINUTES

## City Manager Comments

## Action Items

10. S/CAP Update and Initial Council Action: Acceptance of Sustainability and Climate Action Plan (S/CAP) Goals and Key Actions; Review of Proposed Reach Code Changes; Adoption of Resolutions Adopting Advanced Heat Pump Water Heater Program Guidelines, Creating and Funding Electrification Reserves and Adopting a Carbon Neutrality Goal; and Approval of Budget Amendments in the Electric Fund, Gas Fund, and General Fund

**ACTION: None Taken**

## Council Member Questions, Comments and Announcements

Adjournment: The meeting was adjourned at 10:22 P.M.

ATTEST:

APPROVED:

\_\_\_\_\_

\_\_\_\_\_

City Clerk

Mayor

NOTE: Action minutes are prepared in accordance with Palo Alto Municipal Code (PAMC) 2.04.160(a) and (b). Summary minutes (sense) are prepared in accordance with PAMC Section 2.04.160(c). Beginning in January 2018, in accordance with [Ordinance No. 5423](#), the City Council found action minutes and the video/audio recordings of Council proceedings to be the official records of both Council and committee proceedings. These recordings are available on the City's website.



# CITY COUNCIL DRAFT ACTION MINUTES

Special Meeting  
October 3, 2022

The City Council of the City of Palo Alto met on this date in the Council Chambers and by virtual teleconference at 5:33 P.M.

Present in person: Burt, Cormack, DuBois, Filseth, Stone, Tanaka

Present Virtually: Kou

Absent: None

## Closed Session

1. CONFERENCE WITH LABOR NEGOTIATORS City Designated Representatives: City Manager and his Designees Pursuant to Merit System Rules and Regulations (Ed Shikada, Kiely Nose, Sandra Blanch, Nicholas Raisch, Tori Anthony, Molly Stump, and Terence Howzell) Employee Organization: Service Employees International Union, (SEIU) Local 521, Utilities Management and Professional Association of Palo Alto (UMPAPA), Palo Alto Peace Officers' Association (PAPOA), Palo Alto Police Management Association (PMA), International Association of Fire Fighters (IAFF) local 1319, Palo Alto Fire Chiefs Association (FCA), Management and Professional Employees (MGMT) ; Authority: Government Code Section 54957.6 (a)

**ACTION: Removed from Consideration**

## Special Order of the Day

2. Adoption of Resolution for Heather Souza Upon Her Retirement

**MOTION:** Council Member Cormack moved, seconded by Vice Mayor Kou to adopt a resolution for Heather Souza upon her retirement.

**MOTION PASSED: 7-0**

## Agenda Changes, Additions and Deletions

Items 1 and 8 were removed from consideration prior to the meeting.



# DRAFT ACTION MINUTES

## Consent Calendar

Council Member Cormack registered a no vote on Agenda Item Number 6.

Council Member Tanaka registered a no vote on Agenda Item Number 7.

Council Member DuBois, Stone, Tanaka requested to pull item 4.

**MOTION:** Council Member DuBois moved, seconded by Mayor Burt to approve Agenda Item Numbers 3 and 5-7 and pull Item 4 for discussion.

3. Approve Minutes from the September 19, 2022 City Council Meetings
4. Approval of a Professional Services Agreement With Eagle Systems (dba Synergy Companies) for Development and Administration of Heat Pump Water Heater Pilot Program, Energy and Water Efficiency, and Electrification Programs for the City's Utility Customers in a Total Not-to-Exceed Amount of \$7.705M for a 3-Year Term Through October 2025 **(Pulled for discussion)**
5. Approval of Construction Contract Number C23184924 with Ron Paris Construction Company, Inc. in the Amount of \$990,733; Authorization for the City Manager to Negotiate and Execute Change Orders up to a Not-to-Exceed Amount of \$99,073 for the Water, Gas, Wastewater Office Remodel Project, Capital Improvement Program Project PE-19001; and Approval of Budget Amendments in the Capital Improvement Fund, Water Fund, Gas Fund and Wastewater Collection Fund
6. Adoption of **Resolution 10073** Authorizing Use of Teleconferencing for Council Meetings During Covid-19 State of Emergency
7. Adopt **Resolution 10074** Authorizing the City Manager to Purchase a Portion of the City's Natural Gas Requirements From Certain Prequalified Natural Gas Suppliers Under Specified Terms and Conditions for Delivery During Calendar Years 2023 Through 2028, Inclusive, With a \$150 Million Maximum Aggregate Transaction Limit

## **MOTION SPLIT FOR THE PURPOSE OF VOTING**

**MOTION PASSED ITEMS 3,5: 7-0**

**MOTION PASSED ITEM 6: 6-1, Cormack no**

**MOTION PASSED ITEM 7: 6-1, Tanaka no**

## City Manager Comments

# DRAFT ACTION MINUTES

## Action Items

8. TEFRA Hearing Regarding Conduit Financing for the Kehillah Jewish High School's for the Partial or Full Refinancing of the 2014 Loan and Financing the Development, Construction, Renovation, Improvement and Equipping of the Corporation's Campus at 3900 Fabian Way, Palo Alto; and Approving the issuance of a Tax-exempt Loan by the California Municipal Finance Authority for this Purpose and Other Matters Relating Thereto

**ACTION: Removed from Consideration**

9. Acceptance of Sustainability and Climate Action Plan (S/CAP) Goals and Key Actions; Review of Proposed Reach Code Changes; Adoption of Resolutions Adopting Advanced Heat Pump Water Heater Program Guidelines, Creating and Funding Electrification Reserves, Amending the City's Policy on the Use of Cap and Trade Allowance Revenues, and Adopting a Carbon Neutrality Goal; Approval of Budget Amendments in the Electric Fund, Gas Fund, and General Fund; and Direction to Staff to Amend the 2022 Utilities Legislative Guidelines

**MOTION:** Council Member Cormack moved, seconded by Council Member DuBois to

1. Direct staff to implement the Advanced Heat Pump Water Heater Program by:
  - A. Adopting **Resolution 10075** (Staff Report 14606, Attachment C) approving the Advanced Heat Pump Water Heater Program Design Guidelines;
  - B. Adopting **Resolution 10076** (Staff Report 14606, Attachment D) creating an Electrification Reserve, establishing reserve guidelines, and transferring \$4.5 million from the Electric Special Projects Reserve to the Electrification Reserve;
  - C. Adopting **Resolution 10077** (Staff Report 14606, Attachment E) amending the City's Policy on the Use of Freely Allocated Allowances Under the State's Cap-and-Trade Program and authorizing the City Manager to use \$1.25 million from the Gas Utility Cap and Trade Reserve for the Advanced Heat Pump Water Heater program; and
  - D. Amending the Fiscal Year 2023 Budget Appropriation by:
    - i. For the Electric Utility Funds:
      - a. Increase Electric Resource Management Operating Expenses for Contract Services by \$4,763,000
      - b. Decrease Electrification Reserve by \$4.5 million
      - c. Decrease Electric Supply Operations Reserve by \$150,000
      - d. Decrease Electric Distribution Operations Reserve by \$86,000
    - ii. For the Gas Utility Funds:
      - a. Increase Gas Resource Management Operating Expenses for Contract Services by \$1.25 million
      - b. Decrease Gas Cap & Trade Reserve by \$1.25 million
    - iii. For the General Fund:
      - a. Increase Planning & Development Operating Expenses for Contract Services by \$250,000

# DRAFT ACTION MINUTES

- b. Increase Planning and Development Services Revenue for Inspection Fees by \$250,000
2. Approve and authorize the City Manager or their designee to execute professional services agreement C23181953A with Eagle Systems, LLC doing business as Synergy Companies (Staff Report 14542, Attachment A)

**MOTION PASSED:** 6-1, Tanaka no

**MOTION:** Council Member Cormack moved, seconded by Council Member DuBois to

1. Accept the proposed S/CAP Goals and Key Actions (Staff Report 14606, Attachment A) as a summary of the City's workplan under the S/CAP Framework;
2. Adopt **Resolution 10078** Adopting a Carbon Neutrality Goal in 2030 to Further the Climate Goals of the Sustainability and Climate Action Plan (Staff Report 14606, Attachment F)
3. Direct staff to amend the 2022 Utilities Legislative Guidelines (Staff Report 14606, Attachment G) to include an Electrification Workforce Development guideline

**MOTION PASSED:** 7-0

**MOTION:** Council Member Cormack moved, seconded by Council Member Stone to refer to staff the design of a Climate Action Commission that will include student members and to bring this referral back along with a workplan at the end of the year

**MOTION PASSED:** 7-0

**MOTION:** Mayor Burt moved, seconded by Council Member DuBois to refer to S/CAP ad hoc committee to begin work on the following and present to the Council by year end an outline:

1. Identify community partner organizations and how they can help support the S/CAP moving forward
2. Preliminary committee review of a prospective commercial HVAC electrification program (E2)
3. An EV strategic plan (EV1-10)

**MOTION PASSED:** 5-2, Filseth, Tanaka no

10. Adoption of Support or Oppose Positions on State and Local Measures Presented to Palo Alto Voters on the November 8, 2022 Ballot

**MOTION:** Mayor Burt moved, seconded by Council Member Cormack to support Measure K and Measure L.

**MOTION PASSED:** 6-1, Tanaka no

**MOTION:** Mayor Burt moved, seconded by Council Member Cormack to support Proposition 1.

# DRAFT ACTION MINUTES

**MOTION PASSED:** 7-0

**MOTION:** Mayor Burt moved, seconded by Council Member Stone to support Proposition 28.

**MOTION PASSED:** 4-3, Cormack, Filseth, Tanaka No

**MOTION:** Mayor Burt moved, seconded by Council Member Filseth to support Proposition 31.

**MOTION PASSED:** 7-0

**MOTION:** Council Member DuBois moved, seconded by Council Member Cormack to support Proposition 30.

**MOTION FAILED:** 3-4, Kou, Tanaka, Burt, Filseth No

## Council Member Questions, Comments and Announcements

Adjournment: The meeting was adjourned at 10:35 P.M.

ATTEST:

APPROVED:

\_\_\_\_\_

\_\_\_\_\_

City Clerk

Mayor

NOTE: Action minutes are prepared in accordance with Palo Alto Municipal Code (PAMC) 2.04.160(a) and (b). Summary minutes (sense) are prepared in accordance with PAMC Section 2.04.160(c). Beginning in January 2018, in accordance with [Ordinance No. 5423](#), the City Council found action minutes and the video/audio recordings of Council proceedings to be the official records of both Council and committee proceedings. These recordings are available on the City's website.



## City of Palo Alto City Council Staff Report

(ID # 13857)

**Meeting Date: 10/17/2022**

**Report Type: Consent Calendar**

**Title: Approval of Construction Contract Number C23183908 With GSW Construction, Inc., in the Amount of \$995,556 for the Two Turnouts Upgrade Project (WS-07000) on California Avenue and Page Mill Road; Authorization for the City Manager to Negotiate and Execute Related Change Orders Not-to-Exceed \$99,556; and Approval of Budget Amendment in the Water Fund**

**From: City Manager**

**Lead Department: Utilities**

### **Recommendation**

Staff recommends that Council:

1. Approve and authorize the City Manager or their designee to execute the attached construction contract C23183908 ([Linked Document](#)) with GSW Construction, Inc. in an amount not-to-exceed \$995,556 for the Two Turnouts Upgrade Project (WS-07000) on California Avenue and Page Mill Road.
2. Approve and authorize the City Manager or their designee to negotiate and execute one or more changes to contract C23183908 with GSW Construction, Inc. for related additional but unforeseen work, which may develop during the project, the total value of which shall not exceed \$99,556 or 10% of the contract amount.

The total not-to-exceed amount is \$1,095,112, which includes contract amount of \$995,556 and a 10% contingency of \$99,556.

3. Amend the Fiscal Year 2023 Budget Appropriation for the Water Fund (requires a 2/3 vote) by:
  - a. Increasing the Water Regulation Station Improvements (WS-07000) CIP expense appropriation by \$801,000; and
  - b. Decreasing the Water Main Replacement (WMR) – Project 28 (WS-14001) CIP expense appropriation by \$801,000; and
  - c. Increasing the Water Regulation Station Improvements (WS-07000) CIP revenue estimate by \$117,000; and
  - d. Increasing the ending fund balance by \$117,000.

## Background

City of Palo Alto purchases its potable water from the San Francisco Public Utilities Commission (SFPUC). The potable water enters the City distribution system at five different locations called turnouts or water receiving stations, which consist of underground vaults and associated valves and piping that connect SFPUC's regional water system to the City's local distribution system. The underground vaults also contain pressure reducing valves (PRV's) to reduce the water pressure from the higher pressure in SFPUC's system to the desired pressure in the City distribution system.

Generally, PRV's require periodic maintenance and ultimately need to be replaced approximately every fifty years. Two of the City's five turnouts (Sand Hill and El Camino Park turnouts) are between 10 and 20 years old and the other three turnouts are more than 60 years old. Two of these older turnouts (Page Mill and Arastradero turnouts) had PRV's replaced around 20 years ago. The Page Mill turnout currently requires limited improvements and the remaining turnout on California Avenue is due for replacement, which will consist of new piping, PRV's, seismic upgrades, and other ancillary repairs.

## Discussion

### Project Description

The scope of this contract includes performing work on the Page Mill and California Avenue turnouts. The Page Mill turnout will have one specific repair performed, while the California Avenue turnout will receive substantial upgrades.

Page Mill turnout contains a large PRV supported by a pedestal. PRV's typically need to be restrained to keep thrust forces from moving them, but the Page Mill PRV is not restrained, because it has unrestrained couplings on either side of it. Performing annual maintenance on the PRV requires isolating the vault by closing valves upstream and downstream of the PRV, but this temporarily increases the thrust forces on the PRV. In 2019, after the vault piping was repainted, it became evident that annual maintenance was causing the PRV to shift substantially on its pedestal. Since the pedestal is not very wide, annual maintenance could cause PRV failure and safety concerns. For this reason, the City has been unable to complete annual maintenance on the turnout for the last two years. The proposed project provides the most cost-effective and least disruptive restraint system to install, which will prevent the PRV from moving while avoiding significant rework of the vault piping.

The California Avenue turnout requires more significant upgrades due to pipe corrosion and the age of the PRV and other appurtenances at the turnout. The work includes replacement of vault piping and valves, replacement of some piping in an adjacent vault and in the street, seismic retrofitting, floodproofing, lead-based paint remediation, electrical and instrumentation work, and reconstruction of the vault roof to include manholes for overhead access. The overhead

access is needed to allow for the placement and removal of large equipment and to facilitate PRV maintenance.

To reduce impacts on utility customers, a water bypass around the turnout will be installed to continue water service to customers during construction. The water bypass will be installed by Utility Operations staff and tested before the turnout is taken offline for construction. Staff has also coordinated with other City departments and SFPUC to minimize impacts caused by any water shutoffs and construction.

The construction duration is approximately three months and work will generally be performed between 8:30 AM and 5:00 PM, Monday through Friday. Construction must be complete by summer 2023 to ensure the water system is capable of meeting water demands. Additionally, to help avoid unnecessary disruption to retailers along California Avenue during the holiday season, construction will not be allowed during the two-week period between December 19, 2022 and January 2, 2023, unless approved by the City.

#### Bid Process

On July 12, 2022, the City posted a notice inviting formal bids (IFB) for the Two Turnouts Project on the City's electronic procurement system, PlanetBids. The bidding period was 28 calendar days. The City received one (1) bid from a qualified contractor on August 9, 2022 as listed on the attached Bid Summary (linked document). Staff believes that only one bid was received due to the current large demand for construction work in the Bay Area, coupled with a shortage of qualified workers that restricts the number of projects contractors can take on.

| <b>TWO TURNOUTS UPGRADE PROJECT, CIP<br/>WS-07000, IFB NUMBER 183908</b> |                                                       |
|--------------------------------------------------------------------------|-------------------------------------------------------|
| <b>BID NAME/NUMBER</b>                                                   |                                                       |
| <i>Proposed Length of Project</i>                                        | 66 working days                                       |
| <i>Number of Bids Mailed to Contractors</i>                              | 0 (electronic documents were available in PlanetBids) |
| <i>Number of Bids Mailed to Builder's Exchanges</i>                      | 0                                                     |
| <i>Total Days to Respond to Bid</i>                                      | 28                                                    |
| <i>Pre-Bid Meeting?</i>                                                  | Yes (Mandatory)                                       |
| <i>Number of Prequalified Company Attendees at<br/>Pre-Bid Meeting</i>   | 4                                                     |
| <i>Number of Bids Received:</i>                                          | 1                                                     |
| <i>Bid Price Range</i>                                                   | \$995,556                                             |

Staff has reviewed the submitted bid and recommends that the bid of \$995,556 submitted by GSW Construction, Inc. be accepted and that GSW Construction, Inc. be declared the lowest responsible and responsive bidder. The bid is approximately 11 percent above the staff engineer's estimate of \$900,000. Staff believes that the difference is due to recent increases in the cost of fuel, materials and labor for this type of work, and current high demand for construction work in the Bay Area. The contingency amount of \$99,556, which equals 10 percent (10%) of the total contract amount, is requested for additional unforeseen work that

may develop during the project. Additional work is possible with construction projects because during construction there may be previously unknown obstructions or ground conditions that require changes in how construction will proceed, leading to change orders that may create additional costs. A contingency fund is necessary to prevent significant delays in the project to handle these unforeseen conditions, which could otherwise result in longer road closures and disruptions. Any unspent contingency funds are returned to reserves at the end of the project.

Staff confirmed with the Contractor's State License Board that GSW Construction, Inc. and their four (4) listed subcontractors, have active licenses on file. Staff checked references provided by GSW Construction, Inc. for previous work performed and received positive feedback from other agencies. Staff also confirmed that GSW Construction, Inc. and their subcontractors are registered and in good standing with the Department of Industrial Relations (DIR).

### Resource Impact

The recommendations in this report require an FY 2023 budget amendment in the Water Fund. Funding of approximately \$531,000 remains currently available of the FY 2023 Adopted Capital Budget for the Water Regulation Station Improvements Project (WS-07000) for this work, leaving an estimated funding gap of \$801,000. The expense increase to WS-07000 is recommended to be offset with a corresponding expense reduction to the Water Main Replacement (WMR) Project 28 (WS-14001) of \$801,000. Funding is available in WS-14001 due to lower than anticipated bids for WMR 28 ([Staff Report 13763](#)). This report also recognizes \$117,000 in revenue anticipated to be received as reimbursement from the SFPUC. This money will fall to Water Fund reserves once SFPUC reimburses the City for their portion of the work.

| Water Fund                                  | Revenues   | Expenses     |
|---------------------------------------------|------------|--------------|
| Pre-construction, Construction Management   |            | \$ 237,211   |
| Construction contract + 10% Contingency     |            | \$ 1,095,112 |
| Total Estimated Costs                       |            | \$ 1,332,323 |
|                                             |            |              |
| FY 2023 Current Available Budget (WS-07000) |            | \$ 531,323   |
|                                             |            |              |
| Additional Recommended Funding to WS-07000  |            | \$ 801,000   |
| Revenue Offset from SFPUC                   | \$ 117,000 |              |

The increased cost of this project is due to the scope being expanded during the design process. At first, the City planned to only replace piping in the vault, but during design, staff realized that there was no way to move large equipment in and out of the vault, and that rebuilding the vault roof to add overhead access is required to replace the piping. Also, removal of lead paint from the walls and ceiling of the vault was added to the scope, due to health and safety concerns. Since this requires removing all existing equipment from the walls and ceiling, it provided an opportune time to replace old electrical and instrumentation equipment as well. The scope of



this project significantly exceeds the City's in-house construction resources making it necessary to contract out the work.

### **Policy Implications**

The approval of this contract is consistent with existing City policies including the Council approved 2018 Utilities Strategic Plan-Strategic Objectives, Priority 4 - Strategy 1 "Establish a proactive infrastructure replacement program, based on planned replacement before failure to support reliability and resiliency." Facing an evolving utility business environment, aging infrastructure needs, and sustainability objectives, CPAU must maintain a competitive position in the market. Remaining financially sustainable and competitive in the market while optimizing our resources is key to maintaining and enhancing our value to customers. Strategies in this Priority focus on proactively renewing and managing CPAU's infrastructure, continuously improving financial processes, enhancing infrastructure maintenance programs, defining CPAU's role in community resiliency, and achieving sustainable energy resource and water supply plans.

### **Stakeholder Engagement**

The project locations are shown on the attached Project Location Map ([Linked Document](#)). The City will provide written notification to all affected property occupants prior to the start of construction. The Contractor will also provide two written notifications of the work to all abutting property occupants, one at least 15 days prior to the commencement of work at their specific locations, and a second 24 hours prior to mobilization. Work will be performed between 8:30 AM and 5:00 PM Monday through Friday.

### **Environmental Review**

This project is categorically exempt from California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines 15301 (repair, maintenance of existing facilities) and 15302 (replacement or reconstruction of existing facilities).

### **Attachments:**

- **Attachment4.a:** Attachment A: GSW Construction, Inc. Contract; C23183908



CITY OF  
**PALO  
ALTO**

## **CONSTRUCTION CONTRACT**

**Contract No. C23183908**

**City of Palo Alto**

**Two (2) Turnouts Project**

## CONSTRUCTION CONTRACT TABLE OF CONTENTS

|                                                          |    |
|----------------------------------------------------------|----|
| SECTION 1 INCORPORATION OF RECITALS AND DEFINITIONS..... | 6  |
| 1.1 Recitals.....                                        | 6  |
| 1.2 Definitions.....                                     | 6  |
| SECTION 2 THE PROJECT.....                               | 6  |
| SECTION 3 THE CONTRACT DOCUMENTS.....                    | 7  |
| 3.1 List of Documents.....                               | 7  |
| 3.2 Order of Precedence.....                             | 7  |
| SECTION 4 CONTRACTOR'S DUTY.....                         | 7  |
| 4.1 Contractor's Duties.....                             | 7  |
| SECTION 5 PROJECT TEAM.....                              | 8  |
| 5.1 Contractor's Co-operation.....                       | 8  |
| SECTION 6 TIME OF COMPLETION.....                        | 8  |
| 6.1 Time Is of Essence.....                              | 8  |
| 6.2 Commencement of Work.....                            | 8  |
| 6.3 Contract Time.....                                   | 8  |
| 6.4 Liquidated Damages.....                              | 8  |
| 6.4.1 Other Remedies.....                                | 8  |
| 6.5 Adjustments to Contract Time.....                    | 9  |
| SECTION 7 COMPENSATION TO CONTRACTOR.....                | 9  |
| 7.1 Contract Sum.....                                    | 9  |
| 7.2 Full Compensation.....                               | 9  |
| SECTION 8 STANDARD OF CARE.....                          | 9  |
| 8.1 Standard of Care.....                                | 9  |
| SECTION 9 INDEMNIFICATION.....                           | 9  |
| 9.1 Hold Harmless.....                                   | 9  |
| 9.2 Survival.....                                        | 10 |
| SECTION 10 NON-DISCRIMINATION.....                       | 10 |
| 10.1 Municipal Code Requirement.....                     | 10 |
| SECTION 11 INSURANCE AND BONDS.....                      | 10 |
| 11.1 Evidence of Coverage.....                           | 10 |

|                                                             |    |
|-------------------------------------------------------------|----|
| SECTION 12 PROHIBITION AGAINST TRANSFERS.....               | 10 |
| 12.1 Assignment.....                                        | 10 |
| 12.2 Assignment by Law.....                                 | 10 |
| SECTION 13 NOTICES.....                                     | 10 |
| 13.1 Method of Notice .....                                 | 10 |
| 13.2 Notice Recipients .....                                | 11 |
| 13.3 Change of Address.....                                 | 11 |
| SECTION 14 DEFAULT.....                                     | 12 |
| 14.1 Notice of Default.....                                 | 12 |
| 14.2 Opportunity to Cure Default.....                       | 12 |
| SECTION 15 CITY'S RIGHTS AND REMEDIES.....                  | 12 |
| 15.1 Remedies Upon Default.....                             | 12 |
| 15.1.1 Delete Certain Services.....                         | 12 |
| 15.1.2 Perform and Withhold.....                            | 12 |
| 15.1.3 Suspend The Construction Contract.....               | 12 |
| 15.1.4 Terminate the Construction Contract for Default..... | 12 |
| 15.1.5 Invoke the Performance Bond.....                     | 12 |
| 15.1.6 Additional Provisions.....                           | 13 |
| 15.2 Delays by Sureties.....                                | 13 |
| 15.3 Damages to City.....                                   | 13 |
| 15.3.1 For Contractor's Default.....                        | 13 |
| 15.3.2 Compensation for Losses.....                         | 13 |
| 15.4 Suspension by City.....                                | 13 |
| 15.4.1 Suspension for Convenience.....                      | 13 |
| 15.4.2 Suspension for Cause.....                            | 13 |
| 15.5 Termination Without Cause.....                         | 14 |
| 15.5.1 Compensation.....                                    | 14 |
| 15.5.2 Subcontractors.....                                  | 14 |
| 15.6 Contractor's Duties Upon Termination.....              | 14 |
| SECTION 16 CONTRACTOR'S RIGHTS AND REMEDIES.....            | 15 |
| 16.1 Contractor's Remedies.....                             | 15 |
| 16.1.1 For Work Stoppage.....                               | 15 |

|                                                               |    |
|---------------------------------------------------------------|----|
| 16.1.2 For City's Non-Payment.....                            | 15 |
| 16.2 Damages to Contractor.....                               | 15 |
| SECTION 17 ACCOUNTING RECORDS.....                            | 15 |
| 17.1 Financial Management and City Access.....                | 15 |
| 17.2 Compliance with City Requests.....                       | 16 |
| SECTION 18 INDEPENDENT PARTIES.....                           | 16 |
| 18.1 Status of Parties.....                                   | 16 |
| SECTION 19 NUISANCE.....                                      | 16 |
| 19.1 Nuisance Prohibited.....                                 | 16 |
| SECTION 20 PERMITS AND LICENSES.....                          | 16 |
| SECTION 21 WAIVER.....                                        | 16 |
| SECTION 22 GOVERNING LAW AND VENUE; COMPLIANCE WITH LAWS..... | 17 |
| 22.1 Governing Law.....                                       | 17 |
| 22.2 Compliance with Laws.....                                | 17 |
| 22.2.1 Palo Alto Minimum Wage Ordinance .....                 | 17 |
| SECTION 23 COMPLETE AGREEMENT.....                            | 17 |
| 23.1 Integration.....                                         | 17 |
| SECTION 24 SURVIVAL OF CONTRACT.....                          | 17 |
| 24.1 Survival of Provisions.....                              | 17 |
| SECTION 25 PREVAILING WAGES.....                              | 17 |
| SECTION 26 NON-APPROPRIATION.....                             | 18 |
| 26.1 Appropriation.....                                       | 18 |
| SECTION 27 AUTHORITY.....                                     | 18 |
| 27.1 Representation of Parties.....                           | 18 |
| SECTION 28 COUNTERPARTS.....                                  | 18 |
| 28.1 Multiple Counterparts.....                               | 18 |
| SECTION 29 SEVERABILITY.....                                  | 18 |
| 29.1 Severability.....                                        | 18 |
| SECTION 30 STATUTORY AND REGULATORY REFERENCES .....          | 18 |
| 30.1 Amendments of Laws.....                                  | 18 |
| SECTION 31 WORKERS' COMPENSATION CERTIFICATION.....           | 19 |
| 31.1 Workers Compensation.....                                | 19 |

|                                                         |    |
|---------------------------------------------------------|----|
| SECTION 32 DIR REGISTRATION AND OTHER REQUIREMENTS..... | 19 |
| 32.1 General Notice to Contractor.....                  | 19 |
| 32.2 Labor Code section 1771.1(a).....                  | 19 |
| 32.3 DIR Registration Required.....                     | 19 |
| 32.4 Posting of Job Site Notices.....                   | 19 |
| 32.5 Payroll Records.....                               | 19 |
| 32.6 Employment of Apprentices.....                     | 20 |

## CONSTRUCTION CONTRACT

THIS CONSTRUCTION CONTRACT entered into on September 26, 2022 ("Execution Date") by and between the CITY OF PALO ALTO, a California chartered municipal corporation ("City"), and **GSW CONSTRUCTION, INC.** ("Contractor"), is made with reference to the following:

### RECITALS:

A. City is a municipal corporation duly organized and validly existing under the laws of the State of California with the power to carry on its business as it is now being conducted under the statutes of the State of California and the Charter of City.

B. Contractor is a Corporation duly organized and in good standing in the State of California, Contractor's License Number 1085562 and Department of Industrial Relations Registration Number PW-LR-100862135. Contractor represents that it is duly licensed by the State of California and has the background, knowledge, experience and expertise to perform the obligations set forth in this Construction Contract.

C. On July 12, 2022, City issued an Invitation for Bids (IFB) to contractors for the Two (2) Turnouts Project ("Project"). In response to the IFB, Contractor submitted a Bid.

D. City and Contractor desire to enter into this Construction Contract for the Project, and other services as identified in the Contract Documents for the Project upon the following terms and conditions.

NOW THEREFORE, in consideration of the mutual promises and undertakings hereinafter set forth and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, it is mutually agreed by and between the undersigned parties as follows:

### SECTION 1      **INCORPORATION OF RECITALS AND DEFINITIONS.**

#### **1.1      Recitals.**

All of the recitals are substantive parts of this Construction Contract and are hereby incorporated herein by reference.

#### **1.2      Definitions.**

Capitalized terms shall have the meanings set forth in this Construction Contract (sometimes referred to herein as the "Contract") and/or in the General Conditions. If there is a conflict between the definitions in this Construction Contract and in the General Conditions, the definitions in this Construction Contract shall prevail.

### SECTION 2      **THE PROJECT.**

The Project is the Two (2) Turnouts Project, located at 524 California Ave., Palo Alto, CA and Page Mill Road, Palo Alto, CA ("Project").

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## **SECTION 3 THE CONTRACT DOCUMENTS.**

### **3.1 List of Documents.**

The Contract Documents (sometimes collectively referred to as “Agreement” or “Bid Documents”) consist of the following documents which are on file with the Purchasing Division and are hereby incorporated into this Construction Contract by reference.

- 1) Change Orders
- 2) Field Orders
- 3) Construction Contract
- 4) Bidding Addenda
- 5) Special Provisions
- 6) General Conditions
- 7) Project Plans and Drawings
- 8) Technical Specifications
- 9) Instructions to Bidders
- 10) Invitation for Bids
- 11) Contractor's Bid/Non-Collusion Declaration
- 12) Reports listed in the Contract Documents
- 13) Public Works Department’s Standard Drawings and Specifications (most current version at time of Bid)
- 14) Utilities Department’s Water, Gas, Wastewater, Electric Utilities Standards (most current version at time of Bid)
- 15) City of Palo Alto Traffic Control Requirements
- 16) City of Palo Alto Truck Route Map and Regulations
- 17) Notice Inviting Pre-Qualification Statements, Pre-Qualification Statement, and Pre-Qualification Checklist (if applicable)
- 18) Performance and Payment Bonds

### **3.2 Order of Precedence.**

For the purposes of construing, interpreting and resolving inconsistencies between and among the provisions of this Contract, the Contract Documents shall have the order of precedence as set forth in the preceding section. If a claimed inconsistency cannot be resolved through the order of precedence, the City shall have the sole power to decide which document or provision shall govern as may be in the best interests of the City.

## **SECTION 4 CONTRACTOR’S DUTY.**

### **4.1 Contractor’s Duties**



Contractor agrees to perform all of the Work required for the Project, as specified in the Contract Documents, all of which are fully incorporated herein. Contractor shall provide, furnish, and supply all things necessary and incidental for the timely performance and completion of the Work, including, but not limited to, provision of all necessary labor, materials, equipment, transportation, and utilities, unless otherwise specified in the Contract Documents. Contractor also agrees to use its best efforts to complete the Work in a professional and expeditious manner and to meet or exceed the performance standards required by the Contract Documents.

## **SECTION 5 PROJECT TEAM.**

### **5.1 Contractor's Co-operation.**

In addition to Contractor, City has retained, or may retain, consultants and contractors to provide professional and technical consultation for the design and construction of the Project. The Contract requires that Contractor operate efficiently, effectively and cooperatively with City as well as all other members of the Project Team and other contractors retained by City to construct other portions of the Project.

## **SECTION 6 TIME OF COMPLETION.**

### **6.1 Time Is of Essence.**

Time is of the essence with respect to all time limits set forth in the Contract Documents.

### **6.2 Commencement of Work.**

Contractor shall commence the Work on the date specified in City's Notice to Proceed.

### **6.3 Contract Time.**

Work hereunder shall begin on the date specified on the City's Notice to Proceed and shall be completed

- ☐ not later than .  
☒ within Sixty-six (66) working days (as defined in the Special Provisions) after the commencement date specified in City's Notice to Proceed.

By executing this Construction Contract, Contractor expressly waives any claim for delayed early completion.

### **6.4 Liquidated Damages.**

Pursuant to Public Contract Code Section 7203, if Contractor fails to achieve Final Completion of the entire Work within the Contract Time, including any approved extensions thereto, City may assess liquidated damages on a daily basis for each day of Unexcused Delay in achieving Final Completion, based on the amount of Three Thousand Eight Hundred dollars (\$3,800.00) per day, or as otherwise specified in the Special Provisions. Liquidated damages may also be separately assessed for failure to meet milestones specified elsewhere in the Contract Documents, regardless of impact on the time for achieving Final Completion. The assessment of liquidated damages is not a penalty but considered to be a reasonable estimate of the amount of damages City will suffer by delay in completion of the Work. The City is entitled to setoff the amount of liquidated damages assessed against any payments otherwise due to Contractor, including, but not limited to, setoff against release of retention. If the total amount of liquidated damages assessed exceeds the amount of unreleased retention, City is entitled to recover the balance from Contractor or its sureties. Occupancy or use of the Project in whole or in part prior to Final Completion, shall not operate as a waiver of City's right to assess liquidated damages.

**6.4.1 Other Remedies.** City is entitled to any and all available legal and equitable remedies City may have where City's Losses are caused by any reason other than Contractor's failure to achieve Substantial Completion of the entire Work within the Contract Time.

## 6.5 Adjustments to Contract Time.

The Contract Time may only be adjusted for time extensions approved by City and memorialized in a Change Order approved in accordance with the requirements of the Contract Documents.

## **SECTION 7 COMPENSATION TO CONTRACTOR.**

### **7.1 Contract Sum.**

Contractor shall be compensated for satisfactory completion of the Work in compliance with the Contract Documents the Contract Sum of **Nine Hundred Ninety-Five Thousand Five Hundred Fifty-Six Dollars (\$995,556.00)**.

☒ [This amount includes the Base Bid and Additive Alternates Section A base bid items 001-005, 007-014 and Section B base bid items 015-021.]

### **7.2 Full Compensation.**

The Contract Sum shall be full compensation to Contractor for all Work provided by Contractor and, except as otherwise expressly permitted by the terms of the Contract Documents, shall cover all Losses arising out of the nature of the Work or from the acts of the elements or any unforeseen difficulties or obstructions which may arise or be encountered in performance of the Work until its Acceptance by City, all risks connected with the Work, and any and all expenses incurred due to suspension or discontinuance of the Work, except as expressly provided herein. The Contract Sum may only be adjusted for Change Orders approved in accordance with the requirements of the Contract Documents.

## **SECTION 8 STANDARD OF CARE.**

### **8.1 Standard of Care.**

Contractor agrees that the Work shall be performed by qualified, experienced and well-supervised personnel. All services performed in connection with this Construction Contract shall be performed in a manner consistent with the standard of care under California law applicable to those who specialize in providing such services for projects of the type, scope and complexity of the Project.

## **SECTION 9 INDEMNIFICATION.**

### **9.1 Hold Harmless.**

To the fullest extent allowed by law, Contractor will defend, indemnify, and hold harmless City, its City Council, boards and commissions, officers, agents, employees, representatives and volunteers (hereinafter individually referred to as an "Indemnitee" and collectively referred to as "Indemnities"), through legal counsel acceptable to City, from and against any and liability, loss, damage, claims, expenses (including, without limitation, attorney fees, expert witness fees, paralegal fees, and fees and costs of litigation or arbitration) (collectively, "Liability") of every nature arising out of or in connection with the acts or omissions of Contractor, its employees, Subcontractors, representatives, or agents, in performing the Work or its failure to comply with any of its obligations under the Contract, except such Liability caused by the active negligence, sole negligence, or willful misconduct of an Indemnitee. Contractor shall pay City for any costs City incurs to enforce this provision. Except as provided in Section 9.2 below, nothing in the Contract Documents shall be construed to give rise to any implied right of indemnity in favor of Contractor against City or any other Indemnitee.

Pursuant to Public Contract Code Section 9201, City shall timely notify Contractor upon receipt of any third-party claim relating to the Contract.

## 9.2 Survival.

The provisions of Section 9 shall survive the termination or expiration of this Construction Contract.

## **SECTION 10 NON-DISCRIMINATION.**

### 10.1 Municipal Code Requirement.

As set forth in Palo Alto Municipal Code section 2.30.510, Contractor certifies that in the performance of this Agreement, it shall not discriminate in the employment of any person due to the race, skin color, gender, gender identity, age, religion, disability, national origin, ancestry, sexual orientation, pregnancy, genetic information or condition, housing status, marital status, familial status, weight or height of such person. Contractor acknowledges that it has read and understands the provisions of Section 2.30.510 of the Palo Alto Municipal Code relating to Nondiscrimination Requirements, and the penalties for violation thereof, and will comply with all requirements of Section 2.30.510 pertaining to nondiscrimination in employment.

## **SECTION 11 INSURANCE AND BONDS.**

### 11.1 Evidence of coverage.

Within ten (10) business days following issuance of the Notice of Award, Contractor shall provide City with evidence that it has obtained insurance and shall submit Performance and Payment Bonds satisfying all requirements in Article 11 of the General Conditions.

## **SECTION 12 PROHIBITION AGAINST TRANSFERS.**

### 12.1 Assignment.

City is entering into this Construction Contract in reliance upon the stated experience and qualifications of the Contractor and its Subcontractors set forth in Contractor's Bid. Accordingly, Contractor shall not assign, hypothecate or transfer this Construction Contract or any interest therein directly or indirectly, by operation of law or otherwise without the prior written consent of City. Any assignment, hypothecation or transfer without said consent shall be null and void, and shall be deemed a substantial breach of contract and grounds for default in addition to any other legal or equitable remedy available to the City.

### 12.2 Assignment by Law.

The sale, assignment, transfer or other disposition of any of the issued and outstanding capital stock of Contractor or of any general partner or joint venturer or syndicate member of Contractor, if the Contractor is a partnership or joint venture or syndicate or co-tenancy shall result in changing the control of Contractor, shall be construed as an assignment of this Construction Contract. Control means more than fifty percent (50%) of the voting power of the corporation or other entity.

## **SECTION 13 NOTICES.**

### 13.1 Method of Notice.

All notices, demands, requests or approvals to be given under this Construction Contract shall be given in writing and shall be deemed served on the earlier of the following:

- (i) On the date delivered if delivered personally;
- (ii) On the third business day after the deposit thereof in the United States mail, postage prepaid, and addressed as hereinafter provided;
- (iii) On the date sent if sent by facsimile transmission;
- (iv) On the date sent if delivered by electronic mail; or
- (v) On the date it is accepted or rejected if sent by certified mail.

### 13.2 Notice to Recipients.

All notices, demands or requests (including, without limitation, Change Order Requests and Claims) from Contractor to City shall include the Project name and the number of this Construction Contract and shall be addressed to City at:

To City: City of Palo Alto  
City Clerk  
250 Hamilton Avenue  
P.O. Box 10250  
Palo Alto, CA 94303

Copy to: ☐ City of Palo Alto  
Public Works Administration  
250 Hamilton Avenue  
Palo Alto, CA 94301  
Attn:

☐ [Include Construction Manager, If Applicable.]

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

☒ City of Palo Alto  
Utilities Engineering  
250 Hamilton Avenue  
Palo Alto, CA 94301  
Attn: Robert Diamond  
[Robert.Diamond@CityofPaloAlto.org](mailto:Robert.Diamond@CityofPaloAlto.org)

In addition, copies of all Claims by Contractor under this Construction Contract shall be provided to the following:

Palo Alto City Attorney's Office  
250 Hamilton Avenue  
P.O. Box 10250  
Palo Alto, California 94303

All Claims shall be sent by registered mail or certified mail with return receipt requested.

All notices, demands, requests or approvals from City to Contractor shall be addressed to Contractor at:

To Contractor:  
GSW Construction, Inc.  
101 The Embarcadero, Suite 123  
San Francisco, CA 94105  
Attn: Gary Silveria  
[Gsilverira@gsw.construction](mailto:Gsilverira@gsw.construction)

### 13.3 Change of Address.

In advance of any change of address, Contractor shall notify City of the change of address in writing. Each party may, by written notice only, add, delete or replace any individuals to whom and addresses to which notice shall be provided.

#### **SECTION 14      DEFAULT.**

##### **14.1      Notice of Default.**

In the event that City determines, in its sole discretion, that Contractor has failed or refused to perform any of the obligations set forth in the Contract Documents, or is in breach of any provision of the Contract Documents, City may give written notice of default to Contractor in the manner specified for the giving of notices in the Construction Contract, with a copy to Contractor's performance bond surety.

##### **14.2      Opportunity to Cure Default.**

Except for emergencies, Contractor shall cure any default in performance of its obligations under the Contract Documents within two (2) Days (or such shorter time as City may reasonably require) after receipt of written notice. However, if the breach cannot be reasonably cured within such time, Contractor will commence to cure the breach within two (2) Days (or such shorter time as City may reasonably require) and will diligently and continuously prosecute such cure to completion within a reasonable time, which shall in no event be later than ten (10) Days after receipt of such written notice.

#### **SECTION 15      CITY'S RIGHTS AND REMEDIES.**

##### **15.1      Remedies Upon Default.**

If Contractor fails to cure any default of this Construction Contract within the time period set forth above in Section 14, then City may pursue any remedies available under law or equity, including, without limitation, the following:

**15.1.1 Delete Certain Services.** City may, without terminating the Construction Contract, delete certain portions of the Work, reserving to itself all rights to Losses related thereto.

**15.1.2 Perform and Withhold.** City may, without terminating the Construction Contract, engage others to perform the Work or portion of the Work that has not been adequately performed by Contractor and withhold the cost thereof to City from future payments to Contractor, reserving to itself all rights to Losses related thereto.

**15.1.3 Suspend the Construction Contract.** City may, without terminating the Construction Contract and reserving to itself all rights to Losses related thereto, suspend all or any portion of this Construction Contract for as long a period of time as City determines, in its sole discretion, appropriate, in which event City shall have no obligation to adjust the Contract Sum or Contract Time, and shall have no liability to Contractor for damages if City directs Contractor to resume Work.

**15.1.4 Terminate the Construction Contract for Default.** City shall have the right to terminate this Construction Contract, in whole or in part, upon the failure of Contractor to promptly cure any default as required by Section 14. City's election to terminate the Construction Contract for default shall be communicated by giving Contractor a written notice of termination in the manner specified for the giving of notices in the Construction Contract. Any notice of termination given to Contractor by City shall be effective immediately, unless otherwise provided therein.

**15.1.5 Invoke the Performance Bond.** City may, with or without terminating the Construction Contract and reserving to itself all rights to Losses related thereto, exercise its rights under the Performance Bond.

**15.1.6 Additional Provisions.** All of City's rights and remedies under this Construction Contract are cumulative, and shall be in addition to those rights and remedies available in law or in equity. Designation in the Contract Documents of certain breaches as material shall not waive the City's authority to designate other breaches as material nor limit City's right to terminate the Construction Contract, or prevent the City from terminating the Agreement for breaches that are not material. City's determination of whether there has been noncompliance with the Construction Contract so as to warrant exercise by City of its rights and remedies for default under the Construction Contract, shall be binding on all parties. No termination or action taken by City after such termination shall prejudice any other rights or remedies of City provided by law or equity or by the Contract Documents upon such termination; and City may proceed against Contractor to recover all liquidated damages and Losses suffered by City.

## **15.2 Delays by Sureties.**

Time being of the essence in the performance of the Work, if Contractor's surety fails to arrange for completion of the Work in accordance with the Performance Bond, within seven (7) calendar days from the date of the notice of termination, Contractor's surety shall be deemed to have waived its right to complete the Work under the Contract, and City may immediately make arrangements for the completion of the Work through use of its own forces, by hiring a replacement contractor, or by any other means that City determines advisable under the circumstances. Contractor and its surety shall be jointly and severally liable for any additional cost incurred by City to complete the Work following termination. In addition, City shall have the right to use any materials, supplies, and equipment belonging to Contractor and located at the Worksite for the purposes of completing the remaining Work.

## **15.3 Damages to City.**

**15.3.1 For Contractor's Default.** City will be entitled to recovery of all Losses under law or equity in the event of Contractor's default under the Contract Documents.

**15.3.2 Compensation for Losses.** In the event that City's Losses arise from Contractor's default under the Contract Documents, City shall be entitled to deduct the cost of such Losses from monies otherwise payable to Contractor. If the Losses incurred by City exceed the amount payable, Contractor shall be liable to City for the difference and shall promptly remit same to City.

## **15.4 Suspension by City**

**15.4.1 Suspension for Convenience.** City may, at any time and from time to time, without cause, order Contractor, in writing, to suspend, delay, or interrupt the Work in whole or in part for such period of time, up to an aggregate of fifty percent (50%) of the Contract Time. The order shall be specifically identified as a Suspension Order by City. Upon receipt of a Suspension Order, Contractor shall, at City's expense, comply with the order and take all reasonable steps to minimize costs allocable to the Work covered by the Suspension Order. During the Suspension or extension of the Suspension, if any, City shall either cancel the Suspension Order or, by Change Order, delete the Work covered by the Suspension Order. If a Suspension Order is canceled or expires, Contractor shall resume and continue with the Work. A Change Order will be issued to cover any adjustments of the Contract Sum or the Contract Time necessarily caused by such suspension. A Suspension Order shall not be the exclusive method for City to stop the Work.

**15.4.2 Suspension for Cause.** In addition to all other remedies available to City, if Contractor fails to perform or correct work in accordance with the Contract Documents, City may immediately order the Work, or any portion thereof, suspended until the cause for the suspension has been eliminated to City's satisfaction. Contractor shall not be entitled to an increase in Contract Time or Contract Price for a suspension occasioned by Contractor's failure to comply with the Contract Documents. City's right to suspend the Work shall not give rise to a duty to suspend the Work, and City's failure to suspend the Work shall not constitute a defense to Contractor's failure to comply with the requirements of the Contract Documents.

## 15.5 Termination Without Cause.

City may, at its sole discretion and without cause, terminate this Construction Contract in part or in whole upon written notice to Contractor. Upon receipt of such notice, Contractor shall, at City's expense, comply with the notice and take all reasonable steps to minimize costs to close out and demobilize. The compensation allowed under this Paragraph 15.5 shall be the Contractor's sole and exclusive compensation for such termination and Contractor waives any claim for other compensation or Losses, including, but not limited to, loss of anticipated profits, loss of revenue, lost opportunity, or other consequential, direct, indirect or incidental damages of any kind resulting from termination without cause. Termination pursuant to this provision does not relieve Contractor or its sureties from any of their obligations for Losses arising from or related to the Work performed by Contractor.

**15.5.1 Compensation.** Following such termination and within forty-five (45) Days after receipt of a billing from Contractor seeking payment of sums authorized by this Paragraph 15.5.1, City shall pay the following to Contractor as Contractor's sole compensation for performance of the Work:

- .1 For Work Performed.** The amount of the Contract Sum allocable to the portion of the Work properly performed by Contractor as of the date of termination, less sums previously paid to Contractor.
- .2 For Close-out Costs.** Reasonable costs of Contractor and its Subcontractors:
  - (i) Demobilizing and
  - (ii) Administering the close-out of its participation in the Project (including, without limitation, all billing and accounting functions, not including attorney or expert fees) for a period of no longer than thirty (30) Days after receipt of the notice of termination.
- .3 For Fabricated Items.** Previously unpaid cost of any items delivered to the Project Site which were fabricated for subsequent incorporation in the Work.
- .4 Profit Allowance.** An allowance for profit calculated as four percent (4%) of the sum of the above items, provided Contractor can prove a likelihood that it would have made a profit if the Construction Contract had not been terminated.

**15.5.2 Subcontractors.** Contractor shall include provisions in all of its subcontracts, purchase orders and other contracts permitting termination for convenience by Contractor on terms that are consistent with this Construction Contract and that afford no greater rights of recovery against Contractor than are afforded to Contractor against City under this Section.

## 15.6 Contractor's Duties Upon Termination.

Upon receipt of a notice of termination for default or for convenience, Contractor shall, unless the notice directs otherwise, do the following:

- (i) Immediately discontinue the Work to the extent specified in the notice;
- (ii) Place no further orders or subcontracts for materials, equipment, services or facilities, except as may be necessary for completion of such portion of the Work that is not discontinued;
- (iii) Provide to City a description in writing, no later than fifteen (15) days after receipt of the notice of termination, of all subcontracts, purchase orders and contracts that are outstanding, including, without limitation, the terms of the original price, any changes, payments, balance owing, the status of the portion of the Work covered and a copy of the subcontract, purchase order or contract and any written changes, amendments or modifications thereto, together with such other information as City may determine necessary in order to decide whether to accept assignment of or request Contractor to terminate the subcontract, purchase order or contract;
- (iv) Promptly assign to City those subcontracts, purchase orders or contracts, or portions thereof, that City elects to accept by assignment and cancel, on the most favorable terms reasonably possible, all

subcontracts, purchase orders or contracts, or portions thereof, that City does not elect to accept by assignment; and

- (v) Thereafter do only such Work as may be necessary to preserve and protect Work already in progress and to protect materials, plants, and equipment on the Project Site or in transit thereto.

Upon termination, whether for cause or for convenience, the provisions of the Contract Documents remain in effect as to any Claim, indemnity obligation, warranties, guarantees, submittals of as-built drawings, instructions, or manuals, or other such rights and obligations arising prior to the termination date.

## **SECTION 16      CONTRACTOR'S RIGHTS AND REMEDIES.**

### **16.1      Contractor's Remedies.**

Contractor may terminate this Construction Contract only upon the occurrence of one of the following:

**16.1.1 For Work Stoppage.** The Work is stopped for sixty (60) consecutive Days, through no act or fault of Contractor, any Subcontractor, or any employee or agent of Contractor or any Subcontractor, due to issuance of an order of a court or other public authority other than City having jurisdiction or due to an act of government, such as a declaration of a national emergency making material unavailable. This provision shall not apply to any work stoppage resulting from the City's issuance of a suspension notice issued either for cause or for convenience.

**16.1.2 For City's Non-Payment.** If City does not pay Contractor undisputed sums within ninety (90) Days after receipt of notice from Contractor, Contractor may terminate the Construction Contract (30) days following a second notice to City of Contractor's intention to terminate the Construction Contract.

### **16.2      Damages to Contractor.**

In the event of termination for cause by Contractor, City shall pay Contractor the sums provided for in Paragraph 15.5.1 above. Contractor agrees to accept such sums as its sole and exclusive compensation and agrees to waive any claim for other compensation or Losses, including, but not limited to, loss of anticipated profits, loss of revenue, lost opportunity, or other consequential, direct, indirect and incidental damages, of any kind.

## **SECTION 17      ACCOUNTING RECORDS.**

### **17.1      Financial Management and City Access.**

Contractor shall keep full and detailed accounts and exercise such controls as may be necessary for proper financial management under this Construction Contract in accordance with generally accepted accounting principles and practices. City and City's accountants during normal business hours, may inspect, audit and copy Contractor's records, books, estimates, take-offs, cost reports, ledgers, schedules, correspondence, instructions, drawings, receipts, subcontracts, purchase orders, vouchers, memoranda and other data relating to this Project. Contractor shall retain these documents for a period of three (3) years after the later of (i) Final Payment or (ii) final resolution of all Contract Disputes and other disputes, or (iii) for such longer period as may be required by law.



## **17.2 Compliance with City Requests.**

Contractor's compliance with any request by City pursuant to this Section 17 shall be a condition precedent to filing or maintenance of any legal action or proceeding by Contractor against City and to Contractor's right to receive further payments under the Contract Documents. City may enforce Contractor's obligation to provide access to City of its business and other records referred to in Section 17.1 for inspection or copying by issuance of a writ or a provisional or permanent mandatory injunction by a court of competent jurisdiction based on affidavits submitted to such court, without the necessity of oral testimony.

## **SECTION 18 INDEPENDENT PARTIES.**

### **18.1 Status of parties.**

Each party is acting in its independent capacity and not as agents, employees, partners, or joint venturers of the other party. City, its officers or employees shall have no control over the conduct of Contractor or its respective agents, employees, subconsultants, or subcontractors, except as herein set forth.

## **SECTION 19 NUISANCE.**

### **19.1 Nuisance Prohibited.**

Contractor shall not maintain, commit, nor permit the maintenance or commission of any nuisance in connection in the performance of services under this Construction Contract.

## **SECTION 20 PERMITS AND LICENSES.**

Except as otherwise provided in the Special Provisions and Technical Specifications, the Contractor shall provide, procure and pay for all licenses, permits, and fees, required by the City or other government jurisdictions or agencies necessary to carry out and complete the Work. Payment of all costs and expenses for such licenses, permits, and fees shall be included in one or more Bid items. No other compensation shall be paid to the Contractor for these items or for delays caused by non-City inspectors or conditions set forth in the licenses or permits issued by other agencies.

## **SECTION 21 WAIVER.**

A waiver by either party of any breach of any term, covenant, or condition contained herein shall not be deemed to be a waiver of any subsequent breach of the same or any other term, covenant, or condition contained herein, whether of the same or a different character.

**SECTION 22 GOVERNING LAW AND VENUE; COMPLIANCE WITH LAWS.****22.1 Governing Law and Venue.**

This Construction Contract shall be construed in accordance with and governed by the laws of the State of California, without regard to conflict of law provisions, and venue shall be in a court of competent jurisdiction in the County of Santa Clara, California and no other place.

**22.2 Compliance with Laws.**

Contractor shall comply with all applicable federal and California laws and city laws, including, without limitation, ordinances and resolutions, in the performance of work under this Construction Contract.

**22.2.1 Palo Alto Minimum Wage Ordinance.** Contractor shall comply with all requirements of the Palo Alto Municipal Code Chapter 4.62 (Citywide Minimum Wage), as amended from time to time. In particular, for any employee otherwise entitled to the State minimum wage, who performs at least two (2) hours of work in a calendar week within the geographic boundaries of the City, Contractor shall pay such employees no less than the minimum wage set forth in Palo Alto Municipal Code section 4.62.030 for each hour worked within the geographic boundaries of the City of Palo Alto. In addition, Contractor shall post notices regarding the Palo Alto Minimum Wage Ordinance in accordance with Palo Alto Municipal Code section 4.62.060.

**SECTION 23 COMPLETE AGREEMENT.****23.1 Integration.**

This Agreement represents the entire and integrated agreement between the parties and supersedes all prior negotiations, representations, and contracts, either written or oral. This Agreement may be amended only by a written instrument, which is signed by the parties.

**SECTION 24 SURVIVAL OF CONTRACT.****24.1 Survival of Provisions.**

The provisions of the Construction Contract which by their nature survive termination or expiration of the Construction Contract or Final Completion, including, without limitation, all warranties, indemnities, payment obligations, and City's right to audit Contractor's books and records, shall remain in full force and effect after Final Completion or any termination or expiration of the Construction Contract.

**SECTION 25 PREVAILING WAGES.**

☐ **This Project is not subject to prevailing wages and related requirements.** Contractor is not required to pay prevailing wages and meet related requirements under the California Labor Code and California Code of Regulations in the performance and implementation of the Project if the Contract:

- (1) is not a public works contract;
- (2) is for a public works construction project of \$25,000 or less, per California Labor Code Sections 1782(d)(1), 1725.5(f) and 1773.3(j); or
- (3) is for a public works alteration, demolition, repair, or maintenance project of \$15,000 or less, per California Labor Code Sections 1782(d)(1), 1725.5(f) and 1773.3(j).

Or

☒ **This Project is subject to prevailing wages and related requirements as a "public works" under California Labor Code Sections 1720 et seq. and related regulations. Contractor is required to pay general prevailing wages** as defined in California Labor Code Section 1773.1 and Subchapter 3, Title 8 of the California Code of Regulations Section 16000 et

seq., as amended from time to time. Pursuant to Labor Code Section 1773, the City has obtained the general prevailing rate of per diem wages and the general rate for holiday and overtime work in this locality for each craft, classification, or type of worker needed to execute the contract for this Project from the State of California Department of Industrial Relations (“DIR”). Copies of these rates may be obtained at the City’s Purchasing Department office. The general prevailing wage rates are also available at the DIR, Division of Labor Statistics and Research, website (see e.g. <http://www.dir.ca.gov/DLSR/PWD/index.htm>) as amended from time to time. Contractor shall post a copy of the general prevailing wage rates at all Project job sites and shall pay the adopted prevailing wage rates as a minimum. Contractor shall comply with all applicable provisions of Division 2, Part 7, Chapter 1 of the California Labor Code (Labor Code Section 1720 et seq.), including, but not limited to, Sections 1720, 1725.5, 1771, 1771.1, 1771.4, 1773.2, 1774, 1775, 1776, 1777.5, 1782, 1810, 1813 and 1815, and all applicable implementing regulations, including but not limited to Subchapter 3, Title 8 of the California Code of Regulations Section 16000 et seq. (8 CCR Section 16000 et seq.), as amended from time to time.

## **SECTION 26      NON-APPROPRIATION.**

### **26.1      Appropriations.**

This Agreement is subject to the fiscal provisions of the Charter of the City of Palo Alto and the Palo Alto Municipal Code. This Agreement will terminate without any penalty (a) at the end of any fiscal year in the event that the City does not appropriate funds for the following fiscal year for this event, or (b) at any time within a fiscal year in the event that funds are only appropriated for a portion of the fiscal year and funds for this Construction Contract are no longer available. This section shall take precedence in the event of a conflict with any other covenant, term, condition, or provision of this Agreement.

## **SECTION 27      AUTHORITY.**

### **27.1      Representation of Parties.**

The individuals executing this Agreement represent and warrant that they have the legal capacity and authority to do so on behalf of their respective legal entities.

## **SECTION 28      COUNTERPARTS**

### **28.1      Multiple Counterparts.**

This Agreement may be signed in multiple counterparts, which, when executed by all the parties, shall together constitute a single binding agreement.

## **SECTION 29      SEVERABILITY.**

### **29.1      Severability.**

In case a provision of this Construction Contract is held to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not be affected.

## **SECTION 30      STATUTORY AND REGULATORY REFERENCES.**

### **30.1      Amendments to Laws.**

With respect to any amendments to any statutes or regulations referenced in these Contract Documents, the reference is deemed to be the version in effect on the date that the Contract was awarded by City, as may be amended from time to time, unless otherwise required by law.

## **SECTION 31      WORKERS' COMPENSATION CERTIFICATION.**

### **31.1      Workers Compensation.**

Contractor shall secure the payment of workers' compensation to its employees as provided in Labor Code Sections 1860 and 3700.

Pursuant to Labor Code Section 1861, by signing this Contract, Contractor thereby certifies as follows:

"I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the Work on this Contract."

## **SECTION 32      DIR REGISTRATION AND OTHER REQUIREMENTS.**

### **32.1      General Notice to Contractor.**

City requires Contractor and its Subcontractors to comply with all applicable requirements of the California Labor Code including but not limited to Labor Code Sections 1720 through 1861, and all applicable related regulations, including but not limited to Subchapter 3, Title 8 of the California Code of Regulations Section 16000 et seq., as amended from time to time. Additional information regarding public works and prevailing wage requirements is available on the DIR website (see e.g. <http://www.dir.ca.gov>) as amended from time to time.

### **32.2      Labor Code section 1771.1(a)**

City provides notice to Contractor of the requirements of California Labor Code section 1771.1(a), which reads:

"A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded."

### **32.3      DIR Registration Required.**

City will not accept a bid proposal from or enter into this Construction Contract with Contractor without proof that Contractor and its Subcontractors are registered with the California Department of Industrial Relations ("DIR") to perform public work, subject to limited exceptions.

### **32.4      Posting of Job Site Notices; Compliance Monitoring.**

City gives notice to Contractor and its Subcontractors that Contractor is required to post all job site notices prescribed by law or regulation and Contractor is subject to compliance monitoring and enforcement by DIR.

### **32.5      Payroll Records.**

Contractor shall furnish certified payroll records directly to the Labor Commissioner (DIR) in accordance with Subchapter 3, Title 8 of the California Code of Regulations Section 16461 (8 CCR Section 16461).

City requires Contractor and its Subcontractors to comply with the requirements of Labor Code section 1776, including but not limited to:

- (i) Keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by, respectively, Contractor and its Subcontractors, in connection with the Project.
- (ii) The payroll records shall be verified as true and correct and shall be certified and made available for inspection at all reasonable hours at the principal office of Contractor and its Subcontractors, respectively.
- (iii) At the request of City, acting by its Project Manager, Contractor and its Subcontractors shall make the certified payroll records available for inspection or furnished upon request to the City's Project Manager within ten (10) days of receipt of City's request.

☐ City requests Contractor and its Subcontractors to submit the certified payroll records to the City's Project Manager at the end of each week during the Project.

- (iv) If the certified payroll records are not provided as required within the 10-day period, then Contractor and its Subcontractors shall be subject to a penalty of one hundred dollars (\$100.00) per calendar day, or portion thereof, for each worker, and City shall withhold the sum total of penalties from the progress payment(s) then due and payable to Contractor. This provision supplements the provisions of Section 15 hereof.
- (v) Inform the City's Project Manager of the location of Contractor's and its Subcontractors' payroll records (street address, city and county) at the commencement of the Project, and also provide notice to the City's Project Manager within five (5) business days of any change of location of those payroll records.

### **32.6 Employment of Apprentices.**

Contractor shall comply with the statutory requirements regarding employment of apprentices including without limitation Labor Code Section 1777.5. The statutory provisions will be enforced for penalties for failure to pay prevailing wages and for failure to comply with wage and hour laws.

IN WITNESS WHEREOF, the parties have caused this Construction Contract to be executed the date and year first above written.

**CITY OF PALO ALTO**

\_\_\_\_\_  
City Manager

APPROVED AS TO FORM:

\_\_\_\_\_  
City Attorney or designee

APPROVED:

\_\_\_\_\_  
Utilities Director

**GSW CONSTRUCTION, INC.**

Officer 1

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Officer 2

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

# **CITY OF PALO ALTO GENERAL CONDITIONS**

## GENERAL CONDITIONS TABLE OF CONTENTS

|                                                                       |           |
|-----------------------------------------------------------------------|-----------|
| <b>ARTICLE 1 – PRELIMINARY PROVISIONS</b>                             | <b>26</b> |
| 1.1 DEFINITIONS .....                                                 | 26        |
| 1.2 OWNERSHIP AND USE OF DOCUMENTS.....                               | 32        |
| 1.3 INTERPRETATION OF CONTRACT DOCUMENTS.....                         | 32        |
| <b>ARTICLE 2 – CITY’S RIGHTS AND OBLIGATIONS</b>                      | <b>34</b> |
| 2.1 INFORMATION AND SERVICES PROVIDED BY CITY .....                   | 34        |
| 2.2 ACCESS TO PROJECT SITE .....                                      | 34        |
| 2.3 CITY’S RIGHT TO STOP THE WORK .....                               | 34        |
| 2.4 CITY’S RIGHT TO CARRY OUT THE WORK.....                           | 35        |
| 2.5 ACCESS TO MUNICIPAL SERVICE CENTER .....                          | 35        |
| 2.6 EMERGENCY TERMINATION OF CONTRACT .....                           | 35        |
| <b>ARTICLE 3 – CONTRACTOR’S RIGHTS AND OBLIGATIONS</b>                | <b>35</b> |
| 3.1 REVIEW OF THE SITE, CONTRACT DOCUMENTS AND FIELD CONDITIONS ..... | 35        |
| 3.2 SUPERVISION AND CONSTRUCTION PROCEDURES .....                     | 37        |
| 3.3 RESPONSIBILITY FOR THE WORK .....                                 | 37        |
| 3.4 LABOR, WORKMANSHIP, MATERIALS AND MANUFACTURED ITEMS .....        | 38        |
| 3.5 CONTRACTOR’S WARRANTY .....                                       | 38        |
| 3.6 CONSTRUCTION METHODS AND PROCEDURES.....                          | 38        |
| 3.7 TAXES .....                                                       | 39        |
| 3.8 LEGAL REQUIREMENTS .....                                          | 39        |
| 3.9 PROJECT STAFF .....                                               | 39        |
| 3.10 SCHEDULES REQUIRED OF CONTRACTOR.....                            | 39        |
| 3.11 DOCUMENTS AND SAMPLES AT PROJECT SITE.....                       | 41        |
| 3.12 SUBMITTALS.....                                                  | 42        |
| 3.13 TRADE NAMES, SUBSTITUTIONS.....                                  | 44        |
| 3.14 DAILY REPORTS BY CONTRACTOR.....                                 | 44        |
| 3.15 CUTTING AND PATCHING .....                                       | 45        |
| 3.16 ACCESS TO THE WORK .....                                         | 45        |
| 3.17 ROYALTIES AND PATENTS .....                                      | 45        |
| 3.18 PERMITS AND LICENSES.....                                        | 45        |
| 3.19 DIFFERING SITE CONDITIONS.....                                   | 46        |



|                                                                         |                                                                                      |           |
|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------|
| 3.20                                                                    | INSPECTIONS.....                                                                     | 46        |
| 3.21                                                                    | STOP NOTICES.....                                                                    | 47        |
| 3.22                                                                    | PARKING.....                                                                         | 47        |
| 3.23                                                                    | USE OF THE PROJECT SITE AND CLEAN UP .....                                           | 47        |
| 3.24                                                                    | ENVIRONMENTAL CONTROLS.....                                                          | 48        |
| 3.25                                                                    | TEMPORARY WATER, LIGHT AND POWER.....                                                | 55        |
| 3.26                                                                    | CITY TRUCK ROUTE ORDINANCE.....                                                      | 55        |
| 3.27                                                                    | UNFAIR BUSINESS PRACTICE CLAIMS .....                                                | 55        |
| 3.28                                                                    | EXISTING UTILITIES.....                                                              | 55        |
| <b>ARTICLE 4 – ADMINISTRATION OF THE CONTRACT.....</b>                  |                                                                                      | <b>56</b> |
| 4.1                                                                     | CONTRACT ADMINISTRATION BY CITY, DESIGN CONSULTANT AND<br>CONSTRUCTION MANAGER ..... | 56        |
| 4.2                                                                     | CLAIMS.....                                                                          | 57        |
| 4.3                                                                     | RESOLUTION OF CONTRACT DISPUTES.....                                                 | 61        |
| <b>ARTICLE 5 – SUBCONTRACTORS.....</b>                                  |                                                                                      | <b>64</b> |
| 5.1                                                                     | CONTRACTOR'S AWARD OF SUBCONTRACTS .....                                             | 64        |
| 5.2                                                                     | SUBCONTRACTOR RELATIONS.....                                                         | 64        |
| 5.3                                                                     | CONTINGENT ASSIGNMENT OF SUBCONTRACTS.....                                           | 66        |
| 5.4                                                                     | CONTRACTOR AND SUBCONTRACTOR RESPONSIBILITY.....                                     | 66        |
| <b>ARTICLE 6 – CONSTRUCTION BY CITY OR BY SEPARATE CONTRACTORS.....</b> |                                                                                      | <b>66</b> |
| 6.1                                                                     | CITY'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS.....            | 66        |
| 6.2                                                                     | MUTUAL RESPONSIBILITY.....                                                           | 67        |
| 6.3                                                                     | CITY'S RIGHT TO CLEAN UP.....                                                        | 67        |
| <b>ARTICLE 7 – CHANGES.....</b>                                         |                                                                                      | <b>67</b> |
| 7.1                                                                     | CHANGES .....                                                                        | 67        |
| 7.2                                                                     | CHANGE ORDER REQUESTS AND CHANGE ORDERS.....                                         | 69        |
| 7.3                                                                     | FIELD ORDERS.....                                                                    | 73        |
| 7.4                                                                     | DISPUTES REGARDING CHANGES .....                                                     | 74        |
| <b>ARTICLE 8 – CONTRACT TIME .....</b>                                  |                                                                                      | <b>74</b> |
| 8.1                                                                     | COMMENCEMENT OF THE WORK .....                                                       | 74        |
| 8.2                                                                     | PROGRESS AND COMPLETION .....                                                        | 74        |
| 8.3                                                                     | CONSTRUCTION HOURS.....                                                              | 75        |
| 8.4                                                                     | HOLIDAYS.....                                                                        | 75        |
| 8.5                                                                     | DELAY .....                                                                          | 76        |

|                                                                                      |           |
|--------------------------------------------------------------------------------------|-----------|
| <b>ARTICLE 9 – PAYMENTS AND COMPLETION</b>                                           | <b>78</b> |
| 9.1    SCHEDULE OF VALUES                                                            | 78        |
| 9.2    PROGRESS PAYMENT                                                              | 78        |
| 9.3    APPLICATION FOR PAYMENT                                                       | 79        |
| 9.4    CERTIFICATE FOR PAYMENT                                                       | 80        |
| 9.5    DEPOSIT OF SECURITIES IN LIEU OF RETENTION & DEPOSIT OF RETENTION INTO ESCROW | 81        |
| 9.6    BENEFICIAL OCCUPANCY                                                          | 82        |
| 9.7    SUBSTANTIAL COMPLETION                                                        | 83        |
| 9.8    FINAL COMPLETION AND FINAL RETENTION                                          | 83        |
| <b>ARTICLE 10 – PROTECTION OF PERSONS AND PROPERTY</b>                               | <b>85</b> |
| 10.1    SAFETY PRECAUTIONS AND PROGRAMS                                              | 85        |
| 10.2    SAFETY OF PERSONS AND PROPERTY                                               | 85        |
| 10.3    EMERGENCIES                                                                  | 87        |
| 10.4    TRENCH SAFETY                                                                | 87        |
| <b>ARTICLE 11 – INSURANCE AND BONDS</b>                                              | <b>87</b> |
| 11.1    CONTRACTOR'S INSURANCE                                                       | 87        |
| 11.2    BOND REQUIREMENTS                                                            | 89        |
| <b>ARTICLE 12 – DEFECTIVE WORK</b>                                                   | <b>90</b> |
| 12.1    UNCOVERING OF WORK                                                           | 90        |
| 12.2    CORRECTION OF DEFECTIVE WORK AND GUARANTEE TO REPAIR PERIOD                  | 90        |
| 12.3    ACCEPTANCE OF DEFECTIVE WORK                                                 | 92        |
| <b>ARTICLE 13 – STATUTORY REQUIREMENT</b>                                            | <b>92</b> |
| 13.1    STATE LABOR LAW                                                              | 92        |
| 13.2    WORKDAY                                                                      | 93        |
| <b>ARTICLE 14 – JOB SITE NOTICES AND COMPLIANCE MONITORING</b>                       | <b>93</b> |
| 14.1    LABOR PROVISIONS                                                             | 93        |

**ATTACHMENTS:**

- A:    FIELD ORDER
- B:    CHANGE ORDER REQUEST
- C:    CONTRACT CHANGE ORDER

## **ARTICLE 1 – PRELIMINARY PROVISIONS**

### **1.1 DEFINITIONS**

Terms appearing in the Contract Documents with initial capitalization shall have the meanings set forth below:

1.1.1 ACCEPTANCE: The point after Final Completion when Contractor has fully performed all of the requirements of the Contract Documents and the Work is accepted by City in writing.

1.1.2 ADDENDA, ADDENDUM: Written or graphic information (including, without limitation, Drawings or Special Provisions and Technical Specifications) prepared and issued by City Engineer prior to the deadline for submission of Bids, which modify or interpret the Contract Documents by additions, deletions, clarifications or corrections

1.1.3 ALLOWABLE COSTS: Actual and direct costs for performing Extra Work, including labor, materials, supplies, and equipment, as further specified herein, in Article 7 – Changes.

1.1.4 ALLOWANCE: An amount included in the Bid for Work that may or may not be included in the Project, or for portions of Work where the amount or scope of the Work cannot be ascertained at the time of Bid submissions.

1.1.4 ALTERNATE(S): Those portions of the Bid setting forth the price(s) for optional or alternative items of Work not covered by the Base Bid.

1.1.5 APPLICABLE CODE REQUIREMENTS: All applicable federal, state and municipal laws, statutes, building codes, ordinances and regulations of governmental authorities having jurisdiction over the Project, Work, Site, Contractor or City.

1.1.6 APPLICATION FOR PAYMENT: An itemized application for payment prepared and submitted by Contractor for review and approval by City, which is prepared, submitted and accompanied by supporting documentation in accordance with the requirements of the Contract Documents.

1.1.7 APPROVE, APPROVED or APPROVAL: Whether capitalized or not capitalized, shall mean, unless otherwise stated, either an express approval contained in a written statement signed by the approving authorized individual or deemed approved in accordance with the terms, conditions and procedures set forth in the Contract Documents. All such approvals by or on behalf of City (including, without limitation, approvals by Construction Manager) may be granted or withheld in the sole discretion of City.

1.1.8 AS-BUILT DOCUMENTS: The Contract Documents showing the condition of the Work as actually built, including, without limitation, the locations of mechanical, electrical, plumbing, HVAC or similar portions of the Work that are shown diagrammatically in the Contract Documents approved by City. These documents are maintained by Contractor on the Site and delivered, along with an electronic version of the set, to City upon Final Completion.

1.1.9 BASE BID: The sum stated in the Bid to perform the Work, exclusive of any Alternate(s).

1.1.10 BENEFICIAL OCCUPANCY: City's right, at its option and convenience, to occupy or otherwise make use of all or any part of the Work prior to either Substantial Completion, Final Completion, or Acceptance.

1.1.11 BID: A written bid proposal submitted to City for the Project in response to City's Invitation for Bids.

1.1.12 BIDDER: An individual or entity that submits a Bid.

1.1.13 CERTIFICATE FOR PAYMENT: The form for approval by the Construction Manager of Contractor's Application for Payment.

1.1.14 CHANGE: Additions, deletions, or other modifications to the Work, which may or may not involve Extra Work and which may or may not involve an adjustment (increase or decrease) to the Contract Sum or the Contract Time under the terms of the Contract Documents.

1.1.15 CHANGE ORDER: A duly authorized written instrument signed by City, or by City and Contractor, which operates to amend the scope of Work, and which may also amend the Contract Sum or the Contract Time.

1.1.16 CHANGE ORDER REQUEST: Contractor's written request for a Change Order.

1.1.17 CITY: City of Palo Alto, a California chartered Municipal Corporation.

1.1.18 CITY ENGINEER: City Engineer of City of Palo Alto or its designee.

1.1.19 CLAIM: A separate demand by Contractor, submitted in writing by registered or certified mail with return receipt requested, for change in the Contract Time, including a time extension or relief from liquidated damages, or a change in the Contract Price, which has previously been submitted to City in accordance with the requirements of the Contract Documents, and which has been rejected or disputed by City, in whole or in part.

1.1.20 CLIENT DEPARTMENT: Department or Division of City of Palo Alto identified as the end user of the facilities.

1.1.21 CONSTRUCTION CONTRACT or CONTRACT: The written contract executed between City and Contractor for construction of the Project.

1.1.22 COMPENSABLE DELAY: A Delay for which Contractor may be entitled under the Contract Documents to both an extension of the Contract Time and an adjustment of the Contract Sum for additional compensation.

1.1.23 CONSTRUCTION MANAGER: The City designated employee, project manager or an individual, partnership, corporation, joint venture or other legal entity under contract with City to perform construction management services for the Project. The term "Construction Manager" means Construction Manager or Construction Manager's authorized representative.

1.1.24 CONSTRUCTION SCHEDULE: The Approved graphical representation of Contractor's as-planned schedule for performance of the Work, and all Approved updates thereto, prepared in accordance with the requirements of the Contract Documents and that provides for Substantial Completion of the Work within the Contract Time.

1.1.25 **CONTRACT DISPUTE:** A dispute arising out of or related to the Construction Contract or the interpretation, enforcement or breach thereof, except as specified in Article 4 herein.

1.1.26 **CONTRACT DISPUTE RESOLUTION PROCESS:** The process of resolution of Contract Disputes, and, upon election of City, disputes as set forth in Article 4 of these General Conditions.

1.1.27 **CONTRACT DOCUMENTS:** This term shall be as defined in Section 3 of the Construction Contract.

1.1.28 **CONTRACT SUM:** The total amount of compensation stated in the Construction Contract that is payable to Contractor for the performance of the Work in accordance with the Contract Documents, including adjustments made by Change Order.

1.1.29 **CONTRACT TIME:** The total number of days set forth in the Construction Contract within which Substantial Completion of the Work must be achieved by Contractor, including any adjustments of time (increases or decreases) made by Change Order.

1.1.30 **CONTRACTOR:** The individual or firm under contract with City to serve as the General Contractor for construction of the Project, including Contractor's authorized representative.

1.1.31 **CONTRACTOR MARKUP:** The markup that the Contractor or Subcontractor may make on Extra Work that it performs with its own forces. A fixed sum calculated as ten percent (10%) of applicable Allowable Costs incurred by Contractor or Subcontractor for performing Extra Work with its own forces, which is deemed to be full compensation for Contractor's or Subcontractor's indirect costs associated with Extra Work, including, overhead, profit, and other indirect costs not included in the Allowable Costs. Contractor Markup is separate from and does not include Subcontractor Markup as defined herein.

1.1.32 **DAY:** Whether capitalized or not, unless otherwise specifically provided, means calendar day, including weekends and legal holidays.

1.1.33 **DEFECTIVE WORK:** Work by Contractor that is unsatisfactory, faulty, omitted, incomplete, deficient or does not conform to the Applicable Code Requirements, the Contract Documents, the directives of City or the requirements of any inspection, reference standard, test, code or approval specified in the Contract Documents.

1.1.34 **DELAY:** Whether capitalized or not, includes any circumstances involving disruption, hindrance, or interference in the performance of the Work within the Contract Time.

1.1.35 **DELETED WORK:** Work that is eliminated due to a Change in the Work requested by City or Contractor for which City is entitled to a deductive adjustment in the Contract Sum.

1.1.36 **DESIGN CONSULTANT:** The individual(s) or firm(s) under contract with City to provide design or engineering services for the Project and responsible for preparing the Contract Documents for the Project. The term "Design Consultant" means Design Consultant or Design Consultant's authorized representative.

1.1.37 **DRAWINGS:** The graphic and pictorial portions of the Contract Documents showing the design, location, and dimensions of the Work, generally including plans, elevations, subparagraphs, details, schedules and diagrams. The Drawings are outlined in the Drawing Index. The term "Drawings" may be used interchangeably with "Plans."

1.1.38 **ESCROW AGENT:** A state or federally chartered bank in the State of California which holds securities pursuant to an escrow agreement as set forth in Section 9.5 of these General Conditions.

1.1.39 **EXCUSABLE DELAY:** A Delay for which Contractor may be entitled under the Contract Documents to an extension of time, but not compensation.

1.1.40 **EXISTING IMPROVEMENTS:** All improvements located on the Site as of the date of execution of the Construction Contract, whether above or below the surface of the ground, including but not limited to existing buildings, utilities, infrastructure improvements and other facilities.

1.1.41 **EXTRA WORK:** Additional Work or costs due to a Change in the Work that is not described in or reasonably inferable from the Contract Documents which may be the basis for an adjustment of the Contract Sum and/or the Contract Price under the terms of the Contract Documents. Extra Work shall not include additional Work or costs arising from Contractor's failure to perform any of its duties or obligations under the Contract Documents.

1.1.42 **FIELD ORDER:** A written instrument signed by the City or its Construction Manager that authorizes and directs performance of the Work described therein, and which may or may not include adjustments (increase or decrease) to the Contract Sum and/or Contract Time.

1.1.43 **FINAL COMPLETION:** Full completion of all Work required by the Contract Documents, including all punch list items, and submission of Record Documents, all to City's satisfaction.

1.1.44 **FINAL PAYMENT:** Final payment of the Contract Sum following Final Completion, including release of undisputed retention, less any amounts withheld or offset pursuant to the Contract Documents, including, but not limited to, liquidated damages, unreleased stop notices, amounts subject to setoff, and up to 150% of unresolved third-party claims for which Contractor is required to indemnify City, and up to 150% of any amounts in dispute as authorized by Public Contract Code Section 7107.

1.1.45 **FRAGNET:** A "Fragnet", sometimes referred to as "time impact analysis," is a contemporaneous, fragmentary scheduling network, which graphically identifies the sequencing of all critical and non-critical new activities and/or activity revisions affected by a Change Order or Delay, with logic ties to all affected existing activities noted on the Construction Schedule. Its objective is to isolate and quantify any time impact of a specific issue, determine and demonstrate any such specific Delay in relation to past and/or other current Delays and to provide a method for incorporating adjustments to the Contract Time into the Construction Schedule.

1.1.46 **GENERAL CONDITIONS:** That portion of the Contract Documents relating to the administrative procedures to be followed by Contractor in carrying out the Work.

1.1.47 **HAZARDOUS SUBSTANCES:** Refers to, without limitation, the following: any chemical, material or other substance defined as or included within the definition of hazardous substances, hazardous materials, hazardous wastes, extremely hazardous substances, toxic substances, toxic material, restricted hazardous waste, special waste, universal wastes or words of similar import under any Environmental Law.

1.1.48 **LOSSES:** Any and all losses, costs, liabilities, Claims, damages, liquidated damages, actions, judgments, settlements, expenses, fines and penalties. "Losses" do not include attorneys' fees.

1.1.49 **NOTICE OF AWARD:** Written notice issued by City notifying Contractor of issuance of the Construction Contract.

1.1.50 **NOTICE TO PROCEED:** Written notice issued by City to Contractor to begin the Work.

1.1.51 **PERFORMANCE BOND, PAYMENT BOND:** The performance and payment bonds to be provided by Contractor for the Project.

1.1.52 **PLANS:** The graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, subparagraphs, details, schedules and diagrams. The term "Plans" may be used interchangeably with "Drawings."

1.1.53 **PRE-CONSTRUCTION MEETING:** A meeting held with the Project Team prior to beginning construction in order to review Contract Documents and clarify roles, responsibilities and authority of the Project Team.

1.1.54 **PROJECT:** The total construction, of which the Work performed by Contractor under the Contract Documents may be the whole or part and which may include Work performed by City's own forces or by Separate Contractors.

1.1.55 **PROJECT TEAM:** Collectively, the Contractor, City, Design Consultant, Separate Contractors, Construction Manager and other consultants and contractors providing professional and technical consultation for the design and construction of the Project.

1.1.56 **RECORD DOCUMENTS:** The term "Record Documents" refers to the As-Built Documents, warranties, guarantees and other documents required to be submitted by Contractor as a condition of Final Completion.

1.1.57 **REQUEST FOR INFORMATION:** A written instrument, prepared by Contractor, which requests an interpretation or clarification in the Work or a response to a question concerning the Work. A Request for Information does not entitle Contractor to an adjustment in the Contract Sum unless it requires Extra Work and Contractor requests and is entitled to such an adjustment in accordance with the provisions of the Contract Documents.

1.1.58 **REQUEST FOR INFORMATION RESPONSE:** A written instrument, usually prepared by the Design Consultant, provided in response to a Request for Information, setting forth an interpretation or clarification in the Work or a response to a Contractor question concerning the Work.

1.1.59 **SCHEDULE OF VALUES:** A detailed, itemized breakdown of the Contract Sum, which provides for a fair and reasonable allocation of the dollar values to each of the various parts of the Work.

1.1.60 **SEPARATE CONTRACTOR:** A person or firm under separate contract with City or other entity performing other Work at the Site.

1.1.61 SITE: The physical site located within City where the Project is to be constructed, including all adjacent areas for staging, storage, parking and temporary offices.

1.1.62 SPECIAL PROVISIONS AND TECHNICAL SPECIFICATIONS: The portions of the Contract Documents consisting of the written requirements for materials, equipment, standards, skill, quality for the Work and performance of related services. These provisions may also contain amendments, deletions or additions to the General Conditions.

1.1.63 STATEMENT OF CONTRACT DISPUTE: The Contractor's written statement prepared in accordance with Article 4 of these General Conditions required as a condition of its initiating the Contract Dispute Resolution Process set forth in the Construction Contract.

1.1.64 SUBCONTRACTOR: A person or firm that has a contract with a Contractor to perform a portion of the Work. The term "Subcontractor" includes suppliers and vendors and is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. "Subcontractor" includes Subcontractors of any tier.

1.1.65 SUBCONTRACTOR MARKUP: The markup the Contractor may make on Extra Work performed by a Subcontractor. A fixed sum calculated as fifteen percent (15%) of the Subcontractor's Allowable Costs incurred by Subcontractor for performing Extra Work, which is deemed to be full compensation for Contractor's indirect costs for having the Extra Work performed by the Subcontractor, including, overhead, profit, and other indirect costs not included in Allowable Costs. Subcontractor Markup is made on the Subcontractor's incurred Allowable Costs only, which is separate from and does not include Contractor Markup, as defined herein, made by the Subcontractor.

1.1.66 SUBMITTALS: All shop drawings, samples, exemplars, product data and other submittals required to be submitted by Contractor under the Contract Documents.

1.1.67 SUBSTANTIAL COMPLETION, SUBSTANTIALLY COMPLETE: As determined by City, the point at which the Work is sufficiently complete to be occupied and utilized by City for its intended purpose, and Contractor has fulfilled its obligations under the Contract Documents, except for minor punchlist items which do not impair City's ability to so occupy and utilize the Project.

1.1.68 SUPERINTENDENT: The person appointed by Contractor, subject to approval by City, to supervise and coordinate Contractor's own forces and Subcontractors in all aspects of the Work.

1.1.69 UNEXCUSED DELAY: Any Delay in the path of activities that is critical to Substantial Completion of the Work within the Contract Time and which Delay is not attributable to the City. An Unexcused Delay shall not entitle Contractor to either an extension of the Contract Time or an adjustment of the Contract Sum. To the extent an Unexcused Delay is concurrent with an Excused Delay, the Excusable Delay shall be conclusively deemed an Unexcused Delay.

1.1.70 WORK: All labor, materials, equipment, services, permits, fees, licenses and taxes, and all other things necessary for Contractor to perform its obligations and complete the Project, including, without limitation, any changes or additions requested by City, in accordance with the Contract Documents and all Applicable Code Requirements.



## **1.2 OWNERSHIP AND USE OF DOCUMENTS**

1.2.1 All originals, copies and electronic forms of Plans and Drawings, Technical Specifications, (including, without limitation, the Contract Documents) shall not be used by Contractor, or any Subcontractor, for any purpose other than performance of the Work. Contractor and Subcontractors are granted a limited license, revocable at will by City, to use and reproduce applicable portions of the Contract Documents appropriate to and for performing the Work under the Contract Documents; provided however, that such use shall not reduce Owner's rights to use and ownership of the documents.

1.2.2 Contractor shall keep on the Site of the Project, at all times, a complete set of City approved, permitted Contract Documents for use by City.

1.2.3 Proposed Changes or refinements and clarifications will be provided to Contractor in the form of reproducible prints. Contractor shall, at its own expense and without adjustment to the Contract Sum, reproduce and distribute such prints as are necessary for the complete pricing of the Change and for performance of the Work.

1.2.4 Contractor shall include a provision in all contracts with Subcontractors who perform Work on the Project, protecting and preserving City's rights to ownership and use of documents as set forth in this Section 1.2.

## **1.3 INTERPRETATION OF CONTRACT DOCUMENTS**

1.3.1 The Contract Documents are complementary and what is required by one shall be as binding as if required by all.

1.3.2 In general, the Drawings will show dimensions, positions, and type of construction to be completed; and the Special Provisions and Technical Specifications will define materials, quality and standards. Any Work called for on the Drawings and not mentioned in the Special Provisions and Technical Specifications, or vice versa, shall be performed as though fully set forth in both. Work not particularly detailed, marked or specified, shall be the same as similar parts that are detailed, marked or specified.

1.3.3 Unless otherwise stated in the Contract Documents, technical words and abbreviations contained in the Contract Documents are used in accordance with commonly understood construction industry meanings and non-technical words and abbreviations are used in accordance with their commonly understood meanings.

1.3.4 The Contract Documents may omit modifying words such as "all" and "any," and articles such as "the" and "an." If a modifier or an article is not included in one statement and appears in another it is not intended to affect the interpretation of either statement. The use of the word "including," when following any general statement, shall not be construed to limit such statement to specific items or matters set forth immediately following such word or to similar items or matters whether or not non-limiting language (such as "without limitation," "but not limited to," or words of similar import) is used with reference thereto, but rather shall be deemed to refer to all other items or matters that could reasonably fall within the broadest possible scope of such general statement.

1.3.5 Whenever the context so requires, the use of the singular number shall be deemed to include the plural and vice versa. Each gender shall be deemed to include the other gender, and each shall include corporation, partnership, trust, or other legal entity whenever the context so requires. The captions and headings of the various subdivisions of the Contract Documents are intended only as a matter of reference and convenience and in no way define, limit, or prescribe the scope or intent of the Contract Documents or any subdivision thereof.

1.3.6 Any cross-references indicated between various subparagraphs or Drawings and Documents are provided for the Contractor's convenience and shall not be all-inclusive.

1.3.7 Unless specifically noted to the contrary, all Work, equipment, casework, mechanical, electrical and similar devices of whatever nature in the Contract Documents shall be completely installed, hooked-up, made operational and made functional for the purpose such are intended, and all costs therefore are included in the Contract Sum.

1.3.8 Figured dimensions on scale Drawings and on full size Drawings shall govern over scale Drawings without figured dimensions. The Drawings shall not be scaled to determine dimensions, and (except in the case of diagrammatic Drawings) shall be calculated from figures shown on the Drawings. Obvious discrepancies between scale and figured dimensions, unless marked "not to scale," must be brought to the Construction Manager's attention before proceeding with the Work affected by the discrepancy.

1.3.9 If there is a conflict between any of the Contract Documents, Contractor shall immediately bring such conflict to the attention of City, whose decisions regarding such conflict shall be final and binding as to the requirements of the Contract Documents. In the event of any conflicts between or among the Applicable Code Requirements, the more stringent shall govern. In the event a conflict between any of the Contract Documents is not resolved by the order of precedence established in the Contract Documents, the highest standard of quality and skill, the most stringent requirements, and the most specific provision of the Contract Documents shall govern and shall be required in the performance of the Work.

1.3.10 The general character of the Work is shown in the Contract Documents, but Changes, modifications, clarifications and refinements may be made in details when needed to more fully explain the Work. Provided that they are a logical evolution of the Contract Documents that were bid by Contractor or were reasonably inferable as necessary to provide a completed and fully operational system, facility or structure, the same shall be considered part of the scope of the Work to be performed without adjustment in the Contract Sum or the Contract Time.

1.3.11 Where on any Drawing a portion of the Work is drawn out and the remainder is indicated in outline, the drawn-out parts shall apply also to all other like portions of the Work.

1.3.12 Contractor will provide all necessary labor, equipment, transportation and incidentals required to complete the Work, even if the Contract Documents do not describe the Work in complete detail.

1.3.13 Drawings and diagrams for mechanical, plumbing and electrical Work shall be considered as diagrammatic only and shall not to be used for any structural guidance or physical layout, unless specifically detailed or dimensioned, and Contractor shall be responsible to provide any and all numbers and lengths of mechanical, plumbing or electrical fittings, wire, conduit, connections, attachments or similar materials needed to complete the Work, at no adjustment to the Contract Sum or Contract Time, whether or not they exceed the numbers of such pieces or the lengths indicated by the Drawings.

1.3.14 City, in its sole discretion, will interpret the Contract Documents and make the determination of whether or not Contractor has fulfilled the requirements of the Contract Documents. Such interpretations and decisions of City shall be final and binding upon Contractor.

## **ARTICLE 2 –CITY’S RIGHTS AND OBLIGATIONS**

### **2.1 INFORMATION AND SERVICES PROVIDED BY CITY**

2.1.1 Except as otherwise provided in the Special Provisions and Technical Specifications, Contractor shall obtain and pay for any permits, easements and governmental approvals, including City building and related permits, for the use or occupancy of permanent structures required in connection with the Work.

2.1.2 If Contractor becomes aware of any ambiguity, uncertainty, conflict, inconsistency, discrepancy, omission, or error in or among the Contract Documents, Contractor must promptly submit a Request for Information (“RFI”) requesting clarification, interpretation, or direction. A Contractor RFI will be considered excessive or unnecessary if City determines that the explanation or response to the RFI is clearly and unambiguously discernable from the Contract Documents. City’s costs to review and respond to excessive or unnecessary RFIs may be deducted from payments otherwise due to Contractor.

2.1.3 A Request for Information Response providing clarification, interpretation or direction will be final and binding on Contractor. If Contractor proceeds with the related Work before obtaining City’s Request for Information Response, Contractor will be responsible for any resulting costs, including the cost of correcting any incorrect or defective Work that results. Timely submission of a clear and complete RFI is essential to avoiding delay. Delay resulting from Contractor’s failure to submit a timely and complete RFI is not Excusable Delay. If Contractor believes that City’s response to an RFI justifies a change to the Contract Sum or Contract Time, Contractor must perform the Work as directed, but may submit a timely Change Order request in accordance with the Contract Documents.

### **2.2 ACCESS TO PROJECT SITE**

City will make available, no later than the commencement date designated in the current construction Schedule accepted by City, the lands and facilities upon which the Work is to be performed, including such access and other lands and facilities designated in the Contract Documents, for use by Contractor.

### **2.3 CITY’S RIGHT TO STOP THE WORK**

If Contractor fails to correct Defective Work as required by Section 12.2 of these General Conditions, fails to perform the Work in accordance with the Contract Documents, or violates any Applicable Code Requirement, City may, without terminating the Contract, direct Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated by Contractor. Contractor shall not be entitled to any adjustment of Contract Time or Contract Sum as a result of any such order. City shall have no duty or responsibility to Contractor or any other party to exercise the right to stop the Work.

## **2.4 CITY'S RIGHT TO CARRY OUT THE WORK**

If Contractor fails to carry out the Work in accordance with the Contract Documents, fails to provide sufficient labor, materials, equipment, tools and services to maintain the Construction Schedule, or otherwise fails to comply with any requirement of the Contract Documents, and fails within the time specified in the Contract Documents, after receipt of notice from City to promptly commence and thereafter diligently continue to completion the correction of such failure, City may, without prejudice to other remedies City may have and without terminating the Contract, correct such failure at Contractor's expense. In such case, City shall be entitled to deduct from payments then or thereafter due Contractor the cost of correcting such failure, including compensation for the additional services and expenses of City and City's consultants made necessary thereby. If payments then or thereafter due Contractor are not sufficient to cover such amounts, Contractor shall pay the additional amount to City.

## **2.5 ACCESS TO MUNICIPAL SERVICE CENTER**

For all Projects which require Contractor access to City's Municipal Service Center (MSC), all Contractors shall provide and all Contractor's personnel shall at all times display, in the form of badges, identification which shall include the Contractor's name, the employee's name, City's Project Managers name and telephone number, and the name and number of the Project being performed. Badge identification information shall correspond with information contained in the bearer's driver license or with other City approved identification. Any discrepancies, or failure of Contractor's personnel to display proper identification, will in result their removal from the Project, or in refusal of access to the MSC.

## **2.6 EMERGENCY TERMINATION OF CONTRACT**

The Construction Contract is subject to termination as provided by Section 4410 and Section 4411 of the Government Code of the State of California, being portions of the Emergency Termination of Public Contract Act of 1949. In the event that the Construction Contract is terminated pursuant to said section, compensation to the Contractor shall be determined on the basis of the reasonable value of the Work done, including preparatory work. As an exception of the foregoing, in the case of any fully completed separate item or portion of the work for which there is a separate unit or contract price, the unit or contract price shall control.

# **ARTICLE 3 – CONTRACTOR'S RIGHTS AND OBLIGATIONS**

## **3.1 REVIEW OF THE SITE, CONTRACT DOCUMENTS AND FIELD CONDITIONS**

3.1.1 Contractor warrants that it is satisfied as to character, quality, and quantities of surface and subsurface materials or obstacles to be encountered insofar as reasonably ascertainable from a careful inspection of the Site (including, without limitation, Existing Improvements on the Site) and from the geological investigation reports, data and similar information, if any, made available to Contractor by City. Any failure by Contractor to take such information or conditions into consideration will not relieve Contractor from responsibility for estimating the difficulty and cost of successfully completing the Work within the Contract Sum and Contract Time.

3.1.2 Contractor warrants and represents that it has carefully reviewed the Bid and Contract Documents prior to submitting its Bid and executing the Contract. The Contractor shall not be entitled, and conclusively waives any right, to an adjustment in the Contract Sum or Contract Time for any additional or unforeseen costs or Delay in the performance of Work due to conditions in Contract Documents constituting errors, omissions, conflicts, ambiguities, lack of coordination or noncompliance with Applicable Code Requirements, if such conditions were either discovered by Contractor or could have been reasonably discovered by Contractor or its Subcontractors in the exercise of care and diligence in the review of the Contract Documents, subject to the limitations of Public Contract Code Section 1104.

3.1.3 If Contractor discovers what it perceives to be errors, omissions, conflicts, ambiguities, lack of coordination or noncompliance with Applicable Code Requirements in the Contract Documents, then Contractor shall, within two (2) days of discovery, notify City or the Construction Manager in writing stating both of the following:

- (i) A detailed description of the conditions discovered.
- (ii) Contractor's request for clarification, further details or correction of the Contract Documents.

Failure by Contractor to provide written notice within the period of time required shall result in Contractor waiving any right to adjustment in the Contract Sum or Contract Time on account thereof.

3.1.4 If Contractor believes it is entitled to an adjustment of the Contract Sum or Contract Time for Extra Work based upon additional written or verbal instructions, information, or direction from City, Design Consultant, or Construction Manager, it may submit a Change Order Request pursuant to Article 7 of the General Conditions within ten (10) days of receipt of such instructions, information, or direction.

3.1.5 The Contractor shall take field measurements of the existing field conditions verified. Contractor shall carefully compare the field conditions with the Contract Documents and other information known to Contractor before commencing the Work. Contractor shall promptly report in writing to the Construction Manager any errors, inconsistencies, or omissions the Contractor discovers.

3.1.6 If Contractor performs any portion of the Work which it knows, or in the exercise of care and diligence should have known, involves an error, omission, conflict, ambiguity, lack of coordination or noncompliance with Applicable Code Requirements, without notifying and obtaining the written Approval of City or before obtaining a written clarification, interpretation, instruction or decision from Construction Manager, then any Work that is performed that is not in conformance with the clarifications, interpretation, instruction or decision of City, Design Consultant or Construction Manager shall be removed or replaced and Contractor shall be responsible for the resultant Losses with no adjustment in the Contract Sum or Contract Time.

3.1.7 Existing Improvements at the Site, for which no specific description is made on the Drawings, but which could be reasonably assumed to interfere with the satisfactory completion of the Work, shall be removed and disposed of by Contractor, but only upon the specific direction and control of City. Without limitation to the foregoing, and notwithstanding any information provided by City pertaining to groundwater elevations and/or geological and soils conditions encountered, it is understood that it is Contractor's responsibility to determine and allow for the elevation of groundwater, and the geological and soils conditions at the date of performance of the Work.

### **3.2 SUPERVISION AND CONSTRUCTION PROCEDURES**

3.2.1 Contractor shall supervise, coordinate and direct the Work using Contractor's best skill and attention and shall provide supervision sufficient to assure proper coordination and timely completion of the Work. Contractor shall be solely responsible for and have control over construction means, methods, techniques, safety, sequences, procedures and the coordination of all portions of the Work.

3.2.2 Contractor shall be responsible for the accurate layout of all portions of the Work and shall verify all dimensions on the Drawings and shall report to City any discrepancies before proceeding with related Work.

3.2.3 Contractor may be assigned working space adjacent to the Site, and all field offices, materials and equipment shall be kept within this area. Contractor shall be responsible for leaving the space in as good condition as Contractor found it, or restoring it to the condition it was in prior to Contractor commencing the Work.

3.2.4 Contractor shall be responsible to City for acts and omissions of Contractor's agents, employees, and of Contractor's Subcontractors, and their respective agents and employees. Unless otherwise stated in or a contrary intention is reasonably inferable from the Contract Documents, references to Contractor, when used in reference to an obligation bearing upon performance of the Work, shall be deemed to include Contractor's Subcontractors.

3.2.5 Contractor shall not be relieved of its obligation to perform the Work in accordance with the Contract Documents by the act(s) or omission(s) by City in the administration of the Contract, or by tests, inspections or Approvals required or performed by persons or firms other than Contractor.

### **3.3 RESPONSIBILITY FOR THE WORK**

3.3.1 Contractor shall be in charge of and responsible for all portions of the Work of the Contract, and shall be responsible for conforming such portions to the requirements of the Contract Documents and readying such portions to receive subsequent Work.

3.3.2 Contractor shall at all times maintain good discipline and order among its employees and Subcontractors. Contractor shall provide competent, fully qualified personnel to perform the Work, and shall ensure that each Subcontractor and Sub-subcontractor engaged on the Site arranges the storage of materials and equipment and performance of its Work so as to interfere as little as possible with Separate Contractors or other persons engaged in work for City on the Site.

3.3.3 During the installation of Work, Contractor shall insure that existing facilities, fences, and other structures are all adequately protected. Upon Final Completion of all Work, all facilities that may have been damaged shall be restored to a condition acceptable to City.

3.3.4 Contractor is responsible for the security of the Site and all Work provided under the terms of this Contract, as well as all Work provided by Separate Contractors that occurs on the Site at any time prior to Final Completion and Acceptance of the Work by City.

### **3.4 LABOR, WORKMANSHIP, MATERIALS AND MANUFACTURED ITEMS**

Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work. Unless otherwise provided in the Contract Documents or otherwise Approved by the Construction Manager, all articles, equipment and materials incorporated in the Work shall be new, of good quality, undamaged and not defective.

### **3.5 CONTRACTOR'S WARRANTY**

3.5.1 In addition to the guarantee to repair referenced in Article 12 and any specific warranty mentioned in the Project specifications, Contractor warrants to City that all materials and equipment used in or incorporated into the Work will be of good quality, new and free of liens, Claims and security interests of third parties; that all labor, installation, materials and equipment used or incorporated into the Work will be of good quality and free from defects; and that the Work will conform with the requirements of the Contract Documents and Applicable Code Requirements. If required by City, Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. Manufactured items installed in the Work and not specifically covered in the Contract Documents are to be installed in strict accordance with manufacturers' current printed instructions.

3.5.2 All materials to be incorporated in the Work shall be protected from damage during delivery, storage, and handling, and after installation until Acceptance of the Work, and Contractor shall, without charge to City, be responsible for all damage to the materials or the Work due to Contractor's failure to provide such proper protection.

### **3.6 CONSTRUCTION METHODS AND PROCEDURES**

3.6.1 The methods and procedures adopted by Contractor shall be such as to secure a quality of Work satisfactory to City and to enable completion of the Work in the time agreed upon. If at any time such methods and procedures appear inadequate, City may order Contractor to improve the character or increase efficiency, and Contractor shall conform to such order; but the failure of City to order such improvement of methods or increase of efficiency will not relieve Contractor from its obligation to perform the Work in accordance with the Contract Documents or within the Contract Time.

3.6.2 If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, Contractor shall be fully and solely responsible for the Site safety for implementing such means, methods, techniques, sequences or procedures. If Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, Contractor shall give written notice to City and shall not proceed with that portion of the Work without further written instruction by City.

### **3.7 TAXES**

3.7.1 Contractor and Subcontractors are responsible for paying all sales, consumer, business license, use, income and payroll, and similar taxes for the Work or portions thereof provided by Contractor and Subcontractors.

3.7.2 All Contractors and Subcontractors for Construction Contracts equal to or greater than \$5 million dollars shall be required to obtain a sub permit with the California Board of Equalization for a direct allocation of any and all applicable use tax to the City of Palo Alto, where the jobsite is located. Contractor and applicable Subcontractors shall apply for and comply with all of the conditions of the sub permit pursuant to Section 260.020 of the California State Board of Equalization, Chapter 2, "Compliance Policy and Procedures Manual: Registration, subchapter Contractors," as may be amended from time to time.

### **3.8 LEGAL REQUIREMENTS**

3.8.1 Contractor shall perform the Work in accordance with all Applicable Code Requirements, even though such requirements are not specifically referenced in the Contract Documents.

3.8.2 When the Work required by the Contract Documents is in conflict with any Applicable Code Requirement, Contractor shall notify Construction Manager and shall not proceed with the Work until Construction Manager provides direction to the Contractor.

### **3.9 PROJECT STAFF**

3.9.1 Contractor shall employ a complete and competent project staff for the duration of the Work, which shall include separate individuals designated to act as Superintendent, project manager, project engineer(s) and administrative assistant(s), plus such other persons necessary to diligently prosecute the Work. Contractor shall not replace the designated Superintendent or project manager without a minimum seven (7) Day written notice. Any Project staff member and any replacement member shall be subject to the approval of City, which may be granted or withheld in its sole discretion. Upon notice from City requesting replacement of any Project staff member who is unsatisfactory to City, Contractor shall in a timely manner, but in no event longer than three (3) Days after notification, replace such member with a competent member satisfactory to City. Failure by Contractor to comply with the provisions of this Paragraph shall entitle City, at its option exercised in its sole discretion, to terminate the Contract or suspend the Work until Contractor complies with this Paragraph. All costs or damages associated with such termination or suspension shall be borne by Contractor, without adjustment in the Contract Sum or Contract Time.

3.9.2 The Superintendent shall be at the Site at all times during the performance of the Work. The Superintendent shall represent Contractor and communications given to and acknowledged by the Superintendent shall be binding on Contractor. Further, communications issued by or received from the Superintendent shall be deemed as binding on Contractor. The Superintendent must be able to read, write and communicate fluently in English.

### **3.10 SCHEDULES REQUIRED OF CONTRACTOR**

Contractor shall submit a preliminary Construction Schedule to City in a form approved by the Construction Manager at the Pre-Construction Meeting.



3.10.2 Updated Construction Schedules shall be submitted in the form and frequency required by the Construction Manager.

3.10.3 The Construction Schedule and Construction Schedule updates shall meet the following requirements:

- .1 Schedules must be suitable in format and clarity for monitoring progress of the Work and shall utilize the critical path method of scheduling.
- .2 Schedules must provide necessary data about the timing for City's decisions and City-furnished items.
- .3 Schedules must be in sufficient detail to demonstrate adequate planning and staffing for the Work.
- .4 Schedules must represent a practical plan to complete the Work within the Contract Time. If at any time during the Work, any activity is not completed by its latest scheduled completion date, Contractor shall notify the Construction Manager within five(5) Days of Contractor's plans to reorganize the work force to return to the schedule and prevent Delays on any other activity.
- .5 An updated Construction Schedule shall be submitted with each progress payment request, but no less frequently than monthly, and shall include all of the following:
  - (i) A written narrative report detailing the actual progress of the Work as of the date of submission;
  - (ii) The expected progress of the Work as of such date according to the approved Construction Schedule;
  - (iii) The reasons for any variance between the approved Construction Schedule and the updated Construction Schedule; and
  - (iv) If required, Contractor's plan for placing the Work back on Schedule, at Contractor's expense.

Failure to timely comply with the above requirements may be grounds for rejection of a request for extension of time.

3.10.4 Contractor shall plan, develop, supervise, control and coordinate the performance of the Work so the progress, sequence and timing of the Work conform to the current accepted Construction Schedule. Contractor shall continuously obtain from Subcontractors information and data about the planning for and progress of the Work, the ordering and fabrication of materials, required Submittals, and the delivery of equipment, shall coordinate and integrate such information and data in updated Construction Schedules and Record Documents, and shall monitor the progress of the Work and the delivery of equipment. Contractor shall act as the expeditor of potential and actual delays, interruptions, hindrances or disruptions for its own forces and those forces of Subcontractors, regardless of tier. Contractor shall cooperate with City in the development of the Construction Schedule and updated Construction Schedules.

3.10.5 City's review, comments, requests for revisions, or acceptance of any schedule or scheduling data shall not:

- (i) Relieve Contractor from its sole responsibility for the feasibility of the schedule and to plan for, perform, and complete the Work within the Contract Time;
- (ii) Transfer responsibility for any schedule from Contractor to City; nor
- (iii) Imply City's agreement with any assumption upon which such schedule is based or any matter underlying or contained in such schedule.

3.10.6 Failure of City to discover errors or omissions in Construction Schedules that it has reviewed or Approved, or to inform Contractor that Contractor, Subcontractors, or others are behind schedule, or to direct or enforce procedures for complying with the Construction Schedule, shall not relieve Contractor from its sole responsibility to perform and complete the Work within the Contract Time and shall not be a cause for an adjustment of the Contract Time or the Contract Sum.

3.10.7 Contractor shall cooperate with and coordinate its Construction Schedule with work of City and City's Separate Contractors.

### **3.11 DOCUMENTS AND SAMPLES AT PROJECT SITE**

3.11.1 Contractor shall maintain one (1) set of As-Built Documents at the Site, which shall be kept up to date on a daily basis during the performance of the Work. All performed changes, deletions or additions in the Work from that shown in the Contract Documents shall be recorded accurately and completely in the Record Documents. Upon Final Completion and as a condition to Final Payment, each sheet of the As-Built Documents and other Record Documents shall be signed and attested to by the Contractor's Superintendent as being complete and accurate.

3.11.2 Contractor shall, at all times during performance of the Work, also maintain the following at the Site:

- (i) The latest updated Construction Schedule approved by City;
- (ii) Shop Drawings, product data, and samples; and
- (iii) All other required Submittals.

At all times during the course of the Project, these documents shall be available to City, the Construction Manager and the Design Consultant to audit, excerpt, or copy as they see fit. Upon Final Completion or termination of the Construction Contract, these documents shall be delivered to City in the format requested by the City.

3.11.3 It shall be the responsibility of Contractor to maintain a current and complete record of all Changes performed during the progress of the Project construction. The record shall be in the form of a complete set of prints of the As-Built Documents on which daily recordings are made by Contractor, indicating in detail and dimension each variation from the original set of Contract Documents for all of the Work. At the completion of construction, Contractor shall, as a requirement of the Final Completion of the Work, certify that to the best of its knowledge, the As-Built Documents are true and accurate, and that the indications thereon represent all Changes performed during the construction of the Project. At Final Completion, the As-Built and other Record Documents shall become the property of City.

3.11.4 Contractor, in concert with the Design Consultant and the Construction Manager, shall review Contractor's As-Built Documents for conformance with all current Changes prior to presenting its monthly Application For Payment. The monthly progress payment statement will not be accepted or processed by City unless the As-Built Documents are current and complete, and Approved by City.

3.11.5 At Final Completion, the Contractor shall provide the fully As-Built Documents to the City. These As-Built Documents will become the permanent property of City at Final Completion. If the As-Built Documents are prepared on a computer, then the revised computer files shall also be provided to City in the file format specified by City.

### **3.12 SUBMITTALS**

3.12.1 Submittals are not Contract Documents. Their purpose is to demonstrate, for those portions of the Work for which Submittals are required, how Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents. Prior to starting Work, Contractor shall provide to City an initial schedule for submission of the Submittals for which shop drawings are required by the Contract Documents. For each required shop drawing, Contractor shall provide to City the date for the drawing's intended Submittal to the Design Consultant for review. The date required for its return to avoid Delay in any activity beyond the scheduled start date shall also be given.

3.12.2 All shop drawings and other Submittals shall be provided at Contractor's expense, and at the time required by the Contract Documents or requested by the Construction Manager.

3.12.3 Contractor shall review, approve, and submit to the Construction Manager, all Submittals required by the Contract Documents to be submitted and reviewed by the Design Consultant. Submittals to the Construction Manager without evidence thereon of Contractor's approval shall be returned, without review, for resubmission in accordance with these requirements. Submittals shall be provided within the time frame specified in the Special Provisions and Technical Specifications in accordance with the Construction Schedule, and in such sequence as to cause no Delay in the Work or in the activities of City or of Separate Contractors. Submittals made by Contractor which are not required by the Contract Documents, may be returned without action by the Construction Manager or Design Consultant. Submittal to the Construction Manager and Design Consultant must include a statement, in writing, identifying any deviations from the Contract Documents required due to manufacturing or installation limitations contained in the Submittal.

3.12.4 All Submittals shall be submitted in two (2) sets, accompanied by letters of transmittal, and addressed to the Construction Manager for review. Unless otherwise specified in the Contract Documents, Submittals consisting of Drawings or Plans shall be in the form of six (6) copies. The Submittal must be prepared and submitted in accordance with all applicable provisions in the Contract Documents. If the Submittal involves a request for substitution of materials, the request shall be clearly identified on the Submittal that it is a "Request for Substitution." Unless so clearly marked, Submittals shall not be considered as a request for substitution. The Construction Manager shall return to Contractor three (3) marked-up prints. Submittals shall include all relevant catalog sheets, material lists, manufacturer's brochures, technical bulletins, specifications, diagrams, or product samples, necessary to describe a system, product, or item. The letter of transmittal shall include a list of the accompanying documents and the numbers of the sheets submitted. All sheets shall be marked with the name of the Project and the name of Contractor, shall be numbered consecutively, and shall be referenced to the sheets or paragraphs of the Contract Documents, referenced by sheet or subparagraph affected. Submittals shall be combined for singular assemblies, items or materials.

3.12.5 No Work requiring a Submittal shall be performed by Contractor until the Submittal has been reviewed and approved by City, Construction Manager or Design Consultant, as appropriate, and the Design Consultant has documented the exceptions noted on the Submittal. Contractor shall allow twenty (20) Days for review of timely and complete Submittals. Once the Submittal is returned to Contractor by the Construction Manager with a statement that it has been reviewed and no exceptions are taken or further action requested, such Work shall be performed in accordance with the Submittal and the Contract Documents.

3.12.6 Contractor's Submittals represent that Contractor has determined or verified materials and field measurements and conditions related thereto and that it has checked and coordinated the information contained within such Submittals with the requirements of the Contract Documents and Submittals for related Work.

3.12.7 If Contractor discovers any conflicts, omissions or errors in Submittals, Contractor shall notify the Construction Manager and receive instruction before proceeding with the affected Work.

3.12.8 Contractor shall remain solely responsible, notwithstanding City, Construction Manager or Design Consultant's review or approval of Submittals, for deviations (including, without limitation, those arising from standard shop practice) from the Contract Documents, unless Contractor has specifically informed City, Construction Manager or Design Consultant in writing of such deviation at the time of transmitting the Submittal and City, Construction Manager or Design Consultant has given written approval of such deviation. No adjustment in the Contract Sum or Contract Time shall be permitted with respect to any such deviations that are noted in writing by Contractor and as to which City, Construction Manager or Design Consultant takes no exception or approves.

3.12.9 After review of Contractor's Submittals by City, Construction Manager or Design Consultant, as appropriate, the Construction Manager will transmit to Contractor one set of Submittals. If the Submittals are found to be incomplete or incorrect, Contractor shall resubmit after corrective action has been taken. Contractor shall reimburse City, or City may withhold from payments due Contractor, sums owing by City for any fees charged by City, Construction Manager or Design Consultant or City's other consultants for more than two (2) reviews of a Submittal, or for accelerated review in a shorter time than set forth in the approved Construction Schedule, if requested by Contractor or caused by late Submittals by Contractor. The return of a Submittal due to failure to comply with the Contract Documents or for correction or additional information shall be considered a review.

3.12.10 Review of Submittals by City, Construction Manager or Design Consultant will be general and for conformance with design intent, and shall not relieve Contractor from the responsibility for proper fitting and construction of the Work, nor from furnished materials and Work required by the Contract which may not be indicated on the reviewed Submittals.

3.12.11 Submittals shall be in English, be of good quality, and be of a size and scale to clearly show all necessary details. Submittals shall show in detail the size, sections and dimensions of all members; the arrangement and construction of all connections, joints and other pertinent details; and all holes, straps and other fittings required by other Separate Contractors for attaching their Work. When required by City, Construction Manager or Design Consultant, engineering computations shall be submitted. Contractor shall be responsible for delivering duplicates of Submittals to all other persons whose Work is dependent thereon.

3.12.12 Contractor shall, at all times, maintain at the Site a complete file of all City, Construction Manager or Design Consultant-reviewed Submittals.

### **3.13 TRADE NAMES, SUBSTITUTIONS**

3.13.1 Any request for substitution of “or equal” items by the Contractor shall be made within 35 days of award of the contract, unless otherwise specified in these Contract Documents, and shall be governed by Public Contract Code Section 3400.

3.13.2 If City accepts for use in the Project a substitute material or process which in the opinion of City, Construction Manager or Design Consultant is not the equal of that specified, a Change Order shall be issued issuing a credit to City for the difference in value.

3.13.3 Substitutions by Contractor that are incorporated into the Work without the prior review and Approval by City, Construction Manager or Design Consultant in accordance with the requirements of the Contract Documents shall be deemed to be Defective Work.

3.13.4 The specified Construction Contract completion time shall not be affected by any circumstance developing from the substitution provisions of this Section.

### **3.14 DAILY REPORTS BY CONTRACTOR**

3.14.1 At the end of each working day, Contractor shall submit a daily report to the Construction Manager (on a form provided by or accepted by the Construction Manager) listing:

- (i) Labor - Names of workers, classification, hourly rates and hours worked.
- (ii) Material - Description and list of quantities of materials used.
- (iii) Equipment - Type of equipment, size, identification number, and hours of operation, including loading and transportation, if applicable.
- (iv) Inspection and Testing Activities - Name, City or company and items involved.
- (v) Areas of Work - The areas of the Site on which Work was performed and a detailed description of the stage, status and progress of the Work in each such area at the beginning and end of the day.
- (vi) Accidents, Delays, Defective Work - Description in detail of any injuries to workers, accidents, Delays, or Defective Work that were encountered.
- (vii) Other Services and Expenditures - Description in such detail as City may require of other services and expenditures.

3.14.2 Reports by Subcontractors that comply with the requirements of this Section 3.14 shall also be submitted to the Construction Manager through Contractor at the end of each working day

3.14.3 Submission of daily reports by Contractor and Subcontractors performing Work on the Site shall be a condition precedent to Contractor's right to payment under the Contract.

3.14.4 Facts, notice or information contained in daily reports of Contractor or its Subcontractors, whether known or not known to City or Construction Manager, shall under no circumstances be considered evidence of compliance by Contractor with any of the specific written notice requirements of the Contract Documents.

### **3.15 CUTTING AND PATCHING**

3.15.1 Contractor shall do all cutting, fitting, or patching of the Work required to make all parts of the Work join properly and to allow the Work to join the work of Separate Contractors shown in, or reasonably implied by, the Contract Documents.

3.15.2 Contractor shall not endanger the Work, the Project, Existing Improvements, or adjacent property by cutting, digging, or otherwise. Contractor shall not cut or alter the work of any Separate Contractor without the prior written consent of City.

3.15.3 In all cases, cutting shall be performed under the supervision of competent workers skilled in the applicable trade and shall cause the openings to be cut as small as possible to minimize unnecessary damage.

### **3.16 ACCESS TO THE WORK**

3.16.1 City, Construction Manager, Design Consultant, their consultants and other persons authorized by City shall at all times have access to the Work wherever it is in preparation or progress. Contractor shall provide safe and proper facilities for such access and for inspection.

3.16.2 City may, at any time, and from time to time during the performance of the Work, enter the Project for the purpose of installing any necessary other work by City labor or other contracts or for any other purpose. Contractor shall cooperate with City and not interfere with other work being done by or on behalf of City.

### **3.17 ROYALTIES AND PATENTS**

Contractor shall pay all royalties and license fees required for the performance of the Work. Contractor shall immediately notify City if it learns of any circumstances that may constitute an infringement of patent rights and shall defend and indemnify City and the members of the Project Team in accordance with the indemnity provision in the Construction Contract against Losses, liabilities, suits or Claims resulting from Contractor's or any Subcontractor's or Sub-subcontractor's infringement of patent rights.

### **3.18 PERMITS AND LICENSES**

The Contractor shall comply with all provisions of any permits necessary to accomplish the Work as presented in this Contract. Contractor shall obtain and be responsible for the cost of all permits and applications related to the construction of the Project.

### **3.19 DIFFERING SITE CONDITIONS**

3.19.1 Except as provided in this Section 3.19, Contractor agrees to solely bear the risk, including any additional costs and Delay of any and all concealed and unknown site conditions, without adjustment to the Contract Sum or Contract Time. This provision is applicable if the Project involves digging trenches or other excavations that extend deeper than four (4) feet below the surface. Contractor shall promptly, and before the following conditions are disturbed, provide written notice to City if the Contractor finds any of the following conditions:

- .1 Material that Contractor believes may be a hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with the provisions of existing law.

- .2 Subsurface or latent physical conditions at the site differing from those indicated by information about the site made available to bidders prior to the deadline for submitting bids.
- .3 Unknown physical conditions at the site of any unusual nature, differing materially different from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents.

3.19.2 City shall promptly investigate any of the above the conditions and if City finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in Contractor's cost of, or the time required for, performance of any part of the Work, shall issue a Change Order under the procedures described in the Contract Documents. The City may, acting in its sole discretion, extend the applicable deadline for submitting a Change Order Request when it is based upon differing conditions subject to Public Contract Code Section 7104.

3.19.3 In the event that a dispute arises between the City and the Contractor regarding any of the matters specified in subsection 3.19.1, above, Contractor shall not be excused from any scheduled completion date provided for in the Contract Documents, but shall proceed with all Work to be performed under the Contract. Contractor shall retain any and all rights provided either by the Contract or by law which pertain to the resolution of disputes between Contractor and City.

### **3.20 INSPECTIONS**

3.20.1 In order to allow for inspection by City and other agencies, or any inspection required elsewhere in the Special Provisions and Technical Specifications, Contractor shall notify City in writing three (3) Days in advance of the permanent concealment of any materials or Work.

3.20.2 Whenever Contractor desires to carry on the Work of this Construction Contract at hours other than those specifically required by the City or 8:00 AM to 6:00 PM, Monday through Friday or from 9:00 AM to 5:00 PM on Saturdays, it shall request authorization in writing from City for such Work at least twelve (12) Days in advance and, if approved to proceed, Contractor agrees to pay the costs incurred by the City to provide inspectors during these times and the costs incurred for the Construction Manager, Design Consultant and/or other City consultants whose presence at the Site is necessary. City offices are closed on alternate Fridays commencing January 12, 2001, and every other Friday thereafter. Inspections by City Building Department may not be available on these days.

3.20.3 If any Work is concealed or performed without the prior notice specified above, then the Work shall be subject to such tests or exposure as may be necessary to prove to City that the materials used and the Work done are in conformity with the Contract Documents. All labor and equipment necessary for exposing and testing shall be furnished by Contractor at its expense. Contractor shall replace, at its own expense and without reimbursement by City, any materials or Work damaged by exposure and any faulty materials or work evidenced by such exposure or testing, and shall be responsible for any Delay caused thereby.

3.20.4 When, in order to comply with the intent of the Contract Documents, inspection must be made at the plant or mill of the manufacturer or fabricator of material or equipment, Contractor shall notify City a sufficient length of time in advance to allow for arrangements to be made for such inspection. If required testing and/or inspection must be conducted at a location more than one hundred (100) miles from the Site, Contractor shall be responsible for the additional travel costs required for testing and/or inspection at such location.

3.20.5 Any inspection or approval by any representative or agent of City will not relieve Contractor of the responsibility of incorporating into the Work only those materials which conform to the Contract Documents, and any nonconforming materials shall be removed from the Site whenever identified, at Contractor's sole expense.

3.20.6 When Contractor believes it has achieved either Substantial or Final Completion of the Work, Contractor shall notify City and the Construction Manager in writing and request a Substantial or Final Completion inspection of the Work. City, Design Consultant and Construction Manager will make such inspection as soon thereafter as possible.

### **3.21 STOP NOTICES**

Contractor must promptly pay its Subcontractors in accordance with the subcontract requirements and California prompt payment statutes. If any stop notice or other claim is served, filed or recorded in connection with the Work, City shall have the option, in its sole discretion, to permit Contractor immediately and at its own expense obtain a bond executed by a good and sufficient surety, in accordance with Civil Code section 9364, in a sum equal to one hundred twenty-five percent (125%) of the amount of such stop notice or claim. Such bond shall guarantee the payment of any amounts which the claimant may recover on the stop notice or claim, together with the claimant's costs of suit in any action to enforce such stop notice or claim if the claimant recovers therein. This remedy shall be in addition to all other rights and remedies of City under the Contract Documents and applicable law, including, without limitation, the right to withhold funds from sums due to Contractor. **Contractor shall timely notify City of Contractor's receipt of any stop notice or other third-party claim, valid or invalid, relating to the Contract Documents.**

### **3.22 PARKING**

Contractor shall provide and maintain suitable parking areas, for use by all construction workers and others performing work or furnishing services in connection with the Project, as required to avoid any need for parking personal vehicles where they may interfere with public traffic, construction activities or public parking. The Construction Manager shall approve the location of all off-site parking in the City.

### **3.23 USE OF THE PROJECT SITE AND CLEAN UP**

3.23.1 Contractor shall confine operations at the Site to areas permitted by Applicable Code Requirements and the Contract Documents. Contractor shall not encumber the Site with materials or equipment so that Separate Contractors' work is hindered or impeded due to such encumbrances.

3.23.2 Contractor shall, during performance of the Work, keep the Site and surrounding area free from the accumulation of excess dirt, dust, waste materials, water and rubbish caused by Contractor or any Subcontractors. Contractor shall continuously and daily remove all excess dirt, waste material, water and rubbish caused by Contractor and all tools, equipment, machinery and surplus materials from the Site and surrounding area at end of each day. Adequate cleanup will be a condition for progress payments.

3.23.3 Personnel of Contractor shall not occupy, live upon, or otherwise make use of the Site during any time that Work is not being performed at the Site, except as otherwise provided in the Contract Documents.

3.23.4 Upon Final Completion of the Work, Contractor shall remove all construction facilities, appurtenances, tools, material and other articles from the Site. The entire area, including all fixed equipment, floors, surfaces and hardware shall be cleaned and restored to their original condition in accordance with the Special Provisions and Technical Specifications.



3.23.5 In addition to water sprinkling, temporary enclosures and anti-dust sweeping compounds should be used to limit dust and dirt rising and to keep the Site clean.

3.23.6 Construction materials shall be neatly stacked by Contractor when not in use. Loose materials, whether on the Site or in transit, shall be covered to prevent dust. Contractor shall promptly remove splattered concrete, asphalt, oil, paint, corrosive liquids and cleaning solutions from the affected surfaces to prevent marring or other damage to the Work.

3.23.7 Volatile wastes shall be properly stored in covered metal containers and removed daily. All other trash receptacles shall be promptly emptied when full.

3.23.8 Contractor shall promptly and legally transport and dispose of removed and demolished items and waste materials not identified to be recycled or reused in compliance with local ordinances and anti-pollution laws. No rubbish or waste materials shall be burned, buried, or otherwise disposed of on the Site.

3.23.9 The Contractor shall provide sanitary facilities at the Site, which shall be of reasonable capacity, properly maintained throughout the construction period, and obscured from public view to the greatest practical extent. Contractor shall require all personnel to use the sanitary facilities. Sanitary facilities shall be on a portable trailer and shall be removed from the Site at the end of each workday. For sewer lining projects, Contractor shall provide additional sanitary facilities on a portable trailer to be used by the residents during lining installation (one sanitary facility per each 30 meters [100 feet]). Contractor shall remove the sanitary facilities as soon as relief holes are cut and notices of completion are delivered.

### 3.24 ENVIRONMENTAL CONTROLS

Full compensation for conforming to the requirements of this Section shall be considered as included in the prices paid for the various contract items of Work involved and no additional compensation will be allowed.

3.24.1 AIR POLLUTION CONTROL. Contractor shall comply with all air pollution control rules, regulations, ordinances and statutes which apply to any work performed pursuant to the Contract, including rules promulgated by the Bay Area Air Quality Management District, the California Department of Public Health or any other applicable agency. In the absence of any applicable air pollution control rules, regulations, ordinances or statutes governing solvents, all solvents, including but not limited to the solvent portions of paint thinners, curing compounds, parts cleaners and degreasers and liquid asphalt used on the Project shall comply with the applicable material requirements of the Bay Area Air Quality Management District. All containers of paint thinner, curing compound parts cleaners and degreasers or liquid asphalt shall be labeled to indicate that the contents fully comply with said requirements. Material to be disposed of shall not be disposed of onsite (i.e. used up inappropriately or burned). Compressed gases contained within cylinders or aerosol cans shall never be released for any purpose other than that intended by the manufacturer.

- .1 **Mold.** The Contractor shall take steps to prevent mold from developing on the Site, or being released into the air and shall promptly decontaminate any areas of mold that develop.
- .2 **VOC's.** Only construction materials that emit low levels of volatile organic compounds (VOC) shall be used within indoor areas. Adequate ventilation of packaged dry products shall be used prior to installation. Contractor is responsible to ventilate the building during the application of wet products (e.g., paints, glues, sealants), which release their highest levels of VOC's during the curing period immediately after the application. Also, wet products shall be applied before installing materials that act as "sinks" such as

carpets, fabric, ceiling tiles, movable partitions, furniture, etc. in order to reduce the chance of the "sinks" absorbing contaminants and slowly releasing them into the building over time.

- .3 **Off-Gassing.** Contractor is responsible for identifying specific materials that require more complex ventilation to accelerate off-gassing. In addition to paints, glues and sealants, those materials that generally require temporary ventilation include, without limitation: composite wood products, plastics, waterproofing, insulation, fireproofing, caulking, acoustical ceilings, resilient flooring and wood preservatives.
- .4 **Barriers.** Barriers shall be used to prevent the migration of airborne pollutants from areas under construction and to mitigate any construction noise that may disrupt occupant activities. If effective controls for pollution emissions cannot be practically implemented, activities involving significant airborne pollutants shall be scheduled during off-hours at Contractor's expense. The Site shall be ventilated with fresh outside air during and immediately after the noxious activity.
- .5 **Exhaust.** Contractor shall install temporary exhaust systems in construction areas to prevent contaminated air from entering the building's return-air system, including, without limitation:
  - (i) Removing windows in a space.
  - (ii) Using available or dedicated exhaust systems (e.g., kitchen or toilet exhaust) that are not tied into the building's overall return-air system.
- .6 **Treated wood waste (TWW).** TWW is any wood treated with preserving chemicals that protect the wood from insect attack or fungal decay (typically railroad ties, power poles, or bollards) shall be managed by Contractor to minimize dust generation. Contractor shall never grind TWW and shall be properly dispose TWW at a permitted TWW disposal facility. If Contractor size-reduces the TWW then Contractor shall collect all dust generated for proper offsite disposal.
- .7 **Contaminated Soil Removal.** Unless approved by the City, contaminated soils that are being removed shall be loaded directly into truck trailers that shall transport the soils directly to disposal facilities and not stockpiled onsite or elsewhere. If the City approves the temporary stockpiling of soils onsite, then Contractor shall cover the soil with visqueen (or other suitable material) within 1 hour.

The building shall be flushed with full outdoor air for seven (7) Days prior to occupancy. Full capacity of the HVAC system shall be used for at least 2.5 ACH (air changes per hour), provided by temporary fans. During this time, the interiors shall be thoroughly cleaned, the HVAC ducts vacuumed, and air and HVAC system filters replaced.

### 3.24.2 WATER POLLUTION CONTROL.

- .1 Contractor shall at a minimum use applicable Best Management Practices listed in the California Stormwater Quality Association Construction Handbook <http://www.cabmphandbooks.com/Construction.asp> to prevent the pollution of storm drains and watercourses by discharges of materials other than uncontaminated storm water. Prohibited discharges include storm water runoff discharges that may threaten to cause pollution, contamination or nuisance, sanitary waste, sediment and debris from erosion and other substances resulting from construction activities. Sanitary wastes will not be permitted to enter any storm drain or watercourse and must be routed to the sanitary sewer system. No sediment, debris or construction materials will be permitted to enter sanitary sewers.
- .2 Contractor shall provide effective and continuous control of water pollution, including Work in small or multiple units, on an out of phase schedule or with modified construction procedures. Contractor shall determine which methods are most effective in achieving control of water pollution as a result of Contractor's operations. Contractor shall coordinate water pollution control work with all other Work performed by Contractor and Separate Contractors.
- .3 Before starting any Work on the Project, Contractor shall submit to the Construction Manager for acceptance a Storm Water Pollution Prevention Plan (SWPPP) for effective control of storm water pollution. Such plan shall show the schedule and detailed description for the storm water pollution prevention and erosion control work or practices included in the Construction Contract and for all storm water pollution control measures which Contractor proposes to employ in connection with construction of the Project to minimize the effects of their operations upon storm drains, adjacent streams, and other bodies of water. Contractor shall not perform any clearing and grubbing or earthwork on the Project, other than that specifically authorized in writing by the Construction Manager, until such SWPPP has been approved by a City representative or the Construction Manager. Contractor shall revise and bring up to date said SWPPP at any time the Construction Manager makes written request for such revisions.
- .4 City shall not be liable to Contractor for failure to accept all or any portion of any originally submitted or revised SWPPP, or for any Delays to the Work due to Contractor's failure to submit an acceptable SWPPP. Contractor assumes sole responsibility for all costs associated with treatment of storm water polluted as a result of Contractor's Site activities, whether treatment is initiated by Contractor or City.
- .5 Contractor may request the Construction Manager to waive the requirement for submission of a written SWPPP when the nature of Contractor's operation is such that pollutant discharge or soil erosion is not likely to occur. Waiver of this requirement will not relieve Contractor from responsibility for compliance with the other provisions of this Section. Waiver of the requirement for a written SWPPP will not preclude City requiring submittal of a SWPPP at a later time if the Construction Manager deems it necessary because of the effect of Contractor's operations.
- .6 Where erosion damage which will cause storm water pollution is probable due to the nature of the material or the season of the year, Contractor's operation shall be so scheduled that permanent erosion control features will be installed concurrently with or immediately following grading operations.

- .7 All storm water pollution control work required elsewhere in the Contract Documents which may be accomplished under the various contract items of Work will be measured and paid for as provided in said items of Work elsewhere in these Contract Documents.

3.24.3 URBAN RUNOFF. At a minimum, the following specific Best Management Practices which address the potential pollution impacts of urban runoff shall apply to all projects undergoing construction in City. The Best Management Practices listed below (in addition to those listed in the Technical Specifications) are required by City, and shall apply at the time of demolition of an existing structure or commencement of construction until receipt of a certificate of occupancy or certificate of completion:

- .1 Sediment and construction waste from construction sites and parking areas shall not leave the Site.
- .2 Any sediments or other construction materials which are tracked off the Site shall be removed the same day. Straw wattles or another temporary sediment barrier shall be installed around the perimeter of the Site to prevent the sediment from leaving the Site.
- .3 On an emergency basis only, plastic covering may be utilized to prevent erosion of an otherwise unprotected area, along with runoff devices to intercept and safely convey the runoff.
- .4 Excavated soil shall be located on the Site in a manner that eliminates the possibility of sediment running into the street, storm drains, water bodies, or adjoining properties. Material stockpiles shall be covered within 1 hour of stockpiling the material until the material is either used or removed.
- .5 No washing of construction vehicles shall be allowed on or adjacent to the Site.
- .6 Drainage controls shall be utilized as needed, depending on the extent of proposed grading and topography of the Site, including, but not limited to the following: (i) detention ponds or sedimentation ponds; and (ii) dikes, berms or ditches; and (iii) down drains, chutes or flumes.

3.24.4 STORM WATER POLLUTION PREVENTION DURING ROADWORK. To avoid storm water pollution, Contractor shall plan roadwork and pavement construction as follows:

- .1 Apply concrete, asphalt, and seal coat during dry weather to prevent contaminants from contacting storm water runoff.
- .2 Cover storm drain inlets and manholes when paving or applying seal coat, slurry seal, fog seal, etc.
- .3 Always park paving machines over drip pans or absorbent materials.
- .4 When making saw-cuts in pavement, use as little water as possible. Cover each catch basin completely with filter fabric during the sawing operation. Shovel or vacuum the slurry residue from the pavement and remove from the Site.

3.24.5 STORMWATER POLLUTION. To avoid stormwater pollution, Contractor shall plan roadwork and pavement construction as follows:

- .1 Apply concrete, asphalt, and seal coat during dry weather to prevent contaminants from contacting stormwater runoff.
- .2 Cover storm drain inlets and personnel access holes when paving or applying seal coat, slurry seal, fog seal, etc.
- .3 Always park paving machines over drip pans or absorbent materials, since they tend to drip continuously.
- .4 When making saw-cuts in pavement, use as little water as possible. Cover each catch basin completely with filter fabric during the sawing operation and contain the slurry by placing straw bales, sand bags, or gravel dams around the catch basin. After the liquid drains or evaporates, shovel or vacuum the slurry residue from the pavement or gutter and remove from the Site.

3.24.6 DRAINAGE CONTROL. Contractor shall provide for the drainage of storm water and such water as may be applied or discharged on the Site in performance of the Work. Drainage facilities shall be adequate to prevent damage to the Work, Site and adjacent property. Also drainage facilities shall be constructed to minimize the potential pollution to the ocean.

Existing drainage channels and conduits shall be cleaned, enlarged or supplemented as necessary to carry all increased runoff attributable to Contractor's operations. Dikes shall be constructed as necessary to divert increased runoff from entering adjacent property (except in natural channels), to protect City's private property and utility owner's facilities and the Work, and to direct water to drainage channels or conduits. Retention of drainage on the Site shall be provided as necessary to prevent downstream flooding.

3.24.7 DUST CONTROL. As elsewhere provided herein, the Contractor shall be responsible for all dust alleviation and control measures necessary and required for the public safety and convenience during the life of the contract. The Contractor shall use reclaimed water to control dust from unpaved surfaces as needed on a daily basis or as directed by the Construction Manager. The water shall be applied at a limited rate so as to avoid the creation of runoff from the site. The Contractor shall not use water to flush down paved or impervious surfaces as a means of dust control. Paved or impervious surfaces shall be swept with a street sweeper as needed to control dust on the site. Compensation for water applied as alleviation and/or prevention of dust nuisance and street sweeping shall be considered as included in the prices paid for the various contract items of work and no additional allowance will be made therefore.

3.24.8 SPECIAL HAZARDOUS SUBSTANCES AND PROCESSES. Contractor shall comply with the provisions of all applicable hazardous materials Standards including but not limited to California Code of Regulations (CCR) Title 8, Chapter 4, Group 16 (CalOSHA Control of Hazardous Substances), CCR Title 22, Division 4.5, (hazardous waste management standards), California Health & Safety Code Division 20, Section 6.5 (hazardous waste control), California Fire Code, Code of Federal Regulations (CFR) 49 (DOT regulations), CFR 40, Part 60 (U.S. hazardous waste standards) and applicable sections of the Palo Alto Municipal Code. Contractor shall at all times maintain an inventory of hazardous materials stored onsite and all applicable Material Safety Data Sheets (MSDSs) available for review by the City.

For City-generated hazardous waste removal, the City will take full generator status for the hazardous wastes as described under CCR 22. The City will obtain any EPA Identification numbers for the project and will sign each manifest as the generator before the material is transported. Contractor shall fully manage the hazardous wastes for the City including the removing, storing, transporting and disposing of the hazardous wastes. For construction activities that remove existing hazardous wastes, such as,

asbestos removal, contaminated soil removal, lead paint removal or other contamination abatement projects, Contractor shall develop a hazardous materials management plan (HMMP). The HMMP shall contain sufficient information that shall demonstrate how the Contractor will remove, secure and store, transport to a permitted disposal facility. Contractor shall submit the HMMP to the City for approval. At a minimum, the HMMP shall include:

- Project map that shall show hazardous waste removal areas, storage areas (including all fencing, gates, locks, structures etc.;
- Hazardous waste expected inventory including quantities and types of wastes;
- Security program – how the Contractor will keep hazardous materials secure from public contact;
- Monitoring and inspection program;
- Inventory of emergency equipment onsite;
- Transportation Plan includes how the Contractor plans to package and transport the hazardous wastes;
- Disposal facility name and location;
- Any other information that would reasonably describe Contractor hazardous waste removal, storage and disposal plans.

City has the sole right to reject the hazardous waste transporter and/or disposal facility from Contractor's consideration.

Hazardous wastes that are generated from Contractor's activities while completing the project (i.e. equipment maintenance fluids, empty oil or solvent drums, etc. shall be the sole responsibility of the Contractor who is the generator of the wastes under the Hazardous Waste Generator Regulations CCR Title 22. Wastes must be handled, recycled or disposed of in the United States.

**3.24.09 ENVIRONMENTAL PURCHASING POLICY.** The Contractor shall comply with the City of Palo Alto's Environmental Purchasing Policy, as amended from time to time. A copy is available at the City's Purchasing Division.

**3.24.10 ZERO WASTE REQUIREMENTS.** The Contractor shall comply with waste reduction, reuse, recycling and disposal requirements of the City's Zero Waste Program. Zero Waste best practices include first minimizing and reducing waste; second, reusing waste and third, recycling or composting waste. In particular, Contractor shall comply with the following zero waste requirements:

- All printed materials provided by Contractor to City generated from a personal computer and printer including but not limited to, proposals, quotes, invoices, reports, and public education materials, shall be double-sided and printed on a minimum of 30% or greater post-consumer content paper, unless otherwise approved by the City's Project Manager. Any submitted materials printed by a professional printing company shall be a minimum of 30% or greater post-consumer material and printed with vegetable-based inks.
- Goods purchased by Contractor on behalf of the City shall be purchased in accordance with the City's Environmental Purchasing Policy including but not limited to Extended Producer Responsibility requirements for products and packaging. A copy of this policy is on file at the Purchasing Office.
- Reusable/returnable pallets shall be taken back by the Contractor, at no additional cost to the City, for reuse or recycling. Contractor shall provide documentation from the facility accepting the pallets to verify that pallets are not being disposed.

**3.24.11 SOUND CONTROL.**

- .1** Contractor shall comply with the City's Noise Ordinance set forth in Chapter 9.10 of the Palo Alto Municipal Code, except as modified in the Special Provisions and Technical Specifications. Copies of the Noise Ordinance are available in the Purchasing Division.
- .2** Each internal combustion engine used for any purpose on the Site or otherwise within the City of Palo Alto shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the Project without said muffler. This requirement in no way relieves Contractor from responsibility for complying with local ordinances regulating noise level.
- .3** The noise level requirement shall apply to all equipment on the Work or related to the job, including but not limited to trucks, transit mixers or transient equipment that may or may not be owned by Contractor. The use of loud sound signals shall be avoided in favor of light warnings except those required by safety laws for the protection of personnel.
- .4** Prior to starting construction, all equipment to be used on the Project shall be inspected and tested for compliance with the requirements of this Project. Sound blankets or other sound mitigation equipment approved by the Construction Manager shall be required to bring equipment into compliance with the requirements of this Project.

**3.25 TEMPORARY WATER, LIGHT AND POWER**

Water for any purpose shall be obtained by Contractor, at its expense, from City. Contractor is to contact the Construction Manager for a phone number and contact person. In no case may Contractor obtain water from unmetered fire hydrants. The costs of obtaining water shall be included in the prices paid for the various contract items of work included and no additional compensation will be allowed therefore, unless otherwise specified in the Contract Documents. The City imposes a penalty for taking water from an unmetered fire hydrant. The penalty shall be deducted from the payment due Contractor. Contractor shall purchase power from the City, at Contractor's expense.

**3.26 CITY TRUCK ROUTE ORDINANCE**

The Contractor and any subcontractors or suppliers shall at all times comply with the requirements of the City of Palo Alto Truck Route Ordinance set forth in Chapter 10.48 of the Palo Alto Municipal Code.

**3.27 UNFAIR BUSINESS PRACTICES CLAIMS**

Contractor offers and agrees to assign to City all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15), or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code) arising from purchases of goods, services, or materials pursuant to the Contract Documents. This assignment shall be made and become effective at the time City tenders Final Payment to Contractor, without further acknowledgment by the parties. Contractor shall incorporate this provision in all Subcontractor contracts.

**3.28 EXISTING UTILITIES**

**3.28.1** Prior to the start of any grinding or any excavation, the Contractor shall be responsible for notifying Underground Services Alert (USA) 800-642-2444 at least five (5) days prior to beginning underground work so that existing utilities can be marked in the field. The Contractor is responsible for the location of all utilities, both public and private. Contractor shall give specific address for grinding or excavation location. Each location shall be marked by the Contractor in the field with white paint.

3.28.2 The Contractor shall acknowledge that the marking of underground utilities is only approximate, and shall take all necessary precautions to avoid damaging these utilities.

3.28.3 All Underground Services Alert marking shall be removed by the Contractor. Any utilities damaged or altered in any way during the performance of the work under this Contract shall be promptly reported to the Engineer, and shall be restored to their original condition at the Contractor's expense.

3.28.4 If the Contractor comes into contact with any existing utilities during its operations, the Contractor shall notify the Engineer before proceeding with the work involved.

3.28.5 Pursuant to Government Code Section 4215, if, during the performance of the Work, Contractor discovers utility facilities not identified by City in the Contract Documents, Contractor shall immediately provide written notice to City and the utility. City assumes responsibility for the timely removal, relocation, or protection of existing main or trunkline utility facilities located on the Project site, if such utilities are not identified in the Contract Documents. Contractor shall be compensated in accordance with the provisions of the Contract Documents for the costs of locating, repairing damage not due to Contractor's failure to exercise reasonable care, and removing or relocating such utility facilities not indicated in the plans or specifications with reasonable accuracy and for equipment on the Project necessarily idled during such work. Contractor shall not be assessed liquidated damages for delay in completion of the Work, to the extent such delay was caused by City's failure to provide for removal or relocation of such utility facilities.

#### **ARTICLE 4 – ADMINISTRATION OF THE CONTRACT**

##### **4.1 CONTRACT ADMINISTRATION BY CITY, DESIGN CONSULTANT AND CONSTRUCTION MANAGER**

4.1.1 City and the Construction Manager will provide administration of the Construction Contract as provided in the Contract Documents.

4.1.2 No actions taken by City, Construction Manager or Design Consultant shall relieve Contractor of its obligations described in the Contract Documents.

4.1.3 The Construction Manager will be present on the Site during the performance of the Work primarily for the purposes of providing administration, inspection and expediting communications between City, Design Consultant and Contractor.

4.1.4 Neither City, Design Consultant nor Construction Manager will have control over, will be in charge of, or will be responsible for construction means, methods, techniques, safety, sequences or procedures or for safety precautions and programs in connection with the Work, all of which are the sole responsibility of Contractor.

4.1.5 Unless otherwise provided in the Contract Documents or when direct communications have been specifically authorized, communications between Contractor and City or Design Consultant shall be in writing through Construction Manager. Communications by Contractor or Subcontractors and with Separate Contractors shall be through the Construction Manager. Contractor shall not rely on oral or other non-written communications.

4.1.6 Based on the Construction Manager's Site visits and evaluations of Contractor's Applications For Payment, the Construction Manager will review and recommend to City for City approval the amounts, if any, due Contractor.



4.1.7 Construction Manager will make recommendations to City to reject the Work, or any portion thereof, which does not conform to the Contract Documents. City alone shall have the authority to stop the Work or any portion thereof. Whenever City considers it necessary or advisable, City will have the authority to require additional inspection or testing of the Work in accordance with the Contract Documents, whether or not such Work is fabricated, installed or completed. However, no authority of City conferred by the Contract Documents nor any decision made in good faith either to exercise or not exercise such authority, nor any recommendation by the Construction Manager, shall give rise to a duty or responsibility of City or the Construction Manager to Contractor or its Subcontractors.

4.1.8 Construction Manager's authority includes, but is not limited to the following:

- .1 Conduct or direct inspections to determine suitability of the Project or portion thereof for Beneficial Occupancy.
- .2 Assist City in determining the dates of Substantial Completion and Final Completion;
- .3 Review any records, written warranties and related documents required by the Contract Documents and assembled by Contractor; and
- .4 Make recommendations to City for issuance of Final Payment upon Contractor's compliance with the requirements of the Contract Documents.

4.1.9 City, with the assistance of recommendations from the Design Consultant and/or Construction Manager, shall be the ultimate interpreter of the requirements of the Contract Documents and the judge of performance thereunder by Contractor. Such decisions by City will be final and binding upon Contractor.

## **4.2 CLAIMS**

4.2.1 Public Contract Code Section 9204. Public Contract Code Section 9204 ("Section 9204") sets forth certain pre-litigation claims procedures for public works projects that City is required to include in its Contract Documents. In summary, Section 9204 requires public entities to respond to claims within 45 days, to meet and confer if requested by the contractor, to promptly pay undisputed amounts, and to mediate unresolved claims prior to litigation, absent a mutual waiver of mediation. It expressly provides for the submission of subcontractor "pass-through" claims, and allows public entities to prescribe reasonable additional change order, claim, and dispute resolution procedures and requirements, so long as the additional provisions do not conflict with or otherwise impair the timeframes and procedures set forth in Section 9204. The requirements of Section 9204 are incorporated and included in the following provisions, which also include reasonable additional procedures.

4.2.2 Scope and Authority. This Section 4.2 applies to any Claim, as defined in Section 1.1.19, above, arising from or related to the Contract or performance of the Work. It is intended to provide the exclusive procedures for submission and resolution of Claims of any amount, and applies in addition to the provisions of Public Contract Code Section 9204, and Public Contract Code Sections 20104 et seq., which are incorporated by reference herein and included in these provisions.

4.2.3 Accrual of Claim. A Claim accrues and arises upon issuance of a written decision by the City or Construction Manager denying, in whole or in part, a Change Order Request, which was previously submitted in compliance with these Contract Documents. A Claim that demands an extension of time or an increase in the Contract Sum does not accrue unless Contractor has previously submitted such demand(s) in a Change Order Request.

4.2.4 Claims Submission Requirements and Deadlines. All Claims must be submitted in writing by registered mail or certified mail with return receipt requested. Except for Claims disputing the amount of Final Payment, all Claims and all supporting documentation and certifications, as further detailed below, must be filed within fourteen (14) Days following the date that City notified Contractor in writing that a request for a change in the Contract Time or Contract Price, duly submitted in compliance with the Contract Documents, has been rejected in whole or in part; any Claim which is not submitted prior to Final Payment is deemed waived. A Claim disputing the amount of Final Payment must be submitted within fourteen (14) Days of the effective date of Final Payment. Strict compliance with these Claim submission deadlines is necessary to ensure that any dispute may be mitigated as soon as possible, and to facilitate cost-efficient administration of the Project. **Any Claim that is not submitted within the specified deadlines will be deemed waived by Contractor.**

4.2.5 Supporting Documentation. A Claim submittal must include the following:

- .1 A statement that it is a Claim, clearly specifying the amount requested (with respect to Claims for payment), and/or the number of days requested (with respect to Claims for an extension of the Contract Time);
- .2 A detailed description of the act, error, omission, Differing Site Condition, event or other circumstance giving rise to the Claim; and
- .3 A statement demonstrating that a Change Order Request was submitted in a timely manner as required by Section 7.2 of these General Conditions, along with a copy of the Change Order Request and the City's written rejection of the subject Claim.
- .4 All documents necessary to substantiate the Claim, including, without limitation:
  - (i). A detailed cost breakdown in the form required for submittal of Change Order Requests, and subject to the limitations described in Article 7, below.
  - (ii). Copies of actual job cost records demonstrating that the costs have been incurred.
  - (iii). If the Claim is based on an error, omission, conflict or ambiguity in the Contract Documents: (i) a sworn statement by Contractor and any Subcontractor involved in the Claim, to the effect that the error, omission, conflict or ambiguity was not discovered prior to submission of the Bid, and (ii) if not discovered, a sworn statement demonstrating that the error, omission, conflict or ambiguity could not have been discovered by Contractor, its Subcontractor(s) or in exercise of the degree of care required of them under the Contract Documents for review of the Contract Documents prior to submission of the Bid.
- .5 If the Claim involves a request for adjustment of the Contract Time, written documentation demonstrating that Contractor has complied with the requirements of the Contract Documents pertaining to proving the right to an extension of time and demonstrating that Contractor is entitled to an extension of time under the Contract Documents.
- .6 A written certification signed by a responsible managing officer of Contractor's organization, who has the authority to sign subcontracts and purchase orders on behalf of Contractor and who has personally investigated and confirmed the truth and accuracy of the matters set forth in such certification, in the following form:

*I hereby certify under penalty of perjury under the laws of the State of California that I am a managing officer of \_\_\_\_\_ and that I have reviewed the Claim presented herewith on Contractor's behalf and/or on behalf of \_\_\_\_\_ and that the following statements are true and correct.*

*(i) The facts alleged in or that form the basis for the Claim are true and accurate; and,*

*(ii) Contractor does not know of any facts or circumstances, not alleged in the Claim, that by reason of their not being alleged render any fact or statement alleged in the Claim materially misleading; and,*

*(iii) Contractor has, with respect to any request for money or damages alleged in or that forms the basis for the Claim, reviewed the job cost records (including those maintained by Contractor and by any Subcontractor of any Tier, that is asserting all or any portion of the Claim) and confirmed with reasonable certainty that the Losses or damages suffered by Contractor and/or such Subcontractor were in fact suffered in the amounts and for the reasons alleged in the Claim; and,*

*(iv) Contractor has, with respect to any request for extension of time or claim of Delay, disruption, hindrance or interference alleged in or that forms the basis for the Claim, reviewed the job schedules (including those maintained by Contractor and by any Subcontractor involved in the Claim) and confirmed on an event-by-event basis that the delays or disruption suffered by Contractor and /or such Subcontractor were in fact experienced for the durations, in the manner, and with the consequent effects on the time and/or sequence of performance of the Work, as alleged in the Claim; and,*

*(v) Contractor has not received payment from City for, nor has Contractor previously released City from, any portion of the Claim; and*

*(vi) Contractor understands that submission of a Claim which has no basis in fact or which Contractor knows to be false may violate the False Claims Act (Government Code Section 12650 et seq.).*

*Signature: \_\_\_\_\_*

*Name: \_\_\_\_\_*

*Title: \_\_\_\_\_*

*Company: \_\_\_\_\_*

*Date: \_\_\_\_\_*

4.2.6 **Strict Compliance Required.** No Claim may be asserted unless Contractor has strictly complied with the requirements of Section 4.2 of these General Conditions, which shall be considered conditions precedent to Contractor's rights to assert the Claim and to initiate the Contract Dispute Resolution Process set forth below with respect to such Claim.

4.2.7 **No Work Delay.** Notwithstanding the submission of any Claim or the existence of any dispute regarding any Claim, unless otherwise directed by City, Contractor shall not delay, slow or stop performance of the Work, but shall diligently proceed with performance in accordance with the Contract Documents and City will continue to make payments as required by the Contract Documents.

4.2.8 **City Response.** City shall respond in writing within forty-five (45) Days of receipt of the Claim with a written statement identifying which portion(s) of the Claim are disputed or undisputed, unless the 45 Day period is extended by mutual agreement of City and Contractor or as otherwise allowed under Public Contract Code Section 9204. However, if City determines that the Claim is not adequately documented, City may first request in writing, within thirty (30) days of receipt of the Claim, additional information or documentation supporting the Claim, or relating to defenses to the Claim that City may have against the Claim, in which case City shall respond to the Claim within forty-five (45) Days after receipt of the further information or documentation. If Contractor fails to submit the additional documentation to City within fifteen (15) Days of receipt of City's request, the Claim will be deemed waived. If City Council authorization is necessary for City to respond to a Claim, City will respond within three (3) Days following the Council's consideration of the Claim, which shall be scheduled in accordance with Section 9204.

4.2.9 **Non-Waiver.** Any failure by City to respond within the times specified above may not be construed as acceptance of the Claim in whole or in part, or as a waiver of any provision of these Contract Documents.

4.2.10 **Payment on Undisputed Portion.** Any payment due on an undisputed portion of the Claim shall be paid within 60 Days after the City issues its written response.

4.2.11 **Meet and Confer.** If Contractor disputes City's response, or if City fails to respond within the prescribed time set forth above, Contractor may so notify City and demand a meet and confer conference for settlement of the issues in dispute, in writing sent by registered mail or certified mail, return receipt requested, within fifteen (15) Days of City's response or within fifteen (15) Days of City's failure to respond. If Contractor fails to dispute City's response within the specified time, Contractor's Claim shall be deemed waived.

- .1 **Schedule Meet and Confer.** Upon receipt of the demand to meet and confer, City will schedule the meet and confer conference to be held within 30 days, or later if needed to ensure the mutual availability of each of the individuals that each party requires to represent its interests at the meet and confer conference.
- .2 **Location for Meet and Confer.** The meet and confer conference will be scheduled at a location at or near City's principal office.
- .3 **Written Statement After Meet and Confer.** Within ten (10) working days after the meet and confer has concluded, City will issue a written statement identifying which portion(s) of the Claim remain in dispute, if any.
- .4 **Submission to Mediation.** If the Claim or any portion remains in dispute following the meet and confer conference, within ten (10) working days after the City issues the written statement identifying any portion(s) of the Claim remaining in dispute, the disputed portion(s) will be submitted for nonbinding mediation, as set forth below.

4.2.12 Mediation. Within ten (10) working days after the City issues the written statement identifying any portion(s) of the Claim remaining in dispute following the meet and confer, City and Contractor will mutually agree to a mediator and mediation process, consistent with and as provided under Public Contract Code section 9204. Mediation will be scheduled to ensure the mutual availability of the selected mediator and all of the individuals that each party requires to represent its interests. All discussions that occur during the mediation and all documents prepared solely for the purpose of the mediation shall be confidential and privileged pursuant to California Evidence Code Sections 1119 and 1152. The parties will share the costs of mediation equally, except costs incurred by each party for its representation by legal counsel or any other consultants.

4.2.13 The Claim procedures set forth herein do not apply to the following:

- (i) Penalties or forfeitures prescribed by statute or regulation imposed by a governmental agency.
- (ii) Tort claims for personal injury or death.
- (iii) False claims liability under California Government Code Section 12650, et seq.
- (iv) Defects in the Work first discovered by City after Final Payment by City to Contractor.
- (v) Stop notices.
- (vi) The right of City to specific performance or injunctive relief to compel performance of any provision of the Contract Documents.

4.2.14 If the Claim is not fully resolved during the meet and confer conference or through mediation, as to those portions of the Claim which remain in dispute, Contractor may commence the Contract Dispute Resolution Process set forth below by filing a Statement of Contract Dispute with the City within thirty (30) Days following the meet and confer conference if the parties have mutually waived mediation, or within thirty (30) Days following the mediation result. If Contractor fails to submit a Statement of Contract Dispute within the applicable thirty (30) Day period, City's last written response will become final and binding upon Contractor, and Contractor shall be deemed to have waived and release any further right to pursue the Claim.

### **4.3 RESOLUTION OF CONTRACT DISPUTES.**

Contract Disputes shall be resolved by the parties in accordance with the Contract Dispute Resolution Process set forth in this Section 4.3 of the General Conditions in lieu of any and all rights under the law that either party have its rights adjudged by a trial court or jury. All Contract Disputes shall be subject to the Contract Dispute Resolution Process set forth in this Section 4.3, which shall be the exclusive recourse of Contractor and City for such Contract Disputes.

4.3.1 Non-Contract Disputes. Contract Disputes shall not include any of the following:

- (i) Penalties or forfeitures prescribed by statute or regulation imposed by a governmental agency;
- (ii) Third party tort claims for personal injury, property damage or death relating to any Work performed by Contractor or its Subcontractors or Sub-subcontractors of any tier;
- (iii) False claims liability under California Government Code Section 12650, et. seq.;
- (iv) Defects in the Work first discovered by City after Final Payment by City to Contractor;
- (v) Stop notices; or
- (vi) The right of City to specific performance or injunctive relief to compel performance of any provision of the Contract Documents.

4.3.2 Litigation, City Election. Matters that do not constitute Contract Disputes shall be resolved by way of an action filed in the Superior Court of the State of California, County of Santa Clara, and shall not be subject to the Contract Dispute Resolution Process. However, the City reserves the right, in its sole and absolute discretion, to treat such disputes as Contract Disputes. Upon written notice by City of its election as provided in the preceding sentence, such dispute shall be submitted by the parties and finally decided pursuant to the Contract Dispute Resolution Process in the manner as required for Contract Disputes, including, without limitation, City's right under Paragraph 4.3.5 to defer resolution and final determination until after Final Completion of the Work.

4.3.3 Submission of Contract Dispute.

.1 By Contractor.

Contractors may commence the Contract Dispute Resolution Process upon conclusion of the Claims process set forth in Section 4.2 above. Contractor shall submit a written Statement of Contract Dispute (as set forth below) to City within thirty (30) Days after conclusion of the meet and confer process or mediation, as applicable, set forth in Section 4.2. Failure by Contractor to submit its Statement of Contract Dispute in a timely manner shall result in City's decision by City on the Claim becoming final and binding. Contractor's Statement of Contract Dispute shall be signed under penalty of perjury and shall state with specificity the events or circumstances giving rise to the Contract Dispute, the dates of their occurrence and the asserted effect on the Contract Sum and the Contract Time. The Statement of Contract Dispute shall include adequate supporting data to substantiate the disputed Claim, in compliance with the Change Order Request requirements set forth herein.

.2 By City.

City's right to commence the Contract Dispute Resolution Process shall arise at any time following City's actual discovery of the circumstances giving rise to the Contract Dispute. City may also assert a Contract Dispute in response to a Contract Dispute asserted by Contractor. A Statement of Contract Dispute submitted by City shall state the events or circumstances giving rise to the Contract Dispute, the dates of their occurrence and the damages or other relief claimed by City as a result of such events.

.3 Contract Dispute Resolution Process.

The parties shall utilize each of the following steps in the Contract Dispute Resolution Process in the sequence they appear below. Each party shall participate fully and in good faith in each step in the Contract Dispute Resolution Process, and good faith effort shall be a condition precedent to the right of each party to proceed to the next step in the process.

4.3.4 Direct Negotiations. Designated representatives of City and Contractor shall meet as soon as possible (but not later than ten (10) Days after receipt of the Statement of Contract Dispute) in a good faith effort to negotiate a resolution to the Contract Dispute. Each party shall be represented in such negotiations by an authorized representative with full knowledge of the details of the Claims or defenses being asserted by such party in the negotiations, and with full authority to resolve such Contract Dispute then and there, subject only to City's obligation to obtain administrative and/or City Council approval of any agreed settlement or resolution. If the Contract Dispute involves the assertion of a right or claim by a Subcontractor against Contractor that is in turn being asserted by Contractor against City ("Pass-Through Claim"), then the Subcontractor shall also have a representative attend the negotiations, with the same authority and knowledge as described above. Upon completion of the meeting, if the Contract Dispute is not resolved, the parties may either continue the negotiations or any party may declare negotiations ended. All discussions that occur during such negotiations and all documents prepared solely for the purpose of such negotiations shall be confidential and privileged pursuant to California Evidence Code Sections 1119 and 1152.

4.3.5 Deferral of Contract Disputes. Following the completion of the negotiations required by Paragraph 4.3.4, above, all unresolved Contract Disputes shall be deferred pending Final Completion of the Project, subject to City's right, in its sole and absolute discretion, to require that the Contract Dispute Resolution Process proceed prior to Final Completion. All Contract Disputes that have been deferred until Final Completion shall be consolidated within a reasonable time after Final Completion and thereafter pursued to resolution pursuant to this Contract Dispute Resolution Process. The parties can continue informal negotiations of Contract Disputes; provided, however, that such informal negotiations shall not be alter the provision for deferring final determination and resolution of unresolved Contract Disputes until after Final Completion.

4.3.6 Mediation. If the Contract Dispute remains unresolved after negotiations pursuant to Paragraph 4.3.4, above, the parties may choose, by mutual agreement, to conduct further mediation, however they shall be under no obligation to do so.

4.3.7 Binding Arbitration. Any remaining Contract Dispute shall be submitted for binding arbitration.

- .1 Process. Any Claim submitted for binding arbitration, as set forth above, shall be determined by arbitration at the San Francisco JAMS' offices, and administered by JAMS pursuant to its Engineering and Construction Arbitration Rules & Procedures for Expedited Arbitration. Judgment on the Award may be entered in any court having jurisdiction. This clause shall not preclude parties from seeking provisional remedies in aid of arbitration from a court of appropriate jurisdiction within Santa Clara County, and no other place.
- .2 Waiver of Jury Trial. Contractor and City each voluntarily waives its right to a jury trial with respect to any Contract Dispute that is subject to binding arbitration in accordance with the provisions of this Paragraph 4.3. Contractor shall include this provision in its contracts with its Subcontractors who provide any portion of the Work.

4.3.8 Non-Waiver. Participation in the Contract Dispute Resolution Process shall not waive, release or compromise any defense of City, including, without limitation, any defense based on the assertion that the rights or Claims of Contractor that are the basis of a Contract Dispute were previously waived by Contractor due to Contractor's failure to comply with the Contract Documents, including, without limitation, Contractor's failure to comply with any time periods for providing notice of requests for adjustments of the Contract Sum or Contract Time or for submission of Claims or supporting documentation of Claims.

## **ARTICLE 5 – SUBCONTRACTORS**

### **5.1 CONTRACTOR'S AWARD OF SUBCONTRACTS**

5.1.1 Contractor shall comply with the Subletting and Subcontracting Fair Practices Act, Public Contract Code Sections 4100 through 4114. Nothing herein shall be deemed to entitle Contractor, without the written approval of City, to substitute other Subcontractors for those named in Contractor's List of Subcontractors contained in the completed Bid; and, except with such approval, no such substitution shall be made. Should Contractor violate any of the provisions of the Subletting and Subcontracting Fair Practices Act, such violation shall be deemed a violation of the Construction Contract, entitling City, without limitation to any other rights or remedies under the law, to suspend or terminate the Construction Contract.

5.1.2 Except as hereinafter provided, any increase in the cost of the Work or Contract Time resulting from the replacement or substitution of a Subcontractor, shall be borne solely by Contractor and without any adjustment in Contract Sum or Contract Time.

5.1.3 Where a hearing is held pursuant to the provisions of Chapter 2, Division 5, Title 1 of the Public Contract Code (commencing with Subparagraph 4100), by the awarding authority or a duly appointed hearing officer, City's representative shall prepare and certify a statement of all costs incurred by City for investigation and conduct of the hearing, including the costs of any hearing officer and reporter appointed. The statement shall then be sent to Contractor who shall reimburse City for such costs. If not paid separately, such reimbursement may be deducted from any money due and owing to Contractor.

### **5.2 SUBCONTRACTOR RELATIONS**

5.2.1 Prior to the execution of each subcontract agreement, Contractor shall make available to each proposed Subcontractor, copies of the Contract Documents. Contractor must incorporate the terms of these Contract Documents into each subcontract, so that each Subcontractor will be bound by the terms of these Contract Documents, including, but not limited to, the provisions for dispute resolution. Within thirty (30) Days of the Notice To Proceed, Contractor shall provide City with a complete listing of all Subcontractors, which shall include, but not be limited to, the Work contracted for, Subcontractor's name, address, telephone and facsimile numbers, form for doing business (i.e. sole proprietor, corporation, partnership), point-of-contact and Subcontractor's license classification and number.

5.2.2 Any part of the Work performed for Contractor by a first Tier Subcontractor shall be pursuant to a written subcontract. Each such subcontract shall require that the Subcontractor:

- (i) Perform the Work in accordance with the terms of the Contract Documents.
- (ii) Assume toward Contractor all the obligations and responsibilities which Contractor assumes towards City by the Contract Documents.



- (iii) Preserve and protect the rights of City under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights.
- (iv) Waive all rights that the Subcontractor may have against City for damages caused by fire or other perils covered by builder's risk property insurance carried by Contractor or City, except for such rights Subcontractor may have to the proceeds of such insurance held by City under Article 11 of these General Conditions.
- (v) Afford City and entities and agencies designated by City the same rights and remedies with respect to access to and the right to audit and the right to copy at City's cost all of the Subcontractor's books, records, contracts, correspondence, instructions, drawings, receipts, vouchers, purchase orders and memoranda relating to the Work and requiring the Subcontractor to preserve all such records and other items for a period of at least three (3) years after Final Completion.
- (vi) Recognize the rights of City under Section 5.3 of the General Conditions, Contingent Assignment of Subcontracts, including, without limitation, City's right to elect to accept assignment of the subcontract and to retain Subcontractor pursuant to the terms of the subcontract, to complete the unperformed obligations under the subcontract and, if requested by City, to execute a written agreement on terms acceptable to City confirming that the Subcontractor is bound to City under the same terms as the subcontract.
- (vii) Submit Applications for payment, requests for Change Orders and extensions of time and Claims, and to comply with all other notice and submission requirements of the Contract Documents, sufficiently in advance to allow Contractor time to comply with its obligations under the Contract Documents.
- (viii) Purchase and maintain insurance in accordance with the requirements of the Contract Documents and reserving the right to Owner to purchase, in its sole discretion, such insurance pursuant to an Owner Controlled Insurance or other form of wrap-up program.
- (ix) Provide the same defense indemnification of the City as is required of the Contractor.
- (x) Agree to participate in the dispute resolution procedures specified in the Construction Contract, at the election of City.

5.2.3 Contractor shall promptly, after execution, furnish to City true, complete, and executed copies of all subcontracts, and any change orders and modifications thereto. Progress payments shall not be made for items of Work for which City has not received executed subcontracts and, if applicable, Change Orders.

5.2.4 Nothing contained in the Contract Documents shall create any contractual relationship between any Subcontractor and City, except when, and only to the extent that, City elects to accept the assignment of the subcontract with such Subcontractor pursuant to Section 5.3, Contingent Assignment of Subcontracts. Notwithstanding the foregoing, City is deemed a third party beneficiary of each subcontract agreement.

5.2.5 City and the Construction Manager shall have the right to communicate with Contractor's Subcontractors with respect to matters that are related to Contractor's performance of its obligations under the Contract Documents. Contractor shall be provided with a copy of all such written communications. Such communications shall not create or be interpreted as creating any contractual relationship between City or the Construction Manager and any such Subcontractor.

### **5.3 CONTINGENT ASSIGNMENT OF SUBCONTRACTS**

In the event of any suspension or termination of the Construction Contract, Contractor is hereby deemed to have offered to assign to City all its interest in contracts with Subcontractors now or hereafter entered into by Contractor for performance of any part of the Work. The assignment will be effective upon acceptance by City in writing and only as to those contracts which City designates in writing. City may accept, at its sole election, said assignment at any time during the course of the Work and prior to Final Completion in the event of a suspension or termination of Contractor's rights under the Contract Documents. Such assignment is part of the consideration to City for entering into the Contract with Contractor and may not be withdrawn prior to Final Completion.

### **5.4 CONTRACTOR AND SUBCONTRACTOR RESPONSIBILITY**

Contractor shall be responsible to City for acts and omissions of Contractor's agents, employees, and of Contractor's Subcontractors, and their respective agents and employees. Unless otherwise stated in or a contrary intention is reasonably inferable from the Contract Documents, references to Contractor, when used in reference to an obligation bearing upon performance of the Work, shall be deemed to include Contractor's Subcontractors.

## **ARTICLE 6 – CONSTRUCTION BY CITY OR BY SEPARATE CONTRACTORS**

### **6.1 CITY'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS**

6.1.1 City reserves the right to award separate contracts for, or to perform with its own forces, construction or operations related to the Work or other construction or operations at or affecting the Site, including portions of the Work which have been deleted by modification. Contractor shall cooperate with City's forces and Separate Contractors.

6.1.2 City shall provide coordination of the activities of City forces and of each Separate Contractor with the Work of Contractor. Contractor shall participate with City and Separate Contractors in joint review of construction schedules and Project requirements when directed to do so. Contractor shall make necessary revisions to the Construction Schedule after such joint review.

6.1.3 Without limitation upon any of the rights or remedies of City under the Contract Documents or under law arising from a default by Contractor, in the event that Contractor fails to have personnel on Site to supervise the Work, City shall have the right, in its sole discretion, but not the responsibility, upon twenty-four (24) hours' telephonic notice to Contractor, to provide such supervision on a temporary basis. Contractor shall, notwithstanding City's providing such temporary supervision, remain solely responsible for all actions of its personnel and Subcontractors and shall defend and indemnify City in accordance with the Construction Contract against any Losses arising therefrom. City shall have the right, in its discretion, to deduct from the sums owing to Contractor the reasonable cost of such temporary supervision.

## **6.2 MUTUAL RESPONSIBILITY**

6.2.1 Contractor shall be responsible for affording Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities. Contractor shall schedule and coordinate its construction and operations with the construction and operations of Separate Contractors as required by the Contract Documents.

6.2.2 If a portion of the Work is dependent upon the proper execution or results of other construction or operations by Separate Contractors, Contractor shall inspect such other construction or operations before proceeding with its portion of the Work. Contractor shall promptly report to City apparent discrepancies or defects which render the other construction or operations unsuitable to receive the Contractor's Work. Unless otherwise directed by City, Contractor shall not proceed with the portion of the Work affected until apparent discrepancies or defects have been corrected. Failure of Contractor to so report within a reasonable time after discovering such discrepancies or defects shall constitute an acknowledgment that the other construction or operations by City or Separate Contractors is suitable to receive the Work, except as to defects not then reasonably discoverable.

6.2.3 In the event of Delays, improperly timed activities or Defective Work by the Contractor or the Separate Contractors, the costs of such occurrences shall be borne by the party responsible therefor.

6.2.4 If Contractor wrongfully causes damage to completed or partially completed construction or to property of City or Separate Contractors, Contractor shall promptly remedy damage as provided in Paragraph 12.2 of these General Conditions.

6.2.5 If a dispute, or other matters in question arise between Contractor and a Separate Contractor, these occurrences shall be subject to the provisions of Section 4.2 and 4.3 of the General Conditions. Contractor shall immediately notify the Construction Manager in writing of such occurrences.

## **6.3 CITY'S RIGHT TO CLEAN UP**

If a dispute arises between Contractor and Separate Contractors as to the responsibility under their respective contracts for maintaining the Site and surrounding areas free from waste materials and rubbish, City may clean up and allocate the cost between those firms it deems, in its sole discretion, to be responsible.

## **ARTICLE 7 – CHANGES**

### **7.1 CHANGES**

7.1.1 City may, at any time and without notice to Contractor's sureties, order Changes in the Work without invalidating the Construction Contract and without relieving Contractor's sureties of their obligations to City.

7.1.2 City shall receive a deductive adjustment in the Contract Sum for Changes that result in a reduction in the cost to perform the Work and shall be entitled to an adjustment reducing the Contract Time for Changes that enable the Contractor to complete the Work earlier than the Contract Time.

7.1.3 Unless such rights have been waived and provided that Contractor has complied with the requirements of the Contract Documents with respect to, without limitation, complete and timely submission of all notices, requests and supporting documentation, Contractor shall receive an additive adjustment to the Contract Sum for Changes that increase the cost to perform the Work and/or an adjustment extending the Contract Time for Excusable Delay (subject to offset for concurrent Unexcused Delay).

7.1.4 Contractor shall not be entitled to an adjustment of the Contract Sum or Contract Time for Changes that are not authorized by an Approved Change Order or Field Order signed by City or Construction Manager. All Changes in the Work that are the basis of an adjustment to the Contract Sum or Contract Time must be authorized in advance, in writing, by City or Construction Manager. Accordingly, no verbal directions, course of conduct between the parties or express or implied Acceptance of Changes or Work, and no claim that the Owner has been unjustly enriched (whether or not there has been such enrichment) shall be the basis for an adjustment to the Contract Sum or Contract Time if Contractor has not obtained advance written authorization to perform the Change in the manner required herein.

7.1.5 City or the Construction Manager may authorize and direct Changes by requesting that Contractor submit a Change Order Request or by issuing a Field Order. A Field Order may be issued to direct performance of Work under the following circumstances:

- .1 When there is a dispute as to whether or not the Work described therein constitutes or includes a Change or Extra Work,
- .2 When there is a dispute regarding the basis or amount of compensation for Changed or Extra Work,
- .3 When there is a dispute regarding whether or how the Contract Time should be adjusted, or
- .4 As otherwise deemed necessary by City to ensure the timely performance of the Work and timely completion of the Project.

The purpose of a Field Order is to ensure the timely performance of the Work and timely completion of the Project, and issuance of a Field Order shall not be construed as an acknowledgment by City that the Work described constitutes a Change or Extra Work if that is in fact not the case.

7.1.6 City can make whatever Changes that it determines in its sole discretion are necessary and in its best interests and under no circumstances shall the number (individual or cumulative value) or scope of Changes become a basis for Contractor to claim that the Construction Contract has been rescinded, terminated, abandoned or should be reformed nor shall such circumstances be the basis for Contractor, or any Subcontractor to recover any compensation or damages not permitted by, or in excess of that allowed under, the Contract Documents.

7.1.7 City shall have authority to order minor Changes in the Work that do not increase the cost or time to perform the Work, and which are consistent with the intent of the Contract Documents. Such changes may be directed by a Field Order, and shall be binding on City and Contractor. Contractor shall carry out such written orders promptly.

## 7.2 CHANGE ORDER REQUESTS AND CHANGE ORDERS

7.2.1 Contractor may request adjustments to the Contract Sum or Contract Time or the terms of a Field Order by submitting a written Change Order Request if, and only if, Contractor follows the procedures specified in the Contract Documents, including, without limitation, the procedures set forth in this Section 7.2. A Change Order Request must be submitted within ten (10) Days after the occurrence of the circumstances giving rise thereto. At the City's election, the Contractor shall submit all Change Order requests on a form prepared by the City. The Change Order Request must clearly describe the circumstances that are the basis of the Change, with reference, to the particular provisions of the Contract Documents involved, and also to all other directly relevant documents, including, but not limited to, related Requests for Information and responses thereto, and Field Orders. A Change Order Request seeking an adjustment to the Contract Sum must identify the proposed basis of compensation, the amount of the requested adjustment, and a detailed breakdown of the amount requested. A Change Order Request seeking an adjustment to the Contract Time must include all information required by the Contract Documents, including, but not limited to strict compliance with Section 8.5 of the General Conditions pertaining to requests for extension of Contract Time. A request for an extension of Contract Time must be accompanied by a "Fragnet" or "time impact analysis," which identifies all critical and non-critical activities affected by the Change Order Request and showing logic ties into all existing affected activities noted on the latest approved, updated Construction Schedule. Change Order Requests must be submitted to the Construction Manager. Incomplete Change Order Requests or requests that are not submitted on the City's Change Order Request Form will be returned without review.

7.2.2 Adjustments to the Contract Sum, whether increases or decreases, shall be computed at City's sole election on the basis of one or more of the following methods:

- .1 Unit Pricing: Unit prices stated in the Contract Documents or agreed upon by City and Contractor, which shall be deemed to include all Allowable Costs, Contractor Markup and Subcontractor Markup.
- .2 Lump Sum Pricing: A lump sum agreed upon by City and Contractor, based on the estimated Allowable Costs, Contractor Markup, and Subcontractor Markup computed in accordance with this Section.
- .3 Time and Materials: Work performed on a time and materials basis shall be calculated as the sum of Allowable Costs, plus applicable Contractor Markup, as set forth herein.

The above methods are the exclusive methods for calculating adjustments to the Contract Sum. Under no circumstances will adjustment to the Contract Sum be based upon any methodology such as total cost or modified total cost methodologies that purports to calculate Contractor's additional costs based on the difference between Contractor's total actual Project or line item costs and its original bid estimate for the Project or any original bid estimate line item.

7.2.3 Changes involving Extra Work that City elects to have performed on a time and material basis, whether performed by Contractor's forces or the forces of Subcontractors, shall be compensated by an increase in the Contract Sum based on actual Allowable Costs and applicable Markup, as set forth herein. When Work is performed on a time and material basis, by Contractor or any of its Subcontractors, Contractor shall submit on a daily basis to the Construction Manager daily time and material tickets which include the identification number assigned to the Change; the location and description of the Change; the classification of labor employed (and names and social security numbers if requested); the materials used; the equipment rented (not tools); and such other receipts, invoices, or other evidence of cost as the Construction Manager may require. The Construction Manager may require authentication of all time and material tickets and invoices by persons designated by the Construction Manager for such purpose. The failure of Contractor to provide any required authentication shall, if City elects to treat it as such, constitute a waiver by Contractor of any right to adjustment of the Contract Sum for the cost of all or that portion of the Extra Work covered by a non-authenticated ticket or subsequent invoice. The adjustment to the Contract Sum for the Extra Work will be based on the total sum of Allowable Costs for performance of that Extra Work and applicable Markup as provided herein.

7.2.4 Allowable Costs include and are limited to the sum of direct, actual costs necessarily incurred by Contractor and any Subcontractors that actually perform Extra Work, and are strictly limited to the following:

- .1 **Labor.** The actual costs for straight-time (and the premium time portion of overtime, if approved in writing in advance by City or the Construction Manager) wages or salaries for employees performing the Extra Work, whether at the Site, or at fabrication sites off the Site, plus employer payments collectively referred to as "Fringe Benefits and Payroll Taxes," of payroll, taxes and insurance, health and welfare pension, vacation, apprenticeship funds, and other direct costs required by Federal, State or local laws, as well as assessments or benefits required by lawful collective bargaining agreements. The use of employees with a labor classification, which would increase the Allowable Costs will not be permitted unless Contractor establishes the necessity for such additional costs. Labor costs for equipment operators and helpers shall be payable under this Paragraph only when such costs are not included in the invoice for equipment rental.
- .2 **Material.** The actual cost of materials, supplies and consumable items which are required for the Work at invoice or lowest current price at which such materials are locally available and delivered to the Site in the quantities involved, including sales tax, freight and delivery. City reserves the right to approve materials and sources of supply, or to supply materials to Contractor, if necessary, for the Work. No Markup shall be applied to any material provided by City. Material re-stocking charges shall be limited to 5% of the amount of material. All discounts, rebates and refunds from the sale of surplus materials and consumable items shall accrue to City, and Contractor shall make provision so that they may be obtained.
- .3 **Tool and Equipment Rental.** Rental charges actually incurred for necessary machinery and equipment, whether owned or hired, as authorized in writing by City or the Construction Manager, exclusive of hand tools. No payment will be made for the use of tools that have a replacement value of \$500 or less. When the equipment is owned by Contractor, the rental rate shall be as listed for such equipment in the California Department of Transportation publication entitled "Labor Surcharge and Equipment Rental Rates," which is in effect on the date the Work is accomplished. When equipment is not listed in said publication, the rate to be paid shall be as herein defined, or a suitable rental rate for such equipment will be established by the Construction Manager. Regardless of ownership, the rates to be used in determining equipment rental cost shall not exceed listed rates prevailing locally at equipment rental agencies or distributors at

the time the work is performed. The rental rates paid shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance and all incidentals. If equipment is used intermittently, when not in use it shall be returned to its rental source unless Contractor elects to keep it at the Site at no expense to City. The reported rental time for equipment already at the Site shall be the duration of its use on the Extra Work, commencing at the time it is first put into actual operation on the Extra Work, plus the time required to move it from its previous site and back, or to a closer site.

**.4 Royalties and Permits.** Costs of royalties and permits solely related to the Extra or Deleted Work.

**.5 Insurance and Bonds.** Additional costs of insurance and bonds, not to exceed two percent (2%) of the total of Parts .1 through .4, above.

7.2.5 Allowable Costs shall not include any of the following, which are deemed to be included in the Contractor Markup:

- (i) Superintendent(s)
- (ii) Assistant Superintendent (s)
- (iii) Project Engineer(s), Assistant Project Engineer(s).
- (iv) Project Manager(s), Assistant Project Manager(s).
- (v) Scheduler(s), Administrative Assistant(s), Health and Safety personnel.
- (vi) Estimator(s), Clerk(s), Secretary(s), Accountant(s) or any Home Office personnel.
- (vii) Drafting or detailing.
- (viii) Small tools (with a replacement value under \$500).
- (ix) Home or field office expenses, including staff, materials, and supplies.
- (x) Trailer or storage rental and expense, whether on the Site or off the Site.
- (xi) Data processing personnel and equipment.
- (xii) Site fencing.
- (xiii) Utilities, including, without limitation, gas, electric, sewer, water, telephones.
- (xiv) Telephone, cell phone, radios, computer, tablet devices, facsimile, e-mail and copier.
- (xv) Overhead, administrative, or general expenses of any kind.
- (xvi) Loss of efficiency or productivity, or other impact cost due to the effect of the Extra Work on the performance of other Work or the Work of other trades on the Project.
- (xvii) Capital expenses, including interest on capital employed in connection with Extra Work.

- (xviii) Legal costs.
- (xix) Federal, State, or local income and franchise taxes.
- (xx) Profit.
- (xxi) Costs incurred more than twenty (20) Days prior to submission of a Change Order Request seeking compensation for those costs.
- (xxii) Cost of any item not specifically and expressly included in Allowable Costs.

7.2.6 Contractor Markup for Extra Work is to be calculated as ten percent (10%) of the Allowable Costs the Contractor or Subcontractor actually incurred to perform the Extra Work with its own forces. Subcontractor Markup by Contractor for Extra Work performed by Subcontractor is to be calculated as fifteen percent (15%) of the total Allowable Costs the Subcontractor incurred for Extra Work. The total amount of markup for Extra Work may not exceed twenty-five percent (25%) of the total Allowable Costs.

7.2.7 Change Order Requests or requests for payment for time and material work directed by a Field Order must include a complete breakdown of actual costs, including credits, and shall itemize all Allowable Costs, subcontract costs if applicable, Contractor Markup, and Subcontractor Markup if applicable. All claimed costs must be fully documented and objectively verifiable. In connection with the foregoing, Contractor must generate and maintain complete and accurate cost accounting records that will reflect:

- .1 The actual Allowable Costs incurred or saved for each individual item of Extra Work or Deleted Work, and
- .2 On an event-by-event basis, the effect of each Delay that forms the basis of any request for extension of time, regardless of scope, number, complexity, cumulative effect or time of issuance or occurrence.

7.2.8 The Contract Sum will be adjusted for direct Allowable Costs incurred due to Excusable Delay only if and to the extent allowed by the Contract for Compensable Delay. Such adjustments in the Contract Sum shall be Contractor's sole and exclusive remedy and recovery for Excusable Delay, including any alleged disruption, hindrance, interference, loss of productivity, labor or material cost escalations, inefficiency, acceleration, impact costs, extended or extraordinary overhead (direct or indirect), home office overhead, or other Losses or damages due to Delay, of any kind.

7.2.9 City has the right to increase or decrease the quantity of any unit price item for which an estimated quantity is stated in the Contract Documents, and the Contract Sum will be adjusted accordingly.

7.2.10 Allowance Adjustments: An Allowance is an amount included in the Bid for Work that may or may not be included in the Project, depending on conditions that will not become known until after Bid time. If the Contract Sum includes an Allowance and the cost of performing the Work covered by that Allowance is greater or less than the stated amount, the Contract Sum shall be increased or decreased accordingly by the amount of the difference. The Contract Sum shall also be adjusted by the amount of any unused Allowance that was specifically and expressly included in the original Contract Sum.



7.2.11 Change Orders: Approved Change Order Requests and Changes directed by a Field Order, including adjustments to Contract Sum and Contract Price, shall be incorporated into a Change Order for approval by the City. City shall prepare each Change Order for execution by Contractor and the City. Change Orders shall be in substantially the same form as Attachment B to the General Conditions. An Approved Change Order becomes binding upon City and Contractor when fully executed by both parties. Full execution of a Change Order is deemed full resolution, settlement, accord and satisfaction with respect to any and all pending or future Claims for cost and extensions of time that were asserted, or that could have been asserted, in connection with the Work covered by the Change Order, whether known or unknown at the time of execution of the Change Order, and that are related to the subject matter of the Change Order, including, without limitation, all Claims, costs or damages for Delay, disruption, hindrance, interference, extended or extraordinary direct and indirect overhead, multiplicity of Changes, loss of productivity, labor or material cost escalations, inefficiency, the impact of the Change on the Work, legal expenses, consultant costs, interest, lost profits or revenue, bond or insurance costs, currency fluctuations, changes in taxes or other related Claims, costs or damages. Change Orders shall be executed by Contractor in the form approved by the City Council or its authorized designee, and without any express reservation of rights by Contractor to reserve for the future the right to assert or recover from City any such Claims, costs or damages.

7.2.12 If Contractor fails to timely execute a Change Order, the City may unilaterally approve the Change Order to increase the Contract Sum and/or to extend the Contract Time. Contractor may dispute the terms of a unilaterally-approved Change Order, in whole or in part, by submitting a Claim in accordance with the Dispute Resolution Procedures set forth herein within fourteen (14) days after the Change Order is approved by the City. If Contractor fails to submit a Claim within that 14-day period, with respect to all or part of the unilaterally-approved Change Order, those portions of the Change Order which have not been disputed by timely submission of a Claim shall be deemed to have the same effect as if the Change Order was fully executed by both parties as set forth above.

### **7.3 FIELD ORDERS**

A Field Order will include a description of the Work to be performed, and the selected basis for adjusting the Contract Sum (increase or decrease) as set forth herein (i.e., unit pricing if applicable, lump sum, or time and materials). A Field Order may or may not include the total amount of the City's proposed adjustment to the Contract Sum or Contract Time, and may also include a not-to-exceed limit for any increases to the Contract Sum. Upon receipt of a Field Order, Contractor shall, within a reasonable time, proceed with the Work described in the Field Order. If Contractor disputes the proposed basis or amount of adjustment to the Contract Sum or Contract Time, it may request to change the disputed portions of the Field Order by submitting a Change Order Request within ten (10) Days following issuance of the disputed Field Order. Failure by Contractor to submit a timely Change Order Request seeking modification of the terms of the Field Order shall be deemed full acceptance of and agreement to all of the terms of the Field Order, and a release and waiver of any right to subsequently dispute any or all of the terms of that Field Order. Field Orders shall be in substantially the same form as Attachment A to the General Conditions.

#### **7.4 DISPUTES REGARDING CHANGES**

No dispute, disagreement, nor failure of the parties to reach agreement regarding the amount, if any, of any adjustment to the Contract Sum or Contract Time, shall relieve Contractor from the obligation to proceed with performance of the Work, including, without limitation, performance of Work directed by a Field Order or as modified by a Change Order, promptly and expeditiously. Contractor shall not delay, slow, interrupt, or suspend the performance of any Work or any Change because of a dispute between the parties, including, but not limited to, disputes pertaining to an adjustment in the Contract Sum or Contract Time. If Contractor disputes the rejection of any Change Order Request in whole or in part, Contractor's exclusive remedy is to submit a Claim in compliance with the Dispute Resolution Procedures set forth in Article 4 herein.

### **ARTICLE 8 – CONTRACT TIME**

#### **8.1 COMMENCEMENT OF THE WORK**

Commencement of the Work shall begin on the date specified in the Notice to Proceed.

#### **8.2 PROGRESS AND COMPLETION**

8.2.1 Contractor agrees that the Contract Time is reasonable for performing the Work and that Contractor is able to perform the Work within the Contract Time.

- .1 The Construction Schedule may reflect a period of performance that is shorter than the Contract Time; provided however, that the difference shall be deemed as float and nothing in this Paragraph or in any other provision of the Contract Documents shall be construed as creating any contractual right, express or implied, on the part of Contractor to finish the Project earlier than the Contract Time and under no circumstances shall City be liable to Contractor for any costs, damages or compensation due to the inability of Contractor to complete the Work earlier than the Contract Time, regardless of the cause, including, without limitation, acts or omissions (intentional or negligent) of City.
- .2 Contractor has included in its Bid price the costs of all Contractor and Subcontractor overhead (direct and indirect) for the entire duration of the Contract Time. The above costs are included in Contractor's Bid notwithstanding Contractor's anticipation of completion in fewer days than established by the Contract Time.
- .3 No increase in the Contract Sum shall be made or granted for Delay if Contractor completes the Work before expiration of the Contract Time.
- .4 No reduction in the Contract Sum shall be made nor will Contractor be required to remain on the Project Site if the Work is completed before expiration of the Contract Time.
- .5 The Construction Manager will schedule and hold weekly progress meetings and other meetings to be required by progress of the Work as determined by the Construction Manager. Contractor and/or Contractor's designee shall be present at each meeting. Contractor may also be required to request attendance by representatives of Contractor's suppliers, manufacturers and Subcontractors.

8.2.2 Except by agreement or instruction of City in writing, Contractor shall not commence operations on the Site or elsewhere prior to the effective date of insurance required by Article 11 to be furnished by Contractor. Contractor's obligations to commence the Work and to complete the Work within the Contract Time shall not be changed by the effective date of such insurance.

8.2.3 Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time. If City determines and notifies Contractor that Contractor's progress is such that Contractor will not complete the Work within the Contract Time, Contractor shall, immediately and at no additional cost to City, take all measures necessary, including working such overtime and additional shifts (other than City's normal working hours of 8:00 AM to 6:00 PM, Monday through Friday and 9:00 AM to 6:00 PM on Saturday), to ensure that the Work is Substantially Completed within the Contract Time. Upon receipt of such notice from City, Contractor shall immediately respond in writing setting forth a detailed plan for accelerating the Work in a manner acceptable to City. Contractor shall not be entitled to any reimbursement or payment of costs, expenses or damages incurred as a result of an acceleration of the Work. City may also take all necessary measures to prevent the need for subsequent accelerations of the Work. Contractor shall reimburse City, or City may withhold from payment due to Contractor, sums expended by City to perform such measures.

8.2.4. During unfavorable weather, wet ground or other unsuitable construction conditions, Contractor shall confine the operations to Work that will not be affected adversely by such conditions. No portion of the Work shall be constructed under conditions which would affect adversely the quality thereof or be detrimental to the quality of water discharges, unless special means or precautions are taken by Contractor to perform the Work in a proper and satisfactory manner.

### **8.3 CONSTRUCTION HOURS**

Work shall be performed during the hours of 8:00 AM to 6:00 PM Monday through Friday and 9:00 AM to 6:00 PM on Saturday, unless otherwise specified in the Special Provisions or approved in writing by the City Engineer. Construction is prohibited on Sundays and holidays defined in Section 8.4 below.

### **8.4 HOLIDAYS**

No work may be performed on the City holidays identified:

- January 1 (New Year's Day)
- Third Monday in January (Martin Luther King Day)
- Third Monday in February (Washington's Birthday)
- Last Monday in May (Memorial Day)
- July 4 (Independence Day)
- First Monday in September (Labor Day)
- Second Monday in October (Columbus Day)
- November 11 (Veteran's Day)
- Fourth Thursday in November (Thanksgiving Day)
- Day after Thanksgiving
- December 25 (Christmas Day)

In the event that any of the aforementioned days falls on a Sunday, the following Monday shall be considered a holiday. In the event that any of the above days falls on a Saturday, then the preceding Friday shall be considered a holiday.

## 8.5 DELAY

8.5.1 Contractor may request an extension of the Contract Time for an Excusable Delay or a Compensable Delay, subject to the following:

- .1 In order to avoid double counting concurrent Delays, if an Excusable Delay and a Compensable Delay occur concurrently, the maximum extension of the Contract Time shall be the number of days from the commencement of the first Delay to the cessation of the Delay which ends last.
- .2 If an Unexcused Delay occurs concurrently with either an Excusable Delay or a Compensable Delay, the maximum extension of the Contract Time shall be the number of Days, if any, by which the Excusable Delay or the Compensable Delay exceeds the Unexcused Delay.
- .3 If an Unexcused Delay occurs concurrently with both an Excusable Delay and a Compensable Delay, the maximum extension of the Contract Time shall be the number of Days, if any, by which the number of Days of Excusable Delay, as determined pursuant these General Conditions, exceeds the number of Days of the Unexcused Delay.

8.5.2 As a condition precedent to Contractor's right to an extension of Time adjusting the Contract Time and the Contract Sum for Compensable Delay, Contractor must provide written notice to City within ten (10) Days of the date that Contractor learned of the Delay or should have learned of the Delay in exercise of diligence and reasonable care, setting forth:

- (i) A description of the Delay;
- (ii) A statement that the Delay is critical to completion; and
- (iii) The probable effect of the Delay in terms of the number of Days' extension Contractor believes are required to the Contract Time.

The written notice required by this Paragraph is necessary for City to adequately monitor the progress of the Work, to differentiate between critical and non-critical Delays, and to prioritize its actions in a manner that is appropriately targeted to mitigate the effect of Delays. Accordingly, Contractor's failure to provide written notice in the manner required by this Paragraph 8.5.2 shall constitute Contractor's waiver of the right to an adjustment of the Contract Sum and Contract Time on account thereby, regardless of whether the circumstances of the Delay may have been known or suspected by City or the Construction Manager and that no other form of notice (including, without limitation, meeting minutes, log entries or schedule updates) shall suffice as constituting notice to City in accordance with this Paragraph 8.5.2.

8.5.3 Adequate supporting data for a request for extension of time shall include both of the following:

- (i) All relevant scheduling data including a Fragnet, and
- (ii) A detailed, event-by-event description of the impact of each event on completion of Work. Documentary support for any related increase in the Contract Sum must include both of the following:
  - (a) A detailed cost breakdown, and
  - (b) Supporting cost data in such form and including such information and other supporting data as required for submission of Change Order Requests.

8.5.4 City may order Changes, whether or not resulting in Extra Work and regardless of the extent and number of Changes, or may suspend the Work.

8.5.5 The determination of whether a Delay is an Excusable Delay, Compensable Delay or Unexcused Delay shall not be affected by the fact that any earlier Delay occurred, regardless of fault or causation.

8.5.6 All time limits stated in the Contract Documents are of the essence.

8.5.7 Excusable Delay means any Delay to the path of activities that is critical to Substantial Completion of the Work within the Contract Time caused by conditions beyond the control or foreseeability, and without the fault or negligence of Contractor or its Subcontractors, such as, but not limited to: war, embargoes, fire, unavoidable casualties, unusual delays in transportation, national emergency, and stormy and inclement weather conditions that are unusual and unseasonable and in which the Work cannot continue. Without limitation to the foregoing, the financial inability of Contractor or any Subcontractor, shall not be deemed conditions beyond Contractor's control or foreseeability. Contractor may claim an Excusable Delay only if all Work on a critically scheduled activity is stopped for more than six (6) hours of a normal eight (8) hour work day, or if three to six hours are lost in one work day, then it may be claimed for one-half day.

8.5.7.1 Excusable Delay does not include Delay caused by weather conditions which are normal for the location of the Project, as determined by weather records for the preceding five (5) year period.

8.5.7.2 Excusable Delay does not include Delay caused by Contractor's failure to order equipment and materials sufficiently in advance of the time needed for the Work.

8.5.7.3 Excusable Delay does not include Delay caused by Contractor's failure to provide adequate notification to utility companies for connections or services necessary for the timely performance and completion of the Work.

8.5.7.4 Excusable Delay does not include Delay caused by foreseeable conditions Contractor could have ascertained from reasonably diligent inspection of the Site and/or review of the Contract Documents.

8.5.8 Compensable Delay means any Excusable Delay to the path of activities that is critical to Contractor's Substantial Completion of the Work within the Contract Time, which Delay is all of the following:

- (i) Solely due to acts or omissions within the City's control, including but not limited to Changes requested by City that involve Extra Work;

- (ii) Not due, in whole or in part, to the fault or negligence or breach of Contractor or any Subcontractor; and
- (iii) Not concurrent with another Excusable Delay or any Unexcused Delay.

8.5.9 Compensation for delay shall be limited to actual, direct, reasonable, and substantiated Project costs, and shall not include home office overhead, or markup for overhead and profit.

## **ARTICLE 9 – PAYMENTS AND COMPLETION**

### **9.1 SCHEDULE OF VALUES**

Within thirty (30) Days after signing the Contract, but in any event not later than fourteen (14) Days following receipt of the Notice to Proceed, Contractor shall submit to City through the Construction Manager a Schedule of Values reflecting cost breakdown of the Contract Sum in a form approved by the Construction Manager. The Schedule of Values shall itemize as separate line items the cost of each scheduled Work activity and all other costs, including warranties, Record Documents, insurance, bonds, overhead and profit, the total of which shall equal the Contract Sum and shall be made out in a form approved by the Construction Manager. The Schedule of Values, when approved by City, shall become the basis for determining the cost of Work requested on Contractor's Applications For Payment. Contractor shall submit a statement based upon this breakdown, and if required, itemized in such form and supported by such evidence as the Construction Manager may direct, showing Contractor's right to the payment claimed.

### **9.2 PROGRESS PAYMENT**

9.2.1 City shall retain five percent (5%) of the undisputed amount due on each progress payment, or the percentage stated in the Notice Inviting Bids, whichever is greater, as retention to ensure full and complete performance of the Work. Subject to City's right of withholding under Paragraph 9.4.2 of these General Conditions, City agrees to pay to Contractor within thirty (30) Days of receipt of a properly submitted Application for Payment an amount equal to ninety-five percent (95%), or a lesser amount if corresponding to a higher retention percentage, if applicable, of the sum of the following, excepting therefrom any amounts which are disputed by City:

- (i) Construction Manager's determination of the value, expressed as a percentage of the Contract Sum, of the Work in permanent place that has been tested and accepted as of the end of the preceding month.
- (ii) Construction Manager's determination of the value of materials suitably stored but not yet incorporated into the Work, subject to Paragraph 9.3.6 of these General Conditions.
- (iii) Less amounts previously paid.

9.2.2 At any Time after fifty percent (50%) of the Work has been determined by Construction Manager to be completed, City may in its sole discretion, make any of the remaining progress payments in accordance with the calculation in Paragraph 9.2.1 of these General Conditions based on one hundred percent (100%) of City's determination of the value of the Work in place and of stored materials not yet incorporated into the Work.

9.2.3 Progress payments shall not be construed as City's Acceptance of any or all of the Work and shall not be a waiver of any or all rights City has under the Contract Documents.

### 9.3 APPLICATION FOR PAYMENT

9.3.1 At the end of each month, Contractor shall submit to City an itemized Application for Payment, requesting payment for Work as of the end of that month that is calculated in accordance with the formula for payment set forth in Paragraph 9.2.1 of these General Conditions. The Application for Payment shall be prepared:

- (i) Utilizing the format as designated by City or the Construction Manager.
- (ii) Itemized in accordance with the Approved Schedule of Values.
- (iii) Showing the results of a successful system test (for example a pressure test for gas project) of the system installed or completed in the pay period covering the Application for Payment.
- (iv) Including such data substantiating Contractor's right to payment as City may reasonably require, such as invoices, payrolls, daily time and material records, and, if securities are deposited in lieu of retention pursuant to Section 9.5, a certification of the market value of all such securities as of a date not earlier than five (5) Days prior to the date of the Application for Payment.
- (v) Showing itemized amounts for Change Orders, Modifications and retention.

9.3.2 Applications for Payment shall not include requests for payment on account of increases to the Contract Sum which have not been authorized by Change Orders or amounts Contractor does not intend to pay a Subcontractor because of a dispute or other reason.

9.3.3 If required by City, an Application for Payment shall be accompanied by all of the following:

- (i) A summary showing payments that Contractor will make to Subcontractors covered by such application.
- (ii) Conditional waivers and releases of claims and stop notices from Contractor and each Subcontractor and Sub-subcontractor, of every Tier, listed in the current Application for Payment covering sums requested in the current Application for Payment.
- (iii) Unconditional waivers and releases of claims and stop notices, from Contractor and each Subcontractor and Sub-subcontractor, of every Tier, listed in the preceding Application for Payment covering sums disbursed pursuant to that preceding Application for Payment.

9.3.4 Contractor warrants that, upon submittal of an Application for Payment, all Work for which Certificates for Payment have been previously issued and payment has been received from City, shall be free and clear of all claims, stop notices, security interests and encumbrances in favor of Contractor or Subcontractors or other persons or firms entitled to make claims by reason of having provided labor, materials or equipment relating to the Work.

9.3.6 At the sole discretion of City, the Construction Manager may approve for inclusion in Contractor's Application for Payment the cost of materials to be incorporated in the Work but not yet incorporated in the Work and already delivered and suitably stored either at the Site or at some other appropriate location acceptable to City. In such case, Contractor shall furnish evidence satisfactory to City:

- (i) Of the cost of such materials.
- (ii) That such materials are under the exclusive control of Contractor, or if not, that title to the materials is in City's name, free of any lien or encumbrance and that the materials are safely and suitably stored in a bonded warehouse with appropriate insurance coverage satisfactory to City to cover any Loss.
- (iii) Photographs of such materials if requested by the City.

Any payment pursuant to this Paragraph shall not be construed as an inspection or acceptance of the materials nor shall it relieve Contractor of its continuing and sole responsibility for the care and protection of such materials nor shall it relieve Contractor from sole responsibility for any loss or damage to the materials from any cause whatsoever nor act as a waiver of the right of City to require strict fulfillment by Contractor with all terms of the Contract Documents.

9.3.7 City shall have the right, in its sole discretion, to make payments of monies owing to Contractor by means of direct payment to Subcontractors of any unpaid work performed by any Subcontractor or by joint payment to Contractor and to Subcontractors. The making of such payments shall not be construed as the assumption of any obligation on the part of City or as creating any contractual relationship between City and any Subcontractor and shall not relieve Contractor of any of its obligations under the Contract Documents.

9.3.8 If the Contract Sum includes an Allowance from the Bid and the cost of performing the Work covered by that Allowance is greater or less than the amount of that Allowance, the Contract Sum shall be increased or decreased accordingly.

#### **9.4 CERTIFICATE FOR PAYMENT**

9.4.1 Approval of all or any part of an Application for Payment may be withheld, a Certificate For Payment may be withheld or all or part of a previous Certificate For Payment may be nullified and that amount withheld from a current Certificate For Payment in order to protect City against actual or threatened loss as a result of any of the following:

- (i) Defective Work not remedied or failure to pass required system tests.
- (ii) Third-party claims against Contractor or City arising from the acts or omissions of Contractor, or Subcontractors.
- (iii) Stop notices.
- (iv) Failure of Contractor to make timely payments due Subcontractors for material or labor.
- (v) A reasonable doubt that the Work can be completed for the balance of the Contract Sum then unpaid.
- (vi) Damage to City or Separate Contractor for which Contractor is responsible.



- (vii) Reasonable evidence that the Work will not be completed within the Contract Time.
- (viii) Failure of Contractor to maintain and update As-Built or Record Documents.
- (ix) Failure of Contractor to timely submit Construction Schedules, reports, Submittals or their updates as required by the Contract Documents.
- (x) Performance of Work by Contractor without Approved Submittals.
- (xi) Liquidated or actual damages assessed in accordance with the Construction Contract.
- (xii) Any other failure of Contractor to perform an obligation under the Contract Documents.

9.4.2 Subject to the withholding provisions of Paragraph 9.4.2 and when any or all of the noted deficiencies or others have been removed, City shall pay Contractor the amount set forth in the Certificate for Payment in accordance with its normal disbursement procedures.

9.4.3 Neither City nor the Construction Manager shall have an obligation to pay or to see to the payment of money to a Subcontractor, except as may otherwise be required by Law.

9.4.4 Neither a Certificate for Payment nor any payment (progress or final) shall be construed as a waiver of any rights arising from Defective Work.

9.4.5 City may, at any time, require that payment of any undisputed amount is contingent upon Contractor furnishing City with a release of all claims against City which are related to those undisputed payments. Any disputed amount may be expressly excluded from such release.

9.4.6 The City may require a tri-party agreement among the City, the Contractor, and the Contractor's surety as a condition to making full progress payments if the Work is behind schedule, in order to avoid exoneration of the surety bond or impairment of the surety's security.

## **9.5 DEPOSIT OF SECURITIES IN LIEU OF RETENTION AND DEPOSIT OF RETENTION INTO ESCROW**

9.5.1 At the request and expense of Contractor, a substitution of securities may be made as found in Government Code Section 16430 and as authorized by the Public Contract Code Section 22300 in lieu of monies retained by City under Section 9.2 of these General Conditions to ensure performance under the Contract Documents. Securities equivalent in value to the retention amount required by the Contract Documents for each Certificate For Payment shall be deposited by Contractor with a state or federally chartered bank in the State of California ("Escrow Agent"), which shall hold such securities pursuant to the escrow agreement referred to in Paragraph 9.5.3 until Final Payment is due in accordance with Section 9.8. Securities shall be valued as often as conditions of the securities market warrant, but in no case less than once per month. Contractor shall deposit additional securities so that the current market value of the total of all deposited securities shall be at least equal to the total required amount of retention.

9.5.2 Alternatively to Paragraph 9.5.1 of these General Conditions, and at the request and expense of Contractor, City shall deposit retention directly with the Escrow Agent. Contractor may direct the investment of such deposited retention into interest bearing accounts or securities, and such deposits or securities shall be held by the Escrow Agent upon the same terms provided for securities deposited by Contractor.

9.5.3 A prerequisite to the substitution of securities in lieu of retention or the deposit of retention into escrow shall be the execution by Contractor, City, and the Escrow Agent of an Escrow Contract for Deposit of Securities in Lieu of Retention and Deposit of Retention forms provided by City. The terms of such escrow agreement are incorporated into the requirements of this Section 9.5.

9.5.4 Release of funds or securities from escrow to Contractor shall be made upon receipt by Escrow Agent of written notification by City that the Contractor has complied with all requirements and procedures applicable to the Contract.

9.5.5 City has the right to draw upon the securities in the event of default by Contractor, as determined by City pursuant to the provisions of these Contract Documents. Within seven (7) days following receipt of the City's written notice of such default, Escrow Agent must immediately convert the securities to cash and distribute the cash as instructed by City.

## **9.6 BENEFICIAL OCCUPANCY**

9.6.1 City reserves the right, at its option and convenience, to occupy or otherwise make use of all or any part of the Work, at any time prior to issuing the Certificate of Substantial Completion, upon seven (7) Days' notice to Contractor. Such occupancy or use is herein referred to as "Beneficial Occupancy." Beneficial Occupancy shall be subject to the following conditions:

- .1 City, Design Consultant and Construction Manager will make an inspection of the portion of the Work to be beneficially occupied and prepare a list of items to be completed or corrected prior to issuing the Certificate of Substantial Completion.
- .2 Beneficial Occupancy by City shall not be construed by Contractor as Acceptance by City of that portion of the Work which is to be occupied. City may, however, at its sole option, relieve Contractor of Contract requirements to protect Work being beneficially occupied by City where such relief is specifically designated by City in writing.
- .3 Beneficial Occupancy by City shall not constitute a waiver of City's right to assess liquidated damages as otherwise provided in these Contract Documents.
- .4 Contractor shall provide, in the areas beneficially occupied and on a continual basis (if required), utility services, heating, and cooling for systems which are in operable condition at the time of Beneficial Occupancy. All responsibility for the operation and maintenance of equipment shall remain with Contractor while the equipment is so operated. Contractor shall submit to City an itemized list of each piece of equipment so operated with the date operation commences.
- .5 The Guarantee to Repair Periods, as defined in Section 12.2 of these General Conditions, will commence upon the first dates of actual occupancy or use of portions of the Work to which the City has taken Beneficial Occupancy and to equipment or systems fully utilized.
- .6 City shall pay all normal operating and maintenance costs resulting from its use of equipment in areas beneficially occupied.
- .7 City shall pay all utility costs which arise out of the Beneficial Occupancy.
- .8 Contractor shall not be responsible for providing security in areas beneficially occupied.

- .9 City shall use its best efforts to prevent its Beneficial Occupancy from interfering with the conduct of Contractor's remaining Work.
- .10 Contractor shall not be required to repair damage caused by City in its Beneficial Occupancy.
- .11 Except as provided in this Section 9.6 of these General Conditions, there shall be no added cost to City due to Beneficial Occupancy.
- .12 Contractor shall continue to maintain all insurance required by the Contract in full force and effect.

## **9.7 SUBSTANTIAL COMPLETION**

9.7.1 When Contractor gives notice to City that the Work, or portion thereof designated by City for separate delivery, is Substantially Complete, unless City determines that the Work or designated portion thereof is not sufficiently complete to warrant an inspection to determine Substantial Completion, Design Professional or Construction Manager will inspect the Work, or such designated portion thereof, and prepare and give to Contractor a comprehensive list of items, if any, to be completed or corrected before establishing Substantial Completion. Contractor shall promptly proceed to complete and correct items on the list. Failure to include an item on such list does not alter the responsibility of Contractor to complete all Work in accordance with the Contract Documents. City will then make a further inspection to determine whether the Work or such designated portion thereof is Substantially Complete. If City's inspection discloses any item, whether or not included on the list, which must be completed or corrected before Substantial Completion, Contractor shall, before City's issuance of the Certificate of Substantial Completion, complete or correct such item. Contractor shall then submit a request for another inspection by City to determine Substantial Completion.

9.7.2 When City determines that the Work or such designated portion thereof is Substantially Complete, City will prepare a Certificate of Substantial Completion on City's form, which when signed by City shall establish the date of Substantial Completion and the responsibilities of City and Contractor for security, maintenance, heat, utilities, insurance, completion of minor items and correction or repair of the Work or such designated portion thereof. Unless otherwise provided in the Certificate of Substantial Completion, the Guarantee To Repair Period for the Work (which is defined in Article 12, Section 12.2.1), or such designated portion thereof covered by the Certificate of Substantial Completion, excluding any systems provided by Separate Contractors which are not yet fully operational or accepted by City, shall commence on the date of Substantial Completion of the Work or such designated portion thereof. The Guarantee To Repair Period for systems which become fully operational or Accepted subsequent to Substantial Completion will begin on the later of the date they are operational or Acceptance of the Project by City.

## **9.8 FINAL COMPLETION AND FINAL PAYMENT**

9.8.1 Upon receipt of notice from Contractor that the Work is ready for final inspection, City will make such inspection. City will file a notice of completion with the County Clerk within fifteen (15) Days after Acceptance by City. Thirty-five (35) Days after filing the notice of completion, the City may release the final retention provided the requirements in this paragraph are met.

9.8.2 Without limitation to any other provisions of the Contract Documents, before Final Payment (including release of undisputed retention) for Work under this Construction Contract is authorized, the Contractor shall have completed the Work in accordance with the Contract Documents and all applicable standards of care and the following requirements of the Contract Documents must be fulfilled by Contractor:

- (i) The submittal of an application for Final Payment, together with supporting documentation, as required by Section 9.3 of these General Conditions. By submitting an application for final payment, Contractor warrants that all workers and persons employed, all firms supplying the materials, and all Subcontractors have been paid in full with the exception of any Subcontractor retention payments that are not yet due pursuant to Public Contract Code section 7107(d) or (e), and that there are no bills outstanding against the Work for either labor or materials, except certain items, documented as disputed claims or pending stop payment notices.
- (ii) Completion and delivery by Contractor to City of all required written guarantees, warranties, operation and maintenance manuals, As-Built Documents and other Record Documents, drawings, schedules, certificates and such other documents as required by the Contract Documents. All approvals and acceptances shall have been made pursuant to Applicable Code Requirements.
- (iii) Completion of all construction Work, including corrective and punch list items, in a manner acceptable to City. All rubbish, tools, scaffolding and surplus materials and equipment have been removed from the Site.
- (iv) Submission of conditional releases of claims and stop notices from Contractor and its Subcontractors with no reservation of rights for disputed claims or amounts.
- (v) If a Stop Notice(s) is received by the City after the Notice of Completion has been filed and prior to Final Payment, the City may, at its election, withhold the amount specified in the Stop Notice plus reasonable cost of any litigation pursuant to Civil Code Section 9358 from the Final Payment or permit the Contractor to supply a stop notice release bond in the amount of 125% of the stop notice amount from a Surety acceptable to the City.

9.8.3 For purposes of determining the last day for submission of a Claim pursuant to Article 4, the date of Final Payment is deemed to be the date that the City acts to release undisputed retention as part of Final Payment, either by transmitting a written request to the retention Escrow Agent or by transmitting a payment directly to Contractor, whichever occurs first. Acceptance of Final Payment by Contractor shall constitute a complete waiver of all Claims, except those previously made in writing and identified by Contractor as unsettled at the time of the Application for Final Payment.

9.8.4 Contractor shall pay or cause to be paid to Subcontractors, the amount stated in the conditional releases within five (5) Days after receipt of the Final Payment, and shall promptly thereafter furnish evidence of such payment to City.

## **ARTICLE 10 – PROTECTION OF PERSONS AND PROPERTY**

### **10.1 SAFETY PRECAUTIONS AND PROGRAMS**

10.1.1 Contractor shall be solely and completely responsible for initiating, maintaining and supervising all safety precautions and programs on the Site in connection with the performance of the Construction Contract, including safety of all persons for the duration of the Work, on a 24-hour day, 7-day week basis.

10.1.2 Prior to the start of construction, Contractor shall submit to Construction Manager a copy of Contractor's safety program for the Project. A copy of this program shall be maintained on Site at all times. The safety program shall include, at a minimum:

- (i) Management policy, illness and injury prevention program (as described below).
- (ii) Safety meetings.
- (iii) Accident investigation.
- (iv) Basic accident causes.
- (v) Safety inspection check list.
- (vi) Fire prevention and control.
- (vii) Report forms.
- (viii) Employee safety manual.

### **10.2 SAFETY OF PERSONS AND PROPERTY**

10.2.1 The Contractor shall be solely and completely responsible for job site conditions and safety during the life of the contract. This obligation shall include the safety of all persons within or affected by the line of construction and all private property affected by the work

10.2.2 At its sole expense, Contractor shall furnish, erect and maintain such temporary fences, barricades, signs, lights, ramps, and temporary construction of whatever nature as may be necessary to provide access to abutting properties and to warn the public of the work in progress and of any dangerous conditions as may exist due to the work in progress. The Contractor's responsibility shall be continuous and not be limited to working hours or days, and shall not cease until formal acceptance of the work by the City except that if the City should make partial acceptance of the work, the Contractor's responsibility for the portion of the work so accepted shall thereupon cease, except for latent errors in the work or faulty construction.

10.2.3 The duty of the Construction Manager, its agents, or employees, to conduct construction review of the Contractor's performance and operations is not intended to, and does not include review of or responsibility for the adequacy of the Contractor's safety measures and procedures in, on, or adjacent to the site of the Work.

10.2.4 Contractor shall protect persons and property on the Site at all times. Contractor shall have available at the Site copies or suitable extracts of "Construction Safety Orders" and "General Industrial Safety Orders" issued by the California Division of Industrial Safety. Contractor shall comply with provisions of these and all other applicable laws, ordinances, and regulations.

10.2.5 Contractor shall immediately respond to notice from City of unsafe conditions, shall take adequate precautions for safety of persons on the Site, and shall provide adequate protection to prevent injury or Loss to the following:

- (i) Employees involved in the Work and other persons who may be affected thereby.
- (ii) The Work in place and materials and equipment to be incorporated therein, whether in storage on or off the Site, under care, custody, or control of Contractor or Subcontractors.
- (iii) Other property at the Site and adjoining property(ies).

10.2.6 Contractor shall promptly remedy damage and Loss (other than damage or Loss insured under property insurance required by the Contract Documents) to property caused in whole or in part by Contractor or its Subcontractors or anyone for whose acts they may be liable and for which Contractor is responsible.

10.2.7 Contractor shall erect and maintain, as required by existing conditions and performance of the Work, adequate safeguards for safety and protection of persons and property, including providing adequate lighting and ventilation, posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent sites and utilities.

10.2.8 When use or storage of hazardous materials, equipment, or unusual methods are necessary for execution of the Work, Contractor shall exercise the utmost care and carry on such activities only under the supervision of properly qualified personnel.

10.2.9 Contractor shall be required to provide at the Site a member of Contractor's organization, typically the Superintendent, whose responsibility it shall be to provide instruction to persons present on the Site about prevention of accidents and overall jobsite safety. Contractor shall notify City in writing if Contractor replaces the person responsible for safety.

10.2.10 Contractor shall be responsible for locating, providing, and coordinating the storage and staging of materials and equipment on-Site and off-Site and shall not load/store or permit any part of the Work on the Site to be loaded/stored so as to endanger the safety of persons or property.

10.2.11 Contractor shall protect its materials and the Work from damage in a manner satisfactory to City and shall make good, without charge to City, all damage due to negligence in providing proper protection.

10.2.12 Contractor shall take necessary precautions to guard against and eliminate possible fire hazards and to prevent damage to the Work, building materials, equipment, temporary field offices, storage sheds and public and private property.

10.2.13 Contractor shall not permit the possession or use of alcohol or controlled substances on the Site.

10.2.14 Explosives may be used only when authorized in writing by City. Explosives shall be handled, used and stored in accordance with applicable regulations.

### 10.3 EMERGENCIES

In an emergency affecting the safety of persons or property, Contractor shall immediately act to prevent or minimize damage, injury or loss. Contractor shall immediately notify the Construction Manager and City, which notice may be oral, followed within twenty-four (24) hours after occurrence of the incident by written confirmation, of the occurrence of such an emergency and Contractor's action.

### 10.4 TRENCH SAFETY

In accordance with the California Labor Code, where the work will involve trenches five feet or more in depth and the estimated or bid cost of excavation is in excess of \$25,000, the Contractor shall submit to and receive from the City of Palo Alto, or its designee, the acceptance of a detailed plan showing design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazards of caving ground. Such plan shall be submitted at least five (5) days before the Contractor intends to begin work on the trenches.

If such plan varies from the shoring system standards established by the Construction Safety Orders of the State of California Division of Industrial Safety, the plan shall be prepared by a registered civil or structural engineer.

The Contractor shall not use shoring, sloping, or protective systems less effective than that required by the Construction Safety Orders of the Division of Industrial Safety.

The City shall not be responsible or liable for the safety of such trenching or trenching plans.

Whenever the work called for on these plans or contract documents involves the construction of a pipeline, sewer, sewage disposal system, boring and jacking pits, or similar trenches or excavations, which are five feet or deeper, bidder shall include as a bid item, the cost of design and construction of adequate sheeting, shoring, and bracing, or equivalent method, for the protection of life or limb, which shall conform to applicable safety orders.

## **ARTICLE 11 – INSURANCE AND BONDS**

### 11.1 CONTRACTOR'S INSURANCE

11.1.1 Contractors to the City, at their sole expense, shall for the term of the Contract obtain and maintain insurance in the amounts for the coverage specified below, or as modified by the Special Provisions (if applicable), **afforded by companies with AM Best's Key Rating of A-:VII, or higher, licensed or authorized to transact insurance business in the State of California.**

| REQUIRED   | TYPE OF COVERAGE                                                                                                                   | REQUIREMENT                                  | MINIMUM LIMITS  |             |
|------------|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-----------------|-------------|
|            |                                                                                                                                    |                                              | EACH OCCURRENCE | AGGREGATE   |
| YES<br>YES | WORKER'S COMPENSATION<br>EMPLOYER'S LIABILITY                                                                                      | STATUTORY<br>STATUTORY                       |                 |             |
| YES        | GENERAL LIABILITY, INCLUDING<br>PERSONAL INJURY, BROAD<br>FORM PROPERTY DAMAGE<br>BLANKET CONTRACTUAL, AND<br>FIRE LEGAL LIABILITY | BODILY INJURY                                | \$1,000,000     | \$1,000,000 |
|            |                                                                                                                                    | PROPERTY DAMAGE                              | \$1,000,000     | \$1,000,000 |
|            |                                                                                                                                    | BODILY INJURY & PROPERTY DAMAGE<br>COMBINED. | \$1,000,000     | \$1,000,000 |

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                |             |             |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-------------|-------------|
| YES | AUTOMOBILE LIABILITY,<br>INCLUDING ALL OWNED, HIRED,<br>NON-OWNED                                                                                                                                                                                                                                                                                                                                                                                                                                                           | BODILY INJURY                                  | \$1,000,000 | \$1,000,000 |
|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | - EACH PERSON                                  | \$1,000,000 | \$1,000,000 |
|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | - EACH OCCURRENCE                              | \$1,000,000 | \$1,000,000 |
|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | PROPERTY DAMAGE                                | \$1,000,000 | \$1,000,000 |
|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | BODILY INJURY AND PROPERTY<br>DAMAGE, COMBINED | \$1,000,000 | \$1,000,000 |
|     | PROFESSIONAL LIABILITY,<br>INCLUDING, ERRORS AND<br>OMISSIONS, MALPRACTICE<br>(WHEN APPLICABLE), AND<br>NEGLIGENT PERFORMANCE                                                                                                                                                                                                                                                                                                                                                                                               | ALL DAMAGES                                    | \$1,000,000 |             |
| YES | THE CITY OF PALO ALTO IS TO BE NAMED AS AN ADDITIONAL INSURED: CONTRACTOR, AT ITS SOLE COST AND EXPENSE, SHALL OBTAIN AND MAINTAIN, IN FULL FORCE AND EFFECT THROUGHOUT THE ENTIRE TERM OF ANY RESULTANT AGREEMENT, THE INSURANCE COVERAGE HEREIN DESCRIBED, INSURING NOT ONLY CONTRACTOR AND ITS SUBCONTRACTORS, IF ANY, BUT ALSO, WITH THE EXCEPTION OF WORKERS’ COMPENSATION, EMPLOYER’S LIABILITY AND PROFESSIONAL INSURANCE, NAMING AS ADDITIONAL INSUREDS CITY, ITS COUNCIL MEMBERS, OFFICERS, AGENTS, AND EMPLOYEES. |                                                |             |             |

I. INSURANCE COVERAGE MUST INCLUDE:

- A. A CONTRACTUAL LIABILITY ENDORSEMENT PROVIDING INSURANCE COVERAGE FOR CONTRACTOR'S AGREEMENT TO INDEMNIFY CITY.

II. CONTACTOR MUST SUBMIT CERTIFICATE(S) OF INSURANCE EVIDENCING REQUIRED COVERAGE AT THE FOLLOWING URL: <https://www.planetbids.com/portal/portal.cfm?CompanyID=25569>

III. ENDORSEMENT PROVISIONS WITH RESPECT TO THE INSURANCE AFFORDED TO ADDITIONAL INSUREDS:

A. PRIMARY COVERAGE

WITH RESPECT TO CLAIMS ARISING OUT OF THE OPERATIONS OF THE NAMED INSURED, INSURANCE AS AFFORDED BY THIS POLICY IS PRIMARY AND IS NOT ADDITIONAL TO OR CONTRIBUTING WITH ANY OTHER INSURANCE CARRIED BY OR FOR THE BENEFIT OF THE ADDITIONAL INSUREDS.

B. CROSS LIABILITY

THE NAMING OF MORE THAN ONE PERSON, FIRM, OR CORPORATION AS INSUREDS UNDER THE POLICY SHALL NOT, FOR THAT REASON ALONE, EXTINGUISH ANY RIGHTS OF THE INSURED AGAINST ANOTHER, BUT THIS ENDORSEMENT, AND THE NAMING OF MULTIPLE INSUREDS, SHALL NOT INCREASE THE TOTAL LIABILITY OF THE COMPANY UNDER THIS POLICY.

C. NOTICE OF CANCELLATION

1. IF THE POLICY IS CANCELED BEFORE ITS EXPIRATION DATE FOR ANY REASON OTHER THAN THE NON-PAYMENT OF PREMIUM, THE CONTRACTOR SHALL PROVIDE CITY AT LEAST A THIRTY (30) DAY WRITTEN NOTICE BEFORE THE EFFECTIVE DATE OF CANCELLATION.
2. IF THE POLICY IS CANCELED BEFORE ITS EXPIRATION DATE FOR THE NON-PAYMENT OF PREMIUM, THE CONTRACTOR SHALL PROVIDE CITY AT LEAST A TEN (10) DAY WRITTEN NOTICE BEFORE THE EFFECTIVE DATE OF CANCELLATION.

**EVIDENCE OF INSURANCE AND OTHER RELATED NOTICES ARE REQUIRED TO BE FILED WITH THE CITY OF PALO ALTO AT THE FOLLOWING URL:**

[HTTPS://WWW.PLANETBIDS.COM/PORTAL/PORTAL.CFM?COMPANYID=25569](https://www.planetbids.com/portal/portal.cfm?CompanyID=25569)



OR

[HTTP://WWW.CITYOFPALOALTO.ORG/GOV/DEPTS/ASD/PLANET\\_BIDS\\_HOW\\_TO.ASP](http://www.cityofpaloalto.org/gov/depts/asd/planet_bids_how_to.asp)

11.1.2 Contractor shall furnish City with the certificates of insurance and with original endorsements affecting coverage required under this Contract within ten (10) business days following issuance of the Notice of Award. The certificates and endorsements for each insurance policy shall be signed by a person who is authorized by that insurer to bind coverage on its behalf.

11.1.3 Subcontractors: Contractor shall include all Subcontractors and as insureds under its policies, or shall furnish separate certificates and endorsements for each Subcontractor in compliance with this Article. All coverages for Subcontractors shall be subject to all of the requirements stated herein.

11.1.4 At the request of City, Contractor shall submit to City copies of the policies obtained by Contractor. In the event Contractor does not comply with these insurance requirements, City may, at its option, provide insurance coverage to protect City; and the cost of such insurance shall be paid by Contractor and may be deducted from the Contract Sum.

11.1.5 The requirements of this Section may only be modified in writing by the City's Risk Manager.

## **11.2 BOND REQUIREMENTS**

11.2.1 Within ten (10) Days after the issuance of the Notice of Award and prior to commencing Work on the Project, Contractor shall file with City good and sufficient Labor and Material Payment and Performance Bonds each in the amount of 100% of the Contract Sum. The bonds shall be in substantially the same form as contained in this IFB Packet or such other form as required by City and shall be signed by both Contractor and Surety and properly notarized. Should any bond required hereunder or any surety on such bond become or be determined by City to be insufficient, it shall be replaced within ten (10) Days by a bond that fully complies with the requirements of this Section 11.2. No further payments to Contractor for Work performed shall be made or due until Contractor has fully complied with the requirements of this Section 11.2.

11.2.2 The Payment Bond shall remain in effect at least until the time for filing a claim on a stop notice has expired pursuant to the California Civil Code. The Performance Bond provided by Contractor shall remain in effect for the duration of the period of all warranties required by the Contract Documents and shall assure faithful performance of all Contractor's obligations under the Contract Documents, including, without limitation, all obligations that survive Final Completion or termination or expiration, such as, but not limited to Contractor's warranty and indemnity obligations.

11.2.3 Contractor shall promptly furnish such additional security as may be required by City to protect its interests and those interests of persons or firms supplying labor or materials to the Work.

11.2.4 Surety companies used by Contractor shall be, on the date the Contract is signed by City and at all times while the bonds are in effect, either California Admitted Sureties or listed in the latest published United States Treasury Department list of Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies and either have a current A.M. Best A VIII rating or be an admitted surety that meets the requirements of Code of Civil Procedure Section 995.660.

11.2.5 The premiums for all Bonds are included in the Contract Sum and shall be paid by Contractor.

11.2.6 The bonds shall name City as obligee.

11.2.7 Change Orders, Field Orders, Modifications, Changes in the Work and adjustments in the scope of Work Contract Sum or Contract Time shall in no way release or exonerate Contractor or its sureties from their obligations and notice thereof shall be waived by such sureties.

11.2.8 City and the Construction Manager shall have the right to communicate with Contractor's sureties with respect to matters that are related to Contractor's performance of its obligations under the Contract Documents. Contractor shall be provided with a copy of all such written communications. Such communications shall not create or be interpreted as creating any contractual relationship between City or the Construction Manager and any such surety.

11.2.9 In the event of a significant (15% or more) increase in Contract Sum, replacement bonds totaling the new Contract Sum may be required by City.

## **ARTICLE 12 – DEFECTIVE WORK**

### **12.1 UNCOVERING OF WORK**

12.1.1 If a portion of the Work is covered contrary to Construction Manager's request or direction, or contrary to the requirements of the Contract Documents, it must, if required in writing by City, be uncovered for City's observation and be replaced at Contractor's expense without adjustment of the Contract Time or the Contract Sum.

12.1.2 If a portion of the Work has been covered, which is not required by the Contract Documents to be observed or inspected prior to its being covered and which City has not specifically requested to observe prior to its being covered, City may request to see such Work and it shall be uncovered and replaced by Contractor. If such Work is in accordance with the Contract Documents, the costs of uncovering and replacing the Work shall be added to the Contract Sum by Change Order; and if the uncovering and replacing of the Work extends the Contract Time, an appropriate adjustment of the Contract Time shall be made by Change Order. If such Work is not in accordance with the Contract Documents, Contractor shall pay such costs and shall not be entitled to an adjustment of the Contract Time or the Contract Sum.

### **12.2 CORRECTION OF DEFECTIVE WORK AND GUARANTEE TO REPAIR PERIOD**

12.2.1 In addition to any specific warranty mentioned in these Contract Documents, the Contractor shall guarantee that all material, apparatus, equipment, and workmanship used, installed, or incorporated in the work is free from defects, and agrees to replace at no expense to the City any and all defective Work or materials which become evident within one (1) year ("Guarantee To Repair Period"), unless a longer period of time is specified in the Special Provisions and Technical Specifications, commencing as follows:

- (i) For any Work not described as incomplete in the Certificate of Substantial Completion, on the date of Substantial Completion.

- (ii) For space beneficially occupied or for separate systems fully utilized prior to Substantial Completion pursuant to Section 9.6, from the first date of such Beneficial Occupancy or actual use, as established an appropriate written authorization for Beneficial Occupancy.
- (iii) For all Work other than (I) or (ii) above, from the date of filing of notice of completion pursuant to Section 9.8 above.

12.2.2 Contractor shall (i) correct Defective Work that becomes apparent during the progress of the Work or during the Guarantee To Repair Period and (ii) replace, repair, or restore to City's satisfaction any other parts of the Work and any other real or personal property which is damaged or destroyed as a result of Defective Work or the correction of Defective Work, without any expense whatsoever to City. City will give notice of observed Defective Work with reasonable promptness, and Contractor shall promptly commence such correction, replacement, repair or restoration upon notice from City, but in no case later than seven (7) Days after receipt of such notice. Contractor shall diligently and continuously prosecute such correction to completion. Contractor shall bear all costs of such correction, replacement, repair, or restoration and all Losses resulting from such Defective Work, including additional testing, inspection and compensation for City's or City's services and expenses. Contractor shall perform corrective Work at such times that are acceptable to City and in such a manner as to avoid, to the extent practicable, disruption to City's activities. Ordinary wear and tear, unusual abuse or neglect are excepted from this guarantee. Contractor shall notify City upon completion of repairs.

12.2.3 If immediate correction of Defective Work is required for life safety or the protection of property or, if in the opinion of City, Defective Work creates a dangerous condition or requires immediate corrections or attention to prevent further Loss to City or to prevent interruption of operations of City, City will attempt to give immediate notice to Contractor. If Contractor cannot be contacted or does not comply with City's request for correction within a reasonable time as determined by City, City or Separate Contractors under City's direction, may, notwithstanding the provisions of this Article, proceed to make such corrections or provide such attention; and the costs of such correction or attention shall be charged against Contractor. Such action by City will not relieve Contractor of the guarantees provided in this Article or elsewhere in the Construction Contract. Contractor shall replace, repair or restore to City's satisfaction any other parts of the Work and any other real or personal property, which is damaged or destroyed as a result of such Defective Work or the correction of such Defective Work.

12.2.4 Contractor shall promptly remove from the Site those portions of the Work and materials which are not in accordance with the Contract Documents and which are neither corrected by Contractor nor accepted by City.

12.2.5 If Contractor fails to commence correction of Defective Work within seven (7) Days as required in Section 12.2.3 after notice from City or fails to diligently prosecute such correction to completion, City may correct the Defective Work in accordance with Section 2.4; and, in addition, City may remove the Defective Work and store salvageable materials and equipment at Contractor's expense.

12.2.6 If Contractor fails to pay the costs of such removal and storage as required by Paragraphs 12.2.4 and 12.2.5 within seven (7) Days after written demand, City may, without prejudice to other remedies, sell such materials at auction or at private sale or otherwise dispose of such material. Contractor shall be entitled to the proceeds of such sale, if any, in excess of the costs and damages for which Contractor is liable to City, including compensation for City's services and expenses. If such proceeds of sale do not cover costs and damages for which Contractor is liable to City, the Contract Sum shall be reduced by such deficiency. If there are no remaining payments due Contractor or the remaining payments are insufficient to cover such deficiency, Contractor shall promptly pay the difference to City.

12.2.7 Contractor's obligations under this Article are in addition to and not in limitation of its warranty under Section 3.5 or any other obligation of Contractor under the Contract Documents.

Enforcement of Contractor's express warranties and guarantees to repair contained in the Contract Documents shall be in addition to and not in limitation of any other rights or remedies City may have under the Contract Documents or at law or in equity for Defective Work. Nothing contained in this Article shall be construed to establish a period of limitation with respect to other obligations of Contractor under the Contract Documents, which may be longer specified periods. Establishment of the Guarantee To Repair Period relates only to the specific obligation of Contractor to correct the Work and in no way limits either Contractor's liability for Defective Work or the time within which proceedings may be commenced to enforce Contractor's obligations under the Contract Documents.

### **12.3 ACCEPTANCE OF DEFECTIVE WORK**

Notwithstanding the provisions of Section 12.2 of these General Conditions, City shall have the option, at its sole discretion and by notice to Contractor, to accept Defective Work instead of requiring its removal or correction, in which case the Contract Sum shall be reduced by an amount equal to the difference between the value to City the Work would have had were it complete, correct and in conformity with the Contract Documents and the value to City of such Defective Work. Such option shall be exercised solely by notice to Contractor and shall not be implied from any act or omission by City or Construction Manager. If there are no remaining payments of the Contract Sum to be made to Contractor, or if the remaining payments and retention are insufficient to cover the amount of the reduction of the Contract Sum, Contractor shall promptly pay to City the amount of any such deficiency.

## **ARTICLE 13 – STATUTORY REQUIREMENT**

### **13.1 STATE LABOR LAW**

Contractor, its agents, and employees shall be bound by and comply with all applicable provisions of the Labor Code and such federal, state and local laws which affect the conduct of the Work. If prevailing wages are required for this Project, copies of the prevailing rate of per diem wages may be obtained at the Department of Industrial Relations' website: <http://www.dir.ca.gov/>

### **13.2 WORK DAY**

Eight (8) hours labor constitutes a legal day's work. Contractor shall not permit any worker to labor more than eight (8) hours during any one (1) Day or more than forty (40) hours during any one (1) calendar week, unless overtime is paid pursuant to Labor Code Section 1815 or except as otherwise permitted by law. Contractor shall forfeit to City, as a penalty, twenty-five dollars (\$25.00) for each worker employed in the execution of this Construction Contract by Contractor, or any Subcontractor, for each Day during which such worker is required or permitted to Work more than eight (8) hours in any one (1) Day and forty (40) hours in any one (1) calendar week in violation of the terms of this Paragraph or in violation of the provisions of any law of the State of California, including but not limited to Labor Code Sections 1810 through 1815. Such forfeiture amounts may be deducted from the Contract Sum. Contractor and each Subcontractor shall keep, or cause to be kept, an accurate record showing the actual hours worked each Day and each calendar week by each worker employed on the Project, which record shall be kept open at all reasonable hours to the inspection of City, its officers and agents, and to the inspection of the appropriate enforcement agency or representative and the State of California.

## **ARTICLE 14- JOB SITE NOTICES AND COMPLIANCE MONITORING**

### **14.1 LABOR PROVISIONS**

*As required by California Labor Code section 1771.4(a)(1) and (a)(2), the City provides notice to all contractors and subcontractors that the Project that is the subject of this IFB and the Construction Contract, is a public works project, the contractor is required to post all job site notices prescribed by law or regulation, and the contractor is subject to compliance monitoring and enforcement by the Department of Industrial Relations (DIR).*



# FIELD ORDER

CITY OF PALO ALTO  
DEPARTMENT OF UTILITIES

\_\_\_\_\_ Project

This Field Order, issued pursuant to Article 7 of the Contract General Conditions directs and authorizes Contractor to proceed with the Work described below. Upon receipt of this Field Order, Contractor shall, within a reasonable time, proceed with the Work described in the Field Order. Unless otherwise stated below, this Field Order shall not be construed as an acknowledgment by City that the Work described constitutes a Change or Extra Work. If Contractor disputes the proposed basis or amount of adjustment to the Contract Sum or Contract Time, it may request to change the disputed portions of this Field Order by submitting a Change Order Request within ten (10) Days following issuance of this Field Order. Failure by Contractor to submit a timely Change Order Request seeking modification of the terms of this Field Order shall be deemed full acceptance of and agreement to all of the terms herein, and a release and waiver of any right to subsequently dispute any or all of the terms of this Field Order.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                                                                                                                                          |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Project Number: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | Field Order Number: XXX                                                                                                                                                                                  |  |
| Contract Number: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | Issuance Date: ____/____/____                                                                                                                                                                            |  |
| Contractor's Name: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | Prepared by: _____                                                                                                                                                                                       |  |
| <div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p><b>Description of Work:</b></p> <p><b>Title:</b> _____</p> <p>1. _____</p> </div> <div style="width: 35%;"> <p><b>Ref:</b></p> </div> </div>                                                                                                                                                                                                                                                                         |  |                                                                                                                                                                                                          |  |
| <p>City has determined that the above Work:</p> <p>____ is Extra Work</p> <p>____ is <b>not</b> Extra Work</p> <p>City has determined that Contractor is:</p> <p>____ <b>not</b> entitled to an extension of time</p> <p>____ entitled to an extension of ____ days</p> <p>Basis of Extra Work Cost:</p> <p>____ Unit Cost*</p> <p>____ Lump Sum: \$ _____</p> <p>____ Time and Materials*</p> <p>____ Other*</p> <p>*The Contract Sum will be [increased][decreased] by an amount not to exceed: \$ _____</p> |  | <p>1. Consultant shall sign prior to Contractor and return to City. Indicate N/A if not applicable.</p> <p>Consultant Approval: _____</p> <p>Title: <u>Senior Project Manager</u></p> <p>Date: _____</p> |  |
| <p>2. Contractor shall sign and return to City for City approval signatures.</p> <p>Contractor Approval: _____</p> <p>Title: <u>Project Manager</u></p> <p>Date: _____</p>                                                                                                                                                                                                                                                                                                                                     |  | <p>3. Signature required on all Field Orders.</p> <p>City Approval: _____</p> <p>Title: <u>Project Manager</u></p> <p>Date: _____</p>                                                                    |  |
| <p>4. Division Head signature required for Field Orders exceeding \$15,000.</p> <p>City Approval: _____</p> <p>Title: _____</p> <p>Date: _____</p>                                                                                                                                                                                                                                                                                                                                                             |  | <p>5. Department Head signature required for Field Orders exceeding \$25,000.</p> <p>City Approval: _____</p> <p>Title: _____</p> <p>Date: _____</p>                                                     |  |

Distribution:    ☐ Contractor                      ☐ Division Head                      ☐ File  
                          ☐ Consultant                      ☐ Project Manager  
                                                  ☐ Inspector



# CHANGE ORDER REQUEST

CITY OF PALO ALTO  
DEPARTMENT OF UTILITIES

## Contract Change Order Request

|                         |  |                                  |  |
|-------------------------|--|----------------------------------|--|
| <b>Project Title:</b>   |  | <b>Project No.:</b>              |  |
| <b>Contract Number:</b> |  | <b>Date:</b>                     |  |
| <b>Contractor:</b>      |  | <b>Change Order Request No.:</b> |  |

### Description of Change Order Request (Attach additional sheets as needed)

|                                             |  |
|---------------------------------------------|--|
| <b>Reason for Change Order Request:</b>     |  |
| <b>Description of Work to be Performed:</b> |  |

### Requested Change to Contract Sum:

- ☐ No cost change: N/A
- ☐ Increase cost by \$ \_\_\_\_\_
- ☐ Decrease cost by \$ \_\_\_\_\_

### Request for Extension of Contract Time (check one):

- ☐ No Change to Contract Time
- ☐ Time Extension Requested for \_\_\_\_ days\*
- ☐ \_\_\_\_ days Excusable Delay
- ☐ \_\_\_\_ days Compensable Delay
- ☐ Decrease time by \_\_\_\_ days

\* Include all information and documentation required by Section 8.5 of the Contract General Conditions.

### Basis for requested change in cost:

- ☐ Unit pricing
- ☐ Lump sum: \$ \_\_\_\_\_
- ☐ Time and Materials not to exceed: \* \$ \_\_\_\_\_
- ☐ Compensable Delay Costs: \$ \_\_\_\_\_
- ☐ Other: \_\_\_\_\_

\* Final value shall not exceed amount shown without additional written CO authorization. Complete Time and Materials Breakdown on following page.

### Reference Documents:\*

RFI:

ASI:

Field Order:

Specifications:

Plans:

Other: (specify):

\* Provide specific number/section/sheet references as applicable

### Contract Change Order Request – continued

| Line | Time and Materials Breakdown<br>(Reference General Conditions, e.g. Sections 1 and 7.2, for Allowable Costs and markup)                                                     | Added | Credit |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------|
|      | All lines shall be filled in (zero values acceptable)                                                                                                                       |       |        |
|      | <b>CONTRACTOR'S WORK</b>                                                                                                                                                    |       |        |
| 1.   | Material (attach itemized quantity and unit cost)                                                                                                                           |       |        |
| 2.   | Labor (attach itemized hours and rates)                                                                                                                                     |       |        |
| 3.   | Equipment (attach invoices)                                                                                                                                                 |       |        |
| 4.   | Royalties and Permits                                                                                                                                                       |       |        |
| 5.   | Additional insurance and bond costs, not to exceed two percent (2%) of lines 1-4                                                                                            |       |        |
| 6.   | <b>Subtotal</b> (sum of lines 1 through 5)                                                                                                                                  |       |        |
| 7.   | Contractor Markup (Section 1.1.31 of the General Conditions) by Contractor on Extra Work performed by Contractor's forces, not to exceed ten percent (10%) of line 6        |       |        |
| 8.   | <b>Subtotal</b> for Contractor's Work (sum of lines 6 and 7)                                                                                                                |       |        |
|      | <b>SUBCONTRACTED WORK</b> (Provide separate breakdown for each subcontract) <sup>1</sup>                                                                                    |       |        |
| 9.   | Material (attach itemized quantity and unit cost)                                                                                                                           |       |        |
| 10.  | Labor (attach itemized hours and rates)                                                                                                                                     |       |        |
| 11.  | Equipment (attach invoices)                                                                                                                                                 |       |        |
| 12.  | Royalties and Permits                                                                                                                                                       |       |        |
| 13.  | Additional insurance and bond costs, not to exceed two percent (2%) of lines 9-12                                                                                           |       |        |
| 14.  | <b>Subtotal</b> (sum of lines 9 through 13)                                                                                                                                 |       |        |
| 15.  | Contractor Markup (Section 1.1.31 of the General Conditions) by Subcontractor on Extra Work performed by Subcontractor's forces, not to exceed ten percent (10%) of line 14 |       |        |
| 16.  | Subcontractor Markup (Section 1.1.65 of General Conditions) by Contractor on Subcontractor's Allowable Costs, not to exceed fifteen percent (15%) of line 14                |       |        |
| 17.  | <b>Subtotal</b> for Subcontracted Work (sum of lines 14, 15 and 16)                                                                                                         |       |        |
| 18.  | <b>TOTAL</b> (sum of lines 8 and 17)                                                                                                                                        |       |        |

<sup>1</sup> Attach additional copies of this page as required to summarize additional subcontracts.



### Contract Change Order Request – continued

**CONTRACTOR CERTIFICATION:** By signing below, the undersigned Contractor certifies under penalty of perjury that its statements and representations in this Change Order Request are true and correct. Contractor warrants that this Change Order Request is comprehensive and complete with respect to the Change in the Work described herein, and agrees that any costs, expenses, or time extension request, including, but not limited to, compensation for delay, lost productivity, inefficiency, or disruption, which is not included with this Change Order Request, shall be deemed waived. Contractor understands that submission of claims which have no basis in fact or which Contractor knows to be false may violate the False Claims Act, as set forth in Government Code Sections 12650 et seq.

#### Submitted by Contractor:

Signature:

By:

Title:

Date:

#### Design Consultant Recommendation

By:

Title:

Date:

Recommendation:

#### Construction Manager Recommendation

By:

Title:

Date:

Recommendation:

#### City Approval – Division Head – Signature required on all Change Order Requests

By:

Title:

Date:

#### City Approval – Department Head – Signature required when any individual Change Order Request exceeds \$10,000.

By:

Title:

Date:



# CONTRACT CHANGE ORDER

CITY OF PALO ALTO  
DEPARTMENT: UTILITIES  
\_\_\_\_\_ Project

## Contract Change Order #

|                  |  |                   |  |
|------------------|--|-------------------|--|
| Project Title:   |  | Project No.:      |  |
| Contract Number: |  | Date:             |  |
| Contractor:      |  | Change Order No.: |  |

### Description of Change Order

|                                      |  |
|--------------------------------------|--|
| Background Information:              |  |
| Change Order Justification:          |  |
| Description of Work to be Performed: |  |
| Incorporates Field Order Number(s):  |  |

| Cost                                                                                                                                                                                                                                          | Time                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>This Change Order will:</b><br><input type="checkbox"/> No cost change: N/A<br><input type="checkbox"/> Increase cost by \$ 0.00<br><input type="checkbox"/> Decrease cost by \$ N/A                                                       | <b>This Change Order will:</b><br><input type="checkbox"/> <u>Not change time</u><br><input type="checkbox"/> Increase time by ____ days<br>o ____ days Excusable Delay<br>o ____ days Compensable Delay<br><input type="checkbox"/> Decrease time by ____ days |
| <b>G/L account number (s):</b> _____                                                                                                                                                                                                          | <b>The date of completion as of this Change Order is:</b><br>_____                                                                                                                                                                                              |
| <b>Basis for change in cost:</b><br><input type="checkbox"/> Unit price(s)<br><input type="checkbox"/> Lump sum<br>Time and Materials<br><input type="checkbox"/> Compensation for Compensable Delay<br><input type="checkbox"/> Other: _____ |                                                                                                                                                                                                                                                                 |

**Contract Change Order – continued**

**CONTRACTOR CERTIFICATION:** By signing below, Contractor agrees that this Change Order constitutes full resolution, settlement, accord and satisfaction with respect to any and all pending or future Claims for cost and extensions of time that were asserted, or that could have been asserted, in connection with the Work covered by this Change Order, as more fully set forth in Article 7 of the Contract General Conditions.

**FAILURE TO EXECUTE:** If Contractor fails to promptly execute this Change Order after it has been submitted for Contractor's signature, the City may unilaterally approve this Change Order as set forth in Article 7 of the Contract General Conditions. Contractor may dispute the terms of a unilaterally-approved Change Order, in whole or in part, by submitting a Claim in accordance with the Dispute Resolution Procedures set forth herein within fourteen (14) days after the Change Order is approved by the City. If Contractor fails to submit a Claim within that 14-day period, with respect to all or part of the unilaterally-approved Change Order, those portions of the Change Order which have not been disputed by timely submission of a Claim shall be deemed to have the same effect as if the Change Order was fully executed by both parties as set forth above.

| Accepted for Contractor: | Accepted for City of Palo Alto: |
|--------------------------|---------------------------------|
| By:                      | By:                             |
| Title:                   | Title:                          |
| Date:                    | Date:                           |

**Scope of Work**

| PCO No. | ASI | FO | COR | CO | Description                        | Amount         | Reason for Change |
|---------|-----|----|-----|----|------------------------------------|----------------|-------------------|
|         |     |    |     |    |                                    |                |                   |
|         |     |    |     |    |                                    |                |                   |
|         |     |    |     |    |                                    |                |                   |
|         |     |    |     |    |                                    |                |                   |
|         |     |    |     |    |                                    |                |                   |
|         |     |    |     |    |                                    |                |                   |
|         |     |    |     |    |                                    |                |                   |
|         |     |    |     |    |                                    |                |                   |
|         |     |    |     |    | <b>Total for this Change Order</b> | <b>\$ 0.00</b> |                   |

| <b>Contract Change Order – continued</b>                                                                                                            |    |      |                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|----|------|-------------------------|
| <b>Summary of Amounts Payable Under Contract (For Internal Purposes Only)</b>                                                                       |    |      |                         |
| Original Contract Sum:                                                                                                                              | \$ | 0.00 |                         |
| Previous Change Orders                                                                                                                              | \$ | 0.00 |                         |
| This Change Order                                                                                                                                   | \$ | 0.00 |                         |
| Revised Contract Sum:                                                                                                                               | \$ | 0.00 |                         |
| <b>Compare to:</b>                                                                                                                                  |    |      |                         |
| Original Contract Authorization:                                                                                                                    | \$ | 0.00 | Contingency: 0.00       |
| Contract Amendment Authorizations                                                                                                                   | \$ | 0.00 | Contingency added: 0.00 |
| Contingency Authorizations:                                                                                                                         | \$ | 0.00 | Used to date (0.00)     |
| Total Authorized Funding:                                                                                                                           | \$ | 0.00 | Balance remaining 0.00  |
| <b>Change Orders shall not be initiated for Council-approved contracts if the revised Contract Sum exceeds the total authorized funding amount.</b> |    |      |                         |
|                                                                                                                                                     |    |      |                         |

| <b>Document Preparation</b> |  |
|-----------------------------|--|
| <b>By:</b>                  |  |
| <b>Title:</b>               |  |
| <b>Date:</b>                |  |

| <b>City Approval – Division Head</b><br>Signature required on all Change Orders |  |
|---------------------------------------------------------------------------------|--|
| <b>By :</b>                                                                     |  |
| <b>Title :</b>                                                                  |  |
| <b>Date:</b>                                                                    |  |

| <b>City Approval – Department Head</b><br>Signature required when any individual Change Order exceeds \$10,000. |  |
|-----------------------------------------------------------------------------------------------------------------|--|
| <b>By:</b>                                                                                                      |  |
| <b>Title:</b>                                                                                                   |  |
| <b>Date:</b>                                                                                                    |  |

**SPECIAL PROVISIONS**  
**IFB NO. 183908**  
**PROJECT TITLE: TWO (2) TURNOUTS PROJECT**

These Special Provisions apply to this Project in addition to the General Conditions. Terms used in these Special Provisions which are defined in the General Conditions have the meanings assigned to them in the General Conditions.

**SECTION 1 – TIME FOR COMPLETION**

For the purposes of Construction Contract Section 6.3 (Contract Time), the definition of “working day” means work during the Project Hours specified in Section 3 below, and does not include weekends and legal holidays. Contractor’s schedule shall reflect project completion within **66 working days**.

**SECTION 2 – SCHEDULES REQUIRED OF CONTRACTOR**

Section 3.10 of the General Conditions are hereby amended to include the following:

In addition to the monthly schedule update, the Contractor shall submit an updated three week look ahead schedule at each field weekly meeting, and a weekly schedule every Monday, via email, showing exactly what activities are planned for the week. Additionally, DAILY prior to starting work the Contractor shall email to the City the planned work for the day including road or lane closures as required.

**SECTION 3 – PROJECT HOURS OF WORK**

Work hours shall be from 8:30 AM – 5 PM, Monday through Friday.

**SECTION 4 – TRAFFIC CONTROL**

The traffic control plans for the California Avenue turnout work will be prepared by the City. The City will also obtain a Caltrans encroachment permit for traffic control on El Camino Real. The City will submit traffic control plans to City transportation engineer, with any corrections required to be made by the City’s traffic control plan preparer. Contractor will be responsible for coordination with Caltrans for traffic signal reprogramming as needed. If Contractor proposes revisions to the traffic control plans, this shall be at no additional cost to the City. Contractor shall provide three message boards for advance warning/detours for the duration of the project.

The traffic control plans for the Page Mill turnout work will be prepared by the City. The City will also obtain a Santa Clara County encroachment permit for traffic control on Page Mill Road. Contractor will be responsible for coordination with the County. If Contractor proposes revisions to the traffic control plans, this shall be at no additional cost to the City.

**SECTION 5 – STEEL PLATE REQUIREMENTS**

Per Public Works Standard Drawings and Specifications 2018, trench plates installed along bike lanes, bike boulevards, arterial roadways, or along roads with a posted speed limit of 35 MPH or greater shall be set flush with the surrounding asphalt concrete surface. This requirement does not apply to PCC surfaced streets. See Standard Drawing Number 405. This requirement shall apply to California Ave work, since excavations will be in bike lane. Trench plates installed in bike lanes, and bike boulevards shall be skid resistant and have a reflective coating or tape for additional safety, and shall be set flush with the surrounding asphalt concrete surface (Refer to Standard Drawing 405). Additional warning signage shall be posted on Type II flashing barricades.

**SECTION 6 – INSPECTION**

Specification 800 (Additional Provisions for Utilities Contractors), Sections 4.01 (Approval of Work) is hereby amended as follows:

The City will provide one full time City Inspector to inspect the Work. However, Contractor shall note that City Inspector is not required to be on-site at all times during construction activities, if other needs require their attention. However, this does not preclude the Contractor from the requirement of having their work inspected and approved by the City Inspector.

#### SECTION 7 – CHANGE ORDERS

Change Order Requests must comply with the requirements stated in the General Conditions 7.2 and Section 800 Additional Provisions for Utilities Contractors of Technical Specifications, including all supporting documentation. Any Change Order Request which has not been submitted prior to submittal of final payment request will not be allowed.

As part of each work order that is submitted for additional Contract days, Contractor shall include an overall time impact analysis showing how the change has affected the progression of construction.

#### SECTION 8 – PROGRESS PAYMENT

Progress Payment Request in addition to compliance with Article 9 Payments and Completion of General Conditions shall comply with all requirements stipulated in Section 800 Additional Provisions for Utilities Contractors of the Technical Specifications.

#### SECTION 9 – PHOTOS/VIDEO OF STORAGE AREAS

Prior to storage of any equipment or material, Contractor shall notify the City WGW Utilities Inspector of the proposed equipment or material storage sites and request the City WGW Utilities Inspector to take pictures or/and video of the storage sites.

If Contractor fails to provide this notification, Contractor shall be held liable for any damage sustained by the storage site and be responsible for site restoration to preconstruction conditions as directed by the Utilities Inspector.

#### SECTION 10 – ON-SITE SUPERINTENDENT

A contractor's superintendent or foreman, or designated superintendent or foreman, is required to be physically on-site the entire day for the duration of the Work to supervise all construction activities.

#### SECTION 11 – SOLICITATION OF PRIVATE WORK BY CONTRACTOR

The Contractor is prohibited from advertising its services to the Owners/Residents of properties and Businesses affected by the Project Construction for the duration of the Contract.

#### SECTION 12 – COORDINATION

The Contractor shall be responsible for all operations necessary to complete the Work, including complete coordination with, but not limited to, the City, CALTRANS, Santa Clara County, PCJPB, Stanford, Stanford University, Stanford Hospital, PAUSD, local schools, school principals and PTA members, SCVWD, SFPUC, PG&E, appropriate Transit Districts, Subcontractors, property occupants, and all other Contractors working in the area. This includes attending meetings with affected parties when required.

The Contractor shall be responsible for coordination with WGW Operations and SFPUC for water main bypass, which shall be performed before removing City turnout vault from service. Contractor shall also be responsible for coordination with SFPUC for Contractor's work in SFPUC vault. Contractor shall also be responsible for coordination with Public Works and Building Departments for inspection as needed.

#### SECTION 13 – REPORTING REQUIREMENTS OF SANITARY OVERFLOWS (SSO'S)

The following policy shall apply:

- All Contractors must submit a pollution prevention plan to address sewer overflow prevention and storm water protection.
- In the event of a SSO that is observed or created by the Contractor, the Contractor will immediately notify the City's dispatch by calling 329-2413 and the assigned City Inspector.
- Take steps to stop, contain or divert the SSO by using absorbent, portable dams, sandbags or bypass equipment.
- The following information will be given to Utility Dispatch; location of SSO, Contractor and City Inspector name/contact number, time Contractor first noticed SSO and If SSO is occurring at time of call.
- Utility Dispatch will contact the wastewater crew to respond.
- Responding wastewater crew will assist Contractor with stopping, containment or diversion of SSO and complete all field reports associated with the SSO.

#### SECTION 14 – WEATHER DELAYS

Article 8 of the General Conditions is amended as follows:

The Contract time does not include a weather day allowance. Working conditions due to inclement weather will be considered sufficient cause for time extension. Inclement weather resulting in weather delays shall be defined as working days on which the Contractor is prevented by inclement weather or conditions resulting in at least 60% of the work day being lost as determined by the City Inspector.

#### SECTION 15 – MATERIALS TO BE SUPPLIED BY THE CITY

Section 3.4 of the General Conditions is amended to add the following:

##### **California Ave Turnout:**

The City will provide the following items, organized below by which part of the scope they are for:

Bypass: Bypass in SFPUC vault will be installed by City Utility Operations.

SFPUC vault: City shall procure the 16x10 ductile iron pipe tee listed the SFPUC Vault Proposed Work Parts List schedule on Sheet 9 of the plans. The City will receive the part and store at a City lay down yard within the City. Contractor shall load and furnish the tee from the lay down yard to the project site, and the contractor shall install the tee as shown in the project plans.

For add alternate Bid Item 18 for installation of two gate valves in SFPUC vault, SFPUC shall provide the gate valves and insulating gasket kits.

Sewer lateral: Sewer lateral outside vault will be removed and replaced by City Utility Operations.

#### SECTION 16 – EXISTING UTILITIES

The General Conditions section 3.28.1 is hereby amended as follows:

Prior to the start of any excavation, the Contractor shall be responsible for notifying Underground Service Alert (USA) 800-642-2444 at least ten (10) days prior to beginning underground work so that existing utilities can be marked in the field. The Contractor is responsible for the location of all utilities, both public and private. Location shall be clearly delineated by the Contractor in the field with white paint.

The City will not be held liable for unmarked or mismarked third party or private owned utilities. The City will not compensate Contractor for damage caused to or additional time required to locate or work around unmarked or

mismarked third party or private owned utilities by Contractor. Contractor will be required to make all necessary repairs at Contractor's expense.

For City owned facilities, Contractor will be required to pothole a minimum of two separate times before the City will consider providing compensation to contractor for unmarked or mismarked utilities. Contractor must document any additional potholing and receive sign off from the City Inspector or Project Manager before any additional work will be reviewed for compensation. This section supersedes the General Conditions where there are conflicts.

#### SECTION 17 – DISPOSAL OF EXCAVATED SOILS

Contractor is responsible for disposal of all excavated soils associated with the project during construction. It is the Contractor's responsibility to characterize all excavated soils for disposal by sampling and testing it in accordance with landfill operation requirements. All samples shall be taken in the presence of the City Inspector. The City will not pay for disposal of excavated soils that were not sampled and approved by City Inspector prior to disposal. Once testing has been completed, it is the Contractor's responsibility to identify suitable landfill facility, and to transport and dispose the excavated soils.

#### SECTION 18 – ADD ALTERNATE BID

The City reserves the right to select all or any portion of the bid items from the Add Alternate Bid to be included in the Contract.

#### SECTION 19 – CITY STANDARDS

For additional City Standards, please visit our website at:

<https://www.cityofpaloalto.org/gov/depts/utl/eng/standards.asp> for Water, Gas and Wastewater Utility Standards or;

[https://www.cityofpaloalto.org/gov/depts/pwd/forms\\_and\\_permits/specs\\_drawings.asp](https://www.cityofpaloalto.org/gov/depts/pwd/forms_and_permits/specs_drawings.asp) for Public Works Standards.

#### SECTION 20: PARKING AND STAGING REQUIREMENTS

California Ave Turnout:

Contractor shall be responsible for renting space for staging. Contractor shall not stage from public ROW. Contractor shall not stage from private parking lots near project site without an agreement with the property owners.

All parking by Contractor and subcontractors for this work shall be either on private property rented for that purpose by the Contractor from the property owner, or in public street parking spaces near the project site. Suggested public street parking locations include: Wellesley St, Williams St, and Yale St. Contractor shall submit plan for which public street parking locations they want to use, for approval by Project Engineer.

Page Mill Turnout: Contractor shall be responsible for renting space for staging. Contractor shall not stage from public ROW. Contractor shall not stage from private parking lots near project site without an agreement with the property owners.

Parking for Contractor vehicles needed for work (weld truck, materials drop off) shall be in traffic lane to be closed for work. Contractor to coordinate with Project Engineer for the details.

#### SECTION 21: ADD ALTERNATE BID

The City reserves the right to select all or any portion of the bid items from the Add Alternate Bid to be included in the Contract.



**SECTION 22: REQUIRED LICENSES AND CERTIFICATIONS**

- Contractor shall be required to have a Class A - General Engineering Contractor license.
- The Contractor or their subcontractor for the electrical work shall be required to have a C-10 Electrical Contractor license.
- The lead paint remediation subcontractor's supervisor and workers shall be certified to perform the work per California Code of Regulations, Title 17, Division 1, Chapter 8, Section 35001-36100.

**SECTION 23: SPECIAL INSPECTIONS**

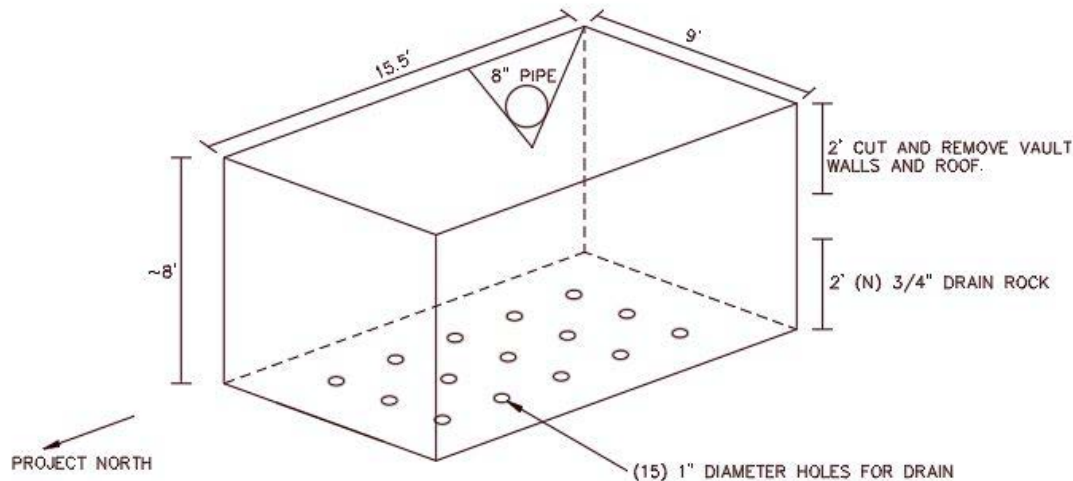
The new vault roof installation work for the California Ave City turnout requires Special Inspections and Testing per CBC Sections 1704 and 1705. These Special Inspections and Testing shall be performed in accordance with the approved plans and specifications, the Statement of Special Inspections in the plans, and CBC Sections 1704 and 1705. Special Inspections and Testing will be performed by a company from City of Palo Alto Building Department's Recognized Special Inspection and Testing Agencies list. This company will be hired by City of Palo Alto to perform the required inspections and testing at the City's cost. Contractor shall allow access to the work for the Special Inspector whenever the Special Inspector needs access. The following items have been designated for Special Inspection (and may be updated by the City as needed):

- Reinforcing steel: Tensile & Bond, Inspection of Placement, Inspection of Welding, Mill Tests
- Concrete: Mix Designs, Compression Tests, Cast Specimens, Pick-Up Samples
- Structural Hardware: Epoxied Anchors & Bolts

**SECTION 24: KODAK VAULT ABANDONMENT**

The California Ave Turnout project scope includes three add alternate bid item related to abandonment of the Kodak Vault. This is an SFPUC-owned vault located adjacent to the City turnout vault. Work on this vault shall be tracked and invoiced separately by Contractor, since SFPUC will pay for this portion of the work. Vault abandonment (Bid Item 19) shall include: Removal of vault roof and top 2' of walls, and removal of a portion of walls around the 8" pipe in east wall, cutting existing pipes flush with vault walls, salvaging manhole cover and lids for SFPUC, drilling holes in vault floor for drainage, filling vault with drain rock and aggregate base, installation of new curb and sidewalk, and repairs

*Vault Abandonment Detail:*



## NOTES

1. CUT AND REMOVE VAULT ROOF AND TOP 2' OF VAULT WALLS. SALVAGE THE ONE MANHOLE COVER AND THIRTEEN SMALL LIDS TO RETURN TO SFPUC.
2. CUT PIPING FLUSH WITH VAULT WALL AND REMOVE IT: 8" GATE VALVE & PIPE ON N. WALL, 8" PIPING ON E. WALL. REMOVE PRESSURE GAUGE ON PREVIOUSLY CUT PIPE ON S. WALL.
3. CUT AND REMOVE PORTION OF VAULT WALL AROUND 8" PIPING ON E. WALL.
4. DRILL (15) 1" DIAMETER HOLES IN FLOOR OF VAULT FOR DRAINAGE.
5. FILL BOTTOM 2' OF VAULT WITH 3/4" DRAIN ROCK.
6. FILL REMAINING VAULT DEPTH WITH CLASS 2 AGGREGATE BASE. COMPACT EACH LAYER OF BASE TO NO LESS THAN 95% RELATIVE COMPACTION.
7. REPLACE CURB PER CPA PUBLIC WORKS STD DETAIL 137, WITH ONE MODIFICATION: 4" CURB INSTEAD OF 6", TO MATCH EXISTING.
8. CONSTRUCT SIDEWALK PER CPA PUBLIC WORKS STD DETAIL 141.
9. IF ANY PART OF ADJACENT PAVEMENT OR DRIVEWAY ARE DAMAGED, REPLACE IN KIND.

Bid Items 20 and 21 are add alternate bid items for two options for separating the two existing services to Kodak Vault from the 10" PVC water main in the street. This may or may not be necessary, since the services may already be disconnected from the main. Most recent available as built from 1991 indicates the services are still connected. However, vault photos show that one of the two lines has been cut and slurry sealed. A valve in the vault on the other service line was opened by CPA Utility Operations to see if it was still active, and no water came out, so it does not appear to be connected to the main. The 1991 as built shows the two services less than 4' apart, whereas City GIS records show 17' between the two lines.

The connection to the main for one of the two services may be revealed during excavation for the Flex-Tend portion of the project. If not, it will need to be potholed. The other service may also need to be potholed at the main to verify if it is still connected. If the two services are not connected at the main, no additional work will be needed on the water main at that location. If one or both of the services are connected, Contractor shall coordinate with Water Transmission Operations group for shutdown of that section of main. Then Contractor shall excavate at the service connections. If the service connections are flanged saddles (Bid Item 21), the Contractor shall reduce water pressure in the main, disconnect the flanges, and remove the first 3' of the services from the main. Then blind flanges shall be installed on the flange connections to stop flow. If this work is performed correctly, pressure testing and disinfecting the main will not be required. The correct performance of this work means preventing the main from being submerged in water during the work, by taking the following precautions:



*Photo 1 from Kodak Vault*

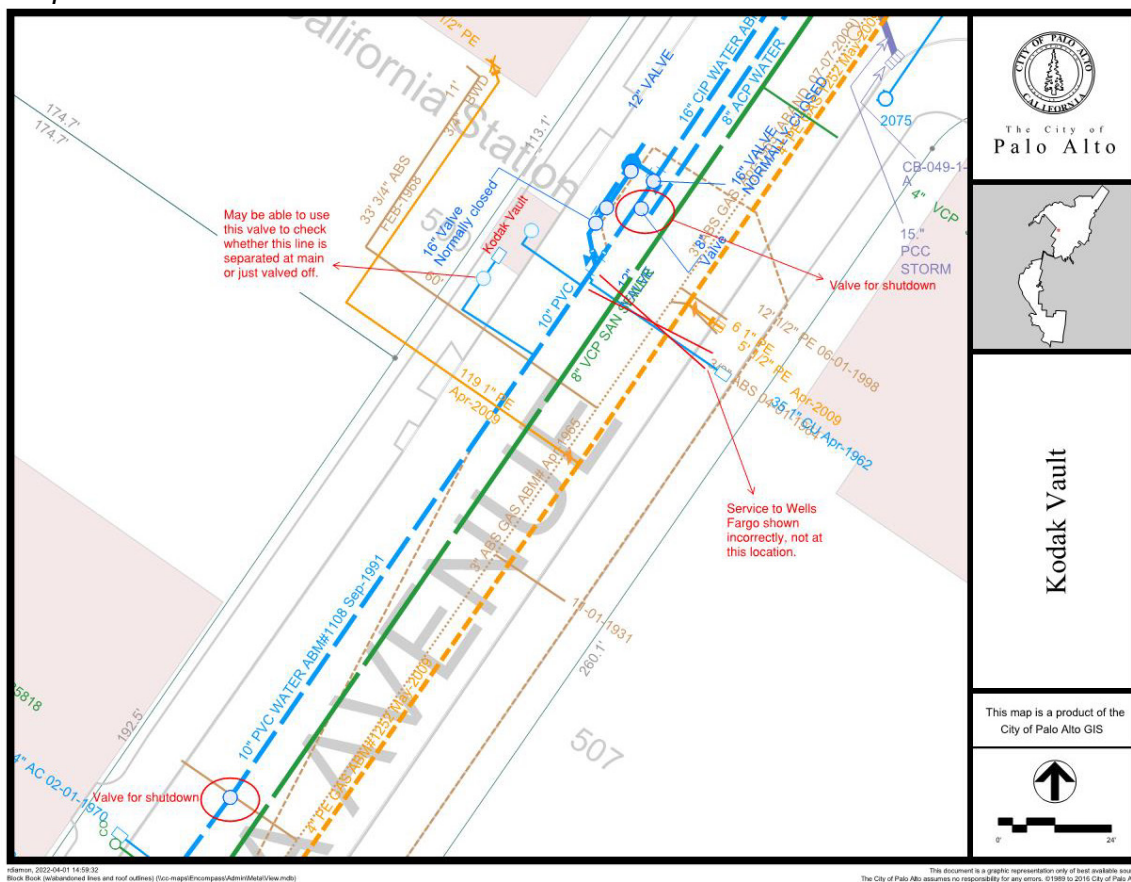


*Photo 2 from Kodak Vault*





## GIS Map of Kodak Vault Area



**END OF SECTION**



## City of Palo Alto City Council Staff Report

(ID # 14463)

**Meeting Date: 10/17/2022**

**Report Type: Consent Calendar**

**Title: Approval of Implementation of the U.S. Environmental Protection Agency-Funded (U.S. EPA) Greening Parking Facilities for a Sustainable Community Project and Approval of Agreement Between City of Palo Alto and City of Santa Clara to Partner on Project, and Approval of a Budget Amendment in the Stormwater Management Fund**

**From: City Manager**

**Lead Department: Public Works**

### **Recommendation**

Staff recommends that the City Council:

1. Approve implementation of the U.S. Environmental Protection Agency-funded (U.S. EPA) Greening Parking Facilities for a Sustainable Community Project (Project) as part of the Stormwater Management Fund Capital Improvement Program Green Stormwater Infrastructure project (SD-22001) in the amount of \$1,566,351;
2. Approve and authorize the City Manager or designee to execute the Agreement (Attachment A) between the City of Santa Clara (Santa Clara) and the City of Palo Alto (Palo Alto) to partner for the implementation of the Project and for Palo Alto to provide reimbursement to Santa Clara in the not-to exceed amount of \$332,902 over the grant period ending December 31, 2025;
3. Authorize the City Manager or designee to approve and execute related grant contracts with additional Project partners identified in the grant proposal (Table 1) and to approve future administrative changes to contracts between Palo Alto and all partners regarding budgetary amendments and Project scope changes; and
4. Amend the Fiscal Year 2023 budget appropriation (by a 2/3 vote) for the Stormwater Management Fund by:
  - a) Increasing the Green Stormwater Infrastructure project (SD-22001) appropriation by \$1,566,351
  - b) Increasing the revenue estimate from the Federal Government by \$1,216,351
  - c) Decreasing the ending fund balance by \$350,000

## Executive Summary

The U.S. EPA's San Francisco Bay Water Quality Improvement Fund (SFBWQIF) is a grant program that funds water quality and watershed/wetland restoration projects to protect and restore San Francisco Bay. A grant of \$1,216,351 was awarded to Palo Alto and its Project partners in January 2021 to conduct the *Greening Parking Facilities for a Sustainable Community: Design, Maintenance, Water Quality Benefits, and Workforce Development Project* (Project). Project partners include the cities of Palo Alto and Santa Clara, the County of Santa Clara, and a number of non-profit organizations. The Project will provide water quality benefits by constructing green stormwater infrastructure (GSI) in two cities, Palo Alto and Santa Clara, at existing parking lots or alternative locations. Additionally, the Project will develop a *Guidebook for Greener Parking Facility Design* based on lessons learned from the projects; establish a certified workforce training framework for GSI maintenance; provide maintenance training to City staff, partners, and a local service organization made up of underserved youth; and implement community outreach opportunities.

Palo Alto entered into the grant agreement #98T20101 (Attachment B) with U.S. EPA on September 27, 2021. The grant agreement names City of Palo Alto as the recipient and the responsible agency for managing the grant costs and Project deliverables in accordance with the terms and conditions set by the award agreement with the U.S. EPA. The total cost for the Project is \$2,432,703, with partners providing a 50% cash and in-kind match to the \$1,216,351 award. Palo Alto staff anticipates spending considerable time serving as project manager, serving as lead to develop work products, and conducting administrative duties over the grant period, all of which will be counted toward the City's portion of the in-kind match.

Grant agreements will be developed between Palo Alto and each partner to allow each partner to receive grant funds for their contribution to the Project. All partners will provide in-kind matches, with Santa Clara also contributing a cash match for direct use on its parking lot retrofit. See Table 1 for details regarding grant and match amount allocations per grant partner. The partners will submit quarterly invoices and progress reports to Palo Alto, which will then be approved and submitted to U.S. EPA. In turn, U.S. EPA will provide payment approval and reimbursement to Palo Alto within a few business days of receipt of the invoice. Palo Alto will disburse invoiced amounts to each partner in arrears within 30 days of receipt of reimbursement from the U.S. EPA. The first Agreement (Attachment A), establishing an implementation partnership between Palo Alto and Santa Clara, must be approved to allow Santa Clara to commence its retrofit project. As the grant recipient, Palo Alto will reimburse Santa Clara \$332,902, the grant amount received by said agency, over the course of the grant period to end December 21, 2025.

## Background

Palo Alto is subject to the requirements of the State's [Municipal Regional Stormwater National Pollutant Discharge Elimination System \(NPDES\) Permit \(#CAS612008\)](#) in the San Francisco Bay Area (Order R2-2022-0018,) also known as the Municipal Regional Permit (MRP). The MRP

applies to 76 municipalities and flood control agencies that discharge stormwater to San Francisco Bay (Bay). Under the MRP, new development and redevelopment projects on private and public property that exceed certain size thresholds are required to mitigate stormwater quality impacts by incorporating site design, pollutant source control, and stormwater treatment measures (also known as green stormwater infrastructure or GSI). The newly adopted MRP (No. R2-2022-0018), effective July 1, 2022, requires Palo Alto to construct sufficient GSI to treat 3.92 acres of impervious surface and to proactively search for opportunities to build GSI when feasible. In order to meet this new requirement, Palo Alto staff will need to identify opportunities on City property and its right-of-way to integrate GSI measures into streets, roads, parking lots, roofs, and other elements.

In order to begin meeting requirements, staff submitted a grant proposal (Attachment C) to the May 2020 solicitation round of the U.S. EPA competitive grant program, the San Francisco Bay Water Quality Improvement Fund (SFBWQIF), which funds water quality and watershed/wetland restoration projects to protect and restore the Bay. Although the proposal did not receive an award at that time, the project was awarded \$1,216,351 during a follow-up granting period in January 2021.

The SFBWQIF grant funds the *Greening Parking Facilities for a Sustainable Community: Design, Maintenance, Water Quality Benefits, and Workforce Development Project* (Project), which will provide water quality benefits by constructing GSI retrofits at two existing parking lots in two cities – one in Palo Alto and one in Santa Clara. Additionally, the Project will develop a *Guidebook for Greener Parking Facility Design* based on lessons learned from the projects; establish a certified workforce training framework for GSI maintenance; provide maintenance training to City staff, partners, and a local service organization made up of underserved youth; and implement community outreach opportunities. These components will pave the way for future GSI projects, engage the public, and strengthen interagency collaboration. Finally, this Project will reduce pollutant loads to the Bay, including polychlorinated biphenyls (PCBs) and mercury.

The Palo Alto parking lot retrofit Project construction would consist of the demolition of some existing pavement; soil excavation and off-hauling; storm drain connection; striping and pavement marking; electrical work for lighting; and installation of bike parking, GSI, and the irrigation system. Extensive community engagement will be conducted.

## Discussion

This report seeks approval to begin implementation of the U.S. Environmental Protection Agency-funded (U.S. EPA) Greening Parking Facilities for a Sustainable Community Project (Project) under the existing Stormwater Management Fund Capital Improvement Program Green Stormwater Infrastructure project (SD-22001) in the amount of \$1,566,351 (this amount includes the grant project match plus cash match from Palo Alto). The Project will provide water quality benefits by constructing GSI in two cities, Palo Alto and Santa Clara, at



existing parking lots or alternative locations.

Palo Alto submitted the Project grant proposal on behalf of a collaboration of five partners – Santa Clara, Grassroots Ecology, San Francisco Estuary Institute, San Jose Conservation Corps, the Santa Clara Valley Urban Pollution Prevent Program, and Santa Clara County. Combining the efforts of these agencies into a single grant proposal with region-wide strategies and benefits produced a more competitive application from U.S. EPA’s perspective. Palo Alto entered into the grant Agreement (#98T20101) with U.S. EPA on September 27, 2021. The grant Agreement names City of Palo Alto as the recipient and the responsible agency for managing the grant costs and Project deliverables in accordance with the terms and conditions set forth by the Award Agreement with the U.S. EPA. Staff anticipates spending considerable time serving as project manager, serving as lead to develop work products, conducting administrative duties over the grant period, and providing feedback during the CIP project design process, all of which will be counted toward the in-kind match. As mentioned previously, Palo Alto is required to construct these types of projects to meet regional regulatory requirements, and thus, staff time will be applied to a valuable, priority effort.

Table 1 provides a summary for Palo Alto and its partners of Project roles, awarded grant amounts, and in-kind matches to be provided by each partner. The grant amount for each partner will be disbursed by Palo Alto once reimbursed by the EPA. The combination of cash and in-kind matches from each partner and Palo Alto total the required 50% match (or \$1,216,352). Palo Alto will provide a cash match of \$350,000 and \$310,906 of in-kind staff time and materials, while Santa Clara will also provide a cash match of \$131,783 and \$320,664 of in-kind staff time. The remainder of the partners will each provide in-kind matches of staff time that total the remainder of their required matches. All partners will track their matches on a quarterly basis. Palo Alto will set up agreements with the remainder of the partners before their Project work commences. Attachment C provides grant proposal details. Palo Alto will create a Project workplan with partners after receiving Council approval.

This Agreement establishes the reimbursement relationship between Palo Alto and Santa Clara, in which Palo Alto will receive quarterly invoices from Santa Clara to be submitted to the U.S. EPA with other invoices received. Santa Clara will also provide a quarterly progress report, which will include a project description, list of issues requiring U.S. EPA’s attention, summary of tasks completed and in progress, milestones achieved, deliverables completed, and a summary of budget spent and remaining. Palo Alto will submit all Project invoices and respective quarterly reports to U.S. EPA through its required process. U.S. EPA will reimburse Palo Alto within a few business days, and Palo Alto will then disburse to Santa Clara the invoiced amount within 30 days of receipt of reimbursement from the U.S. EPA.

In the Agreement, Santa Clara agrees to meet U.S. EPA requirements as well as complete the Project deliverables on time and within budget. Santa Clara will actively participate in Project coordination meetings and workgroups and provide support to Palo Alto as needed per the in-kind match. Any necessary administrative changes will be carried out through collaborative

discussions and approvals of both Parties through the authority granted by Council to the City Manager or designee.

**Table 1. Grant Disbursement Details**

| GRANT RECIPIENT/ ITEM                                        | RECIPIENT DESCRIPTION & ROLE                                                                                                                                                               | GRANT AMOUNT       | MATCH AMOUNT                                        |
|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------------------------------------|
| City of Palo Alto                                            | Grant Project Manager: ensure workplan is carried out in a timely manner within budget and according to U.S. EPA's Agreement terms and make administrative changes as needed.              | \$412,379          | \$660,906<br>(\$350,000 cash,<br>\$310,906 in-kind) |
| City of Santa Clara                                          | Project partner: retrofit Santa Clara parking lot and participate in developing work products; provide quarterly reports and invoices per requirements.                                    | \$332,902          | \$452,447<br>(\$131,783 cash,<br>\$320,664 in-kind) |
| Grassroots Ecology                                           | Project partner: conduct environmental outreach and education and serve as lead for maintenance of green stormwater infrastructure installed as part of parking lot retrofit in Palo Alto. | \$69,990           | \$20,000                                            |
| San Francisco Estuary Institute                              | Project partner: conduct pre and post-project water quality monitoring to evaluate effectiveness of green stormwater infrastructure and prepare follow-up report.                          | \$209,925          | \$10,408                                            |
| San Jose Conservation Corps                                  | Project partner: support Grassroots Ecology in maintenance, receive maintenance training and environmental education and career support.                                                   | \$42,770           | \$6,500                                             |
| Santa Clara Valley Urban Runoff Pollution Prevention Program | Project partner: support in development of Guidebook for Greener Parking Facility Design and participate in development of other work products.                                            | \$30,800           | \$42,680                                            |
| Santa Clara County                                           | Project partner: participate in development of other work products.                                                                                                                        | 0                  | \$23,411                                            |
| Supplies and materials                                       | Items to include community engagement materials, plants and project signage.                                                                                                               | \$117,585          | \$0                                                 |
|                                                              |                                                                                                                                                                                            | <b>\$1,216,351</b> | <b>\$1,216,352</b>                                  |
| <b>PROJECT TOTAL</b>                                         |                                                                                                                                                                                            | <b>\$2,432,703</b> |                                                     |

### Resource Impact

The City of Palo Alto has received a grant in the amount of \$1,216,351, with Palo Alto receiving \$412,379 toward a GSI retrofit project and additional funding for the project that will be distributed to the partners shown in Table 1, which will include maintenance training for Palo Alto staff and partners and pre and post-construction sampling and analysis at both Palo Alto and Santa Clara projects. The U.S. EPA SFBWQIF's 50% match requirement will be provided with a cash match of \$481,783, with \$350,000 from Palo Alto and \$131,783 from Santa Clara. The remainder of the match amount, \$734,569, will be provided through in-kind staff time, equipment, and materials from Palo Alto, Santa Clara, and the remaining partners. Staff time hours will be contributed to various activities, including project team and committee participation, document review and preparation, community engagement activities, mileage,

maintenance equipment, and materials. The contribution from each partner is provided in the “Match Amount” column in Table 1.

This grant requires a budget amendment in the amount of \$1,566,351 in the Stormwater Management Fund Capital Improvement Program Green Stormwater Infrastructure project (SD-22001). The revenue estimate from the Federal Government is to be increased by \$1,216,351 and the Stormwater Management Fund ending fund balance will decrease by \$350,000. Staff will return to council with a budget amendment once Palo Alto’s project is designed if requested budget does not suffice.

### **Policy Implications**

This project supports the implementation of the Green Stormwater Infrastructure (GSI) Plan accepted by Council in May 2019 ([Staff Report #9883](#)) and meets requirements of the SF Bay Area MRP (No. R2-2022-0018) effective July 1, 2022. In addition, this project supports the City’s Sustainability and Climate Action Plan Goals and Key [Draft Sustainability and Climate Action Plan Goals and Key Actions](#).

### **Stakeholder Engagement**

Palo Alto’s community engagement will be conducted as part of Project implementation and design, during which input will be sought from residents, schools, businesses, and other entities located in the project vicinity. Engagement plans include door-to-door outreach to nearby businesses and entities; a minimum of three public meetings; a drop-in information table at the project location (or if not feasible, a public event to reach residents); utility bill inserts, and postings to social media. In addition, staff will provide updates to the City’s Stormwater Management Oversight Committee (which oversees use of funds from Palo Alto’s Stormwater Management Fee) and Parks and Recreation Commission as well as City Council.

### **Environmental Review**

Council action on the proposed agreement, and the work to be performed by consultants and staff in connection with these programs is categorically exempt from CEQA under section 15301 of the CEQA Guidelines in that the projects to retrofits to parking lots are minor alteration to existing structures; and under section 15308 in that the outreach, educational, and planning activities around green stormwater infrastructure are actions taken by regulatory agencies to assure the maintenance, restoration, enhancement, or protection of the environment.

### **Attachments:**

- **Attachment5.a:** Attachment B: EPA Award Grant Agreement
- **Attachment5.b:** Attachment C: Grant Project Proposal
- **Attachment5.c:** Attachment A. EPA Project\_Santa Clara Agreement\_100322\_FINAL DRAFT

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                       |                                                                                                                                                                               |                                                    |                                                                                                                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>U.S. ENVIRONMENTAL PROTECTION AGENCY</b><br><b>Grant Agreement</b> | <b>GRANT NUMBER (FAIN):</b> 98T20101<br><b>MODIFICATION NUMBER:</b> 0<br><b>PROGRAM CODE:</b> W9                                                                              |                                                    | <b>DATE OF AWARD</b><br>09/27/2021                                                                                                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                       | <b>TYPE OF ACTION</b><br>New                                                                                                                                                  |                                                    | <b>MAILING DATE</b><br>10/04/2021                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                       | <b>PAYMENT METHOD:</b><br>ASAP                                                                                                                                                |                                                    | <b>ACH#</b><br>PEND                                                                                                                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                       | <b>RECIPIENT TYPE:</b><br>Municipal                                                                                                                                           |                                                    |                                                                                                                                                                                              |
| <b>RECIPIENT:</b><br>City of Palo Alto<br>250 Hamilton Avenue<br>Palo Alto, CA 94301<br><b>EIN:</b> 94-6000389                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                       | <b>PAYEE:</b><br>City of Palo Alto<br>250 Hamilton Avenue<br>Palo Alto, CA 94301                                                                                              |                                                    |                                                                                                                                                                                              |
| <b>PROJECT MANAGER</b><br>Pamela Boyle Rodriguez<br>2501 Embarcadero Way<br>Palo Alto, CA 94303<br><b>E-Mail:</b> pamelaboyle@cityofpaloalto.org<br><b>Phone:</b> 650-329-2421                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                       | <b>EPA PROJECT OFFICER</b><br>Erica Yelensky<br>75 Hawthorne Street, WTR-2-2<br>San Francisco, CA 94105<br><b>E-Mail:</b> yelensky.eric@epa.gov<br><b>Phone:</b> 415-972-3021 |                                                    | <b>EPA GRANT SPECIALIST</b><br>Danielle Carr<br>Grants Branch, MSD-6<br>75 Hawthorne Street<br>San Francisco, CA 94105<br><b>E-Mail:</b> carr.danielle@epa.gov<br><b>Phone:</b> 415-972-3871 |
| <b>PROJECT TITLE AND DESCRIPTION</b><br>SAN FRANCISCO BAY AREA WATER QUALITY IMPROVEMENT FUND<br><p>The project will provide water quality benefits by constructing green stormwater infrastructure (GSI) retrofits at two existing parking lots in Palo Alto and Santa Clara, CA. Additionally, the Project will develop a Guidebook for Greener Parking Facility Design and a certified workforce training framework for GSI maintenance, and provide community outreach and maintenance by trained partners and city staff. Anticipated deliverables include training materials, a quality assurance Project plan, quarterly reports, and as built drawings. Expected outcomes include providing an average of 282,000 gallons per year of stormwater retention and treating 13.4-20 mg/year of PCBs, 18-25 mg/year of Hg, and 1.9-2.8 million particles per year of microplastics. The intended beneficiaries include the cities of Palo Alto and Santa Clara California and improved water quality in San Francisco Bay.</p> <p>This assistance agreement provides full federal funding in the amount of \$1,216,351.00.</p>                                                                                                                                                                                                                                                               |                                                                       |                                                                                                                                                                               |                                                    |                                                                                                                                                                                              |
| <b>BUDGET PERIOD</b><br>10/01/2021 - 12/31/2025                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>PROJECT PERIOD</b><br>10/01/2021 - 12/31/2025                      | <b>TOTAL BUDGET PERIOD COST</b><br>\$2,432,703.00                                                                                                                             | <b>TOTAL PROJECT PERIOD COST</b><br>\$2,432,703.00 |                                                                                                                                                                                              |
| <b>NOTICE OF AWARD</b><br><p>Based on your Application dated 05/13/2020 including all modifications and amendments, the United States acting by and through the US Environmental Protection Agency (EPA) hereby awards \$1,216,351.00. EPA agrees to cost-share 50.00% of all approved budget period costs incurred, up to and not exceeding total federal funding of \$1,216,351.00. Recipient's signature is not required on this agreement. The recipient demonstrates its commitment to carry out this award by either: 1) drawing down funds within 21 days after the EPA award or amendment mailing date; or 2) not filing a notice of disagreement with the award terms and conditions within 21 days after the EPA award or amendment mailing date. If the recipient disagrees with the terms and conditions specified in this award, the authorized representative of the recipient must furnish a notice of disagreement to the EPA Award Official within 21 days after the EPA award or amendment mailing date. In case of disagreement, and until the disagreement is resolved, the recipient should not draw down on the funds provided by this award/amendment, and any costs incurred by the recipient are at its own risk. This agreement is subject to applicable EPA regulatory and statutory provisions, all terms and conditions of this agreement and any attachments.</p> |                                                                       |                                                                                                                                                                               |                                                    |                                                                                                                                                                                              |
| <b>ISSUING OFFICE (GRANTS MANAGEMENT OFFICE)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                       | <b>AWARD APPROVAL OFFICE</b>                                                                                                                                                  |                                                    |                                                                                                                                                                                              |
| <b>ORGANIZATION / ADDRESS</b><br>U.S. EPA, Region 9 Grants Branch, MSD-6<br>75 Hawthorne Street<br>San Francisco, CA 94105                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                       | <b>ORGANIZATION / ADDRESS</b><br>U.S. EPA, Region 9, Water Division, WTR-1<br>R9 - Region 9<br>75 Hawthorne Street<br>San Francisco, CA 94105                                 |                                                    |                                                                                                                                                                                              |
| <b>THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                       |                                                                                                                                                                               |                                                    |                                                                                                                                                                                              |
| <b>Digital signature applied by EPA Award Official</b> Carolyn Truong - Grants Management Officer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                       |                                                                                                                                                                               |                                                    | <b>DATE</b><br>09/27/2021                                                                                                                                                                    |

## EPA Funding Information

| FUNDS                         | FORMER AWARD | THIS ACTION | AMENDED TOTAL |
|-------------------------------|--------------|-------------|---------------|
| EPA Amount This Action        | \$0          | \$1,216,351 | \$1,216,351   |
| EPA In-Kind Amount            | \$0          | \$0         | \$0           |
| Unexpended Prior Year Balance | \$0          | \$0         | \$0           |
| Other Federal Funds           | \$0          | \$0         | \$0           |
| Recipient Contribution        | \$0          | \$1,216,352 | \$1,216,352   |
| State Contribution            | \$0          | \$0         | \$0           |
| Local Contribution            | \$0          | \$0         | \$0           |
| Other Contribution            | \$0          | \$0         | \$0           |
| Allowable Project Cost        | \$0          | \$2,432,703 | \$2,432,703   |

| Assistance Program (CFDA)                                 | Statutory Authority       | Regulatory Authority                |
|-----------------------------------------------------------|---------------------------|-------------------------------------|
| 66.126 - San Francisco Bay Water Quality Improvement Fund | Clean Water Act: Sec. 320 | 2 CFR 200, 2 CFR 1500 and 40 CFR 33 |

| Fiscal    |            |      |              |                     |        |              |              |                   |                           |
|-----------|------------|------|--------------|---------------------|--------|--------------|--------------|-------------------|---------------------------|
| Site Name | Req No     | FY   | Approp. Code | Budget Organization | PRC    | Object Class | Site/Project | Cost Organization | Obligation / Deobligation |
| -         | 2109W32011 | 2122 | B            | 09L2                | 000BK4 | 4158         | -            | -                 | \$1,216,351               |
|           |            |      |              |                     |        |              |              |                   | \$1,216,351               |

## Budget Summary Page

| Table A - Object Class Category<br>(Non-Construction)              | Total Approved Allowable<br>Budget Period Cost |
|--------------------------------------------------------------------|------------------------------------------------|
| 1. Personnel                                                       | \$446,366                                      |
| 2. Fringe Benefits                                                 | \$0                                            |
| 3. Travel                                                          | \$7,171                                        |
| 4. Equipment                                                       | \$0                                            |
| 5. Supplies                                                        | \$10,686                                       |
| 6. Contractual                                                     | \$939,814                                      |
| 7. Construction                                                    | \$0                                            |
| 8. Other                                                           | \$1,028,666                                    |
| 9. Total Direct Charges                                            | \$2,432,703                                    |
| 10. Indirect Costs: 0.00 % Base                                    | \$0                                            |
| 11. Total (Share: Recipient <u>50.00</u> % Federal <u>50.00</u> %) | \$2,432,703                                    |
| 12. Total Approved Assistance Amount                               | \$1,216,351                                    |
| 13. Program Income                                                 | \$0                                            |
| 14. Total EPA Amount Awarded This Action                           | \$1,216,351                                    |
| 15. Total EPA Amount Awarded To Date                               | \$1,216,351                                    |

## **Administrative Conditions**

### **General Terms and Conditions**

The recipient agrees to comply with the current EPA general terms and conditions available at: <https://www.epa.gov/grants/epa-general-terms-and-conditions-effective-november-12-2020-or-later>.

These terms and conditions are in addition to the assurances and certifications made as a part of the award and the terms, conditions, or restrictions cited throughout the award.

The EPA repository for the general terms and conditions by year can be found at: <https://www.epa.gov/grants/grant-terms-and-conditions#general>.

### **A. Federal Financial Reporting (FFR)**

For awards with cumulative project and budget periods greater than 12 months, the recipient will submit an annual FFR (SF 425) covering the period from "project/budget period start date" to **September 30** of each calendar year to the EPA Finance Center in Research Triangle Park, NC. The annual FFR will be submitted electronically to [rtfpc-grants@epa.gov](mailto:rtfpc-grants@epa.gov) no later than **December 30** of the same calendar year. (NOTE: The grantee must submit the Final FFR to [rtfpc-grants@epa.gov](mailto:rtfpc-grants@epa.gov) within 120 days after the end of the project period.)

### **B. Procurement**

The recipient will ensure all procurement transactions will be conducted in a manner providing full and open competition consistent with 2 CFR Part 200.319. In accordance 2 CFR Part 200.324 the grantee and subgrantee(s) must perform a cost or price analysis in connection with applicable procurement actions, including contract modifications.

*State recipients must follow procurement procedures as outlined in 2 CFR Part 200.317.*

### **C. MBE/WBE Reporting, 40 CFR, Part 33, Subpart E (EPA Form 5700-52A)**

The recipient agrees to submit a "MBE/WBE Utilization Under Federal Grants and Cooperative Agreements" report (EPA Form 5700-52A) annually for the duration of the project period. The current EPA Form 5700-52A with instructions can be found at <https://www.epa.gov/grants/epa-form-5700-52a-united-states-environmental-protection-agency-minority-business>

This provision represents an approved exception from the MBE/WBE reporting requirements as described in 40 CFR Section 33.502.

Reporting is required for assistance agreements where funds are budgeted for procuring construction, equipment, services and supplies (including funds budgeted for direct procurement by the recipient or procurement under subawards or loans in the "Other" category) with a cumulative total that exceed the Simplified Acquisition Threshold (SAT) currently, set at \$250,000 (the dollar threshold will be automatically revised whenever the SAT is adjusted; See 2 CFR Section 200.1), including amendments and/or modifications. When reporting is required, all procurement actions are reportable, not just the portion which exceeds the SAT.

Recipients with expended and/or budgeted funds for procurement are required to report annually whether the planned procurements take place during the reporting period or not. If no budgeted procurements take place during the reporting period, the recipient should check the box in section 5B when completing the form.

When completing the annual report, recipients are instructed to check the box titled "annual" in section 1B of the form. For

the final report, recipients are instructed to check the box indicated for the “last report” of the project in section 1B of the form. For section 2B, the Region 9 EPA DBA Coordinator is Fareed Ali, email: [GrantsRegion9@epa.gov](mailto:GrantsRegion9@epa.gov), phone: 415-972-3665.

The annual reports are due by October 30th of each calendar year and the final report is due within 120 days after the end of the project period, whichever comes first. The recipient will submit the MBE/WBE report(s) and/or questions to [GrantsRegion9@epa.gov](mailto:GrantsRegion9@epa.gov) and the EPA Grants Specialist identified on page 1 of the award document.

**D. Indirect Costs**

The Cost Principles under 2 CFR Part 200, Subpart E apply to this award. Since there are no indirect costs included in the assistance budget, they are not allowable under this Assistance Agreement.



## **Programmatic Conditions**

### **a.] Performance Reporting and Final Performance Report**

The recipient shall submit quarterly progress reports to the EPA Project Officer within 30 calendar days after the end of each Federal fiscal quarter (January 31, April 30, July 31, and October 31). The progress reports should include:

- a discussion of the activities conducted during the two quarters (including a comparison of actual accomplishments with the anticipated outputs and outcomes specified in the workplan),
- progress towards milestones,
- problems encountered with achieving outputs and outcomes, and their resolution,
- activities planned for the next two quarters,
- a financial accounting of costs incurred during the reporting period,
- cumulative project costs (EPA and match amounts) since the beginning of the project, by task, and
- identification of any special EPA assistance needed, and an explanation of any cost overruns.

The recipient will notify the EPA Project Officer if something materially impairs their ability to complete the tasks and deliver the products, outputs and outcomes identified in the workplan. Within 120 days of the end of the project period, the recipient must submit 1 hardcopy of the final report, documenting project activities over the entire project period and the recipient's achievements with respect to the project's purposes and objectives. The final report must also be submitted electronically (by Email) to the EPA Project Officer.

### **Subaward Reporting**

The recipient must report on its subaward monitoring activities under 2 CFR 200.331(d). Examples of items that must be reported if the pass-through entity has the information available are:

1. Summaries of results of reviews of financial and programmatic reports.
2. Summaries of findings from site visits and/or desk reviews to ensure effective subrecipient performance.
3. Environmental results the subrecipient achieved.
4. Summaries of audit findings and related pass-through entity management decisions.
5. Actions the pass-through entity has taken to correct deficiencies such as those specified at 2 CFR 200.331(e), 2 CFR 200.207 and the 2 CFR Part 200.338 Remedies for Noncompliance.

### **b.] Grant Source Recognition**

The recipient should publicly acknowledge the US EPA San Francisco Bay Water Quality Improvement Fund as the funding vehicle for the projects when the grantee is asked by public entities, federal agencies or state and local agencies about the projects and on-going results.

### **c.] Competency of Organizations Generating Environmental Measurement Data**

In accordance with Agency Policy Directive Number FEM-2012-02, Policy to Assure the Competency of Organizations Generating Environmental Measurement Data under Agency-Funded Assistance Agreements, recipient agrees, by entering into this agreement, that it has demonstrated competency prior to award, or alternatively, where a pre-award demonstration of competency is not practicable, the recipient agrees to demonstrate competency prior to carrying out any activities under the award involving the generation or use of environmental data. The recipient shall maintain competency for the duration of the agreement's period of performance, and this will be documented during the annual reporting process. A copy of the Policy is available online at [http://www.epa.gov/fem/lab\\_comp.htm](http://www.epa.gov/fem/lab_comp.htm), or a copy may also be requested by contacting the EPA project officer for this award.

**d.] Quality Assurance Project Plan**

In accordance with 2 CFR 1500.11, the recipient must develop and implement quality assurance and quality control procedures, specifications and documentation that are sufficient to produce data of adequate quality to meet project objectives. Recipients implementing environmental programs within the scope of the assistance agreement must submit to the EPA Project Officer an approvable Quality Assurance Project Plan (QAPP) at least 60 days prior to the initiating of data collection or data compilation. The Quality Assurance Project Plan (QAPP) is the document that provides comprehensive details about the quality assurance, quality control, and technical activities that must be implemented to ensure that project objectives are met. Environmental programs include direct measurements or data generation, environmental modeling, compilation of data from literature or electronic media, and data supporting the design, construction, and operation of environmental technology. The QAPP should be prepared in accordance with EPA QA/R-5: EPA Requirements for Quality Assurance Project Plans. No environmental data collection or data compilation may occur until the QAPP is approved by the EPA Project Officer and Quality Assurance Regional Manager. When the recipient is delegating the responsibility for an environmental data collection or data compilation activity to another organization, the EPA Regional Quality Assurance Manager may allow the recipient to review and approve that organization's QAPP. Additional information on these requirements can be found at the EPA Office of Grants and Debarment Web Site: <https://www.epa.gov/grants/implementation-quality-assurance-requirements-organizations-receivingepafinancial>

**e.] Cybersecurity**

(a) The recipient agrees that when collecting and managing environmental data under this assistance agreement, it will protect the data by following all State or Tribal law cybersecurity requirements as applicable.

(b)(1) EPA must ensure that any connections between the recipient's network or information system and EPA networks used by the recipient to transfer data under this agreement, are secure. For purposes of this Section, a connection is defined as a dedicated persistent interface between an Agency IT system and an external IT system for the purpose of transferring information. Transitory, user-controlled connections such as website browsing are excluded from this definition.

If the recipient's connections as defined above do not go through the Environmental Information Exchange Network or EPA's Central Data Exchange, the recipient agrees to contact the EPA Project Officer (PO) no later than 90 days after the date of this award and work with the designated Regional/Headquarters Information Security Officer to ensure that the connections meet EPA security requirements, including entering into Interconnection Service Agreements as appropriate. This condition does not apply to manual entry of data by the recipient into systems operated and used by EPA's regulatory programs for the submission of reporting and/or compliance data.

(b)(2) The recipient agrees that any subawards it makes under this agreement will require the subrecipient to comply with the requirements in (b)(1) if the subrecipient's network or information system is connected to EPA networks to transfer data to the Agency using systems other than the Environmental Information Exchange Network or EPA's Central Data Exchange. The recipient will be in compliance with this condition: by including this requirement in subaward agreements; and during subrecipient monitoring deemed necessary by the recipient under 2 CFR 200.332(d), by inquiring whether the subrecipient has contacted the EPA Project Officer. Nothing in this condition requires the recipient to contact the EPA Project Officer on behalf of a subrecipient or to be involved in the negotiation of an Interconnection Service Agreement between the subrecipient and EPA.

\*\*\*\*\* END OF DOCUMENT \*\*\*\*\*

Proposal for US EPA San Francisco Bay Water Quality  
Improvement Fund, FY 2020

US EPA Region 9

EPA-R9-SFBWQIF-20-01

## Greening Parking Facilities for a Sustainable Community

Proposed by



In partnership with



**SAN JOSE  
CONSERVATION  
CORPS+CHARTER  
SCHOOL**

## Greening Parking Facilities for a Sustainable Community Project: Proposal

### 1. Abstract

The *Greening Parking Facilities for a Sustainable Community: Design, Maintenance, Water Quality Benefits, and Workforce Development* (Project) will provide water quality benefits by constructing green stormwater infrastructure (GSI) retrofits at two existing parking lots. Additionally, the Project will develop a *Guidebook for Greener Parking Facility Design* and a certified workforce training framework for GSI maintenance and provide community outreach and maintenance by trained partners and city staff. These components will pave the way for future GSI projects, engage the public, and strengthen interagency collaboration.

Over the Project's four-year timeframe, outcomes will include two multi-benefit GSI projects in the Cities of Palo Alto and Santa Clara, reducing stormwater runoff and associated pollutant transport. The Project will capture 80% of the runoff from the treatment area, provide 282,000 gallons per year of stormwater retention on average, reduce pollutant loading to the Bay by 13.4-20mg/year PCBs, 18-25 mg/year Hg, and 1.9-2.8 million particles/year microplastics (dependent on final designs). Public engagement events will be conducted, and an active collaboration of six agencies and nonprofits will achieve Project outcomes. The Project benefits will be amplified throughout the region and state as other agencies draw on this Project to model their own future GSI projects.

### 2. Water Quality Improvement

#### Watershed and Project Location Description

The two proposed parking lot GSI retrofit projects, one in the City of Palo Alto (Palo Alto) and the other in the City of Santa Clara (Santa Clara), are located in two different watersheds within the Basin, the portion of Santa Clara County that drains to the San Francisco Bay (Bay). Rainfall in the parking lots of both cities average 15-17 inches per year.

The Palo Alto parking lot is in the San Francisquito Creek watershed, which covers 47.5 square miles in northwestern Santa Clara County and southeastern San Mateo County. The parking lot is located on Lytton Avenue and Emerson Street in one of the older neighborhoods of Palo Alto that are designated as 'regional/community commercial use' within the Downtown district (primarily surrounded by restaurants, with a Caltrain station about 0.2 miles away). The existing lot contains 68 stalls. The drainage management area (DMA) is 20,310 square feet (sq. ft.), with an impervious area of 17,560 sq. ft. within the parking lot. PCB and Hg loading rates are expected to reflect general urban sources associated with a long developed urban area (built in early 1900s) well before the peak use periods of those in the 1970s.

The Santa Clara parking lot is located within Bowers Park in the Saratoga Creek subwatershed of the San Tomas Aquino Creek watershed, covering approximately 45 square miles. The parking lot is located off Cabrillo Avenue in one of the older neighborhoods of Santa Clara. The existing lot contains 15 stalls and has one entrance off Cabrillo Avenue, and due to its park location, there is adequate vegetation nearby. The DMA, 26,750 sq. ft., is an entirely impervious parking lot (7,750 sq. ft.). Loads of pollutants in the area likely reflect general urban sources associated with developments from the 1950s.

#### Water Quality Impairments

Receiving water quality in the Santa Clara Basin is threatened by urbanization, stormwater runoff and legacy pollutants, leading to stream channels altered for flood control purposes, riparian forests converted to urban land uses, and limited opportunities for stormwater infiltration, increasing peak rates of runoff. Stormwater runoff conveys trash, sediments, nutrients, pesticides, and metals directly to receiving waters. Historic mining operations, a cement plant, and air deposition have released mercury into the watershed, and polychlorinated biphenyls (PCBs) have been detected at high concentrations in old industrial and old urban areas. Furthermore, recent studies<sup>1</sup> have shown that storm drains discharge a significant amount of the microplastics and microparticles found in San Francisco Bay, as runoff picks up plastic litter, rubber debris from tires, and other sources and carries it to the Bay.

Discharges of stormwater and dry weather runoff from municipal separate storm sewer systems (MS4s) in the watershed are covered under the San Francisco Bay Municipal Regional Stormwater Permit (MRP) and associated waste discharge requirements. The MRP contains requirements for implementing urban runoff controls consistent with four Total Maximum Daily Loads (TMDLs) that apply to the Basin: the Bay and Guadalupe River Watershed Mercury TMDLs; the San Francisco Bay PCBs TMDL; and the TMDL for Diazinon and Pesticide-Related Toxicity for Urban Creeks. The MRP also contains provisions for trash load reduction and copper site-specific objectives.

## Approach to Addressing Water Quality Impairments: Green Stormwater Infrastructure

The Project will implement GSI measures, specifically bioretention and potentially pervious pavement, in two impermeable parking lots that drain directly into the storm drain system. A study of the performance of a bioretention system located along a major urban corridor in El Cerrito during 2012-2017 showed that the bioretention system achieved significant pollutant reductions. Comparing effluent to influent samples, PCBs and suspended sediment were reduced by over 90%, total mercury and methyl mercury were reduced by 37% and 49%, respectively, and total copper was reduced by 68%. In addition, analyses of microplastics and microparticles showed that over 90% of these materials in urban stormwater were retained by the bioretention system.<sup>2</sup>

### Green Stormwater Infrastructure (GSI) Plans

The MRP requires permittees to develop and implement GSI Plans (Plans), which are the guiding documents for how agencies will include “low impact development drainage design into storm drain infrastructure on public and private lands, including streets, roads, storm drains, parking lots, building roofs, and other storm drain infrastructure elements.” Plans identified and prioritized potential GSI project locations based on their feasibility and ability to provide multiple benefits. Both of the identified parking lot sites, Palo Alto Parking Lot A (Lot A) and the Santa Clara Bowers Park parking lot (Bowers Park), are located on parcels that were prioritized for potential GSI projects within each of the cities’ individual GSI Plans<sup>3</sup>. Completed in 2019, these plans identify how the agencies intend to implement GSI measures to improve water quality and develop a more sustainable storm drain system.<sup>4</sup> These projects are also posted in the Stormwater Resource Plan (SWRP) for the Santa Clara Basin<sup>5</sup>.

Lot A is 15,350 sq. ft., of which 86% is impervious. The bioretention systems are expected to treat 87% of the impervious area, or about 11,485 sq. ft. If it is assumed that an older urban commercial area produces about 40 ng/L runoff of PCBs, 63 ng/L runoff of Hg and 5 particles/L runoff annually, with bioretention capturing 80% PCBs, 65% Hg and 90% microplastics on average<sup>6</sup>. About 20% bypass could be expected due to high rainfall intensity during some storms or trash blockages. It is anticipated that 9.4 mg/year of PCBs, 12 mg/year of Hg and 1.3 million particles per year of microplastics may be retained and not discharged to the Bay.

The Bowers Park parking lot has approximately 7,750 sq. ft. of impervious area and receives runoff from adjacent roofs (19,000 sq. ft.). The entire parking lot will be regraded and repaved. The feasibility of two bioretention systems will be evaluated to treat solely the parking lot, or in addition, to also treat the adjacent roofs, which would treat approximately 68% of the impervious area and 100% of the roof runoff. Using the same style of estimation and assumptions specific to old urban residential area, it is anticipated that 4-20 mg/year of PCBs, 6-25 mg/year of Hg, and 0.6-2.8 million particles per year of microplastics will be retained and not discharged to San Francisco Bay. The pollutant reductions will be tied to the selected bioretention design.

### Link to EPA’s Strategic Plan

Based on the expected outcomes, the Project directly supports the following goals and objectives of EPA’s FY 2018-22 Strategic Plan:

- *Goal 1: A Cleaner Healthier Environment, Objective 1.2: Provide for Clean and Safe Water.* The Project will improve the quality of runoff that ultimately reaches surface water bodies and the Bay.
- *Goal 2: More Effective Partnerships, Objective 2.2: Increase Transparency and Public Participation.* The Project will implement public outreach, education and community events to allow for public participation and meaningful engagement as the Project is implemented.

## 3. Project Activities

### Task 1: Parking Lot Retrofits

**Implementing Agency:** Palo Alto (lead), partnering with Santa Clara, San Francisco Estuary Institute (SFEI), and Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP)

**Description:** The Parking Lot Retrofits task will retrofit two surface parking lots with GSI and other sustainable features. Preliminary design work for the parking lot retrofits has been completed by SCVURPPP. As the grant recipient, Palo Alto will release a request for proposals to complete the design and construction of both projects. However, both cities intend to be involved in the consultant review and selection in order to maximize resources. Both cities will adhere to EPA procurement, hiring and grant requirements, with Palo Alto providing oversight.

One Project site will be Lot A in downtown Palo Alto. This site is used for parking and also by local restaurants that store their refuse and waste oil on-site, all of which create pollutants that can discharge to stormwater and have resulted in several illicit discharges due to neglected storage. The retrofit is anticipated to include GSI (bioretention areas and pervious paving); bike parking; new trees and improvement of existing trees retrofitted with soil cell systems to increase root space; interpretive signage;

electric vehicle charging stations; energy-efficient lighting; and safe pedestrian circulation elements. In addition, a refuse management area is planned that includes design features to minimize illicit discharges. Finally, feasibility of designing the lot as a weekend event space and resource for the community and local businesses will be evaluated. The two-block distance from this lot to a commuter rail line increases its viability as a community asset. Project construction would consist of demolition of some existing pavement; soil excavation and off-hauling; storm drain connection; striping and pavement marking; electrical work for lighting; and installation of bike parking, GSI and the irrigation system.

The second Project site will be Bowers Park parking lot in Santa Clara. Bowers Park is located near the Youth Activity and Teen Center, Bowers Elementary School, and Cabrillo Middle School, which make this GSI Project a viable candidate for a watershed education program with the local schools. Schools had been identified to be of moderate trash generation level. Activities include design and construction of the parking lot retrofit and improvements to an access driveway. Project construction is planned to involve removal of existing pavement; regrading; soil excavation and off-hauling; utility relocation; installation of bioretention areas, plantings and irrigation system; curb and wheel stops; interpretive signage; and safe pedestrian circulation elements.

Finally, SFEI will conduct water quality monitoring at each parking lot site to assess water quality outcomes per a monitoring plan and statement of procedures. Water quality will be monitored at inflows of each parking lot during two wet seasons after construction is complete, providing data on water quality runoff into the bioretention units, allowing analysis of bioretention effectiveness. Following the methods developed in the El Cerrito bioretention study previously mentioned, soil profile coring will be conducted at both sites after construction and after water quality monitoring of the inlets. Soil profile coring provides the necessary information to estimate mass capture in bioretention units as well as provides important information about maintenance requirements. At the Santa Clara lot, since it is anticipated that there will be a water quality improvement associated with pavement replacement, data will be collected before the retrofit from storm drain inlets and compared to samples taken at the inlet after the retrofit is completed. This will allow for not only an estimate of performance of the bioretention cells but also an estimate of mass reduced from the pavement replacement. The data collected will be quality assured, submitted to California Environmental Data Exchange network statewide database (CEDEN) and interpreted in the context of the other performance studies so far completed in the Bay Area. Additionally, SFEI will train city staff in procedures to ensure long-term monitoring continues.

**Deliverables:**

- Final Design
- As-built plans
- Photographic documentation of Project progression
- Monitoring Plan
- Quality Assurance Project Plan
- Documentation of water quality results

## Task 2: Guidebook for Greener Parking Facility Design

**Implementing Agency:** Palo Alto (lead), partnering with SCVURPPP, Santa Clara, SFEI, County of Santa Clara, Grassroots Ecology (Grassroots), and San Jose Conservation Corps (SJCC)

**Description:** Palo Alto and partners will develop the Guidebook for Greener Parking Facility Design (Guidebook), which will include resources and lessons learned that could be applied to other parking lots throughout the Bay Area and California. The Guidebook will contain parking lot GSI design elements and guidelines; description and methods for quantifying benefits of sustainable features; model guidelines and policies; and documentation of the two retrofit pilots. Documentation will include design details, maintenance and capital costs, estimated life cycle costs, water quality outcomes, multiple benefits provided, cost-benefit analysis, and lessons learned. The Guidebook will also include evaluation of the installation and maintenance feasibility (by staff, contractors and participating partners) of available products and vendors. SFEI will serve as an advisor regarding the monitoring component and will analyze results. Grassroots Ecology, a location habitat restoration organization, will serve as an advisor regarding native plant selection, installation and maintenance, and SJCC, a local organization focusing on teaching soft skills and outdoor career skills to members of disadvantaged communities, will provide feedback regarding the feasibility of maintenance by its crews.

**Deliverables:**

- Guidebook document and as fact sheet (electronic format for posting and dissemination and limited printed copies)

## Task 3: GSI Maintenance Training and GSI Maintenance Work Force Program Framework (Framework)

**Implementing Agency:** Palo Alto (lead), partnering with SCVURPPP, Santa Clara, County of Santa Clara, Grassroots, and SJCC

**Description:** Both cities use two different models of GSI maintenance (Palo Alto using a contractor and Santa Clara using staff); however, neither current framework allows maintenance of GSI measures at optimal levels, as GSI maintenance requires more labor-intensive techniques and different expertise than traditional landscape maintenance. An advisory committee of local municipalities,

local workforce development organizations and other interested stakeholders will evaluate existing GSI maintenance training programs and models in North America, select a program to test during this Project period, and investigate the feasibility of creating a regional workforce training program for maintenance of GSI measures. The cities will then host a training program/organization, and attendees would be able take an exam to pass the training and obtain a certification in GSI Maintenance, if feasible.

All training program participants will take pre- and post-surveys to evaluate GSI knowledge and understanding, which the advisory committee will use in its evaluation of effectiveness of the effort. Staff from both Cities will also evaluate the work conducted to determine if appropriate practices and skills are taught through the training program and how they are subsequently applied at the retrofitted sites. At the same time, the Committee will assess available workforce development programs focusing on GSI maintenance to determine a Framework for the Bay Area and which organizations and stakeholders should be involved in program development. At the end of the Project period, partners will be clear about next steps and will have planned how to move forward with the Framework in hand.

**Deliverables:**

- Copies of training materials and curriculum
- Final Report, including lessons learned and documentation of evaluation (hard copy and in electronic format for posting and dissemination)

**Task 4: Community Engagement and Education**

**Implementing Agency:** Palo Alto (lead), partnering with SCVURPPP, Santa Clara, SFEI, County of Santa Clara, Grassroots Ecology (Grassroots), and San Jose Conservation Corps (SJCC)

**Description:** This task will include community engagement and education efforts, both in the classroom and field, for various ages by Palo Alto, Santa Clara, Grassroots, and SJCC.

During design of the Lot A retrofits, Palo Alto plans to conduct a community engagement process to solicit and incorporate input from residents and businesses located in the Downtown district. This process will include introducing the Project concept to the Downtown Business Improvement District and Chamber of Commerce; door-to-door outreach to nearby businesses; a minimum of three public meetings; discussions with nearby businesses to solicit input and provide education on stormwater pollution and refuse management; and a drop-in information table at the parking lot. In addition, staff will provide updates to the City's Stormwater Management Oversight Committee (which oversees use of funds from Palo Alto's Stormwater Management Fee) and Parks and Recreation Commission as well as City Council. During design of the Bowers Park parking lot, Santa Clara expects to conduct a community engagement process to solicit and incorporate input from stakeholders, which will include public meetings and outreach to park users.

In Santa Clara, Grassroots will conduct public outreach to the neighboring schools to provide hands-on service-learning projects. Over a period of two years, Grassroots will work with 10 classes conducting activities that may include students learning about stormwater pollution, planting of native plants, and pollinator observations. Furthermore, Grassroots will lead on-site training days on GSI maintenance with a crew of SJCC and Santa Clara staff.

Palo Alto and Grassroots will hold annual community educational workshops about stormwater quality, pollution prevention, GSI, and native plants and a monitoring educational event at the Project site, where SFEI will give a demonstration of water quality data collection. Staff will join Grassroots to provide classroom presentations at the SJCC Charter High School and will also hold a career panel with guest speakers from various stormwater management fields at the SJCC campus.

**Deliverables:**

- Copies of outreach and educational materials (electronic format for posting and dissemination and limited hard copies)
- Copies of presentation materials (electronic format for posting and dissemination and limited hard copies)
- Documentation of outreach event advertisements

**4. Resiliency**

Climate change is expected to affect the Bay Area in many ways, including an increase in dry and wet extremes, more intense winter storms, and increases in annual maximum temperature. The Parking Lot Retrofits task will reduce impervious surface area and facilitate infiltration of stormwater. Trash, sediment, metals, PCBs, and microplastics, which harm downstream ecosystems, will be captured, increasing the Bay ecosystem's resilience to climate change stressors.

GSI measures such as trees with soil cells will be installed to allow greater root growth, and therefore, increase shade for the area. The retrofits will reduce these urban heat island impacts, which are expected to be exacerbated by climate change. Task 1 will also

include landscaping with drought-tolerant native plants, which will reduce the water needs of the site compared to existing landscaping. Climate change impacts on California's water supply are expected to be significant and will be exacerbated by more frequent and intense drought events. Through use of carefully selected plant species, the retrofits will help reduce outdoor water demands on the site and preserve limited water supplies for essential household uses. In terms of energy use, the Project will install energy-efficient lighting to reduce electricity demands and the associated carbon footprint. Electric vehicle charging stations will be installed, which are each estimated to reduce emissions by 2.75 metric tons of CO<sub>2</sub> equivalent per year. The parking lots will also include bike parking in order to encourage biking, which will reduce travel-related emissions.

The Project will also develop reference materials and programs that will facilitate construction and maintenance of GSI projects in the Bay Area, California, and potentially nationwide, and ensure associated resiliency benefits are maintained into the future. Community and institutional support are key to successful GSI implementation. Through multiple Program components (Guidebook, Framework, and Community Engagement and Education), Palo Alto and partners will develop tools that other agencies can use to streamline implementation of their own GSI projects. Palo Alto will also conduct extensive community outreach to educate the public on GSI benefits and garner support for GSI projects. Palo Alto citizens are particularly engaged in public projects, so community education about GSI will help smooth the way for construction of future projects. This will benefit land use planning in the cities by promoting future GSI projects which will improve watershed management.

## 5. Timeline

The following timeline assumes a Project award date of September 1, 2020 and a period of four years. Preliminary concept planning has been conducted, though site visits were limited due to the Coronavirus pandemic. A design consultant will need to be selected in order to conduct site visits and create a detailed design. The design process will be adapted in each city to meet community needs and culture. In Palo Alto, a comprehensive public input process will be conducted, which may result in the two retrofits not being aligned during the construction process. However, every attempt will be made to carry out the bid process for both retrofits in a coordinated manner to support costs efficiency. In both cities, local city officials, residents, and businesses are aware of these Project locations through respective GSI Plans, which were completed in September 2019. In addition, both cities have confirmed the 50% matches (see attached grant project form from Palo Alto and letter of support from Santa Clara), and based on this information, the Project has a high likelihood of implementation.

### Task 1: Parking Lot Retrofits

- Parking Lot Retrofit (approximate schedule for both cities)
  - o Design:
    - RFP preparation, including site visits, and City Council approval: September 2020 – November 2020
    - Purchasing process to post RFP: November 2020 – January 2021
    - RFP and Consultant Selection for Design: January – February 2021
    - Retrofit Design, including internal review and public process: March 2021 – September 2021
  - o Construction:
    - Bid Preparation and Advertisement: October - November 2021
    - Contract Award and Contracting, including City Council Approval: December 2021 – February 2022
    - Project Permitting and Construction: March – October 2022
  - o Monitoring, pre and post-construction: November 2021 – March 2024 (pre-construction sampling in Santa Clara)

### Task 2: Guidebook for Greener Parking Facility Design

- Gather Committee: January 2021
- Committee Meetings: March 2021 – March 2023
- Develop Guidebook Outline: May 2021 – August 2021 & Committee Review: August – September 2021
- Develop 1<sup>st</sup> Draft of Guidebook: October 2021 – April 2022 & Committee Review: May - June 2022
- Develop 2<sup>nd</sup> Draft of Guidebook: July – December 2022 & Committee Review: January – June 2023
- Finalize Guidebook: May 2024 (to allow for monitoring results)
- Presentations to City Committees/Commissions: November 2023 – February 2024
- Presentation at CASQA or other water quality conference: Approximately Fall 2024 (if CASQA) or to be determined

### Task 3: GSI Maintenance Training and GSI Maintenance Work Force Program Framework

- Gather Committee: September 2020



- Committee Meetings: October 2020 – October 2023
- Evaluate and Select GSI Maintenance Training Program: January 2021 – May 2021
- Training Conducted: Summer 2021
- Evaluate GSI Maintenance Work Force Programs: June 2021 – June 2022
- Develop Framework for South Bay/Bay Area program: July 2022 – December 2022
- Draft Final Report: January 2023 – June 2023
- Presentations to City Committees/Commissions: September – October 2023
- Presentation at CASQA or other water quality conference: Approximately Fall 2023 (if CASQA) or to be determined

#### Task 4: Community Engagement and Education

- Conduct community presentations and outreach: September 2020 - September 2023
- Conduct community educational workshops: September 2021 – September 2023
- Conduct community events to replant bioretention areas: September 2021 – September 2023

### 6. Comprehensive Conservation and Management Plan

The Project's contribution to the San Francisco Estuary Partnership's Comprehensive Conservation and Management Plan (CCMP) Objectives and Actions is summarized in the following table.

| Objective/<br>Action | Description of Implementation                                                                                       |
|----------------------|---------------------------------------------------------------------------------------------------------------------|
| Obj. A               | Project will reduce impervious surface area to reduce pollutant loading from runoff.                                |
| Obj. B               | Project will reduce pollutant loading to the Bay, thereby protecting the natural community.                         |
| Obj. C               | Project will include monitoring to assess efficacy of parking lot retrofits and track benefits.                     |
| Obj. G               | Project will improve flow patterns by adding pervious pavement to reduce surface runoff.                            |
| Obj. H               | Project will reduce transport of pollutants from urban environments to natural communities.                         |
| Obj. I               | Project will educate and engage public at numerous educational meetings and events.                                 |
| Obj. J               | Project will engage stormwater practitioners across agencies and governing bodies.                                  |
| Obj. K               | Project will coordinate among agencies to produce resources that will streamline implementation of future projects. |
| Action 18            | Project will slow and infiltrate urban runoff.                                                                      |
| Action 21            | Project will replace existing landscaping with native drought-tolerant vegetation.                                  |
| Action 24            | Project will construct LID retrofits at existing parking lots.                                                      |

### 7. Outputs and Outcomes

The following table summarizes outputs and outcomes resulting from implementation of the Project.

| Outputs & Outcomes Summary Table                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OUTPUTS (activity, effort, and/or work product during project period)                                                                                                                                                                                                               | OUTCOMES (quantitative environmental results)                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                     | SHORT-TERM (1-5YRS)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | LONG-TERM (5-20+YRS)                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Task 1: Parking Lot Retrofits</b><br><b>Activity:</b> Design and retrofit two priority parking lots with GSI, implementing bioretention areas, potentially pervious pavement, tree plantings and refuse containers.<br><b>Work Product:</b> Two (2) GSI retrofitted parking lots | <ul style="list-style-type: none"> <li>• Treat surface water from 23,100 ft<sup>2</sup> of impervious parking lot prior to discharge to storm drains that drain to the Bay</li> <li>• 4-20 mg/year of PCBs, 6-25 mg/year of Hg, and 0.6-2.8 million particles per year of microplastics</li> <li>• Reduce heat islands/increase resiliency by planting trees as part of the project design and approximately retrofitting 14 trees with soil cells for improved root growth and additional shading</li> </ul> | <ul style="list-style-type: none"> <li>• Reduce pollutant loading to the Bay, including those associated with the variety of uses in Palo Alto parking lot</li> <li>• Reduce stormwater runoff, reduce urban temperatures, and increase carbon storage and rainfall interception</li> <li>• Continued support of the San Francisco Bay PCB and Mercury TMDLs</li> <li>• Reduce heat islands/increase resiliency</li> </ul> |

| Outputs & Outcomes Summary Table                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OUTPUTS (activity, effort, and/or work product during project period)                                                                                                                                                                                                                                                                                                                                    | OUTCOMES (quantitative environmental results)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                          | SHORT-TERM (1-5YRS)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LONG-TERM (5-20+YRS)                                                                                                                                                                                                                              |
| <b>Task 2: Guidebook for Greener Parking Facility Design</b><br><b>Activity:</b> Develop guidance for retrofitting parking lots<br><br><b>Work Product:</b> Guidebook posted online and disseminated via email distribution lists for widespread use                                                                                                                                                     | <ul style="list-style-type: none"> <li>• Posted to a minimum of 7 City and partner websites</li> <li>• Disseminated to Partner distribution lists, reaching &gt;1,000 residents and practitioners</li> <li>• Announced to cities' Facebook and Twitter pages</li> <li>• 6 Advisory Committee meetings</li> <li>• 50 hard copies disseminated to City Committee and Commission members and partners</li> <li>• Two presentations to regional groups and committees</li> <li>• One presentation at the California Stormwater Quality Association or other water quality conference</li> </ul>                                                                                                                      | <ul style="list-style-type: none"> <li>• Guidebook posted to partner websites</li> <li>• Guidebook replicated and used by other agencies.</li> </ul>                                                                                              |
| <b>Task 3: GSI Maintenance Training and GSI Maintenance Work Force Program Framework</b><br><b>Activity:</b> Develop a training program for GSI maintenance to ensure the GSI performs at optimal levels. Also develop a framework for a GSI work force development program<br><br><b>Work Product:</b> Training materials and curriculum for GSI maintenance, Report of maintenance workforce framework | <ul style="list-style-type: none"> <li>• 36 people trained from both Cities, Grassroots and SJCC</li> <li>• 36 people pass training exam and receive certification, where feasible</li> <li>• 216 volunteer hrs</li> <li>• 10 workdays for SJCC, 10-12 members each workday; for retrofitting parking lots</li> <li>• 16 bioretention areas replanted (approximately 5,200 SF), leveraged through Valley Water grant (also under Task 4)</li> <li>• 30 SJCC educated about GSI as well as stormwater management careers</li> <li>• Two presentations to regional groups and committees</li> <li>• One presentation at the California Stormwater Quality Association or other water quality conference</li> </ul> | <ul style="list-style-type: none"> <li>• Continued implementation of the GSI maintenance training program</li> <li>• Trained staff from both cities that will serve as maintenance leads and trainers for future staff and contractors</li> </ul> |
| <b>Task 4: Community Engagement and Education</b><br><b>Activity:</b> Conduct community engagement about stormwater quality and management, conduct watershed education outreach to students.<br><br><b>Work Product:</b> Outreach and educational materials, and community events to replant bioretention areas                                                                                         | <ul style="list-style-type: none"> <li>• 10 classes of students educated in classroom and at site over a period of 2 years</li> <li>• 600 volunteer hrs</li> <li>• 16 bioretention areas replanted (approximately 5,200 SF), leveraged through Valley Water grant (also under Task 3)</li> <li>• One bioretention area (approx. 1,700 SF in Bowers Park) planted.</li> </ul>                                                                                                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>• Ongoing community engagement in and support of GSI projects</li> <li>• Ongoing volunteer support to maintain bioretention areas</li> </ul>                                                               |

## 8. Metrics

Palo Alto staff will hold meetings on a quarterly basis (at minimum) with partners to ensure the Project is being conducted according to the timeline and will track all outcomes through a process of regular surveys and spreadsheets and document results and progress in quarterly reports to EPA and Project partners. The above described outputs will be accurately tracked and reported and are expected to provide beneficial outcomes that will both directly and indirectly improve environmental water quality in the short and long term. The following discussion provides a summary of the context, timeframe, and tracking that will be achieved to measure the outcomes described above.

### Task 1: Parking Lot Retrofits

**Context:** Task 1 is expected to provide surface water treatment, pollutant load reductions, reduction of heat islands, and increase resiliency in the quantities described above in the short- and long-term outcomes. Surface water treatment and pollutant load reductions will contribute towards achievement of the TMDLs over 20 years. Santa Clara County has pollutant load reduction requirements under the San Francisco Bay PCB and Mercury TMDLs and is mandated to meet set targets for capturing stormwater that will be supported through implementation of the Project. **Timeframe:** Parking lot GSI retrofits are expected to provide these outcomes over the long-term (20 years), particularly in combination with the maintenance training program to be developed under

Task 3 of this Project. **Tracking:** Stormwater monitoring program will be implemented, including a Quality Assurance Project Plan (QAPP), quarterly progress reports and CEDEN data uploads. Post-construction performance tracking will occur for three years after construction completion, with the first two years conducted during the grant period and the last fully supported by each city agency. Once the project performance has been evaluated, continued performance will be ensured through implementation of the maintenance training program described under Task 3 of this proposal. In addition, each retrofit will become part of each city's asset management program, which will ensure long-term maintenance and tracking of life cycle costs.

#### **Task 2: Guidebook for Greener Parking Facility Design**

**Context:** The Guidebook to be developed under Task 2 will provide valuable information for the sustainable design of parking facilities. This information will be made publicly available through posting on agency and organization websites and distributed electronically and in limited hard copies, which will be key to producing the outcomes listed above. **Timeframe:** The Guidebook is expected to provide these outcomes over the long term (20 years) and will be ensured through posting on multiple agency and organization websites. **Tracking:** Review and reporting by City of Palo Alto Stormwater Compliance Program Manager.

#### **Task 3: GSI Maintenance Training and GSI Maintenance Work Force Program Framework**

**Context:** Development of the Framework will allow for ongoing, effective maintenance of GSI constructed through this Project as well as other GSI in the Bay Area by trained professionals. Given that there are plans in place that identify priority areas for GSI implementation and that the Committee membership will be diverse to ensure meeting stakeholder(s) needs, it is expected that this Program will be used into the future to ensure long-term effectiveness of GSI. **Timeframe:** The training program and Framework are expected to provide these outcomes over the long term (20 years) as materials will be developed for public use, and will support GSI maintenance to be implemented through this Project and beyond this period, as well as other GSI in the Bay area that are already in place or will be developed. **Tracking:** Review and reporting by City of Palo Alto Stormwater Compliance Program Manager.

#### **Task 4: Community Engagement and Education**

**Context:** Community engagement and education will encourage community ownership of GSI projects as well as the larger idea of water quality in the Bay Area. By conducting outreach and education presentations as well as hosting community planting events, the outcomes described above will allow for both short-term and long-term public participation. **Timeframe:** Community engagement and education outcomes are expected to continue into the long term (20 years) as programs continue. **Tracking:** Review and reporting by Palo Alto Stormwater Compliance Program Manager.

## **9. Geographic Location**

The attached maps (see Attachment C) provide a City-wide overview for both Lot A and Bowers Park, as well as a parcel-view of each of the retrofit locations and proposed components.

## **10. Budget Detail**

The matching and grant requests for each Project task are shown in Table 1. The total match is 50%.

**Table 1: Budget Detail**

| Task                                           | Match              | Grant Request      | Total              |
|------------------------------------------------|--------------------|--------------------|--------------------|
| Task 1: Parking Lot Retrofits                  | \$629,483          | \$991,768          | \$1,621,251        |
| Task 2: Guidebook for Greener Parking Facility | \$272,633          | \$45,565           | \$318,198          |
| Task 3: GSI Maintenance Training & Framework   | \$133,357          | \$122,363          | \$255,720          |
| Task 4: Community Engagement and Education     | \$180,879          | \$56,655           | \$237,534          |
| <b>Total</b>                                   | <b>\$1,216,352</b> | <b>\$1,216,351</b> | <b>\$2,432,703</b> |

### **Task 1: Parking Lot Retrofits**

Parking lot construction costs were estimated by City engineering staff at Palo Alto and Santa Clara to include both design and construction. Palo Alto's parking lot retrofit estimated cost is \$764,423. This includes design and construction of all retrofit components, including demolition, excavation, offhauling, soil media, underdrain installation, irrigation, curb installation, utilities, trees, planting, and mulch. The total construction cost for the Santa Clara parking lot retrofits are estimated at \$471,185. Activities conducted

will include lot and driveway demolition and repaving, soil excavation and offhaul, soil media, irrigation, and curb and gutter replacement. A 10% contingency is included in the construction costs. GSI educational signage will be installed at both locations.

Personnel costs for the parking lot retrofits include 612 City of Palo Alto staff hrs (hrs) at a rate of \$106.11/hour (fully-loaded rate). This includes staff time for overall grant management and reporting progress (11 hrs per quarter for four years), contract management (16 hrs per quarter for four years), monitoring plan preparation (20 hrs), QAPP preparation (20 hrs), and a community monitoring event (time to prepare and conduct event, 60 hrs). Santa Clara would devote 360 hrs of staff time at a fully-loaded rate of \$155.77/hour for water quality monitoring and reporting activities (e.g., monitoring plan preparation, QAPP development, contract and grant management, and community monitoring event). Grassroots would assist with the community monitoring event (25 hrs at a fully-loaded rate of \$65/hour) hosting an estimated 14 volunteers at a value of \$30/hour. Consultant costs were estimated using a fully-loaded rate of \$220/hour. Over the 4-yr period, consultant time was estimated at 9 hrs/quarter for grant management and 6 hrs/quarter for contract management. The budget includes \$134,274 for support from San Francisco Estuary Institute for preparation of the monitoring plan and procedures, sampling training of City staff, sampling activities and final reporting. Lab analysis costs were estimated at \$74,220, based on typical testing rates and 16 sampling events. Costs for monitoring supplies were estimated at \$2,000.

### Task 2: Guidebook for Greener Parking Facility Design

Development of the Guidebook is expected to require 984 hrs of Palo Alto staff time (at \$106.11/hour), 135 hrs of SCVURPPP member time (estimated at \$220/hour), 480 hrs of Santa Clara staff time (at \$155.77/hour), 105 hrs of County of Santa Clara staff time, and 610 hrs from Project partners (includes staff from various SCVURPPP agencies and other organizations). 189 hrs of contract time (Grassroots and SJCC, each at \$65/hour) will be provided toward this task. This staff time will cover: gathering a Palo Alto advisory committee; 4 Palo Alto committee meetings; gathering a Project Advisory Committee; preparing for and conducting 6 Advisory Committee meetings; developing the Guidebook outline; committee and partner review of the outline; first and second drafts; preparation of the public draft Guidebook; dissemination of the Guidebook for public review; development of final Guidebook; partner and committee review of final Guidebook; design of final Guidebook; and preparation of hard copy Guidebooks.

Costs for mileage for meeting attendance are estimated at a total of \$86.25 (57.5 cents/mile, a total of 150 miles across all meetings). Costs for printing meeting materials, draft Guidebooks, and designing and printing the final Guidebook are estimated at \$8,250.

Contractor costs for this task include 24 hrs of consultant support at meetings (at \$220/hour), 40 hrs for the first draft Guidebook, 30 hrs for the second draft Guidebook, 30 hrs for the final Guidebook, and approximately 18 hrs to assist with design of the final Guidebook (including taking photos) in order to be able to share Project information broadly.

### Task 3: GSI Maintenance Training and Evaluation of Development of GSI Maintenance Work Force Program Framework

Development of the training program is expected to require 615 hrs of Palo Alto staff time (at \$106.11/ hour), 45 hrs of SCVURPPP member time (estimated at \$220/hour), 419 hrs of Santa Clara staff time (at \$155.77/ hour), 1,606 hrs of time from Project partners (Grassroots and SJCC, each at \$65/hour), and 216 hrs of volunteer time (at \$30/hour). This time will cover: research on existing programs and models; phone interviews/surveys; gathering an advisory group; preparing for and conducting four advisory group meetings; drafting a documentation manual; review of the draft manual by partners; preparation of final documentation manual; preparation for training events; training events; certification/completion exams; maintenance field training; and maintenance at retrofit sites. In addition, the following hours are leveraged by this grant beyond the 50% match, broken down as the following: 240 from Santa Clara, 120 from County of Santa Clara, 120 from Grassroots, and 240 from partners.

Costs for mileage for meeting attendance are estimated at a total of \$202.40 (57.5 cents/mile, a total of 352 miles across all meetings). A total of \$3,520 in consultant costs (16 hrs at \$220/hour) were included for attendance at committee meetings. Other costs total \$32,000; these include completion tests for 30 people, training supplies, and miscellaneous maintenance supplies for GSI sites. Palo Alto will cover the venue rental.

### Task 4: Community Engagement and Education

Community engagement and education activities under Task 4 are expected to require 951 hrs of Palo Alto staff time (at \$106.11/hour), 14 hrs of SCVURPPP member time (estimated at \$220/hour), 278 hrs of Santa Clara staff time (at \$155.77/hour), 507 hrs of time from Project partners (Grassroots and SJCC, each at \$65/hour), and 630 hrs of volunteer time (at \$30/hour). This time will cover: outreach to downtown businesses by the Palo Alto; preparing for and conducting six outreach meetings aimed at the business community; preparing for and conducting two indoor outreach meetings in Palo Alto; preparing for and conducting one onsite outreach meeting (to view GSI measures) in Palo Alto; preparing, distributing, and summarizing an online survey by Santa Clara; preparing for and conducting 12 meetings with the Storm Water Management Oversight Committee; presentation to commissions and City Councils

(for Palo Alto and Santa Clara); preparing for and conducting three community educational workshops; conducting watershed education in schools in Santa Clara; holding a drop-in info table near GSI measures; SJCC staff presentations to college students; and a career panel held by SJCC. The cost for training and maintenance field training (\$150,141) are excluded from the grant request and cost share, and will be considered additional leveraged funds.

Costs for mileage for meeting attendance are estimated at a total of \$101.20 (57.5 cents/mile, a total of 176 miles across all meetings). Costs for presentation materials and other supplies were estimated at a total of \$25,000. These include: production of hard copy meeting materials at various meetings; plant materials and planting supplies; and workshop materials.

## 11. Programmatic Capability and Past Performance History

Palo Alto's Public Works Department has entered into the following grant funding agreements in the past three years and successfully met all objectives:

- Caltrans, Highway Safety Improvement Program, HSIPL-5100(029), awarded \$946,170 for street maintenance and safety improvements.
  - o Met all Caltrans timelines including Field Review Meeting, Right of Way Certification, Plans, Specifications & Estimate (PS&E) submittal. Currently preparing construction contract in compliance with federal requirements and Local Assistance Procedures Manual (LAPM) guidance; construction estimated to begin in Fall 2020. Project is not yet constructed therefore information regarding progress on achieving expected outputs. Project is not expected to provide monitoring related to outcomes.
- Caltrans, One Bay Area Grant 2, STPL-5100(028), awarded \$1,009,000 for various street resurfacing projects.
  - o Met all Caltrans timelines including Field Review Meeting, Right of Way Certification, PS&E submittal. Currently preparing construction contract in compliance with federal requirements and LAPM guidance. Advertised for bids in early 2020. Project is not yet constructed (expected completion July 2020) therefore information regarding progress on meeting outputs is not available. Project is not expected to provide monitoring related to outcomes.
- Caltrans, One Bay Area Grant 2, CML-5100(027), awarded \$4,350,000 for construction of bicycle/pedestrian bridge over Highway 101.
  - o Advertised and awarded the project in accordance with the Caltrans LAPM, including obtaining necessary permit approvals from Caltrans before advertising the project (such as encroachment permit and E-76 "Authorization to Proceed"). Prepared construction contract in compliance with federal requirements and LAPM guidance. Obtained approval from Caltrans on the Source Inspection Quality Assurance Plan, a requirement of the encroachment permit. Conducted project administration and document control following Caltrans Construction Manual and LAPM guidelines. Project is not yet constructed (expected completion Summer 2021) therefore information regarding progress on achieving expected outputs is not available. Project is not expected to provide monitoring related to outcomes.
- CalRecycle, Rubberized Pavement Grant Program, TRP9-17-0065, awarded \$125,300 for repaving using rubberized asphalt.
  - o This is the City's fourth rubberized asphalt grant from CalRecycle. Prepared technical specifications in accordance with CalRecycle material requirements, met grant deadlines, including progress reporting, payment request, and final report. Output of project (to repave using rubberized asphalt) was completed and reported, as required. Project is not expected to provide monitoring related to outcomes.
- Federal Aviation Administration, Apron Reconstruction Project, 3-06-0182-014-2018, awarded \$11,049,587 for reconstructing apron at the airport, including laying conduit for future solar projects to bring the airport up to current FAA standards and regulations.
  - o Project is underway and has thus far met all required timelines.

As demonstrated above, the City has a proven track record of completing grant-funded project activities on schedule, within budget, and in compliance with necessary requirements.

### Organizational Experience

Palo Alto has extensive experience successfully completing Public Works projects, ranging from multimillion-dollar projects such as the Mitchell Park Library and Community Center to smaller efforts such as various sidewalk safety improvement projects. The City has organizational structures in place that ensure successful project implementation. For example, the City's Storm Water

Management Oversight Committee oversees the expenditure of its stormwater fee to ensure that projects completed with these funds achieve the intended outcomes. Palo Alto staff regularly provide project updates to this Committee. The Palo Alto Watershed Protection Group (WPG) has significant experience meeting regulatory deadlines such as those required by the MRP and has submitted all annual reports and regulatory products on time. Palo Alto staff will hold meetings on a quarterly basis (at minimum) with partners to ensure the Project is being conducted according to the timeline and will track all outcomes through a process of regular surveys and spreadsheets. Staff will also test the use of time tracking using an accounting software system and will work closely with financial management staff to ensure an appropriate and accountable process is in place for invoice and payment management. Furthermore, staff will be providing Project updates over the Project period to senior management and City Commissions. Finally, Palo Alto and Santa Clara staff will closely oversee both the design and construction consultants and hold them to their scope of work and budget as well as any contractual requirements.

Along with 13 other agencies that discharge stormwater to the lower South San Francisco Bay, both Cities of Palo Alto and Santa Clara are members of SCVURPPP, an association in Santa Clara Valley supported by significant agency fees. The SCVURPPP Management Committee, consisting of one designated representative and one alternate from each member agency, meets monthly to discuss and make decisions regarding SCVURPPP business. Member agencies jointly fund SCVURPPP program management and work tasks, as established in annual work plans, per the cost-sharing formula in the MOA. As SCVURPPP is a Project partner and provided a grant match, the association member agencies will also hold the Cities accountable.

### Staff Experience

The Project will be overseen by WPG in Public Works' Environmental Services Division, which is managed by Karin North, who has 20 plus years in the environmental field (most of them at Palo Alto) and specializes in environmental regulations that impact wastewater, stormwater, recycled water and air emissions. The primary lead will be Pam Boyle Rodriguez, Stormwater Compliance Program Manager, who has been with Palo Alto for over three years and has over 15 years of proven success in implementing, evaluating, and overseeing stormwater compliance, water quality improvement, pollution prevention, and watershed restoration programs, including eight years supporting and ensuring that Bay Area municipalities meet stormwater regulatory requirements. They will be supported by Isabel Zacharczuk, who has five years of stormwater and environmental compliance experience and became a Certified Professional in Stormwater Quality in late 2019, and Jamie Perez, the WPG's Management Analyst, who has over three years of experience in citywide budget development and administration, revenue and expense tracking, and analyzing financial impacts. This team has an in-depth understanding of report writing, reporting requirements, progress reporting, invoicing, and contract management. Finally, additional staff from the GSI inspection and maintenance, outreach and administrative groups will also provide support.

WPG has developed strong working relationships with Palo Alto staff across the Public Works, Transportation, and Community Services Departments, who will provide a depth of experience through their Committee involvement and are available to provide support as needed.

## 12. Expenditure of Awarded Grant Funds

The Palo Alto Project lead, with support from staff, will be responsible for ensuring that the awarded grant funds are expended efficiently and on schedule and EPA and other federal requirements are met (including 2CFR Part 200). The City has experience with reviewing construction plans and documents, project and consultant management, as well as with public engagement projects and partnerships similar to those that will be included in the Project. The project lead will conduct regular schedule and budget tracking to assess project progress against a baseline schedule and will take steps to correct any issues that arise. In addition, a Project advisory committee will meet regularly to assess progress toward achieving the objectives and ensure that the grant scope is completed on schedule and on budget. The Management Analyst oversees all expenditures and ensures that City procedures are followed, which are in place to process and pay invoices, track matching funds, and track spending of grant funds. City staff will also track time spent on the Project, including notes on work conducted, to track in-kind match. Staff will meet regularly with the Management Analyst to ensure compliance with City procedures. Staff will also report expenditures to the City's Accounting department for grant tracking purposes. The City has also demonstrated its commitment to providing matching funds as shown on the City's Grant Funding Request Form, which is included as Attachment A.

## 13. Partnerships

Partnerships are a central element of each activity in the Project. Palo Alto will partner with other agencies and nonprofit organizations to ensure full collaboration, create work products based on a wealth of diverse expertise to be used regionally and potentially nationwide, and obtain buy-in from stakeholders. See Attachment B for 11 letters of support from Project partners and stakeholders.



The matrix below showcases each member and expertise as well as primary roles.

|                                                                                       | PROJECT PARTNERSHIP MATRIX                                                                             |                                                                                   |                                                                                            |                                                                                     |                                                                                             |                                                                                      |                                                                              |
|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
|                                                                                       | City of Palo Alto<br>Project lead, grant &<br>contract manager                                         | City of Santa Clara<br>Project lead,<br>Stormwater<br>Compliance Expertise        | SCVURPPP<br>Municipalities<br>Convener &<br>Stormwater<br>Compliance Expertise             | County of Santa Clara<br>Project experience &<br>Stormwater<br>Compliance Expertise | Grassroots<br>Native Plant Expertise,<br>Volunteer Recruitment<br>& GSI Maintenance<br>Lead | SJCC<br>Opportunity Maker for<br>Disadvantaged Youth<br>& GSI Maintenance<br>Support | SFEI<br>Water Quality<br>Expertise & Monitoring                              |
| <u>Task 1:</u><br>Parking Lot<br>Retrofits                                            | X<br>(Manage<br>design &<br>construction<br>consultant and<br>project)                                 | X<br>(Manage<br>design &<br>construction<br>consultant and<br>project)            | X<br>(Concept<br>advisor,<br>Committee<br>member)                                          |                                                                                     |                                                                                             |                                                                                      | X<br>(Monitoring<br>Plan, QAPP,<br>Samples)                                  |
| <u>Task 2:</u><br>Guidebook for<br>Greener<br>Parking<br>Facility Design              | X<br>(Co-Manage<br>Guidebook<br>Dev.,<br>Committee<br>Convener and<br>Facilitator)                     | X<br>(Support<br>Guidebook<br>Dev.,<br>Committee<br>Member)                       | X<br>(Co-Manage<br>Guidebook<br>Dev.,<br>Committee<br>Member)                              | X<br>(Support<br>Guidebook<br>Dev.,<br>Committee<br>Member)                         | X<br>(Develop<br>Vegetation<br>Guidebook<br>Section,<br>Committee<br>Member)                | X<br>(Support<br>Guidebook<br>Dev.,<br>Committee<br>Member)                          | X<br>(Develop<br>Monitoring<br>Guidebook<br>Section,<br>Committee<br>Member) |
| <u>Task 3:</u> GSI<br>Maintenance<br>Training &<br>Work Force<br>Program<br>Framework | X<br>(Co-Manage<br>Evaluation and<br>Training<br>Program,<br>Committee<br>Convener and<br>Facilitator) | X<br>(Co-Manage<br>Evaluation and<br>Training<br>Program,<br>Committee<br>Member) | X<br>(Support<br>Evaluation,<br>Committee<br>Member)                                       | X<br>(Support<br>Evaluation,<br>Committee<br>Member)                                | X<br>(GSI Maint.<br>Lead,<br>Committee<br>Member)                                           | X<br>(GSI Maint.<br>Support,<br>Support<br>Evaluation,<br>Committee<br>Member)       |                                                                              |
| <u>Task 4:</u><br>Community<br>Engagement<br>and Education                            | X<br>(Manage<br>Engagement<br>Process and<br>Activities in<br>Palo Alto)                               | X<br>(Manage<br>Engagement<br>Process and<br>Activities in<br>Santa Clara)        | X<br>(Support<br>Community<br>Engagement<br>Process and<br>SJCC<br>Education<br>Component) | X<br>(Support SJCC<br>Education<br>Component)                                       | X<br>(Lead<br>Community<br>Activities and<br>SJCC<br>Education<br>Component)                | X<br>(SJCC Lead<br>and Support<br>Community<br>Activities)                           | X<br>(Support<br>Community<br>Activities)                                    |

<sup>1</sup> <https://www.sfei.org/projects/microplastics>

<sup>2</sup> [https://www.sfei.org/sites/default/files/biblio\\_files/EI%20Cerrito%20Report%20FINAL\\_0.pdf](https://www.sfei.org/sites/default/files/biblio_files/EI%20Cerrito%20Report%20FINAL_0.pdf)

<sup>3</sup> GSI Plans are posted on each city website.

<sup>4</sup> <http://cityofpaloalto.org/gsi>

<sup>5</sup> <https://scvurppp.org/swrp/docs-maps/>

<sup>6</sup> Gilbreath et al. 2019. Multi-year water quality performance and mass accumulation of PCBs, mercury, methylmercury, copper and microplastics in a bioretention rain garden. *Journal of Sustainable Water in the Built Environment* 5 (4). Editor's Choice November 2019-January 2020. Leatherbarrow, et al.2015. Removal Efficiencies of a Bioretention System for Trace Metals, PCBs, PAHs, and Dioxins in a Semi-arid Environment. *Journal of Environmental Engineering*, 141(6) (June).

**AGREEMENT  
BETWEEN THE CITY OF PALO ALTO AND  
THE CITY OF SANTA CLARA  
FOR THE  
GREENING PARKING FACILITIES FOR SUSTAINABLE COMMUNITIES GRANT  
PROJECT**

THIS AGREEMENT, is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2022, (“Effective Date”), between the City of Palo Alto, a Chartered California municipal corporation of the State of California, referred to herein as “PALO ALTO”, and the City of Santa Clara, a Chartered California municipal corporation referred to herein as “SANTA CLARA”. PALO ALTO and SANTA CLARA may be referred to individually as a “Party” or collectively as the “Parties” or the “Parties to this Agreement.”

**RECITALS**

1. PALO ALTO submitted a grant application with several partners, including SANTA CLARA, called The Greening Parking Facilities for a Sustainable Community: Design, Maintenance, Water Quality Benefits and Workforce Development (“GRANT PROJECT”) to the U.S. Environmental Protection Agency Region 9 (U.S. EPA) for the San Francisco Bay Water Quality Improvement Fund (SFBWQIF) in Fiscal Year 2020.
2. The GRANT PROJECT was selected as an FY 2021 SFBWQIF grant recipient and received U.S. EPA funding of \$1,216,351 with a 50-percent match from recipients as memorialized by an award agreement executed between U.S. EPA and PALO ALTO (Exhibit A).
3. PALO ALTO is acting as the lead agency and administrator for the GRANT PROJECT and will process all invoices and provide grant fund reimbursement for co-grantees, including SANTA CLARA. A grant amount of three hundred thirty-two thousand and three hundred fifty-two dollars (\$332,902) shall be disbursed to SANTA CLARA during the GRANT PROJECT period ending March 2026.
4. PALO ALTO and SANTA CLARA shall complete tasks in accordance with the U.S. EPA Grant Agreement #W9-98T20101-0 CFDA 66.126 (GRANT PROJECT). The scope of the GRANT PROJECT includes retrofits of two existing parking lots in PALO ALTO and SANTA CLARA (one in each city jurisdiction), the development of a Guidebook for Greener Parking Facility Design based on lessons learned, establishment of a certified workforce training framework for Green Stormwater Infrastructure (GSI) maintenance, and implementation of community outreach opportunities associated with the project sites (Exhibit C).
5. The City of Santa Clara’s Bowers Park Parking Lot Rehabilitation Project (herein shall be referred to as the “PROJECT”) will support the GRANT PROJECT’s water quality objectives, engage the public and strengthen interagency collaboration.
6. PALO ALTO and SANTA CLARA recognize that there is a local cost-share requirement of the grant and there may be expenses that are not eligible for the grant reimbursement. PALO



ALTO and SANTA CLARA shall pay for all costs of their respective projects not paid by the grant as specified in this AGREEMENT.

## SECTION I

### **SANTA CLARA AGREES:**

1. To complete all required tasks, as identified in Exhibit C, by the Grant Agreement deadline and adhere to U.S. EPA's terms and conditions.
2. Per U.S. EPA requirements, to provide PALO ALTO with Quarterly Reports two weeks before the report due date. Quarterly Reporting schedule is as follows:
 

|                         |                          |
|-------------------------|--------------------------|
| October 1 – December 31 | report due by January 30 |
| January 1 – March 31    | report due by April 30   |
| April 1 – June 30       | report due by July 31    |
| July 1 – September 30   | report due by October 31 |

Quarterly Report shall, at a minimum, include a project description, list of issues requiring U.S. EPA's attention, summary of tasks completed and in progress, milestones achieved, deliverables completed, and a summary of budget spent and remaining.

3. To provide PALO ALTO with quarterly invoices and supporting documents in accordance with procurement policies of SANTA CLARA and PALO ALTO. SANTA CLARA shall be reimbursed with grant funds throughout the PROJECT for a total amount not to exceed three hundred thirty-two thousand and three hundred fifty-two dollars (\$332,902).
4. To provide an in-kind match of \$452,447, of which a minimum of \$131,783 shall be directed to the SANTA CLARA parking lot retrofit by SANTA CLARA.
5. SANTA CLARA shall be paid for quarterly invoices within 30 days of receipt of reimbursement from U.S. EPA by PALO ALTO. Additional costs beyond specified in this section shall be handled per Section III, Paragraph 3 of this AGREEMENT.
6. To pay all PROJECT costs not paid by the GRANT PROJECT incurred within SANTA CLARA jurisdiction and for the benefit of SANTA CLARA.

## SECTION II

### **PALO ALTO AGREES:**

1. To administer the GRANT PROJECT in accordance to the terms and conditions set by the Award Agreement with U.S. EPA, serve as primary contact to U.S. EPA, and provide appropriate coordination with partners, including SANTA CLARA.
2. To ensure all GRANT PROJECT products are developed within submitted project schedule and coordinate task implementation with SANTA CLARA as needed.

3. To compile and submit quarterly and annual progress reports of the GRANT PROJECT on behalf of SANTA CLARA and co-grantees.
4. To process requests for reimbursement for the grant funds for PROJECT expenditures and provide a quarterly accounting of the grant disbursements and cost share under this AGREEMENT. PALO ALTO shall pay SANTA CLARA for quarterly reports and invoices in arrears and within 30 days of receipt of reimbursements from U.S. EPA. Additional costs beyond specified in this section shall be handled per Section III, Paragraph 3 of this AGREEMENT.
5. To manage and secure all approvals needed to proceed with the GRANT PROJECT as required by the award agreement.
6. To submit a final report of expenditures to U.S. EPA and share it with co-grantees including SANTA CLARA within 120 days after completion of all work associated with the GRANT PROJECT.
7. To use its best efforts to complete the GRANT PROJECT within the grant specified deadlines, or any officially approved sequential extension thereof.

### **SECTION III**

#### **IT IS MUTUALLY AGREED:**

1. PALO ALTO is the lead agency for the GRANT PROJECT, and upon execution of this AGREEMENT, will meet with SANTA CLARA staff or designee in order to maintain close coordination and interaction between the agencies throughout PROJECT development.
2. In accomplishing PALO ALTO responsibilities, PALO ALTO may retain consultants, to perform all aspects of the GRANT PROJECT including, but not necessarily limited to water quality monitoring, guidebook development, workforce training, public outreach, and management for the GRANT PROJECT as PALO ALTO determines to be necessary. PALO ALTO agrees to coordinate communication with SANTA CLARA regarding consultant selection.
3. SANTA CLARA and PALO ALTO shall not be required to pay, other than the contributions for their respective PROJECTs, with their own funds any costs incurred in carrying out the duties outlined in this AGREEMENT. SANTA CLARA and PALO ALTO shall not perform any work beyond the amount of funds provided in the last approved GRANT PROJECT estimate until an amendment to this AGREEMENT is executed adding funds to cover the current GRANT PROJECT cost estimate. The Parties shall meet and confer if change order(s) is/are required that affect the schedule and division or allocation of joint funding for the GRANT PROJECT which require an amendment(s) to this AGREEMENT.
4. Both PALO ALTO and SANTA CLARA agree to prioritize the completion of their respective

parking lot retrofit improvements. Reallocation of grant funds from other non-construction tasks will be discussed among and agreed upon by PALO ALTO, SANTA CLARA and co-grantees if considered necessary by all grantees.

5. In the event that the GRANT PROJECT does not proceed, PALO ALTO and SANTA CLARA agree not to proceed with the GRANT PROJECT and their respective PROJECTS. In this case, PALO ALTO and SANTA CLARA will meet to determine further course of action.
6. U.S. EPA reserves the right to audit the expenses incurred in the performance of this AGREEMENT. PALO ALTO and SANTA CLARA shall retain all records related to the GRANT PROJECT for three (3) years after its completion. During this period, PALO ALTO and SANTA CLARA shall make these records available to each Party or its agent for inspection within ten (10) working days upon a written request.
7. The Public Works Director of PALO ALTO or his designee is hereby made the representative of PALO ALTO for all purposes under this AGREEMENT.
8. The Public Works Director of SANTA CLARA or his designee is hereby made the representative of SANTA CLARA for all purposes under this AGREEMENT.
9. SANTA CLARA and PALO ALTO will be responsible for maintaining their respective PROJECTS once constructed.
10. In lieu of Government Code 895.6 which might be imposed between the Parties pursuant to Government Code Section 895.6, the Parties agree that all losses or liabilities incurred shall not be shared pro rata but instead the Parties agree that pursuant to Government Code Section 895.4, each of the Parties hereto shall fully indemnify, defend and hold the other Party, its officers, employees and agents, harmless from any damage or liability imposed for injury (as defined in Government Code Section 810.8) occurring by reason of the negligent acts or omissions or willful misconduct of the indemnifying Party, its officers, employees or agents, under or in connection with any work, authority or jurisdiction delegated to such Party under this AGREEMENT. Neither Party, nor any officers, employees or agents, under or in connection with any work, authority or jurisdiction are delegated to such other Party under this AGREEMENT.
11. The failure of either Party to insist upon the strict performance of any of the terms, covenant and conditions of this AGREEMENT shall not be deemed a waiver of their right to require strict performance of all of the terms, covenants, and conditions thereafter.
12. Any notice required to be given by either Party, or which either Party may wish to give, shall be in writing and served either by personal delivery or sent by certified or registered mail, postage prepaid, addressed as follows:

**TO PALO ALTO:**

Brad Eggleston, Director of Public Works  
 City of Palo Alto, Public Works Department  
 250 Hamilton Avenue  
 Palo Alto, CA 94301

**TO SANTA CLARA:**

Craig Mobeck, Director of Public Works  
 City of Santa Clara, Public Works Department  
 1500 Warburton Avenue  
 Santa Clara, CA 95050

13. If a question arises regarding interpretation of this AGREEMENT or its performance, or the alleged failure of a Party to perform, the Party raising the question or making the allegation shall give written notice thereof to the other Party. The Parties shall promptly meet in an effort to resolve the issues. If the Parties fail to resolve the issues raised, alternative forms of dispute resolution, including mediation or binding arbitration, may be pursued by mutual agreement. It is the express intent of the Parties that litigation be avoided as a method of dispute resolution.
14. This AGREEMENT constitutes the entire AGREEMENT between the Parties pertaining to the subject matter contained therein and supersedes all prior or contemporaneous agreements, representations and understandings of the Parties relative thereto.
15. Future amendments to this AGREEMENT shall be processed by mutual agreement of the Parties. Mutual consent shall be reached through negotiations. Notice to amend this AGREEMENT shall be provided thirty (30) calendar days prior to the desired effective date of such amendment.
16. This AGREEMENT shall be effective until the completion of the one-year warranty following the completion and acceptance of the GRANT PROJECT.

**WITNESS THE EXECUTION HEREOF** the day and year first hereinabove set forth.

“SANTA CLARA”  
 City of Santa Clara  
 a municipal corporation

By: \_\_\_\_\_  
 Rajeev Batra  
 Interim City Manager

“PALO ALTO”  
 City of Palo Alto  
 a municipal corporation

By: \_\_\_\_\_  
 Ed Shikada  
 City Manager

Attest:

APPROVED AS TO FORM:

By: \_\_\_\_\_

City Clerk

By: \_\_\_\_\_

Molly Stump

City Attorney

APPROVED AS TO FORM:

APPROVED AS TO CONTENT:

By: \_\_\_\_\_

City Attorney

By: \_\_\_\_\_

Brad Eggleston

Director of Public Works

Attachment:

A: U.S. EPA Award grant agreement

B: Grant Project Budget Details

C: Grant Project Scope of Service (Narratives)



## City of Palo Alto City Council Staff Report

(ID # 14762)

Meeting Date: 10/17/2022

Report Type:

**Title: TEFRA Hearing Regarding Conduit Financing for the Kehillah Jewish High School's for the Partial or Full Refinancing of the 2014 Loan and Financing the Development, Construction, Renovation, Improvement and Equipping of the Corporation's Campus at 3900 Fabian Way, Palo Alto; and Approving the issuance of a Tax-exempt Loan by the California Municipal Finance Authority for this Purpose and Other Matters Relating Thereto**

**From: City Manager**

**Lead Department: Administrative Services**

### Recommendation

Staff recommends the City Council:

- 1) Conduct a public hearing under the requirements of the Tax Equity and Fiscal Responsibility Act of 1983 (TEFRA) and the Internal Revenue Code of 1986, as amended (Code); and
- 2) Adopt a resolution (Attachment A) approving the issuance of the loan(s) by the California Municipal Finance Authority (CMFA) for the benefit of Kehillah Jewish High School (the "Borrower").

### Background

Kehillah Jewish High School (the "Borrower"), a California nonprofit public benefit corporation and an organization described in Section 501(c)(3) of the Internal Revenue Code of 1986, as amended (the "Code"), has requested that the California Municipal Finance Authority (the "Authority") participate in the issuance of one or more series of qualified 501(c)(3) tax-exempt loan(s) in an aggregate principal amount not to exceed \$10,500,000 (collectively, the "Loan(s)") in order to: (1) prepay in full or part the outstanding balance of the Authority's 2014 Tax-Exempt Loan (Kehillah Jewish High School) (the "2014 Loan"); (2) finance the costs of construction, renovation, improvement and equipping of the Corporation's campus at 3900 Fabian Way, Palo Alto, California 94303 (the "Facilities"), and (3) pay various costs of executing and delivering the Loan(s) and other related costs (collectively, the "2022 Projects"). The proposed Loan(s) will be secured under the provision of an Indenture and Loan Agreement and

will be payable solely by revenues consisting primarily of Loan(s) Repayments made by the Borrower.

The proceeds of the 2014 Loan were used by the Corporation to (A) refund the outstanding principal amount of the Authority's Variable Rate Demand Revenue Bonds (Kehillah Jewish High School) Series 2009 (the "2009 Bonds"), the proceeds of which were to enable the Corporation to finance or refinance the costs of the acquisition, construction, renovation and improvement of the Facilities; and (B) pay various costs of issuance and other related costs with respect to the 2014 Loan (the "2014 Projects, and collectively with the 2022 Project, the "Projects").

In order for all or a portion of the Loan(s) to qualify as a tax-exempt loan, the City of Palo Alto, at the request of the Borrower and CMFA, is conducting a public hearing (TEFRA Hearing), providing the members of the community an opportunity to speak in favor of or against the use of tax-exempt Loan(s) for the financing of the project. Prior to the hearing, reasonable notice must be provided to the members of the community. This was done by the Borrower's (via CMFA) financing team with coordination with the City Clerk's Office. Following the close of the TEFRA hearing, an "applicable elected representative" of the governmental unit hosting the proposed project must provide its approval of the issuance of the Loan(s) for the financing of the project.

## **Discussion**

Since the facilities to be financed with the proceeds of the CMFA's debt are located within the jurisdiction of the City of Palo Alto, the City has been asked to conduct a TEFRA hearing and adopt a resolution (Attachment A) that approves the issuance of the Loan(s) by the CMFA for the benefit of the Borrower. Again, the proposed Loan(s) will be a limited obligation of the CMFA, secured under the provision of an Indenture and Loan Agreement, and will be payable solely by revenues consisting primarily of Loan Repayments made by the Borrower.

As cited in the published notice of September 22, 2022, the public hearing is simply an opportunity for all interested persons to speak or to submit written comments concerning the proposal to issue the debt and the nature or location of the facility to be financed; however there is no formal obligation on the part of the Borrower, CMFA, or the Council to respond to any specific comments made during the hearing or submitted in writing.

The Loan(s) are intended to partially or fully refinance the 2014 Loan and finance the Project described herein for the acquisition, construction, improvement, equipping and maintenance of certain educational, support and administrative facilities owned and operated within the City by the Borrower.

The CMFA is a joint exercise of powers authority that the City became a member of on April 14, 2008. The Joint Exercise of Powers Agreement provides that the CMFA is a public entity, separate and apart from each member executing such agreement. The debts, liabilities and

obligations of the CMFA do not constitute debts, liabilities or obligations of the members executing such agreement. The Loan(s) to be issued by the CMFA for the project will be the sole responsibility of the Borrower, and the City of Palo Alto will have no financial, legal, moral obligation, liability or responsibility for the project or the repayment of the Loan(s) for the financing of the project. All financing documents with respect to the issuance of the Loan(s) will contain clear disclaimers that the Loan(s) are not an obligation of the City of Palo Alto or the State of California but is to be paid for solely from funds provided by the Borrower.

The City is in no way exposed to any financial liability by reason of its membership in the CMFA. In addition, participation by the City in the CMFA does not impact the City's appropriations limits and will not constitute any type of indebtedness by the City. Outside of holding the TEFRA hearing, adopting the required resolution, no other participation or activity of the City or the City Council with respect to the issuance of the Loan(s) will be required. Based on the benefits of the project to the Palo Alto community and the lack of any financial obligations on the part of the City, staff recommends that Council approve the attached resolution.

### **Resource Impact**

As stated, the City will incur no financial obligation from approval of the recommendations. The Borrower is requesting the issuance up to \$10,500,000 Loan(s) through CMFA. The City will receive a fee for its services when the Loan(s) are issued (est. \$7,000).

### **Policy Implications**

Actions recommended in this report are consistent with Council's prior actions in supporting non-profit financings under the TEFRA (e.g., most recently approving tax-exempt financing through the California Municipal Finance Authority for Wilton Court on February 10, 2020 ([CMR ID # 10976](#)) and Silicon Valley International School on September 13, 2021 ([CMR ID # 13445, item # 5](#)) and again recently on April 11, 2022 ([CMR ID # 14048, item # 11](#)).

### **Stakeholder Engagement**

City staff coordinated with representatives of CMFA to prepare for the TEFRA hearing.

### **Environmental Review**

Action on this item does not constitute a project under Section 21065 of the Public Resources Code.

### **Attachments:**

- **Attachment6.a:** Attachment A: TEFRA Resolution- Kehillah Jewish High School



NOT YET APPROVED

Resolution No. \_\_\_\_

TEFRA Hearing Regarding Conduit Financing for Kehillah Jewish High School for the Purpose of Prepaying in Full or Part the California Municipal Finance Authority's 2014 Tax-Exempt Loan (Kehillah Jewish High School) and the Financing and Refinancing of Construction, Improvement, Renovation, Furnishing and/or Equipping of Certain Facilities of Kehillah Jewish High School; and Approving the Issuance of a Tax-Exempt Loan by the California Municipal Finance Authority for this Purpose and Other Matters Relating Thereto

### RECITALS

A. Kehillah Jewish High School (the "Corporation"), a California nonprofit public benefit corporation and an organization described in Section 501(c)(3) of the Internal Revenue Code of 1986, as amended (the "Code"), has requested that the California Municipal Finance Authority (the "Authority") participate in the issuance of one or more series of qualified 501(c)(3) tax-exempt loans in an aggregate principal amount not to exceed \$10,500,000 (collectively, the "Loan") in order to: (1) prepay in full or part the outstanding balance of the Authority's 2014 Tax-Exempt Loan (Kehillah Jewish High School) (the "2014 Loan"); (2) finance or refinance the costs of construction, improvement, renovation, furnishing and equipping of the Corporation's campus at 3900 Fabian Way, Palo Alto, California 94303 (the "Facilities"); and (3) pay various costs of executing and delivering the Loan and other related costs (collectively, the "2022 Projects"). The proceeds of the 2014 Loan were used by the Corporation to (A) refund the outstanding principal amount of the Authority's Variable Rate Demand Revenue Bonds (Kehillah Jewish High School) Series 2009, the proceeds of which were loaned to the Corporation to enable the Corporation to finance or refinance the costs of the acquisition, construction, renovation and improvement of the Facilities; and (B) pay various costs of issuance and other related costs with respect to the 2014 Loan (the "2014 Projects," and collectively with the 2022 Project, the "Projects"); and

B. Pursuant to Section 147(f) of the Code, the issuance of the Loan by the Authority must be approved by the City of Palo Alto (the "City") because the Projects are to be located within the territorial limits of the City; and

C. The City Council of the City (the "City Council") is the elected legislative body of the City and is one of the "applicable elected representatives" required to approve the issuance of the Loan under Section 147(f) of the Code; and

D. The Authority has requested that the City Council approve the issuance of the Loan by the Authority in order to satisfy the public approval requirement of Section 147(f) of the Code and the requirements of Section 4 of the Joint Exercise of Powers Agreement Relating

to the California Municipal Finance Authority, dated as of January 1, 2004 (the "Agreement"), among certain local agencies, including the City; and

E. Pursuant to Section 147(f) of the Code, the City Council has, following notice duly given, held a public hearing regarding the issuance of the Loan, and now desires to approve the issuance of the Loan by the Authority;

The Council of the City of Palo Alto RESOLVES as follows:

Section 1. The foregoing recitals are true and correct.

Section 2. The City Council, as the "applicable elected representative" of the governmental unit on behalf of which the Loan will be issued and having jurisdiction over the territorial limits in which the Projects are to be located, hereby approves the issuance of the Loan by the Authority. It is the purpose and intent of the City Council that this resolution constitute approval of the issuance of the Loan by the Authority for the purposes of: (a) Section 147(f) of the Code, by the applicable elected representative of the governmental unit having jurisdiction over the area in which the Projects are to be located, in accordance with said Section 147(f), and (b) Section 4 of the Agreement.

Section 3. The issuance of the Loan shall be subject to approval of the Authority of all financing documents relating thereto to which the Authority is a party. The City shall have no responsibility or liability whatsoever with respect to repayment or administration of the Loan.

Section 4. The adoption of this Resolution shall not obligate the City or any department thereof to (i) provide any financing with respect to the Projects; (ii) approve any application or request for or take any other action in connection with any planning approval, permit or other action necessary with respect to the Projects; (iii) make any contribution or advance any funds whatsoever to the Authority; or (iv) take any further action with respect to the Authority or its membership therein.

Section 5. The officers of the City are hereby authorized and directed, jointly and severally, to do any and all things and to execute and deliver any and all documents which they deem necessary or advisable in order to carry out, give effect to and comply with the terms and intent of this resolution and the financing transaction approved hereby.

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Section 6. This resolution shall take effect immediately upon its adoption.

INTRODUCED AND PASSED:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

ATTEST:

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Mayor

APPROVED AS TO FORM:

APPROVED:

\_\_\_\_\_  
City Attorney

\_\_\_\_\_  
City Manager



## City of Palo Alto City Council Staff Report

(ID # 14643)

Meeting Date: 10/17/2022

Report Type: Action Items

**Title: PUBLIC HEARING: Adoption of Nine Ordinances That Repeal and Adopt Various Sections of the Palo Alto Municipal Code (PAMC) Related to the 2022 CA Building Codes (CA Code of Regulations Title 24) Update and Proposed Local Amendments; including: (1) Chapter 15.04 Incorporating the 2022 CA Fire Code With Local Amendments; (2) Chapter 16.04 Incorporating the 2022 CA Building Code With Local Amendments; (3) Chapter 16.05 Incorporating the 2022 CA Mechanical Code With Local Amendments; (4) Chapter 16.06 Incorporating the 2022 CA Residential Code With Local Amendments and Amending Chapter 16.52 to Align Federal, State, and Local Flood Hazard Regulations; (5) Chapter 16.08 Incorporating the 2022 CA Plumbing Code With Local Amendments; (6) Chapter 16.16 Incorporating the 2022 CA Electrical Code With Local Amendments; (7) Chapter 16.18 Incorporating the 2021 International Swimming Pool and Spa Code With Local Amendments; (8) Chapter 16.14 Incorporating the 2022 CA Green Building Standards Code with Local Amendments; (9) Chapter 16.17 Incorporating the 2022 CA Energy Code Without Local Amendments. Environmental Assessment: Project is Exempt Under CA Environmental Quality Act CEQA Guidelines Sections 15061(b)(3) and 15308.**

**From: City Manager**

**Lead Department: Planning and Development Services**

### **RECOMMENDATION**

Staff recommends that the City Council adopt the attached nine ordinances that repeal and adopt various sections of the Palo Alto Municipal Code (PAMC) related to the 2022 California Building Codes (Cal. Code of Regulations Title 24) and proposed local amendments:

- (1) An ordinance repealing PAMC Chapter 15.04 and adopting a new Chapter 15.04 incorporating the 2022 Cal. Fire Code with local amendments;
- (2) An ordinance repealing PAMC Chapter 16.04 and adopting a new Chapter 16.04 incorporating the 2022 Cal. Building Codes and local amendments;

- (3) An ordinance repealing PAMC Chapter 16.05 and adopting a new Chapter 16.05 incorporating the 2022 Cal. Mechanical Code with local amendments;
- (4) An ordinance repealing PAMC Chapter 16.06 and adopting a new Chapter 16.06 incorporating the 2022 Cal. Residential Code with local amendments and amending PAMC Chapter 16.52 to align federal, state, and local regulations regarding flood hazards;
- (5) An ordinance repealing PAMC Chapter 16.08 and adopting a new Chapter 16.08 incorporating the 2022 Cal. Plumbing Code with local amendments;
- (6) An ordinance repealing PAMC Chapter 16.16 and adopting a new Chapter 16.16 incorporating the 2022 Cal. Electrical Code with local amendments;
- (7) An ordinance repealing PAMC Chapter 16.18 and adopting a new Chapter 16.18 incorporating the 2021 International Swimming Pool and Spa Code with local amendments;
- (8) An ordinance repealing PAMC Chapter 16.14 and adopting a new Chapter 16.14 incorporating the 2022 Cal. Green Building Standards Code with local amendments;
- (9) An ordinance repealing PAMC Chapter 16.17 and adopting a new Chapter 16.17 incorporating the 2022 Cal. Energy Code without local amendments.

## EXECUTIVE SUMMARY

Every three years the State of California adopts and publishes a set of new construction codes referred to as the California Building Standards Code (CBSC) or California Code of Regulations (CCR), Title 24. Local jurisdictions must either adopt the CBSC for local enforcement or enact more stringent building standards to protect the community due to local conditions.

This year, amendments to the 2022 California Green Building Standards Code (CALGreen) will continue to support Palo Alto's leadership in promoting energy efficiency and reducing greenhouse gas emissions by requiring all-electric new construction buildings and will continue supporting sustainable design related to electric vehicle (EV) charging infrastructure, building electrification, water efficiency, material conservation and resource efficiency, and environmental quality in new and existing buildings.

All of the nine ordinances required to adopt the 2022 CBSC will be transmitted late packet to the City Council. A summary of the changes for each ordinance is included with this report and will be reprinted with the late packet memo.

Most of the proposed local changes carry forward previous amendments and provide further clarification on previously adopted Building and Fire Codes. Some previously adopted local amendments have now become statewide standards and are no longer necessary as local amendments. The local amendments that are proposed mainly relate to soils susceptible to liquefaction, expansive soil, and some structural amendments required due to the proximity of

Palo Alto to the major San Andreas and Hayward earthquake fault lines. Some notable proposed local amendments include disallowing gypsum board (sheetrock) as a structural resistance element to resist earthquake and requiring additional fire sprinkler protection in higher firefighting hazardous conditions. One new recommended amendment establishes a dwelling unit occupancy threshold that currently does not exist.

The proposed Fire and Building Code amendments are similar to the code amendments of neighboring jurisdictions, such as City of Sunnyvale and the City of Fremont, that have similar local climatic, geologic, topographic, and environmental conditions.

The California Building Standards Code no longer includes minimum requirements for the design, construction, alteration, repair and maintenance of swimming pools and spas as provided by the 2021 International Swimming Pool and Spa Code (ISPSC); these requirements are proposed as locally adopted standards and included as part of the proposed ordinances.

Lastly, parts of Palo Alto are in special flood hazard areas established by the Federal Emergency Management Agency (FEMA). Palo Alto Municipal Code Chapter 16.52 includes construction provisions for structures in the flood zone. Sections of this chapter are proposed to be amended to align with the California Building Standards Code (California Building and Residential Code) and with new Federal requirements.

A public hearing is required to adopt the model State codes and local amendments, which must be supported by applicable findings, which are provided as exhibits to the ordinances. This report explains the process for adoption of the 2022 California Building Standards Code that will become effective statewide on January 1, 2023 and summarizes the proposed local amendments.

## **BACKGROUND**

The California Building Standards Commission is an independent commission within the State Consumer Services Agency responsible for reviewing, adopting, and publishing building standards for the State of California. Every three years, the California Building Standards Commission adopts a compilation of building regulations referred to as the California Building Standards Code (California Code of Regulations, Title 24). Through the code adoption process, the California Building Standards Commission selects and approves a set of model codes. Inclusive in these regulations are the California Building, Mechanical, Plumbing, Electrical, Existing Buildings, Fire, Energy, Residential Building, Historical Building, and Green Building Codes. Participating State agencies, such as State Fire Marshal (SFM), Division of the State Architect (DSA), Housing and Community Development (HCD), and Office of Statewide Health Planning and Development (OSHPD), have an opportunity to amend the code for the occupancy groups under their respective authorities. Local governments or jurisdictions can also modify the code to add more restrictive provisions based on their specific local geologic, climatic, and topographic conditions to protect their communities. Any local amendments to the above-mandated codes must be more restrictive than the State Building Standards Code and must be

substantiated with findings, per California Health & Safety Code Section 17958. The administrative provisions of the code can be modified without specific justification based on local conditions per California Health & Safety Code Section 18909(C). Staff also recommends adopting the 2021 International Swimming Pool and Spa Code (ISPSC). This model code provides minimum requirements for the design, construction, alteration, repair, and maintenance of swimming pools and spas, which are not available in the California Building Standards Code.

Palo Alto has long been a leading jurisdiction in the areas of sustainability and energy efficiency. In June 2008, the City adopted its first set of green building regulations to incorporate green building techniques and materials in private residential and nonresidential development projects<sup>1</sup>. Later that year, the City adopted a local energy ordinance to require new buildings to exceed California's building energy efficiency standards by 15%<sup>2</sup>; this is commonly known as the Energy Reach Code. These local energy and green building regulations are intended to create a generation of efficient, environmentally responsible, and healthy buildings.

In 2010, the State of California published the first version of the California Green Building Standards Code, also known as CALGreen. CALGreen includes certain mandatory requirements as well as two tiers of voluntary green building measures for enhanced building design and performance. The mandatory requirements involve water and energy efficiencies, indoor air quality, and the use of sustainable building materials. Voluntary measures, on the other hand, are encouraged to enhance the requirements and/or add sustainable features, such as photovoltaic solar. Palo Alto adopted the 2010 CALGreen voluntary tiers as locally mandatory requirements for non-residential projects that meet specific criteria. For residential projects, the City also adopted additional green building requirements beyond CALGreen<sup>3</sup>.

In April 2016, Council adopted a Sustainability and Climate Action Plan (S/CAP) framework, with the ambitious goal of reducing greenhouse gas emissions 80% below 1990 levels by 2030, which is 20 years ahead of California's goal (EO S-3-05). The four focus areas in the S/CAP include energy, electric vehicles, mobility, and water. The City's Green Building Ordinance and Energy Reach Code (collectively referenced as "Reach Codes" in this staff report) address three of these four areas. The Palo Alto Green Building Advisory Group (GBAG), consisting of green building professionals including architects, engineers, energy compliance designers, and contractors, convened to develop recommendations on local amendments that go beyond the state's 2016 building standards. Based on the GBAG recommendations, Council adopted the 2016 Energy Reach Code that exceeded the state's building energy standards by 10 to 20% depending on the building type; all-electric designs were exempted from these Energy Reach

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<sup>1</sup> [Ordinance No. 5006](#) was passed in June 2008 to add a new chapter of Green Building Regulations in the City's Zoning code.

<sup>2</sup> [Ordinance No. 5024](#) was passed in December 2008 to add Chapter 16.18 in the Palo Alto Municipal code establishing local energy efficiency standards for new buildings.

<sup>3</sup> [Ordinance No. 5107](#) was passed in December 2010.

Code

requirements.

In December 2019, Council adopted local amendments to the 2019 California Building Energy Efficiency Standards (California Energy Code) that require: (i) all-electric design for low-rise residential new construction projects beginning in April 2020, and (ii) all-electric preferred design for nonresidential new construction projects; mixed-fuel design will need to be more efficient than the State's building energy standard and also meet electric-readiness requirements. Council further directed staff to return to City Council with:

- an updated energy code ordinance to mandate an all-electric design for all new buildings by the end of 2020
- research efficient electric alternatives to replace gas appliances in existing homes, along with funding sources
- engage stakeholders in a discussion regarding changes to the zoning and building codes to define when a substantially remodeled structure is considered new construction and therefore, subject to current standards.

Staff is presenting updated codes in accordance with California Code of Regulations (CCR), Title 24, and the 2022 Codes will become effective on January 1, 2023; however, the building permit application date establishes which specific code edition applicable to a building project. Therefore, projects submitted for a permit on or after January 1, 2023, must be designed to the 2022 edition of the California Building Standards Code. Nine ordinances are included in the recommended code updates as described below:

- A. **Ordinance repealing Chapter 15.04 of the Palo Alto Municipal Code and adopting a new Chapter 15.04, California Fire Code, 2022 Edition, and local amendments and related findings** – The 2022 California Fire Code is based on the 2021 International Fire Code. The 2022 code improves upon the 2019 Standards for reducing hazards, increasing fire and life safety, and property preservation. Most local amendments are derived from the collaborative efforts of the Santa Clara County Fire Marshal's Association. (Attachment A)
  
- B. **Ordinance repealing Chapter 16.04 of the Palo Alto Municipal Code and adopting a new Chapter 16.04, California Building Code, California Historical Building Code, and California Existing Building Code, 2022 Editions, and local amendments and related findings** – The California Building Code (CBC) is the fundamental building code within the State of California that regulates most new building construction and is based on the 2021 International Building Code (IBC), written by the International Code Council (ICC), as amended by the California Building Standards Commission. The 2022 California Historical Building Code (CHBC) is unique to California and prescribes building standards for designated historic structures aimed at balancing the goals of historic preservation with life safety and accessibility concerns when the provisions of the regular building code cannot be achieved. The 2022 California Existing Building Code (CEBC) is based on the 2021 International Existing Building Code, also written by the ICC, as amended by



the Building Standards Commission. Like the CHBC, the CEBC prescribes alternative building standards for repairs to existing structures when the provisions of the regular code cannot be achieved. (Attachment B)

- C. **Ordinance repealing Chapter 16.05 of the Palo Alto Municipal Code and adopting a new Chapter 16.05, California Mechanical Code, 2022 Edition, and local amendments and related findings** – The California Mechanical Code (CMC) is based on the 2021 Uniform Mechanical Code (UMC), written by the International Association of Plumbing & Mechanical Officials (IAPMO), as amended by the California Building Standards Commission, and prescribes standards for mechanical heating, ventilating and cooling systems, and appurtenant equipment, within buildings. (Attachment C)
- D. **Ordinance repealing Chapter 16.06 of the Palo Alto Municipal Code and adopting a new Chapter 16.06, California Residential Code, 2022 Edition, and local amendments and related findings; and amending Chapter 16.52 to align with federal, state, and local regulations for flood hazards** – The California Residential Code (CRC) is based on the 2021 International Residential Code (IRC), which is written by the International Code Council, as amended by the California Building Standards Commission. The Residential Code is a simplified version of the Building Code and prescribes building standards for low-rise (one and two-story), detached single and two-family dwelling units, and townhouses not more than three stories in height. (Attachment D)

Chapter 16.52 was last updated in May of 2004 through ordinance 4824. The codified requirements were consistent with the 2001 CBSC. Beginning with the 2010 CBSC, however, the state has required a minimum one-foot of freeboard requirement, which exceeds the requirement codified in Chapter 16.52. In addition, in 2021 the Community Rating System (CRS) Coordination Manual, a manual for a National Flood Insurance Program that incentivizes communities to participate by associating a lower CRS rating number with higher flood insurance premium discounts, amended one of the pre-requisite requirements. As of 2021, a community must set a minimum 1-foot of freeboard requirement to maintain a rating of 8 or lower. The Palo Alto community has a CRS rating of 6 and receives a 20% discount in flood insurance for residents who purchase flood insurance. City staff have recently been requiring applicants to comply with the more stringent requirement and now propose to align the municipal code with current practice and the state and federal standards. (Attachment D)

- E. **Ordinance repealing Chapter 16.08 of the Palo Alto Municipal Code and adopting a new Chapter 16.08, California Plumbing Code, 2022 Edition, and local amendments and related findings** – The California Plumbing Code (CPC) is based on the 2018 Uniform Plumbing Code (UPC), also written by the International Association of Plumbing and Mechanical Officials (IAPMO), as amended by the California Building Standards Commission, and prescribes standards for water and wastewater distribution systems, and appurtenant equipment, within buildings. (Attachment E)

- F. **Ordinance repealing Chapter 16.16 of the Palo Alto Municipal Code and adopting a new Chapter 16.16, California Electrical Code, 2022 Edition, and local amendments and related findings** – The 2022 California Electrical Code (CEC) is based on the 2020 National Electrical Code, written by the National Fire Protection Agency (NFPA), as amended by the California Building Standards Commission, for appurtenant equipment within buildings. (Attachment F)
  
- G. **Ordinance repealing Chapter 16.18 of the Palo Alto Municipal Code and adopting a new Chapter 16.18, Private Swimming Pool and Spa Code, 2022 Edition** – The Private Swimming Pool and Spa Code is based on the 2021 International Swimming Pool and Spa Code (ISPSC) to regulate private residential swimming pools and spas. (Attachment G)
  
- H. **Ordinance repealing Chapter 16.14 of the Palo Alto Municipal Code and adopting a new Chapter 16.14, California Green Building Standard Code, 2022 Edition, and local amendments and related findings** – The California Green Building Standard Code (CALGreen) is unique to California. The purpose of CALGreen is to improve public health, safety, and general welfare through enhancement of the design and construction of buildings using building concepts that reduce negative impacts, generate positive environmental impacts, and encourage sustainable construction practices. As such, CALGreen in conjunction with City of Palo Alto amendments apply to planning, design, operation, construction, use, and occupancy of residential and non-residential construction. (Attachment H)
  
- I. **Ordinance repealing Chapter 16.17 of the Palo Alto Municipal Code and adopting a new Chapter 16.17, California Energy Code, 2022 Edition** – The California Energy Code is unique to California. The 2022 Energy Code encourages efficient electric heat pumps in an effort to reduce energy usage and to produce fewer emissions than traditional HVACs and water heaters; establishes electric-ready requirements for buildings for cleaner electric heating, cooking, and electric vehicle charging; and expands solar photovoltaic and battery storage standards to be ready when needed and reduce the grid's reliance on fossil fuel power plants; and strengthens ventilation standards to reduce illness from poor air quality and reduce disease transmission. (Attachment I)

## DISCUSSION

The City has historically amended the California Building Standards Code triennially. The proposed amendments represent a continuation of some of the local amendments currently in effect. A discussion of the more substantive local amendments to the 2022 California Building Standards Code, include the following, which are discussed in more detail below:

1. Administrative Amendments;

2. Soils Reports requirement;
3. Plain Concrete, Embodied Concrete, and Concrete Special Inspection;
4. Ventilation of weather-exposed enclosed assemblies;
5. Fire Resistant Construction and Fire Separation;
6. Wood Structures and Prescriptive Conventional Construction;
7. California Mechanical Code Amendments;
8. California Plumbing Code Amendments;
9. California Electrical Code Amendments;
10. Automatic Fire Extinguishing Systems;
11. California Fire Code Amendments;
12. Flood resistance construction;
13. Structural Amendments and Suspended Ceiling;
14. Appendix chapters in 2022 California Building Standards Code;
15. California Residential Building Code; and
16. California Green Building Standards Code (CALGreen) and Energy Code

1. **Administrative Amendments:** The administrative amendments for the Building, Electrical, Green Standards, Mechanical, Plumbing, Residential, Existing Building, Historic, and Fire codes include:
  - Work exempt from a building permit;
  - When a demolition permit is required;
  - Time limitation of application, its expiration, and term limit for permit;
  - Process for permit refunds and when re-inspection fee is assessed;
  - Application process to obtain a building permit;
  - Preliminary accessibility inspection is required;
  - Use and occupancy, change of occupancy, and temporary occupancy requirements;
  - Stop work order for violations of the ordinance; and

Many of these administrative amendments are carried forward from the previous code adoption and clarified as needed. To avoid confusion and enable ease of application, Chapter 1 of the 2022 California Building Code will serve as the primary administrative chapter for all adopted codes in lieu of including a separate administrative chapter for each code. New amendments pertain to fence material and its height. The fence height code is amended to define the fence materials (a wood fence 7 feet or less or concrete/masonry fence 4 feet or less is exempt from permit requirements). Taller walls with heavier materials will require engineering to avoid failure due to high wind and earthquake events.

2. **Soils Reports Requirements:** The amendment is carried forward to allow light framed construction to use a prescriptive thicker, wider and deeper continuous footing in lieu of requiring a soils report for 1, 2, and 3 stories of light-framed construction.
3. **Plain Concrete, Embodied Concrete, and Concrete Special Inspection:** Concrete is strong in compression and is weak in tension. For this reason, it needs help in resisting

tensile stresses caused by bending forces from applied loads, which would ultimately result in cracking and potentially failure. Plain concrete has proven to perform poorly due to dynamic cyclic loading in the Loma Prieta and Northridge earthquakes; structural elements require reinforcements. This amendment is carried forward from the previous code adoption. The concrete special inspection code section is amended and provides further clarification when special inspection by a special inspector agency is required. This is to ensure the quality of major structural elements and their connections are constructed correctly with proper inspections and confirm these elements perform effectively as part of the vertical and lateral resisting systems of the buildings. As part of the proposed code adoption, staff proposes low carbon concrete requirements in the area of building construction when concrete is used. See the CALGreen discussion below for detailed discussion.

4. **Ventilation of weather-exposed enclosed assemblies:** The amendment is deleted as the requirement to provide cross ventilation in the enclosed floor space of a balcony to avoid dry-rotting of the structural framing members is now in the California Building Code. This amendment was added previously in the last code adoption due to the Berkeley balcony collapse which resulted in the death of six people.
5. **Fire Resistant Construction and Fire Separation:** The 2022 Codes continue to rely heavily on the installation of fire sprinkler systems. Under the 2022 Codes, a fire extinguishing system can be used to increase the overall building height and floor area and to reduce the fire resistivity of its structural elements, exterior walls, and exit corridors. The California State Fire Marshal's Office (SFM), again, rejected some of these provisions for occupancy groups under their authority and limited the use of fire sprinkler systems to either increase floor area or height, but not both. The SFM also does not allow a sprinkler system to be used to reduce the required fire-resistant construction of roof-tops, exit corridors, and occupancy separations between units of multi-unit residential units. The local amendments maintain fire resistance of walls separating sleeping units in multifamily, hotels and motels, and extend this requirement to duplexes. This fire-resistant specification is already required for all other multi-unit residential buildings.
6. **Wood Structures and Prescriptive Conventional Construction:** The amendments carry forward from previous code adoption the requirements disallowing certain types of brittle wall coverings (stucco, sheetrock) for seismic load-resisting elements, which have performed poorly in previous earthquakes.
7. **California Mechanical Code Amendments:** The proposed amendment requires fire protection of the kitchen type I hood and duct system for all buildings to prevent the spread of fire into concealed ceiling space. There were a number of grease duct fires in single-story buildings, which were contained by shafts. If the shaft had not been fire-rated, the fire would have easily spread to the roof and other portions of the building.

Therefore, the amendment will ensure that any new hood or duct is enclosed and protected by fire-rated materials.

8. **California Plumbing Code Amendments:** These Plumbing Code amendments are intended to promote consistency with Palo Alto's Sewer Use Ordinance (PAMC Chapter 16.09), support the City's efforts to reduce copper and other heavy metal discharges to the Wastewater Treatment Plant, and increase water conservation efforts (e.g. the prohibition of single-pass cooling systems). This amendment carries forward previous code adoption.
9. **California Electrical Code Amendments:** The Electrical Code amendments carry forward the requirement of a housekeeping pad under electrical equipment directly supported on slab floor subject to shallow floods and floor cleaners for protection of equipment and third-party field evaluation for unlisted equipment to protect the end users.
10. **Automatic Fire Extinguishing Systems Amendments:** Most requirements for Automatic Fire Extinguishing Systems (AFES) are being carried forward with minor changes made for clarification purposes. These include minor language updates for residential sprinkler systems required in new or altered basements and altered single-family dwellings. New amendments include an increase in fire protection for laboratory storage/use of hazardous materials and structures with higher firefighting hazardous conditions and the wildland-urban interface fire area.
11. **California Fire Code Amendments:** The majority of proposed amendments are mostly administrative and are similar to amendments or practices currently in place. Several sections of the California Fire Code (CFC) related to definitions, fire sprinkler specifications and hazardous materials are amended to allow the Fire Department greater flexibility and application of life safety and property conservation controls. New amendments include: HazMat permits, lithium battery storage, fire equipment identification, and fire sprinkler design. These can be summarized as follows:
  - Amended or added operational permits for underground storage tanks, battery operated equipment, liquid gas fueled equipment, and hot work.
  - Removed a significant portion of section 315.8 Lithium battery storage and section 321 related to additive manufacturing due to new sections added to 2022 CFC.
  - Added a section on Fire protection equipment to be painted red for identification.
  - Specified language on residential sprinklers required in basements and single-family dwellings.
  - Amended the qualifications for NFPA 13 sprinkler systems to further define where and what densities are required for higher level of protection to life and property, including light hazard designed with larger remote area, laboratory areas with ordinary hazard 2 density, and parking areas with mechanical vehicle

storage equipment with extra hazard 2 density. Multi-residential apartments, townhomes, and condominiums must also be designed to NFPA 13.

- Increased fire sprinkler design criteria for residential structures determined to have higher firefighting hazardous conditions or located in the wildland urban interface.
- Defined where emergency lighting is required in a building, all public restrooms will be covered.
- Amended emergency escape and rescue openings in basements and storm shelters to match CRC ordinance.
- Amended the large-scale fire test for energy storage systems to include reference to NFPA 855 Standard for the Installation of Stationary Energy Storage Systems. Placement of residential energy storage systems also amended to exclude below or above emergency escape and rescue openings.
- Amended Chapter 49 Requirements for Wildland-Urban Interface Fire Area to incorporate new code section from 2022 CFC.
- Provided administrative updates to hazmat sections with new formatting, and clarification of definitions and processes.

**12. Flood resistant construction:** The California Residential and Building Codes provide minimum requirements to safeguard the public health, safety, and general welfare and to minimize public and private losses due to flooding through regulations of development in flood hazard areas. These code provisions specify flood loads and flood resistant construction materials and installation methods, which include construction practices to minimize unnecessary disruption of commerce and allow access and public service during times of flooding. The proposed amendments to the Municipal Code Chapter 16.52 include adding frequently used terms and definitions and clarifying the flood resistant provisions for basements, garages and openings within crawl spaces. This ordinance will also codify the minimum freeboard requirement for finished floor elevation and language regarding technical data submittals to FEMA. The minimum one-foot of freeboard requirement was introduced in the 2010 CBC. It was also adopted in 2021 as a federal prerequisite to reduced insurance premiums under the National Flood Insurance Program. Palo Alto has recently required compliance by applicants with the one-foot freeboard requirement per the 2010 CBC, but the Municipal Code has not yet been updated and currently includes a standard of setting the finished floor at or above the base flood elevation. The proposed amendments to Chapter 16.52 align the Municipal Code with the CBC. This amendment includes a new section 16.52.075 that was not previously in the chapter. This language is based on the Chapter 44 of the Code of Federal Regulations section 65.3. This codifies submittals to FEMA when new technical or scientific data is available that may alter flooding conditions, risk premium rates, and flood plain management requirements.

**13. Structural Amendments and Suspended Ceiling:** The California Building Code has little information regarding seismic design requirements for suspended ceilings. It is through

the experience of prior earthquakes, such as the Northridge and Loma Prieta Earthquakes, that this local amendment is proposed to minimize the amount of body and building damage where these ceilings are installed. Since a great deal of emphasis has been placed on sprinkler systems, all measures that further ensure the sprinkler system will function after an earthquake are of great importance to Palo Alto due to proximity to the San Andreas and Hayward Faults. Additionally, nonstructural components such as mechanical and electrical equipment, shelving, and similar components failed and compromised building occupants during past earthquakes when proper anchoring to the floor or ceiling supports were not provided. All other proposed structural amendments are based on Uniform Code Committee and regional branches of Structural Engineers Association of California recommendations.

The structural amendment is also carried forward repair and reconstruction standards incorporation into the Building Code to meet the Federal Emergency Management Association's (FEMA's) eligibility requirements for post-disaster funding assistance for repairs to public and private non-profit-owned buildings damaged in disasters.

- 14. California Building Standards Code Appendices:** Appendices are not adopted as part of the California Building Standards Code. They are provided in the Code to offer optional or supplemental criteria to the provisions in the main chapters of the code. The proposed ordinance adopts the following appendix chapters of the 2022 California Building Standards Code and references:

California Building Code: These appendices are carried forward from the current code in effect.

- Appendix Chapter I: This appendix chapter contains requirements for patio covers.
- Appendix Chapter J109.4: This section of appendix J carries forward the drainage across property lines.
- Appendix Chapter P: This chapter includes provisions that provide emergency housing design.

California Electrical Code: These appendices are carried forward from the current code in effect.

- Appendix Chapter B: This appendix chapter contains application information for ampacity calculations.
- Appendix Chapter C: This appendix chapter contains conduit, tubing and cable tray fill tables for conductors and fixture wires of the same size:
- Appendix Chapter I: This chapter includes provisions on tightening and torque requirements.

California Residential Code: These appendices are carried forward from the current code in effect except Appendix AX, which is added.

- Appendix Chapter AH: This appendix chapter contains requirements for patio covers.
- Appendix Chapter AJ: This appendix chapter contains provisions for the construction of Existing Buildings and Structures.
- Appendix Chapter AK: This appendix chapter contains provisions for sound transmission between attached dwelling units.
- Appendix Chapter AX: This is a new appendix chapter that contains provisions for swimming pools and spas.

California Mechanical Code: These appendices are carried forward from the current code in effect.

- Appendix Chapter B: This appendix chapter contains procedures to be followed to place gas equipment in operation.
- Appendix Chapter C: This appendix chapter contains provisions for installation and testing of oil (liquid) fuel-fired equipment.
- Appendix Chapter G: This appendix chapter contains provisions for Sizing of venting systems and outdoor combustion and ventilation.

California Plumbing Code: These appendices are carried forward from the current code in effect.

- Appendix Chapter A: This appendix chapter contains provisions for the sizing of water supply system and outdoor combustion and ventilation.
- Appendix Chapter D: This appendix chapter contains provisions for the sizing of storm water systems.

California Green Building Standards Code: These appendices are carried forward from the current code in effect.

- Appendix Chapter A4: This appendix chapter contains residential voluntary green measures adopted by the City to enhance greener design provisions in existing and new residential buildings.
- Appendix Chapter A5: This appendix chapter contains non-residential voluntary green measures adopted by the City to enhance greener design provisions in existing and new non-residential buildings.

California Existing Building Code: These appendices are carried forward from the current code in effect.

- Appendix Chapter A1 – Seismic Strengthening Provisions for Unreinforced Masonry Bearing Wall Buildings
- Appendix Chapter A2 – Earthquake Hazard Reduction in Existing Reinforced Concrete and Reinforced Masonry Wall Buildings with Flexible Diaphragms.
- Appendix Chapter A3: This appendix chapter contains prescriptive provisions for seismic strengthening of cripple walls.



- Appendix A4 – Earthquake Risk Reduction in Wood-Frame Residential Buildings with Soft, Weak or Open Front Walls
- Appendix A5 – Referenced Standards

California Fire Code: These appendices are carried forward from the current code in effect.

- Appendix Chapter B: This appendix chapter contains fire-flow requirements for buildings.
- Appendix Chapter C: This appendix chapter contains provisions for fire hydrant locations and distribution.
- Appendix Chapter D: This appendix chapter contains provisions for fire apparatus access roads.
- Appendix Chapter E: This appendix chapter contains hazard categories for classifying hazardous materials.
- Appendix Chapter F: This appendix chapter identifies hazard ranking for hazardous materials.
- Appendix Chapter G: This appendix chapter contains tools to measure cryogenic fluids.
- Appendix Chapter H: This appendix chapter contains provisions for hazardous materials management plans and inventory statements.
- Appendix Chapter K: This appendix chapter contains provisions for construction requirements for existing ambulatory care facilities.

**15. California Residential Code:** Except as noted below, the proposed amendments are administrative and similar to the amendments for adoption to California Building Code for residential buildings. The administrative chapter of the California Residential Code is no longer adopted but refers to the administrative provisions of the California Building Code. The technical provisions include requirements for fire-sprinkler, smoke alarm and carbon monoxide alarm, emergency escape and rescue opening, and window well protection. The amendments also prohibit the use of brittle materials for bracing dwellings due to its poor performance in a seismic event. These provisions are currently in effect in the City of Palo Alto and are carried forward to the 2022 Code.

#### Dwelling Unit and Congregate Housing Occupancy

A new section being introduced as a local amendment to this code cycle establishes standards that regulate the number of individuals that can occupy the same dwelling unit. A jurisdiction might be interested in establishing such regulation to ensure living spaces are adequate for the number of occupants living in a dwelling and to minimize overcrowding. The language included in the draft ordinance is borrowed from the City of San Francisco's municipal code and based on staff's review, is a balanced regulation that is not anticipated to generate any significant compliance constraints. The ordinance as drafted would apply prospectively to future projects, including new construction,

remodels of existing buildings, and changes in occupancy. This regulation is provided in building code section 16.04.265.

## 16. California Energy and Green Building Standards Code:

The proposed 2022 Reach Codes (in effect between January 2023 and December 2025) carry forward the local amendments from the 2019 Reach Codes and specify additional requirements in the areas of building electrification, EV infrastructure, water efficiency and embodied carbon in building materials. In developing these proposed requirements, staff has considered environmental benefits, cost impacts to the project applicant and building occupant, compliance flexibility, and code enforceability.

The proposed requirements under each of these areas are described below.

### a. Proposed Building Electrification Requirements

Natural gas use in buildings account for 35% of the City's greenhouse gas emissions<sup>4</sup> in 2020. To meet the City's aggressive greenhouse gas reduction goal, it is critical to begin the shift away from burning natural gas for water heating, space heating, cooking, and other end uses to clean and efficient electric alternatives, as the City provides 100% carbon-neutral electricity. The easiest and most cost-effective way to make this shift is to require an all-electric design for all new buildings. All-electric buildings are also healthier and safer for the occupants as there are no natural gas combustion byproducts released into the living space and no open flame that carries the risk of fire.

Staff has continued to participate in the California Codes and Standards Reach Codes Program ("Statewide Reach Codes Program") funded by the state's investor-owned utilities. Over the past two years, the Statewide Reach Codes Program has hired consultants to develop cost-effectiveness studies for all-electric buildings including new detached ADUs<sup>5</sup>, new large office buildings<sup>6</sup>, and new multifamily buildings<sup>7</sup> based on the 2019 California Energy Code. These studies examined the cost-effectiveness of mixed-fuel buildings with additional efficiency (including solar) measures as well as all-electric buildings with additional efficiency measures<sup>8</sup>.

For all-electric new buildings, the preliminary cost-effectiveness results show a minimal amount of cost-effective energy efficiency beyond the state's 2022 building energy standards ("2022 Energy Code"). This is attributed to the fact that the state's building

<sup>4</sup> [Palo Alto's 2020 Greenhouse Gas Emissions Inventory](#)

<sup>5</sup> [2020 Cost-Effectiveness Study for New Detached ADUs](#), March 2021

<sup>6</sup> [2019 Cost-Effectiveness Study for Large Office](#), October 2021

<sup>7</sup> The Cost-Effectiveness Study for new Multifamily Buildings is expected to be published by the end of 2022.

<sup>8</sup> There are also cost-effectiveness studies on the efficiency and electrification upgrades of existing buildings including [single family residential buildings](#), [multifamily residential buildings](#), and [nonresidential buildings](#).

energy standards have become increasingly stringent<sup>9</sup>. For example, new single-family homes built under the 2019 Energy Code use about 7 percent less energy than homes built under the 2016 Energy Code due to improved energy efficiency requirements.

The 2022 California Energy Code is designed to meet the state's building decarbonization goals by encouraging adoption of on-site photovoltaic generation and efficient electric technologies, and increasing electric load flexibility to support grid reliability. For new single-family homes in Climate Zone 4 where Palo Alto is located, heat pump space heating and water heating are adopted as prescriptive requirements in the 2022 Energy Code. For new nonresidential buildings, heat pump space conditioning and heat pump water heating systems are also prescriptive requirements for buildings that meet specific requirements such as space type and cooling capacity.

For the 2022 building code cycle, staff recommends requiring all-electric designs for new construction projects; this requirement applies to all single-family buildings, detached ADUs, multifamily buildings, nonresidential buildings, and mixed-use buildings. Given that heat pump space heating and water heating equipment is prescriptively required in the 2022 Energy Code for most projects, there is no additional cost for most all-electric projects. Without requiring additional energy efficiency savings, this proposed all-electric requirement does not constitute a local building energy standard and therefore does not need to be approved by the California Energy Commission as required by Public Resources Code section 25402.1(h)(2). The proposed all-electric building pathway is instead adopted as a local amendment to the Green Building Standards Code and justified based on Health & Safety Code sections 17958.5 and 17958.7(a) with topographic, climatic, environmental, and geologic findings. The proposed all-electric design amends CALGreen's site development sections for both residential and non-residential buildings. Staff estimates the avoided greenhouse gas (GHG) emissions of this proposed all-electric mandate at 340 MT CO<sub>2</sub>-e/yr, compared to mixed-fuel buildings. By 2030, the estimated annual emissions reductions attributed to this proposed requirement is 2,700 MT CO<sub>2</sub>-e (the GHG emission associated with demolition and site-prep are not accounted).<sup>10</sup>

Neither the California Building Standards Code nor Palo Alto Municipal Code has a definition for substantial remodel/alteration or rebuilt. Staff attempted to define a global or 'one size fit all' definition for substantial remodel/rebuilt definition that would apply to multiple city regulations but was unable to do so in a timely manner. Instead, staff proposes an incremental step to define a substantial remodel definition for electrification purposes at this time and will work with city staff and the community to derive a more encompassing definition as the next step. Currently, alteration projects do not need to be rebuilt to meet the all-electric requirements. Staff proposes the following Substantial Remodel definition

<sup>9</sup> The Energy Code is updated every three years with the mandate to increase building energy efficiency while staying cost-effective for building owners over the lifespan of a building.

<sup>10</sup> This assumes that each year there are 100 new single-family projects, 25 new detached ADU projects, 8 multifamily dwelling units, and 9 new nonresidential projects.

that triggers the all-electric building requirements: “For the purpose of electrification, substantial remodel shall mean the alteration of any structure, including cumulative projects or additions to the existing structure within any three (3) year period, that affects the removal or replacement of 50% or more of the linear length of the exterior weight-bearing walls of the building, 50% or more of the wall plate height is raised, and/or 50% or more of the roof structural framing.” The proposed definition provides an easy and simple method for the applicant and staff to determine whether a remodeling project needs to meet require the all-electric requirements. The 3-year period is measured between the first building permit issuance to the submittal of the next building permit application for any remodel or building addition. Staff estimates the avoided GHG emissions of this proposed substantial remodel definition at 90 MT CO<sub>2</sub>-e/yr. By 2030, the estimated annual emissions reduction attributed to the proposed substantial remodel definition is 720 MT CO<sub>2</sub>-e per year<sup>11</sup>.

Besides requiring all-electric design for new buildings and substantial remodels, staff recommends prohibiting the extension of gas infrastructure in existing buildings to outdoor amenities such as pools, spas, fireplaces, and grills in order to minimize the carbon footprint of this equipment. Heat pump pool and spa heating systems are six times more efficient than their gas counterparts, and there is a wide range of heating capacity available for backyard pools<sup>12</sup>. Such heat pump systems have been widely accepted outside of California, especially in mild climate locations such as Florida. A 2019 cost-effectiveness study<sup>13</sup> of heat pump pool heating in Santa Monica shows that heat pump pool heaters have a lifecycle benefit-cost ratio ranging from 0.87 to 1.27, based on an incremental equipment cost between \$900 and \$1,300. The study estimates the annual GHG savings of a heat pump pool heater to be slightly higher than a heat pump water heater, around 1.5 MT CO<sub>2</sub>-e . For outdoor grills and fireplaces, portable propane tanks are simple substitutes for gas line extensions, avoid the cost of trenching a gas line to the equipment, and also do not require a building permit for its installation.

To address electrification in existing buildings, staff proposes requiring a heat pump water heater when the existing water heater is replaced or a new water heater is added as part of a residential addition/alteration project. The federal tax credit for installing heat pump equipment offered by the Inflation Reduction Act of 2022, plus the projected bill savings over the lifetime of the heat pump water heater (HPWH), has made HPWH more cost-effective compared to a gas water heater.

Staff has also considered requiring a heat pump space conditioning system when the gas furnace/boiler is replaced as part of an alteration project. However, the electric demand of a heat pump space heating system is significantly higher than that of a heat pump water heater. In discussions this spring, the Council Ad Hoc S/CAP Committee agreed to focus

<sup>11</sup> This assumes that each year there are 50 single-family projects that meets the substantial remodel definition.

<sup>12</sup> A Pocket Guide to All-Electric Retrofits of Single-Family Homes, Redwood Energy, August 2021, pp 66-67

<sup>13</sup> [Cost-Effectiveness Study: All-Electric Heat Pump Pool Heating – Non-Preempted](#), August 2019

primarily on water heater conversion in the near term while electric grid modernization efforts ramped up, and a focus on space conditioning would be at odds with that prioritization. Also, while a heat pump space conditioning system offers space cooling which is a desirable feature, it will cost substantially more than simply replacing the gas furnace. Staff proposes revisiting this requirement at a later point when the grid modernization effort is underway and a predictable schedule is in place.

#### City Programs to Support Building Electrification

Over the past few years, the Utilities Department has actively promoted the many benefits of all-electric buildings and is planning to launch new programs to support electrification retrofit projects in existing residential buildings. Most single-family homes currently use natural gas as the primary fuel source for water heating, space heating, and cooking. The current S/CAP goals assume that all single-family homes will be all-electric homes. There is much work that lies ahead to fully electrify the 15,600 single-family homes. The lowest cost pathway would be to replace the gas equipment with efficient electric alternatives as they reach the end of useful life. Electric equipment typically has higher amp draw than its gas counterparts and may also require a dedicated circuit. To support customers with electrification planning, CPAU has offered a home electrification readiness assessment service since August 2019.

Over the next year, CPAU will focus on promoting the adoption of heat pump water heaters (HPWH) by offering an advanced HPWH pilot that covers turnkey equipment installation and financing to residential customers<sup>14</sup>. This pilot is designed to equitably support heat pump water heater replacement regardless of whether the customer is a homeowner or renter and the customer's financial status, with the goal of retrofitting 1,000 residential gas water heaters primarily in single-family homes. The pilot will create a foundation for similar programs for heat pump space heating and other electric equipment and appliances in the future. CPAU will continue to collaborate with Development Services to develop a streamlined process to permit HPWH and other electrification installations.

Besides water heating, space heating represents the biggest end use for natural gas in a typical home in Palo Alto. However, CPAU has decided to delay offering rebates for residential heat pump space conditioning systems. This is because the typical load for a heat pump space conditioning system in a single-family home is five times the typical load of a heat pump water heater, and many transformers in residential neighborhoods are already near capacity. As stated earlier, staff is prioritizing water heater conversion in the near term and will revisit program options to encourage the electrification of gas space heating equipment at a later point.

For non-residential customers, CPAU has expanded its business rebate offerings to include electrification rebates<sup>15</sup> to incentivize commercial customers to replace gas equipment with efficient electric alternatives. Both prescriptive and custom electrification rebates are

<sup>14</sup> Staff Report #14542, September 27, 2022

<sup>15</sup> <https://www.cityofpaloalto.org/businessrebates>

available to support a variety of projects. In August 2022, CPAU launched the Business Electrification Technical Assistance Program (BE TAP)<sup>16</sup> which offers free onsite assessment to identify electrification opportunities in commercial buildings, school facilities, and public facilities, and serves as a resource to support a customer's electrification journey.

In FY 2023, building electrification programs are funded from three sources: (i) Electric Public Benefit funds, which is collected through a mandated charge of 2.85% of the electric retail rate for all electric utility customers, to fund energy efficiency programs, renewable energy projects, research and development projects, and low-income efficiency programs; (ii) Electric Local Decarb Reserves, which is funded by the Renewable Energy Certificate (REC) Exchange program<sup>17</sup>; and (iii) Gas Local Decarb Reserves, which is funded by a portion of the Cap and Trade auction proceeds from the sale of allocated Cap and Trade allowances to the Gas Utility. The total building electrification budget in FY 2023 is \$4 million, although staff is currently proposing a FY 2023 budget amendment to fund the advanced HPWH pilot<sup>18</sup>

#### Other Cities' Policies Related to Building Electrification

As of August 2022, 59 other jurisdictions in California have adopted all-electric or natural gas ban ordinances for new construction projects, with more cities and counties anticipated to adopt all-electric codes with the 2022 building code cycle. Some of these local jurisdictions include San Francisco, South San Francisco, Oakland, Berkeley, Brisbane, Marin County, Burlingame, Millbrae, San Carlos, San Mateo, San Mateo County, Redwood City, Menlo Park, East Palo Alto, Sunnyvale, Mountain View, Morgan Hill, San Jose, Milpitas, and Hayward. All of these cities have performed a similar analysis and have adopted the all-electric code in order to meet their climate action plan's GHG reduction targets. Each city adapts the all-electric ordinance to suit the building types, uses, sizes, and age of the building stock within the jurisdiction.

In addition to the all-electric requirement for new construction projects, City of San Mateo has also proposed the following 2022 reach code requirements for existing residential buildings (to be enforced at the time of permit application):

- (i) requires panel replacement and panel upgrade projects to include panel capacity/breaker space for future electrification;
- (ii) requires all kitchen and laundry renovations include installation of an electric outlet to support future electrification of gas appliances;
- (iii) requires installation of heat pump air conditioning when new air conditioning is installed

<sup>16</sup> <https://www.cityofpaloalto.org/business/electrification>

<sup>17</sup> <https://www.cityofpaloalto.org/files/assets/public/agendas-minutes-reports/reports/city-manager-reports-cmrs/year-archive/2020-2/id-11566.pdf>

<sup>18</sup> Staff Report 14606, September 27, 2022

or replaced, in conjunction with furnace replacement;

(iv) requires new pools to use electric or solar pool heating, and prohibit the extension of fuel gas infrastructure into the backyard for uses such as fire pits, grills, and pools;

(v) require heat pump water heater installation during addition and alteration projects that include water heater replacement.

#### b. Proposed EV Infrastructure Requirements

Palo Alto has long recognized the need to support EV adoption through the city's building standards to offer easily accessible EV charging stations at the time of construction; retroactive installation of electrical wiring for EV charging would be much more costly across all building types. In December 2013<sup>19</sup>, City Council adopted the requirement for EV charging infrastructure in new single-family homes; six months later, City Council adopted EV charging infrastructure requirements for new multifamily and nonresidential buildings including hotels<sup>20</sup>. The definitions used for EV charging infrastructure have remained largely unchanged since 2014.

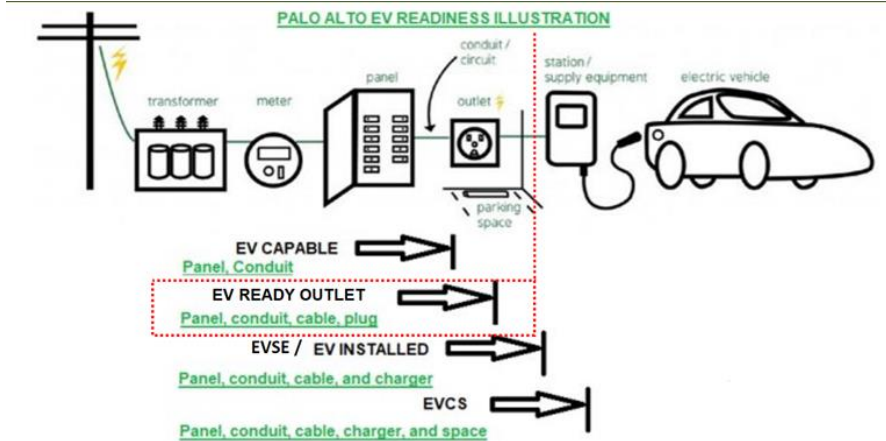
California began mandating EV charging infrastructure for new single-family homes via CALGreen since 2015 and for nonresidential buildings since 2017<sup>21</sup>. CALGreen provides definitions for EV charging requirements that are commonly accepted by the building industry. For the 2022 building code cycle, staff proposes that Palo Alto align the current definitions for EV charging requirements to match CALGreen. Consistency in terminologies for EV charging requirements across jurisdictions helps to minimize confusion among developers and architects. These definitions are provided below and illustrated in Figure 1:

**Figure 1: An Illustration of different levels of EV Readiness**

<sup>19</sup> [Staff Report 4315](#), December 9, 2013

<sup>20</sup> [Staff Report 4823, June 16, 2014](#)

<sup>21</sup> [Light-Duty Electric Vehicle Charging Infrastructure Analysis for California's CALGreen Building Code](#), September 2021



**EV Capable Space:** a vehicle space with electrical panel space and load capacity to support a branch circuit and necessary raceways, both underground and/or surface mounted, to support EV charging

**EV Ready Space:** a vehicle space which is provided with a branch circuit and any necessary raceways to accommodate EV charging, terminating in a receptacle or a charger

**Level 2 EV Supply Equipment (EVSE):** The 208/240 Volt 40-ampere branch circuit, and the electric vehicle charging connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises and the EV.

**Low Power Level 2 EV Charging Receptacle:** A 208/240 Volt 20-ampere minimum branch circuit and a receptacle for use by an EV driver to charge their EV or hybrid electric vehicle. For the 2022 building code cycle, staff proposes the following EV charging requirements as shown in Table 1:

**Table 1: Summary of EV Infrastructure Requirements**

| Type of building                  | Proposed 2022 requirements                                                                                                                                                                                                                                                      | Current 2019 requirements                                                                                                                                                                      |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| New Single-Family Homes/ Duplexes | One (1) EV-Ready space or Level 2 EVSE installed per dwelling unit (Low Power Level 2 ok). ADU is exempt since it doesn't require parking.                                                                                                                                      | One (1) EV-Capable, EV-Ready space or Level 2 EVSE                                                                                                                                             |
| New Multifamily Dwellings         | At least 1 Level 2 or EV Ready Space for each residential unit (Low Power Level 2 Charging Receptacle ok for up to 60% of the total EV parking spaces)<br><br>EV-Capable space, EV-Ready space or Level 2 EVSE installed, for at least 25% of guest parking spaces, among which | One (1) Level 2 EV-Ready space or EVSE installed per residential unit<br><br>EV-Capable space, EV-Ready space or Level 2 EVSE installed, for at least 25% of guest parking spaces, among which |



|                                                  |                                                                                                                                                                                                                                           |                                                                                                                                                                                   |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                  | at least 5% (and no fewer than one) shall be Level 2 EVSE installed.                                                                                                                                                                      | at least 5% (and no fewer than one) shall be Level 2 EVSE installed.                                                                                                              |
| New Hotels                                       | At least 30% EV Ready Space and at least 10% Level 2 EVSE installed                                                                                                                                                                       | EV-Capable space, EV-Ready space, or Level 2 EVSE installed for at least 30% of parking spaces, among which at least 10% (and no fewer than one) shall be Level 2 EVSE installed. |
| New Non-Residential Structures other than Hotels | For building with 10 to 20 parking spaces, 20% EV-Capable space or EV-Ready space and 20% Level 2 EVSE installed.<br><br>For building with over 20 parking spaces, 15% EV-Capable space or EV-Ready space and 15% Level 2 EVSE installed. | EV-Capable space, EV-Ready space, or Level 2 EVSE installed for at least 25% of parking spaces, among which at least 5% (and no fewer than one) shall be Level 2 EVSE installed.  |

The proposed EV infrastructure requirements are slightly higher than the 2019 requirements. Low Power Level 2 EV infrastructure will be allowed in new single-family and multi-family residential buildings but not non-residential buildings. In proposing the Low Power Level 2 EV infrastructure requirement in new multifamily dwellings, staff acknowledges the need to balance the demand for EV charging with the cost to support the electrical infrastructure to meet this demand. This includes both utility and customer equipment including the electric panel, the transformer, and the feeder line serving the building. For an 8-hour charging session, a 40-amp Level 2 EV charger can provide 220 to 240 miles, while a 20-amp low-power Level 2 EV charger can provide 110 to 120 miles, which is likely more than enough to meet the daily commute needs of most people.<sup>22</sup>

#### c. Proposed Water Efficiency Requirements

For the upcoming code cycle, staff recommends all new pools and outdoor spas shall be provided with a vapor retardant cover. The objective of this code is to reduce evaporation loss of heated water; it will have the added benefit of reducing pool heating energy needs. Based on recent permit records, staff expects between 10 to 20 permit applications for new pools and spas each year. According to the U.S. Department of Energy, pool covers conserve

<sup>22</sup> The 2022 CALGreen allows the local code enforcement agency to make the determination that the required EV charging infrastructure is infeasible on a case-by-case basis based on electric grid constraint or the added cost to support the local utility infrastructure (Section 4.106.4.1 and Section 5.106.5.3).

water by reducing the amount of make-up water needed by 30% to 50% and can provide savings on heating costs of up to 50 to 70%<sup>23</sup>. Pool covers can cost anywhere from \$50 to thousands of dollars depending on the size and shape of the pool, as well as the type of cover installed<sup>24</sup>. Since 2020, Palo Alto Municipal Code<sup>25</sup> has mandated a vapor retardant cover for all new *heated* pools and outdoor spas, and included an exception stating that pools or spas derive at least 60% of the annual heating energy from site solar or recovered energy. The proposed 2022 code update will expand the regulation to cover *all* pools and spas (heated or not) with no exception for solar-heated pools<sup>26</sup>.

In addition to the pool cover requirement, staff propose an update to water efficiency management in cooling towers. In Palo Alto, cooling towers are used primarily to provide air conditioning in large commercial, lab, research, and multifamily buildings whereby heat rejection is achieved through water evaporation. The City has banned single-pass cooling since 2020<sup>27</sup>. For the coming code cycle, staff recommends an update to require cooling tower projects to perform potable water analysis at the project site to calculate the maximum number of cooling tower cycles based on the maximum concentrations of parameters listed in Table 2. This follows the current LEED guideline for optimizing process water use<sup>28</sup>. These calculations are typically performed by the project design team and are coordinated with the cooling tower manufacturer. Staff further proposes that cooling towers meet the maximum calculated number of cycles. In reality, the number of cycles can exceed the maximum calculated number of cycles by increasing the level of treatment and/or maintenance in the condenser or make-up water systems<sup>29</sup>. This proposed update can provide significant water efficiency savings in a cooling tower project; as an example, increasing from three to four will reduce make-up water use by 11%<sup>30</sup>.

Table 2. Maximum concentrations for parameters in condenser water

| Parameter                  | Maximum Level |
|----------------------------|---------------|
| Ca (as CaCO <sub>3</sub> ) | 600 ppm       |
| Total alkalinity           | 500 ppm       |

<sup>23</sup> [Swimming Pool Covers | Department of Energy](#)

<sup>24</sup> [Pool Cover Cost Breakdown - Pool Research](#)

<sup>25</sup> [16.18.130 Section 301.3 amended - Covers. \(amlegal.com\)](#)

<sup>26</sup> Similar regulation has been proposed in Santa Clara County's Model Water Efficient New Development Ordinance (MWENDO), which would require all new pools and spas to have some type of cover depending on feasibility ([https://www.localenergycodes.com/download/536/file\\_path/fieldList/ModelOrd-WaterEfficiency.docx](https://www.localenergycodes.com/download/536/file_path/fieldList/ModelOrd-WaterEfficiency.docx) pages 22-23)

<sup>27</sup> [16.08.100 Section 808.2 Cooling water. \(amlegal.com\)](#)

<sup>28</sup> LEED v4.1 has developed a methodology to optimize water use in cooling tower by achieving the maximum number of cooling tower cycles while controlling corrosion and scale in the condenser water system ([Optimize Process Water Use | U.S. Green Building Council \(usgbc.org\)](#))

<sup>29</sup> LEED has set a precedent for optimizing cooling tower cycles and reducing water use by offering credits for cooling towers achieving the maximum number of cycles achieved without exceeding any maximum concentration levels or affecting operation of condenser water system and additional credits for using 20% or higher recycled non-potable water ([Optimize Process Water Use | U.S. Green Building Council \(usgbc.org\)](#))

<sup>30</sup> [Water Efficiency Management Guide for Mechanical Systems](#), EPA, November 2017

|                  |            |
|------------------|------------|
| SiO <sub>2</sub> | 150 ppm    |
| Cl <sup>-</sup>  | 300 ppm    |
| Conductivity     | 3300 µS/cm |

ppm = parts per million

µS/cm = micro siemens per centimeter

#### d. Proposed Embodied Carbon Limits in Building Materials for 2023-2025

Besides transportation and direct emissions in buildings, the embodied carbon of building materials during extraction, manufacturing, and disposal represent a very significant source of carbon emissions. In particular, concrete, with the cement that binds it together, has emerged as a leading contributor to embodied carbon. Cement production alone accounts for as much as 8% of global CO<sub>2</sub> emissions<sup>31</sup>. Ways to reduce carbon emissions associated with concrete manufacturing include limiting cement content to the extent possible while maintaining strength and utilizing greener alternative materials and/or processes.<sup>32</sup>

In 2019, Marin County adopted low carbon concrete code requirements that include both cement and embodied carbon guidelines<sup>33</sup>; this is modeled after the Low Carbon Concrete Code developed by StopWaste<sup>34</sup>. Passed in September 2021, Senate Bill 596 directs the California Air Resources Board to develop and implement a comprehensive strategy to achieve net-zero greenhouse gas emissions associated with cement used within California.

Palo Alto Municipal Code currently only covers reduction in cement usage as an elective measure<sup>35</sup>. For the 2023-25 code cycle, staff recommends the use of concrete in new construction projects to adhere to cement limits (prescriptive compliance path) or embodied carbon limits (performance compliance path) as outlined in Table 3 below. These limits are based on the current Marin County low carbon concrete code. Based on staff preliminary research, all ready mix suppliers should be able to meet the code and there are at least three large concrete suppliers in the Bay Area that meet these requirements. with little or no incremental cost associated with low carbon concrete.

**Table 3. Low Carbon Concrete Code Compliance Pathways**

|                                                         | <b>Cement limits</b>                                              | <b>Embodied Carbon limits</b>                               |
|---------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------|
| Minimum specified compressive strength $f'_c$ , psi (1) | Maximum ordinary Portland cement content, lbs/yd <sup>3</sup> (2) | Maximum embodied carbon kg CO <sub>2</sub> e/m <sup>3</sup> |
| up to 2500                                              | 362                                                               | 260                                                         |
| 3000                                                    | 410                                                               | 289                                                         |
| 4000                                                    | 456                                                               | 313                                                         |
| 5000                                                    | 503                                                               | 338                                                         |
| 6000                                                    | 531                                                               | 356                                                         |
| 7000                                                    | 594                                                               | 394                                                         |

<sup>31</sup> [Concrete needs to lose its colossal carbon footprint](#), Nature Journal, September 2021

<sup>32</sup> [UN Environment Global Status Report 2017](#), [EIA International Energy Outlook 2017](#), Architecture 2030 2018.

<sup>33</sup> [Marin County Low Carbon Concrete code](#)

<sup>34</sup> <https://www.stopwaste.org/concrete>

<sup>35</sup> [16.14.250 Section A4.403.2 Reduction in cement use. \(amlegal.com\)](#)

|                                                                                                                                                                                               |     |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|
| 7001 and higher                                                                                                                                                                               | 657 | 433 |
| up to 3000 light weight                                                                                                                                                                       | 512 | 578 |
| 4000 light weight                                                                                                                                                                             | 571 | 626 |
| 5000 light weight                                                                                                                                                                             | 629 | 675 |
| Notes:<br>(1) For concrete strengths between the stated values, use linear interpolation to determine cement and/or embodied carbon limits.<br>(2) Portland cement of any type per ASTM C150. |     |     |

## RESOURCE IMPACT

Resource impacts from the adoption of these ordinances are limited to staff training costs, purchasing copies of the new codes, updating and creating new handouts for new proposed amendments, and implementation of public outreach efforts.

## POLICY IMPLICATIONS

The State of California mandates enforcement of the updated California Building Standards Code and it will go into effect regardless of whether a City adopts local amendments to the CBSC or not. The 2022 CBSC will become effective on January 1, 2023. These costs can be absorbed through the department budget.

The proposed Reach Codes support the City's S/CAP Framework and the greenhouse gas reduction goal of 80% from the 1990 level by 2030. Staff estimates the avoided emissions attributed to the proposed Reach Codes at over 3,420 MT CO<sub>2</sub>-e per year by 2030, or about 1% to 1.5% of the remaining emissions reductions needed to achieve the 80x30 goal (about 1.5% to 2% when upstream emissions from fuel use are included).<sup>36</sup>

The proposed Reach Codes also align with one of the top four Council Priorities for CY 2022: "Climate Change – Protection and Adaptation".

Additional code changes may be required in zoning code sections to allow for residences to exceed maximum building heights where the proposed 1-foot of freeboard may cause the buildings to exceed current height limitations. Compatibility with existing homes is another policy consideration. Several of the City's Eichler tracts and Eichler single-story overlays are located in these flood zone areas; Eichlers are typically slab-on-grade construction and with low-pitched roofs. New homes meeting the new finished floor requirements in predominately single-story home neighborhoods in the flood zone may not be as compatible with existing homes. Additionally, state legislation enables owners to rebuild or repurpose detached accessory buildings for dwelling units (ADUs) in rear yards. A requirement for a higher finished floor will result in taller ADU structures; this could result in privacy concerns for neighbors and concerns about taller ADUs near backyards and side yards of adjacent one-story homes.

<sup>36</sup> Using 20-year global warming potentials.

## STAKEHOLDER ENGAGEMENT

In developing the proposed Reach Codes recommendation, staff solicited input from various City departments including Planning & Development Services, Utilities (including Engineering division), and Public Works. On June 14, 2022, staff convened a meeting with the Green Building Advisory Group (GBAG), a group of green building professionals and stakeholders including architects, green building inspectors, and contractors, who have provided valuable input to the development of Palo Alto's Energy Reach Code and Green Building Ordinance in prior code cycles. Staff subsequently created a public [website](#) that outlines the proposed requirements under the 2022 Green Building regulations and Local Energy Reach Code, along with information for two public meetings in August. The Reach Code website and the public meetings were publicized through the city's sustainability e-newsletter and community e-newsletter ("Uplift Local"), emails to residents and builders, as well as various social media platforms (Facebook, Twitter). The two public meetings were held on August 16 and 18, 2022, and were attended by 28 and 31 community members, respectively.

Staff separately conducted a focus group meeting on August 12 with local architects to solicit feedback on the proposed definition of Substantial Remodel. This meeting was attended by seven architects; staff also received one set of comments through email. The proposed definition of Substantial Remodel was presented in the subsequent Reach Code public meetings.

## ENVIRONMENTAL REVIEW

The recommended action in this report is exempt from the California Environmental Quality Act (CEQA) in accordance with CEQA Guidelines section 15308 as an action by the City for the protection of the environment, and under section 15061(b)(3) on the grounds that the proposed standards are more stringent than the State energy standards, there are no reasonably foreseeable adverse environmental impacts and there is no possibility that the activity in question may have a significant adverse effect on the environment.

# Schedule of Meetings

Published October 6, 2022

This is a courtesy notice only. Meeting dates, times, and locations are subject to change. Almost all Palo Alto Council and some Standing Committee meetings are cablecast live on Channel 26. If there happens to be concurrent meetings, one meeting will be broadcast on Channel 29.

**Meetings are held in-person and virtually unless otherwise noted**

## THURSDAY, October 6

Architectural Review Board, 8:30 a.m.

**CANCELLED**

## MONDAY, October 10

City Council, 5:00 p.m.

**CANCELLED**

## TUESDAY, October 11

Policy & Services Committee, 7:00 p.m.

Council Chambers

## WEDNESDAY, October 12

Utilities Advisory Commission, 6:00 p.m.

Community Meeting Room

Planning & Transportation Commission, 6:00 p.m.

Council Chambers

## THURSDAY, October 13

Historic Resources Board, 8:30 a.m.

Council Chambers

Human Relations Commission, 6:00 p.m.

Council Chambers

## MONDAY, October 17

City Council, 5:00 p.m.

Council Chambers

## TUESDAY, October 18

Finance Committee, 5:30 p.m.

Council Chambers

## WEDNESDAY, October 19

Rail Committee, 1:00 p.m.

Community Meeting Room

## THURSDAY, October 20

City/School Liaison Committee, 8:30 p.m.

Virtual Only

Architectural Review Board, 8:30 a.m.

Council Chambers

Public Art Commission, 7:00 p.m.

Council Chambers

## MONDAY, October 24

City Council, 5:00 p.m.

Council Chambers

## TUESDAY, October 25

Parks & Recreation Commission, 7:00 p.m.

Council Chambers

## WEDNESDAY, October 26

Planning & Transportation Commission, 6:00 p.m.

Council Chambers

## THURSDAY, October 27

Historic Resources Board, 8:30 a.m.

Council Chambers



**City of Palo Alto**  
**City Council**  
**Supplemental Report**

**(ID # 14881)**

**Meeting Date: 10/17/2022**

**Report Type: Supplemental Report**

**Title: PUBLIC HEARING: Adoption of Ten Ordinances That Repeal and Adopt Various Sections of the Palo Alto Municipal Code (PAMC) Related to the 2022 CA Building Codes (CA Code of Regulations Title 24) Update and Proposed Local Amendments; including: (1) Chapter 15.04 Incorporating the 2022 CA Fire Code With Local Amendments; (2) Chapter 16.04 Incorporating the 2022 CA Building Code With Local Amendments and Chapter 16.19 Incorporating the 2022 CA Historic Building Code and 2022 CA Existing Building Code with Amendments; (3) Chapter 16.05 Incorporating the 2022 CA Mechanical Code With Local Amendments; (4) Chapter 16.06 Incorporating the 2022 CA Residential Code With Local Amendments and Amending Chapter 16.52 to Align Federal, State, and Local Flood Hazard Regulations; (5) Chapter 16.08 Incorporating the 2022 CA Plumbing Code With Local Amendments; (6) Chapter 16.16 Incorporating the 2022 CA Electrical Code With Local Amendments; (7) Chapter 16.18 Incorporating the 2021 International Swimming Pool and Spa Code With Local Amendments; (8) Chapter 16.14 Incorporating the 2022 CA Green Building Standards Code with Local Amendments; (9) Chapter 16.17 Incorporating the 2022 CA Energy Code Without Local Amendments. Environmental Assessment: Project is Exempt Under CA Environmental Quality Act CEQA Guidelines Sections 15061(b)(3) and 15308.**

**From: City Manager**

**Lead Department: Planning and Development Services**

**Recommendation**

Staff recommends that the City Council adopt the attached ten ordinances that repeal and adopt various sections of the Palo Alto Municipal Code (PAMC) related to the 2022 California Building Codes (Cal. Code of Regulations Title 24) and proposed local amendments:

1. An ordinance repealing PAMC Chapter 15.04 and adopting a new Chapter 15.04 incorporating the 2022 Cal. Fire Code with local amendments;

2. An ordinance repealing PAMC Chapter 16.04 and adopting a new Chapter 16.04 incorporating the 2022 Cal. Building Codes and local amendments and a new Chapter 16.19 incorporating the 2022 Cal. Historical Building Code and Existing Building Code with local amendments;
3. An ordinance repealing PAMC Chapter 16.05 and adopting a new Chapter 16.05 incorporating the 2022 Cal. Mechanical Code with local amendments;
4. An ordinance repealing PAMC Chapter 16.06 and adopting a new Chapter 16.06 incorporating the 2022 Cal. Residential Code with local amendments and amending PAMC Chapter 16.52 to align federal, state, and local regulations regarding flood hazards;
5. An ordinance repealing PAMC Chapter 16.08 and adopting a new Chapter 16.08 incorporating the 2022 Cal. Plumbing Code with local amendments;
6. An ordinance repealing PAMC Chapter 16.16 and adopting a new Chapter 16.16 incorporating the 2022 Cal. Electrical Code with local amendments;
7. An ordinance repealing PAMC Chapter 16.18 and adopting a new Chapter 16.18 incorporating the 2021 International Swimming Pool and Spa Code with local amendments;
8. An ordinance repealing PAMC Chapter 16.14 and adopting a new Chapter 16.14 incorporating the 2022 Cal. Green Building Standards Code with local amendments;
9. An ordinance repealing PAMC Chapter 16.17 and adopting a new Chapter 16.17 incorporating the 2022 Cal. Energy Code without local amendments;
10. (10) Chapter 16.19 Incorporating the 2022 CA Energy Code With Local Amendments.

## Background

This report transmits the ordinances Council will act upon for the subject agenda title. While there is a considerable number of ordinances to review, the enacting regulations largely codify a variety of technical codes established by the State of California and require local adoption/implementation prior to January 1, 2023. The collection of ordinances generally relates to building, mechanical, electrical, plumbing, fire, energy and green building codes.

A jurisdiction may amend these codes to reflect local conditions that impact construction and may impose more restrictive standards subject to certain criteria or studies. For the most part, the proposed local amendments carried forward in the attached ordinances have been previously enacted; some new local amendments are explained in the previously submitted staff report.<sup>1</sup>

Some notable changes with the updated regulations, which follows the Council's previous discussion pertaining to the City's Sustainability and Climate Action Plan (S/CAP),<sup>2</sup> includes requirements that advance the City's climate action goals to curb greenhouse gas emissions. Specifically, the new ordinances establish an all-electric mandate for new commercial and residential buildings (including detached accessory dwelling units) and defines when a residential and commercial remodel or renovation is considered 'substantial' requiring compliance with the City's building codes, including electrification mandate. The new ordinances also preclude the installation or extension of gas lines for swimming pools, heaters, grills, firepits or similar features.

<sup>1</sup> October 17, 2022 Council Report: <https://www.cityofpaloalto.org/files/assets/public/agendas-minutes-reports/agendas-minutes/city-council-agendas-minutes/2022/20221017/20221017pccsm-linked.pdf>

<sup>2</sup> September 27, 2022 Council Report: <https://www.cityofpaloalto.org/files/assets/public/agendas-minutes-reports/agendas-minutes/city-council-agendas-minutes/2022/20220927/20220927pccsm-linked-amended-v2.pdf>



These green building codes are aimed at preventing new gas infrastructure in new homes and businesses and facilitate electric vehicle charging access in anticipation of a future electrified transportation network. The amendments are also well-aligned with the City's goal to reach its 80x30 greenhouse gas reduction targets, which requires addressing existing buildings, not just new construction. The green building codes complement the Advanced Water Heater Pilot Program approved October 3, 2021, and together they promote the conversion of gas water heaters to heat pumps in existing buildings using incentives, mandates, and by reducing barriers to permitting and installation in a manner that is compatible with the City's electric grid modernization efforts.

One additional note, the recommended action has changed slightly to reflect that the historical building and existing building code regulations have been moved to their own chapter. Previously these regulations were embedded in Chapter 16.04. The local amendments associated with this code change were previously adopted by Council in earlier code cycles. One new change noted in the previous staff report is a new provision that establishes a dwelling unit and congregate housing occupancy limit to ensure there is sufficient living space for each occupant and to minimize overcrowding.

**Attachments:**

- **Attachment7.a:** Attachment A Ordinance Repealing Ch 15.04 Amending Title 15 to Adopt a New Ch 15.04, the CA Fire Code (2022 Edition) with Local Amendments and Related Findings
- **Attachment7.b:** Attachment B Ordinance Repealing Ch 16.04 Adopting a New Ch 16.04, CA Building Code, New Ch 16.19, CA Historical Building Code and CA Existing Building Code, 2022 Edition, and Local Amendme
- **Attachment7.c:** Attachment C Ordinance Repealing Ch 16.05 Amending Title 16 to Adopt a New Ch 16.05 CA Mechanical Code, 2022 Edition, and Local Amendments and Related Findings
- **Attachment7.d:** Attachment D Ordinance Repealing Ch 16.06, CA Residential Code, 2022 Edition, and Local Amendments and Related Findings, and Amending Section Ch 16.52, Flood Hazard Regulations to Make Chan
- **Attachment7.e:** Attachment E Ordinance Repealing Ch 16.08 Amending Title 16 to Adopt a New Ch 16.08 CA Plumbing Code, 2022 Edition, and Local Amendments and Related Findings
- **Attachment7.f:** Attachment F Ordinance Repealing Ch 16.16 Amending Title 16 to Adopt a New Ch 16.16 CA Electrical Code, 2022 Edition, and Local Amendments and Related Findings
- **Attachment7.g:** Attachment G Ordinance Repealing Ch 16.18 Amending Title 16 to Adopt a New Ch 16.18 International Swimming Pool and Spa Code with Local Amendments
- **Attachment7.h:** Attachment H Ordinance Repealing Ch 16.14 Adopting a New Ch 16.14 California Green Building Code, 2022 Edition, and Local Amendments and Related Findings
- **Attachment7.i:** Attachment I Ordinance Repealing Ch 16.17 Amending Title 16 to Adopt a New Ch 16.17 CA Energy Code, 2022 Edition, and Local Amendments and Related Findings

Ordinance No. \_\_\_\_

Adoption of an Ordinance Repealing Chapter 15.04 of the Palo Alto Municipal Code and Amending Title 15 to Adopt a New Chapter 15.04, the California Fire Code (2022 Edition) With Local Amendments and Related Findings

The Council of the City of Palo Alto does ORDAIN as follows:

SECTION 1. Title 15 of the Palo Alto Municipal Code is hereby amended by repealing in its entirety Chapter 15.04 and enacting a new Chapter 15.04 to read as follows:

**15.04 CALIFORNIA FIRE CODE**

**15.04.010 Adoption of the California Fire Code.**

The California Fire Code, 2022 Edition, as adopted by the California Code of Regulations Title 24, Part 9, and Appendices B, C, D, E, F, G, H, and K is adopted as herein amended. One copy of the California Fire Code is on file and open to public inspection in the Office of the City Clerk. Additional copies of the secondary codes set forth within the California Fire Code, and the amendments set forth in this chapter, are on file and open to public inspection in the fire department administrative office.

Whenever the phrase “California Fire Code” appears in this code or in any ordinance of the city, such phrase shall be deemed and construed to refer to and apply to the “California Fire Code, 2022 Edition” as adopted by the California Code of Regulations Title 24, Part 9 and as adopted and amended by this chapter.

**15.04.020 Local Amendments.**

The provisions of this Chapter shall constitute local amendments to the cross-referenced provisions of the California Fire Code, 2022 Edition, and shall be deemed to replace the cross-referenced sections of said Code with the respective provisions set forth in this Chapter. Where used in this Chapter 15.04, ellipses shall indicate text of the California Fire Code, 2022 Edition, that has been adopted without amendment but is omitted for brevity.

**15.04.030 Section 102.5 amended - Application of residential code.**

Section 102.5 of the California Fire Code is amended to read as follows:

**102.5 Application of residential code.** Where structures are designed and constructed in accordance with the *California Residential Code*, the provisions of this code shall apply as follows:

1. Construction and design provisions:
  - a. Provisions of this code pertaining to the exterior of the structure shall apply, including, but not limited to, premises identification, fire apparatus access, and water supplies.
  - b. Provisions of this code pertaining to the interior of the structure shall apply when specifically required by this code including, but not limited to, Sections 903.2 through 903.3.7 and Section 907.2.10.
  - c. Where interior or exterior systems or devices are installed, construction permits required by Section 105.6 of this code shall also apply.
2. Administrative, operational, and maintenance provisions: all such provisions of this code shall apply.

**15.04.040 Section 103.2 deleted.**

Section 103.2 of the California Fire Code is deleted.

**15.04.050 Sections 105.3.9 and 105.3.10 added - Permits/Permit fees.**

Sections 105.3.9 and 105.3.10 are added to the California Fire Code to read as follows:

**105.3.9 Permits/Permit fees.** All permit fees shall be established by the City Council as set forth in the municipal fee schedule.

**105.3.10 Operational Permits.** Operational permits are valid for one year at which time they must be renewed by paying a fee specified in the municipal fee schedule.

**15.04.060 Table 105.5.9 amended - Permit amounts for compressed gases.**

Table 105.5.9 of the California Fire Code is amended to read as follows:

**TABLE 105.5.9  
PERMIT AMOUNTS FOR COMPRESSED GASES<sup>1</sup>**

| TYPE OF GAS                                                | <sup>2</sup> AMOUNT (cubic feet) |
|------------------------------------------------------------|----------------------------------|
|                                                            | X 0.0283 for m <sup>3</sup>      |
| Carbon dioxide used in carbon dioxide enrichment systems   | 875(100 lbs)                     |
| Flammable (except cryogenic and liquefied petroleum gases) | 200                              |
| Highly toxic                                               | Any amount                       |
| Inert and simple asphyxiant                                | 6,000                            |
| Irritant                                                   | 200                              |
| Moderately toxic                                           | 20                               |

|                              |            |
|------------------------------|------------|
| Other health hazards         | 650        |
| Oxidizing (including oxygen) | 504        |
| Pyrophoric                   | Any amount |
| Radioactive                  | Any amount |
| Sensitizer                   | 200        |
| Toxic                        | Any Amount |
| Unstable (reactive)          | Any amount |

For SI: 1 cubic foot = 0.0283m<sup>3</sup>.

- <sup>1</sup> Refer to Chapters 27, 30, 32, 35, 37, 40 and 41 for additional requirements and exceptions.
- <sup>2</sup> Cubic feet measured at normal Temperature and pressure.

**15.04.070 Table 105.5.22 amended - Permit amounts for hazardous materials.**

Table 105.5.22 of the California Fire Code is amended to read as follows:

**TABLE 105.5.22  
PERMIT AMOUNTS FOR HAZARDOUS MATERIALS**

| <b>TYPE OF MATERIAL</b>                               | <b>AMOUNT</b>                                            |
|-------------------------------------------------------|----------------------------------------------------------|
| Carcinogens                                           | 10 pounds                                                |
| Combustible liquids                                   | See Section 105.6.16                                     |
| Corrosive materials:<br>Gases<br>Liquids<br>Solids    | See Section 105.6.8<br>55 gallons<br>500 pounds          |
| Cryogenics                                            | See Section 105.6.10                                     |
| Explosive materials                                   | See Section 105.6.14                                     |
| Flammable materials:<br>Gases<br>Liquids<br>Solids    | See Section 105.6.8<br>See Section 105.6.16<br>10 pounds |
| Highly toxic materials:<br>Gases<br>Liquids<br>Solids | Any amount<br>Any amount<br>Any amount                   |
| Moderately toxic gas                                  | 20 cubic feet                                            |

|                                                                                                        |                                                                      |
|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Organic peroxides:<br>Liquids: Class I-IV<br>Liquids: Class V<br>Solids: Class I-IV<br>Solids: Class V | Any Amount<br>No Permit Required<br>Any Amount<br>No Permit Required |
| Oxidizing materials:<br>Gases Liquids<br>Solids:                                                       | 504 Cubic Feet<br>Any amount<br>Any amount                           |
| Other health<br>Hazards:<br>Liquids                                                                    | 55 gallons<br>500 pounds                                             |
| Pyrophoric materials:<br>Gases<br>Liquids<br>Solids                                                    | Any amount<br>Any amount<br>Any amount                               |
| Radioactive materials:<br>Gases<br>Liquids<br>Solids                                                   | Any Amount<br>See Section 105.6.47<br>See Section 105.6.47           |
| Toxic materials:<br>Gases<br>Liquids<br>Solids                                                         | Any amount<br>Any amount<br>Any amount                               |
| Unstable (reactive) materials:<br>Gases<br>Liquids<br>Solids                                           | Any amount<br>Any amount<br>Any amount                               |
| Water reactive materials:<br>Liquids<br>Solids                                                         | Any amount<br>Any amount                                             |

For SI: 1 gallon = 3.785 L, 1 pound = 0.454kg.

- a. 20 gallons when Table 2703.1.1(1) Note k applies and hazard identification signs in accordance with Section 2703.5 are provided for quantities of 20 gallons or less.
- b. 200 pounds when Table 2703.1.1(1) Note k applies and hazard identification signs in accordance with Section 2703.5 are provided for quantities of 200 pounds or less.

**15.04.080 Sections 105.5.25 and 105.5.53 amended and Sections 105.5.55 through 105.5.59 added – Operational permits.**

Sections 105.5.25 and 105.5.53 of the California Fire Code are amended and Sections 105.5.55 through 105.5.59 are added to read as follows:

[ . . . ]

**105.5.25 Hot work operations.** An operational permit is required for hot work including, but not limited to:

1. Public exhibitions and demonstrations where hot work is conducted.
2. Use of portable hot work equipment inside a structure.  
Exception: (deleted)
3. Fixed-site hot work equipment, such as welding booths.
4. Hot work conducted within a wildfire risk area.
5. Application of roof coverings with the use of an open-flame device.
6. (deleted)

[ . . . ]

**105.5.53 Lithium batteries.** An operational permit is required for an accumulation of more than 15 cubic feet (0.42 m) of lithium-ion and lithium metal batteries, where required by Section 322.1.

[ . . . ]

**105.5.55 Liquid gas fueled equipment.** An operational permit is required for liquid gas fueled equipment.

**105.5.56 Battery operated equipment.** An operational permit is required for commercial/industrial/research battery operated equipment.

**105.5.57 Underground storage tank.** An operational permit is required for Underground Storage Tanks.

**105.5.58 Radioactive materials.** An operational permit is required to store, use or handle any radioactive material or source.

**105.5.59 Day care permit.** An operational permit is required to operate a day care facility for more than six children or adults.

**15.04.090 Section 105.6.3 and 105.6.12 amended and Section 105.6.25 added – construction permits.**

Sections 105.6.3 and 105.6.12 of the California Fire Code are amended, and 105.6.25 of the California Fire Code is added to read as follows:

[. . .]

**105.6.3 Cryogenic fluids.** A construction permit is required for installation of or alteration to stationary cryogenic fluid storage systems where the system capacity exceeds the amounts listed in Table 105.5.11. Maintenance performed in accordance with this code is not considered to be an alteration and does not require a construction permit.

[. . .]

**105.6.12 Hazardous Materials.** A construction permit is required to install, repair damage to, abandon, remove, place temporarily out of service, or close or substantially modify a storage facility or other area regulated by Chapter 50 where the hazardous materials in use and when equipment is modified or installed that uses, stores, processes, or conveys hazmat.

Exceptions:

1. deleted
2. For repair work performed on an emergency basis, application for permit shall be made within two working days of commencement work.

[. . .]

**105.6.25 Underground fire service lines: installation or modification.**

A construction permit is required for the installation, modification or removal from service of underground fire service lines.

**15.04.100 Sections 105.8.1 and 105.8.2 added - Fire and life safety.**

Subsections 105.8.1 and 105.8.2 are added to the California Fire Code to read as follows:

**105.8.1 Fire and life-safety plan review.** Fire and life-safety plan review of all new construction, all remodels, and all additions shall be performed by the Fire Chief or his designee.

**105.8.2 Site Map and Floor plans.** The fire code official may require as a condition of final permit approval, a site map including the use of standard or approved Palo Alto Fire Department symbols. Features would include interior floor plans, on-site hydrant

locations, FDC locations, key safe locations, alarm panel locations, electrical panel locations, stairwell and elevator locations, water shut off locations, hazardous materials locations, and other significant design elements or fire service features. The site map is to be provided in a format compatible with the City's Geographic Information System (GIS) at time of construction. This requirement applies to newly constructed buildings, facilities where hazardous materials are used or stored in quantities exceeding permit amounts in Section 105, additions or permitted remodels when in the opinion of the fire code official a site map is warranted.

**15.04.110 Section 107.7 added - Certified Unified Program Agency Fees.**

Section 107.7 is added to the California Fire Code to read as follows:

**107.7 Certified Unified Program Agency (CUPA) Fees.** Pursuant to the Participating Agency Agreement between the County of Santa Clara and the City of Palo Alto dated July 1, 1997, or as amended, the Fire Department is authorized to collect fees associated with the CUPA programs. The CUPA fees will be collected on an annual basis or as specified in the Palo Alto Municipal Fee Schedule.

**15.04.120 Section 108.1 amended - Inspection authority.**

Section 108.1 of the California Fire Code is amended to read as follows:

**108.1 Inspection authority.** The fire code official is authorized to inspect, as often as necessary, buildings and premises, including such other hazards or appliances designated by the fire code official for the purposes of ascertaining and causing to be corrected any conditions which would reasonably tend to cause fire or contribute to its spread, result in an unauthorized discharge of hazardous materials, or amount to any violation of this code or any other law or standard affecting fire and life safety.

**15.04.130 Section 112.1.1 added - Enforcement/citation authority.**

Section 112.1.1 is added to the California Fire Code to read as follows:

**112.1.1 Penal code citation authority.** The employee positions designated in this section are authorized to exercise the authority provided in California Penal Code section 836.5 for violations of the California Fire Code. The designated employee positions are: Fire Chief, Deputy Fire Chief, Fire Marshal, Fire Inspector, Hazardous Materials Specialist and Hazardous Materials Inspector.

**15.04.140 Section 112.4 amended - Violation penalties.**

Section 112.4 of the California Fire Code is amended to read as follows:



**112.4 Violation penalties.** It is unlawful for any person to violate any provision or to fail to comply with any of the requirements of this Title 15 or any permits, conditions, or variances granted under this Title, and violators shall be subject to any penalty or penalties authorized by law, including but not limited to: administrative enforcement pursuant to Chapters 1.12 and 1.16 of the Palo Alto Municipal Code; and criminal enforcement pursuant to Chapter 1.08 of the Palo Alto Municipal Code. Each separate day or any portion thereof during which any violation of this chapter occurs or continues shall be deemed to constitute a separate offense.

When the Fire Chief or his/her designee determines that a violation of this Chapter has occurred, the Fire Chief or his/her designee may record a notice of pendency of code violation with the Office of the County Recorder stating the address and owner of the property involved. When the violation has been corrected, the Fire Chief or his/her designee shall issue and record a release of the notice of pendency of code violation.

[. . .]

#### **15.04.150 Definitions amended or added to Section 202**

Except as noted herein, Section 202 is adopted in full. The following definitions are amended or added to Section 202 of the California Fire Code to read as follows:

**3D PRINTER.** A machine used in the additive manufacturing process for fabricating objects through the deposition of a material using a print head, nozzle, or another printer technology.

**ADDITIVE MANUFACTURING.** A process of joining materials to make objects from 3D model data, usually layer upon layer, sometimes referred to as 3D printing. The Code recognizes two types of additive manufacturing:

1. Industrial additive manufacturing. 3D printing operations that typically utilize combustible powders or metals, an inert gas supply, a combustible dust collection system, or that create a hazardous (classified) location area or zone outside of the equipment.
2. Non-industrial additive manufacturing. 3D printing operations that do not create a hazardous (classified) location area outside of the equipment, and do not utilize an inert gas supply or a combustible dust collection system.

**CORROSIVE LIQUID.** Corrosive liquid is:

- 1) any liquid which, when in contact with living tissue, will cause destruction or irreversible alteration of such tissue by chemical action; or
- 2) any liquid having a pH of 2 or less or 12.5 or more; or
- 3) any liquid classified as corrosive by the U.S. Department of Transportation; or

- 4) any material exhibiting the characteristics of corrosivity in accordance with Title 22, California Code of Regulations §66261.22.

**FALSE ALARM.** The willful, knowing, or negligent initiation or transmission of a signal, message, or other notification of an event of fire when no such danger exists.

**MAXIMUM THRESHOLD QUANTITY (MAX TQ).** Maximum threshold quantity is the maximum quantity of a moderately toxic or toxic gas, which may be stored in a single vessel before a more stringent category of regulation is applied. The following equation shall be used to calculate the Max TQ:

$$\text{Max TQ (pounds)} = \text{LC50 (ppm)} \times 2 \text{ lb.}$$

**MODERATELY TOXIC GAS.** A moderately toxic gas is a chemical or substance that has a median lethal concentration (LC50) in air more than 2000 parts per million but not more than 5000 parts per million by volume of gas or vapor, when administered by continuous inhalation for an hour, or less if death occurs within one hour, to albino rats weighing between 200 and 300 grams each.

**OTHER HEALTH HAZARD MATERIAL.** Other health hazard material is a hazardous material which affects target organs of the body, including but not limited to, those materials which produce liver damage, kidney damage, damage to the nervous system, act on the blood to decrease hemoglobin function, deprive the body tissue of oxygen or affect reproductive capabilities, including mutations (chromosomal damage), sensitizers or teratogens (effect on fetuses), carcinogens, and irritants.

**SECONDARY CONTAINMENT.** Secondary containment is that level of containment that is external to and separate from primary containment and is capable of safely and securely containing the material, without discharge, for a period of time reasonably necessary to ensure detection and remedy of the primary containment failure.

**SPILL CONTROL.** Spill control is that level of containment that is external to and separate from the primary containment and is capable of safely and securely containing the contents of the largest container and prevents the materials from spreading to other parts of the room.

**WILDLAND-URBAN INTERFACE FIRE AREA.** Wildland-urban interface fire area is a geographical area identified by the State of California as a "Fire Hazard Severity Zone" in accordance with Public Resources Code Sections 4201 through 4202 and Government Code Sections 51175 through 51189, or other areas designated by the enforcing agency to be at a significant risk from wildfires. Within the city limits of the City of Palo Alto, "Wildland-Urban Fire Interface Area" shall also include all areas west of Interstate 280,

and all other areas recommended as a “Very High Fire Hazard Severity Zone” by the Director of the California Department of Forestry.

**WORKSTATION.** A workstation is a defined space or independent principal piece of equipment using hazardous materials with a hazard rating of 1.

**15.04.160 Section 316.7 added - Roof guiderails at interior courts.**

Section 316.7 of the California Fire Code is added to read as follows:

**316.7 Roof guardrails at interior courts.** Roof openings into interior courts that are bounded on all sides by building walls shall be protected with guardrails. The top of the guardrail shall not be less than 42 inches in height above the adjacent roof surface that can be walked on. Intermediate rails shall be designed and spaced such that a 12-inch diameter sphere cannot pass through.

**15.04.170 320.3.13 added – Safety Certification.**

Section 320.3.13 of the California Fire Code is added to read as follows:

**320.3.13 Safety Certification.** The equipment, process, training procedures and occupancy associated with industrial additive manufacturing may be required by the fire code official to receive a safety certification from Underwriter's Laboratory or equivalent.

**15.04.180 Section 322.4.2.2.1 through 322.4.2.2.3 added – Maximum quantity in a control area.**

Section 322.4.2.2.1 through 322.4.2.2.3 are added to the California Fire Code to read as follows:

**322.4.2.2.1 Maximum quantity in a control area.** The aggregate amount of lithium batteries stored and handled in a single control area shall not exceed 9,000 pounds (4086 kg).

**322.4.2.2.2 Number of control areas.** The maximum number of control areas within a building shall be four.

**322.4.2.2.3 Group H, Division 2 occupancy.** Storage and handling of more than 9,000 pounds of lithium batteries per control area shall be in an approved Group H, Division 2 occupancy constructed in accordance with the Building Code and provided throughout with approved automatic smoke detection and radiant-energy detection systems.

**15.04.190 Section 401.5 amended – Making false report.**

Section 401.5 of the California Fire Code is amended to read as follows:

**401.5 Making false report.** A person shall not, knowingly or unknowingly, give, signal, or transmit a false alarm. Initiation or transmission in a twelve-month period of three or more signals, messages, or other notifications of an event of fire when no such danger exists shall be presumed negligent.

**15.04.200 Section 503.1 amended - Fire access roadways.**

Section 503.1 of the California Fire Code is amended to read as follows:

**503.1 Fire access roadways.** Where required, fire apparatus access roads shall be provided and maintained in accordance with Sections 503.1.1 through 503.1.3 and as per Fire Department Access Road Standards.

[ . . . ]

**15.04.210 Section 503.2.1 amended - Dimensions.**

Section 503.2.1 of the California Fire Code is amended to read as follows:

**503.2.1 Dimensions.** Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm) exclusive of shoulders, or as required by Appendix D, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of 13 feet 6 inches (4115 mm).

**15.04.220 Section 503.2.2 amended - Authority.**

Section 503.2.2 of the California Fire Code is amended to read as follows:

**503.2.2 Authority.** The fire code official shall have the authority to require or permit modifications to the required access widths and/or vertical clearance where they are inadequate for fire or rescue operations or where necessary to meet the public safety objectives of the jurisdiction.

**15.04.230 Section 504.5 added - Access Control Devices.**

Section 504.5 of the California Fire Code is amended to read as follows:

**504.5 Access Control Devices.** When access control devices including bars, grates, gates, electric or magnetic locks or similar devices, which would inhibit rapid fire department emergency access to within and throughout the building, are installed, such devices shall be approved by the fire code official. All electrically powered access control devices shall be provided with an approved means for deactivation or unlocking from a single location or otherwise approved by the fire code official or his/her designee. Access control devices shall also comply with Chapter 10 Egress.

**15.04.240 Section 505.1.1 and 505.1.2 added – Premises Identification.**

Sections 505.1.1 and 505.1.2 of the California Fire Code are added to read as follows:

**505.1.1 Address illumination.** Address identification required by Section 505.1 shall be illuminated.

**505.1.2 Address identification size.** Address numbers and letters required by Section 505.1 shall be sized as follows:

1. When the structure is between thirty-six (36) and fifty (50) feet from the road or other emergency means of access, a minimum of one-half inch (0.5") stroke by six inches (6") high is required.
2. When the structure is fifty (50) or more feet from the road or other emergency means of access, a minimum of one inch (1") stroke by nine inches (12") high is required.

**15.04.250 Section 509.1.2 added – Fire Protection Equipment identification.**

Section 509.1.2 of the California Fire Code is added to read as follows:

**509.1.2 Fire Protection Equipment identification.** Exterior fire control valves, standpipes, hose valves, fire department connection, post indicators, fire service backflow preventers and other fire department appurtenances are to be painted red for identification.

**15.04.260 Sections 603.11 through 603.13 added.**

Section 603.11 through 603.13 is added to the California Fire Code to read as follows:

**603.11 Immersion heaters.** All electrical immersion heaters used in dip tanks, sinks, vats and similar operations shall be provided with approved over- temperature controls and low liquid level electrical disconnects. Manual reset of required protection devices shall be provided.

**603.12 Electric vehicle service equipment – car chargers.** Electric vehicle service equipment shall be equipped with collision protection and an emergency power disconnect switch as determined necessary by the Fire Code Official.

**603.13 Energy storage system equipment - power walls.** Energy storage systems equipment shall be equipped with collision protection as determined necessary by the Fire Code Official.

**15.04.270 Section 605.5.2.1.1 amended - Prohibitive Locations.**

Section 605.5.2.1.1 of the California Fire Code is amended to read as follows:

**605.5.2.1.1 Prohibitive Locations.** The storage or use of portable outdoor gas- fired heating appliances is prohibited in any of the following locations:

1. Inside of any occupancy where connected to the fuel gas container.
2. Inside of tents, canopies and membrane structures.
3. On exterior balconies and rooftops.

Exception: intentionally deleted

**15.04.280 Section 903.2 amended – Automatic sprinkler systems, where required.**

Section 903.2 of the California Fire Code is amended to read as follows:

**903.2 Automatic sprinkler systems, where required.** Approved automatic sprinkler systems in new buildings and structures and in existing modified buildings and structures, shall be provided in the locations described in this section. Automatic fire sprinklers shall be installed per the requirements set forth in Sections 903.2.1 through 903.2.18 and as follows, whichever is the more restrictive:

1. An automatic sprinkler system shall be provided throughout all new buildings and structures.  
**Exception:** New non-residential occupancies, buildings or structures that do not exceed 350 square feet of building area and contain no interior plumbing fixtures.
2. An automatic sprinkler system shall be provided throughout all existing buildings when modifications are made that create conditions described in Sections 903.2.1 through 903.2.18, or that create an increase in fire area to more than 3,600 square feet or when the addition is equal or greater than 50% of the existing building square footage whichever is more restrictive.
3. An automatic sprinkler system shall be provided throughout all new or altered basements used for storage/utility/occupancy or habitable space regardless of size and throughout existing basements that are expanded by more than 50%. If the addition or alteration is only the basement, then only the basement is required to be fire sprinkler protected.
4. An automatic sprinkler system shall be installed throughout when either the roof structure and/or exterior wall structure have been removed, altered and/or replaced in at least 50% of the existing structure.
5. An automatic sprinkler system shall be installed throughout when any change in use or occupancy creates a more hazardous fire/life safety condition, as determined by the Fire Chief.

**Exception:** Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided that those spaces or areas are equipped throughout with an automatic smoke detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour fire barriers constructed

in accordance with Section 707 or not less than 2-hour horizontal assemblies constructed in accordance with Section 711, or both.

[. . .]

**15.04.290 903.3.1.1 amended – NFPA 13 sprinkler systems.**

Section 903.1.1.1 of the California Fire Code is amended to read as follows:

**903.1.1.1 NFPA 13 sprinkler systems.** Where the provisions of this code require that a building or portion thereof be equipped throughout with an automatic sprinkler system in accordance with this section, sprinklers shall be installed throughout in accordance with NFPA 13 and State and local requirements except as provided in Section 903.3.1.1.

1. For new buildings having no designated use or tenant, the minimum sprinkler design density shall be Ordinary Hazard Group II / 1500 square feet.
2. Where future use or tenant is determined to require a higher density, the sprinkler system shall be augmented to meet the higher density.
3. Light hazard shall be hydraulically designed to a 1500 square foot most remote area or as required by the fire code official.
4. Laboratory areas within buildings shall be hydraulically designed to Ordinary Hazard II density.
5. Parking areas where mechanical vehicle storage equipment is used the fire sprinkler system shall be hydraulically designed to Extra Hazard II density.
6. In multi-residential apartments, townhomes, and condominiums

[. . .]

**15.04.300 Section 903.3.1.2 amended – NFPA 13R sprinkler systems.**

Section 903.3.1.2 of the California Fire Code is amended to read as follows:

**903.3.1.2 NFPA 13R sprinkler systems.** Where allowed in buildings of Group R occupancies, automatic sprinkler systems shall be installed throughout in accordance with NFPA 13 and State and local standards.

[. . .]

**15.04.310 Section 903.3.1.3 amended and 903.3.1.3.1 added – NFPA 13D sprinkler systems.**

Section 903.3.1.3 of the California Fire Code is amended and 903.3.1.3.1 is added to read as

follows:

**903.3.1.3 NFPA 13D sprinkler systems.** Where allowed, automatic sprinkler systems installed in one-and two-family dwellings shall be installed throughout in accordance with NFPA 13D and State and local standards. Fire sprinkler protection shall be provided under rear covered patios extending over 4 ft perpendicular from the exterior of the structure.

**903.3.1.3.1. Increase in fire sprinkler design criteria.** Structures determined by the fire code official to have higher firefighting hazardous condition, or located in the Wildland-Urban Interface Fire Area, shall have an increase in fire sprinkler design criteria as determined by the fire code official.

**15.04.320 Section 903.4.3 amended - Floor control valves.**

Section 903.4.3 of the California Fire Code is amended to read as follows:

**903.4.3 Floor control valves.** Automatic sprinkler systems serving buildings two (2) or more stories in height shall have valves installed so as to control the system independently on each floor including basements.

**15.04.330 Section 905.3.1 amended - Standpipe systems.**

Section 905.3.1 of the California Fire Code is amended to read as follows:

**905.3.1 Standpipe systems.** A Class I Standpipe System shall be installed in new buildings or buildings being retrofitted with a fire sprinkler system where the roof edge/parapet is greater than 27 feet above the lowest level of Fire apparatus access roadway and in below grade levels.

**15.04.340 Section 909.20.7 added - Smoke control systems - schedule.**

Section 909.20.7 is added to the California Fire Code to read as follows:

**909.20.7 Smoke control systems - schedule.** A routine maintenance and operational testing program shall be initiated immediately after the smoke control system has passed the acceptance tests. A written schedule for routine maintenance and operational testing shall be established and both shall occur at least annually.

**15.04.350 Section 1008.3.3 amended – Rooms and spaces.**

Section 1008.3.3 of the California Fire Code is amended to read as follows:

**1008.3.3 Rooms and spaces.** In the event of power supply failure, an emergency electrical system shall automatically illuminate all of the following areas:

1. Electrical equipment rooms.
2. Fire command centers.



3. Fire pump rooms.
4. Generator rooms.
5. Public restrooms.

**15.04.360 Section 1031.2 amended – Where required**

Section 1031.2 of the California Fire Code is amended to read:

**1031.2 Where required.**

In addition to the means of egress required by this chapter, emergency escape and rescue openings shall be provided in Group R occupancies:

Basements and sleeping rooms below the fourth story above grade plane shall have not fewer than one emergency escape and rescue opening in accordance with this section. Where basements contain one or more sleeping rooms, an emergency escape and rescue opening shall be required in each sleeping room but shall not be required in adjoining areas of the basement. Such openings shall open directly into a public way or to a yard or court that opens to a public way.

**Exceptions:**

1. In Groups R-1 and R-2 occupancies constructed of Type I, Type IIA, Type IIIA or Type IV construction equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1.
2. Group R-2.1 occupancies meeting the requirements for delayed egress in accordance with Section 1010.2.13 may have operable windows that are breakable in sleeping rooms permanently restricted to a maximum of 4-inch open position.
3. Emergency escape and rescue openings are not required from basements or sleeping rooms that have an exit door or exit access door that opens directly into a public way or to a yard, court or exterior egress balcony that opens to a public way.
4. Storm shelters and basements used only to house mechanical equipment not exceeding a total floor area of 200 square feet (18.58 m<sup>2</sup>)

**15.04.370 Section 1207.1.5 amended – Large-scale fire test.**

Section 1207.1.5 of the California Fire Code is amended to read:

**1207.1.5 Large-scale fire test.** Where required elsewhere in Section 1207, large-scale fire testing shall be conducted in accordance with NFPA 855, and UL 9540A. The testing shall be conducted or witnessed and reported by an approved testing laboratory and show that a fire involving one ESS will not propagate to an adjacent ESS, and where

installed within buildings, enclosed areas and walk-in units will be contained within the room, enclosed area or walk-in unit for a duration equal to the fire-resistance rating of the room separation specified in Section 1207.7.4. The test report shall be provided to the fire code official for review and approval in accordance with Section 104.8.2.

**15.04.380 Section 1207.11.3 amended – Location.**

Section 1207.11.3 of the California Fire Code is amended to read:

**1207.11.3 Location.** ESS shall be installed only in the following locations:

1. Detached garages and detached accessory structures.
2. Attached garages separated from the dwelling unit living space and sleeping units in accordance with Section R302.6.
3. Outdoors *installations* or on the exterior side of the exterior walls *shall not be located* not less than 3 feet (914 mm) from doors and windows directly entering the dwelling unit and *shall not be located below or above any emergency escape and rescue openings*.
4. Enclosed utility closets, basements, storage or utility spaces within dwelling units with finished or noncombustible walls and ceilings. Walls and ceilings of unfinished wood-framed construction shall be provided with not less than 5/8-inch (15.9 mm) Type X gypsum wallboard.
5. ESS shall not be installed in sleeping rooms, closets, spaces opening directly into sleeping rooms or in habitable spaces of dwelling units.

**15.04.390 Section 3305.9 added - Fire walls.**

Section 3305.9 is added to the California Fire Code to read as follows:

**3305.9 Fire walls.** When firewalls are required, the wall construction shall be completed (with all openings protected) immediately after the building is sufficiently weather-protected at the location of the wall(s).

**15.04.400 Section 3312.1 amended and 3312.1.1 added.**

Section 3312.1 of the California Fire Code is amended to read as follows:

**3312.1 Stairways required.** Each level above the first story in new multi-story buildings shall be provided with at least two usable exit stairways after the floor decking is installed. The stairways shall be continuous and shall discharge to grade level. Stairways serving more than two floor levels shall be enclosed (with openings adequately protected) after

exterior walls/windows are in place. Exit stairs in new and in existing, occupied buildings shall be lighted and maintained clear of debris and construction materials at all times.

**Exception:** For new multi-story buildings, one of the required exit stairs may be obstructed on not more than two contiguous floor levels for the purposes of stairway construction (i.e., installation of gypsum board, painting, flooring, etc.).

**3312.1.1 Required means of egress.** All new buildings under construction shall have a least one unobstructed means of egress. All means of egress shall be identified in the Fire Protection Plan.

**15.04.410 Section 4902.1 amended - Definition of wildland-urban interface fire area.**

The definition of “wildland-urban interface fire area” in Section 4902.1 is amended to read as follows:

**WILDLAND-URBAN INTERFACE FIRE AREA (WUI)** A geographical area identified by the State of California as a “Fire Hazard Severity Zone” in accordance with Public Resources Code Sections 4201 through 4204 and Government Code Sections 51175 through 51189, or other areas designated by the enforcing agency to be at a significant risk from wildfires. Within the city limits of the City of Palo Alto, “Wildland-Urban Interface Fire Area” shall also include all areas west of Interstate 280, and all other areas recommended as a “Very High Fire Hazard Severity Zone” by the Director of the California Department of Forestry.

**15.04.420 Section 4903.2 amended and sections 4903.3 through 4903.4 added – General requirements for wildland- urban interface fire areas.**

Sections 4903.2 amended and 4903.3 through 4903.4 are added to the California Fire Code to read as follows:

**4903.2 Contents.** The fire protection plan shall be based on a project-specific wildfire hazard assessment that includes considerations of location, topography, aspect, and climatic and fire history. The plans shall identify conformance with all applicable state wildfire protection regulations, statutes and applicable local ordinances, whichever are more restrictive. The plan shall address fire department access, egress, road and address signage, water supply, building ignition and fire-resistance factors, fire protection systems and equipment, defensible space and vegetation management in addition to fuel reduction in accordance with Public Resources Code (PRC) 4290; the defensible space requirements in accordance with PRC 4291 or Government Code 51182; and the applicable building codes and standards for wildfire safety. The plan shall identify mitigation measures to address the project’s specific wildfire risk and shall include the information required in Section 4903.2.1.

**4903.3 Cost.** The cost of fire protection plan preparation and review shall be the responsibility of the applicant.

**4903.4 Plan retention.** The fire protection plan shall be retained by the fire code official.

**15.04.430 Sections 4907.1 amended and 4907.4 added - Defensible space.**

Section 4907.1 is amended and Section 4907.4 is added to the California Fire Code to read as follows:

**4907.1 General.** Hazardous vegetation and fuels shall be managed to reduce the severity of potential exterior wildfire exposure to buildings and to reduce the risk of fire spreading to buildings as required by applicable laws and regulations. Defensible space will be managed around all buildings and structures in State Responsibility Areas (SRA) as required in Public Resources Code 4291. Persons owning, leasing, controlling, operating or maintaining buildings or structures in, upon or adjoining the Wildland-Urban Interface Fire Area and persons owning, leasing or controlling land adjacent to such buildings or structures, shall at all times:

1. Maintain an effective defensible space by removing and clearing away flammable vegetation and combustible growth from areas within 30 feet (9144 mm) of such buildings or structures.

**Exception:** Single specimens of trees, ornamental shrubbery or similar plants used as ground covers, provided that they do not form a means of rapidly transmitting fire from the native growth to any structure.

2. Maintain additional effective defensible space by removing brush, flammable vegetation and combustible growth located 30 feet to 100 feet (9144 mm to 30480 mm) from such buildings or structures, when required by the fire code official due to steepness of terrain or other conditions that would cause a defensible space of only 30 feet (9144 mm) to be insufficient.

**Exception:** Grass and other vegetation located more than 30 feet (9144 mm) from buildings or structures and less than 18 inches (457 mm) in height above the ground need not be removed where necessary to stabilize the soil and prevent erosion.

3. Remove portions of trees, which extend within 10 feet (3048 mm) of the outlet of a chimney.
4. Maintain trees adjacent to or overhanging a building free of deadwood.
5. Maintain the roof of a structure free of leaves, needles or other dead vegetative growth.

6. Remove flammable vegetation a minimum of 10 feet around liquefied petroleum gas tanks/containers.

7. Firewood and combustible materials shall not be stored in unenclosed spaces beneath buildings or structures, or on decks or under eaves, canopies or other projections or overhangs. The storage of firewood and combustible material within the defensible space shall be located a minimum of 30 feet (6096 mm) from structures and separated from the crown of trees by a minimum horizontal distance of 15 feet (4572 mm).

**Exception:** Firewood and combustible materials not for consumption on the premises shall be stored as approved by the fire code official.

8. Clear areas within 10 feet (3048 mm) of fire apparatus access roads and driveways to of non-fire-resistive vegetation growth.

**Exception:** Grass and other vegetation located more than 30 feet (9144 mm) from buildings or structures and less than 18 inches (457 mm) in height above the ground need not be removed where necessary to stabilize the soil and prevent erosion.

[. . .]

**4907.4 Corrective Actions.** The executive body is authorized to instruct the fire code official to give notice to the owner of the property upon which conditions regulated by Section 4907.1 exist to correct such conditions. If the owner fails to correct such conditions, the executive body is authorized to cause the same to be done and make the expense of such correction a lien upon the property where such condition exists.

#### **15.04.440 Section 5001.2.2.2 amended - Health Hazards.**

Section 5001.2.2.2 of the California Fire Code is amended to read as follows:

**5001.2.2.2 Health Hazards.** The material categories listed in this section are classified as health hazards. A material with a primary classification as a health hazard can also pose a physical hazard.

1. Highly toxic, toxic and moderately toxic.
2. Corrosive materials.
3. Moderately toxic gas.
4. Other health hazards.

#### **15.04.450 Section 5001.7 added - Hazard Materials Management Plan Electronic submissions**

Section 5001.7 is added to the California Fire Code to read as follows:

**5001.7 HMMP Electronic submissions** Each applicant for a permit, a renewed permit, or an amended permit pursuant to this title shall file an electronic submission of all hazardous materials through California Environmental Reporting System (CERS) for the fire chief's approval, to be known as a hazardous materials management plan (HMMP), which shall demonstrate the suitable storage of hazardous materials. The HMMP may be amended at any time with the consent of the fire chief. The HMMP shall be a public record except as otherwise specified. Section 18.23.100 in Title 18 identifies notification requirements of the availability of the HMMP. Approval of the HMMP shall mean that the HMMP has provided adequate information for the purposes of evaluating the permit approval. Such approval shall not be understood to mean that the city has made an independent determination of the adequacy of that which is described in the HMMP electronic submission.

**15.04.460 Section 5003.1.3.1 added - Toxic, Highly Toxic, Moderately Toxic gases and similarly used or handled materials.**

Section 5003.1.3.1 is added to the California Fire Code to read as follows:

**5003.1.3.1 Toxic, Highly Toxic, Moderately Toxic gases and similarly used or handled materials.** The storage, use, and handling of toxic, highly toxic and moderately toxic gases in amounts exceeding Table 60004.2 or 60004.3 shall be in accordance with this Chapter and Chapter 60. Any toxic, highly toxic or moderately toxic material that is used or handled as a gas or vapor shall be in accordance with the requirements for toxic, highly toxic or moderately toxic gases.

**15.04.470 Section 5003.1.5 added - Other Health Hazards Including Carcinogens, Irritants and Sensitizers.**

Section 5003.1.5 is added to the California Fire Code to read as follows:

**5003.1.5 Other Health Hazards Including Carcinogens, Irritants and Sensitizers.** The storage, use, and handling of materials classified as other health hazards including carcinogens, irritants and sensitizers in amounts exceeding 810 cubic feet for gases, 55 gallons for liquids and 5,000 pounds for solids shall be in accordance with this Section 5003.

**15.04.480 Section 5003.1.6 added – Additional Secondary Containment Requirements.**

Section 5003.1.6 is added to the California Fire Code to read as follows:

**5003.1.6 Additional Secondary Containment Requirements.** In addition to the requirements set forth in Section 5004.2, an approved containment system is required for any quantity of hazardous materials that are liquids or solids at normal temperature and pressure (NTP), where a spill is determined to be a plausible event and where such an event would endanger people, property or the environment. The approved

containment system may be required to include a combination of spill control and secondary containment meeting the design and construction requirements set forth in section 5004.2.

**15.04.490 Section 5003.2.2.1 amended - Design and construction.**

Section 5003.2.2.1 of the California Fire Code is amended to read as follows:

**5003.2.2.1 Design and construction.** Piping, tubing, valves, fittings and related components used for hazardous materials shall be in accordance with the following:

1. Piping, tubing, valves, fittings and related components shall be designed and fabricated from materials compatible with the material to be contained and shall be of adequate strength and durability to withstand the pressure, structural and seismic stress, and exposure to which they are subject.
2. Piping and tubing shall be identified in accordance with ASME A13.1 and the Santa Clara County Fire Chiefs Marking Requirements and Guidelines for Hazardous Materials and Hazardous Waste to indicate the material conveyed.
3. Manual valves or automatic remotely activated fail-safe emergency shutoff valves shall be installed on supply piping and tubing and provided with ready access at the following locations at the following locations:
  - a. The point of use.
  - b. The tank, cylinder or bulk use.
4. Manual emergency shutoff valves and controls for remotely activated emergency shutoff valves shall be clearly visible, provided with ready access and identified in an approved manner.
5. Backflow prevention or check valves shall be provided when the backflow of hazardous materials could create a hazardous condition or cause the unauthorized discharge of hazardous materials.
6. Where gases or liquids having a hazard ranking of: Health hazard Class 3 or 4, Flammability Class 3 or 4, or Reactivity Class 4 in accordance with NFPA 704 are carried in pressurized piping above 15 pounds per square inch gauge (psig)(103 Kpa), an approved means of leak detection, emergency shutoff and excess flow control shall be provided. Where the piping originates from within a hazardous material storage room or area, the excess flow control shall be located within the storage room or area. Where the piping originates from a bulk source, the excess flow control shall be located as close to the bulk source as practical.

**Exceptions:**

- a. Piping for inlet connections designed to prevent backflow.
  - b. Piping for pressure relief devices.
7. Secondary containment or equivalent protection from spills or leaks shall be provided for piping for liquid hazardous materials and for highly toxic and toxic corrosive gases above threshold quantities listed in Tables 6004.2 and 6004.3. Secondary containment includes, but is not limited to, double-walled piping.

**Exceptions:**

- a. Secondary containment is not required for toxic corrosive gases if the piping is constructed of inert materials.
  - b. Piping under sub-atmospheric conditions if the piping is equipped with an alarm and fail-safe-to-close valve activated by a loss of vacuum.
8. Expansion chambers shall be provided between valves whenever the regulated gas may be subjected to thermal expansion. Chambers shall be sized to provide protection for piping and instrumentation and to accommodate the expansion of regulated materials.

**15.04.500 Section 5003.2.2.2 amended - Additional regulations for supply piping for health hazard materials.**

Section 5003.2.2.2 of the California Fire Code is amended to read as follows:

**5003.2.2.2 Additional regulations for supply piping for health hazard materials.** Supply piping and tubing for gases and liquids having a health hazard ranking of 3 or 4 in accordance with ASME B31.3 and the following:

- 1. Piping and tubing utilized for the transmission of toxic, highly toxic, or highly volatile corrosive liquids and gases shall have welded or brazed connections throughout except for connections within an exhausted enclosure if the material is a gas, or an approved method of drainage or containment is provided for connections if the material is a liquid.
- 2. Piping and tubing shall not be located within corridors, within any portion of a means of egress required to be enclosed in fire-resistance-rated construction or in concealed spaces in areas not classified as Group H Occupancies.  
**Exception:** Piping and tubing within the space defined by the walls of corridors and the floor or roof above or in concealed space above other occupancies when installed in accordance with Section 415.11.7.4 of the California Building Code as required for Group H5 occupancies.
- 3. All primary piping for toxic, highly toxic and moderately toxic gases shall pass a helium leak test of  $1 \times 10^{-9}$  cubic centimeters/second where practical, or shall pass testing in



accordance with an approved, nationally recognized standard. Tests shall be conducted by a qualified “third party” not involved with the construction of the piping and control systems.

**15.04.510 Section 5003.3.1 amended - Unauthorized discharges.**

Section 5003.3.1 of the California Fire Code is amended to read as follows:

**5003.3.1 Unauthorized discharges.** In the event hazardous materials are released in quantities reportable under state, federal or local regulations or when there is a threatened release that presents a threat to health, property or the environment, the fire code official shall be notified immediately in an approved manner and the following procedures required in accordance with Sections 5003.3.1.1 through 5003.3.1.4.

**15.04.520 Section 5003.5.2 added - Ventilation Ducting.**

Section 5003.5.2 is added to the California Fire Code to read as follows:

**5003.5.2 Ventilation Ducting.** Ducts venting hazardous materials operations shall be labeled with the hazard class of the material being vented and the direction of flow.

**15.04.530 Section 5003.5.3 added - “H” Occupancies.**

Section 5003.5.4 is added to the California Fire Code to read as follows:

**5003.5.3 “H” Occupancies.** In “H” occupancies, all piping and tubing may be required to be identified when there is any possibility of confusion with hazardous materials transport tubing or piping. Flow direction indicators are required.

**15.04.540 Section 5003.9.11 added - Fire extinguishing systems for workstations dispensing, handling or using hazardous materials.**

Section 5003.9.11 is added to the California Fire Code to read as follows:

5003.9.11 Fire extinguishing systems for workstations dispensing, handling or using hazardous materials. Combustible and non-combustible work stations which dispense, handle or use hazardous materials shall be protected by an approved automatic fire extinguishing system.

**Exception:** Internal fire protection is not required for Biological Safety Cabinets that carry NSF/ANSI certification where quantities of flammable liquids in use or storage within the cabinet do not exceed 500 ml.

**15.04.550 Section 5003.10.4 amended - Elevators utilized to transport hazardous materials.**

Section 5003.10.4 of the California Fire Code is amended to read as follows:

**5003.10.4 Elevators utilized to transport hazardous materials.**

**5003.10.4.1** When transporting hazardous materials, elevators shall have no other passengers other than in the individual(s) handling the chemical transport cart.

**5003.10.4.1.1** When transporting cryogenic or liquefied compressed gases, there shall be no occupants in the elevator.

**5003.10.4.2** Hazardous materials liquid containers shall have a maximum capacity of 20 liters (5.28 gal).

**5003.10.4.3** Highly toxic, toxic, and moderately toxic gases shall be limited to a container of a maximum water capacity of 1 lb.

**5003.10.4.4** When transporting cryogenic or liquefied compressed gases means shall be provided to prevent the elevator from being summoned to other floors.

**15.04.560 Section 5004.2.1 amended - Spill control for hazardous material liquids.**

Section 5004.2.1 of the California Fire Code is amended to read as follows:

**5004.2.1 Spill control for hazardous material liquids.** Rooms, buildings or areas used for storage of hazardous material liquids shall be provided with spill control to prevent the flow of liquids to adjoining areas. Floors in indoor locations and similar surfaces in outdoor locations shall be constructed to contain a spill from the largest single vessel by one of the following methods:

1. Liquid-tight sloped or recessed floors in indoor locations or similar areas in outdoor locations.
2. Liquid-tight floors in indoor and outdoor locations or similar areas provided with liquid-tight raised or recessed sills or dikes.
3. Sumps and collection systems, including containment pallets in accordance with Section 5004.2.3.
4. Other approved engineered systems.

Except for surfacing, the floors, sills, dikes, sumps and collection systems shall be constructed of noncombustible material, and the liquid-tight seal shall be compatible with the material stored. When liquid-tight sills or dikes are provided, they are not required at perimeter openings having an open-grate trench across the opening that connects to an approved collection system.

**15.04.570 Sections 5004.2.2 and 5004.2.2.2 amended and Table 5004.2.2 deleted - Secondary Containment for Hazardous Material Liquids and Solids.**

Table 5004.2.2 is deleted in its entirety.

Sections 5004.2.2 and 5004.2.2.2 of the California Fire Code are amended to read as follows:

**5004.2.2 Secondary Containment for Hazardous Material Liquids and Solids.** Buildings, rooms or areas used for the storage of hazardous materials liquids or solids shall be provided with secondary containment in accordance with this section.

[. . .]

**5004.2.2.2 Incompatible Materials.** Incompatible materials shall be separated from each other in independent secondary containment systems.

**15.04.580 Section 5004.2.3 amended – Containment pallets.**

Section 5004.2.3 of the California Fire Code is amended to read as follows:

**5004.2.3 Containment pallets.** Combustible containment pallets shall not be used inside buildings to comply with Section 5004.2 where the individual container capacity exceeds 55 gallons (208 L) or an aggregate capacity of multiple containers exceeds 1,000 gallons (3785 L) for liquids or where the individual container capacity exceeds 550 pounds (250 kg) or an aggregate of multiple containers exceeds 10,000 pounds (4540 kg) for solids.

Where used as an alternative to spill control and secondary containment for outdoor storage in accordance with the exception in Section 5004.2, containment pallets shall comply with all of the following:

1. A liquid-tight sump accessible for visual inspection shall be provided;
2. The sump shall be designed to contain not less than 66 gallons (250L);
3. Exposed surfaces shall be compatible with material stored;

Containment pallets shall be protected to prevent collection of rainwater within the sump of the containment pallet.

**15.04.590 Section 5704.2.7.5.8 amended - Overfill prevention.**

Section 5704.2.7.5.8 of the California Fire Code is amended to read as follows:

**5704.2.7.5.8 Overfill prevention.** An approved means or method in accordance with Section 5704.2.9.7.5 shall be provided to prevent overfill of all Class I, II and IIIA liquid storage tanks. Storage tanks in refineries, bulk plants or terminals regulated by Sections 5706.4 or 5706.7 shall have overfill protection in accordance with API 2350.

An approved means or method in accordance with Section 5704.2.9.7.5 shall be provided to prevent the overfilling of Class IIIB liquid storage tanks connected to fuel-burning equipment inside buildings.

**Exception:** Outside aboveground tanks with a capacity of 1320 gallons (5000 L) or less shall comply with Section 5704.2.9.7.5.1 (1.1)

**15.04.600 Section 5704.2.7.5.9 added - Automatic filling of tanks.**

Section 5704.2.7.5.9 is added to the California Fire Code to read as follows:

**5704.2.7.5.9 Automatic filling of tanks.** Systems that automatically fill flammable or combustible liquid tanks shall be equipped with an approved overfill protection system that sends an alarm signal to a constantly attended location and immediately stops the filling of the tank. The alarm signal and automatic shutoff shall be tested on an annual basis and records of such testing shall be maintained on-site for a period of five (5) years.

**15.04.610 Section 5707.3.3 amended – Site Plan.**

Section 5707.3.3 of the California Fire Code is amended to read as follows:

**5707.3.3 Site Plan.** A site plan shall be developed for each location at which mobile fueling occurs. The site plan shall be in sufficient detail to indicate the following:

1. All buildings and structures.
2. Lot lines or property lines.
3. Electric car chargers.
4. Solar photovoltaic parking lot canopies.
5. Appurtenances on site and their use and function
6. All uses adjacent to the lot lines of the site.
7. Fueling locations.
8. Locations of all storm drain openings and adjacent waterways or wetlands.
9. Information regarding slope, natural drainage, curbing, impounding.
10. How a spill will be kept on the site property.
11. Scale of the site plan.

**15.04.620 Section 6001.1 amended – Site Scope.**

Section 6001.1 of the California Fire Code is amended to read as follows:

**6001.1** The storage and use of highly toxic, toxic and moderately toxic materials shall comply with this chapter. Compressed gases shall also comply with Chapter 53.

**Exceptions:**

1. Display and storage in Group M and storage in Group S occupancies complying with Section 5003.1 1.
2. Conditions involving pesticides or agricultural products as follows:
  - 2.1. Application and release of pesticide, agricultural products and materials intended for use in weed abatement, erosion control, soil amendment or similar applications when applied in accordance with the manufacturer's instruction and

label directions.

22. Transportation of pesticides in compliance with the Federal Hazardous Materials Transportation Act and regulations thereunder.

23. Storage in dwellings or private garages of pesticides registered by the U.S. Environmental Protection Agency to be utilized in and around the home, garden, pool, spa and patio.

**15.04.630 Section 6002.1 amended – add definitions**

The following definition is added to section 6002.1 of the California Fire Code as defined in Chapter 2 of the California Fire Code and local amendments:

**MODERATELY TOXIC GAS.** A moderately toxic gas is a chemical or substance that has a median lethal concentration (LC50) in air more than 2000 parts per million but not more than 5000 parts per million by volume of gas or vapor, when administered by continuous inhalation for an hour, or less if death occurs within one hour, to albino rats weighing between 200 and 300 grams each.

**15.04.640 Section 6004.1 amended - Highly toxic and toxic compressed gases.**

Section 6004.1 of the California Fire Code is amended to read as follows:

**6004.1.1** The storage and use of highly toxic, toxic, and moderately toxic compressed gases shall comply with this section.

**6004.1.1 Special limitations for indoor storage and use by occupancy.** The indoor storage and use of highly toxic, toxic, and moderately toxic compressed gases in certain occupancies shall be subject to the limitations contained in Sections 6004.1.1.1 through 6004.1.1.3.

**6004.1.1.1 Group A, E, I or U occupancies.** Moderately toxic, toxic and highly toxic compressed gases shall not be stored or used within Group A, E, I or U occupancies.  
**Exception:** Cylinders not exceeding 20 cubic feet (0.566 m<sup>3</sup>) at normal temperature and pressure (NTP) are allowed within gas cabinets or fume hoods.

**6004.1.1.2 Group R occupancies.** Moderately toxic, toxic, and highly toxic compressed gases shall not be stored or used in Group R occupancies.

**6004.1.1.3 Offices, retail sales and classrooms.** Moderately toxic, toxic and highly toxic compressed gases shall not be stored or used in offices, retail sales or classroom portions of Group B, F, M or S occupancies.

**Exception:** In classrooms of Group B occupancies, cylinders with a capacity not exceeding 20 cubic feet (0.566 m<sup>3</sup>) at NTP are allowed in gas cabinets or fume hoods.

**15.04.650 Sections 6004.2 and 6004.2.1 amended - Indoor storage and use.**

Sections 6004.2 and 6004.2.1 of the California Fire Code are amended to read as follows:

**6004.2 Indoor storage and use.** The indoor storage and use of highly toxic, toxic, and moderately toxic compressed gases shall be in accordance with Sections 6004.2.1 through 6004.2.2.10.3.

**6004.2.1 Applicability.** The applicability of regulations governing the indoor storage and use of highly toxic, toxic, and moderately toxic compressed gases shall be as set forth in Sections 6004.2.1.1 through 6004.2.1.4.

**15.04.660 Section 6004.2.1.4 and Table 6004.2.1.4 Added - Quantities.**

Section 6004.2.1.4 and Table 6004.2.1.4 of the California Fire Code are added to read as follows:

**6004.2.1.4 Quantities.** The indoor storage or use of highly toxic, toxic, and moderately toxic gases in amounts exceeding the minimum threshold quantities per control area set forth in Table 6004.2.1.4 but not exceeding maximum allowable quantity per control area set forth in Table 5003.1.1(2) shall be in accordance with Sections 5001, 5003, 6001, 6004.1, and 6004.4.

**Table 6004.2.1.4**

| <b>Minimum Threshold Quantities for Highly Toxic, Toxic and Moderately Toxic Gases for Indoor Storage and Use</b> |                |
|-------------------------------------------------------------------------------------------------------------------|----------------|
| Highly Toxic                                                                                                      | 20 cubic feet  |
| Toxic                                                                                                             | 405 cubic feet |
| Moderately Toxic                                                                                                  | 405 cubic feet |

**15.04.670 Section 6004.4 through 6004.4.8.2 Added - General Indoor Requirements**

Section 6004.4 through 6004.4.8.2 of the California Fire Code is added to read as follows:

**6004.4. General indoor requirements.** The general requirements applicable to the indoor storage and use of highly toxic, toxic, and moderately toxic compressed gases shall be in accordance with Sections 6004.4 through 6004.4.8.2

**6004.4.1 Cylinder and tank location.** Cylinders shall be located within gas cabinets, exhausted enclosures or gas rooms. Portable and stationary tanks shall be located within gas rooms or exhausted enclosures.

**Exception:**

1. Where a gas detection system is provided in accordance with 6004.4.8

**6004.4.2. Ventilated areas.** The room or area in which gas cabinets or exhausted enclosures are located shall be provided with exhaust ventilation. Gas cabinets or exhausted enclosures shall not be used as the sole means of exhaust for any room or area.

**6004.4.3. Piping and controls.** In addition to the requirements of Section 5003.2.2, piping and controls on stationary tanks, portable tanks, and cylinders shall comply with the following requirements:

1. Stationary tanks, portable tanks, and cylinders in use shall be provided with a means of excess flow control on all tank and cylinder inlet or outlet connections.

**Exceptions:**

1. Inlet connections designed to prevent backflow.
2. Pressure relief devices.

**6004.4.4 Gas rooms.** Gas rooms shall comply with Section 5003.8.4 and both of the following requirements:

1. The exhaust ventilation from gas rooms shall be directed to an exhaust system.
  2. Gas rooms shall be equipped with an approved automatic sprinkler system.
- Alternative fire-extinguishing systems shall not be used.

**6004.4.5 Treatment systems.** The exhaust ventilation from gas cabinets, exhausted enclosures and gas rooms, required in Section 6004.4.1 shall be directed to a treatment system. The treatment system shall be utilized to handle the accidental release of gas and to process exhaust ventilation. The treatment system shall be designed in accordance with Sections 6004.2.2.7.1 through 6004.2.2.7.5 and Chapter 5 of the California Mechanical Code.

**Exceptions:**

1. Highly toxic, toxic, and moderately toxic gases—storage. A treatment system is not required for cylinders, containers and tanks in storage where all of the following controls are provided:
  - a. Valve outlets are equipped with gas-tight outlet plugs or caps.
  - b. Hand wheel-operated valves have handles secured to prevent movement.
  - c. Approved containment vessels or containment systems are provided in accordance with Section 6004.2.2.3.
2. Highly toxic, toxic, and moderately toxic gases —use. Treatment systems are not required for highly toxic, toxic, and moderately toxic gases supplied by stationary tanks,

portable tanks, or cylinders where a gas detection system complying with Section 6004.4.8 and listed or approved automatic-closing fail-safe valves are provided. The gas detection system shall have a sensing interval not exceeding 5 minutes. Automatic-closing fail-safe valves shall be located immediately adjacent to cylinder valves and shall close when gas is detected at the permissible exposure limit (PEL) by a gas sensor monitoring the exhaust system at the point of discharge from the gas cabinet, exhausted enclosure, ventilated enclosure or gas room.

**6004.4.5.1. Design.** Treatment systems shall be capable of diluting, adsorbing, absorbing, containing, neutralizing, burning or otherwise processing the contents of the largest single vessel of compressed gas. Where a total containment system is used, the system shall be designed to handle the maximum anticipated pressure of release to the system when it reaches equilibrium.

**6004.4.5.2. Performance.** Treatment systems shall be designed to reduce the maximum allowable discharge concentrations of the gas to one-half immediate by dangerous to life and health (IDLH) at the point of discharge to the atmosphere. Where more than one gas is emitted to the treatment system, the treatment system shall be designed to handle the worst-case release based on the release rate, the quantity and the IDLH for all compressed gases stored or used.

**6004.4.5.3. Sizing.** Treatment systems shall be sized to process the maximum worst-case release of gas based on the maximum flow rate of release from the largest vessel utilized. The entire contents of the largest compressed gas vessel shall be considered.

**6004.4.5.4 Stationary tanks.** Stationary tanks shall be labeled with the maximum rate of release for the compressed gas contained based on valves or fittings that are inserted directly into the tank. Where multiple valves or fittings are provided, the maximum flow rate of release for valves or fittings with the highest flow rate shall be indicated. Where liquefied compressed gases are in contact with valves or fittings, the liquid flow rate shall be utilized for computation purposes. Flow rates indicated on the label shall be converted to cubic feet per minute (cfm/min) (m<sup>3</sup>/s) of gas at normal temperature and pressure (NTP).

**6004.4.5.5 Portable tanks and cylinders.** The maximum flow rate of release for portable tanks and cylinders shall be calculated based on the total release from the cylinder or tank within the time specified in Table 6004.2.2.7.5. Where portable tanks or cylinders are equipped with approved excess flow or reduced flow valves, the worst-case release shall be determined by the maximum achievable flow from the valve as determined by the valve manufacturer or compressed gas supplier. Reduced flow and excess flow valves shall be permanently marked by the valve manufacturer to indicate the maximum design flow rate. Such markings shall indicate the flow rate for air under normal



temperature and pressure.

**6004.4.6. Emergency power.** Emergency power shall be provided for the following systems in accordance with Section 604:

1. Exhaust ventilation system.
2. Treatment system.
3. Gas detection system.
4. Smoke detection system.

**6004.4.6.1. Fail-safe systems.** Emergency power shall not be required for mechanical exhaust ventilation and treatment systems where approved fail-safe systems are installed and designed to stop gas flow.

**6004.4.7. Automatic fire detection system.** An approved automatic fire detection system shall be installed in rooms or areas where highly toxic, toxic, and moderately toxic compressed gases are stored or used. Activation of the detection system shall sound a local alarm. The fire detection system shall comply with Section 907.

**6004.4.8. Gas detection system.** A gas detection system complying with Section 916 shall be provided to detect the presence of gas at or below the PEL or ceiling limit of the gas for which detection is provided.

**Exceptions:**

1. A gas detection system is not required for toxic and moderately toxic gases when the physiological warning threshold level for the gas is at a level below the accepted PEL for the gas.

A gas detection system is not required for highly toxic, toxic, and moderately toxic gases where cylinders, portable tanks, and all non-continuously welded connects are within a gas cabinet or exhausted enclosures.

**6004.4.8.1. Alarms.** The gas detection system shall initiate a local alarm and transmit a signal to an approved location.

**6004.4.8.2. Shut off of gas supply.** The gas detection system shall automatically close the shut off valve at the source on gas supply piping and tubing related to the system being monitored for whichever gas is detected.

**Exception:** Automatic shutdown is not required for highly toxic, toxic, and moderately toxic compressed gas systems where all of the following controls are provided:

1. Constantly attended / supervised.
2. Provided with emergency shutoff valves that have ready access.

SECTION 2. The Council adopts the findings for local amendments to the California Fire Code, 2022 Edition, attached hereto as Exhibit "A" and incorporated herein by reference.

SECTION 3. The Council finds that this project is exempt from the provisions of the California Environmental Quality Act ("CEQA"), pursuant to Section 15061 of the California Guidelines, because it can be seen with certainty that there is no possibility that the amendments herein adopted will have a significant effect on the environment.

SECTION 4. This Ordinance shall become effective on the commencement of the thirty-first day after the day of its adoption.

INTRODUCED:

PASSED:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

ATTEST:

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Mayor

APPROVED AS TO FORM:

APPROVED:

\_\_\_\_\_  
Assistant City Attorney

\_\_\_\_\_  
City Manager

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Director of Planning and  
Development Services

\_\_\_\_\_  
Fire Chief

**EXHIBIT A****Findings for Local Amendments to the 2022 California Fire Code**

The following local amendments to the 2022 California Fire Code make modifications as authorized by the California Health and Safety Code. In accordance with Section 18941.5 of said Code, Findings are hereby made to show that such modifications or changes are reasonably necessary because of local climatic, geological or topographical conditions.

**I. PREAMBLE****I. Findings of fact**

A Pursuant to Section 17958.5 of the California Health and Safety Code, the report contained herein is submitted as the “Findings of Fact” document with regard to the adoption of the California Fire Code, 2022 Edition, and amendments. Under this adopting ordinance, specific amendments have been established which are more restrictive in nature than those adopted by the State of California (State Building Code Standards, State Housing and Community Development Codes) commonly referred to as California Code of Regulations, Titles 19, 24 and 25.

B These amendments to the California Fire Code, 2022 Edition, have been recognized by the City of Palo Alto (“City”) as tools for addressing the fire problems, concerns and future direction by which the authority can establish and maintain an environment which will afford a level of fire and life safety to all who live and work within the City’s boundaries.

C Under the provisions of Section 17958.5 of the Health and Safety Code, local amendments shall be based upon the following: climatic, geological/geographical, and topographical conditions. The findings of fact contained herein shall address each of these situations and shall present the local situation which, either singularly or in combination, caused the established amendments to be adopted.

**1. Climactic Conditions:**

The City, on an average, experiences an annual rainfall of 16" - 18". This rainfall can be expected between October and April of each year. However, during the summer months there is little, if any, measurable precipitation. During this dry period the temperatures are usually between 70-90 degrees with light to gusty westerly winds. These drying winds, combined with the natural vegetation which is dominant throughout the area, create a hazardous fuel condition which can cause, and has caused in the past, extensive grass and brush land fires. With more and more development encroaching into these wooded and grass covered areas, wind-driven fires could have severe consequences, as has been demonstrated on several occasions in Palo Alto and other

areas of the state. Fires in structures can easily spread to the wildland as well as a fire in the wildland into a structure.

Because of the weather patterns, a normal rainfall cannot always be relied upon. This can result in water rationing and water allocation systems, as demonstrated by the drought years of 1986-1991. Water shortages can also be expected in the future due to the current water storage capacities and increased consumption. The water supply for the Palo Alto fire department makes use of automatic fire sprinkler systems feasible as a means to reduce our dependency on large volumes of water for fire suppression.

## **2. Geological & Geographical Conditions:**

Geographical Location. Palo Alto is located at the northern most part of Santa Clara County. Palo Alto is a major focus of the “Silicon Valley,” the center for an expanding and changing electronics industry, as well as pharmaceutical, biomedical, and genetic research.

Seismic Location. Palo Alto is situated on alluvial solids between San Francisco Bay and the San Andreas Fault zone. The City’s location makes it particularly vulnerable to damage to taller and older structures caused by seismic events. The relatively young geological processes that have created the San Francisco Bay Area are still active today. Seismically, the city sits between two active earthquake faults (San Andreas and the Hayward/Calaveras), and numerous potentially active faults. Approximately 55% of the City’s land surface is in the high-to-moderate seismic hazard zones.

Seismic and Fire Hazards. Fire following an earthquake has the potential of causing greater loss of life and damage than the earthquake itself.

The majority of the City’s high-rise structures are located in seismic risk zones. Should a significant seismic event occur, Public Safety resources would have to be prioritized to mitigate the greatest threat, and may not be available for every structural fire. In such event, individual structures, including high-rise buildings, should be equipped to help in mitigating the risk of damage.

Other variables may tend to intensify the situation:

- a. The extent of damage to the water system;
- b. The extent of isolation due to bridge and/or freeway overpass collapse;
- c. The extent of roadway damage and/or amount of debris blocking the roadways;
- d. Climatical conditions (hot, dry weather with high winds);
- e. Time of day will influence the amount of traffic on roadways and could intensify the risk to life during normal business hours;
- f. The availability of timely mutual aid or military assistance;
- g. Many high-rise structures are located near areas of high fire danger necessitating special

precautions.

Transportation. Palo Alto is dissected by a major state highway (El Camino Real) and two major freeways (I-280 and U.S. 101), which potentially could negatively affect response times of fire suppression equipment.

Soil Conditions. Palo Alto lies at the southern end of San Francisco Bay and is built atop the alluvial deposits that surround the margins of the Bay. The alluvium was created by the flooding of many streams emptying into the San Francisco Bay depression, and from intermittent sea water inundation that has occurred over the last 2 or 3 million years. The areas closest to the Bay are overlain by unconsolidated fine silty clay, known as Bay Mud which varies in thickness from a few feet to as much as 30 feet. Generally, the older more stable alluvium is to the south and the younger less stable material is to the north. Bedrock lies beneath the area at depths of generally 300' or more.

### **3. Topographical Conditions:**

The findings of fact for the topographical element, as would be expected, are closely associated with the geological/geographical element. With the elevation changes within the district, development is of course following the path of least resistance, creating a meandering pattern. This then does not lend itself to a good systematic street and road layout, which would promote easy traffic flow. It has, in fact, resulted in few major crosstown thoroughfares which tend to be heavily congested, primarily during commute hours and seasonal periods of the year. This creates barriers which reduce the response time of fire equipment and other emergency services. The topography of the district is being burdened by major structures. Employment areas are throughout the district. The people who work in these complexes have added to the traffic congestion throughout the city, thereby reducing the fire department's response time capabilities.

Inherent delays caused by the traffic patterns to many of these types of projects, make it necessary to mitigate this problem by requiring additional built-in automatic fire protection systems to provide early detection and initial control until the arrival of the fire department.

The topography of the district in much of the commercial and residential zones lies within or near a flood plane. Periodically, heavy rains and high tides cause region-wide flooding which not only delays response but also increases demands on fire personnel. The fire code amendments increase safeguards and initialize early response to help compensate for these physical delays.

As a result of the findings of facts which identify the various climatic, geological/geographical and topographical elements, those additional requirements as specified in the amendments to adopting ordinance for the California Fire Code 2022 Edition, by the City of Palo Alto area are considered reasonable and necessary modifications. The experience of several disastrous fires

within the city in addition to Santa Clara, Monterey, San Mateo, Alameda and Contra Costa counties have demonstrated the need for other fire protection features, the most significant of which was located in the Oakland/Berkeley Hills in which over 3,000 homes were destroyed and 25 human lives were lost. While it is clearly understood that the adoption of such regulations may not prevent the incidence of fire, the implementation of these various amendments to the Code may reduce the severity and potential of loss of life and property.

## II. Specific Findings for Local Amendments

The majority of local amendments (those not specifically listed below) are made strictly to conform to other parts of the Palo Alto Municipal Code (PAMC) and for similar administrative purposes.

Based upon the findings of fact described in section I, the City Council also makes the following specific findings regarding local climatic, geological, and topographic conditions related to local amendments to the California and International Fire Codes found in Chapter 15.04 of Title 15 of the Palo Alto Municipal Code ("PAMC"):

1. The local amendments contained in PAMC sections 15.04.060 through 15.04.090, 15.04.150, 15.04.170, 15.04.180, 15.04.260, and 15.04.440 through 15.04.670 - relating to general conditions for hazardous materials are necessary modifications to the California Fire Code flammable and hazardous materials sections because they maintain consistency with the Hazardous Materials Storage Ordinance which has been adopted county- wide since 1983. Requirements include safeguards such as monitoring, secondary containment, separation of non-compatibles which prevent incidents should a seismic event, unauthorized release or accident occur.
2. The local amendment contained in PAMC section 15.04.260- Immersion Heaters- is necessary as a fire control measure because it requires additional controls on process heating devices which are often activated when unattended. See Geological Findings 2.
3. The local amendments contained in PAMC 15.04.280 through 15.04.340 relating to fire sprinkler systems are necessary for faster control of fires in the dense populated area and areas in an extended response time of our community to confine a fire to the area of origin rather than spread to neighboring structures.

The modifications contained in these amendments provide additional fire extinguishing systems in new construction, major remodels, additions, and occupancy classification changes to help mitigate the problems identified in Findings 1, 2, and 3, above- Climatic, Geographical and Topographical.

4. The local amendment contained in PAMC section 15.04.320 - Floor control valves is necessary to provide fire extinguishing control devices that allow systems to remain partially in service while repairs or maintenance are ongoing. See Findings 1 and 2 above- Climatic and Geographical.
5. The local amendments contained in PAMC section 15.04.350 provides emergency lighting, where emergency lighting is required, in public restrooms regardless of size for public safety. See Findings 1, 2, and 3 – Climatic, Geographical and Topographical.
6. The local amendment contained in PAMC section 15.04.360 matches the requirements for exceptions for emergency escapes in basements/storm shelters in local amendment contained in section 16.04.360. See Findings 1 and 2 – Climatic and Geographical.
7. The local amendments contained in PAMC section 15.04.370 and 15.04.380 are recommendations from Santa Clara County Fire Marshals Association to provide code reference to the installation of commercial ESS, and clarifying location for residential ESS to not interfere with emergency escapes or rescue openings.
8. The local amendments contained in PAMC sections 15.04.390 through 15.04.410 provide for additional fire and life safety measures during construction and demolition. See Findings 2 and 3, above- Geographical and Topographical.
9. The local amendments contained in PAMC sections 15.04.060 through 15.04.090, 15.04.150, 15.04.460, and 15.04.620 through 15.04.670 regarding toxic gases incorporate requirements established by the Model Toxic Gas Ordinance and California Fire Code. Administrative and restrictive measures include changes in definitions, quantities regulated, and utilizes County consensus guidelines established by other regional agencies which share similar climatic, geological/geographical, and topographical conditions. See Findings 1, 2 and 3, above- Climatic, Geographical and Topographical.
10. The local amendments contained in PAMC sections 15.04.410 through 15.04.430 set forth protections for urban-wildland interface areas that are necessary to mitigate the additional fire risks in the Palo Alto foothills hazardous fire zone. The modifications contained in these amendments provide for additional precautions against fire risks and additional fire extinguishing systems necessitated by the conditions listed in Findings 1, 2, and 3, above- Climatic, Geographical and Topographical.
11. The local amendments added in PAMC section 15.04.160 - Roof guardrails at interior courts provides for additional fire and life safety measures for firefighters on buildings with unconventional lightwells. See Findings 2 and 3, above- Geographical and Topographical.
12. The local amendments contained in PAMC section 15.04.020 set forth construction and design provisions for residential property to mitigate the additional risk of fire. The modifications contained in this amendment provide for additional precautions against fire risks necessitated by the conditions listed in Findings 1, 2, and 3, above- Climatic, Geographical and

Topographical.

13. The local amendments contained in PAMC section 15.04.100 are necessary to identify the individual responsible who will perform a fire plan review and the requirement of additional information is necessary to aid in a thorough review during the plan review process. The modifications contained in this amendment provide information that will help mitigate fire risks associated by the conditions listed in Findings 1, 2, and 3, above- Climatic, Geographical and Topographical.

14. The local amendment contained in PAMC section 15.04.120 is necessary to identify who has the authority and to establish the frequency to inspect buildings and premises. The modifications contained in this amendment provide for additional precautions to mitigate the problems identified in Findings 1, 2, and 3, above- Climatic, Geographical and Topographical.

15. The local amendment contained in PAMC section 15.04.190 is necessary to set forth a limit of the maximum number of false alarms the city of Palo Alto Fire Department will respond to.

This measure is necessary to prevent fire department resources from responding to non-emergency situations thereby being unavailable to respond to an actual emergency associated with Climatic, Geographical and Topographical conditions listed in Findings 1, 2 and 3 above.

16. The local amendments added in PAMC sections 15.04.200 through 15.04.250 – The Fire Access Roadways and Dimensions requirements are necessary to provide access for effective, efficient and safe firefighting operations. These measures are necessary to prevent a delay in fire department resources responding to and having access to an emergency situation associated with Climatic, Geographical and Topographical conditions listed in Findings 1, 2 and 3 above.

17. The local amendment added in PAMC section 15.04.270 – Prohibitive Locations, is necessary to restrict the use of portable outdoor gas-fired heating appliances in specific locations as these appliances can be a fire hazard that may also contribute to the uncontrolled spread of fire as a result of the Climatic, Geographical, and Topographical conditions described in Findings 1, 2, and 3 above.

18. The local amendment added in PAMC section 15.04.260 relating to the protection of energy storage systems is necessary to prevent potential damage and fire that may also contribute to the uncontrolled spread of fire as a result of the Climatic, Geographical, and Topographical conditions described in Findings 1, 2, and 3 above.



Ordinance No. \_\_\_\_

Ordinance of the Council of the City of Palo Alto Repealing Chapter 16.04 of the Palo Alto Municipal Code and Adopting a New Chapter 16.04, California Building Code, and a New Chapter 16.19, California Historical Building Code and California Existing Building Code, 2022 Editions, and Local Amendments and Related Findings

The Council of the City of Palo Alto does ORDAIN as follows:

**SECTION 1.** Chapter 16.04 of the Palo Alto Municipal Code is hereby amended by repealing it in its entirety and adopting a new Chapter 16.04 to read as follows:

**Chapter 16.04**  
**California Building Code, Title 24, Part 2, Volumes 1 & 2**

**16.04.010      2022 California Building Code, Title 24, Part 2, Volumes 1 & 2 adopted and amended.**

The California Building Code, 2022 Edition, Title 24, Part 2, Volumes 1 & 2 of the California Code of Regulations, together with those omissions, amendments, exceptions, and additions thereto, is adopted and hereby incorporated in this Chapter by reference and made a part hereof the same as if fully set forth herein.

Unless superseded and expressly repealed, references in City of Palo Alto forms, documents and regulations to the chapters and sections of any former iteration of the California Code of Regulations, Title 24, shall be construed to apply to the corresponding provisions contained within the California Code of Regulations, Title 24, 2022. Ordinance No. 5508 of the City of Palo Alto and all other ordinances or parts of ordinances in conflict herewith are hereby expressly repealed.

Wherever the phrases “California Building Code” or “Building Code” are used in this code or any ordinance of the City, such phrases shall be deemed and construed to refer and apply to the California Building Code, 2022 Edition, Title 24, Part 2 of the California Code of Regulations, as adopted by this chapter.

One (1) copy of the California Building Code, 2022 Edition, has been filed for use and examination of the public in the Office of the Chief Building Official of the City of Palo Alto.

**16.04.020      Cross - References to California Building Code.**

The provisions of this Chapter contain cross-references to the provisions of the California Building Code, 2022 Edition, in order to facilitate reference and comparison to those provisions.

**16.04.030 Local Amendments.**

The provisions of this Chapter shall constitute local amendments to the cross-referenced provisions of the California Building Code, 2022 Edition, and shall be deemed to replace the cross-referenced sections of said Code with the respective provisions set forth in this Chapter. Where used in this Chapter 16.04, ellipses shall indicate text of the California Building Code, 2022 Edition, that has been adopted without amendment but is omitted for brevity.

**16.04.040 Adoption of 2022 California Building Code Chapter 1,  
Division II – Scope and Administration, Part 1 – Scope and Application  
And Part 2 – Administration And Enforcement**

Chapter 1, Division II, Parts 1 – Scope and Application and Part 2 – Administration and Enforcement of the 2022 California Building Code are adopted in their entirety, as amended herein.

**16.04.050 Section 101.1 Title.**

Section 101.1 of the California Building Code is amended to read:

101.1 Title. These regulations shall be known as the *Building Code of City of Palo Alto*, hereinafter referred to as “this code”.

**16.04.060 Section 101.2.1 Appendices.**

Section 101.2.1 of the California Building Code is amended to read:

The following Appendix chapters and sections of the California Building Code, 2022 Edition, are adopted and hereby incorporated in this Chapter by reference and made a part hereof the same as if fully set forth herein:

- A. Appendix I – Patio Covers (Sections I101 through I105)
- B. Appendix J – Grading (Section J109.4 Drainage across property lines)
- C. Appendix P – Emergency Housing (Sections P101 through P110)

**16.04.070 101.4 Referenced codes.**

Section 101.4 of the California Building Code is amended to add subdivisions 101.4.8 through 101.4.12, as follows:

**101.4 Referenced codes.** The other codes listed in Section 101.4.1 through 101.4.12 and referenced elsewhere in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference.

[. . .]

**101.4.8 Historical Buildings.** The provisions of the *California Historical Code* shall apply to the alteration, addition, and relocation to qualified historical buildings or properties.

**101.4.9 Electrical.** The provisions of the *California Electrical Code* shall apply to the installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings and appurtenances thereto.

**101.4.10 Residential Buildings.** The provisions of the *California Residential Code* shall apply to all matters governing the design and construction of detached, one- and two-family dwellings, townhouses not more than three stories and separate means of egress, and structural accessory thereto.

**101.4.11 Green Building Standards.** The provisions of the *California Green Building Standards Code* shall apply to all matters governing the "green building" related planning, design construction, operation, use and occupancy of newly constructed and altered buildings.

**101.4.12 International Swimming and Spa Code.** The provisions of the *2021 International Swimming and Spa Code* shall apply to the installation of private swimming pools and spa facilities.

#### **16.04.080 Section 103 Code Compliance Agency**

Section 103 of the California Building Code is amended to read:

**103.1 Creation of enforcement agency.** The Planning and Development Services Department is hereby created and the official in charge thereof shall be known as the chief building official, also referred to as building official or code official. The function of the department shall be the implementation, administration, and enforcement of the provisions of this code.

**103.2 Appointment.** The building official shall be appointed by the chief appointing authority of the jurisdiction.

**103.3 Deputies.** In accordance with the prescribed procedures of this jurisdiction and with the concurrence of the appointing authority, the building official shall have the authority to appoint assistant chief building officials, manager supervisors, and other technical officers, inspectors, and other employees. Such employees shall have powers as delegated by the building official.

**16.04.090 Section 104.2.1 Determination of substantially improved or substantially damaged existing buildings and structures in flood hazard areas.**

Section 104.2.1 of the California Building Code is amended to read:

**104.2.1 Determination of substantially improved or substantially damaged existing buildings and structures in flood hazard areas.** For applications for reconstruction, rehabilitation, repair, alteration, addition or other improvement of existing buildings or structures located in flood hazard areas, the city engineer or designee shall determine if the proposed work constitutes substantial improvement or repair of substantial damage. Where the city engineer or designee determines that the proposed work constitutes substantial improvement or repair of substantial damage, and where required by this code, the city engineer or designee shall require the building to meet the requirements of Section 1612 of the *California Building Code*, Section R322 of the *California Residential Code as amended*, or Palo Alto Municipal Code 16.52 Flood Hazard Regulations, whichever is more stringent.

**16.04.100 Section 104.10.1 Flood hazard area.**

Section 104.10.1 of the California Building Code is amended to read:

**104.10.1 Flood hazard areas.** The city engineer or designee shall not grant modifications to any provision required in flood hazard areas as established by Section 1612.3 unless a determination has been made that:

1. A showing of good and sufficient cause that the unique characteristics of the size, configuration or topography of the site render the elevation standards of Section 1612 inappropriate.
2. A determination that failure to grant the variance would result in exceptional hardship by rendering the lot undevelopable.
3. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, cause fraud on or victimization of the public, or conflict with existing laws or ordinances.
4. A determination that the variance is the minimum necessary to afford relief, considering the flood hazard.
5. Submission to the applicant of written notice specifying the difference between the design flood elevation and the elevation to which the building is to be built, stating that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced floor elevation, and stating that construction below the design flood elevation increases risks to life and property.

**16.04.110 Section 105.2 Work exempt from permit.**

Section 105.2 of the California Building Code is amended to read:

**105.2 Work exempt from permit.** Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. Permits shall not be required for the following:

**Building:**

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided that the floor area does not exceed 120 square feet (11.15 m<sup>2</sup>). It is permissible that these structures still be regulated by Section 710A, despite exemption from permit.
2. Wood fences not over 7 feet (2134 mm) high or concrete or masonry wall not over 4 feet (1219 mm) high when not subject to specific city of Palo Alto Planning and Zoning regulations.
3. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding Class I, II or IIIA liquids.
4. Oil derricks.
5. Water tanks supported directly on grade if the capacity is not greater than 5,000 gallons (18 925 L) and the ratio of height to diameter or width is not greater than 2:1.
6. Sidewalks and driveways not more than 30 inches (762 mm) above adjacent grade and not over any basement or story below and are not part of an accessible route, accessible parking spaces, or required exits.
7. Wood decks not over 30 inches above surrounding grade or finishes, not attached to a structure, or serving any part of the means of egress.
8. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
9. Temporary motion picture, television and theater stage sets and scenery.
10. Prefabricated swimming pools accessory to a Group R-3 occupancy that are less than 18 inches deep, do not exceed 5,000 gallons and are installed entirely above ground.
11. Shade cloth structures constructed for nursery or agricultural purposes, not including service systems.
12. Swings and other playground equipment accessory to detached one- and two- family dwellings and not considered a public playground.

13. Window awnings supported by an exterior wall that do not project more than 54 inches (1,372 mm) from the exterior wall and do not require additional support of Group R-3 and U occupancies.
14. Nonfixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1753 mm) in height.

**Electrical:**

1. **Repairs and maintenance:** Minor repair work, including the replacement of lamps or the connection of approved portable electrical equipment to approved permanently installed receptacles.
2. **Radio and television transmitting stations:** The provisions of this code shall not apply to electrical equipment used for radio and television transmissions, but do apply to equipment and wiring for a power supply and the installations of towers and antennas.
3. **Temporary testing systems:** A permit shall not be required for the installation of any temporary system required for the testing or servicing of electrical equipment or apparatus.
4. **Temporary decorative lighting:** Exterior listed plug-in decorative lighting plugged into a waterproof GFCI receptacle outlet.
5. **Replacement of overcurrent devices:** Replacement of any overcurrent device less than 1,200 amps of the same capacity in the same location.
6. Wiring for temporary theatre, motion picture or television stage sets.
7. Electrical wiring, devices, appliances, apparatus, or equipment operating at less than 25 volts and not capable of supplying more 50 watts of energy.

**Gas:**

1. Portable heating appliance.
2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

**Mechanical:**

1. Portable heating appliance.
2. Portable ventilation equipment.
3. Portable cooling unit.
4. Steam, hot or chilled water piping within any heating or cooling equipment regulated by this code.
5. Replacement of any part that does not alter its listing/approval or make it unsafe.

6. Portable evaporative cooler.
7. Self-contained refrigeration system containing 10 pounds (4.54 kg) or less of refrigerant and actuated by motors of 1 horsepower (0.75 kW) or less.

**Plumbing:**

1. The stopping of leaks in drains, water, soil, waste or vent pipe, provided, however, that if any concealed trap, drain pipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work and a permit shall be obtained and inspection made as provided in this code.
2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures and the removal and reinstallation of water closets, provided that such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

[...]

**16.04.120 Section 105.3.2 Time limitation of application.**

Section 105.3.2 of Chapter 1 of the California Building Code is amended to read:

**105.3.2 Time limitation of application.** An accepted application for a permit for any proposed work shall be deemed to have been abandoned twelve (12) months after the date of filing, unless such application has been pursued in good faith or a permit has been issued; except that the building official is authorized to grant one or more extensions and/or reactivations for additional periods not exceeding ninety (90) days each. The extension shall be required in writing and justifiable cause demonstrated.

**16.04.130 Section 105.5 Expiration.**

Section 105.5 of Chapter 1 of the California Building Code is amended to read:

**105.5 Expiration.** Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within twelve (12) months after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of twelve (12) months after the time the work is commenced. For the purpose of this section, failure to progress a project to the next level of required inspection, as determined by the chief building official, shall be deemed to be suspension of the work.

The chief building official or designee is authorized to grant, in writing, no more than three extensions and reactivations of permits that would otherwise expire or reactivations of expired permits, for periods not more than 180 days each and may require:

1. that construction documents be revised to partially or fully to comply with current codes and ordinances; and
2. payment of fees; and
3. payment of a penalty pursuant to Chapter 16.62 of the Palo Alto Municipal Code.

Extensions and reactivations shall be requested in writing and justifiable cause demonstrated. Additional extensions or reactivations beyond three may only be granted with the approval of the City Council.

**105.5.1 Term limit for permits.** All work associated with a building permit must be completed, and final inspection issued, within forty-eight (48) months of permit issuance. Once a term limit has been exhausted without obtaining an approved final inspection the permit will automatically become void. The chief building official or designee is authorized to allow a new permit application to be applied for the original scope of work and may require:

1. that construction documents be revised to partially or fully to comply with current codes and ordinances; and
2. payment of partial or all plan review and permit fees; and
3. payment of a penalty pursuant to Chapter 16.62 of the Palo Alto Municipal Code.

#### **16.04.140 Section 106.1 Live loads posted.**

Section 106.1 of the California Building Code is amended to read:

**106.1 Live Loads Posted.** In commercial, institutional or industrial buildings, for each floor or portion thereof designed for live loads exceeding 50 psf (2.40 kN/m<sup>2</sup>), such design live loads shall be conspicuously posted by the owner or the owner's authorized agent in that part of each story in which they apply, using durable signs. It shall be unlawful to remove or deface such notices.

#### **16.04.150 Section 109.6 Refunds.**

Section 109.6 of Chapter 1 of the California Building Code is amended to read:

**109.6 Refunds.** The building official or designee may authorize the refund of any fee paid hereunder which was erroneously paid or collected. The building official or designee may authorize the refund of not more than eighty percent (80%) of the Permit Fee paid when no work has occurred under a permit issued pursuant to this Chapter. The building official or designee may authorize the refund of not more than eighty percent (80%) of the Plan Review Fee paid when a permit application is withdrawn or canceled before any plan review work has started.



**16.04.160 Section 109.7 Re-Inspection fees.**

Section 109.7 of Chapter 1 of the California Building Code is added to read:

**109.7 Re-Inspection Fees.** A re-inspection fee may be assessed/authorized by the building official or designee for each occurrence as itemized below:

1. inspection record card is not posted or otherwise available on the work site;  
or
2. approved plans are not readily available for the inspector at the time of inspection; or
3. inspector is unable to access the work at the time of inspection; or
4. when work has substantially deviated from the approved plans without the prior approval of required revision; or
5. when work for which an inspection is requested is not ready for inspection;  
or
6. when required corrections noted during prior inspections have not been completed.

When a re-inspection fee is assessed, additional inspection of the work will not be performed until the fee has been paid.

**16.04.170 Section 110.2.1 Preliminary accessibility compliance inspection.**

Section 110.2.1 of Chapter 1 of the California Building Code is added to read:

**110.2.1 Preliminary accessibility compliance inspection.** Before issuing a permit, the building official or designee is authorized to examine or cause to be examined the pre-construction accessibility compliance conditions of the buildings, structures, and sites for which an application has been filed.

**16.04.180 Section 110.3.3 Lowest floor elevation.**

Section 110.3.3 of Chapter 1 of the California Building Code is amended to read:

**110.3.3 Lowest floor elevation.** In flood hazard areas, upon placement of the lowest floor, including the basement, and prior to further vertical construction, the elevation certification shall be submitted to City Public Works Engineering for inspection approval prior to foundation inspection by City Building Inspection.

**16.04.190 Section 111.1 Use and occupancy.**

Section 111.1 of Chapter 1 of the California Building Code is amended to read:

**111.1 Use and occupancy.** A building or structure shall not be used or occupied, and a change in the existing occupancy of a building or structure or portion thereof shall not be made, until the chief building official has issued a certificate of occupancy therefor as provided herein. Issuance of a certificate of occupancy shall not be construed as an approval of a violation of the provisions of this code or of other ordinances of the jurisdiction.

**Exception:** Certificates of occupancy are not required or issued for:

1. Work exempted from permits under Section 105.2
2. Group R – Division 2, 3 occupancies
3. Group U occupancies accessory to R3 and R2 occupancies

**111.1.1 Change of occupancy or tenancy.** Each change of occupancy, official name or tenancy of any building, structure, or portion thereof, shall require a new certificate of occupancy, whether or not any alterations to the building are required by this code.

Before any application for a new certificate of occupancy is accepted, a fee shall be paid by the applicant to cover the cost of the inspection of the building required by the change of occupancy or tenancy.

When application is made for a new certificate of occupancy under this section, the building official and fire chief shall cause an inspection of the building to be made. The inspector(s) shall inform the applicant of those alterations necessary, or if none are necessary, and shall submit a report of compliance to the building official.

If a portion of any building does not conform to the requirements of this code for a proposed occupancy, that portion shall be made to conform. The building official may issue a new certificate of occupancy without requiring compliance with all such requirements if it is determined that the change in occupancy or tenancy will result in no increased hazard to life or limb, health, property, or public welfare.

#### **16.04.200 Section 111.3 Temporary occupancy.**

Section 111.3 of Chapter 1 of the California Building Code is amended to read:

**111.3 Temporary occupancy.** The building official or designee is authorized to issue a temporary certificate of occupancy before the completion of the entire work covered by the permit, or as otherwise required, provided that such portion or portions shall be occupied safely. The building official or designee shall set a time period during which the temporary certificate of occupancy is valid.

#### **16.04.210 Section 111.5 Posting.**

Section 111.5 of Chapter 1 of the California Building Code is added to read:

**111.5 Posting.** The temporary certificate of occupancy or certificate of occupancy shall be posted in a conspicuous, readily accessible place in the building or portion of building to be occupied and shall not be removed except when authorized by the building official.

**16.04.220 Section 113 Means of Appeals.**

Section 113 of Chapter 1 of the California Building Code is amended to read:

**SECTION 113  
MEANS OF APPEALS**

**113.1 Appeals.** A person requesting an order, decision, or determination by the building official relative to the California Building Code (as amended) may appeal such order, decision or determination by completing a request for hearing form and returning it to the City within thirty calendar days from the date of the decision, together with all applicable fees authorized by the City's Municipal Fee Schedule. A request for hearing shall be based on a claim that the true intent of the California Building Code (as amended) or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply or an equivalent or better form of construction is proposed.

(a) The person requesting the hearing shall be notified of the time and place set for the hearing at least ten days prior to the date of the hearing.

(b) If the building official submits an additional written report concerning the decision to hearing officer for consideration at the hearing, then a copy of this report shall also be served on the person requesting the hearing at least five days prior to the date of the hearing.

(c) The appeal procedure set out in this Section 113.1 *et seq.* does not apply to: (1) decisions by the building official or any other City official related to administrative enforcement actions taken under Chapter 1.12 or Chapter 1.16 of the Palo Alto Municipal Code; (2) decisions by the City to enforce the California Building Code under any provision of criminal law; or (3) any other action taken by the City that specifies its own appeal procedure.

**113.2 Hearing Officer.** The building official shall designate a hearing officer for the appeal hearing. The hearing officer may consist of one person or a body of people. The hearing officer shall not be the building official or any directly subordinate employees.

(a) The hearing officer does not have authority to waive requirements of the California Building Code (as amended) or interpret the administration of the Code.

(b) The hearing officer does not have authority to issue an order, decision, or determination on his or her own authority. This includes the issuance or amendment of building permits.

(b) The hearing officer shall be qualified by experience and training to pass on matters pertaining to building construction.

**113.3 Hearing procedures.**

- (a) No appeal hearing before a hearing officer shall be noticed unless the applicable fee(s) been paid in advance in accordance with Section 113.1.
- (b) A hearing before the hearing officer shall be set for a date that is not less than fifteen days and not more than sixty days from the date that the request for hearing is filed in accordance with the provisions of this chapter. The party requesting the hearing may request one continuance for any reason, provided that the hearing officer is given the request for continuance at least forty-eight hours in advance of the scheduled hearing and that the deferred hearing shall not be deferred more than ninety days after the request for hearing was made. A request for continuance made less than forty-eight hours before the scheduled hearing may be granted by the hearing officer based upon exigency only. The parties may stipulate to an alternative hearing date schedule outside of these rules upon a finding of good cause and approval from the hearing officer.
- (c) At the hearing, the appellant shall be given the opportunity to testify and to present evidence and cross-examine witnesses concerning the appeal. The appellant may appear personally or through a representative. Prehearing discovery is not authorized, but subpoena of witnesses and documents shall be permitted as authorized by law. The hearing officer may conduct the hearing informally, both as to rules of procedure and admission of evidence, in any manner which will provide a fair hearing.
- (d) The failure of the appellant to appear at the hearing or, in the alternative, to present written or demonstrative evidence shall constitute the dismissal of the appeal with prejudice.
- (e) The administrative record and any additional report submitted by the building official shall constitute presumptive evidence of the respective facts contained in those documents. The building official shall have the same rights as the appellant to testify, present evidence, and cross-examine witnesses concerning the appeal.
- (f) The hearing officer may continue the hearing and request additional information from the building official or appellant prior to issuing a written decision.

**113.4 Hearing Officer's decision.**

- (a) After considering all the testimony and evidence submitted at the hearing, the hearing officer shall issue a written decision to uphold or amend the building official's order, decision or determination, and the reasons for that decision. The decision of the hearing officer shall be issued within thirty days following completion of the hearing. The decision of the hearing officer shall be final upon service on the appellant, subject only to judicial review as allowed by law.
- (b) The hearing officer shall consider any written or oral evidence submitted at the hearing consistent with ascertainment of the facts regarding the issues of the appeal.
- (c) If the hearing officer determines that the building official's order, decision, or determination should not be upheld as originally given, then the hearing officer shall direct the building official to make any amendments or changes necessary to implement the hearing officer's decision. The hearing officer shall also give the building official a

reasonable deadline to complete such actions.

(d) The appellant shall be served with a copy of the hearing officer's written decision within ten calendar days following its issuance.

**16.04.225 Section 114 Violations.**

Section 114 of Chapter 1 of the California Building Code is amended to read:

**SECTION 114  
VIOLATIONS**

**114.1 Unlawful acts.** It is unlawful for any person to violate any provision or to fail to comply with any of the requirements of this Chapter or any permits, conditions, or variances granted under this Chapter. Violators shall be subject to any penalty or penalties authorized by law, including but not limited to: administrative enforcement pursuant to Chapters 1.12, 1.16 and 16.62 of the Palo Alto Municipal Code; and criminal enforcement pursuant to Chapter 1.08 of the Palo Alto Municipal Code. Each separate day or any portion thereof during which any violation of this Chapter occurs or continues shall be deemed to constitute a separate offense.

When the chief building official determines that a violation of this Chapter has occurred, the chief building official may, in his or her sole discretion, record a notice of pendency of code violation with the Office of the County Recorder stating the address and owner of the property involved. When the violation has been corrected, the chief building official shall issue and record a release of the notice of pendency of code violation.

**114.2 Criminal enforcement authority.** The employee positions designated in this section are authorized to exercise the authority provided in California Penal Code section 836.5 for violations of this Chapter. The designated employee positions are: (1) chief building official, (2) assistant chief building official, (3) building inspection manager, (4) Building Inspector or Building Inspector Specialist as designated by the chief building official and (5) code enforcement officer.

**16.04.230 Section 115 Stop Work Order.**

Section 115 of Chapter 1 of the California Building Code is amended to read:

**SECTION 115  
STOP WORK ORDER**

**115.1 Authority.** Whenever the building official finds any work regulated by this code being performed in a manner that is contrary to the provisions of this code, without a permit, beyond the scope of the issued permit, in violation of the Palo Alto Municipal Code or Zoning Ordinance, or dangerous or unsafe, the building official is authorized to issue a stop work order.

**115.2 Issuance.** The stop work order shall be in writing and shall be posted in a visible location near the location where the work is being conducted. If the owner or owner's agent is not on site at the time of posting, a notice advising the reasons for the stop work order issuance shall be hand delivered or mailed first-class to the owner of the property involved, or to the owner's agent, or to the person doing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order, the conditions under which the cited work will be permitted to resume, and the name and contact information of the official or agency issuing the order.

**115.3 Unlawful continuance.** Any person who continues to engage in any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be guilty of a misdemeanor.

**115.4 Removal of posted stop work order.** Any person who removes a posted stop work order without written consent of the Building Official shall be guilty of a misdemeanor.

**115.5 Response required.** Violators receiving a stop work order are required to respond to Planning and Development Services within five (5) business days of the issued notice to receive instructions on how to rescind the order.

**115.6 Permit application required.** A building permit application with construction or demolition plans and supporting (structural calculations, energy calculations, accessible access) documents must be submitted for approval within twenty (20) working days following response to Planning and Development Services. Plans will be reviewed and correction letters issued or permit application approved by Planning and Development Services. A response to any correction letter must be submitted within fifteen (15) working days of the date of the correction letter. Ten (10) working days will be required to review this second submission and a permit approved for issuance. Permits ready for issuance must be issued within five (5) working days thereafter. All construction must be inspected as work progresses and signed off by all (affected) departments within the permit term limits outlined in Section 105.5.1 or as determined by the building official.

**115.7 Stop work order penalty.** The Building Official may impose Stop Work Order Penalties in accordance with Section 1.14.050 of this code and/or other applicable law.

#### **16.04.240 Section 502.1 Address identification.**

Section 502.1 of Chapter 5 of the California Building Code is amended to read:

**502.1 Address identification.** New and existing buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be

a minimum of 4 inches (102 mm) high with a minimum stroke width of ½ inch (12.7 mm) unless required to be larger by Section 502.1.2. When required by the fire code official, address identification shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road and the building address cannot be viewed from the public way, a monument, pole or other approved sign or means shall be used to identify the structure. Address numbers shall be maintained.

**502.1.1 Address illumination.** Address identification required by Section 501.2 shall be illuminated.

**502.1.2 Address identification size.** Address numbers and letters shall be sized as follows:

1. When the structure is between thirty-six (36) and fifty (50) feet from the road or other emergency means of access, a minimum of one-half inch (0.5") stroke by six inches (6") high is required.
2. When the structure is fifty (50) or more feet from the road or other emergency means of access, a minimum of one inch (1") stroke by nine inches (12") high is required.

**16.04.250 Section 702A Definitions – Wildland-Urban Interface FireArea.**

Section 702A of Chapter 7A of the California Building Code is amended include the following definition of "**WILDLAND-URBAN INTERFACE FIRE AREA**":

**WILDLAND-URBAN INTERFACE FIRE AREA** is a geographical area identified by the State of California as a "Fire Hazard Severity Zone" in accordance with Public Resources Code Sections 4201 through 4202 and Government Code Sections 51175 through 51189, or other areas designated by the enforcing agency to beat a significant risk from wildfires. Within the city limits of the City of Palo Alto, "Wild Land-Urban Fire Interface Area" shall also include all areas west of Interstate 280, and all other areas recommended as a "Very High Fire Hazard Severity Zone" by the Director of the California Department of Forestry.

**16.04.260 Section 903.2 Automatic Sprinkler Systems, Where Required.**

Section 903.2 of Chapter 9 the California Building Code is amended to read:

**903.2 Automatic sprinkler systems, where required.** Approved automatic sprinkler systems in new buildings and structures and in existing modified buildings and structures, shall be provided in the locations described in this section. Automatic fire sprinklers shall be installed per the requirements set forth in Sections 903.2.1 through 903.2.18 and as follows, whichever is the more restrictive:

1. An automatic sprinkler system shall be provided throughout all new buildings

and structures

**Exception:** New non-residential occupancies, buildings or structures that do not exceed 350 square feet of building area and contain no plumbing fixtures.

2. An automatic sprinkler system shall be provided throughout all existing buildings when modifications are made that create conditions described in Sections 903.2.1 through 903.2.18, or that create an increase in fire area to more than 3600 square feet or when the addition is equal or greater than 50% of the existing building square footage whichever is more restrictive.
3. An automatic sprinkler system shall be provided throughout all new or altered basements used for storage/utility/occupancy or habitable space regardless of size and throughout existing basements that are expanded by more than 50%. If the addition or alteration is only the basement, then only the basement is required to be fire sprinkler protected.
4. An automatic sprinkler system shall be installed throughout when either the roof structure and/or exterior wall structure have been removed, altered, and/or replaced by at least 50% of the existing structure.
5. An automatic sprinkler system shall be installed throughout when any change in use or occupancy creating a more hazardous fire/life-safety condition, as determined by the Fire Chief.

**Exception:** Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided that those spaces or areas are equipped throughout with an automatic smoke detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour fire barriers constructed in accordance with Section 707 or not less than 2-hour horizontal assemblies constructed in accordance with Section 711, or both.

#### **16.04.270 Section 903.3.1.1 NFPA 13 sprinkler systems.**

Section 903.3.1.1 of Chapter 9 of the California Building Code is amended to read:

**903.3.1.1 NFPA 13 sprinkler systems.** Where the provisions of this code require that a building or portion thereof be equipped throughout with an automatic sprinkler system in accordance with this section, sprinklers shall be installed throughout in accordance with NFPA 13 and State and local requirements except as provided in Section 903.3.1.1.

1. For new buildings having no designated use or tenant, the minimum sprinkler design density shall be Ordinary Hazard Group II/1500 square feet.
2. Where future use or tenant is determined to require a higher density, the



sprinkler system shall be augmented to meet the higher density.

3. Light hazard occupancy shall be hydraulically designed to a 1500 square feet most remote area or as required by the fire code official
4. Laboratory areas within buildings shall be hydraulically designed to Ordinary Hazard II density.
5. Parking areas where mechanical vehicle storage equipment is used shall be hydraulically designed to Extra Hazard II density.
6. In multi-residential apartments, townhomes, and condominiums.

**16.04.280 Section 903.3.1.2 NFPA 13R sprinkler systems.**

Section 903.3.1.2 of Chapter 9 of the California Building Code is amended to read:

**903.3.1.2 NFPA 13R sprinkler systems.** Where allowed in buildings of Group R Occupancies, automatic sprinkler systems shall be installed throughout in accordance with NFPA 13 and State and local standards.

**16.04.290 Section 903.3.1.3 NFPA 13D sprinkler systems.**

Section 903.3.1.3 of Chapter 9 of the California Building Code is amended to read:

**903.3.1.3 NFPA 13D sprinkler systems.** Where allowed, automatic sprinkler systems installed in one-and two-family detached dwellings shall be installed throughout in accordance with NFPA 13D and State and local standards. Fire sprinkler protection is required under rear covered patios extending 4 feet perpendicular from the exterior of the structure.

**16.04.300 Section 903.3.1.3.1 Increase in fire sprinkler design criteria.**

Section 903.3.1.3.1 of Chapter 9 of the California Building Code is added to read:

**903.3.1.3.2 Increase in fire sprinkler design criteria.** Structures determined by the fire code official to have higher firefighting hazardous conditions or located in the Wildland-Urban Interface Fire Area shall have an increase in fire sprinkler design criteria as determined by the fire code official.

**16.04.310 Section 903.4.3 Floor control valves.**

Section 903.4.3 of Chapter 9 of the California Building Code is amended to read:

**903.4.3 Floor control valves.** Automatic sprinkler systems serving buildings two (2) or more stories in height shall have valves installed so as to control the system independently on each floor including basements.

**16.04.320 Section 905.3.1 Height.**

Section 905.3.1 of the California Building Code is amended to read:

**905.3.1 Height.** A Class I standpipe system shall be installed in buildings where the roof edge/parapet is greater than 27 feet above the lowest level of fire apparatus access roadway and in below grade levels.

**16.04.330 Section 907.2.11.10 Replacement.**

Section 907.2.11.10 of Chapter 9 of the California Building Code is added to read:

**907.2.11.10 Replacement.** Single and multi-station smoke alarms and carbon monoxide detectors shall be replaced 10 years after date of installation.

**16.04.340 Section 909.20.7 added - Smoke control systems - schedule.**

Section 909.20.7 is added to the California Building Code to read as follows:

**909.20.7 Smoke control systems - schedule.** A routine maintenance and operational testing program shall be initiated immediately after the smoke control system has passed the acceptance tests. A written schedule for routine maintenance and operational testing shall be established and both shall occur at least annually.

**16.04.350 Section 1008.3.3 Rooms and spaces.**

Section 1008.3.3 of Chapter 10 of the California Building Code is amended to read:

**1008.3.3 Rooms and spaces.** In the event of power supply failure, an emergency electrical system shall automatically illuminate all of the following areas:

1. Electrical equipment rooms.
2. Fire command centers.
3. Fire pump rooms.
4. Generator rooms.
5. Public restrooms.

**16.04.360 Section 1031.2 Where required.**

Section 1031.2 of Chapter 10 of the California Building Code is amended to read:

**1031.2 Where required.** In addition to the means of egress required by this chapter, emergency escape and rescue openings shall be provided in Group R occupancies.

Basements and sleeping rooms below the fourth story above grade plane shall have not fewer than one emergency escape and rescue opening in accordance with this section. Where basements contain one or more sleeping rooms, an emergency escape and

rescue opening shall be required in each sleeping room but shall not be required in adjoining areas of the basement. Such openings shall open directly into a public way or to a yard or court that opens to a public way.

**Exceptions:**

1. In Group R-1 and R-2 occupancies constructed of Type I, Type IIA, Type IIIA or Type IV construction equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1.
2. Group R-2.1 occupancies meeting the requirements for delayed egress in accordance with Section 1010.2.13 may have operable windows that are breakable in sleeping rooms permanently restricted to a maximum of 4-inch open position.
3. Emergency escape and rescue openings are not required from basements or sleeping rooms that have an exit door or exit access door that opens directly into a public way or to a yard, court or exterior egress balcony that opens to a public way.
4. Storm shelters and basements used only to house mechanical equipment not exceeding a total floor area of 200 square feet (18.58 m<sup>2</sup>)

**16.04.370      Reserved.**

**16.04.380      Section 1205.3.4 Roof guards at courts**

Section 1205.3.4 of Chapter 12 of the California Building Code is added to read:

**1205.3.4 Roof guards at courts.** Roof openings into courts where not bounded on all sides by walls shall be protected with guardrails. The top of the guards shall not be less than 42 inches in height. Required guards shall not have openings that allow passage of a sphere twelve inches (12) in diameter from the walking surface to the required guard height.

**Exception:** Where the roof opening is greater than 600 square feet in area.

**16.04.390      Section 1208.5 Dwelling unit and congregate residence superficial floor area.**

Section 1208.5 of Chapter 12 of the California Building Code is added to read:

**1208.5 Dwelling unit and congregate residence superficial floor area.** Every dwelling unit and congregate residence shall have at least one room which shall have not less than 120 square feet of superficial floor area. Every room which is used for both cooking and living or both living and sleeping purposes shall have not less than 144 square feet of superficial floor area. Every room used for sleeping purposes shall have not less than 70 square feet of superficial floor area. When more than two persons occupy a room used for sleeping purposes the required superficial floor area shall be increased at the rate of 50 square feet for each occupant in excess of two. Guest rooms with cooking

shall contain the combined required superficial areas of a sleeping and a kitchen, but not less than 144 square feet. Other habitable rooms shall be not less than 70 square feet.

Notwithstanding any provision of this Section, children under the age of six shall not be counted for purposes of determining whether a family with minor children complies with the provisions of this Code.

For the purposes of this section, "superficial floor area" means the net floor area within the enclosing walls of the room in which the ceiling height is not less than seven feet six inches, excluding built-in equipment such as wardrobes, cabinets, kitchen units, or fixtures which are not readily removable.

**16.04.400 Section 1503.2.1 Locations.**

Section 1503.2.1 of Chapter 15 of the California Building Code is amended to read:

**1503.2.1 Locations.** Flashing shall be installed at wall and roof intersections, gutters, wherever there is a change in roof slope or direction, and around roof openings. Where flashing is of metal, the metal shall be corrosion resistant with a thickness of not less than 0.019 inches (0.483 mm) (e.g. no. 26 galvanized sheet) and shall be primed and painted.

**16.04.410 Section 1612.1.1 Palo Alto Flood Hazard Regulations.**

Section 1612.1.1 of Chapter 16 of the California Building Code is added to read:

**1612.1.1 Palo Alto Flood Hazard Regulations.** Notwithstanding the provisions of Section 1612.1, all construction or development within a flood hazard area (areas depicted as a Special Flood Hazard Area on Flood Insurance Rate Maps published by the Federal Emergency Management Agency) shall comply with the City of Palo Alto Flood Hazard Regulations (Palo Alto Municipal Code Chapter 16.52). Where discrepancies exist between the requirements of this code and said regulations, the more stringent requirements shall apply.

**16.04.420 Section 1613.5 Suspended ceilings.**

Section 1613.5 of Chapter 16 of the California Building Code is added to read:

**1613.5 Suspended ceilings.** Minimum design and installation standards for suspended ceilings shall be determined in accordance with the requirements of Section 2506.2.1 of this Code and this section.

**1613.5.1 Scope.** This part contains special requirements for suspended ceilings and lighting systems. Provisions of Section 13.5.6 of ASCE 7 shall apply except as modified herein.

**1613.5.2 General.** The suspended ceilings and lighting systems shall be limited to 6 feet

(1828 mm) below the structural deck unless the lateral bracing is designed by a licensed engineer or architect.

**1613.5.3 Sprinkler heads.** All sprinkler heads (drops) except fire-resistance-rated floor/ceiling or roof/ceiling assemblies, shall be designed to allow for free movement of the sprinkler pipes with oversize rings, sleeves, or adaptors through the ceiling tile. Sprinkler heads and other penetrations shall have a 2-inch (50mm) oversize ring, sleeve, or adapter through the ceiling tile to allow for free movement of at least 1 inch (25mm) in all horizontal directions. Alternatively, a swing joint that can accommodate 1 inch (25 mm) of ceiling movement in all horizontal directions is permitted to be provided at the top of the sprinkler head extension.

Sprinkler heads penetrating fire-resistance-rated floor/ceiling or roof/ceiling assemblies shall comply with Section 714 of this Code.

**1613.5.4 Special requirements for means of egress.** Suspended ceiling assemblies located along means of egress serving an occupant load of 30 or more and at lobbies accessory to Group A Occupancies shall comply with the following provisions.

**1613.5.4.1 General.** Ceiling suspension systems shall be connected and braced with vertical hangers attached directly to the structural deck along the means of egress serving an occupant load of 30 or more and at lobbies accessory to Group A Occupancies. Spacing of vertical hangers shall not exceed 2 feet (610 mm) on center along the entire length of the suspended ceiling assembly located along the means of egress or at the lobby.

**1613.5.4.2 Assembly device.** All lay-in panels shall be secured to the suspension ceiling assembly with two hold-down clips minimum for each tile within a 4-foot (1219 mm) radius of the exit lights and exit signs.

**1613.5.4.3 Emergency systems.** Independent supports and braces shall be provided for light fixtures required for exit illumination. Power supply for exit illumination shall comply with the requirements of Section 1008.3 of this Code.

**1613.5.4.4 Supports for appendage.** Separate support from the structural deck shall be provided for all appendages such as light fixtures, air diffusers, exit signs, and similar elements.

**16.04.430 Section 1613.5 ASCE 7, Section 13.1.4 Seismic design requirements for nonstructural components.**

Section 1613.5 of Chapter 16 of the California Building Code is added to include the following:

**1613.5 ASCE 7, Section 13.1.4 Seismic design requirements for nonstructural components.** Nonstructural elements must be seismically designed per ASCE 7, Section 13.1.4.

**Exemptions.** The following nonstructural components are exempted:

1. Furniture (except storage cabinets as noted in Table 13.5-1).
2. Temporary or movable equipment
3. Architectural components in Seismic Design Category B other than parapets supported by bearing walls or shear walls provided that the component importance factor,  $I_p$ , is equal to 1.0.
4. Mechanical and electrical components in Seismic Design Category B.
5. Mechanical and electrical components in Seismic Design Category C provided that the component importance factor,  $I_p$ , is equal to 1.0.
6. Mechanical and electrical components in Seismic Design Categories D, E, or F where all of the following apply:
  - a. The component importance factor,  $I_p$ , is equal to 1.0;
  - b. The component is positively attached to the structures;
  - c. Flexible connections are provided at seismic separation joints and between the component and associated ductwork, piping, and conduit; and either:
    - i. The component weighs 400 lb. (1,780 N) or less and has a center of mass located 4 ft (1.22 m) or less above the adjacent floor level; or
    - ii. The component weighs 20 lb. (89 N) or less or, in the case of a distributed system, 5 lb./ft. (73 N/m) or less; or
    - iii. The component weighs 200 lb. (890 N) or less and is suspended from roof/floor or mounted on wall.

**16.04.440 Section 1705.3 Concrete construction.**

Section 1705.3 of Chapter 17 of the California Building Code is amended to read:

**1705.3 Concrete construction.** The special inspections and tests of concrete construction shall be as required by this section and Table 1705.3.

**Exceptions:** Special inspections and tests shall not be required for:

1. Isolated spread concrete footings of buildings three stories or less above grade plane that are fully supported on earth or rock, where the structural design of the footing is based on a specified compressive strength,  $f'_c$ , no greater than 2,500 pound per square inch (psi) (17.2 Mpa).
2. Continuous concrete footings supporting walls of buildings three stories or less above grade plane that are fully supported on earth or rock where:
  - 2.1. The footings support walls of light-frame construction;
  - 2.2. The footings are designed in accordance with Table 1809.7; or

- 2.3. The structural design of the footing is based on a specified compressive strength,  $f'_c$ , no greater than 2,500 pounds per square inch (psi) (17.2 MPa), regardless of the compressive strength specified in the construction documents or used in the footing construction.
3. Nonstructural concrete slabs supported directly on the ground, including pre-stressed slabs on grade, where the effective pre-stress in the concrete is less than 150 psi (1.03 MPa).
4. Concrete foundation walls constructed in accordance with Table 1807.1.6.2.
5. Concrete patios, driveways and sidewalks, on grade.

**16.04.450 Section 1803.2 Investigations required.**

Section 1803.2 of Chapter 18 of the California Building Code is amended as to read:

**1803.2 Investigations required.** Geotechnical investigations shall be conducted in accordance with Sections 1803.3 through 1803.5

**Exceptions:**

1. The building official or designee shall be permitted to waive the requirement for a geotechnical investigation where satisfactory data from adjacent areas is available that demonstrates an investigation is not necessary for any of the conditions in Sections 1803.5.1 through 1803.5.6 and Sections 1803.5.10 and 1803.5.11.
2. Light-frame construction building utilizing the prescriptive continuous footings per Table 1809.7 amended in section 16.04.300. For addition, the engineer of record shall certify in writing that the existing foundation system matches the proposed foundation system.
3. Accessories and minor additions may be exempted by the Building Official or designee.

**16.04.460 Section 1803.5.11 Seismic design categories C through F.**

Section 1803.5.11 of Chapter 18 of the California Building Code is amended to read:

**Section 1803.5.11 Seismic design categories C through F.** For structures assigned to Seismic Design Category C, D, E or F, a geotechnical investigation shall be conducted, and shall include an evaluation of all of the following potential geologic and seismic hazards:

1. Slope instability.
2. Liquefaction.
3. Total and differential settlement.

4. Surface displacement due to faulting or seismically induced lateral spreading or lateral flow.

**Exception:** Refer to section 1803.2 exception.

**16.04.470 Section 1809.7 Prescriptive footings for light-frame construction.**

Section 1809.7 of Chapter 18 of the California Building Code is amended to read:

**1809.7 Prescriptive footings for light-frame construction.** Where a specific design is not provided, concrete or masonry-unit footings supporting walls of light-frame construction shall be permitted to be designed in accordance with Table 1809.7.

**TABLE 1809.7**  
**Prescriptive Footings Supporting Walls of Light-Frame Construction<sup>abcd</sup>**

| Number of Floors Supported by the Footing <sup>e</sup> | Thickness of Foundation Wall (inches) | Width of Footing (inches) | Thickness of Footing (inches) | Depth of Foundation Below Natural Surface of Ground or Finish Grade (inches) |
|--------------------------------------------------------|---------------------------------------|---------------------------|-------------------------------|------------------------------------------------------------------------------|
| 1 & 2                                                  | 8                                     | 15                        | 8                             | 20                                                                           |
| 3                                                      | 8                                     | 18                        | 8                             | 30                                                                           |
| Group U Occupancies                                    | 8                                     | 12                        | 8                             | 12                                                                           |
| ADU Conversions <sup>f</sup>                           | 8                                     | 12                        | 8                             | 12                                                                           |

- a. Ground under the floor shall be permitted to be excavated to elevation of footing.
- b. Interior stud-bearing walls shall be permitted to be supported by isolated footings. Footing width and length shall be twice the width shown in this table, and footings shall be spaced not more than 6 feet on center.
- c. See Section 1905 for additional requirements for concrete footings of structures assigned to Seismic Design Category C, D, E or F.
- d. All foundations as required in the above Table shall be continuous and have a minimum of three #4 bars of reinforcing steel, except for one story, detached accessory buildings of Group U occupancy where two bars are required.
- e. Footings shall be permitted to support a roof in addition to the stipulated number of floors. Footings supporting roof only shall be as required for supporting one floor.
- f. If existing detached accessory building is being converted to an Accessory Dwelling Unit (ADU) and the existing foundation is being utilized, then a designer, architect or engineer shall provide a letter that the existing foundation complies with the conditions above and is deemed structurally sound.



**16.04.480 Section 1809.8 Plain concrete footings.**

Section 1809.8 of Chapter 18 of the California Building Code is deleted.

**16.04.490 Section 1901.2 Plain and reinforced concrete.**

Section 1901.2 of Chapter 19 of the California Building Code is amended to read:

**1901.2 Plain and reinforced concrete.** Structural concrete shall be designed and constructed in accordance with the requirements of this chapter and ACI 318 as amended in section 1905 of this code and PAMC 16.14.240. Except for the provisions of Sections 1904 and 1907, the design and construction of slabs on grade shall not be governed by this chapter unless they transmit vertical loads or lateral forces from other parts of the structure to the soil.

**16.04.500 Section 1905.1.7 ACI 318, Section 14.1.4.**

Section 1905.1.7 of Chapter 19 of the California Building Code is amended to read:

**1905.1.7 ACI 318, Section 14.1.4.** Delete ACI 318, Section 14.1.4, and replace with the following:

14.1.4 - Plain concrete in structures assigned to Seismic Design Category C, D, E or F.

14.1.4.1- Structures assigned to Seismic Design Category C, D, E or F shall not have elements of structural plain concrete, except as follows:

- (a) Left intentionally blank.
- (b) Isolated footings of plain concrete supporting pedestals or columns are permitted, provided the projection of the footing beyond the face of the supported member does not exceed the footing thickness.
- (c) Plain concrete footings supporting walls are permitted, provided the footings have at least three continuous longitudinal reinforcing bars not smaller than No. 4, with a total area of not less than 0.002 times the gross cross-sectional area of the footing except for one story, detached accessory buildings of Group U occupancy where two bars are required. A minimum of one bar shall be provided at the top and bottom of the footing. Continuity of reinforcement shall be provided at corners and intersections.

**16.04.510 SECTION 1906 FOOTINGS FOR LIGHT-FRAME CONSTRUCTION**

Section 1906 of Chapter 19 of the California Building Code is deleted.

**16.04.520 Section 1906.1 Plain concrete footings.**

Section 1906.1 of Chapter 19 of the California Building Code is deleted.

**16.04.530 Section 1907.1 General.**

Section 1907.1 of Chapter 19 of the California Building Code is amended to read:

**1907.1 General.** The thickness of concrete floor slabs supported directly on the ground shall be not less than 3 ½ inches (89mm). A 6-mil (0.006 inches; 0.15mm) polyethylene vapor retarder with joints lapped not less than 6 inches (152 mm) shall be placed between the base course or subgrade and the concrete floor slab, or other approved equivalent methods or materials shall be used to retard vapor transmission through the floor slab. Slabs shall have 6x6-10/10 wire mesh or equate a mid-height.

**Exceptions:** A vapor retarder is not required:

1. For detached [ . . . ]

**16.04.540 Section 2305.4 Hold-down connections.**

Section 2305.4 of Chapter 23 of the California Building Code is added to read:

**2305.4 Hold-down connectors.** In Seismic Design Category D, E or F, hold-down connectors shall be designed to resist shear wall overturning moments using approved cyclic load values or 75 percent of the allowable seismic load values that do not consider cyclic loading of the product. Connector bolts into wood framing shall require steel plate washers on the post on the opposite side of the anchorage device. Plate size shall be a minimum of 0.229 inch by 3 inches by 3 inches (5.82 mm by 76 mm by 76 mm) in size. Hold-down connectors shall be tightened to finger tight plus one half (1/2) wrench turn just prior to covering the wall framing.

**16.04.550 Section 2307.2 Wood-framed shear walls.**

Section 2307.2 of Chapter 23 of the California Building Code is added to read:

**Section 2307.2 Wood-frame shear walls.** Wood-frame shear walls shall be designed and constructed in accordance with Section 2306.3 as applicable.

**16.04.560 Section 2308.6.4 Braced wall panel construction.**

Section 2308.6.4 of Chapter 23 of the California Building Code is amended to read:

**2308.6.4 Braced wall panel construction.** For Methods DWB, WSP, SFB, PBS, PCP and HPS, each panel must be not less than 48 inches (1219 mm) in length, covering three stud spaces where studs are spaced 16 inches (406 mm) on center and covering two stud spaces where studs are spaced 24 inches (610 mm) on center. Braced wall panels less than 48 inches (1219 mm) in length shall not contribute toward the amount of required bracing. Braced wall panels that are longer than the required length shall be credited for their actual length.

Vertical joints of panel sheathing shall occur over studs and adjacent panel joints shall be nailed to common framing members. Horizontal joints shall occur over blocking or other framing equal in size to the studding except where waived by the installation requirements for the specific sheathing materials. Sole plates shall be nailed to the floor framing in accordance with Section 2308.7 and top plates shall be connected to the framing above in accordance with Section 2308.6.7.2. Where joists are perpendicular to braced wall lines above, blocking shall be provided under and in line with the braced wall panels.

**16.04.570 Section 2308.6.5 Alternative bracing.**

Section 2308.6.5 of Chapter 23 of the California Building Code is amended to read:

**2308.6.5 Alternative bracing.** An alternate braced wall (ABW) or a portal frame with hold-downs (PFH) described in this section is permitted to substitute for a 48-inch (1219 mm) braced wall panel of Method DWB, WSP, SFB, PCP or HPS.

**16.04.580 TABLE 2308.6.1 WALL BRACING REQUIREMENTS.**

Footnote “b” of TABLE 2308.6.1 of Chapter 23 of the California Building Code is amended to read:

b. See section 2306.3 for full description of bracing methods. Method GB is prohibited in Seismic Design Categories D & E.

**16.04.590 TABLE 2308.6.3(1) BRACING METHODS.**

TABLE 2308.6.3(1) Bracing Methods of Chapter 23 of the California Building Code is amended by adding footnote “b” and footnote “b” superscript to METHODS, MATERIAL column title as follows:

**TABLE 2308.6.3(1) BRACING METHODS**

| METHODS,<br>MATERIAL <sup>b</sup> | MINIMUM<br>THICKNESS | FIGURE | CONNECTION CRITERIA <sup>a</sup> |         |
|-----------------------------------|----------------------|--------|----------------------------------|---------|
|                                   |                      |        | Fasteners                        | Spacing |

b. Method GB is prohibited in Seismic Design Categories D & E.

**16.04.600 Section 2308.6.9 Attachment of sheathing.**

Section 2308.6.9 of Chapter 23 of the California Building Code is amended to read:

**2308.6.9 Attachment of sheathing.** Fastening of braced wall panel sheathing shall not be less than that prescribed in Table 2308.6.1 or 2304.10.2. Wall sheathing shall not be attached to framing members by adhesives. Staple fasteners in Table 2304.10.1 shall not be used to resist or transfer seismic forces in structures assigned to Seismic Design Category D, E, or F unless the allowable shear values are substantiated by cyclic testing and approved by the Building Official or designee.

All braced wall panels shall extend to the roof sheathing and shall be attached to parallel roof rafters or blocking above with framing clips (18 gauge minimum) spaced at maximum 24 inches on center with four 8d nails per leg (total eight-8d nails per clip). Braced wall panels shall be laterally braced at each top corner and at maximum 24-inch intervals along the top plate of discontinuous vertical framing.

**16.04.610 SECTION 2505 SHEAR WALL CONSTRUCTION.**

Section 2505 Chapter 25 of the California Building Code is deleted in its entirety including its subsections.

**16.04.620 Section 2508.6 Horizontal gypsum board or gypsum panel product diaphragm ceilings.**

Section 2508.6 of the California Building Code is deleted in its entirety including its subsections.

**16.04.630 Chapter 31B Public Pools.**

Chapter 31B of the California Building Code has been adopted in its entirety.

**16.04.640 Section 3304.1 Excavation and fill.**

Section 3304.1 of Chapter 33 of the California Building Code is amended to read:

**3304.1 Excavation and fill.** Excavation and fill for buildings and structures shall be constructed or protected so as not to endanger life or property. Stumps and roots shall be removed from the soil to a depth of not less than 12 inches (305mm) below the surface of the ground in the area to be occupied by the building. Wood forms that have been used in placing concrete, if within the ground or between foundation sills and the ground, shall be removed before a building is occupied or used for any purpose. Wooden stakes shall not be embedded in concrete. Before completion, loose or casual wood shall be removed from direct contact with the ground under the building.

**SECTION 2.** Chapter 16.19, California Historical Building Code and Existing Building Code, of Title 16 (Building Regulations) of the Palo Alto Municipal Code is added to read as follows:

**16.19 California Historical Building Code and Existing Building Code**

**16.19.010 2022 California Historical Building Code, Title 24, Part 8 Adopted.**

The California Historical Building Code, 2022 Edition, Title 24, Part 8 (authorized by Health and Safety Code Sections 18950 through 18961), which provides alternative building regulations for the rehabilitation, preservation, restoration, or relocation of designated historic buildings, is adopted and hereby incorporated in this Chapter by reference and made a part hereof the same as if fully set forth herein.

One copy of the California Historical Building Code, 2022 Edition, has been filed for use and examination of the public in the Office of the Chief Building Official of the City of Palo Alto.

**16.19.020      2022 California Existing Building Code, Title 24, Part 10 Adopted and Amended.**

The California Existing Building Code, 2022 Edition, Title 24, Part 10 of the California Code of Regulations, which provides alternative building regulations for the rehabilitation, preservation restoration or relocation of existing buildings, together with those omissions, amendments, exceptions, and additions thereto, is adopted and hereby incorporated in this Chapter by reference and made a part hereof the same as if fully set forth herein.

**16.19.030      Cross - References to California Existing Building Code.**

The provisions of this Chapter contain cross-references to the provisions of the California Existing Building Code, 2022 Edition, in order to facilitate reference and comparison to those provisions.

**16.19.040      Local Amendments.**

The provisions of this Chapter shall constitute local amendments to the cross-referenced provisions of the California Existing Building Code, 2022 Edition, and shall be deemed to replace the cross-referenced sections of said Code with the respective provisions set forth in this Chapter.

**16.19.050      101.6 Appendices.**

Section 101.6 of Chapter 1 of the California Existing Building Code is amended to read:

**2022 California Existing Building Code and International Existing Building Code Appendix Chapters Adopted.**

The following Appendix Chapters of the California Existing Building Code (CEBC), 2022 Edition, and International Existing Building Code (IEBC), 2021 Edition, are adopted and hereby incorporated in this Chapter by reference and made a part hereof the same as if fully set forth herein:

- A. CEBC Appendix A1 – Seismic Strengthening Provisions for Unreinforced Masonry Bearing Wall Buildings
- B. CEBC Appendix Chapter A2 – Earthquake Hazard Reduction in Existing Reinforced Concrete and Reinforced Masonry Wall Buildings with Flexible Diaphragms
- C. CEBC Appendix A3 – Prescriptive Provisions for Seismic Strengthening of Cripple Walls and Sill Plate Anchorage of Light, Wood-Frame Residential Buildings
- D. CEBC Appendix A4 – Earthquake Risk Reduction in Wood-Frame Residential Buildings with Soft, Weak or Open Front Walls

## E. CEBC Appendix A5 – Referenced Standards

**16.19.060 Administration & Enforcement of 2022 California Existing Building Code**

Administration and enforcement of this code shall be governed by Chapter 1, Division II of the 2022 California Building Code as amended by Palo Alto Municipal Code Chapter 16.04.

**16.19.070 Adoption of 2022 California Existing Building Code Chapter 1, Division II – Scope and Administration**

Chapter 1, Division II, Parts 1 and 2 of the 2022 California Existing Building Code is adopted by the City of Palo Alto to supplement, to the extent it does not conflict with, Chapter 1, Division II of the 2022 California Building Code, as amended.

**16.19.080 Section 101.1 Title.**

Section 101.1 of Chapter 1 of the California Existing Building Code is amended to read:

101.1 Title. These regulations shall be known as the Existing *Building Code of City of Palo Alto*, hereinafter referred to as “this code.”

**16.19.090 Section 324 Dwelling unit and congregate residence superficial floor area.**

Section 324 of Chapter 3 of the California Existing Building Code is added to read:

**324 Dwelling unit and congregate residence superficial floor area.** Every dwelling unit and congregate residence shall have at least one room which shall have not less than 120 square feet of superficial floor area. Every room which is used for both cooking and living or both living and sleeping purposes shall have not less than 144 square feet of superficial floor area. Every room used for sleeping purposes shall have not less than 70 square feet of superficial floor area. When more than two persons occupy a room used for sleeping purposes the required superficial floor area shall be increased at the rate of 50 square feet for each occupant in excess of two. Guest rooms with cooking shall contain the combined required superficial areas of a sleeping and a kitchen, but not less than 144 square feet. Other habitable rooms shall be not less than 70 square feet.

Notwithstanding any provision of this Section, children under the age of six shall not be counted for purposes of determining whether a family with minor children complies with the provisions of this Code.

**16.19.100 Section 503.19 Suspended ceiling systems.**

Section 503.19 of Chapter 5 the California Existing Building Code is added to read:

**503.19 Suspended ceiling systems.** In existing buildings or structures, when a permit is issued for alterations or repairs, the existing suspended ceiling system within the area of

the alterations or repairs shall comply with ASCE 7-16 Section 13.5.6.

**16.19.110 Section 503.20 Mechanical and electrical equipment in seismic design categories D, E or F.**

Section 503.20 of Chapter 5 of the California Existing Building Code is added to read:

**503.20 Mechanical and electrical equipment in seismic design categories D, E or F.** In existing buildings or structures, when a permit is issued for alteration or repairs, the existing mechanical and electrical equipment on the area of the roof shall comply with ASCE 7-16 Section 13.4 Nonstructural Component Anchorage.

**16.19.120 Section 405.2.3.1 Seismic evaluation and design procedures for repairs.**

Section 405.2.3.1 of Chapter 5 of the California Existing Building Code is amended to read:

**405.2.3.1 Evaluation and design procedures.** The building shall be evaluated by a registered design professional, and the evaluation findings shall be submitted to the code official. The evaluation shall establish whether the damaged building, if repaired to its pre-damage state, would comply with the provisions of the California Building Code for load combinations that include wind or earthquake effects, except that the seismic forces shall be reduced seismic forces. Evaluation for earthquake loads shall be required if the substantial structural damage was caused by or related to earthquake effects or if the building is in Seismic Design Category C, D, E or F. The seismic evaluation and design shall be based on the procedures specified in the building code, ASCE 41 Seismic Evaluation and Upgrade of Existing Buildings. The procedures contained in Appendix A of the International Existing Building Code (IEBC) shall be permitted to be used as specified in Section 405.2.3.1.

Wind loads for this evaluation shall be those prescribed in Section 1609.

**405.2.3.1.1 CEBC level seismic forces.** When seismic forces are required to meet the building code level, they shall be one of the following:

1. One hundred percent of the values in the building code. The R factor used for analysis in accordance with Chapter 16 of the building code shall be the R factor specified for structural systems classified as "Ordinary" unless it can be demonstrated that the structural system satisfies the proportioning and detailing requirements for systems classified as "intermediate" or "special".
2. Forces corresponding to BSE-1 and BSE-2 Earthquake Hazard Levels defined in ASCE 41. Where ASCE 41 is used, the corresponding performance levels shall be those shown in Table 405.2.3.1.
3. Forces corresponding to BSE-1 and BSE-2 Earthquake Hazard Levels defined in ASCE 41. Where ASCE 41 is used, the corresponding performance levels shall be those shown in Table 405.2.3.1.

**TABLE 405.2.3.1****ASCE 41 PERFORMANCE LEVELS**

| RISK CATEGORY (BASED ON CBC TABLE 1604.5) | PERFORMANCE LEVEL FOR USE WITH ASCE 41 BSE-1 EARTHQUAKE HAZARD LEVEL | PERFORMANCE LEVEL FOR USE WITH ASCE 41 BSE-2 EARTHQUAKE HAZARD LEVEL * |
|-------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------|
| I                                         | Life Safety (LS)                                                     | Collapse Prevention (CP)                                               |
| II                                        | Life Safety (LS)                                                     | Collapse Prevention (CP)                                               |
| III                                       | Damage Control                                                       | Limited Safety                                                         |
| IV                                        | Immediate Occupancy (IO)                                             | Life Safety (LS)                                                       |

\* Only applicable when Tier 3 procedure is used.

**405.2.3.1.2 Reduced CEBC level seismic forces.** When seismic forces are permitted to meet reduced building code levels, they shall be one of the following:

1. Seventy-five percent of the forces prescribed in the building code. The R factor used for analysis in accordance with Chapter 16 of the building code shall be the R factor as specified in Section 405.2.3.1.1.
2. In accordance with the California Existing Building Code and applicable chapters in Appendix A of the International Existing Building Code, as specified in Items (a.) through (e.) below. Structures or portions of structures that comply with the requirements of the applicable chapter in Appendix A shall be deemed to comply with the requirements for reduced building code force levels.
  - a. The seismic evaluation and design of unreinforced masonry bearing wall buildings in Risk Category I or II are permitted to be based on the procedures specified in CEBC Appendix Chapter A1.
  - b. Seismic evaluation and design of the wall anchorage system in reinforced concrete and reinforced masonry wall buildings with flexible diaphragms in Risk Category I or II are permitted to be based on the procedures specified in IEBC Appendix Chapter A2.
  - c. Seismic evaluation and design of cripple walls and sill plate anchorage in residential buildings of light-frame wood construction in Risk Category I or II are permitted to be based on the procedures specified in CEBC Appendix Chapter A3
  - d. Seismic evaluation and design of soft, weak, or open-front wall conditions in multi-unit residential buildings of wood construction in Risk Category I or II are permitted to be based on the procedures specified in CEBC Appendix Chapter A4.
  - e. Seismic evaluation and design of concrete buildings and concrete with



masonry infill buildings in all risk categories are permitted to be based on the procedures specified in IEBC Appendix Chapter A5.

Those associated with the BSE-1 Earthquake Hazard Level defined in ASCE 41 and the performance level as shown in Table 405.2.3.1. Where ASCE 41 is used, the design spectral response acceleration parameters SXS and SX1 shall not be taken less than seventy-five percent of the respective design spectral response acceleration parameters SDS and SD1 defined by the California Building Code and its reference standards.

**SECTION 3.** The Council adopts the findings for local amendments to the California Building Code, 2022 Edition, attached hereto as Exhibit “A” and incorporated herein by reference.

**SECTION 4.** The Council adopts the findings for local amendments to the California Existing Building Code, 2022 Edition, attached hereto as Exhibit “B” and incorporated herein by reference.

**SECTION 5.** The Council finds that this ordinance is exempt from the provisions of the California Environmental Quality Act (“CEQA”), pursuant to Section 15061 of the CEQA Guidelines, because it can be seen with certainty that there is no possibility that the amendments herein adopted will have a significant effect on the environment.

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**SECTION 6.** This Ordinance shall be effective on the thirty-first day after the date of its adoption.

INTRODUCED:

PASSED:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

ATTEST:

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Mayor

APPROVED AS TO FORM:

APPROVED:

\_\_\_\_\_  
Assistant City Attorney

\_\_\_\_\_  
City Manager

\_\_\_\_\_  
Director of Planning and  
Development Services

\_\_\_\_\_  
Director of Administrative Services

**Exhibit A****FINDINGS FOR LOCAL AMENDMENTS TO CALIFORNIA BUILDING CODE,  
TITLE 24, PART 2, VOLUMES 1 AND 2**

Section 17958 of the California Health and Safety Code provides that the City may make changes to the provisions of the California Building Standards Code. Sections 17958.5 and 17958.7 of the Health and Safety Code require that for each proposed local change to those provisions of the California Building Standards Code which regulate buildings used for human habitation, the City Council must make findings supporting its determination that each such local change is reasonably necessary because of local climatic, geological, or topographical conditions.

Local building regulations having the effect of amending the uniform codes, which were adopted by the City prior to November 23, 1970, were unaffected by the regulations of Sections 17958, 17958.5 and 17958.7 of the Health and Safety Code. Therefore, amendments to the uniform codes which were adopted by the City Council prior to November 23, 1970 and have been carried through from year to year without significant change, need no required findings. Also, amendments to provisions not regulating buildings used for human habitation do not require findings.

| <b>Code: California Building Code, Title 24, Part 2, Volumes 1 and 2</b> |                                                                                                                          |              |                |                |                                                   |
|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|--------------|----------------|----------------|---------------------------------------------------|
| <b>Chapter(s),<br/>Section(s),<br/>Table(s),<br/>Appendices</b>          | <b>Title</b>                                                                                                             | <b>Added</b> | <b>Amended</b> | <b>Deleted</b> | <b>Justification<br/>(See below<br/>for keys)</b> |
| Ch. 1, Div. II                                                           | SCOPE OF ADMINISTRATION                                                                                                  | ✓            |                |                | <b>A</b>                                          |
| Part 1                                                                   | Scope of Application                                                                                                     | ✓            | ✓              |                | <b>A</b>                                          |
| Part 2                                                                   | Administration and Enforcement                                                                                           | ✓            | ✓              |                | <b>A</b>                                          |
| 101.1                                                                    | Title                                                                                                                    |              | ✓              |                | <b>A</b>                                          |
| 101.2.1                                                                  | Appendices                                                                                                               |              | ✓              |                | <b>A</b>                                          |
| 101.4                                                                    | Referenced codes                                                                                                         |              | ✓              |                | <b>A</b>                                          |
| 101.4.8                                                                  | Historical Buildings                                                                                                     | ✓            |                |                | <b>A</b>                                          |
| 101.4.9                                                                  | Electrical                                                                                                               | ✓            |                |                | <b>A</b>                                          |
| 101.4.10                                                                 | Residential Buildings                                                                                                    | ✓            |                |                | <b>A</b>                                          |
| 101.4.11                                                                 | Green Building Standards                                                                                                 | ✓            |                |                | <b>A</b>                                          |
| 101.4.12                                                                 | International Swimming and Spa Code                                                                                      | ✓            |                |                | <b>A</b>                                          |
| 103.1                                                                    | Creation of enforcement agency                                                                                           |              | ✓              |                | <b>A</b>                                          |
| 103.2                                                                    | Appointment                                                                                                              |              | ✓              |                | <b>A</b>                                          |
| 103.3                                                                    | Deputies                                                                                                                 |              | ✓              |                | <b>A</b>                                          |
| 104.2.1                                                                  | Determination of substantially improved or substantially damaged existing buildings and structures in flood hazard zones |              | ✓              |                | <b>C, T</b>                                       |
| 104.10.1                                                                 | Flood hazard area                                                                                                        |              | ✓              |                | <b>C, G, T</b>                                    |

|             |                                                  |   |   |  |      |
|-------------|--------------------------------------------------|---|---|--|------|
| 105.2       | Work exempt from work                            |   | ✓ |  | A    |
| 105.3.2     | Time limitation of applications                  |   | ✓ |  | A    |
| 105.5       | Expiration                                       |   | ✓ |  | A    |
| 105.5.1     | Term limits for permits                          |   | ✓ |  | A    |
| 106.1       | Live load posted                                 |   | ✓ |  | G, T |
| 109.6       | Refunds                                          |   | ✓ |  | A    |
| 109.7       | Re-Inspection fees                               | ✓ |   |  | A    |
| 110.2.1     | Preliminary accessibility compliance inspection  | ✓ |   |  | A    |
| 110.3.3     | Lowest floor elevation                           |   | ✓ |  | A    |
| 111.1       | Use and occupancy                                |   | ✓ |  | A    |
| 111.1.1     | Change of occupancy or tenancy                   | ✓ |   |  | A    |
| 111.3       | Temporary occupancy                              |   | ✓ |  | A    |
| 111.5       | Posting                                          | ✓ |   |  | A    |
| 113.1       | Means of Appeals                                 |   | ✓ |  | A    |
| 114.1       | Unlawful acts                                    |   | ✓ |  | A    |
| 114.2       | Criminal enforcement authority                   |   | ✓ |  | A    |
| 115.1       | Authority                                        |   | ✓ |  | A    |
| 115.2       | Issuance                                         |   | ✓ |  | A    |
| 115.3       | Unlawful continuance                             |   | ✓ |  | A    |
| 115.4       | Removal of posted stop work order                |   | ✓ |  | A    |
| 115.5       | Response required                                | ✓ |   |  | A    |
| 115.6       | Permit application required                      | ✓ |   |  | A    |
| 115.7       | Stop work order penalty                          | ✓ |   |  | A    |
| 502.1       | Address identification                           |   | ✓ |  | T    |
| 502.1.1     | Address illumination                             | ✓ |   |  | T    |
| 502.1.2     | Address identification size                      | ✓ |   |  | T    |
| 702A        | WILDLAND-URBAN INTERFACE FIRE AREA - Definitions | ✓ |   |  | C, T |
| 903.2       | Automatic sprinkler system, where required       |   | ✓ |  |      |
| 903.3.1.1   | NFPA 13 sprinkler systems                        |   | ✓ |  | G, T |
| 903.3.1.2   | NFPA 13R sprinkler systems                       |   | ✓ |  | G, T |
| 903.3.1.3   | NFPA 13D sprinkler systems                       |   | ✓ |  | G, T |
| 903.3.1.3.1 | Increase in fire sprinkler design criteria       | ✓ |   |  | G, T |
| 903.4.3     | Floor control valves                             |   | ✓ |  | G, T |

|             |                                                                                 |   |   |   |      |
|-------------|---------------------------------------------------------------------------------|---|---|---|------|
| 905.3.1     | Height                                                                          |   | ✓ |   | G, T |
| 907.2.11.10 | Replacement                                                                     | ✓ |   |   | G, T |
| 909.20.7    | Smoke control systems                                                           | ✓ |   |   | G, T |
| 1031.2      | Where required                                                                  | ✓ |   |   | G, T |
| 1008.3.3    | Rooms and spaces                                                                |   | ✓ |   | G, T |
| 1205.3.4    | Roof guards at courts                                                           | ✓ |   |   | G    |
| 1208.5      | Dwelling unit and congregate residence superficial floor area                   | ✓ |   |   | A, G |
| 1503.2.1    | Locations                                                                       |   | ✓ |   | C    |
| 1612.1.1    | Palo Alto Flood Hazard Regulations                                              | ✓ |   |   | C, T |
| 1613.5      | Suspended ceilings                                                              | ✓ |   |   | G    |
| 1613.5.1    | Scope                                                                           | ✓ |   |   | G    |
| 1613.5.2    | General                                                                         | ✓ |   |   | G    |
| 1613.5.3    | Sprinkler heads                                                                 | ✓ |   |   | G    |
| 1613.5.4    | Special requirements for means of egress                                        | ✓ |   |   | G    |
| 1613.5.4.1  | General                                                                         | ✓ |   |   | G    |
| 1613.5.4.2  | Assembly device                                                                 | ✓ |   |   | G    |
| 1613.5.4.3  | Emergency systems                                                               | ✓ |   |   | G    |
| 1613.5.4.4  | Supports for appendage                                                          | ✓ |   |   | G    |
| 1613.5      | ASCE 7, Section 13.1.4 Seismic design requirements for nonstructural components |   | ✓ |   | G    |
| 1705.3      | Concrete construction                                                           |   | ✓ |   | G    |
| 1803.2      | Investigations required                                                         |   | ✓ |   | G    |
| 1803.5.11   | Seismic design categories C through F                                           |   | ✓ |   | G, T |
| 1809.7      | Prescriptive footings for light-frame construction                              | ✓ |   |   | G, T |
| Tbl. 1809.7 | Prescriptive footings for light-frame construction                              | ✓ |   |   | G, T |
| 1809.8      | Plain concrete footings                                                         |   |   | ✓ | G, T |
| 1901.2      | Plain and reinforced concrete                                                   |   | ✓ |   | G, T |
| 1905.1.7    | ACI 318, Section 14.1.4                                                         |   | ✓ |   | G, T |
| 1906        | FOOTINGS FOR LIGHT-FRAME CONSTRUCTION                                           |   |   | ✓ | G, T |
| 1906.1      | Plain concrete footings                                                         |   |   | ✓ | G, T |
| 1907.1      | General                                                                         |   | ✓ |   | G, T |
| 2305.4      | Hold-down connections                                                           | ✓ |   |   | G, T |

|                     |                                                                       |   |   |   |            |
|---------------------|-----------------------------------------------------------------------|---|---|---|------------|
| 2307.2              | Wood-framed shear walls                                               | ✓ |   |   | G, T       |
| 2308.6.4            | Braced wall panel construction                                        |   | ✓ |   | G, T       |
| 2308.6.5            | Alternative bracing                                                   |   | ✓ |   | G, T       |
| Tbl.<br>2308.6.1    | Wall Bracing Requirements.<br>Footnote "b"                            |   | ✓ |   | G, T       |
| Tbl.<br>2308.6.3(1) | Bracing Methods<br>Footnote "b"                                       |   | ✓ |   | G, T       |
| 2308.6.9            | Attachment of sheathing                                               |   | ✓ |   | G, T       |
| 2505                | SHEAR WALL CONSTRUCTION                                               |   |   | ✓ | G, T       |
| 2508.6              | Horizontal gypsum board or gypsum panel<br>product diaphragm ceilings |   |   | ✓ | G, T       |
| Ch. 31B             | Public Pools                                                          | ✓ |   |   | G, T       |
| 3304.1              | Excavation and fill                                                   |   | ✓ |   | G, T       |
| Appx. I             | Patio Covers                                                          | ✓ |   |   | A, G       |
| Appx. J             | Grading (Section J109.4 Drainage across<br>property lines)            | ✓ |   |   | G, T       |
| Appx. P             | Emergency Housing                                                     | ✓ |   |   | A, C, G, T |

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**Exhibit B****FINDINGS FOR LOCAL AMENDMENTS TO CALIFORNIA EXISTING BUILDING CODE,  
Title 24, Part 10**

Section 17958 of the California Health and Safety Code provides that the City may make changes to the provisions of the California Building Standards Code. Sections 17958.5 and 17958.7 of the Health and Safety Code require that for each proposed local change to those provisions of the California Building Standards Code which regulate buildings used for human habitation, the City Council must make findings supporting its determination that each such local change is reasonably necessary because of local climatic, geological, or topographical conditions.

Local building regulations having the effect of amending the uniform codes, which were adopted by the City prior to November 23, 1970, were unaffected by the regulations of Sections 17958, 17958.5 and 17958.7 of the Health and Safety Code. Therefore, amendments to the uniform codes which were adopted by the City Council prior to November 23, 1970 and have been carried through from year to year without significant change, need no required findings. Also, amendments to provisions not regulating buildings used for human habitation do not require findings.

| <b>Code: California Existing Building Code, Title, 24, Part 10</b> |                                                                                  |              |                |                 |                                               |
|--------------------------------------------------------------------|----------------------------------------------------------------------------------|--------------|----------------|-----------------|-----------------------------------------------|
| <b>Chapter(s),<br/>Section(s),<br/>Table(s),<br/>Appendices</b>    | <b>Title</b>                                                                     | <b>Added</b> | <b>Amended</b> | <b>Replaced</b> | <b>Justification<br/>(See below for keys)</b> |
| 101.6                                                              | Appendices                                                                       |              |                |                 | <b>A</b>                                      |
| Ch. 1, Div. II                                                     | Scope and Administration                                                         | ✓            |                |                 | <b>A</b>                                      |
| 101.1                                                              | Title                                                                            |              | ✓              |                 | <b>A</b>                                      |
| 324                                                                | Dwelling unit and congregate residence superficial floor area.                   | ✓            |                |                 | <b>A, G</b>                                   |
| 503.19                                                             | Suspended ceiling system                                                         | ✓            |                |                 | <b>G</b>                                      |
| 503.20                                                             | Mechanical and electrical equipment in seismic design categories D, E or F       | ✓            |                |                 | <b>G</b>                                      |
| 405.2.3.1                                                          | 405.2.3.1 Seismic evaluation and design procedures for repairs                   |              | ✓              |                 | <b>G</b>                                      |
| 405.2.3.1.1                                                        | CEBC level seismic forces                                                        |              | ✓              |                 | <b>G</b>                                      |
| Tbl.<br>405.2.3.1                                                  | ASCE 41 PERFORMANCE LEVELS                                                       |              | ✓              |                 | <b>G</b>                                      |
| 405.2.3.1.2                                                        | Reduced CEBC level seismic forces                                                |              | ✓              |                 | <b>G</b>                                      |
| Appx. A1                                                           | Seismic Strengthening Provisions for Unreinforced Masonry Bearing Wall Buildings | ✓            |                |                 | <b>G, T</b>                                   |

|          |                                                                                                                                        |   |  |  |             |
|----------|----------------------------------------------------------------------------------------------------------------------------------------|---|--|--|-------------|
| Appx. A2 | Earthquake Hazard Reduction in Existing Reinforced Concrete and Reinforced Masonry Wall Buildings with Flexible Diaphragms             | ✓ |  |  | <b>G, T</b> |
| Appx. A3 | Prescriptive Provisions for Seismic Strengthening of Cripple Walls and Sill Plate Anchorage of Light, Wood-Frame Residential Buildings | ✓ |  |  | <b>G, T</b> |
| Appx. A4 | Earthquake Risk Reduction in Wood-Frame Residential Buildings with Soft, Weak or Open Front Walls                                      | ✓ |  |  | <b>G, T</b> |
| Appx. A5 | Referenced Standards                                                                                                                   | ✓ |  |  | <b>G, T</b> |

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**Key to Justification for Amendments to Title 24 of the California Code of Regulations**

**A** This is an administrative amendment to clarify and establish civil and administrative procedures, regulations, or rules to enforce and administer the activities by the Palo Alto Building Inspection Department. These administrative amendments do not need to meet HSC 18941.5/17958/13869 per HSC 18909(c).

**C** This amendment is justified based on a local climatic condition. The seasonal climatic conditions during the late summer and fall create severe fire hazards to the public health and welfare in the City. The hot, dry weather frequently results in wild land fires on the brush covered slopes west of Interstate 280. The aforementioned conditions combined with the geological characteristics of the hills within the City create hazardous conditions for which departure from California Building Standards Code is required.

**G** This amendment is justified based on a local geological condition. The City of Palo Alto is subject to earthquake hazard caused by its proximity to San Andreas fault. This fault runs from Hollister, through the Santa Cruz Mountains, epicenter of the 1989 Loma Prieta earthquake, then on up the San Francisco Peninsula, then offshore at Daly City near Mussel Rock. This is the approximate location of the epicenter of the 1906 San Francisco earthquake. The other fault is Hayward Fault. This fault is about 74 mi long, situated mainly along the western base of the hills on the east side of San Francisco Bay. Both faults are considered major Northern California earthquake faults which may experience rupture at any time. Thus, because the City is within a seismic area which includes these earthquake faults, the modifications and changes cited herein are designed to better limit property damage as a result of seismic activity and to establish criteria for repair of damaged properties following a local emergency.

**T** The City of Palo Alto topography includes hillsides with narrow and winding access, which makes timely response by fire suppression and emergency response vehicles difficult. Palo Alto is contiguous with the San Francisco Bay, resulting in a natural receptor for storm and wastewater run-off. Also, the City of Palo Alto is located in an area that is potentially susceptible to liquefaction during a major earthquake. The surface condition consists mostly of stiff to dense sandy clay, which is highly plastic and expansive in nature. The aforementioned conditions within the City create hazardous conditions for which departure from California Building Standards Code is warranted.

Ordinance No. \_\_\_\_

Ordinance of the Council of the City of Palo Alto Repealing Chapter  
16.05 of the Palo Alto Municipal Code and Amending Title 16 to Adopt a  
New Chapter 16.05, California Mechanical Code, 2022 Edition,  
and Local Amendments and Related Findings

The Council of the City of Palo Alto does ORDAIN as follows:

**SECTION 1.** Chapter 16.05 of the Palo Alto Municipal Code is hereby amended by repealing in its entirety 16.05 and adopting a new Chapter 16.05 to read as follows:

**Chapter 16.05 CALIFORNIA MECHANICAL CODE, TITLE 24, PART 4**

**16.05.010 2022 California Mechanical Code, Title 24, Part 4 adopted.**

The California Mechanical Code, 2022 Edition, Title 24, Part 4 of the California Code of Regulations together with those omissions, amendments, exceptions and additions thereto, is adopted and hereby incorporated in this Chapter by reference and made a part hereof the same as if fully set forth herein.

Unless superseded and expressly repealed, references in City of Palo Alto forms, documents and regulations to the chapters and sections of the former editions of the California Code of Regulations, Title 24 shall be construed to apply to the corresponding provisions contained within the California Code of Regulations, Title 24, 2022. Ordinance No. 5478 of the City of Palo Alto and all other ordinances or parts of ordinances in conflict herewith are hereby suspended and expressly repealed.

Wherever the phrases "California Mechanical Code" or "Mechanical Code" are used in this code or any ordinance of the City, such phrases shall be deemed and construed to refer and apply to the California Mechanical Code, 2022 Edition, Title 24, Part 4 of the California Code of Regulations, as adopted by this Chapter.

One copy of the California Mechanical Code, 2022 edition, has been filed for use and examination of the public in the Office of the Building Official of the City of Palo Alto.

**16.05.020 Cross - References to California Mechanical Code.**

The provisions of this Chapter contain cross-references to the provisions of the California Mechanical Code, 2022 Edition, in order to facilitate reference and comparison to those provisions.

**16.05.030 Local Amendments**

The provisions of this Chapter shall constitute local amendments to the cross-referenced provisions of the California Mechanical Code, 2022 Edition, and shall be deemed to replace the cross-

referenced sections of said Code with the respective provisions set forth in this Chapter.

**16.05.040 Administration & Enforcement of 2022 California Green Building Code**

Administration and enforcement of this code shall be governed by Chapter 1, Division II of the 2022 California Building Code as amended by Palo Alto Municipal Code Chapter 16.04.

**16.05.045 Adoption of Chapter 1, Division II Administration**

Chapter 1, Division II Administration of the 2022 California Mechanical Code is adopted by the City of Palo Alto to supplement, to the extent it does not conflict with, Chapter 1, Division II of the 2022 California Building Code, as amended.

**16.05.050 Section 102.8 Appendices.**

The following Appendix Chapters of the California Mechanical Code, 2022 Edition, are adopted and hereby incorporated in this Chapter by reference and made a part hereof the same as if fully set forth herein:

- A. Appendix B – Procedures to be followed to place gas equipment in operation
- B. Appendix C – Installation and testing of oil (liquid) fuel-fired equipment
- C. Appendix G – Sizing of venting systems and outdoor combustion and ventilation opening design

**16.05.060 Section 104.2 Exempt from this code.**

Subdivision (6) of Section 104.2 of Chapter 1 of the California Mechanical Code is added to read:

- (6) **ADDITIONAL EXCEPTIONS:** Reference **Mechanical Section** under **PAMC 16.04.110 Section 105.2 Work exempt from permit.**

**16.05.070 Section 510.7 Interior installations.**

Section 510.7 of Chapter 5 of the California Mechanical Code is amended to read:

**Section 510.7 Interior installations.** In all buildings, the ducts shall be enclosed in a continuous enclosure extending from the lowest fire-rated ceiling or floor above the hood, through any concealed spaces, to or through the roof so as to maintain the integrity of the fire separations required by the applicable building code provisions. The enclosure shall be sealed around the duct at the point of penetration of the lowest fire-rated ceiling or floor above the hood in order to maintain the fire resistance rating of the enclosure and shall be vented to the exterior of the building through weather-protected openings. [NFPA 96:7.7.1.2 – 7.7.1.4]

**SECTION 2.** The Council adopts the findings for local amendments to the California Mechanical Code, 2022 Edition, attached hereto as Exhibit “A” and incorporated herein by reference.

**SECTION 3.** The Council finds that this project is exempt from the provisions of the California Environmental Quality Act ("CEQA"), pursuant to Section 15061 of the CEQA Guidelines, because it can be seen with certainty that there is no possibility that the amendments herein adopted will have a significant effect on the environment.

**SECTION 4.** This Ordinance shall be effective on the thirty-first day after the date of its adoption.

INTRODUCED:

PASSED:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

ATTEST:

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Mayor

APPROVED AS TO FORM:

APPROVED:

\_\_\_\_\_  
Assistant City Attorney

\_\_\_\_\_  
City Manager

\_\_\_\_\_  
Director of Planning and  
Development Services

\_\_\_\_\_  
Director of Administrative Services

**Exhibit A****FINDINGS FOR LOCAL AMENDMENTS TO CALIFORNIA MECHANICAL CODE,  
TITLE 24, PART 4**

Section 17958 of the California Health and Safety Code provides that the City may make changes to the provisions of the California Building Standards Code. Sections 17958.5 and 17958.7 of the Health and Safety Code require that for each proposed local change to those provisions of the California Building Standards Code which regulate buildings used for human habitation, the City Council must make findings supporting its determination that each such local change is reasonably necessary because of local climatic, geological, or topographical conditions.

Local building regulations having the effect of amending the uniform codes, which were adopted by the City prior to November 23, 1970, were unaffected by the regulations of Sections 17958, 17958.5 and 17958.7 of the Health and Safety Code. Therefore, amendments to the uniform codes which were adopted by the City Council prior to November 23, 1970 and have been carried through from year to year without significant change, need no required findings. Also, amendments to provisions not regulating buildings used for human habitation do not require findings.

| <b>Code: California Mechanical Code, Title, 24, Part 4</b> |                                                                                |              |                |                 |                                                   |
|------------------------------------------------------------|--------------------------------------------------------------------------------|--------------|----------------|-----------------|---------------------------------------------------|
| <b>Chapter(s),<br/>Sections(s),<br/>Appendices</b>         | <b>Title</b>                                                                   | <b>Added</b> | <b>Amended</b> | <b>Replaced</b> | <b>Justification<br/>(See below<br/>for keys)</b> |
| Ch. 1, Div. II                                             | ADMINISTRATION                                                                 | ✓            |                |                 | <b>A</b>                                          |
| 102.8                                                      | Appendices                                                                     |              | ✓              |                 | <b>A</b>                                          |
|                                                            | Administration and Enforcement                                                 | ✓            |                |                 | <b>A</b>                                          |
| 104.2                                                      | Exempt from this code                                                          | ✓            |                |                 | <b>A</b>                                          |
| 510.7                                                      | Interior installations                                                         |              | ✓              |                 | <b>G</b>                                          |
| Appx. B                                                    | Procedures to be followed to place gas equipment in operation                  | ✓            |                |                 | <b>A</b>                                          |
| Appx. C                                                    | Installation and testing of oil (liquid) fuel-fired equipment                  | ✓            |                |                 | <b>A</b>                                          |
| Appx. G                                                    | Sizing of venting system and outdoor combustion and ventilation opening design | ✓            |                |                 | <b>A</b>                                          |

## Key to Justification for Amendments to Title 24 of the California Code of Regulations

**A** This is an administrative amendment to clarify and establish civil and administrative procedures, regulations, or rules to enforce and administer the activities by the Palo Alto Building Inspection Department. These administrative amendments do not need to meet HSC 18941.5/17958/13869 per HSC 18909(c).

**C** This amendment is justified based on a local climatic condition. The seasonal climatic conditions during the late summer and fall create severe fire hazards to the public health and welfare in the City. The hot, dry weather frequently results in wild land fires on the brush covered slopes west of Interstate 280. The aforementioned conditions combined with the geological characteristics of the hills within the City create hazardous conditions for which departure from California Building Standards Code is required.

**G** This amendment is justified based on a local geological condition. The City of Palo Alto is subject to earthquake hazard caused by its proximity to San Andreas fault. This fault runs from Hollister, through the [Santa Cruz Mountains](#), epicenter of the [1989 Loma Prieta earthquake](#), then on up the [San Francisco Peninsula](#), then offshore at [Daly City](#) near [Mussel Rock](#). This is the approximate location of the epicenter of the [1906 San Francisco earthquake](#). The other fault is Hayward Fault. This fault is about 74 mi long, situated mainly along the western base of the hills on the east side of [San Francisco Bay](#). Both faults are considered major Northern California earthquake faults which may experience rupture at any time. Thus, because the City is within a seismic area which includes these earthquake faults, the modifications and changes cited herein are designed to better limit property damage as a result of seismic activity and to establish criteria for repair of damaged properties following a local emergency.

**T** The City of Palo Alto topography includes hillsides with narrow and winding access, which makes timely response by fire suppression and emergency response vehicles difficult. Palo Alto is contiguous with the San Francisco Bay, resulting in a natural receptor for storm and wastewater run-off. Also, the City of Palo Alto is located in an area that is potentially susceptible to liquefaction during a major earthquake. The surface condition consists mostly of stiff to dense sandy clay, which is highly plastic and expansive in nature. The aforementioned conditions within the City create hazardous conditions for which departure from California Building Standards Code is warranted.

Ordinance No. \_\_\_\_

Ordinance of the Council of the City of Palo Alto Repealing Chapter 16.06 of the Palo Alto Municipal Code and Adopting a New Chapter 16.06, California Residential Code, 2022 Edition, and Local Amendments and Related Findings, and Amending Section Chapter 16.52, Flood Hazard Regulations, to Make Conforming Changes

The Council of the City of Palo Alto does ORDAIN as follows:

**SECTION 1.** Chapter 16.06 of Palo Alto Municipal Code is hereby amended by repealing the Chapter in its entirety and adopting a new Chapter 16.06 to read as follows:

**CHAPTER 16.06**  
**2022 California Residential Code, Cal. Code of Regs. Title 24, Part 2.5**

**Sections**

|                  |                                                                                      |
|------------------|--------------------------------------------------------------------------------------|
| <b>16.06.010</b> | <b>2022 California Residential Code adopted</b>                                      |
| <b>16.06.015</b> | <b>Local Amendments</b>                                                              |
| <b>16.06.020</b> | <b>2022 California Residential Code Appendix Chapters adopted</b>                    |
| <b>16.06.030</b> | <b>Cross - References to California Residential Code</b>                             |
| <b>16.06.040</b> | <b>Administration of California Residential Code</b>                                 |
| <b>16.06.050</b> | <b>Section R202 amended – Definitions added</b>                                      |
| <b>16.06.060</b> | <b>Table 301.2 Climatic and Geographic Design Criteria:</b>                          |
| <b>16.06.070</b> | <b>Section R301.2.2.6 Irregular buildings.</b>                                       |
| <b>16.06.075</b> | <b>Section R304.4 Dwelling unit and congregate residence superficial floor area</b>  |
| <b>16.06.080</b> | <b>Section R310 Emergency escape and rescue openings</b>                             |
| <b>16.06.090</b> | <b>Section R310.4.2.3 Window well fall protection:</b>                               |
| <b>16.06.100</b> | <b>Section R310.4.1 Security bars</b>                                                |
| <b>16.06.110</b> | <b>Section R313.1.1 Design and installation</b>                                      |
| <b>16.06.120</b> | <b>Section R313.2 One- and two-family dwellings automatic fire sprinkler systems</b> |
| <b>16.04.130</b> | <b>Section R313.2.1 – Design and installation.</b>                                   |
| <b>16.04.140</b> | <b>Section R313.2.2 NFPA 13D sprinkler systems increase in design requirements.</b>  |
| <b>16.04.150</b> | <b>Section R313.3 - Dwelling unit fire sprinkler systems</b>                         |
| <b>16.06.160</b> | <b>Section R314.1– Smoke detection and notification</b>                              |
| <b>16.06.170</b> | <b>Section R314.1.1– Smoke alarms or detector end of life replacement</b>            |
| <b>16.06.180</b> | <b>Section R315.7.5. Carbon Monoxide alarms</b>                                      |
| <b>16.06.190</b> | <b>Section R319.1 Address numbers.</b>                                               |
| <b>16.06.200</b> | <b>Section R322.1 – General (Palo Alto Flood Hazard Regulations).</b>                |
| <b>16.06.210</b> | <b>Section R337.1.5 Vegetation management compliance</b>                             |
| <b>16.06.220</b> | <b>Section R401 GENERAL</b>                                                          |
| <b>16.06.225</b> | <b>Section R402.2.1 Materials for concrete</b>                                       |

|                  |                                                                                        |
|------------------|----------------------------------------------------------------------------------------|
| <b>16.06.230</b> | <b>Section R403 FOUNDATION.</b>                                                        |
| <b>16.06.240</b> | <b>Section R404.1.3 Concrete foundation walls.</b>                                     |
| <b>16.06.245</b> | <b>Section R504.3.1 Projections exposed to weather</b>                                 |
| <b>16.06.246</b> | <b>Section R506.1 General</b>                                                          |
| <b>16.06.247</b> | <b>Section R602.10.4.5 Limits on methods GB and PCP</b>                                |
| <b>16.06.250</b> | <b>Table R602.10.3(3) – Bracing requirements based on seismic design category</b>      |
| <b>16.06.253</b> | <b>Section R608.5 Materials</b>                                                        |
| <b>16.06.255</b> | <b>Section R703.8.5.1 Locations.</b>                                                   |
| <b>16.06.260</b> | <b>Section R902.1.4 – Roofing requirements in a Wildland-Urban Interface Fire Area</b> |
| <b>16.06.270</b> | <b>Section R1003.9.2.1 – Repairs, replacements and alterations</b>                     |
| <b>16.06.280</b> | <b>Section AJ103 – Preliminary Meeting</b>                                             |
| <b>16.06.010</b> | <b>2022 California Residential Code adopted.</b>                                       |

The California Residential Code, 2022 Edition, Title 24, Part 2.5 of the California Code of Regulations, together with those omissions, amendments, exceptions and additions thereto, is adopted and hereby incorporated in this Chapter by reference and made a part hereof the same as if fully set forth herein.

Unless superseded and expressly repealed, references in City of Palo Alto forms, documents and regulations to the chapters and sections of the former California Code of Regulations, Title 24, 2019, shall be construed to apply to the corresponding provisions contained within the California Code of Regulations, Title 24, 2022. Ordinance No. 5509 of the City of Palo Alto and all other ordinances or parts of ordinances in conflict herewith are hereby suspended and expressly repealed.

Wherever the phrases "California Residential Code" or "Residential Code" are used in this code or any ordinance of the city, such phrases shall be deemed and construed to refer and apply to the California Residential Code, 2022 Edition, Title 24, Part 2.5 of the California Code of Regulations, as adopted by this Chapter.

One copy of the California Residential Code, 2022 Edition, has been filed for use and examination of the public in the Office of the Building Official of the City of Palo Alto.

#### **16.06.015 Local Amendments.**

The provisions of this Chapter shall constitute local amendments to the cross-referenced provisions of the California Residential Code, 2022 Edition, and shall be deemed to replace the cross-referenced sections of said Code with the respective provisions set forth in this Chapter. Where used in this Chapter 16.06, ellipses shall indicate text of the California Residential Code, 2022 Edition, that has been adopted without amendment but is omitted for brevity.

#### **16.06.020 2022 California Residential Code Appendix Chapters adopted.**

The following Appendix Chapters of the California Residential Code, 2022 Edition, are adopted and hereby incorporated in this Chapter by reference and made a part hereof the same as if fully set



forth herein:

- A. Appendix AH – Patio Covers
- B. Appendix AJ – Existing Building and Structures
- C. Appendix AK – Sound Transmission
- D. Appendix AX – Swimming Pool Safety Act

**16.06.030 Cross - References to California Residential Code.**

The provisions of this Chapter contain cross-references to the provisions of the California Residential Code, 2022 Edition, in order to facilitate reference and comparison to those provisions.

**16.06.040 Administration of California Residential Code**

Chapter 1, Division II of the 2022 California Residential Code is replaced in its entirety by Chapter 1, Division II of the 2022 California Building Code as amended by Palo Alto Municipal Code Chapter 16.04.

**16.06.050 Section R202 amended – Definitions added.**

Section R202 of the California Residential Code is amended to include the following definitions:

**Superficial Floor Area.** "Superficial floor area" is the net floor area within the enclosing walls of the room in which the ceiling height is not less than seven feet six inches, excluding built-in equipment such as wardrobes, cabinets, kitchen units, or fixtures which are not readily removable.

**WILDLAND-URBAN INTERFACE FIRE AREA** is a geographical area identified by the State of California as a "Fire Hazard Severity Zone" in accordance with Public Resources Code Sections 4201 through 4202 and Government Code Sections 51175 through 51189, or other areas designated by the enforcing agency to be at a significant risk from wildfires. Within the city limits of the City of Palo Alto, "Wildland-Urban Fire Interface Area" shall also include all areas west of Interstate 280, and all other areas recommended as a "Very High Fire Hazard Severity Zone" by the Director of the California Department of Forestry.

**16.06.060 Table 301.2 Climatic and Geographic Design Criteria**

Table 301.2 of the California Residential Code is amended to read:

**TABLE R301.2  
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA**

| GROUND<br>SNOW LOAD | WIND DESIGN    |                        | SEISMIC<br>DESIGN<br>CATEGORY | SUBJECT TO DAMAGE FROM |                        |           |
|---------------------|----------------|------------------------|-------------------------------|------------------------|------------------------|-----------|
|                     | Speed<br>(mph) | Topographic<br>effects |                               | Weathering             | Frost<br>line<br>depth | Termite   |
| 0                   | 92             | No                     | D <sub>0</sub> thru E         | Negligible             | 5"                     | Very High |

| WINTER<br>DESIGN<br>TEMP.<br>(°F) | ICE BARRIER<br>UNDERLAYEMENT<br>REQUIRED | FLOOD<br>HAZARDS             | AIR<br>FREEZING<br>INDEX | MEAN<br>ANNUAL<br>TEMP.<br>(°F) |
|-----------------------------------|------------------------------------------|------------------------------|--------------------------|---------------------------------|
| 40                                | No                                       | See<br>Footnotes<br>p thru r | 0                        | 55                              |

<sup>p</sup> The City of Palo Alto entered National Flood Insurance Program in 1979.

<sup>q</sup> The effective date of the current Flood Insurance Study and Flood Insurance Rate Map is May 18, 2009.

<sup>r</sup> The panel numbers and dates of all currently effective FIRMs and FBFMs: 06085CIND0A, 06085C0010H, 06085C0015H through 06085C0019H, 06085C0030H, 06085C0036H , 06085C0038H , 06085C0180H ,06085C0185H (May 18, 2009 for all)

#### 16.06.070 Section R301.2.2.6 Irregular buildings.

Section R301.2.2.6 of the California Residential Code is amended as follows:

The seismic provisions of this code shall not be used for structures, or portions thereof, located in Seismic Design Categories C, D0, D1 and D2 and considered to be irregular in accordance with this section. A building or portion of a building shall be considered to be irregular where one or more of the conditions defined in Items 1 through 8 occur. Irregular structures, or irregular portions of structures, shall be designed in accordance with accepted engineering practice to the extent the irregular features affect the performance of the remaining structural system. Where the forces associated with the irregularity are resisted by a structural system designed in accordance with accepted engineering practice, the remainder of the building shall be permitted to be designed using the provisions of this code.

**1. Shear wall or braced wall offsets out of plane.** Conditions where exterior shear wall lines or braced wall panels are not in one plane vertically from the foundation to the uppermost story in which they are required.

**2. Lateral Support of roofs and floors.** Conditions where a section of floor or roof is not laterally supported by shear walls or braced wall lines on all edges.

**Exception:** Portions of floors that do not support shear walls, braced wall panels above, or roofs shall be permitted to extend not more than 6 feet (1829 mm) beyond a shear wall or braced wall line.

**3. Shear wall or braced wall offsets in plane.** Conditions where the end of a braced wall panel occurs over an opening in the wall below.

**4. Floor and roof opening.** Conditions where an opening in a floor or roof exceeds the lesser of 12 feet (3658 mm) or 50 percent of the least floor or roof dimension.

**5. Floor level offset.** Conditions where portions of a floor level are vertically offset.

**6. Perpendicular shear wall and wall bracing.** Conditions where shear walls and braced wall lines do not occur in two perpendicular directions.

**7. Wall bracing in stories containing masonry or concrete construction.** Conditions where stories above grade plane are partially or completely braced by wood wall framing in accordance with Section R602 or cold-formed steel wall framing in accordance with Section R603 include masonry or concrete construction. Where this irregularity applies, the entire story shall be designed in accordance with accepted engineering practice.

**Exceptions:** Fireplaces, chimneys and masonry veneer in accordance with this code.

**8. Hillside light-frame construction.** Conditions in which all of the following apply:

8.1 The grade slope exceeds 1 unit vertical in 5 units horizontal where averaged across the full length of any side of the dwelling.

8.2 The tallest cripple wall clear height exceeds 7 feet (2134 mm), or where a post and beam system occurs at the dwelling perimeter, the post and beam system tallest post clear height exceeds 7 feet (2134 mm).

8.3 Of the total plan area below the lowest framed floor, whether open or enclosed, less than 50 percent is living space having interior wall finishes conforming to Section R702.

Where Item 8 is applicable, design in accordance with accepted engineering practice shall be provided for the floor immediately above the cripple walls or post and beam system and all structural elements and connections from this diaphragm down to and including connections to the foundation and design of the foundation to transfer lateral loads from the framing above.

**Exception:** Light-frame construction in which the lowest framed floor is supported directly on concrete or masonry walls over the full length of all sides except the downhill side of the dwelling need not be considered an irregular dwelling under Item 8.

#### **16.06.75 Section R304.4 Dwelling unit and congregate residence superficial floor area**

Section R304.4 of the California Residential Code is amended to read:

**R304.4 Dwelling unit and congregate residence superficial floor area.** Every dwelling unit and congregate residence shall have at least one room which shall have not less than 120 square feet of superficial floor area. Every room which is used for both cooking and living or both living and sleeping purposes shall have not less than 144 square feet of superficial floor area. Every room used for sleeping purposes shall have not less than 70 square feet of superficial floor area. When more than two persons occupy a room used for sleeping purposes the required superficial floor area shall be

increased at the rate of 50 square feet for each occupant in excess of two. Guest rooms with cooking shall contain the combined required superficial areas of a sleeping and a kitchen, but not less than 144 square feet. Other habitable rooms shall be not less than 70 square feet.

Notwithstanding any provision of this Section, children under the age of six shall not be counted for purposes of determining whether a family with minor children complies with the provisions of this Code.

**16.06.080 Section R310 Emergency escape and rescue openings**

Section R310 of the California Residential Code is amended to read:

**R310.1 Emergency escape and rescue opening required.** Basements, habitable attics and every sleeping room shall have not less than one operable emergency escape and rescue opening. Where basements contain one or more sleeping rooms, an emergency escape and rescue opening shall be required in each sleeping room. Emergency escape and rescue openings shall open directly into a public way, or to a yard or court that opens to a public way.

**Exceptions:**

1. Storm shelters and basements used only to house mechanical equipment not exceeding a total floor area of 200 square feet (18.58 m<sup>2</sup>)

**16.06.090 Section R310.4.2.3 Window well fall protection**

Section R310.4.2.3 of the California Residential Code is added to read:

**R310.4.2.3 Window well fall protection.** Window wells with a vertical depth greater than 30 inches shall have guards on all sides. The guards shall be provided in accordance with Section R312.1. Openings shall comply with Section R312.1.3. Access ladder shall comply with Section R310.4.2.1 and shall extend from the bottom of the well to the top of the guard. Grates or similar barriers shall not be installed over the window well.

**16.06.100 Section R310.4.1 Security bars**

Section R310.4.1 of the California Residential Code is added to read:

**R310.4.1 Security bars.** Fire Department plan check review and approval of all security bar submittals shall be required prior to the issuance of a Building Permit.

**16.06.110 Section R313.1.1 Design and installation.**

Section 313.1.1 of the California Residential Code is amended to read:

**R313.1.1 Design and installation.** Where allowed, automatic sprinkler systems installed in townhouses shall be installed throughout in accordance with NFPA 13 and State and

local standards.

**16.06.120 Section R313.2 One- and two-family dwellings automatic fire sprinkler systems.**

Section R313.2 of the California Residential Code is amended to read:

**R313.2 One- and two-family dwellings automatic fire sprinkler systems.** Approved automatic sprinkler systems in new buildings and structures and in existing modified buildings and structures, shall be provided in the locations described in this section. Automatic fire sprinklers shall be installed per the requirements set forth in Sections 903.2.1 through 903.2.18 of the California Building Code and as follows, whichever is the more restrictive:

1. An automatic sprinkler system shall be provided throughout all new buildings and structures.

**Exception:** New residential occupancies, buildings or structures that do not exceed 350 square feet of building area and contain no interior plumbing fixtures.

2. An automatic sprinkler system shall be provided throughout all existing buildings when modifications are made that create an increase in fire area to more than 3600 square feet or when the addition is equal or greater than 50% of the existing building square footage whichever is more restrictive.
3. An automatic sprinkler system shall be provided throughout all new or altered basements used for storage/utility/occupancy or habitable space regardless of size and throughout existing basements that are expanded by more than 50%. If the addition or alteration is only the basement, then only the basement is required to be fire sprinkler protected
4. An automatic sprinkler system shall be installed throughout when either the roof structure and/or exterior wall structure have been removed, altered and/or replaced by at least 50% of the existing structure.
5. An automatic sprinkler system shall be installed throughout when any change in use or occupancy creating a more hazardous fire/life safety condition, as determined by the Fire Chief.

**16.04.130 Section R313.2.1 – Design and installation.**

Section R313.2.1 of the California Residential Code is amended to read as follows:

**R313.2.1 Design and installation.** R313.2.1 Design and installation. Where allowed, automatic sprinkler systems installed in one-and two-family detached dwellings shall be installed throughout in accordance with NFPA 13D and State and local standards. Fire sprinkler protection is required under rear covered patios extending over 4 feet perpendicular from the exterior of the structure.

**16.04.140 Section R313.2.2 NFPA 13D sprinkler systems increase in design requirements.** Section R313.2.2 of the California Residential Code is added to read as follows:

**R313.2.2 Section R313.2.2 NFPA 13D sprinkler systems increase in design requirements.** In a higher fire fighting hazardous conditions a four head fire sprinkler calculation and coverage in all closets, bathrooms and attics will be required in Residential and Group U Occupancies as determined by the Fire Code Official in the following conditions:

1. Structures located in the High Hazardous Fire Areas.
2. Structures where the combined fire area is 3600 sq ft or larger.
3. Structures located 150 ft or greater from the Fire Department access roadways.
4. Basements and below grade structures.

**16.04.150 Section R313.3 - Dwelling unit fire sprinkler systems.** Section R313.3 of the California Residential Code is deleted in its entirety and amended as follows:

**R313.3 Dwelling unit fire sprinkler systems.** Fire sprinkler systems shall be designed and installed in accordance with NFPA 13D, State and local standards.

**16.06.160 Section R314.1– Smoke detection and notification.**

Section R314.1 of the California Residential Code is amended to read:

**R314.1 Smoke detection and notification.** Listed single- and multiple-station smoke alarms complying with UL 217 shall be installed in accordance with the California Fire Code Sections 907.2.11.1 through 907.2.11.5 and manufacturer's installation and use instructions.

Smoke alarms and smoke detectors shall be in compliance with this code or subject to the provisions of the Health and Safety Code, they shall also be listed and approved for rapid response to smoldering synthetic materials. All smoke alarms or detectors shall be of the photoelectric type or shall have equivalent detection capabilities in compliance with UL 217.

**Exception:** A photoelectric smoke alarm or detector shall be installed if located within 20 feet to a kitchen, fireplace or woodburning stove or within 5 feet of a bathroom.

**16.06.170 Section R314.1.1– Smoke alarms or detector end of life replacement.**

Section R314.2 of the California Residential Code is added to read:

**R314.1.1 Smoke alarms or detector end of life replacement.** Smoke alarms or detectors shall be replaced every 10 years or according to the manufacture

guidelines, whichever is more restrictive.

**16.06.180 Section R315.7.5. Carbon Monoxide alarms.**

Section R315.7.5 of the California Residential Code is added to read:

**R315.7.5 Carbon Monoxide alarms or detectors end of life replacement.** Carbon monoxide alarms or detectors shall be replaced every 10 years or according to the manufacture guidelines, whichever is more restrictive.

**16.06.190 Section R319.1 Address numbers.**

The following subsections are added to Section R319.1 of the California Residential Code:

**R319.1.1 Address illumination.** Address identification required by Section R319.1 shall be illuminated.

**R319.1.2 Address identification size.** Address numbers and letters shall be sized as follows:

1. When the structure is between thirty-six (36) and fifty (50) feet from the road or other emergency means of access, a minimum of one-half inch (0.5") stroke by six inches (6") high is required.
2. When the structure is fifty (50) or more feet from the road or other emergency means of access, a minimum of one inch (1") stroke by nine inches (12") high is required.

**16.06.200 Section R322.1 – General (Palo Alto Flood Hazard Regulations).**

The following paragraph is added to Section R322.1 of the California Residential Code:

**Palo Alto Flood Hazard Regulations.** Notwithstanding the provisions of this section R322, all construction or development within a flood hazard area (areas depicted as a Special Flood Hazard Area on Flood Insurance Rate Maps published by the Federal Emergency Management Agency) shall comply with the City of Palo Alto Flood Hazard Regulations (Palo Alto Municipal Code Chapter 16.52). Where discrepancies exist between the requirements of this code and said regulations, the more stringent requirements shall apply.

**16.06.210 Section R337.1.5 Vegetation management compliance.**

Section R337.1.5 of the California Residential Code is amended to read:

**R337.1.5 Vegetation management compliance.** Prior to building permit final approval, the property shall be in compliance with the vegetation management requirements prescribed in California Fire Code section 4906, including California Public Resources Code 4291 or California Government Code Section 51182. Acceptable methods of compliance inspection and documentation shall be

determined by the enforcing agency and may include any of the following:

1. Local, state, or federal fire authority or designee authorized to enforce vegetation management requirements.
2. Enforcing agency - City of Palo Alto Fire Inspection shall inspect the aforementioned requirements and indicate compliance prior to building division final inspection sign-off.
3. Third party inspection and certification authorized to enforce vegetation management requirements.
4. Property owner certification authorized by the enforcing agency.

#### **16.06.220 Section R401 GENERAL.**

Section 401 of the California Residential Code is amended to read:

##### **R401.1 – R401.3 {CRC text not modified}**

**R401.4 Soils tests.** Exception is added at end of the CRC text as follows:

Exception: Refer to PAMC 16.04.295

**R401.4.1 Geotechnical evaluation.** When permitted by the building official or designee, in lieu of a complete geotechnical evaluation, the load bearing values in T401.4.1 shall be assumed.

##### **R401.4.1.1 – R401.4.2 {CRC text not modified}**

#### **16.06.225 Section R402.2.1 Materials for concrete.**

Section 402.2.1 of the California Residential Code is amended to read:

**R402.2.1 Materials for concrete.** Materials for concrete shall comply with the requirements of Section R608.5.1, as amended by PAMC 16.14.250.

#### **16.06.230 Section R403 FOUNDATION.**

Section R403 of the California Residential Code is amended as follows:

##### **R403.1 – R403.1.1 {CRC text not modified}**

**R403.1.2 Continuous footing in Seismic Design Categories D<sub>0</sub>, D<sub>1</sub>, and D<sub>2</sub>.** Exterior walls of buildings located in Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub> shall be supported by continuous solid or fully grouted masonry or concrete footings. All required interior braced wall panels in buildings located in Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub> shall be supported on continuous foundations.

**R403.1.3 Footing and stem wall reinforcing in Seismic Design Categories D<sub>0</sub>, D<sub>1</sub>, and D<sub>2</sub>.** Concrete footings located in Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub>, as



established in Table R301.2(1), shall have not fewer than three No. 4 horizontal bars. One No. 4 horizontal bar shall be installed within 12 inches (305 mm) of the top of the stem wall and two No. 4 horizontal bars shall be located 3 to 4 inches (76 mm to 102 mm) from the bottom of the footing.

**R403.1.3.1 Concrete stem walls with concrete footings.** In Seismic Design Categories D0, D1 and D2 where a construction joint is created between a concrete footing and a stem wall, not fewer than one No. 4 vertical bar shall be installed at not more than 4 feet (1219 mm) on center. The vertical bar shall have a standard hook and extend to the bottom of the footing and shall have support and cover as specified in Section R403.1.3.5.3 and extend not less than 14 inches (357 mm) into the stem wall. Standard hooks shall comply with Section R608.5.4.5. Not fewer than one No. 4 horizontal bar shall be installed within 12 inches (305 mm) of the top of the stem wall and two No. 4 horizontal bars shall be located 3 to 4 inches (76 mm to 102 mm) from the bottom of the footing.

**R403.1.3.2 Masonry stem walls with concrete footings.** In Seismic Design Categories D0, D1 and D2 where a grouted masonry stem wall is supported on a concrete footing, not fewer than one No. 4 vertical bar shall be installed at not more than 4 feet (1219 mm) on center. The vertical bar shall have a standard hook and extend to the bottom of the footing and have support and cover as specified in Section R403.1.3.5.3 and extend not less than 14 inches (357 mm) into the stem wall. Standard hooks shall comply with Section R608.5.4.5. Not fewer than one No. 4 horizontal bar shall be installed within 12 inches (305 mm) of the top of the wall and two No. 4 horizontal bars shall be located 3 to 4 inches (76 mm to 102 mm) from the bottom of the footing. Masonry stem walls shall be solid grouted.

In Seismic Design Categories D0, D1 and D2 masonry stem walls without solid grout and vertical reinforcing are not permitted.

**R403.1.3.3 – R403.1.7.4** {CRC text not modified}

**R403.1.8 Foundations on expansive soils.** Foundations and floor slabs for buildings located on expansive soils shall be designed in accordance with Section 1808.6 or Table 1809.7 of the California Building Code as amended in Municipal Code Section 16.04.300.

**R403.1.8.1** {CRC text not modified}

#### **16.06.240 Section R404.1.3 Concrete foundation walls.**

Section 404.1.3 of the California Residential Code is amended to read:

**R404.1.3 Concrete Foundation Walls.** *Concrete* foundation walls that support light-frame walls shall be designed and constructed in accordance with the provisions of this

section, ACI 318, ACI 332, or PCA 100, as amended by PAMC Section 16.14.250. *Concrete* foundation walls that support above-grade *concrete* walls that are within the applicability limits of Section R608.2 shall be designed and constructed in accordance with the provisions of this section, ACI 318, ACI 332, or PCA 100, as amended by PAMC Section 16.14.250. *Concrete* foundation walls that support above-grade *concrete* walls that are not within the applicability limits of Section R608.2 shall be designed and constructed in accordance with the provisions of ACI 318, ACI 332, or PCA 100, as amended by PAMC Section 16.14.250. When ACI 318, ACI 332, PCA 100 or the provisions of this section, as amended by PAMC Section 16.14.250 are used to design *concrete* foundation walls, project drawings, typical details and specifications are not required to bear the seal of the architect or engineer responsible for design, unless otherwise required by the state law of the jurisdiction having authority.

**16.06.245 Section R504.3.1 Projections exposed to weather.**

Section R504.3.1 of the California Residential Code is added to read:

**R504.3.1 Projections exposed to weather.** Floor projections exposed to the weather and sealed underneath, including but not limited to balconies, landings, decks, and stairs shall be constructed of naturally durable wood, preservative-treated wood, corrosion-resistant (e.g. galvanized) steel, or similar approved materials.

**16.06.246 Section R506.1 General**

Section R506.1 of the California Residential Code is amended to read:

**R506.1 General.** Concrete slab-on-ground floors shall be designed and constructed in accordance with the provisions of this section of ACI 332, as amended by PAMC Section 16.14.250. Floors shall be a minimum 3 1/2 inches (89mm) thick (for expansive soils, see Section R403.1.8). The specified compressive strength of *concrete* shall be as set forth in Section R402.2.

**16.06.247 Section R602.10.4.5 Limits on methods GB and PCP.** Section R602.10.4.5 of the California Residential Code is added to read:

**R602.10.4.5 Limits on methods GB and PCP.** In Seismic Design Categories D0, D1, and D2, Method GB is not permitted for use as an intermittent braced wall panels, but gypsum board is permitted to be installed when required by this Section to be placed on the opposite side of the studs from other types of braced wall panel sheathing. In Seismic Design Categories D0, D1, and D2, the use of Method PCP is limited to one-story single family dwelling and accessory structures.

**16.06.250 Table R602.10.3(3) – Bracing requirements based on seismic design category.**

Footnote e to Table R602.10.3(3) is amended to read as follows:

e. In Seismic Design Categories D0, D1 and D2, Method GB is not permitted and PCP is limited to one-story dwellings and accessory structures.

**16.06.253 Section R608.5 Materials.**

Section R608.5 of the California Residential Code is amended to read:

**R608.5 Materials.** Materials used in the construction of concrete walls shall comply with this section, as amended by PAMC Chapter 16.14.250.

**16.06.255 Section R703.8.5.1 Locations.**

Section R703.8.5.1 of the California Residential Code is added to read:

**R703.8.5.1 Locations.** Flashing shall be installed at wall and roof intersections, gutters, wherever there is a change in roof slope or direction, and around roof openings. Where flashing is of metal, the metal shall be corrosion resistant with a thickness of not less than 0.019 inches (0.483 mm) (e.g. no. 26 galvanized sheet) and shall be primed and painted.

**16.06.260 Section R902.1.4 – Roofing requirements in a Wildland-Urban Interface Fire Area.**

Section R902.1.4 of the California Residential Code is amended to read:

**R902.1.4 Roofing requirements in a Wild Land-Urban Interface Fire Area.** The entire roof covering on new structures and existing structures on which more than 50 percent of the total roof area is replaced within any one-year period, and any roof covering applied in the alteration, repair or replacement of roofs on existing structures, shall be a fire-retardant roof covering that is at least Class A. Roofing requirements for structures located in a Wildland-Urban Interface Fire Area shall also comply with Section R337.5.

**16.06.270 Section R1003.9.2.1 – Repairs, replacements and alterations.**

Section R1003.9.2.1 is added to the California Residential Code to read:

**R1003.9.2.1 Repairs, replacements and alterations.** When any repair, replacement or alteration to the roof of an existing structure is performed, a spark arrester shall be installed on the existing chimney in accordance with Section R1003.9.2.

**16.06.280 Section AJ103 – Preliminary Meeting.**

Section AJ103 of Appendix AJ of the California Residential Code is amended to read:

**Section AJ103.1 General.** If a building permit is required at the request of the prospective permit applicant, the building official or his or her designee may meet with the prospective applicant to discuss plans for any proposed work under these provisions prior to the application for the permit. The purpose of this preliminary meeting is for the building official to gain an understanding of the prospective applicant's intentions for the proposed work, and to determine, together with the prospective applicant, the

specific applicability of these provisions.

**SECTION 2.** The Council adopts the findings for local amendments to the California Residential Code, 2022 Edition, attached hereto as Exhibit "A" and incorporated herein by reference.

**SECTION 3.** Section 16.52.040 (Definitions) of Chapter 16.52 (Flood Hazard Regulations) of Title 16 (Building) of the Palo Alto Municipal Code is amended to read as follows (additions underlined, deletions ~~struck through~~, and omissions of unchanged language noted by [ . . . ]):

#### **16.52.040 Definitions**

(a) The definitions contained hereafter shall govern the interpretation of the terms defined for the purposes of this chapter, except where the context clearly requires otherwise. Words used in this chapter and not defined in this section shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its most reasonable application.

(1) "Appeal" means a request for a review of the floodplain administrator's interpretation of any provision of this chapter or a request for a variance.

(2) "Area of shallow flooding" means a designated AO or AH zone on the Flood Insurance Rate Map. The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident.

(3) "Area of Special Flood Hazard." See "Special flood hazard area."

(4) "Base flood" or "one-hundred-year flood" means the flood having a one percent chance of being equaled or exceeded in any given year.

(5) "Base flood elevation (BFE)" means elevation of flooding, including wave height, relative to the National Geodetic Vertical Datum (NGVD), North American Datum (NAVD) or other datum specified on the Flood Insurance Rate Map (FIRM) having a 1% chance of being equaled or exceeded in any given year.

(6) "Basement" means any area of the building having its floor subgrade (below ground level) on all sides.

(7) "Breakaway walls" means any type of walls, whether solid or lattice, and whether constructed of concrete, masonry, wood, metal, plastic or any other suitable building material which is not part of the structural support of the building and which is designed to break away under abnormally high tides or wave action without causing any damage to the structural integrity of the building on which they are used or any buildings to which they might be carried by floodwaters. A breakaway wall shall have a safe design loading resistance of not less than ten and no more than twenty pounds per square foot. Use of breakaway walls must be certified by a registered engineer or architect and shall meet the following conditions:

(A) Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and

(B) The elevated portion of the building shall not incur any structural damage due to the effects of wind and water loads acting simultaneously in the event of the base flood.

(8) "Coastal high hazard area" is the area subject to high velocity waters, including coastal and tidal and inundation or tsunamis. The area is designated on the Flood Insurance Rate Map as Zone V1 - V30, VE or V.

(9) "Design Flood Elevation (DFE) elevation of the design flood, including wave height, relative to the datum specified on the community's flood hazard map."

(10) "Development" means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or bulk storage of equipment or materials.

(11) "Dry Floodproofing" a combination of measures that results in a structure, including the attendant utilities and equipment, being watertight with all elements substantially impermeable and with structural components having the capacity to resist flood loads.

(12) "Flood" or "Flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from (A) the overflow of floodwaters, (B) the unusual and rapid accumulation or runoff of surface waters from any source, and/or (C) the collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding.

(13) "Flood Boundary and Floodway Map" means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of flood hazard and the floodway.

(14) "Flood Control Project" means a dam or barrier design and constructed to keep water away from or out of a specific area, including but not limited to levees, floodwalls and channelization.

(15) "Flood Insurance Rate Map" means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of special flood hazard and the risk premium zones applicable to the community.

(16) "Flood Insurance Study" means the official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Insurance Rate Map, the Flood Boundary and Floodway Map, and the water surface elevation of the base flood.

(17) "Floodplain" or "flood-prone area" means any land area susceptible to being

inundated by water from any flood.

(18) "Floodplain management" means the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works and floodplain management regulations.

(19) "Floodplain management regulations" means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as floodplain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such State of California or local regulations in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

(20) "Floodproofing" means any combination of structural and nonstructural additions, changes or adjustments to non-residential structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

(21) "Floodway" or "regulatory floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

(22) "Functionally dependent use" means a use which has an intended purpose that cannot be performed, unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and shipbuilding and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

(23) "Highest adjacent grade" means the highest natural elevation of the ground surface prior to construction next to the proposed ~~walls~~ foundation of a structure.

(24) "Historic structure" means any structure that is listed individually in the National Register of Historic Places or in the State of California Register of Historical Resources or any structure that is listed individually in the current edition of the Palo Alto Master List of Structures on the Historic Inventory in Category 1 "Exceptional Building" or Category 2 "Major Building" or any structure that has been certified by the Keeper of the National Register as contributing to the historical significance of a registered historic district.

(25) "Hydrodynamic Loads" loads imposed on an object by water flowing against and around it.

(26) "Hydrostatic Loads" loads imposed on an object by standing mass of water.

(27) "Letter of map change (LOMC)" means an official determination issued by FEMA that amends or revises an effective Flood Insurance Rate Map or Flood Insurance Study through a Letter of Map Amendment (LOMA), Letter of Map Revision (LOMR) or Letter of Map Revision

based on fill (LOMR-F).

- (A) "Letter of Map Amendment (LOMA)": An amendment based on technical data showing the property was incorrectly included in a designated special flood hazard area. A LOMA amends the current effective Flood Insurance Rate Map and establishes that a specific property, portion of a property, or structure is not located in a special flood hazard area.
  - (B) "Letter of Map Revision (LOMR)": A revision based on technical data that may show changes to flood zones, flood elevations, special flood hazard area boundaries and floodway delineations, and other planimetric features.
  - (C) "Letter of Map Revision (LOMR-F)": A determination that a structure or parcel of land has been elevated by fill above the base flood elevation and is, therefore, no longer located within the special flood hazard area. In order to qualify for this determination, the fill must have been permitted and placed in accordance with the community's floodplain management regulation.
  - (D) "Conditional Letter of Map Revision (CLOMR)": A formal review and comment as to whether a proposed flood protection project or other project complies with the minimum NFIP requirements for such projects with respect to delineation of special flood hazard area. A CLOMR does not revise the effective Flood Insurance Rate Map or Flood Insurance Study, upon submission and approval of certified as-built documentation, a Letter of Map Revision may be issued by FEMA to revise the effective FIRM.
- (28) "Lowest floor" means the lowest floor of the lowest enclosed area, including basement.
- (A) An unfinished or flood resistant enclosure below the lowest floor that is usable solely for the parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor, provided that it conforms to the applicable non-elevation design requirements, including but not limited to:
    - (i) The standard set forth in subdivision (3) of subsection (c) of Section 16.52.130;
    - (ii) The anchoring standards set forth in subdivision (1) of subsection (a) of Section 16.52.130;
    - (iii) The construction materials and methods standards set forth in subsection (b) of Section 16.52.130; and
    - (iv) The standards for utilities set forth in Section 16.52.140.
  - (B) For residential structures, all subgrade enclosed areas are prohibited as they are

considered to be basements. This prohibition includes below-grade garages, storage areas and subfloor crawl spaces, except existing below-grade subfloor crawl spaces meeting the standards set forth in subsection (d) of Section 16.52.130.

(29) "Manufactured home" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when it is attached to the required utilities. The term does not include a recreational vehicle.

(30) "Manufactured home park or subdivision" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for sale or rent.

(31) "Market value of the structure" means that value of a structure determined by estimating the cost to replace the structure in a new condition and adjusting that cost figure by the amount of depreciation which has accrued since the structure was constructed. The cost of replacement of the structure shall be based on a square foot cost factor determined by reference to a building cost estimating guide recognized by the building construction industry, as approved by the floodplain administrator. The amount of depreciation shall be determined by taking into account the age and physical deterioration of the structure and functional obsolescence, as approved by the floodplain administrator, but shall not include economic or other forms of external obsolescence. The use of replacement costs or accrued depreciation factors different from those contained in recognized building cost estimating guides may be approved at the discretion of the floodplain administrator only if such factors are included in a report prepared by an independent professional appraiser and supported by a written explanation of the differences.

(32) "Mean sea level" means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.

(33) "New construction," for floodplain management purposes, means structures for which the "start of construction" commenced on or after the effective date of floodplain management regulations adopted by this community, and includes any subsequent improvements to such structures.

(34) "Person" means an individual or his agent, firm, partnership, association or corporation, or agent of the aforementioned groups, or the State of California or its agencies or political subdivisions.

(35) "Recreational vehicle" means a vehicle which:

(A) Is built on a single chassis;

(B) Measures 400 square feet or less at its largest or widest horizontal projection;



- (C) Is designed to be self-propelled or permanently towable by a small truck;
  - (D) Is designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, seasonal use camping or travel; and
  - (E) Incorporates a vehicle that is defined by the State of California as a camp trailer, camper, fifth-wheel travel trailer, or house car.
- (36) "Remedy a violation" means to bring the structure or other development into compliance with the State of California or local floodplain management regulations, or, if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of this chapter or otherwise deterring future similar violations, or reducing federal or State of California financial exposure with regard to the structure or other development.
- (37) "Riverine" means relating to, formed by, or resembling a river (including tributaries), stream, or brook.
- (38) "Sand dunes" means naturally occurring accumulations of sand in ridges or mounds landward of the beach.
- (39) "Special flood hazard area (SFHA)" means an area having special flood or flood-related erosion hazards, and shown on the Flood Insurance Rate Map as Zone A, AO, AI - A30, AE, AH, V1 - V30, VE or V.
- (40) "Start of construction" includes substantial improvement and other proposed new development, and means the date on which the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement commenced within 180 days from the date of issuance of the permit. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other part of a structure, whether or not that alteration affects the external dimensions of the structure.
- (41) "Structure" means a walled and roofed building, including but not limited to a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

(42) "Substantial damage" means damage of any origin sustained by a structure, whereby the cost of restoring the structure to its original damage-free condition would equal or exceed fifty percent of the market value of the structure before the damage occurred.

(43) "Substantial improvement" means any reconstruction, rehabilitation, addition, or other proposed new development of a structure, the cost of which equals or exceeds fifty percent of the market value of the structure before the start of construction of the improvement. This term includes a structure which has incurred substantial damage, regardless of the actual repair work to be performed.

The term shall not include:

(A) Any project, or any portion of a project, for improvement of a structure undertaken in response to a finding by the local code enforcement official that there are existing violations of State of California or local health, sanitary, or safety code specifications which render the structure unfit for human occupancy; or

(B) Any alteration of an historic structure, provided that the alteration will not result in the termination of a structure's continued designation as an historic structure; or

(C) Any project, or any portion of a project, for improvement of a structure that is required to comply with the Americans with Disabilities Act of 1990 (42 U.S.C. Section 12101 et.seq.).

(44) "Variance" means a grant of relief from the requirements of this chapter which permits construction in a manner that would otherwise be prohibited by this chapter.

(45) "Violation" means the failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this chapter is presumed to be in violation until such time as that documentation is provided.

(46) "Wet Floodproofing" Floodproofing method that relies on the use of flood damage-resistant materials and construction techniques in areas of a structure that are below the elevation required by this standard by intentionally allowing those areas to flood.

**SECTION 4.** Section 16.52.075 (Requirement to submit new technical data.) of Chapter 16.52 (Flood Hazard Regulations) of Title 16 (Building) of the Palo Alto Municipal Code is added to read as follows:

**16.52.075 Requirement to submit new technical data**

A community's base flood elevations may increase or decrease resulting from physical changes

affecting flooding conditions. As soon as practicable, but not later than six months after the date such information becomes available, the City shall notify FEMA of the changes by submitting technical or scientific data. Such submission is necessary so that, upon confirmation of those physical changes affecting flooding conditions, risk premium rates and flood plain management requirements will be based upon current data.

**SECTION 5.** Section 16.52.110 (Development permit required) of Chapter 16.52 (Flood Hazard Regulations) of Title 16 (Building) of the Palo Alto Municipal Code is amended to read as follows (ellipses indicate existing language that is unchanged but omitted for brevity):

**16.52.110 Development permit required.**

[. . .]

(b) The foundation design details, including but not limited to:

(1) The proposed elevation in relation to mean sea level, of the lowest floor, including basement, of all structures;

(2) For a crawl-space foundation, the location and total net area of foundation openings as required in this ordinance and applicable Federal Emergency Management Agency technical bulletins, including but not limited to, TB 1-~~93~~ and TB 7-~~93~~; and

(3) For foundations placed on fill, the location and height of the fill, and compaction requirements (compacted to ninety-five percent using the Standard Proctor Test method);

(c) Proposed elevation in relation to mean sea level to which any nonresidential structure will be floodproofed, as required in subdivision (3) of subsection (c) of Section [16.52.130](#) and applicable Federal Emergency Management Agency ~~Technical bulletins~~ Bulletins, including but not limited to TB 3-~~93~~;

[. . .]

**SECTION 6.** Section 16.52.130 (Standards of Construction) of Chapter 16.52 (Flood Hazard Regulations) of Title 16 (Building) of the Palo Alto Municipal Code is amended to read as follows (additions underlined, deletions ~~struck through~~, and omissions of unchanged language noted by [. . .]):

**16.52.130 Standards of construction.**

In all areas of special flood hazards the following standards are required:

[. . .]

(c) Elevation and Floodproofing.

(1) In residential new construction and substantial improvement of any residential

structure, the lowest floor, including basement:

(A) In an AO zone, shall be elevated ~~above the highest adjacent grade to a height above the highest adjacent grade of not less than~~ to height equal to or exceeding the depth number specified in feet on the Flood Insurance Rate Map plus 1 foot, or not less ~~elevated at least two than 3~~ feet above the highest adjacent grade if no depth number is specified;

(B) In an A zone, shall be elevated at least ~~one foot~~ two feet above the highest adjacent grade if no depth number is specified or one foot above the base flood elevation, whichever is higher; or

(C) In all other zones, including Coastal A zones shall be elevated at least one foot above ~~to or above~~ the base flood elevation.

(D) Basement floors that are below grade on all sides shall be elevated to or above base flood elevation plus 1 foot, or design flood elevation, whichever is higher.

(E) Garages and carport floors shall comply with one of the following:

(i) They shall be elevated to or above the elevations required above in (A), (B) and (C)  
or

(ii) They shall be at or above grade on all but one side of the structure and allow the automatic flow of floodwater into and out of the garage or carport. Where a garage or carport shall solely be used parking, building access or storage.

Upon the completion of the structure, the elevation of the lowest floor, including basement, shall be certified by a registered professional engineer or surveyor, and verified by a community official to be properly elevated. Such certification and verification shall be provided to the floodplain administrator.

(2) Nonresidential new construction and any substantially improved nonresidential structure shall either be elevated to conform with subdivision (1) of this subsection (C) or, together with attendant utility and sanitary facilities:

(A) Shall be floodproofed below the minimum elevation required in subdivision (1) above so that the structure is watertight with walls substantially impermeable to the passage of water;

(B) Shall possess structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and

(C) Shall be certified by a registered professional engineer that the standards of this subdivision are satisfied. The certification shall be provided to the floodplain administrator.

(D) Shall provide a flood emergency plan that includes maintenance and operation requirements. The plan shall be approved by the floodplain administrator. Plans shall

be recorded as a covenant.

(3) All new construction and substantially improved structures, with fully enclosed areas below the lowest floor (excluding basements) that are usable solely for the parking of vehicles, building access or storage, and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement shall comply with the California Building Code guidelines set forth in the applicable Federal Emergency Management Agency technical bulletins, including but not limited to TB 1-93 and TB 7-93 and shall meet or exceed the following minimum criteria:

(A) Possess a minimum of two openings on different sides of each enclosed area. If a building has more than one enclosed area, each area shall have openings with the total net area of nonengineered openings of not less than one square inch for every square foot of enclosed area, subject to flooding where the enclosed area is measured on the exterior of the enclosure walls. The bottom of all openings shall be no higher than one foot above ~~grade~~ the higher of the final interior grade or floor and the finished exterior grade immediately under each opening. Openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of floodwaters into and out of the enclosed areas and shall be accounted for in the determination of the net open area; or

(B) Be certified by a registered professional engineer or architect. Construction documents shall include a statement by a registered design professional that the design of the openings will provide for equalization of hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit of floodwaters as specified on Section 2.7.2.2 of ASCE 24.

(C) Openings shall be not less than 3 inches in any direction in the plane of the wall.

(D) Openings shall be permitted to be installed in doors and windows; doors and windows without installed openings do not meet the requirement of this section.

(4) Manufactured homes shall also meet the standard in Section 16.52.160.

(d) Existing Residential Below Grade Subfloor Crawl Spaces. Notwithstanding the provisions of subsection (c)(1) for existing residential structures, existing below-grade subfloor crawl spaces shall be allowed to remain beneath substantially improved structures provided all other standards of construction set forth in Section 16.52.130 and the following conditions are met:

(1) The lowest floor of the living space of the existing structure is ~~at or above~~ at the elevation required under subsection (c) above;

(2) The below-grade crawl space shall be backfilled to the maximum extent possible without violating Uniform Building Code requirements for minimum crawl space height;

(3) The crawl space grade is not more than two feet below the lowest adjacent grade

outside the foundation;

(4) The height of the crawl space, measured from the interior grade of the crawl space to the top of the foundation wall, does not exceed four feet;

(5) There is an adequate drainage system capable of removing floodwaters from the interior area of the crawl space within seventy-two hours after the flood event; and

(6) The expected velocity of the floodwaters at the site does not exceed five feet per second.

(e) Prohibition of Residential Basement Construction.

(1) For residential structures located within a Special Flood Hazard Area:

(A) No new basements shall be constructed; and

(B) No existing basements shall be expanded.

**SECTION 7.** Section 16.52.160 (Standards of manufactured homes) of Chapter 16.52 (Flood Hazard Regulations) of Title 16 (Building) of the Palo Alto Municipal Code is amended to read as follows (additions underlined and deletions ~~struck through~~):

**16.52.160 Standards for manufactured homes.**

All new and replacement manufactured homes and additions to manufactured homes on foundations in flood hazard areas or coastal high-hazard areas shall:

(a) Be elevated so that the lowest floor ~~is at or above the based flood elevation~~ elevation meets requirements specified in sections 16.52.130 and 16.52.180 as applicable; and

(b) Be securely anchored to a permanent foundation system to resist flotation, collapse or lateral movement in accordance with ASCE 24.

**SECTION 8.** Section 16.52.180 (Coastal high hazard areas) of Chapter 16.52 (Flood Hazard Regulations) of Title 16 (Building) of the Palo Alto Municipal Code is amended to read as follows (additions underlined, deletions ~~struck through~~, and omissions of unchanged language noted by [ . . ]):

**16.52.180 Coastal high hazard areas.**

Within coastal high hazard areas established in Section 16.52.060 the following standards shall apply:

(a) All new construction and substantial improvements shall be elevated on adequately anchored pilings or columns and securely anchored to such pilings or columns so that the lowest horizontal portion of the structural members of the lowest floor (excluding the pilings, columns, grade beams and bracing) is elevated to or above the base flood elevation plus 1 foot or design flood elevation, whichever is higher. Wind

loading values used shall be those required by applicable state or local building standards.

(b) All new construction and other development shall be located on the landward side of the reach of mean high tide.

[. . .]

**SECTION 9.** The Council finds that this project is exempt from the provisions of the California Environmental Quality Act ("CEQA"), pursuant to Section 15061 of the CEQA Guidelines, because it can be seen with certainty that there is no possibility that the amendments herein adopted will have a significant effect on the environment.

**SECTION 10.** This ordinance shall be effective on the thirty-first day after the date of its adoption.

INTRODUCED:

PASSED:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

ATTEST:

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Mayor

APPROVED AS TO FORM:

APPROVED:

\_\_\_\_\_  
Assistant City Attorney

\_\_\_\_\_  
City Manager

\_\_\_\_\_  
Director of Planning and  
Development Services

\_\_\_\_\_  
Director of Administrative Services

**Exhibit A**  
**FINDINGS FOR LOCAL AMENDMENTS**  
**TO CALIFORNIA RESIDENTIAL CODE (CRC)**

Section 17958 of the California Health and Safety Code provides that the City may make changes to the provisions of the California Building Standards Code. Sections 17958.5 and 17958.7 of the Health and Safety Code require that for each proposed local change to those provisions of the California Building Standards Code which regulate buildings used for human habitation, the City Council must make findings supporting its determination that each such local change is reasonably necessary because of local climatic, geological, or topographical conditions.

| <b>Code: CRC</b> |                                                    |            |                |                |                                               |
|------------------|----------------------------------------------------|------------|----------------|----------------|-----------------------------------------------|
| <b>Section</b>   | <b>Title</b>                                       | <b>Add</b> | <b>Deleted</b> | <b>Amended</b> | <b>Justification<br/>(See below for keys)</b> |
| R202             | Wildland-Urban Interface Fire Area                 |            |                | ✓              | T                                             |
| R202             | Superficial floor area                             | ✓          |                |                | A, G                                          |
| Table R301.2     | Climatic and Geographic Design Criteria            |            |                | ✓              | C, G, T                                       |
| R301.2.2.6       | Irregular Buildings                                |            |                | ✓              | G                                             |
| R304.4           | Dwelling unit and congregate residence             | ✓          |                |                | A, G                                          |
| R310             | Emergency Escape and Rescue Openings               |            |                | ✓              | C, T                                          |
| R310.4.2.3       | Window Well Fall Protection                        |            |                | ✓              | T                                             |
| R 310.4.1        | Security Bars                                      | ✓          |                |                | T                                             |
| R313.1.1         | Design and installation                            |            |                | ✓              | T                                             |
| R 313.2          | One and Two Family Dwellings Automatic Spr. Syst.  |            |                | ✓              | T                                             |
| R313.2.1         | Design and installation                            |            |                | ✓              | T                                             |
| R313.2.2         | NFPA 13D sprinkler increase in design requirements | ✓          |                |                | T                                             |
| R313.3           | Dwelling unit fire sprinkler systems               |            |                | ✓              | T                                             |
|                  |                                                    |            |                |                |                                               |
| R 314.1          | Smoke Detection and Notification                   |            |                | ✓              | C, T                                          |
| R314.1.1         | Smoke alarms or detector end of life replacement   |            |                | ✓              | T                                             |
| 315.7.5          | Carbon monoxide alarms                             |            |                | ✓              | T                                             |
| R 319.1          | Address Identification                             |            |                | ✓              | T                                             |
| R 322.1          | Flood Hazard Regulations                           |            |                | ✓              | T                                             |
| R 327.1.5        | Vegetation Management Compliance                   |            |                | ✓              | T                                             |
| R401             | General                                            |            |                | ✓              | T, G                                          |



|                                                           |                                                            |   |  |   |      |
|-----------------------------------------------------------|------------------------------------------------------------|---|--|---|------|
| R402.2.1                                                  | Materials for concrete                                     |   |  | ✓ | E    |
| R403, R403.1.2,<br>R403.1.3,<br>R403.1.3.1,<br>R403.1.3.2 | Foundation                                                 |   |  | ✓ | G, T |
| R 403.1.8                                                 | Foundation on expansive Soils                              |   |  | ✓ | G, T |
| R404.1.3                                                  | Concrete foundation walls                                  |   |  | ✓ | E    |
| R 504.3.1                                                 | Projections exposed to weather                             | ✓ |  |   | G, T |
| R506.1                                                    | Concrete Floors on ground                                  |   |  | ✓ | E    |
| R602.10.4.5                                               | Limits on methods GB and PCP                               | ✓ |  |   | G    |
| Table R602.10.3(3)                                        | Bracing Requirements Based on Seismic Design Category      |   |  | ✓ | G    |
| R608.5                                                    | Materials                                                  |   |  | ✓ | E    |
| R 703.8.5.1                                               | Flashing Locations                                         |   |  | ✓ | T    |
| R902.1.4                                                  | Roofing Requirements in Wildland-Urban Interface Fire Area |   |  | ✓ | T    |
| R1003.9.2.1                                               | Repairs, Replacements and Alterations                      |   |  | ✓ | T    |
| Appendix AH                                               | Patio Covers                                               | ✓ |  |   | C    |
| Appendix AJ                                               | Existing Building and Structures                           | ✓ |  |   | C, T |
| Appendix AK                                               | Sound Transmission                                         | ✓ |  |   | C    |
| Appendix AX                                               | Swimming Pool Safety Act                                   | ✓ |  |   | C, G |
| AJ103, AJ103.1                                            | Preliminary Meeting, General                               |   |  | ✓ | C, G |

## Key to Justification for Amendments to Title 24 of the California Code of Regulations

**A** This is an **administrative** amendment to clarify and establish civil and administrative procedures, regulations, or rules to enforce and administer the activities by the Palo Alto Building Inspection Department. These administrative amendments do not need to meet HSC 18941.5/17958/13869 per HSC 18909(c).

**E** Green building enhances the public health and welfare by promoting the environmental and economic health of the City through the design, construction, maintenance, operation and deconstruction of buildings and sites by incorporating green practices into all development. The green provisions in this Chapter are designed to achieve the following goals:

- (a) Increase energy efficiency in buildings;
- (b) Increase water and resource conservation;
- (c) Reduce waste generated by construction and demolition projects;
- (d) Provide durable buildings that are efficient and economical to own and operate;
- (e) Promote the health and productivity of residents, workers, and visitors to the city;
- (f) Recognize and conserve the energy embodied in existing buildings;
- (g) Encourage alternative transportation; and
- (h) Reduce disturbance of natural ecosystems.

**C** This amendment is justified on the basis of a local **climatic** condition. The seasonal climatic conditions during the late summer and fall create severe fire hazards to the public health and welfare in the City. The hot, dry weather frequently results in wild land fires on the brush covered slopes west of Interstate 280. The aforementioned conditions combined with the geological characteristics of the hills within the City create hazardous conditions for which departure from California Building Standards Code is required.

**G** This amendment is justified on the basis of a local **geological** condition. The City of Palo Alto is subject to earthquake hazard caused by its proximity to San Andreas fault. This fault runs from Hollister, through the Santa Cruz Mountains, epicenter of the 1989 Loma Prieta earthquake, then on up the San Francisco Peninsula, then offshore at Daly City near Mussel Rock. This is the approximate location of the epicenter of the 1906 San Francisco earthquake. The other fault is Hayward Fault. This fault is about 74 mi long, situated mainly along the western base of the hills on the east side of San Francisco Bay. Both of these faults are considered major Northern California earthquake faults which may experience rupture at any time. Thus, because the City is within a seismic area which includes these earthquake faults, the modifications and changes cited herein are designed to better limit property damage as a result of seismic activity and to establish criteria for repair of damaged properties following a local emergency.

**T** The City of Palo Alto **topography** includes hillsides with narrow and winding access, which makes timely response by fire suppression vehicles difficult. Palo Alto is contiguous with the San Francisco Bay, resulting in a natural receptor for storm and waste water run-off. Also the City of Palo Alto is located in an area that is potentially susceptible to liquefaction during a major earthquake. The surface condition consists mostly of stiff to dense sandy clay, which is highly plastic and expansive in nature. The aforementioned conditions within the City create hazardous conditions for which departure from California Building Standards Code is warranted.

Ordinance No. \_\_\_\_

Ordinance of the Council of the City of Palo Alto Repealing Chapter 16.08 of the  
Palo Alto Municipal Code and Amending Title 16 to Adopt a New Chapter 16.08,  
California Plumbing Code, 2022 Edition, and Local Amendments and Related  
Findings

The Council of the City of Palo Alto does ORDAIN as follows:

**SECTION 1.** Chapter 16.08 of the Palo Alto Municipal Code is hereby amended by repealing in its entirety 16.08 and adopting a new Chapter 16.08 to read as follows:

**16.08 CALIFORNIA PLUMBING CODE, TITLE 24, PART 5**

**16.08.010 2022 California Plumbing Code, Title 24, Part 5 adopted.**

The California Plumbing Code, 2022 Edition, Title 24, Part 5 of the California Code of Regulations together with those omissions, amendments, exceptions and additions thereto, is adopted and hereby incorporated in this Chapter by reference and made a part hereof the same as if fully set forth herein.

Unless superseded and expressly repealed, references in City of Palo Alto forms, documents and regulations to the chapters and sections of the former editions of the California Code of Regulations, Title 24, shall be construed to apply to the corresponding provisions contained within the California Code of Regulations, Title 24, 2022. Ordinance No. 5480 of the City of Palo Alto and all other ordinances or parts of ordinances in conflict herewith are hereby suspended and expressly repealed.

Wherever the phrases "California Plumbing Code" or "Plumbing Code" are used in this code or any ordinance of the City, such phrases shall be deemed and construed to refer and apply to the California Plumbing Code, 2022 Edition, Title 24, Part 4 of the California Code of Regulations, as adopted by this Chapter.

One copy of the California Plumbing Code, 2022 edition, has been filed for use and examination of the public in the Office of the Building Official of the City of Palo Alto.

**16.08.020 Cross - References to California Plumbing Code.**

The provisions of this Chapter contain cross-references to the provisions of the California Mechanical Code, 2022 Edition, in order to facilitate reference and comparison to those provisions.

**16.08.030 Local Amendments**

The provisions of this Chapter shall constitute local amendments to the cross-referenced provisions

of the California Plumbing Code, 2022 Edition, and shall be deemed to replace the cross-referenced sections of said Code with the respective provisions set forth in this Chapter. Where used in this Chapter 16.04, ellipses shall indicate text of the California Building Code, 2022 Edition, that has been adopted without amendment but is omitted for brevity.

**16.08.040 Administration & Enforcement of 2022 California Plumbing Code**

Administration and enforcement of this code shall be governed by Chapter 1, Division II of the 2022 California Building Code as amended by Palo Alto Municipal Code Chapter 16.04.

**16.08.050 Adoption of Chapter 1, Division II Administration**

Chapter 1, Division II Administration of the 2022 California Plumbing Code is adopted by the City of Palo Alto to supplement, to the extent it does not conflict with, Chapter 1, Division II of the 2022 California Building Code as amended.

**16.08.060 Section 102.8 Appendices.**

The following Appendix Chapters of the California Plumbing Code, 2022 Edition, are adopted and hereby incorporated in this Chapter by reference and made a part hereof the same as if fully set forth herein:

- A. Appendix A – Recommended rules for sizing the water supply system
- B. Appendix D – Sizing storm water drainage systems

**16.08.070 Section 306.3 Palo Alto sewer use.**

Section 306.3 of Chapter 3 of the California Plumbing Code is added to read:

**306.3 Palo Alto sewer use.** All non-domestic waste shall comply with the City of Palo Alto Sewer Use Ordinance (Palo Alto Municipal Code Chapter 16.09). Where discrepancies exist between the requirements of this code and said ordinance, the provisions of said ordinance shall apply.

**16.08.080 Section 701.2, (4) Drainage piping.**

Subdivision (4) of Section 701.2 of Chapter 7 of the California Plumbing Code is amended to read:

**701.2 Drainage Piping**

Materials for drainage piping shall be in accordance with one of the referenced standards in Table 701.2 except that:

[. . .]

**(4)** Copper, copper alloys, lead and lead alloys, including brass, shall not be used for building sanitary drainage 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 impracticable.

Where permitted by the building official or their designee, copper tube for drainage piping shall have a weight of not less than that of copper drainage tube type DWV.

[. . .]

**16.08.090 Section 719.7 Cleanouts.**

Section 719.7 of Chapter 7 of the California Plumbing Code is added to read:

**719.7 Cleanouts.** A cleanout shall be provided at the point of connection between the building sewer and the city lateral and an approved fitting shall be used to bring the cleanout riser to grade. Where sewer cleanouts are to be connected to existing city laterals, such connections shall be accomplished by use of a City of Palo Alto Utility approved fitting.

**16.08.100 Section 808.2 Single pass cooling water systems prohibited.**

Section 808.2 of Chapter 8 of the California Plumbing Code is added to read:

**808.2 Single pass cooling water systems prohibited.** Clean running water used exclusively as a cooling medium in an appliance, device, or apparatus is prohibited. Refer to PAMC 16.14.350 for additional CALGreen measures.

**16.08.110 Section 1014.1.3 Food waste disposal units and dishwashers.**

Section 1014.1.3 of Chapter 10 of the California Plumbing Code is amended to read:

**1014.1.3 Food waste disposal units and dishwashers.** Unless specifically required or permitted by the Authority Having Jurisdiction, no dishwasher shall be connected to or discharge into any grease interceptor. Commercial Food Waste Disposal Units are prohibited.

**16.08.120 Section 1101.4 Material use.**

Section 1101.4 of Chapter 11 of the California Plumbing Code is amended to read:

**1101.4 Material use.** Pipe, tube, and fittings conveying rainwater shall be of such materials and design as to perform their intended function to the satisfaction of the Authority Having Jurisdiction. Conductors within a vent or shaft shall be of cast-iron, galvanized steel, wrought iron, Schedule 40 ABS DWV, Schedule 40 PVC DWV, stainless steel 304 or 316L [stainless steel 304 pipe and fittings shall not be installed underground and shall be kept not less than 6 inches (152 mm) aboveground], or other approved materials, and changes in direction shall be in accordance with the requirements of Section 706.0. ABS and PVC DWV piping installations shall be installed in accordance with applicable standards referenced in Chapter 17 and the firestop protection requirements in the California Building Code. Except for individual single-family dwelling units, materials exposed within ducts or plenums shall have a flame-

spread index of not more than 25 and a smoke-developed index of not more than 50, where tested in accordance with ASTM E84 or UL 723. Plastic piping installed in plenums shall be tested in accordance with all requirements of ASTM E84 or UL 723. Mounting methods, supports and sample sizes of materials for testing that are not specified in ASTM E84 or UL 723 shall be prohibited.

**[HCD 1 & HCD 2]** *ABS or PVC installations are limited to not more than two stories of areas of residential accommodation.*

**[OSHPD 1, 2, 3 & 4]** *ABS and PVC installations are not allowed.*

**16.08.130 Section 1101.4.1 Copper and copper alloys.**

Section 1101.4.1 of Chapter 11 of the California Plumbing Code is amended to read:

**1101.4.1 Copper and copper alloys.** Joints and connections in copper and copper alloy pipe and tube is prohibited.

**16.08.140 Section 1101.4.2 Conductors.**

Section 1101.4.2 of Chapter 11 of the California Plumbing Code is amended to read:

**1101.4.2 Conductors.** Conductors installed aboveground in buildings shall comply with the applicable standards referenced in Table 701.2 for aboveground drain, waste, and vent pipe. Conductors installed aboveground level shall be of Schedule 40 copper pipe or Schedule 40 copper alloy pipe; service weight cast-iron soil pipe or hubless cast-iron soil pipe; standard weight galvanized steel pipe; stainless steel 304 or 316L [stainless steel 304 pipe and fittings shall not be installed underground and shall be kept not less than 6 inches (152 mm) aboveground], or Schedule 40 ABS or Schedule 40 PVC plastic pipe.

**16.08.150 Section 1101.4.3 Leaders.**

Section 1101.4.3 of Chapter 11 of the California Plumbing Code is amended to read:

**1101.4.3 Leaders.** Leaders installed outside shall be in accordance with the applicable standards referenced in Table 701.2 for aboveground drain, waste, and vent pipe; aluminum sheet metal; or galvanized steel sheet metal.

**16.08.160 Section 1102.1 Applications.**

Section 1102.1 of Chapter 11 of the California Plumbing Code is amended to read:

**1102.1 Applications.** Roof drains shall be constructed of aluminum, cast-iron, stainless steel, ABS, PVC, polypropylene, polyethylene, or nylon and shall comply with ASME A112.3.1 or ASME A112.6.4.

//

**SECTION 2.** The Council adopts the findings for local amendments to the California Plumbing Code, 2022 Edition, attached hereto as Exhibit “A” and incorporated herein by reference.

**SECTION 3.** The Council finds that this project is exempt from the provisions of the California Environmental Quality Act (“CEQA”), pursuant to Section 15061 of the CEQA Guidelines, because it can be seen with certainty that there is no possibility that the amendments herein adopted will have a significant effect on the environment.

**SECTION 4.** This Ordinance shall be effective on the thirty-first day after the date of its adoption.

INTRODUCED:

PASSED:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

ATTEST:

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Mayor

APPROVED AS TO FORM:

APPROVED:

\_\_\_\_\_  
Assistant City Attorney

\_\_\_\_\_  
City Manager

\_\_\_\_\_  
Director of Planning and  
Development Services

\_\_\_\_\_  
Director of Administrative Services

**Exhibit A**  
**FINDINGS FOR LOCAL AMENDMENTS TO CALIFORNIA PLUMBING CODE,**  
**TITLE 24, PART 5**

Section 17958 of the California Health and Safety Code provides that the City may make changes to the provisions of the California Building Standards Code. Sections 17958.5 and 17958.7 of the Health and Safety Code require that for each proposed local change to those provisions of the California Building Standards Code which regulate buildings used for human habitation, the City Council must make findings supporting its determination that each such local change is reasonably necessary because of local climatic, geological, or topographical conditions.

Local building regulations having the effect of amending the uniform codes, which were adopted by the City prior to November 23, 1970, were unaffected by the regulations of Sections 17958, 17958.5 and 17958.7 of the Health and Safety Code. Therefore, amendments to the uniform codes which were adopted by the City Council prior to November 23, 1970 and have been carried through from year to year without significant change, need no required findings. Also, amendments to provisions not regulating buildings used for human habitation do not require findings.

| <b>Code: California Plumbing Code, Title, 24, Part 5</b> |                                                      |              |                |                 |                                                   |
|----------------------------------------------------------|------------------------------------------------------|--------------|----------------|-----------------|---------------------------------------------------|
| <b>Chapter(s),<br/>Sections(s),<br/>Appendices</b>       | <b>Title</b>                                         | <b>Added</b> | <b>Amended</b> | <b>Replaced</b> | <b>Justification<br/>(See below<br/>for keys)</b> |
| Ch. 1, Div. II                                           | ADMINISTRATION                                       | ✓            |                |                 | <b>A</b>                                          |
|                                                          | Administration and Enforcement                       | ✓            |                |                 | <b>A</b>                                          |
| 306.3                                                    | Palo Alto sewer use                                  | ✓            |                |                 | <b>C</b>                                          |
| 701.2                                                    | (4) Drainage piping                                  |              | ✓              |                 | <b>C</b>                                          |
| 719.7                                                    | Cleanouts                                            | ✓            |                |                 | <b>C</b>                                          |
| 808.2                                                    | Single pass cooling water systems prohibited         | ✓            |                |                 | <b>C</b>                                          |
| 1014.1.3                                                 | Food waste disposal units and dishwashers            |              | ✓              |                 | <b>C</b>                                          |
| 1101.4                                                   | Material use                                         |              | ✓              |                 | <b>C</b>                                          |
| 1101.4.1                                                 | Copper and copper alloys                             |              | ✓              |                 | <b>C</b>                                          |
| 1101.4.2                                                 | Conductors                                           |              | ✓              |                 | <b>C</b>                                          |
| 1101.4.3                                                 | Leaders                                              |              | ✓              |                 | <b>C</b>                                          |
| 1102.1                                                   | Applications                                         |              | ✓              |                 | <b>C</b>                                          |
| Appx. A                                                  | Recommended rules for sizing the water supply system | ✓            |                |                 | <b>A</b>                                          |
| Appx. D                                                  | Sizing storm water drainage systems                  | ✓            |                |                 | <b>A</b>                                          |



## Key to Justification for Amendments to Title 24 of the California Code of Regulations

**A** This is an administrative amendment to clarify and establish civil and administrative procedures, regulations, or rules to enforce and administer the activities by the Palo Alto Building Inspection Department. These administrative amendments do not need to meet HSC 18941.5/17958/13869 per HSC 18909(c).

**C** This amendment is justified based on a local climatic condition. The seasonal climatic conditions during the late summer and fall create severe fire hazards to the public health and welfare in the City. The hot, dry weather frequently results in wild land fires on the brush covered slopes west of Interstate 280. The aforementioned conditions combined with the geological characteristics of the hills within the City create hazardous conditions for which departure from California Building Standards Code is required.

**G** This amendment is justified based on a local geological condition. The City of Palo Alto is subject to earthquake hazard caused by its proximity to San Andreas fault. This fault runs from Hollister, through the Santa Cruz Mountains, epicenter of the 1989 Loma Prieta earthquake, then on up the San Francisco Peninsula, then offshore at Daly City near Mussel Rock. This is the approximate location of the epicenter of the 1906 San Francisco earthquake. The other fault is Hayward Fault. This fault is about 74 mi long, situated mainly along the western base of the hills on the east side of San Francisco Bay. Both faults are considered major Northern California earthquake faults which may experience rupture at any time. Thus, because the City is within a seismic area which includes these earthquake faults, the modifications and changes cited herein are designed to better limit property damage as a result of seismic activity and to establish criteria for repair of damaged properties following a local emergency.

**T** The City of Palo Alto topography includes hillsides with narrow and winding access, which makes timely response by fire suppression and emergency response vehicles difficult. Palo Alto is contiguous with the San Francisco Bay, resulting in a natural receptor for storm and wastewater run-off. Also, the City of Palo Alto is located in an area that is potentially susceptible to liquefaction during a major earthquake. The surface condition consists mostly of stiff to dense sandy clay, which is highly plastic and expansive in nature. The aforementioned conditions within the City create hazardous conditions for which departure from California Building Standards Code is warranted.

Not Yet Adopted

Ordinance No. \_\_\_\_\_

Ordinance of the Council of the City of Palo Alto Repealing Chapter 16.16 of the Palo Alto Municipal Code and Amending Title 16 to Adopt a New Chapter 16.16, California Electrical Code, 2022 Edition, and Local Amendments and Related Findings

The Council of the City of Palo Alto does ORDAIN as follows:

**SECTION 1.** Chapter 16.16 of the Palo Alto Municipal Code is hereby amended by repealing in its entirety 16.16 and adopting a new Chapter 16.16 to read as follows:

**CHAPTER 16.16**  
**CALIFORNIA ELECTRICAL CODE, Cal. Code of Regs. TITLE 24, Part 3**

**Sections**

- 16.16.010      2022 California Electrical Code, Cal. Code of Regs. Title 24, Part 3 adopted**
- 16.16.020      Cross - References to California Electrical Code**
- 16.16.030      Local Amendments**
- 16.16.040      Adoption of SECTION 89.101 GENERAL**
- 16.16.050      Article 89.101.3.3 Exempted from This Code**
- 16.16.060      Article 89.101.4 2022 California Electrical Code Annexes adopted**
- 16.16.070      Administration & Enforcement Of 2022 California Electrical Code**
- 16.16.080      Article 110.13 Mounting and Cooling of Equipment**

**16.16.010      2022 California Electrical Code, Cal. Code of Regs. Title 24, Part 3 adopted.**

The California Electrical Code, 2022 Edition, Title 24, Part 3 of the California Code of Regulations together with those omissions, amendments, exceptions and additions thereto, is adopted and hereby incorporated in this Chapter by reference and made a part hereof the same as if fully set forth herein. Unless superseded and expressly repealed, references in City of Palo Alto forms, documents and regulations to the chapters and sections of the former California Code of Regulations, Title 24, 2019, shall be construed to apply to the corresponding provisions contained within the California Code of Regulations, Title 24, 2022. Ordinance No. 5482 of the City of Palo Alto and all other ordinances or parts of ordinances in conflict herewith are hereby suspended and expressly repealed. Wherever the phrases "California Electrical Code" or "Electrical Code" are used in this code or any ordinance of the City, such phrases shall be deemed and construed to refer and apply to the California Electrical Code, 2022 Edition, as adopted by this Chapter. One copy of the California Electrical Code, 2022 edition, has been filed for use and examination of the public in the Office of the Chief Building Official of the City of Palo Alto.

**16.16.020      Cross - References to California Electrical Code.**

The provisions of this Chapter contain cross-references to the provisions of the California

Electrical Code, 2022 Edition, in order to facilitate reference and comparison to those provisions.

#### **16.16.030 Local Amendments.**

The provisions of this Chapter shall constitute local amendments to the cross-referenced provisions of the California Electrical Code, 2022 Edition, and shall be deemed to replace the cross-referenced sections of said Code with the respective provisions set forth in this Chapter.

#### **16.16.040 Adoption of SECTION 89.101 GENERAL**

SECTION 89.101 GENERAL of the 2022 California Electrical Code is adopted by the City of Palo Alto as amended herein.

#### **16.16.050 Article 89.101.3.3 Exempted from This Code.**

Section 89.101.3.3 is amended as follows (additions underlined; sections omitted without change noted by [. . .]):

#### **89.101.3.3 Exempted From This Code**

This code does not cover:

1. Installations in ships, watercraft other than floating dwelling units, railway rolling stock, aircraft, automotive vehicles, commercial coaches, mobilehomes, and recreational vehicles.

[. . .]

7. **ADDITIONAL EXEMPTIONS:** Electrical work that is exempt from permits pursuant to Palo Alto Municipal Code Section 16.04.110, Section 105.2 Work exempt from permit.

#### **16.16.060 Article 89.101.4 2022 California Electrical Code Annexes adopted.**

The following Annexes of the California Electrical Code, 2022 Edition, are adopted and hereby incorporated in this Chapter by reference and made a part hereof the same as if fully set forth herein:

- A. Annex B – Application Information for Ampacity Calculations
- B. Annex C – Conduit, Tubing, and Cable Tray Fill Tables for Conductors and Fixture Wires of the Same Size
- C. Annex I – Unit Recommended Tightening Torque Tables from UL Standard 486A - 486B

#### **16.16.070 Administration & Enforcement Of 2022 California Electrical Code**

Administration and enforcement of this code shall be governed by Chapter 1, Division II of the 2022 California Building Code as amended by Palo Alto Municipal Code Chapter 16.04.

Not Yet Adopted

**16.16.080 Article 110.13 Mounting and Cooling of Equipment.**

Article 110.13 (A) (1) of Article 110 of the California Electrical Code is added to read:

**110.13 (A) (1) Concrete Slab Supporting Electrical Equipment.** When electrical equipment is to be placed on a concrete substrate, a 4-inch concrete housekeeping pad shall be installed to elevate and protect the equipment.

**SECTION 2.** The Council adopts the findings for local amendments to the California Electrical Code, 2022 Edition, attached hereto as Exhibit “A” and incorporated herein by reference.

**SECTION 3.** The Council finds that this ordinance is exempt from the provisions of the California Environmental Quality Act (“CEQA”), pursuant to Section 15061 of the CEQA Guidelines, because it can be seen with certainty that there is no possibility that the amendments herein adopted will have a significant effect on the environment.

**SECTION 4.** This Ordinance shall be effective on the thirty-first day after the date of its adoption.

INTRODUCED:

PASSED:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

ATTEST:

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Mayor

APPROVED AS TO FORM:

APPROVED:

\_\_\_\_\_  
Assistant City Attorney

\_\_\_\_\_  
City Manager

\_\_\_\_\_  
Director of Planning and Development Services

\_\_\_\_\_  
Director of Administrative Services

Not Yet Adopted

**Exhibit A****FINDINGS FOR LOCAL AMENDMENTS TO CALIFORNIA ELECTRICAL CODE,  
TITLE 24, PART 3**

Section 17958 of the California Health and Safety Code provides that the City may make changes to the provisions of the California Building Standards Code. Sections 17958.5 and 17958.7 of the Health and Safety Code require that for each proposed local change to those provisions of the California Building Standards Code which regulate buildings used for human habitation, the City Council must make findings supporting its determination that each such local change is reasonably necessary because of local climatic, geological, or topographical conditions.

Local building regulations having the effect of amending the uniform codes, which were adopted by the City prior to November 23, 1970, were unaffected by the regulations of Sections 17958, 17958.5 and 17958.7 of the Health and Safety Code. Therefore, amendments to the uniform codes which were adopted by the City Council prior to November 23, 1970 and have been carried through from year to year without significant change, need no required findings. Also, amendments to provisions not regulating buildings used for human habitation do not require findings.

| <b>Code: California Electrical Code, Title, 24, Part 3</b> |                                                                                                     |              |                |                |                                                   |
|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|--------------|----------------|----------------|---------------------------------------------------|
| <b>Section(s)<br/>or Article(s)</b>                        | <b>Title</b>                                                                                        | <b>Added</b> | <b>Amended</b> | <b>Deleted</b> | <b>Justification<br/>(See below<br/>for keys)</b> |
| 89.101                                                     | GENERAL                                                                                             | ✓            |                |                | <b>A</b>                                          |
| 89.101.3.3                                                 | Exempt from This Code                                                                               | ✓            |                |                | <b>A</b>                                          |
| 110.13 (A) (1)                                             | Mounting and Cooling of Equipment                                                                   | ✓            |                |                | <b>C</b>                                          |
| Annex B                                                    | Application Information for<br>Ampacity Calculations                                                | ✓            |                |                | <b>G</b>                                          |
| Annex C                                                    | Conduit, Tubing, and Cable Tray Fill Tables<br>for Conductors and Fixture Wires of the<br>Same Size | ✓            |                |                | <b>A</b>                                          |
| Annex I                                                    | Unit Recommended Tightening Torque<br>Tables<br>from UL Standard 486A - 486B                        | ✓            |                |                | <b>A</b>                                          |

## Key to Justification for Amendments to Title 24 of the California Code of Regulations

- A** This is an **administrative** amendment to clarify and establish civil and administrative procedures, regulations, or rules to enforce and administer the activities by the Palo Alto Building Inspection Department. These administrative amendments do not need to meet HSC 18941.5/17958/13869 per HSC 18909(c).
- C** This amendment is justified based on a local **climatic** condition. The seasonal climatic conditions during the late summer and fall create severe fire hazards to the public health and welfare in the City. The hot, dry weather frequently results in wild land fires on the brush covered slopes west of Interstate 280. The aforementioned conditions combined with the geological characteristics of the hills within the City create hazardous conditions for which departure from California Building Standards Code is required.
- G** This amendment is justified based on a local **geological** condition. The City of Palo Alto is subject to earthquake hazard caused by its proximity to San Andreas fault. This fault runs from Hollister, through the Santa Cruz Mountains, epicenter of the 1989 Loma Prieta earthquake, then on up the San Francisco Peninsula, then offshore at Daly City near Mussel Rock. This is the approximate location of the epicenter of the 1906 San Francisco earthquake. The other fault is Hayward Fault. This fault is about 74 mi long, situated mainly along the western base of the hills on the east side of San Francisco Bay. Both faults are considered major Northern California earthquake faults which may experience rupture at any time. Thus, because the City is within a seismic area which includes these earthquake faults, the modifications and changes cited herein are designed to better limit property damage as a result of seismic activity and to establish criteria for repair of damaged properties following a local emergency.
- T** The City of Palo Alto **topography** includes hillsides with narrow and winding access, which makes timely response by fire suppression and emergency response vehicles difficult. Palo Alto is contiguous with the San Francisco Bay, resulting in a natural receptor for storm and wastewater run-off. Also, the City of Palo Alto is located in an area that is potentially susceptible to liquefaction during a major earthquake. The surface condition consists mostly of stiff to dense sandy clay, which is highly plastic and expansive in nature. The aforementioned conditions within the City create hazardous conditions for which departure from California Building Standards Code is warranted

NOT YET ADOPTED

Ordinance No. \_\_\_\_

Ordinance of the Council of the City of Palo Alto Repealing Chapter 16.18 of the  
Palo Alto Municipal Code and Amending Title 16 to Adopt a New Chapter 16.18,  
International Swimming Pool and Spa Code, With Local Amendments

The Council of the City of Palo Alto does ORDAIN as follows:

**SECTION 1.** Chapter 16.18 of the Palo Alto Municipal Code is hereby amended by repealing in its entirety Chapter 16.18 and adopting a new Chapter 16.18 to read as follows:

**16.18.010                      2021 International Swimming Pool and Spa Code (ISPSC) Adopted in Part and Amended.**

Chapters 1 through 3 and chapters 7 through 11 of the International Swimming Pool and Spa Code, 2021 Edition, are adopted and hereby incorporated into this Chapter by reference and made a part hereof as if fully set forth herein. The provisions of this Chapter shall constitute local amendments to the referenced provisions of the International Swimming Pool and Spa Code, Edition.

One copy of the International Swimming Pool and Spa Code, 2021 Edition, has been filed for use and examination by the public in the Office of the Chief Building Official of the City of Palo Alto.

**16.18.020                      Violations -- Penalties.**

It is unlawful for any person to violate any provision or to fail to comply with any of the requirements of this Chapter or any permits, conditions, or variances granted under this Chapter. Violators shall be subject to any penalty or penalties authorized by law, including but not limited to: administrative enforcement pursuant to Chapters 1.12 and 1.16 of the Palo Alto Municipal Code; and criminal enforcement pursuant to Chapter 1.08 of the Palo Alto Municipal Code. Each separate day or any portion thereof during which any violation of this Chapter occurs or continues shall be deemed to constitute a separate offense.

When the chief building official determines that a violation of this Chapter has occurred, the chief building official may record a notice of pendency of code violation with the Office of the County Recorder stating the address and owner of the property involved. When the violation has been corrected, the chief building official shall issue and record a release of the notice of pendency of code violation.

**16.18.030                      Enforcement – Criminal Enforcement Authority.**

The employee positions designated in this section are authorized to exercise the authority provided in California Penal Code section 836.5 for violations of this Chapter. The designated

employee positions are: (1) chief building official, (2) assistant chief building official, (3) building inspection manager, and (4) code enforcement officer.

#### **16.18.40 References to California Building Codes**

The International Swimming Pool and Spa Code, 2021 Edition, is hereby amended to refer to those building regulations adopted by the California Building Standards Commission in Title 24 of the California Code of Regulations, as follows:

1. Where the term "International Building Code" is used it shall be replaced with the term "California Building Code (CBC)."
2. Where the term "International Residential Code" is used it shall be replaced with the term "California Residential Code."
3. Where the term "International Plumbing Code" is used it shall be replaced with the term "California Plumbing Code."
4. Where the term "International Energy Conservation Code" is used it shall be replaced with the term "California Energy Code."
5. Where the term "International Fire Code" is used it shall be replaced with the term "California Fire Code."
6. Where the term "International Fuel Gas Code" is used it shall be replaced with the term "California Plumbing Code."
7. Where the term "International Mechanical Code" is used it shall be replaced with the term "California Mechanical Code."
8. Where the term "NFPA 70" is used it shall be replaced with the term "California Electrical Code."

#### **16.18.050 Precedence of California Building Codes.**

In the event of any conflict between this Chapter and provisions of the California Health and Safety Code or the building regulations adopted by the California Building Standards Commission in Title 24 of the California Code of Regulations, the provisions of the Health and Safety Code and Title 24 shall prevail.

#### **16.18.060 Administration & Enforcement Of 2021 International Swimming Pool and Spa Code (ISPSC)**

Administration and enforcement of this code shall be governed by Chapter 1, Division II of the 2022 California Building Code as amended by Palo Alto Municipal Code Chapter 16.04, and the any sections of the 2022 International Swimming Pool and Spa Code that are adopted by the City of Palo Alto in this Chapter 16.18.

#### **16.18.070 Section 101.1 amended – Title.**

Section 101.1 of the International Swimming Pool and Spa Code is hereby amended to read:



NOT YET ADOPTED

**101.1 Title.** These regulations shall be known as the International Swimming Pool and Spa Code of the City of Palo Alto, hereinafter referred to as “this code.”

**16.08.080                      Section 105.1.1 added – Agreements to build; notice of provisions.**

Section 105.1.1 of the International Swimming Pool and Spa Code is hereby added to read:

**105.1.1 Agreements to build; notice of provisions.** Any person entering into an agreement to build a swimming pool or spa, or to engage in permitted work on a pool or spa covered by this article, shall give the consumer notice of the requirements of this code.

Pursuant to existing law, the California Department of Health Services shall have available on the department's web site, commencing January 1, 2007, approved pool safety information available for consumers to download. Pool contractors are encouraged to share this information with consumers regarding the potential dangers a pool or spa poses toddlers. Additionally, pool contractors may provide the consumer with swimming pool safety materials produced from organizations such as the United States Consumer Product Safety Commission, Drowning Prevention Foundation, California Coalition for Children's Safety & Health, Safe Kids Worldwide, Association of Pool and Spa Professionals, or the American Academy of Pediatrics. [CBC 3109.1, 115924]

**16.18.090                      Section 110.17 Added – Final Approval.**

Section 110.17 of the International Swimming Pool and Spa Code is hereby added to read:

**110.17 Final Approval.** Prior to the issuance of any final approval for the completion of permitted construction or remodeling work, the code official shall inspect the drowning safety prevention devices required and if no violations are found, shall give final approval. [CBC 3109.1, 15922(b)]

**16.18.100                      Section 301.1.2 Added – Conflicts.**

Section 301.1.2 of the International Swimming Pool and Spa Code is hereby added to read:

**301.1.2 Conflicts.** In the event of a conflict between the provisions of the Swimming Pool Safety Act, the International Swimming Pool and Spa Code, 2021 Edition, the 2022 California Building Code, or the 2022 California Residential Code, the Building Official shall implement the most restrictive measures cited.

**16.18.120                      Section 303.3.1 Added – Operating time.**

Section 303.3.1 of the International Swimming Pool and Spa Code is hereby added to read:

**303.3.1 Operating time.** The time switch or other control mechanism shall be installed as part of a pool water circulation control system that will allow all pumps to be set or

programmed to run only during off-peak electric demand period, and for the minimum time necessary to maintain the water in the condition required by applicable public health standards. [California Energy Code (CEnC) 110.4(b)3ii]

**16.18.130 Section 303.1.3 Amended – Covers.**

Section 303.1.3 of the International Swimming Pool and Spa Code is hereby amended to read:

**303.1.3 Covers.** Outdoor pools and outdoor spas shall be provided with a vapor retardant cover.

**16.18.140 Section 305.2 Amended – Outdoor swimming pools and spas.**

Section 305.2 of the International Swimming Pool and Spa Code is hereby amended to read:

**305.2 Outdoor swimming pools and spas.** All outdoor pools and spas and indoor swimming pools shall be surrounded by a barrier that complies with Sections 305.2.1 through 305.7. [CBC 3109.1, 115922]. Refer to 305.9 for additional drowning prevention safety features.

**16.18.150 Section 305.9 Added – Private swimming pools.**

Section 305.9 of the International Swimming Pool and Spa Code is hereby added to read:

**305.9 Private swimming pools.** Whenever a building permit is issued for construction of a new swimming pool or spa, or any building permit is issued for remodeling of an existing pool or spa, at a private, single-family home, it shall be equipped with at least two of the following seven drowning prevention safety features:

1. The pool shall be isolated from access to a home by an enclosure that meets the requirements of Section 305.10.
2. The pool shall incorporate removable mesh pool fencing that meets ASTM F 2286 in conjunction with a gate that is self-closing and self-latching and can accommodate a key lockable device.
3. The pool shall be equipped with an approved safety pool cover that meets all requirements of the ASTM F 1346.
4. The residence shall be equipped with exit alarms on those doors providing direct access to the pool. The exit alarm may cause either an alarm noise or a verbal warning, such as a repeating notification that “the door to the pool is open.”
5. All doors providing direct access from the home to the swimming pool shall be equipped with a self-closing, self-latching device with a release mechanism placed no lower than 54 inches (1372 mm) above the floor.
6. An alarm that, when placed in a swimming pool or spa, will sound upon detection of accidental or unauthorized entrance into the water. The alarm shall meet and be independently certified to the ASTM Standard F2208 “Standard Safety Specification for Residential Pool Alarms,” which includes surface motion, pressure, sonar, laser, and infrared type alarms. A swimming protection alarm feature designed for individual use, including an alarm attached to a child that

## NOT YET ADOPTED

sounds when the child exceeds a certain distance or becomes submerged in water, is not a qualifying drowning prevention safety feature..

7. Other means of protection, if the degree of protection afforded is equal to or greater than that afforded by any of the devices set forth in items 1-4, and have been independently verified by an approved testing laboratory as meeting standards for those devices established by the ASTM or ASME.

**Exceptions:**

1. Public swimming pools.
2. Hot tubs or spas with locking safety covers that comply with the ASTM ES 13-89. b)]
3. An apartment complex, or any residential setting other than a single-family home.

**16.18.160 Section 305.10 Added – Enclosure.**

Section 305.10 of the International Swimming Pool and Spa Code is hereby added to read:

**305.10 Enclosure.** The enclosure for private swimming pools shall have all of the following characteristics:

1. Any access gates through the enclosure open away from the swimming pool and are self-closing with a self-latching device placed no lower than 60 inches (1524 mm) above the ground.
2. A minimum height of 60 inches (1524 mm).
3. A maximum vertical clearance from the ground to the bottom of the enclosure of 2 inches (51 mm).
4. Gaps or voids, if any, do not allow passage of a sphere equal to or greater than 4 inches (102 mm) in diameter.
5. An outside surface free of protrusions, cavities or other physical characteristics that would serve as handholds or footholds that could enable a child below the age of five years to climb over.

**16.18.170 Section 310.2 Added – Construction Requirements for building a pool or spa.**

Section 310.2 of the International Swimming Pool and Spa Code is hereby added to read:

**310.2 Construction Requirements for building a pool or spa.** Whenever a building permit is issued for the construction a new private swimming pool or spa, the pool or spa shall meet all of the following requirements:

- (1) The suction outlets of the pool or spa for which the permit is issued shall be equipped to provide circulation throughout the pool or spa as prescribed in paragraphs (2) and (3).
- (2) The swimming pool or spa shall either have at least two circulation suction

## NOT YET ADOPTED

outlets per pump that shall be hydraulically balanced and symmetrically plumbed through one or more “T” fittings, and that are separated by a distance of at least three feet in any dimension between the suction outlets, or be designed to use alternatives to suction outlets, including, but not limited to, skimmers or perimeter overflow systems to conduct water to the recirculation pump.

(3) The circulation system shall have the capacity to provide a complete turnover of pool water, as specified in Section 3124B of Chapter 31B of the California Building Standards Code (Title 24 of the California Code of Regulations).

(4) Suction outlets shall be covered with antientrapment grates, as specified in the ANSI/APSP-16 performance standard or successor standard designated by the federal Consumer Product Safety Commission, that cannot be removed except with the use of tools. Slots or openings in the grates or similar protective devices shall be of a shape, area, and arrangement that would prevent physical entrapment and would not pose any suction hazard to bathers.

(5) Any backup safety system that an owner of a new swimming pool or spa may choose to install in addition to the requirements set forth in subdivisions (a) and (b) shall meet the standards as published in the document, “Guidelines for Entrapment Hazards: Making Pools and Spas Safer,” Publication Number 363, March 2005, United States Consumer Product Safety Commission.

**16.18.180                                      Section 316.2.1 Added – Construction Requirements for building a pool or spa.**

Section 316.2.1 of the International Swimming Pool and Spa Code is hereby added to read:

**316.2.1 Certification and Installation.**

- (a) Certification by manufacturers. Heating systems and equipment shall be certified by the manufacturer that the heating system and equipment complies with the following:
  1. Efficiency. A thermal efficiency that complies with the Appliance Efficiency Regulations in Title 20, Division 2, Chapter 4, Article 4 of the California Code of Regulations; and [CEnC 110.4(a)1]
  2. On-off switch. A readily accessible on-off switch, mounted on the outside of the heater that allows shutting off the heater without adjusting the thermostat setting; and [CEnC 110.4(a) 2]
  3. Instructions. A permanent, easily readable and weatherproof plate or card that gives instruction for the energy efficient operation of the pool or spa heater and for the proper care of pool or spa water when a cover is used; and [CEnC 110.4(a)3]
  4. Electric resistance heating. No electric resistance heating.  
**Exception 1 to Section 110.4(a)4:** Listed package units with fully insulated enclosures, and with tight-fitting covers that are insulated to at least R-6.

NOT YET ADOPTED

**Exception 2 to Section 110.4(a)4:** Pools or spas deriving at least 60 percent of the annual heating energy from site solar energy or recovered energy. [CEnC 110.4(a)4]

- (b) Installation. Any pool or spa system or equipment shall be installed with all of the following:
1. Piping. At least 36 inches of pipe shall be installed between the filter and the heater or dedicated suction and return lines, or built-in or built-up connections shall be installed to allow for the future addition of solar heating equipment. [CEnC 110.4(b)1]
  2. Covers. A cover for outdoors pools or outdoor spas.
  3. Directional inlets. The swimming pool shall have directional inlets that adequately mix the pool water. [CEnC 110.4(b)3i]

**16.18.190                      Section 504.1 Amended – Emergency shutoff switch.**

Section 504.1 of the International Swimming Pool and Spa Code is hereby amended to read:

**504.1 Emergency shutoff switch.** One emergency shutoff switch shall be provided to disconnect power to circulation and jet system pumps and air blowers. Emergency shutoff switches shall be clearly labeled, accessible, located within sight of the spa and shall be located not less than 5 feet (1524 mm) but not greater than 10 feet (3048 mm) horizontally from the inside walls of the spa. [California Electrical Code (CEC), 680.41]

**16.18.200                      Section 903 to 908.**

Section 903 to 908 of the International Swimming Pool and Spa Code are added as follows:

**SECTION 903  
MATERIALS**

**903.1 Pumps and motors.**

Pumps and motors shall be *listed* and *labeled* for use in spas.

**SECTION 904  
STRUCTURE AND DESIGN**

**904.1 Water depth.**

The maximum water depth for spas shall be 4 feet (1219 mm) measured from the *design waterline* except for spas that are designed for special purposes and *approved* by the authority having jurisdiction. The water depth for exercise spas shall not exceed 6 feet 6 inches (1981 mm) measured from the *design waterline*.

**904.2 Multilevel seating.**

Where multilevel seating is provided, the maximum water depth of any seat or sitting bench shall be 28 inches (711 mm) measured from the *design waterline* to the lowest measurable point.

NOT YET ADOPTED

**904.3 Floor slope.**

The slope of the floor shall not exceed 1 unit vertical in 12 units horizontal (8.3-percent slope). Where multilevel floors are provided, the change in depth shall be indicated.

**SECTION 905  
PUMPS AND MOTORS****905.1 Emergency shutoff switch.**

One emergency shutoff switch shall be provided to disconnect power to circulation and jet system pumps and air blowers. Emergency shutoff switches shall be accessible, located within sight of the spa and shall be located not less than 5 feet (1524 mm) but not greater than 10 feet (3048 mm) horizontally from the inside walls of the spa.

**905.2 Timer.**

The operation of the hydrotherapy jets shall be limited by a cycle timer having a maximum setting of 10 minutes. The cycle timer shall be located not less than 5 feet (1524 mm) away, adjacent to, and within sight of the spa.

**SECTION 906  
RETURN AND SUCTION FITTINGS****906.1 Return fittings.**

Return fittings shall be provided and arranged to facilitate a uniform circulation of water and maintain a uniform sanitizer residual throughout the entire spa or exercise spa.

**906.2 Suction fittings.**

Suction fittings shall be in accordance with [Sections 505.2.1](#) through [505.2.4](#).

**906.2.1 Testing and certification.**

Suction fittings shall be *listed* and *labeled* in accordance with [APSP 16](#).

**906.2.2 Installation.**

Suction fittings shall be sized and installed in accordance with the manufacturer's specifications. Spas and exercise spas shall not be used or operated if the suction outlet cover is missing, damaged, broken or loose.

**906.2.3 Outlets per pump.**

Suction fittings shall be provided in accordance with [Section 310](#).

**906.2.4 Submerged vacuum fittings.**

*Submerged vacuum fittings* shall be in accordance with [Section 310](#).

**SECTION 907  
HEATER AND TEMPERATURE REQUIREMENTS****907.1 General.**

This section pertains to fuel-fired and electric appliances used for heating spa or exercise spa water.

NOT YET ADOPTED

**907.2 Water temperature controls.**

Components provided for water temperature controls shall be suitable for the intended application.

**907.2.1 Water temperature regulating controls.**

Water temperature regulating controls shall comply with [UL 873](#) or [UL 372](#). A means shall be provided to indicate the water temperature in the spa.

**Exception:** Water temperature regulating controls that are integral to the heating appliance and *listed* in accordance with the applicable end use appliance standard.

**907.2.2 Water temperature limiting controls.**

Water temperature limiting controls shall comply with [UL 873](#) or [UL 372](#). Water temperature at the heater return outlet shall not exceed 140°F (60°C).

## SECTION 908 WATER SUPPLY

**908.1 Water temperature.**

The temperature of the incoming makeup water shall not exceed 104°F (40°C).

**SECTION 2.** If any section, subsection, clause or phrase of this Ordinance is for any reason held to be invalid, such decision shall not affect the validity of the remaining portion or sections of the Ordinance. The Council hereby declares that it should have adopted the Ordinance and each section, subsection, sentence, clause or phrase thereof irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared invalid.

**SECTION 3.** The Council finds that this project is exempt from the provisions of the California Environmental Quality Act ("CEQA"), pursuant to Section 15061 of the CEQA Guidelines, because it can be seen with certainty that there is no possibility that the amendments herein adopted will have a significant effect on the environment.

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NOT YET ADOPTED

**SECTION 4.** This Ordinance shall be effective on the thirty-first day after the date of its adoption.

INTRODUCED:

PASSED:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

ATTEST:

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Mayor

APPROVED AS TO FORM:

APPROVED:

\_\_\_\_\_  
Assistant City Attorney

\_\_\_\_\_  
City Manager

\_\_\_\_\_  
Director of Planning and  
Development Services

\_\_\_\_\_  
Director of Administrative Services



NOT YET ADOPTED

Ordinance No. \_\_\_\_

Ordinance of the Council of the City of Palo Alto Repealing Chapter 16.14 of the Palo Alto Municipal Code and Adopting a New Chapter 16.14, California Green Building Code, 2022 Edition, and Local Amendments and Related Findings

The Council of the City of Palo Alto does ORDAIN as follows:

**SECTION 1.** Chapter 16.14 of the Palo Alto Municipal Code (PAMC) is hereby amended by repealing in its entirety 16.14 and adopting a new Chapter 16.08 to read as follows:

**16.14 California Green Building Code, Title 24, Part 11**

**16.14.010 2022 California Green Building Code, Title 24, Part 11 adopted and amended.**

The California Green Building Standards Code, 2022 Edition, Title 24, Part 11 of the California Code of Regulations, together with those omissions, amendments, exceptions and additions thereto, is adopted and hereby incorporated in this Chapter by reference and made a part hereof the same as if fully set forth herein.

Unless superseded and expressly repealed, references in City of Palo Alto forms, documents and regulations to the chapters and sections of the former California Code of Regulations, Title 24, shall be construed to apply to the corresponding provisions contained within the California Code of Regulations, Title 24, 2022. Ordinance No. 5481 of the City of Palo Alto and all other ordinances or parts of ordinances in conflict herewith are hereby suspended and expressly repealed.

Wherever the phrases “California Green Building Standards Code” or “CALGreen” are used in this code or any ordinance of the City, such phrases shall be deemed and construed to refer and apply to the California Green Building Standards Code, 2022 Edition, as adopted and amended by this chapter.

One copy of the California Green Building Standards Code, 2022 Edition, has been filed for use and examination of the public in the Office of the Building Official of the City of Palo Alto.

**16.04.020 Cross - References to California Green Building Code.**

The provisions of this Chapter contain cross-references to the provisions of the California Green Building Code, 2022 Edition, in order to facilitate reference and comparison to those provisions.

**16.16.030 Local Amendments.**

The provisions of this Chapter shall constitute local amendments to the cross-referenced provisions of the California Green Building Code, 2022 Edition, and shall be deemed to replace the cross-referenced sections of said Code with the respective provisions set forth in this Chapter.

## CHAPTER 1 – ADMINISTRATION

### 16.16.040 Administration & Enforcement of 2022 California Green Building Code

Administration and enforcement of this code shall be governed by Chapter 1, Division II of the 2022 California Building Code as amended by Palo Alto Municipal Code Chapter 16.04.

### 16.16.050 Adoption of CHAPTER 1 Administration

Chapter 1 Administration of the 2022 California Green Building Code is adopted by the City of Palo Alto to supplement, to the extent it does not conflict with, Chapter 1, Division II of the 2022 California Building Code, as amended.

### 16.16.060 Section 101.4 Appendices.

The following Appendix Chapters of the California Green Building Standards Code, 2022 Edition, are adopted and hereby incorporated in this Chapter by reference and made a part hereof the same as if fully set forth herein:

- A. Appendix A4 - Residential Voluntary Measures (Tier 1 and Tier 2)
- B. Appendix A5 - Non-residential Voluntary Measures (Tier 1 and Tier 2)

## CHAPTER 2 – DEFINITIONS

### 16.16.070 Section 202 Definitions.

Section 202 of Chapter 2 of the California Green Building Standards Code is amended to include the following definitions:

**ALL-ELECTRIC BUILDING / SITE.** A building or parcel of land whose sole source of energy is electricity and contains no combustion equipment or plumbing for combustion equipment.

**CPAU.** City of Palo Alto Utilities Department.

**CALGREEN MANDATORY.** **Mandatory measures** are triggered for projects outlined in Section 301.1 Scope of this code, as amended.

Projects that only trigger Mandatory measures are not required to fulfill Tier 1 or Tier 2 measures in Appendix A4 and A5.

**CALGREEN TIER 1.** To achieve **Tier 1 status**, a project must comply with measures identified in Appendix A4, Section A4.601.4 for *residential projects* and Appendix A5, Section A5.601.2 for *non-residential projects*.

Projects subject to **Tier 1** must fulfill all mandatory measures, all Tier 1 prerequisite measures and a defined number of Tier 1 elective measures.

**CALGREEN TIER 2.** To achieve **Tier 2 status**, a project must comply with requirements identified in Appendix A4, Section A4.601.5 for *residential projects* and Appendix A5, Section A5.601.3 for *non-residential projects*.

Projects subject to **Tier 2** must fulfill all mandatory measures, all Tier 2 prerequisite measures and a defined number of Tier 2 elective measures.

**CALGREEN TIER 1 AND TIER 2 PREREQUISITE MEASURES.** Projects subject to **Tier 1** or **Tier 2** must fulfill all prerequisites as described within Appendix A4, Division A4.6 for *residential projects* and Appendix A5, Division A5.6 for *non-residential projects*.

**CALGREEN TIER 1 AND TIER 2 ELECTIVE MEASURES.** Projects subject to **Tier 1** or **Tier 2** must fulfill a defined number of electives as described within Appendix A4, Division A4.6 for *residential projects* and Appendix A5, Division A5.6 for *non-residential projects*.

**CALGREEN INSPECTOR.** An individual certified as a CALGreen Inspector/Plans Examiner through the International Code Council (ICC), demonstrating knowledge and application of Green Building concepts during plan review and inspection. For projects that require a CALGreen Inspector/Plans Examiner verification, the Inspector must be contracted directly with the owner and may not be a contractor or employee of the design or construction firm.

**CERTIFIED ENERGY ANALYST.** A person registered as a Certified Energy Analyst with the California Association of Building Energy Consultants as of the date of submission of a Certificate of Compliance as required under Section 10-103 of the Building Energy Efficiency Standards for Residential and Non-Residential Buildings.

**MODEL WATER EFFICIENT LANDSCAPE ORDINANCE.** The California Department of Water Resources Model Water Efficient Landscape Ordinance.

**SALVAGE.** Salvage means the controlled removal of items and material from a building, construction, or demolition site for the purpose of on- or off-site reuse, or storage for later reuse. Examples include air conditioning and heating systems, columns, balustrades, fountains, gazebos, molding, mantels, pavers, planters, quoins, stair treads, trim, wall caps, bath tubs, bricks, cabinetry, carpet, doors, ceiling fans, lighting fixtures, electrical panel boxes, fencing, fireplaces, flooring materials of wood, marble, stone or tile, furnaces, plate glass, wall mirrors, door knobs, door brackets, door hinges, marble, iron work, metal balconies, structural steel, plumbing fixtures, refrigerators, rock, roofing materials, siding materials, sinks, stairs, stone, stoves, toilets, windows, wood fencing, lumber and plywood.

**SUBSTANTIAL REMODEL (AKA 50-50-50 RULE).** Any project or projects that affects the removal or replacement of 50% or more of the linear length of the existing exterior walls of the building, and/or 50% or more of the linear length of the existing exterior wall plate

height is raised, and/or 50% or more of the existing roof framing area is removed or replaced, over a 3-year period.

Any permit(s) applied for will trigger a review of a 3-year history of the project. This review will result in determining if a substantial remodel has occurred.

The Chief Building Official or designee shall make the final determination regarding the application if a conflict occurs.

**SQUARE FOOTAGE.** For application of green building requirements, “square footage” refers to all new or altered square footage, including basement areas (7 feet or greater in height), as calculated based on outer boundary of proposed construction area, including exterior walls.

## CHAPTER 3 – GREEN BUILDING

### 16.14.080 SECTION 301 - voluntary tiers added.

SECTION 301 of Chapter 3 of the California Green Building Standards Code is amended to read:

#### SECTION 301 GENERAL

##### 301.1

**cope.** Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in this code and any applicable local amendments. In addition, the City requires the use of Voluntary Tiers, as provided in Appendices A4 and A5, for certain residential and non-residential new construction, additions, and alterations.

**301.1.1 Residential additions and alterations. [HCD]** The Mandatory provisions of Chapter 4 shall be applied to additions and/or alterations of existing residential buildings where the addition and/or alteration increases the building's conditioned area, volume, or size. The requirements shall apply only to and/or within the specific area of the addition or alteration.

**Tier 1 adopted (Residential).** All residential building additions and/or alterations exceeding 1000 square feet must meet CALGreen Mandatory plus the Tier 1 measures, as amended by this Chapter and as applicable to the scope of work.

For Tier 1 projects, the area of alterations will include any construction or renovation to an existing structure other than repair or addition. Alterations include raising the plate height, historic restoration, changes or rearrangements of the structural parts or elements, and changes or rearrangement of bearing walls and full height partitions.

Normal maintenance, reroofing, painting or wall papering, floor finishes, replacement-in-kind of mechanical, plumbing and electrical systems, or replacing or adding new kitchen counter and similar furniture, plumbing fixture to the building are excluded for the purposes of establishing scope of Tier 1 projects.

The area of alteration should be limited to the footprint of element(s) being altered.

This does not exclude mandatory CALGreen measures. The sum of the footprint of the elements being altered with respect to Tier 1, shall be calculated using the following methodology:

1. Raising the plate height: The calculation with respect to raising of the plate height will be based on the area of the footprint in which the plate height is being increased. Plate height means the vertical distance measured from the top of the finished floor to the top of the plates.
2. Historic restoration: The calculation with respect to historic restoration will be based on the area of work covered in the California Historical Building Code (Title 24, Part 8).
3. Structural parts or elements: The calculation with respect to changes or rearrangements of the structural parts or elements will be based on the sum of the individual footprints of each structural change or rearrangement. The footprint shall be calculated based on the proposed design and inclusive of any demolished structural parts or elements.
4. Bearing walls and full height partition: The calculation with respect to changes or rearrangement of walls and full height partitions will be based on the footprint of any demolished wall or full height partition and any new wall or new full height partition.

**Exception:** Attached and detached Accessory Dwelling Units, ADU conversions of existing structures shall meet the California Green Building Standards Code Mandatory measures only.

**301.2 Low-rise and high-rise residential buildings. [HCD]** The provisions of individual sections of CALGreen may apply to either low-rise residential buildings, high-rise residential buildings, or both. Individual sections will be designated by banners to indicate where the section applies specifically to low-rise only (LR) or high-rise only (HR). When the section applies to both low-rise and high-rise buildings, no banner will be used.

**301.2.1 Low-Rise residential new construction – Tier 2 adopted.** All new constructed or substantial remodel projects must meet CALGreen Mandatory plus Tier 2 measures, as amended by this ordinance and as applicable to the scope of work.

**301.3 Non-residential additions and alterations. [BSC]** The provisions of individual sections of Chapter 5 apply to building non-residential additions of 1,000 square feet or greater, and/or building alterations with a permit valuation of \$200,000 or above (for occupancies within the authority of California Building Standards Commission). Code sections relevant to additions and alterations shall only apply to the portions of the building being added or altered within the scope of the permitted work.

A code section will be designated by a banner to indicate where the code section only applies to newly constructed buildings [N] or to additions and alterations [A]. When the code section applies to both, no banner will be used.

**Tier 1 adopted.** Non-residential alterations (including tenant improvements or renovations) of 5,000 square feet that include replacement of at least two of the following: HVAC system, building envelope, hot water system, or lighting system, must comply with CALGreen Mandatory plus Tier 1 measures, as amended by this Chapter and as applicable to the scope of work.

**Tier 2 adopted.** Non-residential additions of 1000 square feet or greater must comply with CALGreen Mandatory plus Tier 2 measures, as amended by this Chapter and as applicable to the scope of work.

### **301.3.1 - 301.3.2 Unmodified.**

**301.3.3 Non-residential new construction – Tier 2 adopted.** All new non-residential construction must meet CALGreen Mandatory plus Tier 2 measures, as amended by this ordinance and as applicable to the scope of work.

**301.6 Special inspector requirements.** Residential and non-residential project owners subject to CALGreen Mandatory, CALGreen Mandatory plus Tier 1, or CALGreen Mandatory plus Tier 2 measures shall contract a Special Inspector in accordance with section 702.2 of CALGreen, as amended.

**301.7 Low-carbon concrete requirements for Tier 1 and Tier 2 projects.** Plain and reinforced concrete installed as part of any project subject to the application of this code shall demonstrate compliance with the requirements of **PAMC 16.14.240**.

## **CHAPTER 4 – RESIDENTIAL MANDATORY MEASURES**

### *Division 4.1 – PLANNING AND DESIGN*

#### **16.14.090 Section 4.106 SITE DEVELOPMENT**

Section 4.106 of Chapter 4 of the California Green Building Standards Code is amended to add new subsections, 4.106.5 and 4.106.5.1 as follow:

**4.106.5 ALL-ELECTRIC BUILDING / SITE.** A building or parcel of land whose sole source of energy is electricity and contains no combustion equipment or plumbing for combustion equipment.

**4.106.5.1 Full electrification.** Full electrification is required for new buildings, substantial remodels, and new outdoor appliances/equipment such as gas grill, stove, barbeque, fireplace, firepit, heater for swimming pool/spa, and similar equipment.

*Division 4.3 – WATER EFFICIENCY AND CONSERVATION***16.14.100 Section 4.306 SWIMMING POOL AND SPA COVERS**

Section 4.306 of Chapter 4 of the California Green Building Standards Code is added to read:

**4.306 Swimming Pool and Spa Covers.** Swimming pools and spas shall be provided with a vapor retardant cover.

*Division 4.5 – ENVIRONMENTAL QUALITY***16.14.110 Section 4.509 Water heater replacement**

Section 4.509 of Chapter 4 of the California Green Building Standards Code is added to read:

**4.509 Water heater replacement.** For existing residential building remodels or additions where the gas water heater is replaced or new water heater is added, the new water heater shall be a heat pump water heater (HPWH).

**CHAPTER 7 – INSTALLER AND SPECIAL INSPECTOR QUALIFICATIONS****16.14.120 Section 702.2 Special inspection.**

Section 702.2 of Chapter 7 of the California Green Building Standards Code is amended to read:

**702.2 Green building special inspection.** When required by the enforcing agency, the owner or responsible entity acting as the owner's agent shall employ one or more Green Building Special Inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Green Building Special Inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be considered by the enforcing agency when evaluating the qualifications of a Special Inspector. The City shall maintain a list of pre-approved Special Inspectors in accordance with this section. The owner shall contract a Special Inspector from the pre-approved list meeting one of the following:

1. Certification by a national or regional green building program:

*ICC Certified CALGreen Inspector/Plans Examiner*

2. Other programs acceptable to the enforcing agency.

**Note:** Special Inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.

## APPENDIX A4 – RESIDENTIAL VOLUNTARY MEASURES

### *Division A4.1 – PLANNING AND DESIGN*

#### **16.14.130 Residential Projects. Appendix A4 Preface: Green Building Measures for Project Type and Scope.**

A preface is added to Chapter A4 of the California Green Building Standards Code to read:

**Preface - Green Building Requirements for Project Type and Scope.** For design and construction of residential projects, the City of Palo Alto requires compliance with the mandatory measures of Chapter 4, in addition to use of Tier 1 and Tier 2 as specified in Palo Alto Municipal Code Chapter 16.14. See Section 202 for definitions on CALGreen Mandatory, Tier 1 Prerequisites and Electives, and Tier 2 Prerequisites and Electives. All elective measures are adopted as written under Appendix A4 unless otherwise indicated in this Section.

#### **16.14.140 Section A4.104 SITE PRESERVATION.**

Section A4.104.1 of Appendix A4 of the California Green Building Standards Code is adopted as a Tier 1 and Tier 2 elective measure and is amended to read:

**A4.104.1 Supervision and Education by a Special Inspector.** Individuals with oversight authority on the project, as defined in section 16.14.090 of this code, who have been trained in areas related to environmentally friendly development, shall teach green concepts to other members of the builder's staff and ensure training and written instruction has been provided to all parties associated with the development of the project. Prior to the beginning of the construction activities, the builder shall receive a written guideline and instruction specifying the green goals of the project.

**Note:** Lack of adequate supervision and dissemination of the project goals can result in negative effects on green building projects. If the theme of green building is not carried through the project, the overall benefit can be substantially reduced by the lack of knowledge and information provided to the various entities involved with the construction of the project.

#### **16.14.150 Section A4.105 Deconstruction and Reuse of Existing Materials.**

Section A4.105 of Appendix A4 of the California Green Building Standards Code is not adopted as an elective measure and is amended to read:

**Section A4.105.1 Chapter 5.24 of Title 5 of the Municipal Code.** See Chapter 5.24 of the Municipal Code for the local deconstruction requirements.

**Section A4.105.2** is adopted as a Tier 1 and Tier 2 elective measure.



**A4.105.2 Reuse of materials.** Nonhazardous materials which can be easily reused include but are not limited to the following:

1. Light fixtures
2. Plumbing fixtures
3. Doors and trim
4. Masonry
5. Electrical devices
6. Appliances
7. Foundations or portions of foundations

**Note:** Reused material must be installed to comply the appropriate Title 24 provisions.

**16.14.160 Section A4.106.8 Electric Vehicle (EV) Charging for New Construction.**

Section A4.106.8 of Appendix A4 of the California Green Building Standards Code is not adopted as a Tier 1 and Tier 2 elective measure. **Projects must comply with the Mandatory measures for electric vehicle supply equipment (EVSE) as amended in PAMC 16.14.420.**

**16.14.170 Section A4.106.9 Bicycle Parking.**

Section A4.106.9 of Appendix A4 of the California Green Building Standards Code is not adopted as a Tier 1 and Tier 2 elective measure. **Projects must comply with the bicycle parking requirements in the Palo Alto Municipal Code.**

**16.14.180 Section A4.106.10 Light Pollution Reduction.**

Section A4.106.10 is added and adopted as a Tier 1 and Tier 2 elective measure for all covered projects and is amended to read:

**A4.106.10 Light pollution reduction.** Outdoor lighting systems shall be designed and installed to comply with the following:

1. The minimum requirements in the California Energy Code for Lighting Zones 1-4 as defined in Chapter 10 of the California Administrative Code; and
2. Backlight, Uplight and Glare (BUG) ratings as defined in IES TM-15-11; and
3. Allowable BUG ratings not exceeding those shown in Table A4.106.10; or
4. Comply with a local ordinance lawfully enacted pursuant to Section 101.7 of this code, whichever is more stringent.

Projects may use an approved equal reference standard for light fixtures where BUG ratings are unavailable.

**Exceptions:**

1. Luminaires that qualify as exceptions to the California Energy Code.
2. Emergency lighting.
3. One- and two-family dwellings.

**Note:** The International Dark-Sky Association (IDA) and the Illuminating Engineering Society of North America (IESNA) have developed a Model Lighting Ordinance (MLO). The MLO was designed to help municipalities develop outdoor lighting standards that reduce glare, light trespass, and skyglow. The model ordinance and user guides for the ordinance may be accessed at the International Dark-Sky Association web site.

*Division A4.2 – ENERGY EFFICIENCY***16.14.190 Section A4.203.1 Performance Approach for Newly Constructed Buildings.**

Section A4.203.1 of Appendix A4 of the California Green Building Standards Code is not adopted as a Tier 1 and Tier 2 elective measure. **Projects shall comply with Chapter 16.17 of the Palo Alto Municipal Code (Energy Reach Code).**

*Division A4.3 – WATER EFFICIENCY AND CONSERVATION***16.14.200 Section A4.304.3 Irrigation Metering Device.**

Section A4.304.3 of Appendix A4 of the California Green Building Standards Code is adopted as a Tier 1 and Tier 2 elective measure and is amended to read:

**A4.304.3 Irrigation Metering Device.** Dedicated irrigation meters from CPAU are to be installed in all new construction and rehabilitated landscapes when the landscape is greater than 1,000 square feet.

**16.14.210 Section A4.305 Water Reuse Systems.**

Sections A4.305.1, A4.305.2, and A4.305.3 of Appendix A4 of the California Green Building Standards Code are adopted as Tier 1 and Tier 2 elective measures and are amended to read:

**A4.305.1 Graywater.** Alternative plumbing piping is installed to permit the discharge from the clothes washer and other fixtures (except toilets and kitchen sinks) to be used for an irrigation system in compliance with the California Plumbing Code. In the event that the whole house graywater system is installed in compliance with the California Plumbing Code, then this measure shall count as 3 electives.

**A4.305.2 Recycled Water Piping.** Based on projected availability, dual water piping is installed for future use of recycled water at the following locations:

1. Interior piping for the use of recycled water is installed to serve all waterclosets, urinals, and floor drains.

2. Exterior piping is installed to transport recycled water from the point of connection to the structure. Recycled water systems shall be designed and installed in accordance with the California Plumbing Code.

**A4.305.3 Recycled water for landscape irrigation.** Recycled water piping is used for landscape irrigation.

**16.14.220 A4.305.4 Additions and alterations.**

Section A4.305.4 is added as Tier 1 and Tier 2 prerequisite and amended to read:

**A4.305.4 Additions and alterations.** All multifamily residential additions and alterations must install recycled water infrastructure for irrigation when the landscape area exceeds 1,000 square feet.

*Division A4.4 – MATERIAL CONSERVATION AND RESOURCE EFFICIENCY*

**16.14.230 Section A4.403.1 Frost Protection Foundation Systems.**

Sections A4.403.1 is not adopted as a Tier 1 and Tier 2 elective measure.

**16.14.240 Section A4.403.2 Reduction in cement use.**

Section A4.403.2 of Appendix A4 of the California Green Building Standards Code is adopted as a Mandatory measure for all Tier 1 and Tier 2 projects and is amended to read:

**A4.403.2 Low Carbon Concrete Requirements.**

**A4.403.2.1 Purpose.** The purpose of this chapter is to provide practical standards and requirements for the composition of concrete, as defined herein, that maintains adequate strength and durability for the intended application and at the same time reduces greenhouse gas emissions associated with concrete composition. This code includes pathways for compliance with either reduced cement levels or lower-emission supplementary cementitious materials.

**A4.403.2.2 Definitions.** For the application of this section the following definitions shall apply:

**Concrete.** Concrete is any approved combination of mineral aggregates bound together into a hardened conglomerate in accordance with the requirements of this code.

**Environmental product declaration (EPD).** EPDs present quantified environmental information on the life cycle of a product to enable comparisons between products fulfilling the same function. EPDs must conform to ISO 14025, and EN 15804 or ISO 21930, and have at least a "cradle to gate" scope (which covers product life cycle from resource extraction to the factory).

**Upfront embodied carbon (embodied carbon).** The greenhouse gasses emitted in

material extraction, transportation and manufacturing of a material corresponding to life cycle stages A1 (extraction and upstream production), A2 (transportation), and A3 (manufacturing). Definition is as noted in ISO 21930 and as defined in the Product Category Rule for *Concrete* by NSF dated February 22nd, 2019. [https://www.nsf.org/newsroom\\_pdf/concrete\\_pcr\\_2019.pdf](https://www.nsf.org/newsroom_pdf/concrete_pcr_2019.pdf)

**A4.403.2.3. Compliance.** Compliance with the requirements of this chapter shall be demonstrated through any of the compliance options in Sections 4.403.2.3.2 through 4.403.2.3.5:

**Table A4.403.2.3 Cement and Embodied Carbon Limit Pathways**

|                                                                                                                                   | <b>Cement limits</b><br>for use with any compliance method<br>A4.403.2.3.2 to A4.403.2.3.5 | <b>Embodied Carbon limits</b><br>for use with any compliance method<br>A4.403.2.3.2 to A4.403.2.3.5 |
|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Minimum specified<br>compressive strength<br>$f_c$ , psi (1)                                                                      | Maximum ordinary Portland cement<br>content, lbs/yd <sup>3</sup> (2)                       | Maximum embodied carbon<br>kg CO <sub>2</sub> e/m <sup>3</sup> , per EPD                            |
| up to 2500                                                                                                                        | 362                                                                                        | 260                                                                                                 |
| 3000                                                                                                                              | 410                                                                                        | 289                                                                                                 |
| 4000                                                                                                                              | 456                                                                                        | 313                                                                                                 |
| 5000                                                                                                                              | 503                                                                                        | 338                                                                                                 |
| 6000                                                                                                                              | 531                                                                                        | 356                                                                                                 |
| 7000                                                                                                                              | 594                                                                                        | 394                                                                                                 |
| 7001 and higher                                                                                                                   | 657                                                                                        | 433                                                                                                 |
| up to 3000 light weight                                                                                                           | 512                                                                                        | 578                                                                                                 |
| 4000 light weight                                                                                                                 | 571                                                                                        | 626                                                                                                 |
| 5000 light weight                                                                                                                 | 629                                                                                        | 675                                                                                                 |
| <b>Notes</b>                                                                                                                      |                                                                                            |                                                                                                     |
| (1) For concrete strengths between the stated values, use linear interpolation to determine cement and/or embodied carbon limits. |                                                                                            |                                                                                                     |
| (2) Portland cement of any type per ASTM C150.                                                                                    |                                                                                            |                                                                                                     |

#### **A4.403.2.3.1 Allowable Increases.**

(1) Cement and Embodied Carbon Limit Allowances. Cement or Embodied Carbon limits shown in Table A4.403.2.3 can be increased by 30% for concretes demonstrated to the Building Official as requiring high early strength. Such concretes could include, but are not limited to, precast, prestressed *concrete*; beams and slabs above grade; and shotcrete

(2) Approved Cements. The maximum cement content may be increased proportionately above the tabulated value when using an approved cement, or blended cement, demonstrated by approved EPD to have a plant-specific EPD lower than 1040 kg CO<sub>2</sub>e/metric ton. The increase in allowable cement content would be (1040 / plant-specific EPD) %.

**A4.403.2.3.2 Cement Limit Method — Mix.** Cement content of a concrete mix using this method shall not exceed the value shown in the Table

A4.403.2.3 [https://library.municode.com/ca/marin\\_county/codes/municipal\\_code?nodeId=TIT19MACOBUCO\\_CH19.07CACORE\\_19.07.050CO](https://library.municode.com/ca/marin_county/codes/municipal_code?nodeId=TIT19MACOBUCO_CH19.07CACORE_19.07.050CO). Use of this method is limited to concrete with

specified compressive strength not exceeding 5,000 psi.

**A4.403.2.3.3 Cement Limit Method — Project.** Total cement content shall be based on total cement usage of all concrete mix designs within the same project. Total cement content for a project shall not exceed the value calculated according to Equation A4.403.2.3.3.

**Equation A4.403.2.3.3:**

$$\text{Cem}_{\text{proj}} < \text{Cem}_{\text{allowed}}$$

where

$$\text{Cem}_{\text{proj}} = \sum \text{Cem}_n v_n \text{ and } \text{Cem}_{\text{allowed}} = \sum \text{Cem}_{\text{lim}} v_n$$

and

$n$  = the total number of *concrete* mixtures for the project

$\text{Cem}_n$  = the cement content for mixture  $n$ , kg/m<sup>3</sup> or lb/yd<sup>3</sup>

$\text{Cem}_{\text{lim}}$  = the maximum cement content for mixture  $n$  per Table

A4.403.2.3 [https://library.municode.com/ca/marin\\_county/codes/municipal\\_code?nodeId=TIT19MACOBUCO\\_CH19.07CACORE\\_19.07.050CO](https://library.municode.com/ca/marin_county/codes/municipal_code?nodeId=TIT19MACOBUCO_CH19.07CACORE_19.07.050CO), kg/m<sup>3</sup> or lb/yd<sup>3</sup>

$v_n$  = the volume of mixture  $n$  *concrete* to be placed, yd<sup>3</sup> or m<sup>3</sup>

Applicant can use yd<sup>3</sup> or m<sup>3</sup> for calculation, but must keep same units throughout

**A4.403.2.3.4. Embodied Carbon Method — Mix.** Embodied carbon of a *concrete* mix, based on an approved environmental product declaration (EPD), shall not exceed the value given in Table A4.403.2.3.

**A4.403.2.3.5. Embodied Carbon Method — Project.** Total embodied carbon ( $\text{EC}_{\text{proj}}$ ) of all *concrete* mix designs within the same project shall not exceed the project limit ( $\text{EC}_{\text{allowed}}$ ) determined using Table A4.403.2.3 and Equation A4.403.2.3.5.

**Equation A4.403.2.3.5:**

$$\text{EC}_{\text{proj}} < \text{EC}_{\text{allowed}}$$

where

$$\text{EC}_{\text{proj}} = \sum \text{EC}_n v_n \text{ and } \text{EC}_{\text{allowed}} = \sum \text{EC}_{\text{lim}} v_n$$

and

$n$  = the total number of *concrete* mixtures for the project

$\text{EC}_n$  = the embodied carbon potential for mixture  $n$  per mixture EPD, kg/m<sup>3</sup>

$\text{EC}_{\text{lim}}$  = the embodied carbon potential limit for mixture  $n$  per Table A4.403.2.3, kg/m<sup>3</sup>

$v_n$  = the volume of mixture  $n$  *concrete* to be placed, yd<sup>3</sup> or m<sup>3</sup>

Applicant can use yd<sup>3</sup> or m<sup>3</sup> for calculation, but must keep same units throughout.

**A4.403.2.3.6. Enforcement.**

As a condition prior to the issuance of every building permit involving placement of concrete, the permit applicant shall be required to submit a completed low-carbon concrete compliance form that shall be provided by and reviewed for compliance by the building department prior to issuing the permit.

As a condition of such building permits, and prior to approving construction inspections following placement of concrete, the permit applicant shall be required to submit batch certificates and/or EPDs provided by the concrete provider that demonstrate compliance with the low-carbon concrete compliance form on file with the building permit. The batch certificates and/or EPDs shall be reviewed for compliance by the building department prior to approving any further inspections.

When deviations from compliance with this section occur, the chief building official or his designee is authorized to require evidence of equivalent carbon reductions from the portions of remaining construction of the project to demonstrate alternative compliance with the intent of this chapter.

For projects involving placement of concrete by, or on behalf of, a public works, parks, or similar department the director of such department, or his/her assignee, shall maintain accurate records of the total volume (in cubic yards) of all concrete placed, as well as the total compliant volume (in cubic yards) of all concrete placed, and shall report this data annually to the governing body in a form expressing an annual compliance percentage derived from the quotient of total compliant concrete volume placed divided by total concrete volume placed.

**A4.403.2.3.7. Exemptions.**

**(a) Hardship or infeasibility exemption.** If an applicant for a project subject to this chapter believes that circumstances exist that make it a hardship or infeasible to meet the requirements of this chapter, the applicant may request an exemption as set forth below. In applying for an exemption, the burden is on the applicant to show hardship or infeasibility. The applicant shall identify in writing the specific requirements of the standards for compliance that the project is unable to achieve and the circumstances that make it a hardship or infeasible for the project to comply with this chapter. Circumstances that constitute hardship or infeasibility may include, but are not limited to the following:

- (1) There is a lack of commercially available material necessary to comply with this chapter;
- (2) The cost of achieving compliance is disproportionate to the overall cost of the project;
- (3) Compliance with certain requirements would impair the historic integrity of buildings listed on a local, state or federal list or register of historic structures as regulated by the California Historic Building Code (Title 24, Part 8).

**(b) Granting of exemption.** If the chief building official determines that it is a hardship or infeasible for the applicant to fully meet the requirements of this chapter and that granting the requested exemption will not cause the building to fail to comply with the California Building Standards Code, the chief building official shall determine the maximum feasible

threshold of compliance reasonably achievable for the project. In making this determination, the chief building official shall consider whether alternate, practical means of achieving the objectives of this chapter can be satisfied. If an exemption is granted, the applicant shall be required to comply with this chapter in all other respects and shall be required to achieve the threshold of compliance determined to be achievable by the chief building official.

**(c) Denial of exception.** If the chief building official determines that it is reasonably possible for the applicant to fully meet the requirements of this chapter, the request shall be denied and the applicant shall be notified of the decision in writing. The project and compliance documentation shall be modified to comply with the standards for compliance.

#### **16.14.250 Section A4.408.1 Enhanced Construction Waste Reduction.**

Section A4.408.1 of Appendix A4 of the California Green Building Standards Code is adopted as a mandatory measure and is amended to read:

**A4.408.1 Enhanced Construction Waste Reduction.** Nonhazardous construction and demolition debris generated at the site is diverted to recycle or salvage in compliance with the following:

Projects with a given valuation of \$25,000 or more must have at least an 80-percent reduction. Any mixed recyclables that are sent to mixed-waste recycling facilities shall include a qualified third party verified facility average diversion rate. Verification of diversion rates shall meet minimum certification eligibility guidelines, acceptable to the local enforcing agency.

##### **Exceptions:**

1. Residential stand-alone mechanical, electrical or plumbing permits.
2. Commercial stand-alone mechanical, electrical or plumbing permits.

**A4.408.1.1 Documentation.** Documentation shall be provided to the enforcing agency which demonstrates compliance with all construction and demolition waste reduction requirements.

#### *Division A4.5 – ENVIRONMENTAL QUALITY*

#### **16.14.260 Section A4.504.1 Compliance with formaldehyde limits.**

Section A4.504.1 of Appendix A5 of the California Green Building Standards Code is adopted as a Tier 1 and Tier 2 elective measure.

#### **16.14.270 Section A4.504.3 Thermal insulation.**

Section A4.504.3 of Appendix A5 of the California Green Building Standards Code is not adopted as a Tier 1 and Tier 2 prerequisite. Section A4.504.3 is adopted as a Tier 1 and Tier 2 elective measure.

## CHAPTER 5 – NONRESIDENTIAL MANDATORY MEASURES

### *Division 5.1 – PLANNING AND DESIGN*

#### **16.14.280     Non-Residential Projects: Chapter 5 Preface Green Building Requirements for Project Type and Scope.**

A Preface is added to Chapter 5 of the California Green Building Standards Code to read:

**Preface – Green Building Requirements for Project Type and Scope.** For design and construction of non-residential projects, the City requires compliance with the mandatory measures of Chapter 5, in addition to use of Tier 1 and Tier 2 as specified in Palo Alto Municipal Code Chapter 16.14. See Section 202 for definitions on CALGreen MANDATORY, Tier 1 prerequisites and electives, and Tier 2 prerequisites and electives. All elective measures are adopted as written under Appendix A5 unless otherwise indicated in this Section.

#### **16.14.290     Section 5.106.1.1 Local storm water pollution prevention.**

Section 5.106.1.1 of Chapter 5 of the California Green Building Standards Code is amended to read:

**5.106.1.1 Local ordinance.** Newly constructed projects and additions shall comply with additional storm water pollution prevention measures as applicable. **(See Chapter 16.11, Storm Water Pollution Prevention, of the Palo Alto Municipal Code.)**

#### **16.14.295     Section 5.106.8 Light pollution reduction**

Section 5.106.8 of Chapter 5 of the California Green Building Standards Code is amended to read:

**5.106.8 Light pollution reduction.** Outdoor lighting systems shall be designed and installed to comply with the following:

1. The minimum requirements in the California Energy Code for Lighting Zones 0-4 as defined in Chapter 10, Section 10-114 of the California Administrative Code; and
2. Backlight (B) ratings as defined in IES TM-15-11 (shown in Table A-1 in Chapter 8);
3. Uplight and Glare ratings as defined in California Energy Code (shown in Tables 130.2-A and 130.2-B in Chapter 8); and
4. Allowable BUG ratings not exceeding those shown in Table 5.106.8 [N]; or
5. Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.

Projects may use an approved equal reference standard for light fixtures where BUG ratings are unavailable.



**Exceptions:**

1. Luminaires that qualify as exceptions in Section 103.2(b) and 140.7 of the California Energy Code.
2. Emergency lighting.
3. Building facade meeting the requirements in Table 140.7-B of the California Energy Code, Part 6.
4. Custom lighting features as allowed by the local enforcing agency, as permitted by Section 101.8 Alternate materials, designs and methods of construction.

**16.14.300 Section 5.106.13 All-Electric Buildings.**

Section 5.106.13 5 of Chapter 5 of the California Green Building Standards Code is as a mandatory measure added to read:

**5.106.13 ALL-ELECTRIC BUILDING / SITE.** A building or parcel of land whose sole source of energy is electricity and contains no combustion equipment or plumbing for combustion equipment.

**5.106.13.1 Full electrification.** Full electrification is required for new buildings substantial remodels, and new outdoor appliances/equipment such as gas grill, stove, barbeque, fireplace, firepit, heater for swimming pool/spa, and similar equipment.

*Division 5.3 – WATER EFFICIENCY AND CONSERVATION***16.14.330 Section 5.304.2 Invasive Species Prohibited.**

Section 5.304.2 of Chapter 5 of the California Green Building Standards Code is added as mandatory measure to read:

**5.304.2 Invasive species prohibited.** All non-residential new construction, additions, and alterations shall not install invasive species in a landscape area of any size.

**16.14.340 Section 5.306 Non-residential enhanced water budget.**

Section 5.306 of Chapter 5 of the California Green Building Standards Code is added as mandatory measure to read:

**5.306 Non-residential enhanced water budget.** Non-residential buildings anticipated to use more than 1,000 gallons of water a day shall complete an Enhanced Water Budget Calculator as established by the Chief Building Official or designee.

**16.14.350 Section 5.307 Cooling Tower Water Use.**

Section 5.307 Cooling Tower Water Use is added as mandatory to read:

### 5.307 COOLING TOWER WATER USE

#### 5.307.1. Cooling Tower Water Use in Highrise Residential or Non-Residential Buildings.

Cooling tower water use must meet the conditions as follows and as outlined in Palo Alto Municipal Code Section 16.08.100. Projects are required to perform a potable water analysis at the site to meet the maximum concentration of parameters noted in Table 5.307.1

**Table 5.307.1**

|                            |            |
|----------------------------|------------|
| Ca (as CaCO <sub>3</sub> ) | 600 ppm    |
| Total alkalinity           | 500 ppm    |
| SiO <sub>2</sub>           | 150 ppm    |
| Cr                         | 300 ppm    |
| Conductivity               | 3300 Us/cm |

Calculate maximum number of cycles that can be achieved with these levels of concentration shall be included in the plumbing design plans.

#### *Division 5.4 – MATERIAL CONSERVATION AND RESOUCCE EFFICIENCY*

#### **16.14.360 Section 5.410.4.6 Energy STAR portfolio manager.**

Section 5.410.4.6 of Chapter 5 of the California Green Building Standards is added as mandatory measure to read:

**5.410.4.6 Energy STAR portfolio manager.** All non-residential projects exceeding \$100,000 valuation must provide evidence of an Energy STAR Portfolio Manager project profile for both water and energy use prior to Permit Issuance, acquire an Energy STAR Portfolio Manager Rating, and submit the rating to the City of Palo Alto once the project has been occupied after 12 months.

#### **16.14.370 Section 5.410.4.7 Performance reviews – energy.**

Section 5.410.4.7 of Chapter 5 of the California Green Building Standards is added to read:

**5.410.4.7 Performance reviews – energy.** All projects over 10,000 square feet. The City reserves the right to conduct a performance review, no more frequently than once every five years unless a project fails review, to evaluate the building's energy use to ensure that resources used at the building and/or site do not exceed the maximum allowance set forth in the rehabilitation or new construction design. Following the findings and recommendations of the review, the City may require adjustments to the energy usage or energy-using equipment or systems if the building is no longer compliant with the original design. Renovation or rehabilitation resulting from such audit activity shall be considered a project and shall be subject to applicable documentation submittal

requirements of the City. This section is effective only for those projects for which a building permit was issued after January 1, 2009.

**16.14.380 Section 5.410.4.8 Performance reviews – water.**

Section 5.410.4.8 of Chapter 5 of the California Green Building Standards is added to read:

**5.410.4.8 Performance reviews – water.** All sites greater than one acre: The City reserves the right to conduct performance reviews, no more frequently than once every five years unless a project fails review, to evaluate water use to ensure that resources used at the building and/or site do not exceed a maximum allowance set forth in the rehabilitation or new construction design. Water use reviews may be initiated by CPAU, or as a coordinated effort between the CPAU and the Santa Clara Valley Water District (SCVWD), or as part of SCVWD's established water conservation programs. Following the findings and recommendations of the review, the City may require adjustments to irrigation usage, irrigation hardware, and/or landscape materials to reduce consumption and improve efficiency. Renovation or rehabilitation resulting from such audit activity shall be considered a project and shall be subject to applicable documentation submittal requirements of the City.

**16.14.390 Section 5.506 Indoor Air Quality.**

Section 5.506.4 of Chapter 5 of the California Green Building Standards is added as mandatory measure to read:

**Section 5.506.4 Indoor Air Quality Management Plan.** All commercial and multi-family projects must submit an Indoor Air Quality Management Plan (IAQ) with building permit application in accordance with the Sheet Metal and Air Conditioning Contractors National Association (SMACNA IAQ) Guidelines for Occupied Buildings Under Construction, 2nd edition ANSI/SMACNA 008-2008.

## **APPENDIX A5 – NONRESIDENTIAL VOLUNTARY MEASURES**

### *Division A5.4 – MATERIAL CONSERVATION AND RESOURCE EFFICIENCY*

**16.14.400 Section A5.405.5 Cement and concrete.**

Section A5.405.5 of Appendix A5 of the California Green Building Standards Code is adopted as a Mandatory measure for Tier 1 and Tier 2 projects and is amended to read:

**A5.405.5 Cement and Concrete.** Use cement and concrete made with recycled products and complying with the following sections and requirements per **PAMC Chapter 16.14.240**.

**16.14.410 Section A5.408 Construction Waste Reduction, Disposal and Recycling.**

Section A5.408 of Appendix A5 of the California Green Building Standards Code is adopted as a Mandatory measure for Tier 2 projects and is amended to read:

**A5.408.3.1 Waste enhanced construction waste reduction.** (80% construction waste reduction) as a mandatory requirement for all non-residential construction, including new construction, additions, and alterations, as long as the construction has a valuation of \$25,000 or more. Non-residential projects with a lower valuation shall remain subject to California Green Building Standards Code Chapter 5 mandatory measures.

**Exceptions:**

1. Residential stand-alone mechanical, electrical or plumbing permits.
2. Commercial stand-alone mechanical, electrical or plumbing permits.

**A5408.3.1.1 - Deleted**

**A4.408.1.2 Documentation.** Documentation shall be provided to the enforcing agency which demonstrates compliance with all construction and demolition waste reduction requirements.

**APPENDIX A4 – RESIDENTIAL VOLUNTARY MEASURES - EVSE***Division A4.1 – PLANNING AND DESIGN***16.14.420 Section A4.106.8 Electric Vehicle (EV) Charging.**

Section A4.106.8 of the California Green Building Standards Code is deleted in its entirety and adopted as a mandatory measure to read:

**A4.106.8 Electric Vehicle (EV) Charging for Residential Structures.** Newly constructed single family and multifamily residential structures, including residential structures constructed as part of a mixed-use development, shall comply with the following requirements for electric vehicle supply equipment (EVSE). All parking space calculations under this section shall be rounded up to the next full space. The requirements stated in this section are in addition to those contained in Section 4.106.4 of the California Green Building Standards Code. In the event of a conflict between this section and Section 4.106.4 of the California Green Building Standards Code, the more robust EV Charging requirements shall prevail.

**A4.106.8.1 New one-family, two-family and townhouse dwellings.** The following standards apply to newly constructed detached and attached single family, two-family and townhouse residences.

- (a) In general. The property owner shall provide One (1) Level 2 electrical vehicle supply equipment (EVSE) or one (1) EV ready space (Low Power Level 2 EV

Charging Receptacle is acceptable provided that the infrastructure comply with section 4.106.4.1) for each residence (except for accessory dwelling unit (ADU)).

- (b) **Location.** The proposed location of a charging station may be internal or external to the dwelling and shall be in close proximity to an on-site parking space consistent with city regulations.

**A4.106.8.2 New Multi-Family Dwellings.** The following standards apply to newly constructed residences in a multi-family residential structure.

- (a) **Resident parking.** The property owner shall provide at least one (1) Level 2 electrical vehicle supply equipment (EVSE) or one (1) Level 2 EV Ready space for each residential unit in the structure (Low Power Level 2 EV Charging Receptacle is acceptable for 60% of the total EV parking spaces) .
- (b) **Guest parking.** The property owner shall provide EV Capable Space, EV-Ready Space, or EVSE Installed, for at least 25% of guest parking spaces, among which at least 5% (and no fewer than one) shall be EVSE Installed.
- (c) **Accessible spaces.** Projects shall comply with the 2022 California Building Code requirements for accessible electric vehicle parking.
- (d) **Minimum total circuit capacity.** The property owner shall ensure sufficient circuit capacity, as determined by the Chief Building Official or designee, to support the EV requirements specified in (a) and (b) above.
- (e) **Location.** The EVSE, receptacles, and/or raceway required by this section shall be placed in locations allowing convenient installation of and access to EVSE. In addition, if parking is deed-restricted to individual residential units, the EVSE or receptacles required by subsection (a) shall be located such that each unit has access to its own EVSE or receptacle. Location of EVSE or receptacles shall be consistent with all city regulations.

**A4.106.8.3 New Hotels and Motels.** The following standards apply to newly constructed hotels.

- (a) **In general.** The property owner shall provide at least 30% EV Ready Space and at least 10% Level 2 EVSE installed for of the total parking spaces.
- (b) **Accessible spaces.** Projects shall comply with the 2022 California Building Code requirements for accessible electric vehicle parking.
- (c) **Minimum total circuit capacity.** The property owner shall ensure sufficient circuit capacity, as determined by the Chief Building Official or designee , to support a Level 2 EVSE in every location where EV-Ready space or EVSE Installed is required.
- (d) **Location.** The EVSE and/or receptacles, required by this section shall be placed in locations allowing convenient installation of and access to EVSE. Location of EVSE or receptacles shall be consistent with all City guidelines, rules, and regulations.

## APPENDIX A5 – NONRESIDENTIAL VOLUNTARY MEASURES

### *Division A5.1 – PLANNING AND DESIGN*

#### **16.14.430 Section A5.106.5.3 Electric Vehicle (EV) Charging for Non-Residential Structures.**

Section A5.106.5.3 of the California Green Building Standards Code is adopted as a mandatory measure and amended to read:

**A5.106.5.3 Electric Vehicle (EV) Charging for Non-Residential Structures.** New non-residential structures shall comply with the following requirements for electric vehicle supply equipment (EVSE). All parking space calculations under this section shall be rounded up to the next full space. The requirements stated in this section are in addition to those contained in Section 5.106.5.3 of the California Green Building Standards Code. In the event of a conflict between this section and Section 5.106.5.3, the more robust EV Charging requirements shall prevail.

**A5.106.5.3.5 Non-Residential Structures Other than Hotels.** The following standards apply to newly constructed non-residential structures other than hotels.

In general. For building with 10 to 20 parking spaces, the property owner shall provide at least 20% EV Capable or EVSE-Ready space, and at least 20% Level 2 EVSE installed of the total parking spaces.

For building with over 20 parking spaces, the property owner shall provide at least 15% EV Capable or EVSE-Ready space, and at least 15% EVSE installed for of the total parking spaces

**Accessible spaces.** Projects shall comply with the 2022 California Building Code requirements for accessible electric vehicle parking.

**Minimum total circuit capacity.** The property owner shall ensure sufficient circuit capacity, as determined by the Chief Building Official or designee , to support a Level 2 EVSE in every location where EVSE Capable space, EVSE-Ready space or EVSE Installed is required.

**Location.** The EVSE, receptacles, and/or raceway required by this section shall be placed in locations allowing convenient installation of and access to EVSE. Location of EVSE or receptacles shall be consistent with all city regulations.

**SECTION 2.** The Council adopts the findings for local amendments to the California Green Building Standards Code, 2022 Edition, attached hereto as Exhibit “A” and incorporated herein by reference.

**SECTION 3.** If any section, subsection, clause or phrase of this Ordinance is for any reason held to be invalid, such decision shall not affect the validity of the remaining portion or sections of the Ordinance. The Council hereby declares that it should have adopted the Ordinance and each

NOT YET ADOPTED

section, subsection, sentence, clause or phrase thereof irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared invalid.

**SECTION 4.** The Council finds that this project is exempt from the provisions of the California Environmental Quality Act (“CEQA”), pursuant to Section 15061 of the CEQA Guidelines, because it can be seen with certainty that there is no possibility that the amendments herein adopted will have a significant effect on the environment.

INTRODUCED:

PASSED:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

ATTEST:

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Mayor

APPROVED AS TO FORM:

APPROVED:

\_\_\_\_\_  
Assistant City Attorney

\_\_\_\_\_  
City Manager

\_\_\_\_\_  
Director of Planning and  
Development Services

\_\_\_\_\_  
Director of Administrative Services

NOT YET ADOPTED

**Exhibit A**  
**FINDINGS FOR LOCAL AMENDMENTS TO CALIFORNIA GREEN BUILDING STANDARD CODE**  
**TITLE 24, PART 11**

Section 17958 of the California Health and Safety Code provides that the City may make changes to the provisions of the California Building Standards Code. Sections 17958.5 and 17958.7 of the Health and Safety Code require that for each proposed local change to those provisions of the California Building Standards Code which regulate buildings used for human habitation, the City Council must make findings supporting its determination that each such local change is reasonably necessary because of local climatic, geological, or topographical conditions.

Local building regulations having the effect of amending the uniform codes, which were adopted by the City prior to November 23, 1970, were unaffected by the regulations of Sections 17958, 17958.5 and 17958.7 of the Health and Safety Code. Therefore, amendments to the uniform codes which were adopted by the City Council prior to November 23, 1970 and have been carried through from year to year without significant change, need no required findings. Also, amendments to provisions not regulating buildings used for human habitation do not require findings.

| <b>Code: California Green Building Standard Code, Title 24, Part 11</b> |                                                           |            |                |                |                                              |
|-------------------------------------------------------------------------|-----------------------------------------------------------|------------|----------------|----------------|----------------------------------------------|
| <b>Chapter(s),<br/>Sections(s),<br/>Appendices</b>                      | <b>Title</b>                                              | <b>Add</b> | <b>Deleted</b> | <b>Amended</b> | <b>Justification<br/>(See below of keys)</b> |
| Ch. 1                                                                   | ADMINISTRATION                                            | ✓          |                |                | A                                            |
| 101.4                                                                   | Appendices                                                | ✓          |                |                | A                                            |
|                                                                         | Administration and Enforcement                            | ✓          |                |                | A                                            |
| 202                                                                     | Definition                                                | ✓          |                |                | A                                            |
| 301                                                                     | Voluntary tiers added                                     |            |                | ✓              | C, E                                         |
| 301.1                                                                   | Scope                                                     |            |                | ✓              | C, E                                         |
| 301.1.1                                                                 | Residential additions and alterations                     |            |                | ✓              | C, E                                         |
| 301.2                                                                   | Low-rise and high-rise residential buildings              |            |                | ✓              | C, E                                         |
| 301.2.1                                                                 | Low-Rise residential new construction –<br>Tier 2 adopted |            |                | ✓              | C, E                                         |
| 301.3                                                                   | Non-residential additions and alterations                 |            |                | ✓              | C, E                                         |
| 301.3.3                                                                 | Non-residential new construction – Tier 2                 |            |                | ✓              | C, E                                         |
| 301.6                                                                   | Special inspector requirements                            |            |                | ✓              | C, E                                         |
| 301.7                                                                   | Low-carbon concrete requirements for all<br>projects      |            |                | ✓              | C, E                                         |
| 4.106                                                                   | Site Development                                          | ✓          |                |                | C, E                                         |
| 4.306                                                                   | Swimming pool and spa covers                              | ✓          |                |                | C, E                                         |
| 4.509                                                                   | Heat pump water heater                                    | ✓          |                |                | C, E                                         |
| 702.2                                                                   | Special Inspection                                        | ✓          |                |                | C, E                                         |
| A4.104                                                                  | Site preservation                                         |            |                | ✓              | C, E                                         |



## NOT YET ADOPTED

|              |                                                               |   |  |   |      |
|--------------|---------------------------------------------------------------|---|--|---|------|
| A4.105       | Deconstruction and reuse of existing materials                |   |  | ✓ | C, E |
| A4.106.8     | Electric Vehicle (EV) Charging for New Construction           | ✓ |  |   | C, E |
| A4.106.9     | Bicycle parking                                               |   |  | ✓ | C, E |
| A4.106.10    | Light pollution reduction                                     |   |  | ✓ | C, E |
| A4.203.1     | Performance Approach for Newly Constructed Buildings          |   |  | ✓ | C, E |
| A4.304.3     | Irrigation Metering Device                                    |   |  | ✓ | C, E |
| A4.305       | Water reuse systems                                           |   |  | ✓ | C, E |
| A4.403.1     | Frost protection foundation systems                           |   |  | ✓ | C, E |
| A4.403.2     | Reduction in cement use                                       |   |  | ✓ | C, E |
| A4.408.1     | Enhanced Construction Waste Reduction                         | ✓ |  |   | C, E |
| A4.504.1     | Compliance with formaldehyde limits                           |   |  | ✓ | C, E |
| A4.504.3     | Thermal insulation                                            |   |  | ✓ | C, E |
| 5.106.1.1    | Local stormwater pollution prevention                         |   |  | ✓ | C, E |
| 5.106.8      | Light pollution reduction                                     |   |  | ✓ | C    |
| 5.106.13     | All-electric buildings                                        |   |  | ✓ | E    |
| 5.304.2      | Invasive Species                                              | ✓ |  |   | C, E |
| 5.306        | Non-residential enhanced water budget                         | ✓ |  |   | E    |
| 5.307        | Cooling tower water use                                       | ✓ |  |   | C    |
| A5.405.5     | Cement and Concrete                                           | ✓ |  |   | C, E |
| A5.408       | Construction Waste Reduction, Disposal and Recycling          | ✓ |  |   | C, E |
| 5.410.4.6    | Energy STAR portfolio manager                                 |   |  |   | C, E |
| 5.410.4.7    | Performance reviews – energy                                  | ✓ |  |   | C, E |
| 5.410.4.8    | Performance reviews – water                                   | ✓ |  | ✓ | C, E |
| 5.506.4      | Indoor Air Quality Management Plan                            | ✓ |  |   | C, E |
| A4.106.8     | Electrical Vehicle (EV) Charging for Residential Structures   | ✓ |  |   | C, E |
| A4.106.8.1   | New One-family, two-family and townhouse dwellings            | ✓ |  |   | C, E |
| A4.106.8.2   | New Multi-family Dwellings                                    | ✓ |  |   | C, E |
| A4.106.8.3   | New hotels                                                    | ✓ |  |   | C, E |
| A5.106.5.3   | Electric Vehicle (EV) Charging for non-residential structures | ✓ |  |   | C, E |
| A5.106.5.3.5 | Non-Residential Structures other than hotels                  | ✓ |  |   | C, E |
| Appendix A4  | Residential Voluntary Measures                                | ✓ |  | ✓ | C, E |
| Appendix A5  | Non-Residential Voluntary Measures                            | ✓ |  | ✓ | C, E |

## Key to Justification for Amendments to Title 24 of the California Code of Regulations

- A** This is an **administrative** amendment to clarify and establish civil and administrative procedures, regulations, or rules to enforce and administer the activities by the Palo Alto Building Inspection Department. These administrative amendments do not need to meet HSC 18941.5/17958/13869 per HSC 18909(c).
- C** This amendment is justified on the basis of a local climatic condition. The seasonal climatic conditions during the late summer and fall create severe fire hazards to the public health and welfare in the City. The hot, dry weather frequently results in wild land fires on the brush covered slopes west of Interstate 280. The aforementioned conditions combined with the geological characteristics of the hills within the City create hazardous conditions for which departure from California Building Standards Code is required. Natural gas combustion and gas appliances emit a wide range of air pollutants, such as carbon monoxide (CO), nitrogen oxides (NOx, including nitrogen dioxide (NO2)), particulate matter (PM), and formaldehyde, which according to a UCLA Study, have been linked to various acute and chronic health effects, and additionally exceed levels set by national and California-based ambient air quality standards. The burning of fossil fuels used in the generation of electric power and heating of buildings contributes to climate change, which could result in rises in sea level, including in San Francisco Bay, that could put at risk Palo Alto homes and businesses, public facilities, and Highway 101 (Bayshore Freeway), particularly the mapped Flood Hazard areas of the City. Energy efficiency is a key component in reducing GHG emissions, and construction of more energy efficient buildings can help Palo Alto reduce its share of the GHG emissions that contribute to climate change. All-electric new buildings benefit the health, safety, and welfare, of Palo Alto and its residents. Requiring all-electric construction, without gas infrastructure will reduce the amount of greenhouse gas produced in Palo Alto and will contribute to reducing the impact of climate change and the associated risks. Due to decrease in annual rain fall, Palo Alto experiences the effect of drought and water saving more than some other communities in California. Embodied carbon of concrete is a significant contributor to greenhouse gas emissions and climate change, and this amendment includes a requirement to use low-carbon concrete. Providing additional capacity for electric vehicle use reduces use of gasoline which is a major contributor to climate change.
- E** Green building enhances the public health and welfare by promoting the environmental and economic health of the City through the design, construction, maintenance, operation and deconstruction of buildings and sites by incorporating green practices into all development. The green provisions in this Chapter are designed to achieve the following goals:
- (a) Increase energy efficiency in buildings;
  - (b) Reduce the use of natural gas in buildings which improves indoor environmental quality and health;

- (c) Reduce the use of natural gas which will reduce the natural gas infrastructure and fire risk over time;
  - (d) Reduce the embodied carbon of concrete which reduces greenhouse gas emissions;
  - (e) Increase water and resource conservation;
  - (f) Reduce waste generated by construction and demolition projects;
  - (g) Provide durable buildings that are efficient and economical to own and operate;
  - (h) Promote the health and productivity of residents, workers, and visitors to the city;
  - (i) Recognize and conserve the energy embodied in existing buildings;
  - (j) Increase capacity for use of electric vehicles which reduces greenhouse gas emissions and improves air quality;
  - (k) Encourage alternative transportation; and
  - (l) Reduce disturbance of natural ecosystems.
- G** This amendment is justified on the basis of a local geological condition. The City of Palo Alto is subject to earthquake hazard caused by its proximity to San Andreas fault. This fault runs from Hollister, through the Santa Cruz Mountains, epicenter of the 1989 Loma Prieta earthquake, then on up the San Francisco Peninsula, then offshore at Daly City near Mussel Rock. This is the approximate location of the epicenter of the 1906 San Francisco earthquake. The other fault is Hayward Fault. This fault is about 74 mi long, situated mainly along the western base of the hills on the east side of San Francisco Bay. Both of these faults are considered major Northern California earthquake faults which may experience rupture at any time. Thus, because the City is within a seismic area which includes these earthquake faults, the modifications and changes cited herein are designed to better limit property damage as a result of seismic activity and to establish criteria for repair of damaged properties following a local emergency. Reduction or eliminating of natural gas infrastructure over time will reduce maintenance costs and fire risk in difficult geological conditions.
- T** The City of Palo Alto topography includes hillsides with narrow and winding access, which makes timely response by fire suppression vehicles difficult. Palo Alto is contiguous with the San Francisco Bay, resulting in a natural receptor for storm and waste water run-off. Also, the City of Palo Alto is located in an area that is potentially susceptible to liquefaction during a major earthquake. The surface condition consists mostly of stiff to dense sandy clay, which is highly plastic and expansive in nature. The aforementioned conditions within the City create hazardous conditions for which departure from California Building Standards Code is warranted. In addition, the reduction or elimination of natural gas infrastructure reduces the likelihood of fire or environmental damage should they become disrupted due to challenging topographic conditions during construction or repair.

Ordinance No. \_\_\_\_

Ordinance of the Council of the City of Palo Alto Repealing Chapter 16.17 of the Palo Alto Municipal Code and Amending Title 16 to Adopt a New Chapter 16.17, California Energy Code, 2022 Edition, and Local Amendments and Related Findings

The Council of the City of Palo Alto does ORDAIN as follows:

**SECTION 1.** Chapter 16.17 of the Palo Alto Municipal is hereby amended by repealing in its entirety Chapter 16.17 and adopting a new Chapter 16.17 to read as follows:

**16.17 CALIFORNIA ENERGY CODE, Title 24, Part 6**

**16.17.050 2022 California Energy Code, Title 24, Part 6 adopted.**

The California Energy Code, 2022 Edition, Title 24, Part 6 of the California Code of Regulations together with those omissions, amendments, exceptions and additions thereto, is adopted and hereby incorporated in this Chapter by reference and made a part hereof the same as if fully set forth herein. Except as amended herein, all requirements of the California Energy Code, 2022 Edition, Title 24, Part 6 of the California Code of Regulations shall apply.

Unless superseded and expressly repealed, references in City of Palo Alto forms, documents and regulations to the chapters and sections of the former editions of the California Code of Regulations, Title 24, shall be construed to apply to the corresponding provisions contained within the California Code of Regulations, Title 24, 2022. Ordinance No. 5485 of the City of Palo Alto and all other ordinances or parts of ordinances in conflict herewith are hereby suspended and expressly repealed.

One copy of the California Energy Code, 2022 Edition, has been filed for use and examination of the public in the Office of the Building Official of the City of Palo Alto.

**16.17.010 Cross - References to California Energy Code.**

The provisions of this Chapter contain cross-references to the provisions of the California Energy Code, 2022 Edition, in order to facilitate reference and comparison to those provisions.

**16.17.020 ADMINISTRATION & ENFORCEMENT OF 2022 CALIFORNIA ENERGY CODE**

Administration and enforcement of this code shall be governed by Chapter 1, Division II of the 2022 California Building Code as amended by Palo Alto Municipal Code Chapter 16.04.

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**16.17.030 Violations - Penalties.**

It is unlawful for any person to violate any provision or to fail to comply with any of the requirements of this Chapter or any permits, conditions, or variances granted under this Chapter. Violators shall be subject to any penalty or penalties authorized by law, including but not limited to: administrative enforcement pursuant to Chapters 1.12 and 1.16 of the Palo Alto Municipal Code; and criminal enforcement pursuant to Chapter 1.08 of the Palo Alto Municipal Code. Each separate day or any portion thereof during which any violation of this Chapter occurs or continues shall be deemed to constitute a separate offense.

When the chief building official determines that a violation of this Chapter has occurred, the chief building official may record a notice of pendency of code violation with the Office of the County Recorder stating the address and owner of the property involved. When the violation has been corrected, the chief building official shall issue and record a release of the notice of pendency of code violation.

**SECTION 2.** The Council adopts the findings for local amendments to the California Energy Code, 2022 Edition, attached hereto as Exhibit “A” and incorporated herein by reference.

**SECTION 3.** The Council finds that this ordinance is exempt from the provisions of the California Environmental Quality Act (“CEQA”), pursuant to Section 15061 of the CEQA Guidelines, because it can be seen with certainty that there is no possibility that the amendments herein adopted will have a significant effect on the environment.

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**SECTION 4.** This Ordinance shall be effective on the thirty-first day after the date of its adoption.

INTRODUCED:

PASSED:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

ATTEST:

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Mayor

APPROVED AS TO FORM:

APPROVED:

\_\_\_\_\_  
Assistant City Attorney

\_\_\_\_\_  
City Manager

\_\_\_\_\_  
Director of Planning and  
Development Services

\_\_\_\_\_  
Director of Administrative Services